

WORKING PAPER

India's transitional urban areas

Understanding their diversity and institutional arrangements

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Highlights

- India hosts six governance-oriented typologies of transitional urban areas (TUAs) – three officially recognised, three spatially determined – comprising (in 2011) 1,823 transitional statutory towns (TSTs), 3,892 census towns (CTs), 980 outgrowths (OGs), ~242,400 peri-urban settlements, 34,457 isolated urban clusters (by 2025 TSTs had risen to 2,543 and peri-urban settlements to 304,330), and thousands of rural settlements emerging as functional urban areas in ~181 industrial-corridor districts.
- Anchored in non-agricultural employment, settlement density, and urban supply chains, these functionally urban areas are inadequately governed – TSTs by urban local bodies facing incomplete devolution and capacity deficits, the other typologies by rural institutions despite urban characteristics.
- This governance mismatch – structurally produced by categorically different constitutional mandates for urban and rural governments and the absence of a national rural-to-urban transition pathway – generates uneven, politically mediated state-level responses.
- Recent policy signals suggest TUAs are shifting from a recognised policy problem to an actionable policy frontier, yet little is known about these settlements' diversity or how municipalisation can serve their needs.
- State-level experiments in Odisha and Rajasthan offer promising phased transition models although they have not yet been nationally systematised.

Executive summary

India's urbanisation is diffuse and multi-scalar. New settlements continuously emerge as functional urban areas along the rural–urban continuum, integrated into urban labour markets, housing systems, and supply chains, with high non-agricultural employment and dense built-up continuity, yet formally designated as rural for governance purposes. In India's binary settlement classification system, only statutory towns (STs) are governed by urban local bodies (ULBs), and all other settlements are governed by rural Panchayati Raj Institutions. However, even though every settlement has some form of local government, this formal institutional completeness conceals a substantive governance mismatch. Census towns (CTs), outgrowths (OGs), peri-urban fringes, corridor-adjacent settlements, and isolated urban clusters are functionally urban yet remain under rural governance frameworks institutionally ill-equipped for urban-scale service delivery, while transitional statutory towns (TSTs), though ULBs, face incomplete devolution and capacity deficits.

Box ES-1 | Defining transitional urban areas

The Constitution itself recognises transitional areas: Article 243Q(1)(a), inserted by the 74th Constitutional Amendment Act (1992), defines the Nagar Panchayat as the institution for 'an area in transition from a rural area to an urban area'. This paper analytically constructs a sixfold category to address the wider family of settlements undergoing rural-to-urban transitions that exhibit urban demographic and economic characteristics without commensurate urban governance. See Figure ES-1 for the six typologies.

About this working paper

This working paper proposes six governance-oriented categories of transitional areas (see Figure ES-1) – three officially recognised and three spatially determined. The typologies form an organising framework rather than mutually exclusive classes, with overlapping stages along a continuum of urban recognition (see 'Identifiability, distinctiveness, and internal validity' under 'Discussion'). A CT can become a TST or be absorbed into a larger ST through boundary expansion. The categories mark points on a recognition pathway, not fundamentally different kinds of places. Understanding these overlaps is essential for calibrating governance responses to the settlement trajectory rather than to static classification.

The typology is organised around the institutional dimension of India's urban transition – namely, which settlements are governed by whom and under what mandate. This differs from spatial methods such as the United Nations Degree of Urbanisation method (DEGURBA) or the Contiguously Built Urban Agglomeration (CBUA) method (see 'Background and context' under 'Introduction'). Converging policy signals (see 'Policy responses and existing frameworks' under 'Introduction') make this policy moment unlike any earlier mission cycle: the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), and the Smart Cities Mission worked through existing municipal institutions, excluding functionally urban settlements until their statutory recognition, whereas today's instruments invert that sequence. The 16th Finance Commission makes fund transfers conditional on state transition frameworks, Budget 2026–27's City Economic Regions delineate functional territories, and Odisha and Rajasthan have implemented a phased transition pathway to municipalisation. This paper provides a common typological foundation for identifying, comparing, and addressing governance problems across the six TUA types, as sustainable urbanisation requires knowing where and what kind of transition is occurring before appropriate instruments can be designed for balanced territorial development.

Figure ES-1 | Six categories of transitional areas



Notes: 'Officially recognised' refers to constitutional and Census recognition.

Source: Authors. Illustration by Arundhati Haku and Safia Zahid/WRI India.

Key findings

The ease of identifying the six TUA typologies varies significantly. CTs and OGs are listed directly in Census publications, but TSTs require laborious cross-referencing of state legislation across 28 states, with no single national inventory. Peri-urban zones, corridor settlements, and isolated clusters lack an administrative definition and must be constructed analytically.

Even though the six typologies are analytically distinct, real settlements routinely straddle multiple categories simultaneously. A single settlement along a highway or industrial corridor may simultaneously qualify as an isolated urban cluster and a corridor-driven town, depending on the analytical lens.

The governance mismatch across all six typologies is structurally produced rather than incidental. Although every settlement possesses either an urban or a rural local government, TUAs are functionally urban yet remain governed predominantly by rural frameworks (except TSTs, which are governed by often inadequate urban bodies) that are institutionally ill-equipped to provide land use and spatial planning, and networked, planned service delivery. The rural framework was never re-engineered for catering to functional urbanisation.

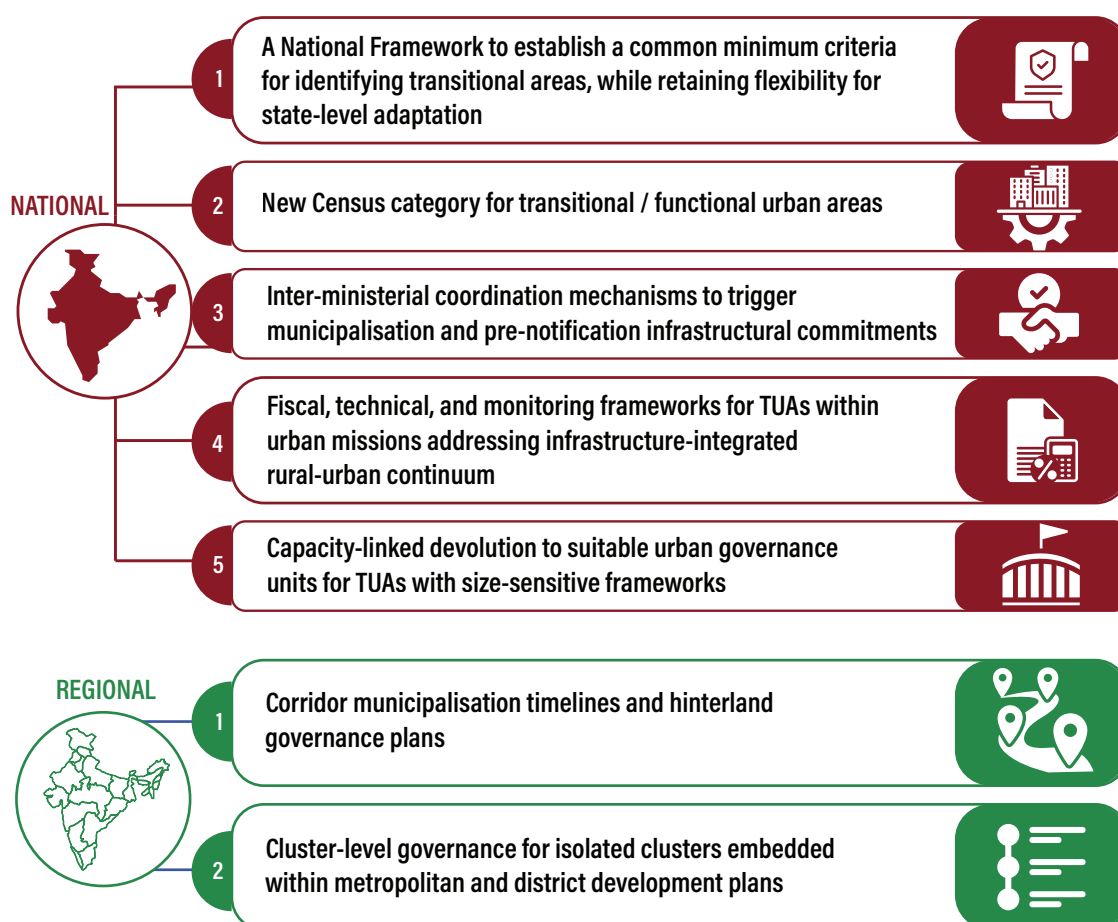
Isolated urban clusters are the least visible of the six typologies and are a stable hybrid form of spatial organisation central to India's industrial geography. Governing them as agrarian villages not only results in a conceptual error, it produces compounding deprivation.

Three structural deficits further marginalise spatially determined TUAs. These are the absence of functional metropolitan planning and effective regional governance across virtually all major city-regions; the lack of any statutory mechanism linking functional urbanisation to automatic administrative recognition; and the exclusion of peri-urban Gram Panchayats from urban infrastructure financing streams.

Recommendations

The paper's recommendations centre on seven actions involving multiple governance stakeholders (see Figure ES-2).

Figure ES-2 | **Key recommendations for strengthening transitional urban governance in India**



Source: Authors' analysis, illustration by WRI India.

Introduction

Background and context

That India harbours significant hidden urbanisation beyond official Census categories is well established, acknowledged even in the latest Economic Survey 2026 (Chatterjee et al. 2026; Denis et al. 2012; MoF 2025; Pradhan 2013). Few instruments, however, can measure its scale. The Degree of Urbanisation (DEGURBA) methodology (European Commission et al. 2021) has emerged as one promising tool. It classifies the rural–urban continuum using a density–contiguity logic based on 1 km² population grids (European Commission et al. 2021). Despite DEGURBA's documented limitations in relation to India's fragmented, nucleated settlement patterns, and considerably higher densities even in villages, which risk systematic misclassification (Chatterjee et al. 2023; Zhang et al. 2025), it remains the only globally harmonised method capable of capturing the full continuum of settlement transition beyond binary rural–urban classifications, and efforts are underway to adapt its thresholds and grid resolution to the Indian context (Kundu et al. 2026).

Applied to India (see Figure A, Appendix A), DEGURBA shows peri-urban clusters (the sum of Suburban and Semi-dense Clusters) rising from approximately 25.4 percent of the total population in 2010 to 31.5 percent by 2025. These settlements substantially overlap with CTs, OGs, and isolated urban clusters, and their concentration near corridor zones and within non-metropolitan hinterlands confirms that hidden urbanisation is a nationally distributed phenomenon, not one confined to metropolitan peripheries (World Bank 2013). Figures 1 and 2 map this DEGURBA-identified suburban and peri-urban extent (yellow), unmasking urbanisation the Census may classify as rural (Figure 3). Using a Contiguously Built Urban Agglomeration (CBUA) method, a new study delineates continuous built-up footprints from satellite imagery around India's statutory towns (STs), revealing that true urban extents transcend administrative boundaries in the range of 29 to 32 percent (Sebastian et al. forthcoming).

This paper builds on, without seeking to redefine, four kinds of literatures: subaltern and hidden urbanisation (Denis et al. 2012; Denis and Zerah 2017; Pradhan 2013); peri-urbanisation (Follmann 2022; Narain et al. 2014); rural–urban transition (Choithani et al. 2021); and urban governance under the 74th Constitutional Amendment Act (CAA) of 1992 (Ahluwalia 2019). Follmann (2022) distinguishes territorial, functional, and transitional framings of the peri-urban and cautions against treating peri-urbanisation as a single, universalising concept, proposing instead an umbrella concept encompassing multiple, situated conceptualisations of transition. The six-category framework of transitional urban areas (TUAs) developed here (Figure ES-1) operationalises that call within the Indian statutory context: it combines territorial and functional framings in its delineation methods while adding an institutional register – a typology spanning Census categories, state municipal acts, and governance arrangements – exposing the administrative–statistical mismatches accompanying India's urban transition.

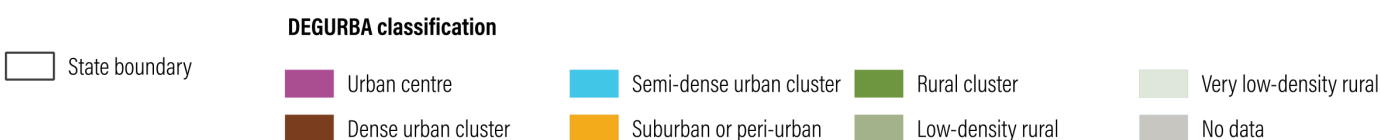
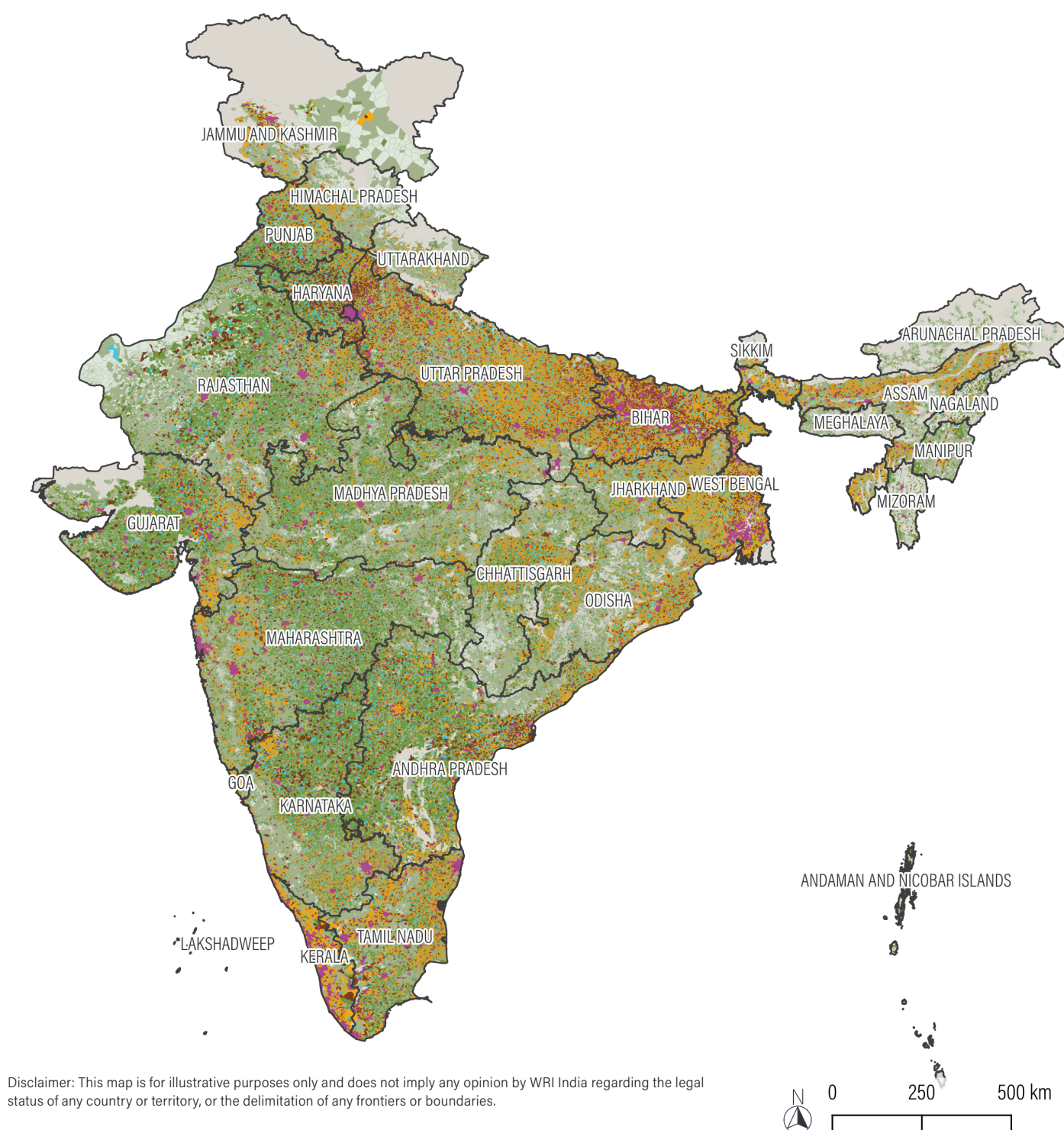
Our framework is organised around India's constitutional and administrative architecture and complements the spatial approach of DEGURBA, which can locate peri-urban or semi-dense settlements but cannot identify the governance mismatch arising from differential constitutional mandates for urban and rural local governments. Our typology is a governance-oriented complement to DEGURBA, designed to make the institutional dimension of India's messy urban transition – which is difficult to study with spatial tools alone – amenable to policy action.

The problem statement

The governance of transitional areas in India suffers from a structural mismatch between institutional form and functional reality. Every settlement falls under either a rural or urban local body – there is no administrative vacuum. The problem is that millions of functionally urban residents remain governed by rural institutions whose constitutional remit, fiscal powers, and planning authority were designed for agricultural settlements. The 74th Constitutional Amendment Act (1992) recognises three types of ULBs– Municipal Corporation, Municipality, and Nagar Panchayat– and assigns them the functions of spatial planning, land-use regulation, solid waste management, and building controls, as denser, non-farm settlements require these functions. The 73rd Amendment assigns no equivalent functions to Gram Panchayats (Basu and Sharma 2021; Hiranandani 2018).

The rural framework was built for dispersed settlements and point infrastructure and was never re-engineered as villages along corridors and peripheries densified into built environments requiring trunk-networked, planned service delivery. When a settlement urbanises without triggering municipalisation, it does not fall into a governance gap – it falls into the wrong governance category. Critically, even where ULBs exist, the 18 functions of the Twelfth Schedule are not automatically devolved; transfer depends entirely on state legislation and political will, so formal institutional recognition does not guarantee substantive urban governance capacity (Chatterjee et al. 2026).

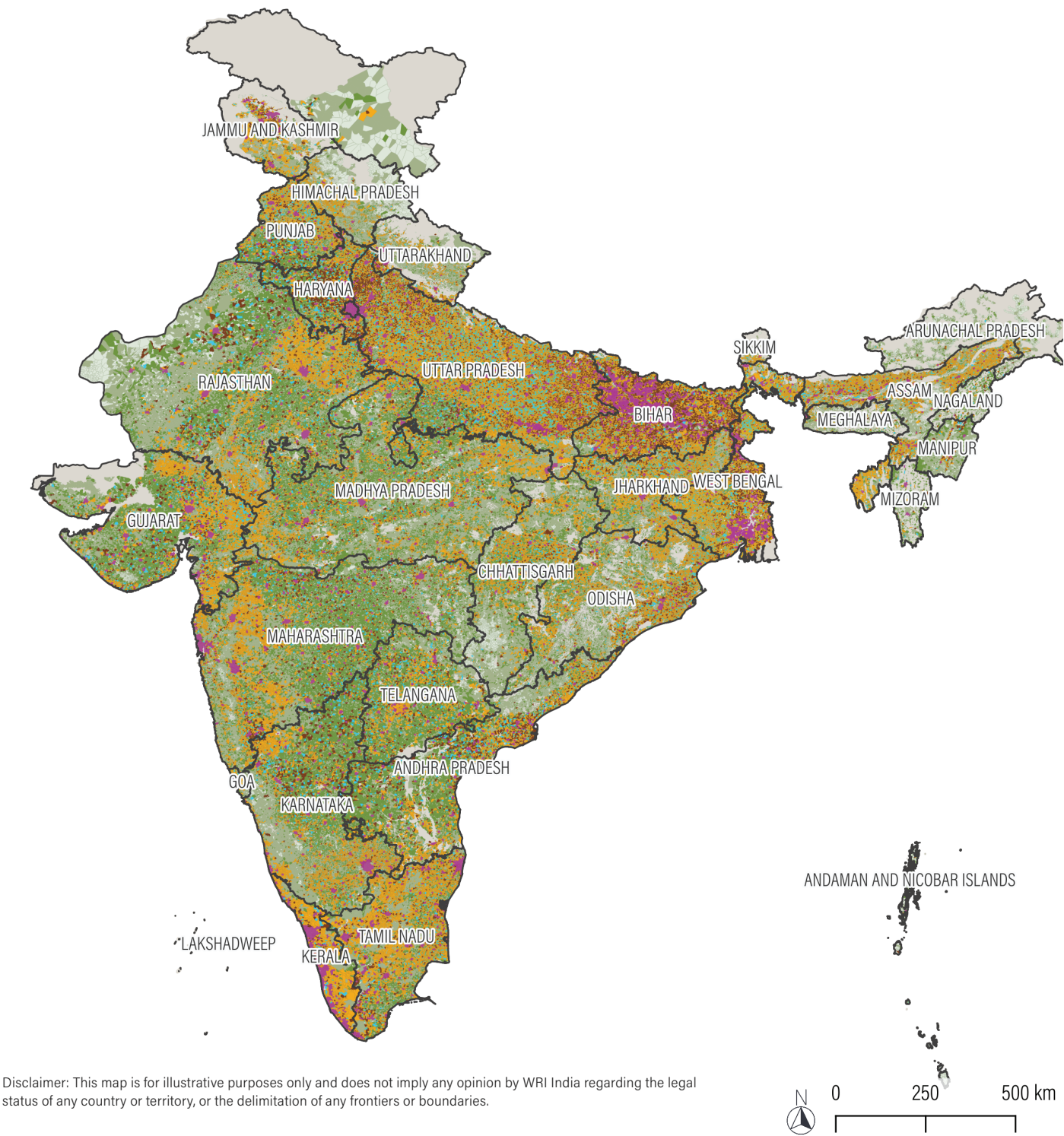
Figure 1 | **DEGURBA 2011 settlement classification**



Notes: See Appendix A for DEGURBA definitions and classifications.

Source: Asher et al. 2021; European Commission et al. 2021; OpenStreetMap contributors n.d; Schiavina et al. 2026.

Figure 2 | **DEGURBA 2025 settlement classification**



Notes: See Appendix A for DEGURBA definitions and classifications.
Source: Asher et al. 2021; European Commission et al. 2021; OpenStreetMap contributors n.d; Schiavina et al. 2026.

Figure 3 | **Settlement classification based on Census of India 2011**



Census settlement classification

State boundary	Census town	Transitional statutory town	Large village	No data
Statutory town	Outgrowth	Small village		

Notes: See Appendix A for DEGURBA definitions and classifications.

Source: Asher et al. 2021; European Commission et al. 2021; OpenStreetMap contributors n.d; Schiavina et al. 2026.

Policy responses and existing frameworks

Key national frameworks – the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines (2014), Rural Area Development Plan Formulation and Implementation (RADPFI) guidelines (2016, 2021), the Shyama Prasad Mukherji Rurban Mission (SPMRM 2016–2022), and the National Industrial Corridor Development Programme (NICDP 2016, expanded 2024) – address aspects of transitional urbanisation in isolation, without a common framework spanning the full diversity of transitional settlement types.

Recent policy signals indicate a growing readiness to address TUA governance challenges. The 16th Finance Commission proposed an urbanisation premium – additional fiscal transfers to states that extend municipal coverage to transitional settlements – creating a financial incentive for notification. At the state level, Odisha and Rajasthan have enacted phased transition legislation providing a structured pathway for CTs and peri-urban settlements to graduate into statutory ULBs, reducing the abruptness of municipalisation.

Budget 2026–27's framing of city economic regions implicitly acknowledges that corridors and peri-urban belts require integrated planning beyond existing municipal limits. A recent government working paper calls explicitly for automated triggers to formalise urban transitions and end the mismatch between urban demand and rural governance supply (Ravi et al. 2026). Another official study applying a modified DEGURBA framework in Kerala and Madhya Pradesh identified hundreds of functional urban settlements outside the existing ST and CT system (Kundu et al. 2026), prompting deliberations within MoHUA over creating a new category – 'functional urban settlements' – alongside existing rural and urban classifications (Dash 2026).

Together, these developments suggest that TUAs are moving from a recognised problem to an actionable policy frontier. Yet little is known about the diversity of these transitioning settlements or how their needs can be served through municipalisation. The case of Khora in Uttar Pradesh shows that municipalisation alone is insufficient – how and when it is done matters (see Box 1).

Khora is not an outlier. It represents a class of transitional settlements – numerous, dispersed, and institutionally stranded – shaped by the same structural conditions: demographic urbanisation outpacing administrative recognition, jurisdictional fragmentation enabling collective non-responsibility, and municipalisation arriving, if at all, too late and too weak to overcome accumulated deficits. How widespread this phenomenon is and whether existing institutional arrangements can address it are the central concerns of this paper.

Box 1 | The Khora case: Why municipalisation alone is insufficient

Khora Colony, at the intersection of Delhi, Noida, and Ghaziabad (see Figure 4), illustrates that the timing, sequencing, and quality of municipalisation matter as much as the act of conversion itself. From 1971 (village population 656) to 2011 (census town, 189,410), Khora expanded as a labour colony serving Noida because Noida's master plans ignored working-class housing and employers avoided permanent worker accommodation. Khora filled this void while remaining excluded from Noida's planning jurisdiction (Dubey 2017).

That exclusion was actively enforced. Noida notified Khora for inclusion in its municipal limits in 1978 but failed to act for 12 years, allowing unauthorised development to fill the planning silence. When Noida was incorporated into Gautam Buddha Nagar in 1996, Khora was left in Ghaziabad – separated physically by an eight-foot wall – while adjacent land was reclaimed for Sector 62's commercial hub. The result was deliberate offloading: Khora remained under a Gram Panchayat with no urban planning powers, surrounded by authorities with planning powers but no obligation to act on Khora's behalf (Dubey 2018).

Municipalisation came only in 2016 – 45 years after growth began – and was immediately contested in court. The Allahabad High Court held in *Mohini Sharma v. State of U.P.* (2016) that under Section 333 of the U.P. Municipalities Act the District Magistrate exercises municipal powers until elections, producing administered compliance rather than local self-government (Shukla and Tripathi 2016). The statutory town is still run by an Executive Officer, and Khora ranked among India's dirtiest urban local bodies in Swachh Survekshan 2018 (MoHUA 2018).

Khora demonstrates that belated municipalisation into a capacity-constrained form cannot undo deficits from decades of planned exclusion. Recognition must precede, not follow, urban growth.

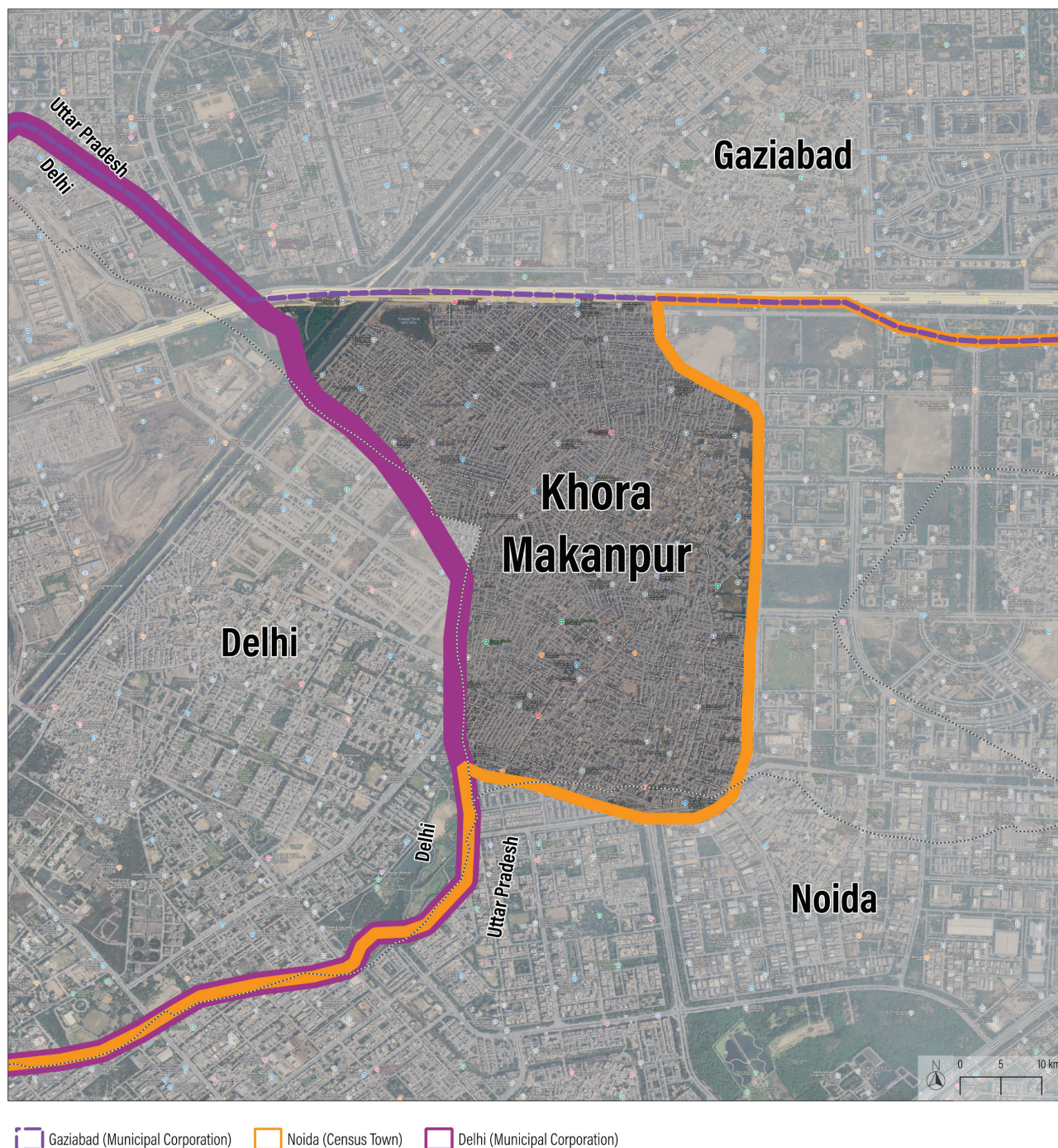
Research questions and objectives

This paper addresses two research questions:

Research question 1: What are the different kinds of transitional urban areas in India, and where are they located?

Research question 2: What are the various policies and institutional arrangements for transitional urban areas in India, and are they adequately addressing the planning, basic services, and infrastructure needs of these spaces?

Figure 4 | **Khora Makanpur at the intersection of three metropolitan towns**



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Source: Asher et al. 2021; Google 2026.

Methodology

The working paper draws on a mixed-methods design, integrating quantitative analysis of Census and administrative datasets with a systematic review of policy documents, municipal legislation, and governance frameworks across states. Quantitative data are drawn from Census of India 2011 settlement tables, Annual Survey of Industries data for 2013–14 and 2023–24, and NICDC/NICDP corridor documentation. Central to the administrative analysis is the Local Government Directory (LGD) 2025, maintained by the Ministry of Panchayati Raj – the most current repository of local body records for India, tracking rural-to-urban conversions and ULB status changes since 2011.

Analytically, the paper examines each typology against both research questions across three registers of urbanisation that do not necessarily coincide: administrative (LGD reclassification), economic (ASI employment data), and morphological (DEGURBA).

The paper's primary empirical baseline remains the 2011 Census, which constrains all settlement-level demographic, economic, and infrastructure claims to that year. LGD 2025 establishes municipalisation rates by typology through 2025, and DEGURBA tracks morphological trajectories over the same period; neither substitutes for settlement-level Census data. Claims about current conditions are therefore extrapolations from a 2011 baseline, not direct measurements.

Detailed methodological notes are provided in Appendix A, with typology-specific notes in Appendices A1–A6.

Typology and findings

Both the Census and state administrations recognise, in different ways, the settlements this paper classes as TUAs. The Census itself recognises only STs, CTs, OGs, and urban agglomerations; 'transitional urban area' is the authors' analytical construct, not a Census category. The gap between the constitutional vocabulary of transition (Article 243Q) and the Census vocabulary of classification is not a terminological error but one of this paper's central findings. TSTs are the only de jure urban category here, with a constitutionally defined structure for municipalisation. CTs and OGs are de jure rural but are de facto TUAs recognised by the Census but without any legal mandate for municipalisation. Spatially determined transitional areas are found on the peripheries of expanding cities, along transport and industrial corridors, or within rural regions experiencing functional urbanisation through non-agricultural economic activity.

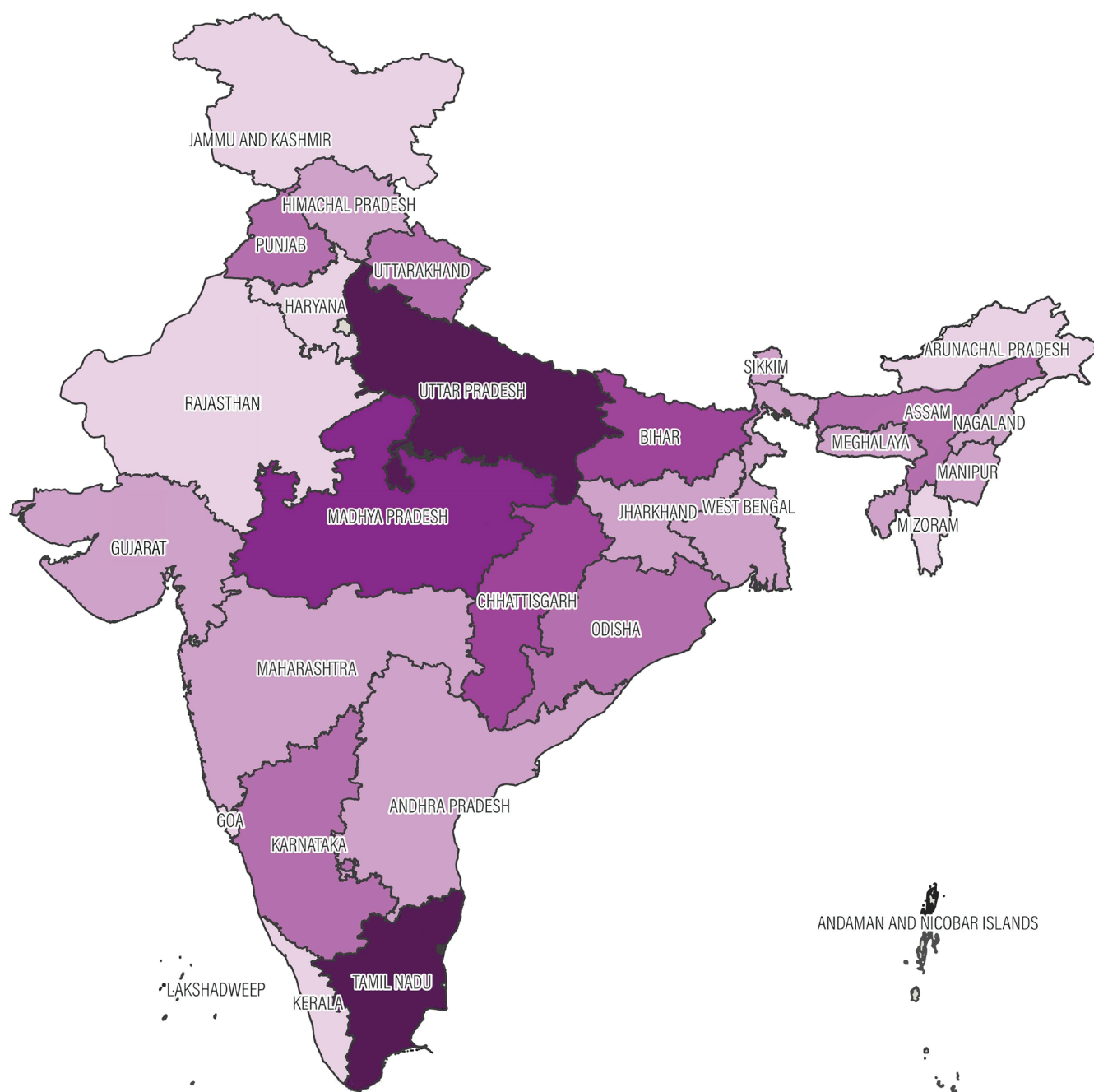
Transitional statutory towns (TSTs)

Characterisation and typology

TSTs – a term coined by this paper – refers to settlements governed by Nagar Panchayats as 'areas transitioning from rural to urban' under Article 243Q of the Constitution. The CAA left definitional nuances to state discretion, specifying only that Governors may define such areas based on population, density, revenue generated for local administration, occupational structure, and other relevant factors. See Appendix B, Table B-1, for recognition and definition of TSTs in municipal legislation by state.

As of 2025, India had 2,543 TSTs (Ministry of Panchayati Raj 2026), distributed unevenly (see Figures 5 and 6), with the largest concentrations in Uttar Pradesh (553), Tamil Nadu (479), and Madhya Pradesh (298). Figure 7 shows the loss and gain of TSTs across states between 2011 and 2025. Rajasthan (+193) and Maharashtra (+142) together account for the bulk (46.5 percent) of national growth in TSTs. Four political-economy dynamics underlie this northward and westward shift in recognition: lower Nagar Panchayat notification thresholds in Madhya Pradesh, Rajasthan, and Uttar Pradesh; Fifth Schedule/Panchayats (Extension to Scheduled Areas) Act provisions rendering notification in Scheduled Areas a contested jurisdictional transfer, since urban status extinguishes Gram Sabha powers over land and minor minerals; Rajasthan's strategic notifications along the Delhi–Mumbai corridor, unlocking urban schemes and Finance Commission transfers; and near-saturated municipal coverage in Kerala, Tamil Nadu, and Karnataka by 2001, so fewer settlements remained in transitional status. The northeast presents a mixed picture – Nagaland and Assam recorded modest gains, while Manipur's complete elimination of its TST count (from 19 in 2011 to 0 in 2025) points to active declassification rather than demographic stagnation.

Figure 5 | **TSTs by state in 2011**



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.



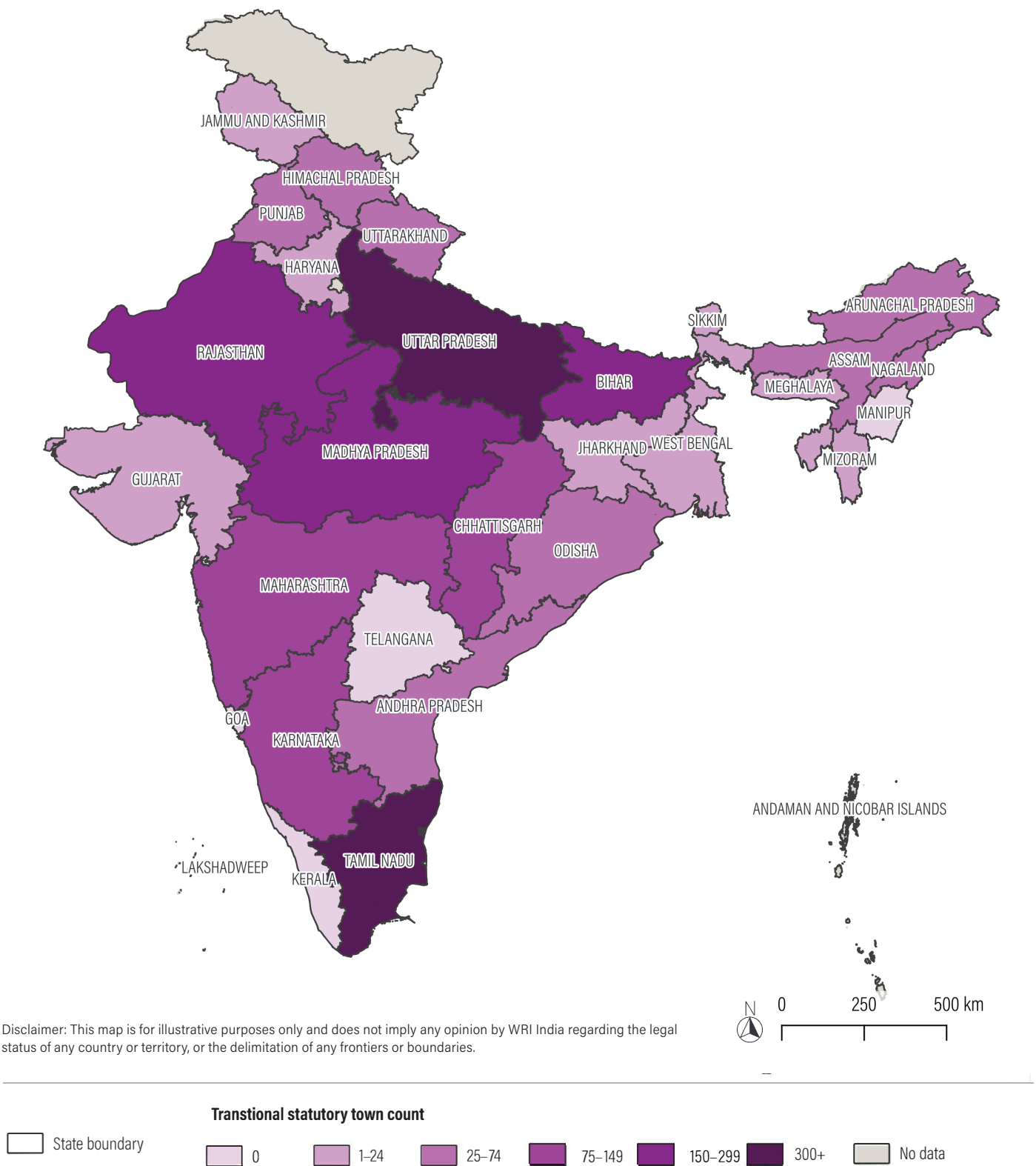
Transitional statutory town count



Notes: See Appendix B, Table B-2, for count and ULB types for TSTs per state in 2011 and 2025.

Source: Asher et al. 2021; Office of the Registrar General & Census Commissioner 2011b; OpenStreetMap contributors n.d.

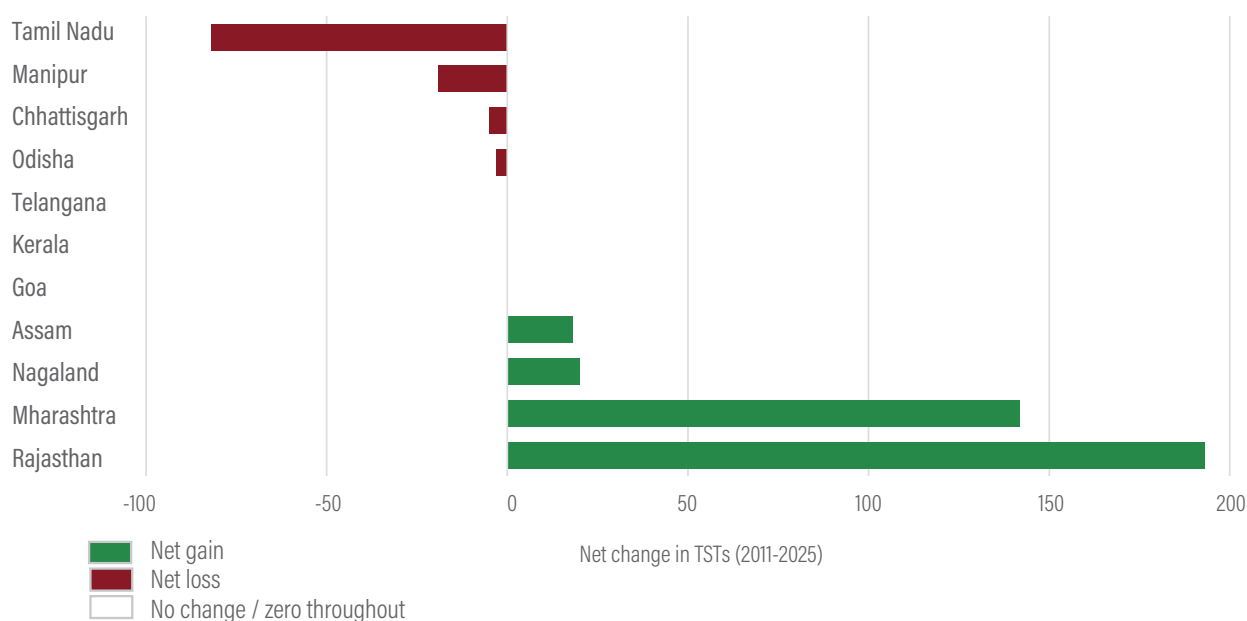
Figure 6 | TSTs by state in 2025



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Notes: See Appendix B, Table B-2, for count and ULB types for TSTs per state in 2011 and 2025.
Source: Asher et al. 2021; Office of the Registrar General & Census Commissioner 2011b; OpenStreetMap contributors n.d.

Figure 7 | **Loss and gain of TSTs between 2011 and 2025**



Source: Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b.

State approaches to classifying TSTs

Analysis of state municipal legislation reveals five broad categories.

First, rules-based classification: Bihar, Himachal Pradesh, Jharkhand, Maharashtra, Tamil Nadu, Karnataka, Sikkim, Tripura, and Arunachal Pradesh recognise TSTs as Nagar or Town Panchayats and define demographic and occupational criteria within their municipal legislation. Second, discretionary classification across different instruments: Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Punjab, Uttar Pradesh, Gujarat, Kerala, Manipur, and Assam provide for Nagar Panchayats in municipal legislation but specify no criteria, granting broad executive discretion; criteria may instead be set by separate rules, government orders, or notifications.

Third, alternative institutional arrangements operate in Rajasthan (Municipal Boards), Haryana (Municipal Committees), Odisha (Notified Area Councils), and Mizoram (Municipal Boards).

Fourth, no explicit recognition of TSTs: Nagaland, Meghalaya, and Mizoram fall outside the 74th CAA under Article 243ZC, which exempts Sixth Schedule tribal areas; Goa, Jammu and Kashmir, and Telangana have not constituted Nagar Panchayats as a distinct transitional category.

Fifth, strong discretion against municipalisation as seen in West Bengal, where despite the West Bengal Municipal Act, 1993 incorporating Nagar Panchayats as transitional urban bodies, hundreds of the CTs that proliferated between 2001 and 2011 remain under Gram Panchayat administration.

Institutional arrangements and governance adequacy

The functional devolution record of TSTs reflects the broader inadequacy of decentralisation under the 74th CAA. Only nine states have devolved all 18 12th Schedule functions to ULBs on paper (see Appendix B, Tables B-3 and B-4). In practice, performance audits across 18 states show that, on average, only four functions have been effectively devolved, with parastatals performing five (Comptroller & Auditor General of India 2024a). Most states do not differentiate devolution by ULB type, assigning identical responsibilities to Municipal Corporations, Municipalities, and Nagar Panchayats despite wide differences in capacity. Core urban services – public health, sanitation, solid waste management – are rarely under ULB jurisdiction; planning functions are devolved in 20–21 states, but ULBs exercise sole autonomy in only one (Jharkhand). The most fully devolved functions are low-stakes legacy items such as burial grounds and slaughterhouses (see Appendix B, Tables B-3 and B-4).

KEY CHALLENGES:

Identification: There is no national inventory of TSTs and no administrative mechanism to create one; identification requires cross-referencing state legislation with Census nomenclature. Because vastly different criteria apply across states, equivalent settlements are classified differently depending on state political economy, undermining comparability and policy design.

Governance: TSTs face two analytically distinct deficits. The first is structural capacity deficit: they face the most complex service-delivery challenges – land-conversion pressure, demographic growth, environmental stress – with the fewest institutional tools. The second, specific to metropolitan peripheries, is an active governance vacuum produced by jurisdictional fragmentation: development authorities hold planning powers over land conversion but no obligation to govern, while TST bodies are expected to govern without a reciprocal planning mandate.

Census towns (CTs)

Characterisation and typology

The Census of India classifies a settlement as a CT when it simultaneously meets three conditions: a minimum population of 5,000, a density of at least 400 persons per square kilometre, and at least 75 percent of male main workers engaged in non-agricultural activities (Office of the Registrar General & Census Commissioner 2011d). Crucially, meeting these criteria – the strictest in the world for urban recognition – confers statistical urban status without any statutory mandate for municipalisation.

CT identification occurs prior to enumeration, using statistics from the preceding Census round. To offset a decade of growth, the Office of the Registrar General and Census Commissioner of India (ORGI) lowers the population threshold from 5,000 to 4,000, but density and workforce criteria receive no equivalent adjustment. This ex-ante procedure generates systematic error in both directions: settlements excluded for falling below 4,000 at the prior Census may now far exceed 5,000, while settlements classified on a prior count may subsequently fail the threshold and be declassified (Roy and Pradhan 2018). The resulting churn conceals rather than tracks urbanisation, leaving settlements administratively rural.

The 2011 Census recorded 3,892 CTs – a near-tripling from 1,362 in 2001 – accounting for approximately 35 percent of India's urban growth over the decade (see Figure 8). The distribution is highly concentrated: West Bengal alone recorded 780, Kerala 461, and Tamil Nadu 376. Locationally, CTs follow two distinct trajectories: 51.7 percent are proximate CTs, within the influence zones of STs; the remaining 48.3 percent are non-proximate,

in isolated locations (Roy and Pradhan 2018). Built-up contiguity analysis independently corroborates this split: about 53 percent of 2011 CTs fall within the contiguously built agglomerations of STs (Sebastian et al. forthcoming). Demographically, CTs averaged 8,000–9,000 persons and hosted the highest share of manufacturing workers across the rural–urban spectrum: 35.4 percent of non-farm workers in CTs are in manufacturing, exceeding even the 32.3 percent in cities above 4 million (MoF 2013).

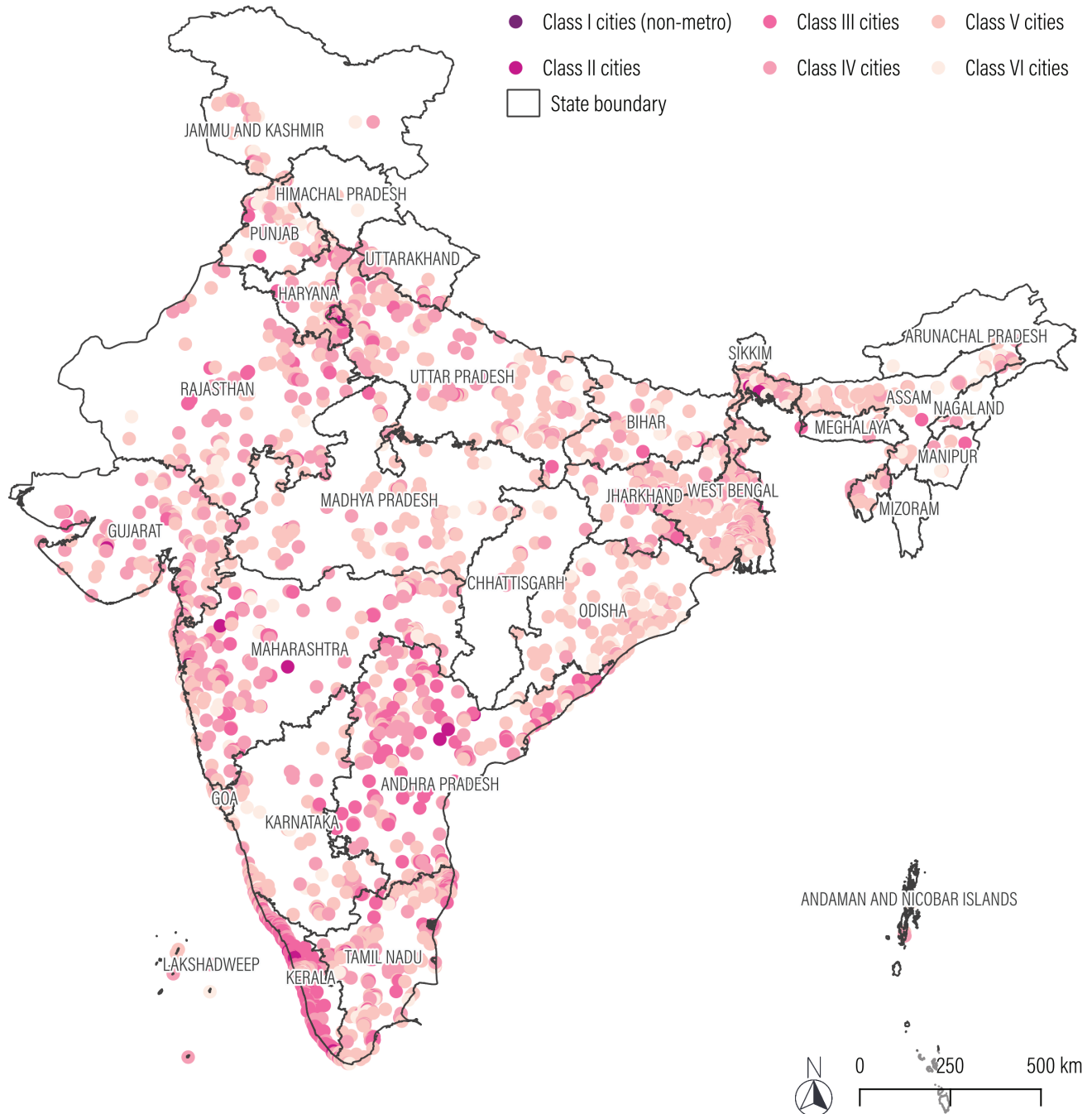
Institutional arrangements and governance adequacy

CTs are exclusively governed as rural areas under Gram Panchayats. Jain and Korzhenevych (2020) characterise this as 'unacknowledged urbanisation': settlements undergo substantial socio-economic transformation without any institutional mandate for municipalisation and remain excluded from many statutory urban planning frameworks and schemes (Dubey et al. 2025; Mukhopadhyay et al. 2016). Census 2011 data reveal that CTs consistently underperform STs across all major urban infrastructure indicators while substantially outperforming large villages, confirming their intermediate status (see Table 1).

Table 1 compares public service access across these settlement types, using small STs (population below 50,000 – the bracket containing 98 percent of CTs) as the lower reference and cities above 4 million, India's eight largest metropolitan areas, as the upper bound: benchmark categories that bound the service-delivery spectrum within which CTs can be analysed. Public investment in infrastructure such as piped sewerage is high in large cities (>4 million), whereas small cities and CTs rely on private investment – for example, on-site sanitation. CTs enjoy better provision than smaller STs in some services, such as in-house water supply through rural programmes, which helps explain the reluctance of local authorities to convert them into smaller TSTs. Latrine coverage (79.6 percent) and two-wheeler ownership (29.3 percent) likewise signal significant private investments in basic services.

CT-to-ULB conversion between 2011 and 2025 has been highly uneven, as analysis of the Local Government Directory (LGD) database reveals (see Figure 9). States with strong metropolitan and corridor pressures – Uttarakhand, Uttar Pradesh, Karnataka – show high conversion rates, while West Bengal and Kerala, despite hosting the largest CT counts nationally, have converted relatively few, as rural development fund access, strong Panchayat systems, and citizen resistance to reclassification continue to outweigh the imperative for municipalisation.

Figure 8 | **Distribution of census towns by town classes**



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

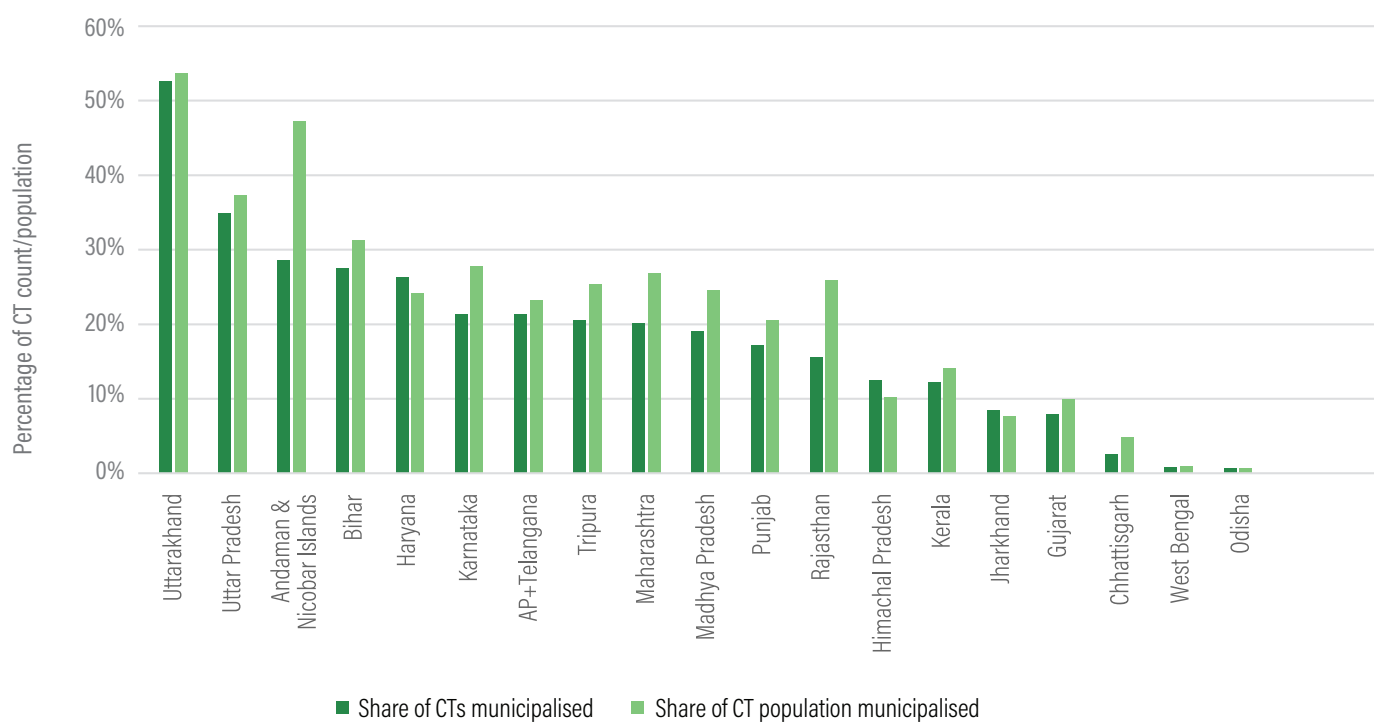
Source: Asher et al. 2021; Office of the Registrar General & Census Commissioner 2011b; OpenStreetMap contributors n.d.

Table 1 | Basic services and household two-wheeler ownership across settlement types, Census 2011

SETTLEMENT TYPE	TREATED TAP WATER (%)	IN-HOUSE WATER (%)	IN-HOUSE LATRINE (%)	PIPED SEWER (%)	CLOSED DRAINAGE (%)	HOUSEHOLDS OWNING A TWO-WHEELER (%)
ST > 4 mn	83.9	82.6	86.6	71.0	84.5	37.0
ST < 50K	49.4	59.4	66.4	23.5	20.9	27.8
Census towns (CTs)	38.7	62.1	79.6	14.1	25.9	29.3
Villages > 4,000	21.7	40.2	41.0	2.9	8.6	15.4

Source: Office of the Registrar General & Census Commissioner 2011e.

Figure 9 | CT to ULB conversion by state (includes estimated CTs post Census 2011)



Notes: Conversions cover 2013–14 to 2024–25 and include pre-2001 CTs, CTs formed 2001–11, and projected CTs per Roy and Pradhan (2018).

Source: Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b; Roy and Pradhan 2018.

Three governance models for CTs have emerged:

- Municipalisation – notifying CTs as STs or merging them into expanded ULB boundaries
- Metropolitan governance – parastatal authorities managing trunk infrastructure without dedicated CT-level fiscal authority
- In-situ development through SPMRM (2016–2022), discontinued without a statutory successor

All three models face significant contestation. Citizens resist urban reclassification, which brings property taxes, land-use restrictions, and loss of rural development transfers, as documented in CTs adjoining Greater Hyderabad Municipal Corporation (*The Times of India* 2014). States are equally reluctant, since municipalisation transfers land-use approval powers from state-controlled channels to elected ULB boards, removing a significant instrument of political patronage. The Gurgaon–Faridabad contrast is stark: Gurgaon’s deliberate retention of rural status during its early growth enabled private developers and state agencies to build infrastructure rapidly, unconstrained by municipal oversight, whereas Faridabad’s established administrative structure proved slower to adapt (Debroy and Bhandari 2009). Builder lobbies thus have strong incentives to resist municipalisation, and state governments strong political incentives to oblige them.

KEY CHALLENGES:

Identification: Unlike TSTs, identifying CTs is straightforward – the real difficulty is explaining why a statistically urban settlement remains institutionally rural, and finding reliable, time-bound pathways to urban governance.

Governance: Three gaps remain unresolved. First, no statutory pathway from CT to ULB status exists at the national level. Second, Gram Panchayats governing CTs lack the fiscal tools – property taxation, development charges, municipal borrowing – needed for urban-scale infrastructure. Third, CTs may fall within Metropolitan Planning Area boundaries, but no service delivery obligation binds the planning authority, and no functional integrated planning process represents them.

Outgrowths (OGs)

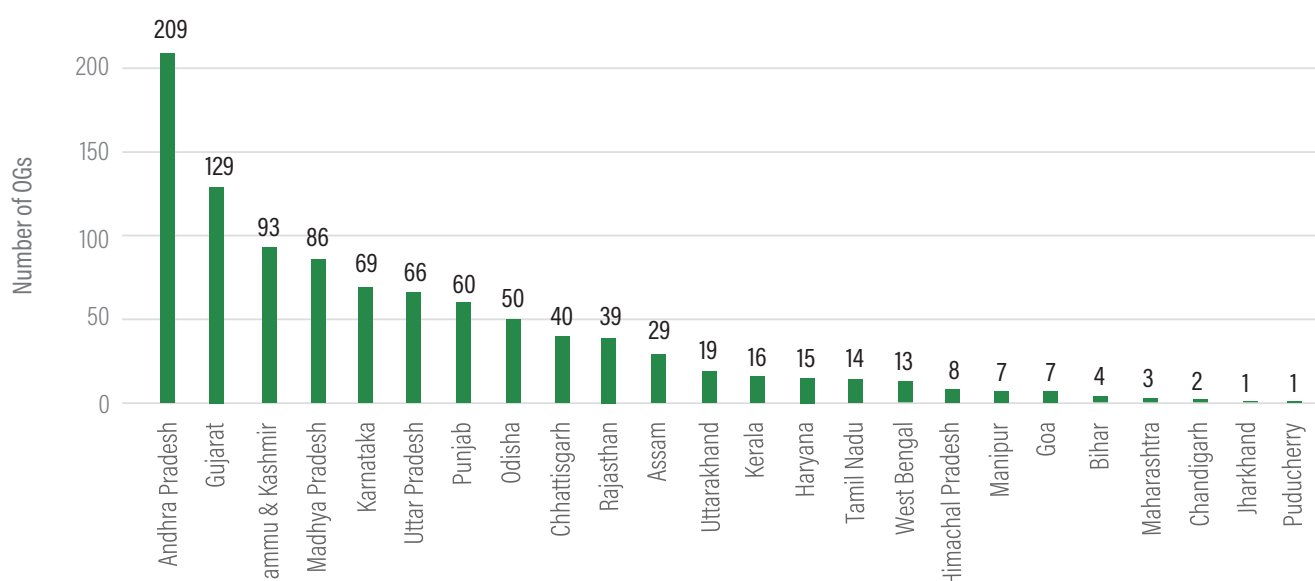
Characterisation and typology

The Census of India defines an outgrowth (OG) as a viable settlement unit – a village, hamlet, or enumeration block – that has developed adjacent to an ST but lies outside its statutory limits, remaining within the revenue jurisdiction of surrounding villages (Office of the Registrar General & Census Commissioner 2011d). Unlike CTs, which rest on three codified demographic and occupational criteria, OG identification involves subjective judgement: an area must exhibit ‘urban-like infrastructure and amenities’ and be physically contiguous with the core town, but neither term is precisely defined, giving enumerators and state-level Census offices considerable discretion.

India recorded 980 OGs in 2011, distributed highly unevenly: Andhra Pradesh alone had 209, while Maharashtra – among India’s most urbanised states, with the largest urban population – had just 3, and Tamil Nadu, with the most STs, had 14 (see Figure 10). This pattern is difficult to explain on demographic or economic grounds; it more plausibly reflects the definitional imprecision of OG identification, which creates scope for divergent classification practices across state Census offices. The variation warrants further investigation and reinforces the paper’s broader argument that official classifications imperfectly and inconsistently capture transitional urbanisation.

OGs are ‘in-between’ areas: despite their functionally urban nature, only 25.7 percent exceeded a population of 5,000, and only 200 of 980 (20.4 percent) satisfied the economic and demographic criteria for CT classification in 2011. Their profile is closely tied to the size and dynamism of their parent towns: among OGs adjacent to metropolitan cities (population exceeding 1 million), nearly 28 percent satisfied both CT criteria, against 8.3 percent near Class III towns. This path dependence underscores the structural character of OGs as peri-urban extensions whose urbanisation potential is shaped less by internal settlement dynamics than by the growth momentum of adjacent STs.

Figure 10 | Distribution of outgrowths by state



Source: Office of the Registrar General & Census Commissioner 2011a.

Institutional arrangements and governance adequacy

Between 2013–14 and 2024–25, 137 outgrowths (14 percent of the 980 recorded in 2011) were converted into statutory ULBs, led by Telangana (56), Gujarat (30), and Uttarakhand (15). Most conversions (105) occurred in outgrowths associated with Class I cities, with municipal corporations absorbing the largest share (78), followed by municipalities governing non-metropolitan Class I cities (55), reflecting the dependence of outgrowth urbanisation on metropolitan trajectories. See Appendix D, Table D-1, for conversions by ULB status and by state.

Three conversion pathways emerge:

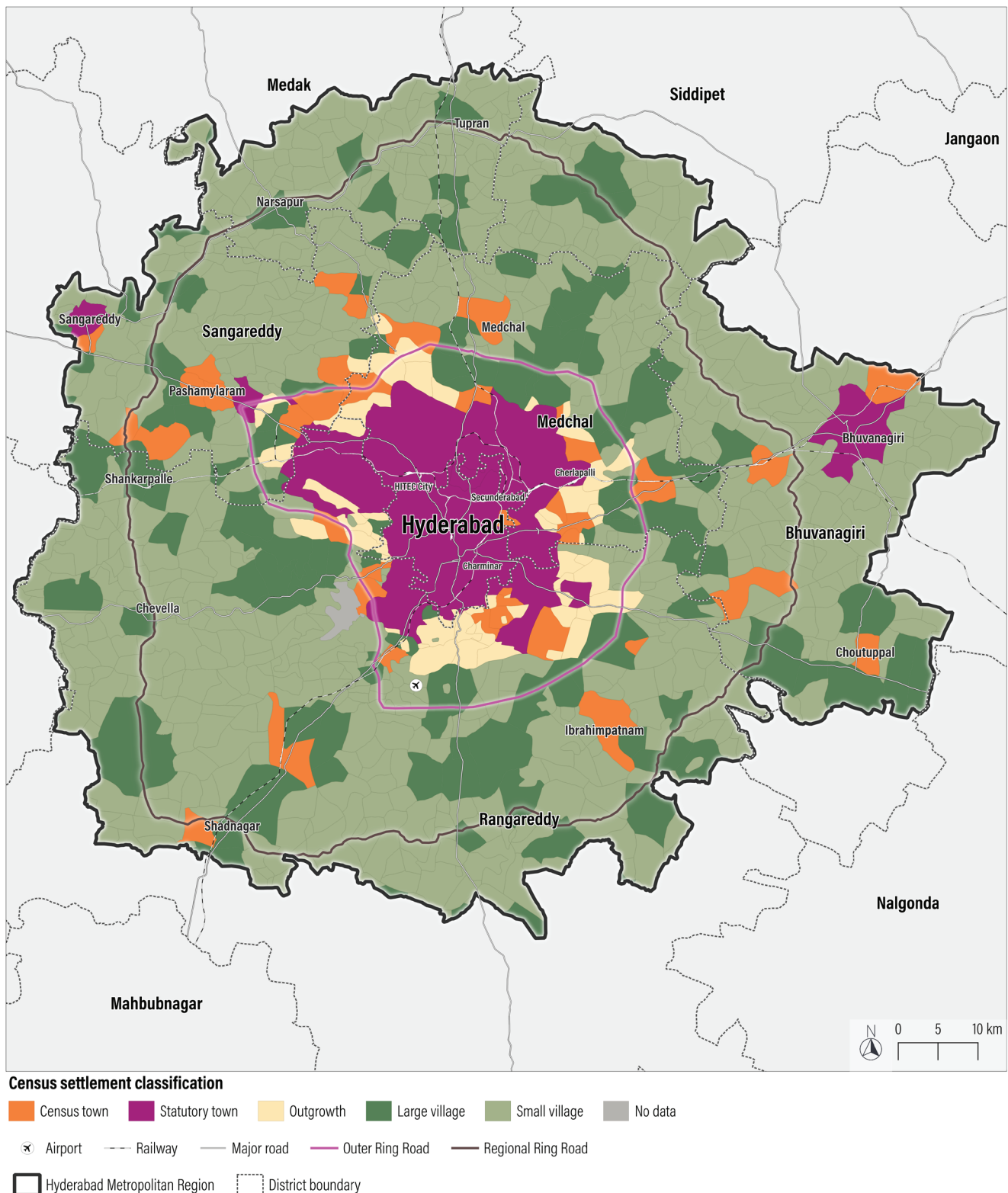
- absorption into parent towns through boundary expansion (95);
- incorporation into neighbouring ULBs distinct from the parent settlement (23), as in Telangana, where administrative reorganisation under the Municipalities Act 2019 created new ULBs that absorbed outgrowths within the Greater Hyderabad agglomeration; and
- bottom-up cluster consolidation (15).

The most concentrated conversion episode occurred in Greater Hyderabad, where 31 outgrowths were reclassified in two phases.

The 2020–21 phase (Figures 11a and 11b) reflected bottom-up consolidation under the Telangana Municipalities Act 2019, which created 75 new ULBs through amalgamation (Governor of Telangana 2019); the 2024–25 phase was top-down territorial expansion, merging 51 villages near the Hyderabad Outer Ring Road into 13 surrounding ULBs (Koride 2024). In Gujarat, boundary expansions of six municipal corporations absorbed 30 outgrowths, though Gram Panchayat resistance was documented in Vadodara (*The Indian Express* 2020).

OGs have not received dedicated attention within central schemes – JNNURM and AMRUT addressed ULBs broadly, rendering peri-urban provisioning secondary. The most substantive responses have been at the state level: Odisha's Rural-Urban Transition Policy (2023), Rajasthan's Rural-Urban Transition Bill (2023), and Kerala's Urban Policy Commission (2025). Odisha's policy, while not explicitly designating OGs, implicitly captures them by defining peri-urban areas as transitional spaces with fluid governance and strong rural–urban linkages – the closest available approximation of an institutional response to the OG governance gap. However, whether implicit coverage translates into targeted fiscal or administrative provisions for OGs remains to be demonstrated.

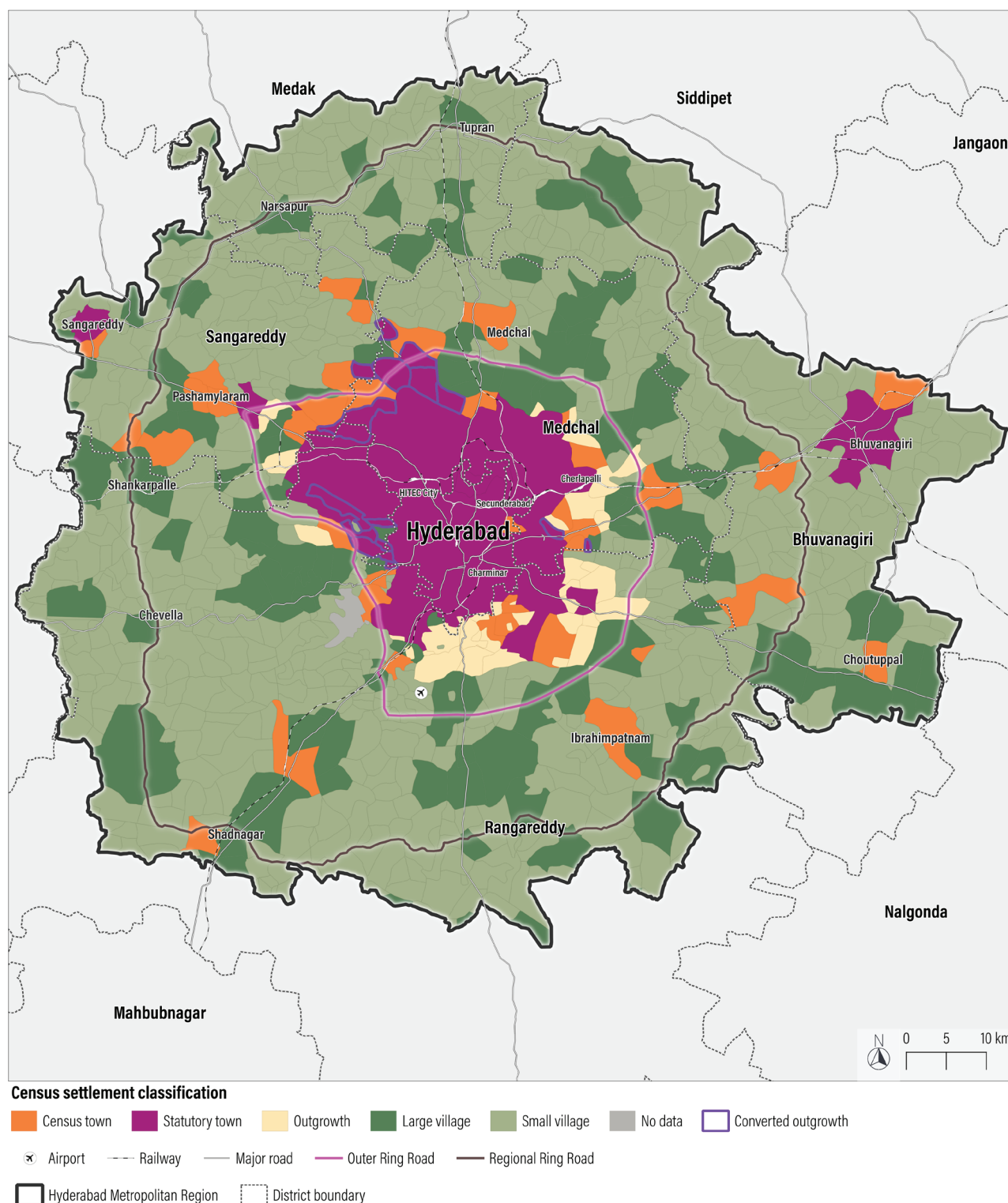
Figure 11A | Settlement categories including outgrowths around Greater Hyderabad Municipal Corporation (GHMC) in 2011



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Source: Asher et al. 2021; HMDA 2013; Office of the Registrar General & Census Commissioner 2011a, 2011b; OpenStreetMap contributors n.d.

Figure 11B | **Settlement categories including outgrowths around Greater Hyderabad Municipal Corporation (GHMC) in 2011**



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Notes: Outgrowth conversions shown for 2013–14 to 2020–21.

Source: Asher et al. 2021; HMDA 2013; Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011a, 2011b; OpenStreetMap contributors n.d.

KEY CHALLENGES:

Identification: Despite being a Census-defined category, OG identification rests on imprecise terms – ‘urban-like infrastructure and amenities’, physical contiguity ‘with the core town’ – creating scope for variation in classification practice across state Census offices.

Governance: All OG conversions are externally driven, dependent on the parent town’s restructuring decisions and state boundary-revision frameworks; no national standard defines an autonomous pathway to TST, ST, or CT status. The service delivery gap persists post-merger because municipal capacity – fiscal, technical, and staffing – does not automatically scale with boundary expansion, leaving these settlements as peripheral wards without targeted instruments to bridge deficits. Odisha’s Rural–Urban Transition Policy (2023) begins to address this by recognising contiguous transitional settlements as a distinct peri-urban category, but the gap remains unresolved nationally.

Peri-urban areas influenced by metropolitan growth

Characterisation and typology

Peri-urban areas are settlements adjacent to or near established urban centres that absorb their economic and demographic spillovers while retaining a mix of rural and urban characteristics. Their growth is driven by the saturation of urban cores, restrictive floor-space-index (FSI) policies limiting vertical expansion (Reddy and Rao 2025), migration pressure that cannot be absorbed within municipal limits, and the deliberate relocation of industries and large infrastructure – Special Economic Zones (SEZs), IT parks, ring roads – to lower-cost peripheral land (Narain et al. 2014).

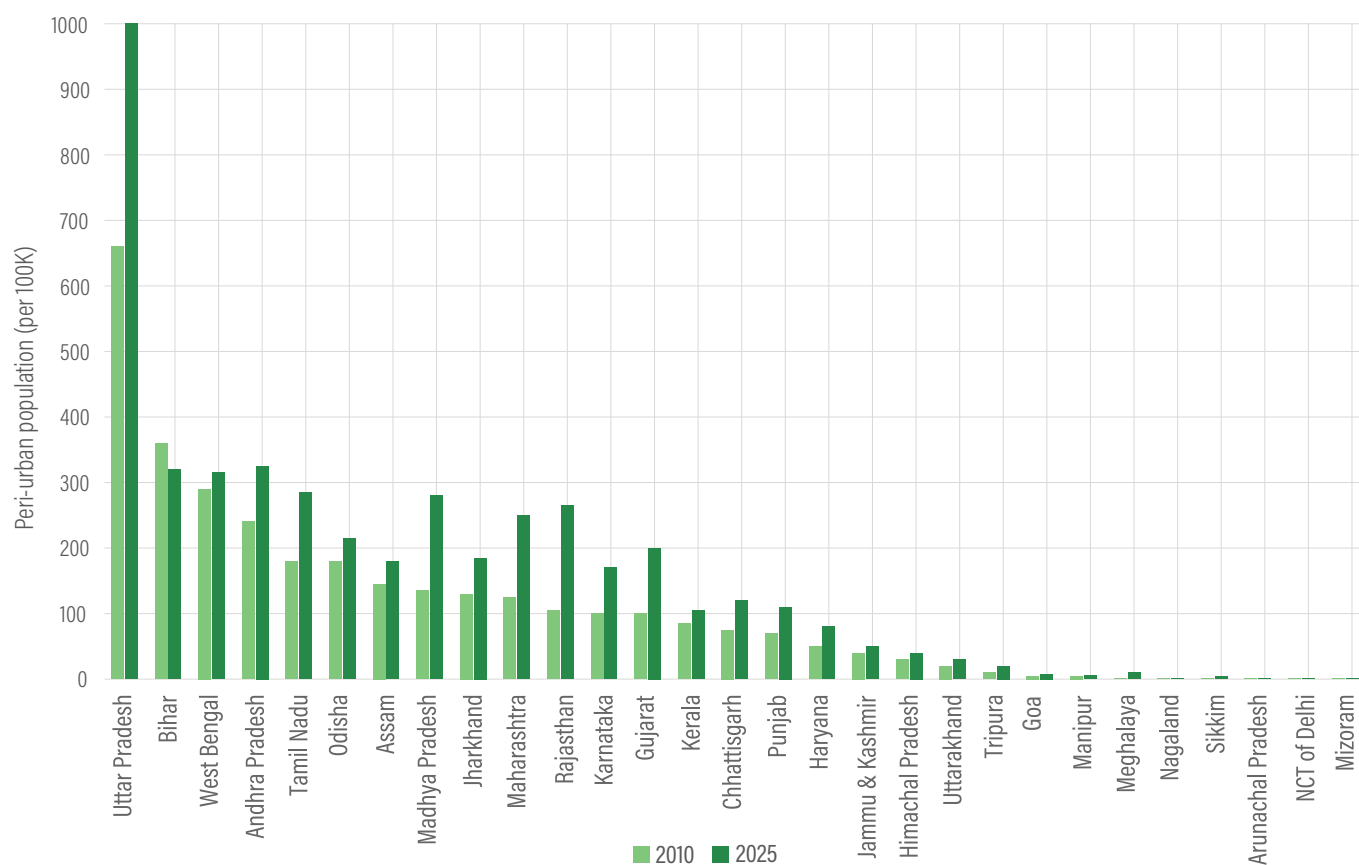
The scale of peri-urbanisation is substantial. Applying DEGURBA to India, peri-urban clusters (the sum of suburban and semi-dense clusters) accounted for approximately 31.5 percent of the population by 2025 (see ‘Background and context’ under ‘Introduction’), spread across ~304,330 settlements. State-level breakdowns of absolute populations, shares, and growth rates appear in Figures 12–14. Bihar (along with Nagaland, and the Union Territories (UTs) of the National Capital Territory (NCT) of Delhi, Puducherry, and the Andaman & Nicobar Islands) is the only major state whose peri-urban cluster population declined between 2010 and 2025 (Annual Exponential Growth Rate (AEGR) –0.8 percent).

Peri-urban areas around metropolitan cities (population ≥ 1 million) are expanding rapidly, with industrial jobs – particularly high-technology and export-oriented manufacturing – concentrating in metropolitan suburbs (World Bank 2013). This overspill is structurally significant: fewer than 50 percent of the total population of 11 of India’s 53 metropolitan cities live within their own municipal limits (Kundu 2018), and a third of new towns have emerged within 50 km of million-plus cities (World Bank 2013). Yet peri-urbanisation is not solely metropolitan; it is a nationally distributed pattern of settlement transformation that existing administrative and policy frameworks are structurally ill-equipped to govern.

Using the Pradhan (2013) buffer methodology – 25 km around metros above 4 million population, 20 km for smaller metros – we find a clear occupational gradient in metropolitan peri-urban areas. Figure 15 maps this gradient across peri-urban villages: non-agricultural workforce share declines from 72 percent within 0–5 km of the metro core to 48 percent at 20–25 km for larger villages, and from 59 to 38 percent for smaller ones – revealing how deeply metropolitan labour markets restructure village economies well before administrative recognition catches up. See Appendix A-4 for the methodology.

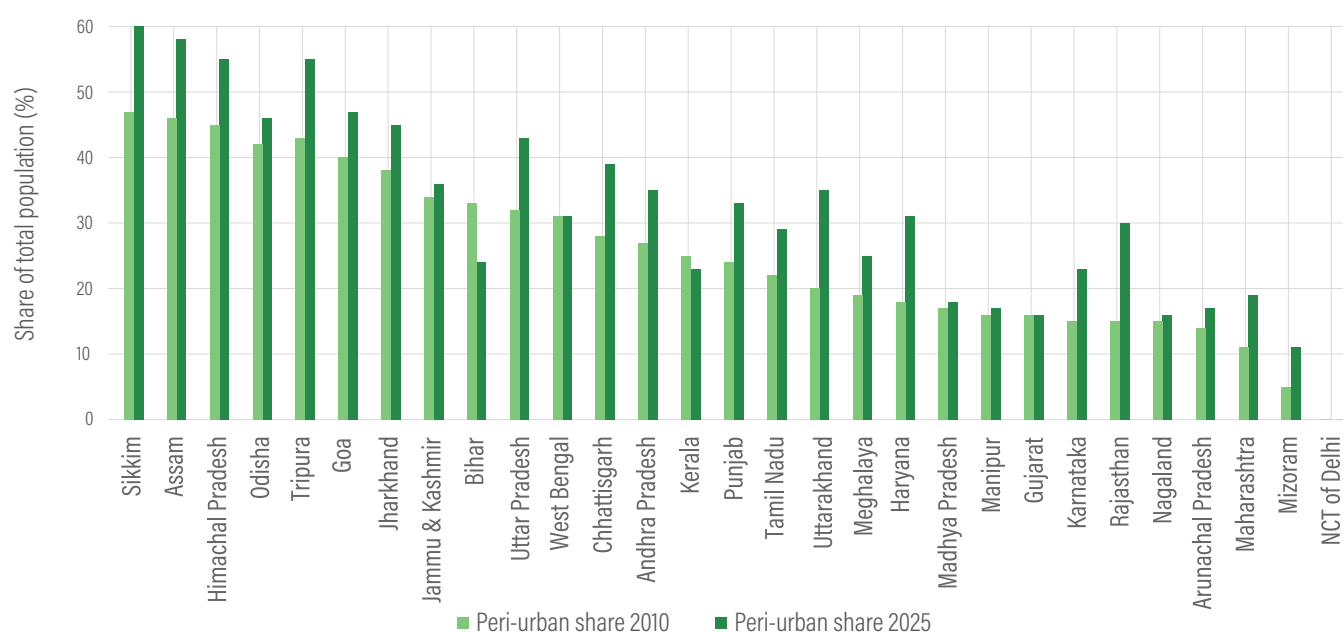
Figure 16 shows built-up area intensity around Greater Hyderabad, dropping from over 65 percent within the first 10 km to 14–56 percent in the next, and 6–14 percent in the third; the outermost 20 km buffer contains many CTs, OGs, and large urbanising villages within the Regional Ring Road (RRR). Figures 11a and 11b spatially map the TUAs between the municipal corporation boundary and the Outer Ring Road (ORR) (CTs = 36, OGs = 21, TSTs = 0), and between ORR and RRR (CTs = 19, OGs = 4, TSTs = 0). The Hyderabad Metropolitan Development Authority’s Metropolitan Development Plan 2031 (HMDA 2013) responded with a dedicated Peri-Urban Use Zone and phased development structured along the ORR and RRR (see Table 3), but peri-urban villages often become deeply urbanised before the phasing machinery catches up. Telangana’s 2025 proposal to merge 27 peri-urban ULBs into Greater Hyderabad Municipal Corporation (GHMC) signals recognition that governance boundaries must eventually follow settlement realities. However, these remain city-specific innovations rather than comprising a national framework.

Figure 12 | Breakdown of absolute peri-urban population by state



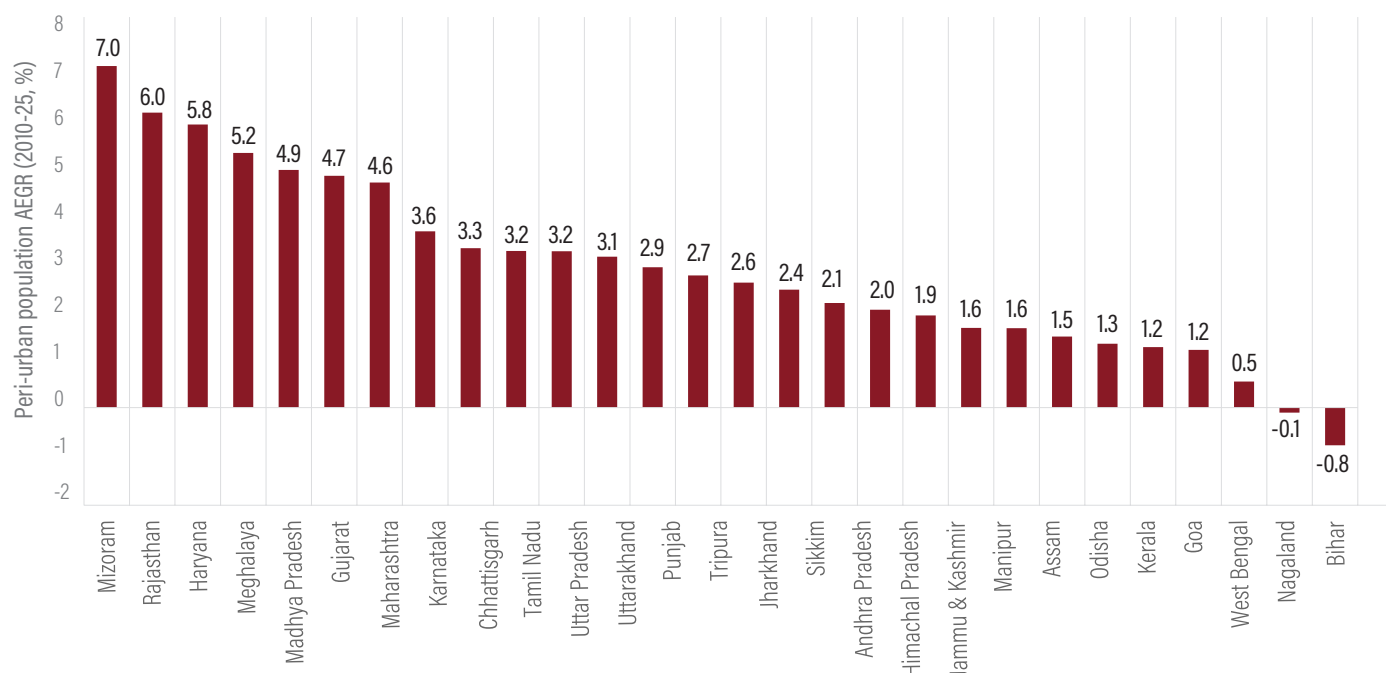
Source: European Commission et al. 2021; Schiavina et al. 2026.

Figure 13 | Breakdown of peri-urban population share (of total state population) by state



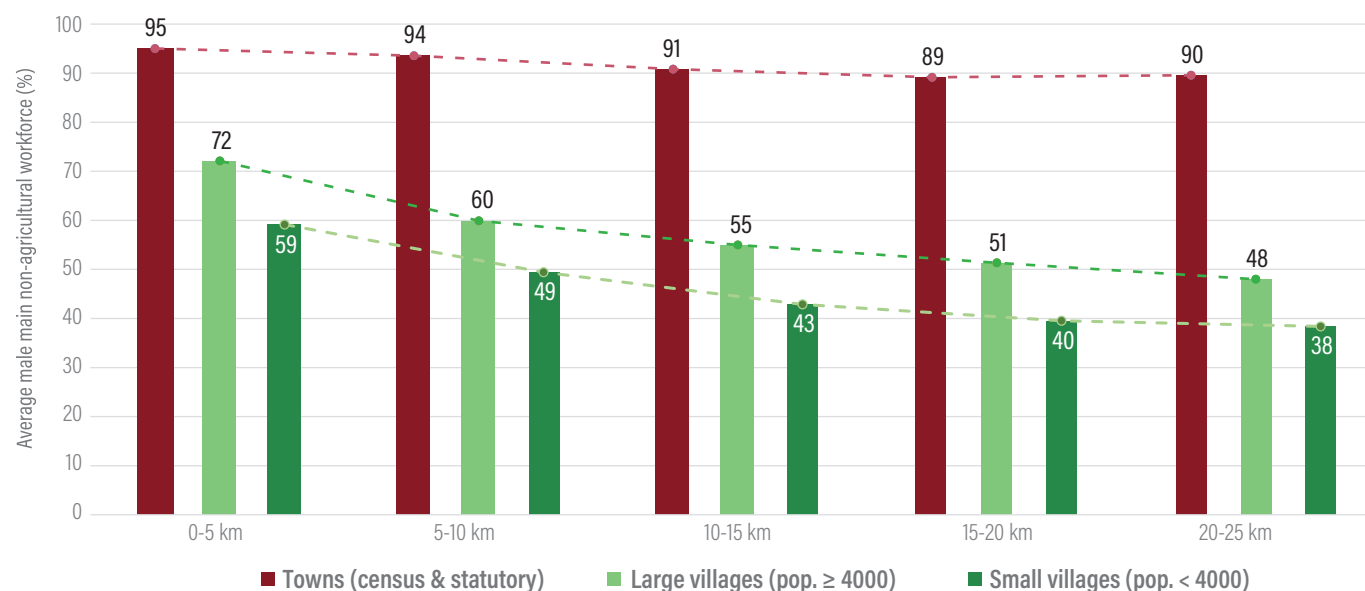
Source: European Commission et al. 2021; Schiavina et al. 2026.

Figure 14 | Breakdown of peri-urban population annual exponential growth rate (AEGR) by state



Source: European Commission et al. 2021; Schiavina et al. 2026.

Figure 15 | Non-agricultural workforce share declines with distance from the metropolitan urban core



Large village gradient
–24.1 pp

72.1% → 48.0% · Steepest decline of all three settlement types; metropolitan labour market influence dissipates fastest in larger villages

Small village gradient
–20.7 pp

59.1% → 38.4% · Shallower but persistent; structural occupational mix further from core already more agrarian

Town gradient
–5.4 pp

95.0% → 89.6% · Near-flat trajectory confirms towns maintain diversified non-agricultural base independent of distance

Notes: pp = percentage point; village size categories as in Figure 3; 'towns' include all census and statutory towns in each buffer. For the Pradhan (2013) buffer methodology, see text and Appendix A.

Source: Office of the Registrar General & Census Commissioner 2011b, 2011c.

Institutional arrangements and governance adequacy

Since 'peri-urban' carries no official ORGI definition, the closest administrative approximations are OGs and CTs. Correlational analysis of state-level data confirms a moderate-to-strong positive association between peri-urban population size and CT count, and a weaker, marginally non-significant association with OG count. The weak correlation between the two settlement types, CTs and OGs, suggests that they respond to different administrative logics rather than to the same underlying demographic reality (see Table 2 and Appendix E).

Critically, the classification system measures the total number of people, not how densely they inhabit peri-urban areas. States with significant peri-urban populations – like Sikkim (47.1 percent), Assam (46.7 percent), Himachal Pradesh (45.8 percent), and Tripura (41.5 percent) – have surprisingly few recognised settlement types. Typically, states with higher peri-urban populations also have more CTs and OGs, but this relationship varies. For instance, West Bengal has 780 CTs for a peri-urban population of 29.3 million, while Bihar has a peri-urban population of 36.1 million but only 60 CTs and 4 OGs. This stark recognition gap means urban peripheral settlements in the country's second most populous state remain governed as rural areas (Tables E-1 and E-2; Appendix E).

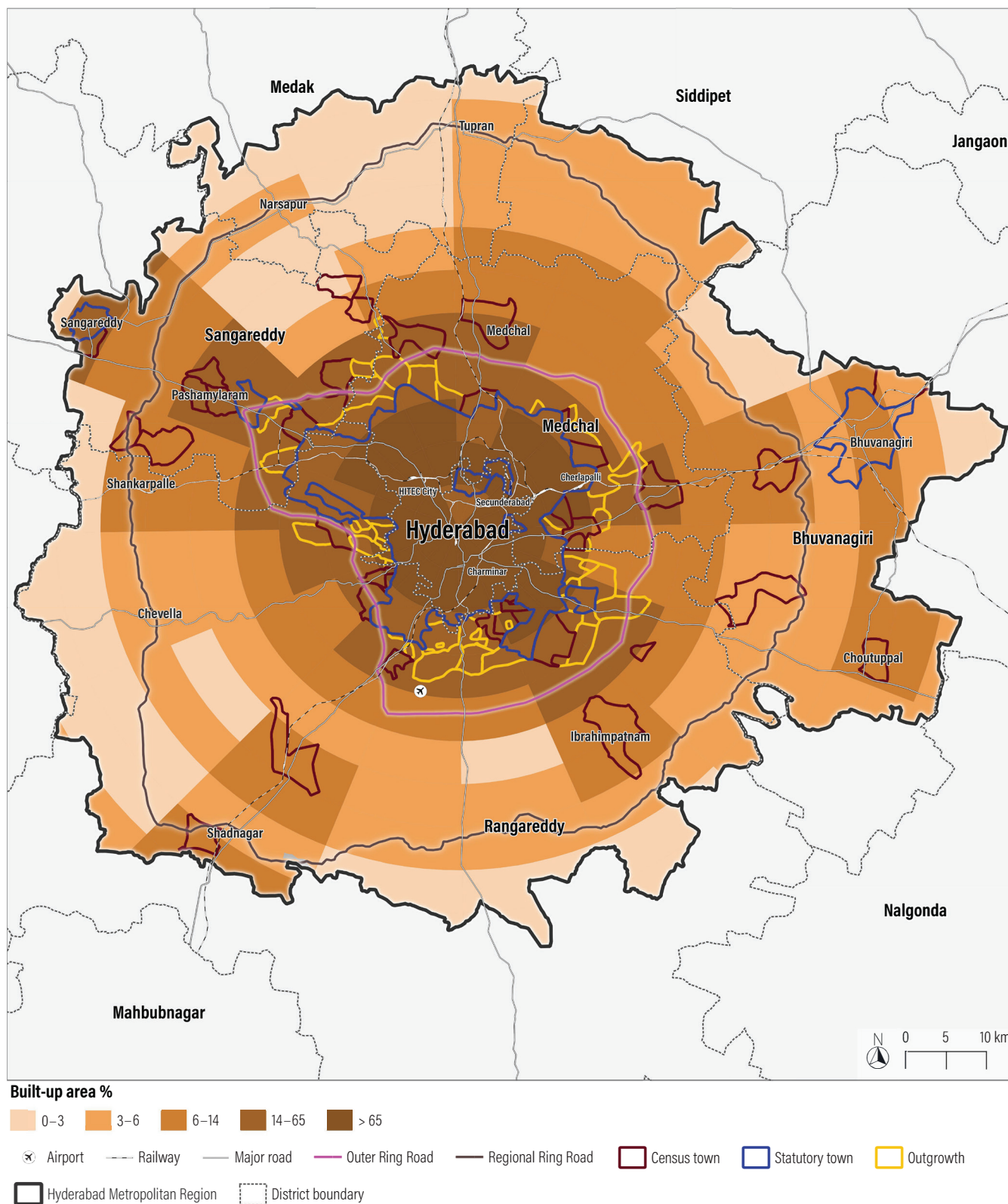
The policy implication is direct: the absence of a CT or OG designation does not indicate the absence of a dense, functionally urban settlement. A substantial share of India's peri-urban population occupies a planning void, ungoverned by any urban framework and structurally excluded from the entitlements, service standards, and infrastructure that statutory urban status would confer.

Two metropolitan case studies – Patna (Bihar) and Hyderabad/GHMC (Telangana) – illustrate contrasting trajectories: one from the state with the sharpest recognition gap (see Table 2), one from a state with stronger administrative recognition and a more developed metropolitan governance framework (Table 3). The divergence is more institutional than agro-ecological. Bihar's conservative notification practice, where fiscal and political incentives favour retaining rural status (Denis et al. 2012; Pradhan 2013), contrasts with Hyderabad's state-led consolidation, whose 2007 GHMC merger absorbed 12 municipalities and 8 Gram Panchayats (Kennedy 2007, 2016; Municipal Administration and Urban Development Department, GoAP 2005).

Patna follows a threshold model: urban influence plunges within 0–10 km and then plateaus, producing a uniformly under-served outer belt (Figure 17). Hyderabad follows a gradient model: change is continuous across ~25 km, with inner settlements progressively absorbed through ULB boundary expansions. In both cities, physical urbanisation outpaces institutional response. Hyderabad shows proactive consolidation and statutory peri-urban zoning are achievable, yet even its advanced governance leaves a transition gap at the frontier and capacity shortfalls inside newly merged areas (Chatterjee et al. 2026).

Figures 18 and 19 compare the peripheries of Patna and Hyderabad on a common scale, revealing two distinct spatial structures of transition–occupational gradient and amenities. Hyderabad's periphery is a continuous rural–urban spectrum in which occupational integration and access to infrastructure co-decline smoothly. Patna's periphery is a two-zone structure: a thin 0–10 km transition belt, then a homogeneous, uniformly under-served 10–20 km band where neither market integration nor state provisioning penetrates. The two structures demand different instruments. Hyderabad's continuous gradient calls for graduated distance-sensitive responses through metropolitan planning extending across the full commuting field. Patna's segmented periphery would defeat such calibration: its inner belt needs governance reclassification, while its uniformly under-served outer belt needs a state-funded minimum-service floor decoupled from urban status, which mission-based finance currently bypasses. City size and peri-urban gradient analysis should therefore be an explicit variable in peri-urban policy design.

Figure 16 | Growth gradient analysis using the built-up area around GHMC



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Notes: Concentric distance buffers are at 5 km intervals; we map built-up area as a percentage of total area in each segment.

Source: Agnihotri et al. forthcoming; Asher et al. 2021; Liu et al. 2023; OpenStreetMap contributors n.d.; HMDA 2013.

Table 2 | Some states with above-average peri-urban population: DEGURBA vs. administrative recognition, 2010/2011

STATE	PERI-URBAN POP. 2010 (ABSOLUTE)	CTs 2011	OGs 2011	PERI-URBAN SHARE OF STATE POP. (%)	ANOMALY
Uttar Pradesh	66,087,120	267	66	32.4	No
Bihar	36,156,908	60 ↓	4 ↓	34.1	Yes – low CT/OG despite large peri-urban pop.
West Bengal	29,392,932	780	13	31.6	No
Andhra Pradesh	24,043,216	228	209	27.9	No
Tamil Nadu	17,680,078	376	14	24.0	No
Odisha	17,625,676	116	50	42.4	No
Maharashtra	12,376,018	278	3 ↓	10.8	Partial – low OGs despite large peri-urban pop.

Note: All-state averages: peri-urban population 9,028,851 (2010); CTs 111.2 (2011); OGs 28; peri-urban share 23.1%. Arrows (↓) denote below-average values; the yellow row marks the Bihar anomaly. Peri-urban population comprises DEGURBA suburban and semi-dense clusters. See Appendix E for all states.

Source: European Commission et al. 2021; Office of the Registrar General & Census Commissioner 2011a; Schiavina et al. 2026.

KEY CHALLENGES:

Identification: Peri-urban areas lack a Census definition, administrative boundaries, and a national inventory. DEGURBA reveals their true scale, but its density thresholds (300 persons/km² for semi-dense urban clusters) are calibrated for European settlement patterns, while even rural India routinely exceeds 400 persons/km². The result is a population simultaneously overcounted by spatial methods and undercounted by Census categories, with no agreed framework to resolve the gap.

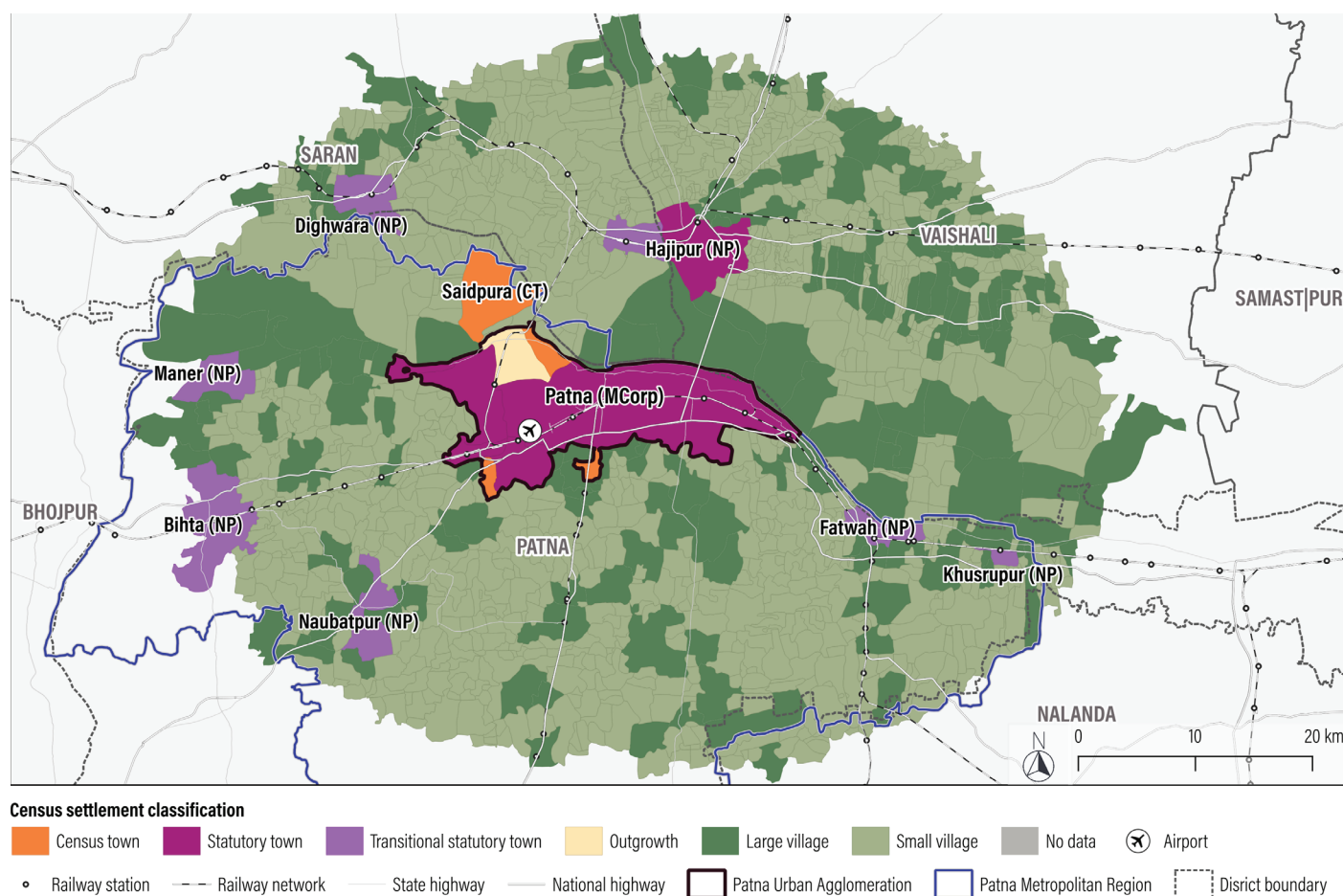
Governance: Three gaps remain unresolved. Metropolitan Planning Committees – constitutionally mandated under Article 243ZE – are non-functional in virtually all major cities; peri-urban Gram Panchayats are excluded from urban mission financing regardless of their functional urban character; and proactive merger, as Hyderabad's GHMC expansion shows, reduces the recognition gap without closing the service delivery gap – multi-authority fragmentation persists post incorporation.

Table 3 | **Peri-urban trajectories - Patna vs. Hyderabad, comparative profile**

DIMENSION	PATNA (BIHAR) - HIGHER RECOGNITION GAP	HYDERABAD/GHMC (TELANGANA) - LOWER RECOGNITION GAP
State peri-urban context	Above-average peri-urban population; below-average census towns (CTs) and outgrowths (OGs) – sharpest recognition gap nationally	Above-average peri-urban population; above-average CTs and OGs
Occupational gradient	Sharp decline 0–10 km (42%→33%), then plateaus at 30%; urban influence limited to inner 10 km belt	Continuous decline across full 25 km range; metropolitan influence extends further
Infrastructure gradient	Amenities decline within 10 km, then homogenise; stable but developmentally constrained outer belt	Core-concentrated networks, continuous steep decline outwards
DEGURBA vs. Census gap	Morphological urbanisation fragmented and discontinuous; administrative urbanisation overwhelmingly rural beyond 10 km – sharp mismatch	DEGURBA gradient more radially structured; Census conversions more proactive in inner ring, but large gap persists in outer belt
Conversion trajectory 2011–25	Administrative conversion concentrated near core; near-zero beyond 10 km. No CTs converted to statutory status.	Administrative conversion in inner rings (0–10 km) strong; gradually declining outward. DEGURBA morphological shifts concentrated in outer 20–25 km ring (see Figure 14).
Governance architecture	Patna Master Plan 2031 covers Patna Planning Area with multi-nuclei Transit-Oriented Development strategy; District Planning Committee coordination on paper; no state peri-urban policy	A combination of proactive statutory peri-urban zoning under HMDA's Metropolitan Development Plan 2031, corridor-linked phased consolidation using the ORR and RRR as structuring armatures, and administrative absorption of OGs across two distinct rounds (2020–21, and 2024–25)
Key governance gap	Administrative recognition stalls beyond inner ring; no CT-to-ULB pathway; Gram Panchayat governance default in outer belt	Multi-authority fragmentation produces service gaps despite stronger planning framework

Source: European Commission et al. 2021; HMDA 2013; Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b, 2011f, 2011g, 2011h, 2011i, 2011j, 2011k, 2011l, 2011m, 2011n; Schiavina et al. 2026; TCPO, Bihar 2016.

Figure 17 | Census settlement categories within a 20 km buffer of the Patna Municipal Corporation boundary

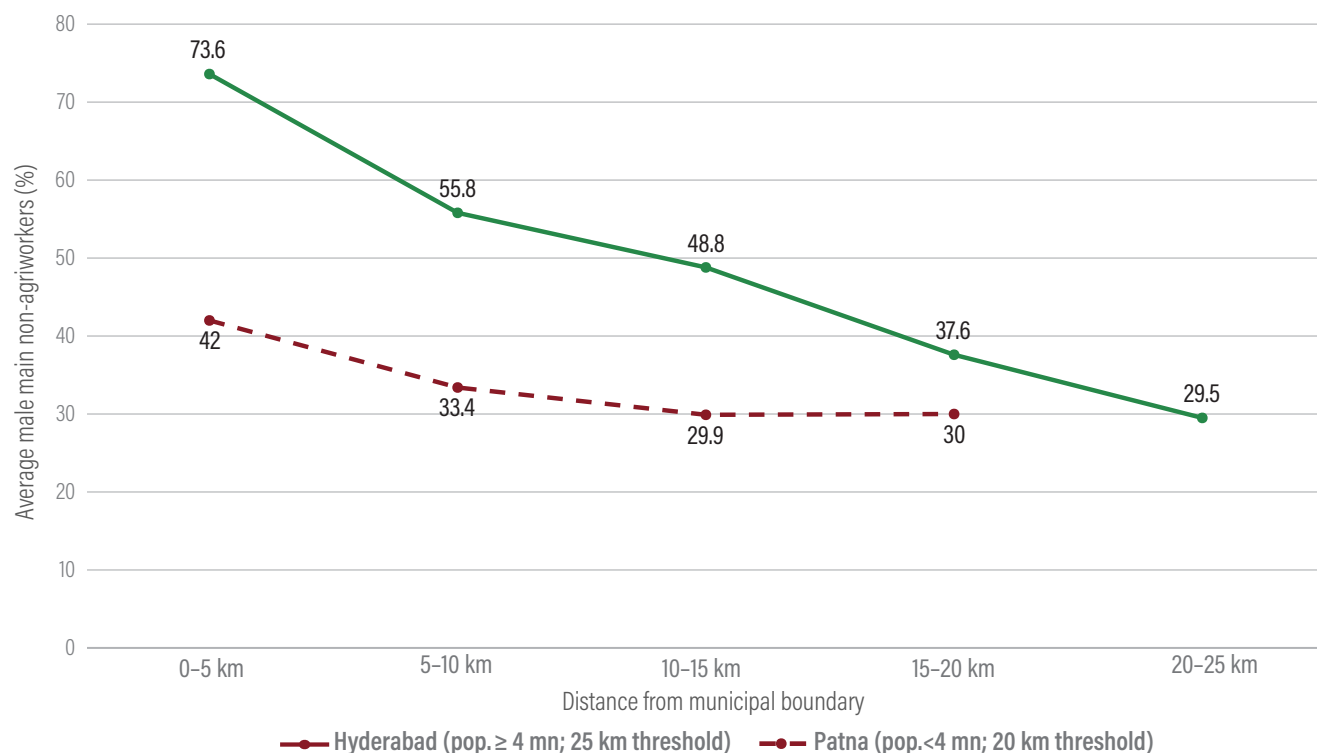


Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Notes: 20-km buffer follows Pradhan (2013); TSTs cluster at the buffer edge, census towns adjoin the city boundary, and large villages are dispersed; no clear peri-urban agglomeration is visible.

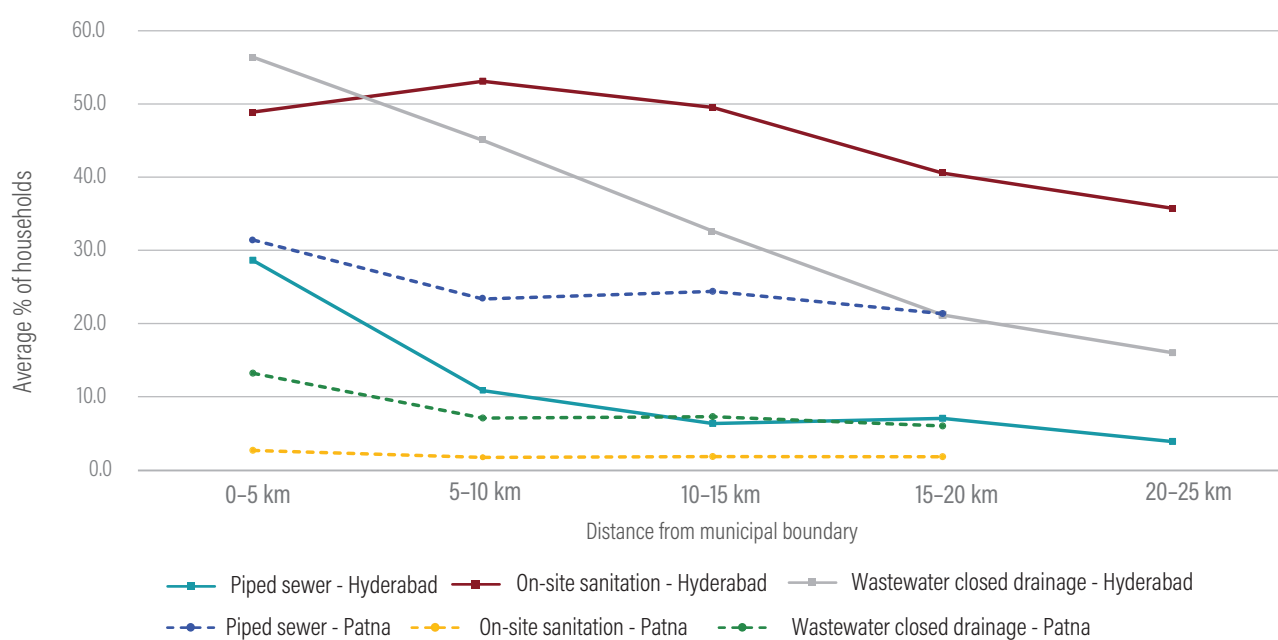
Source: Asher et al. 2021; Office of the Registrar General & Census Commissioner 2011a; OpenStreetMap contributors n.d; TCPO, Bihar 2016.

Figure 18 | Occupational gradient in the peripheries of Patna and Hyderabad



Notes: Distance is measured from the municipal boundary; settlements include villages and CTs. Thresholds follow Pradhan (2013): 25 km for metros ≥ 4 million, 20 km otherwise.
Source: Office of the Registrar General & Census Commissioner 2011b.

Figure 19 | Amenities in the peripheries of Patna and Hyderabad



Notes: Distance is measured from the municipal boundary; settlements include villages and CTs. Thresholds follow Pradhan (2013): 25 km for metros ≥ 4 million, 20 km otherwise.
Source: Office of the Registrar General & Census Commissioner 2011f, 2011g, 2011h, 2011i, 2011j, 2011k, 2011l, 2011m, 2011n.

Corridor-led transitional urbanisation

Characterisation and typology

Corridor-led transitional urbanisation denotes the rapid in-situ rural-to-urban transformation of settlements within the influence zones of industrial corridors and investment nodes. Three features define this typology: locational anchor in infrastructure corridors; rapid settlement transitions that outpace formal reclassification; and multi-actor governance in which Special Purpose Vehicles (SPVs), development authorities, and local governments operate concurrently with overlapping and uncoordinated mandates (Anand and Sami 2016; Kennedy and Sood 2016; Ramachandran 2019).

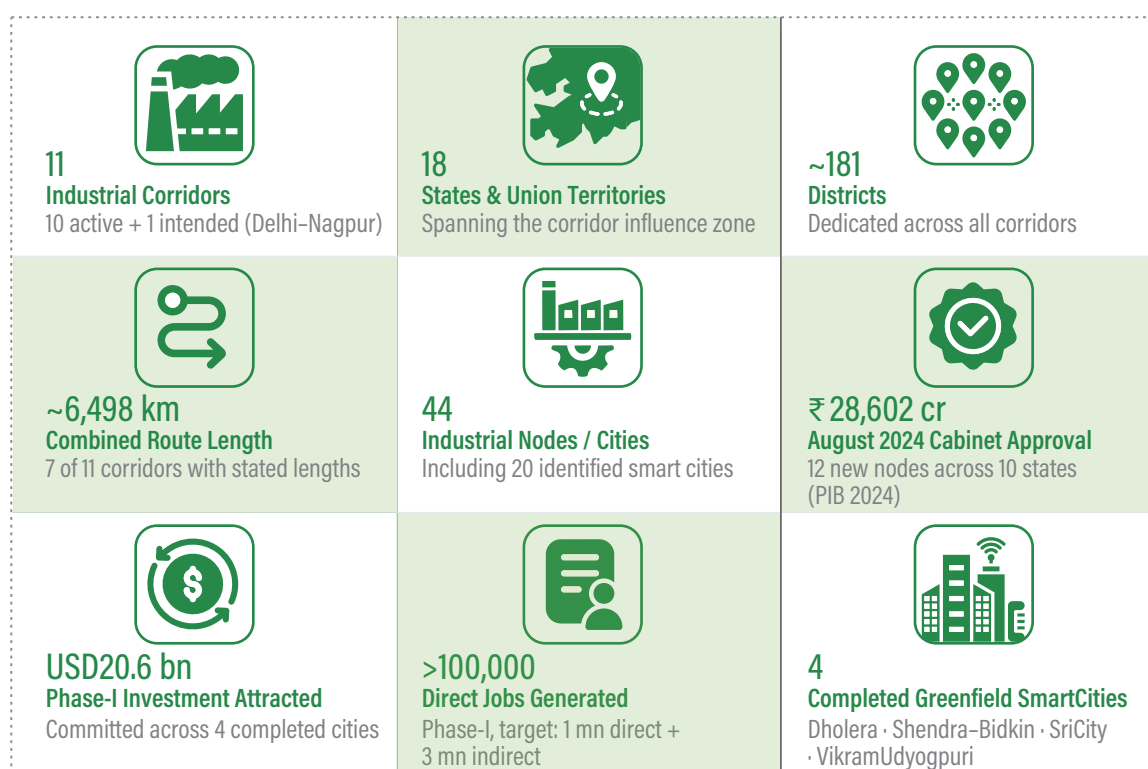
The National Industrial Corridor Development Programme (NICDP) constitutes the primary spatial instrument through which corridor-led urbanisation is being produced in India. Rather than extending existing metropolitan growth, the programme creates new investment geographies by aligning industrial development with freight corridors, highways, ports, and logistics networks – a form of state-led territorial restructuring in which land, connectivity, and governance are reorganised to channel capital into strategically selected locations (see Figures 20 and 21).

The analysis in this section focuses on the Delhi-Mumbai Industrial Corridor (DMIC) and two nodes – Dholera SIR (Special Investment Region) (Gujarat) and Tumakuru IA (Industrial Area) (Karnataka) – to trace why a single corridor programme produces divergent transition pathways across metropolitan-adjacent belts, transport-influenced regions, greenfield enclaves, and rural hinterlands (Anand et al. 2014; Bathla 2024; Datta 2015; Grant and Nijman 2004). The temporal scope spans 2011–2025.

Selective integration: Physical urbanisation outpaces formal recognition

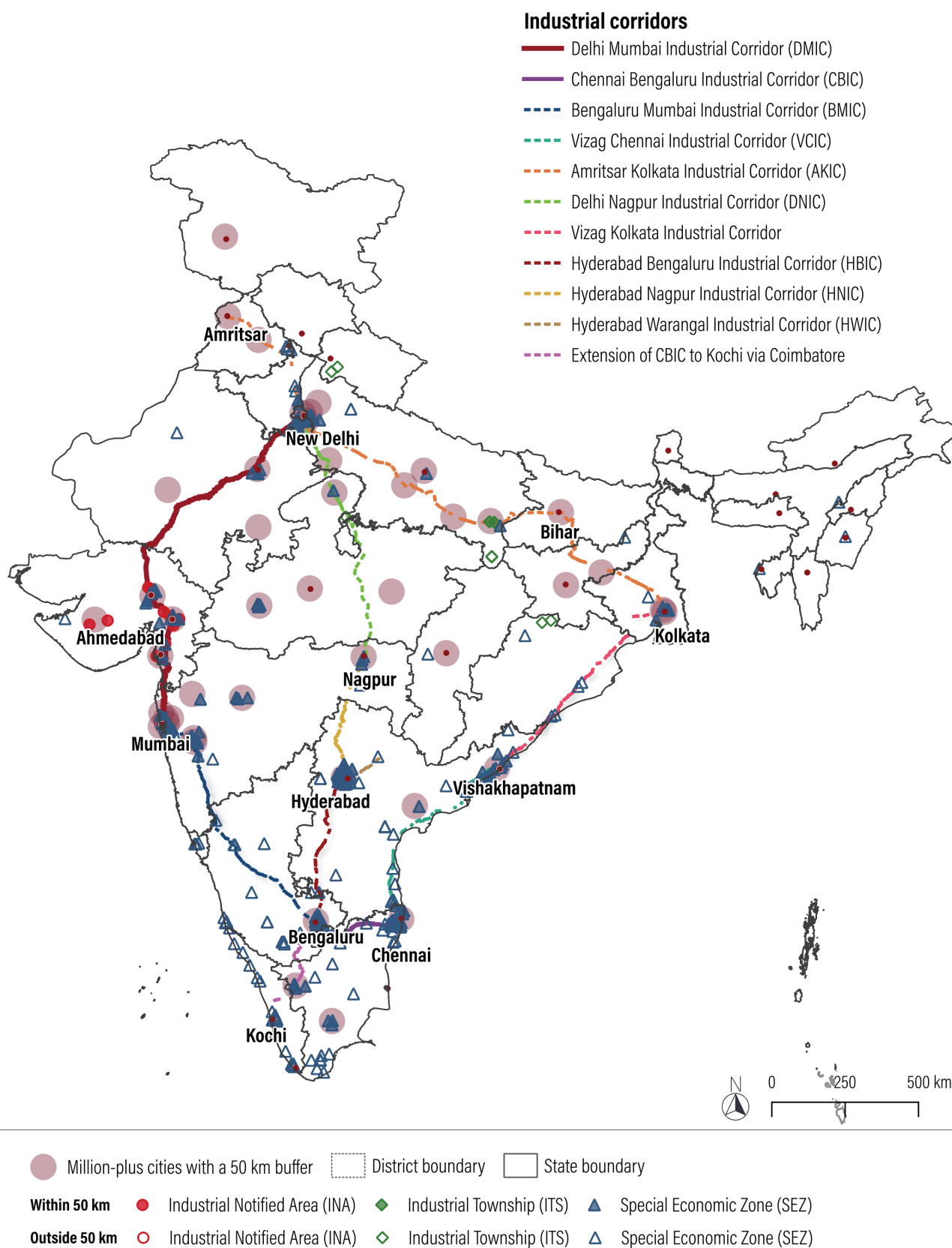
Corridor regions are discontinuous, selectively integrated territories: some settlements are incorporated into urban-industrial formations while many others remain administratively rural despite physical urban transformation. Figure 22 shows built-up expansion between 2010 and 2025 extending well beyond statutory municipal boundaries, indicating widespread functional urbanisation. Yet Figure 23b, read against the 2011 settlement distribution (Figure 23a), reveals how few settlements actually became statutory ULBs: just 2,179 of 95,434 villages (2.28 percent) and 106 of 492 CTs (21.5 percent), an average

Figure 20 | **NICDP-led industrial urbanisation at a glance - scale, reach, and investment (as of 2026)**



Source: NICDC 2026; Press Information Bureau 2024.

Figure 21 | Location of industrial corridors across India



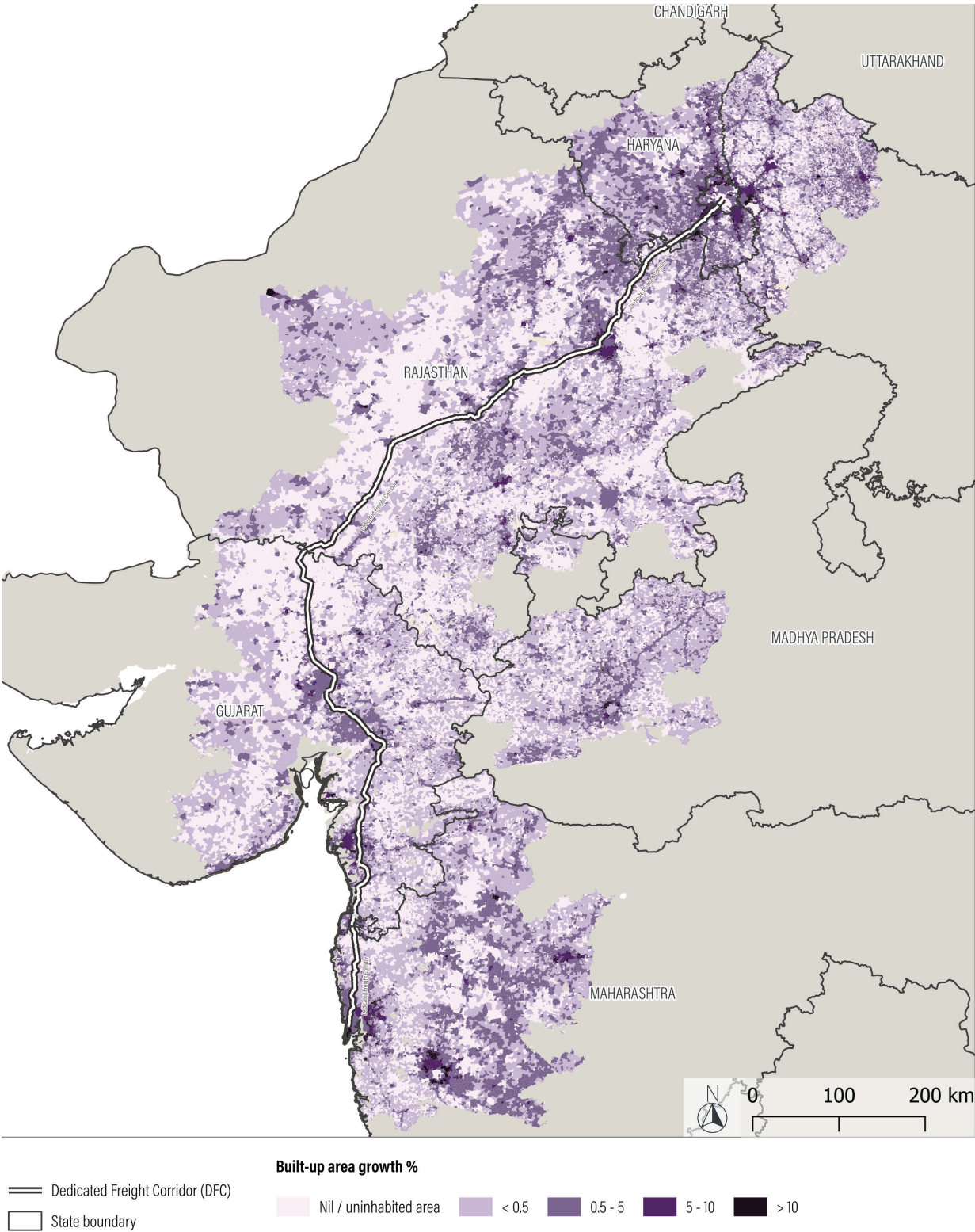
Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Source: Asher et al. 2021; Chatterjee et al. 2026; Office of the Registrar General & Census Commissioner 2011b; OpenStreetMap contributors n.d.

municipalisation rate of 5.36 percent across the study regions (see Appendix F, Table F-1). Together, the maps demonstrate that corridor development is producing urban-like densities

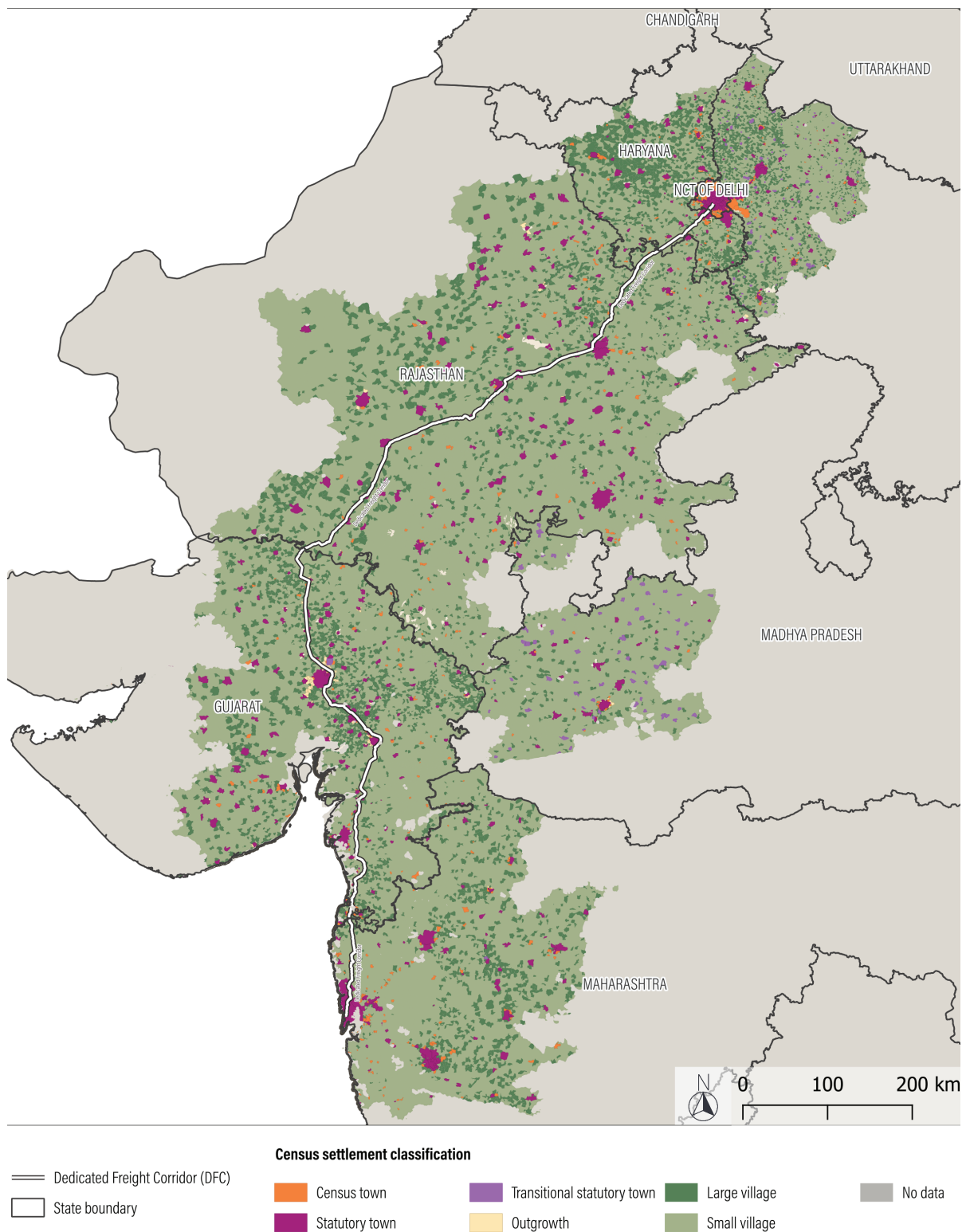
within administratively rural spaces rather than new statutory urban settlements.

Figure 22 | Built-up expansion across the DMIC corridor zone (2010-2022)



Note: Built-up expansion is calculated as $(\text{BuiltArea}_{2025} - \text{BuiltArea}_{2024}) / \text{VillageArea} \times 100$, measuring the net increase in built-up land as a percentage of total village area.
Source: Asher et al. 2021; NICDC, n.d.; Office of the Registrar General & Census Commissioner 2011a, 2011b; OpenStreetMap contributors, n.d.; Schiavina et al. 2026.

Figure 23A | Settlement categories within the DMIC Region, 2011 (Baseline)

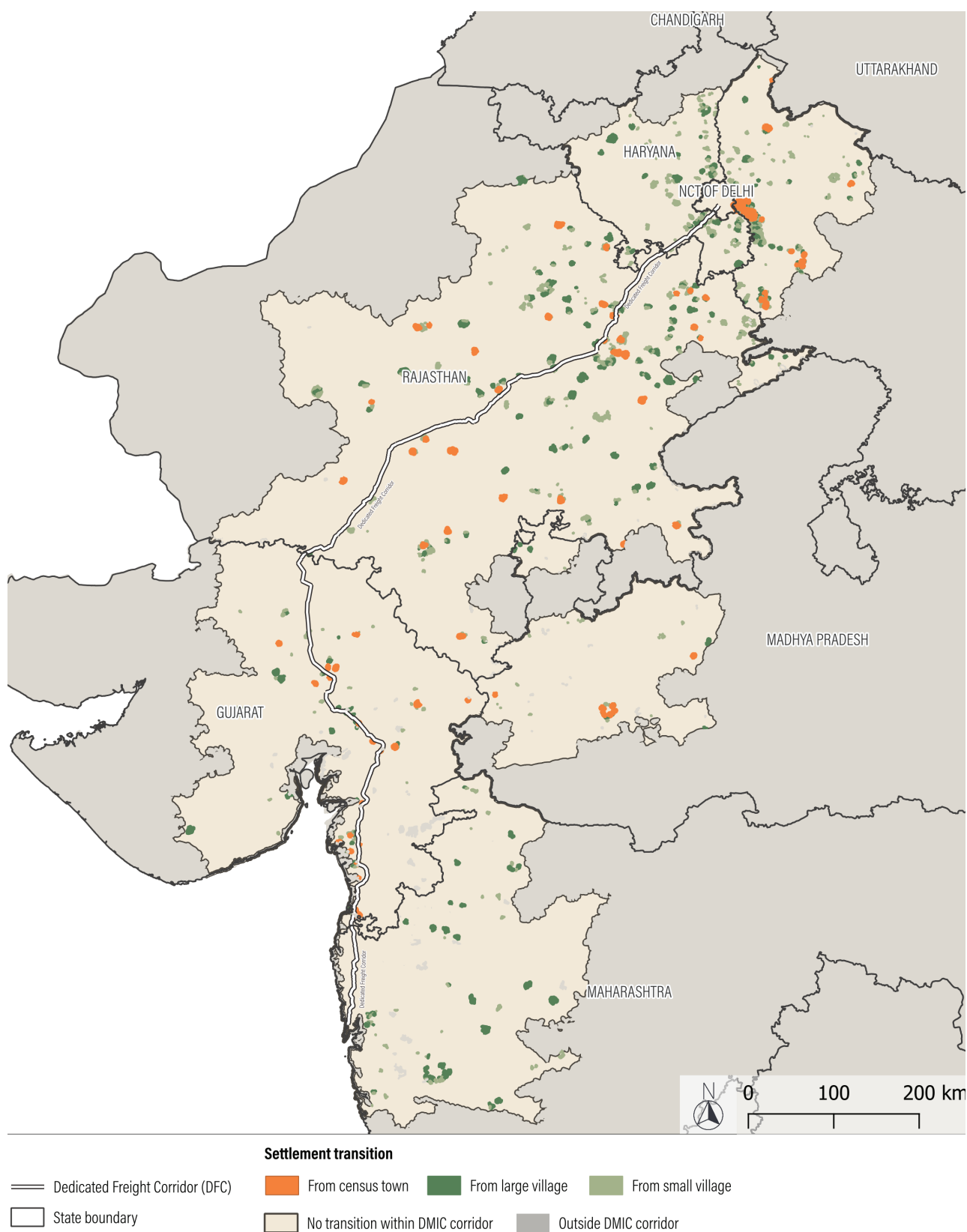


Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Notes: Baseline 2011 settlement distribution by Census category – census towns, statutory towns, and outgrowths, and our analytical categories of large villages (≥ 4000), small villages (< 4000) and TSTs (Nagar Panchayats) – against which subsequent municipal transitions are identified.

Source: Asher et al. 2021; NICDC n.d.; Office of the Registrar General & Census Commissioner 2011a, 2011b.; OpenStreetMap contributors n.d.

Figure 23B | Settlement transition and municipalisation in the DMIC region, 2011–2025



Disclaimer: This map is for illustrative purposes only and does not imply any opinion by WRI India regarding the legal status of any country or territory, or the delimitation of any frontiers or boundaries.

Notes: Settlements converted into ULBs between 2011 and 2025, coloured by original rural settlement category (small village, large village, or CT); village polygons are buffered for visibility and do not represent the actual spatial extent of municipalised areas.

Source: Asher et al. 2021; NICDC n.d.; Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011a, 2011b; OpenStreetMap contributors n.d.

Municipalisation patterns: Uneven state rescaling

Municipalisation across corridor regions reflects selective state decisions about where to extend urban governance, rather than a systematic effort to bring all functionally urban settlements into a municipal framework (Table 4). Haryana, Maharashtra, and Gujarat show the sharpest post-2020 growth in large ULBs, suggesting corridor investment is being channelled into administratively larger, investment-ready formations. Rajasthan and Uttar Pradesh show broader territorial integration through transitional ULB expansion. Tumakuru records the highest overall municipalisation rate (12.35 percent), driven by Bengaluru spillovers, while DMIC-Gujarat and Dholera exhibit enclave-type concentration despite major investment, and DMIC-Madhya Pradesh remains the most weakly transformed (2.34 percent).

Institutional arrangements and governance adequacy

Divergent conversion pathways and recognition gaps across regions (Figure 24) further reveal the selectivity of state municipalisation strategies. Tumakuru alone saw no village convert to a municipal corporation; all conversions were into intermediate or transitional ULB structures. The more critical question, however, is whether functionally urban settlements are being recognised at all. DMIC-Gujarat shows the largest recognition gap – over five comparable settlements left outside municipal governance for every one settlement brought in – while Maharashtra (0.56) is the only DMIC stretch where municipalised settlements outnumber the unrecognised settlements. Tumakuru records the highest municipalisation rate (12.35 percent, Table 4), yet one of the largest gaps: at its regional scale of functional urbanisation, even a high conversion rate leaves many villages without an urban institution.

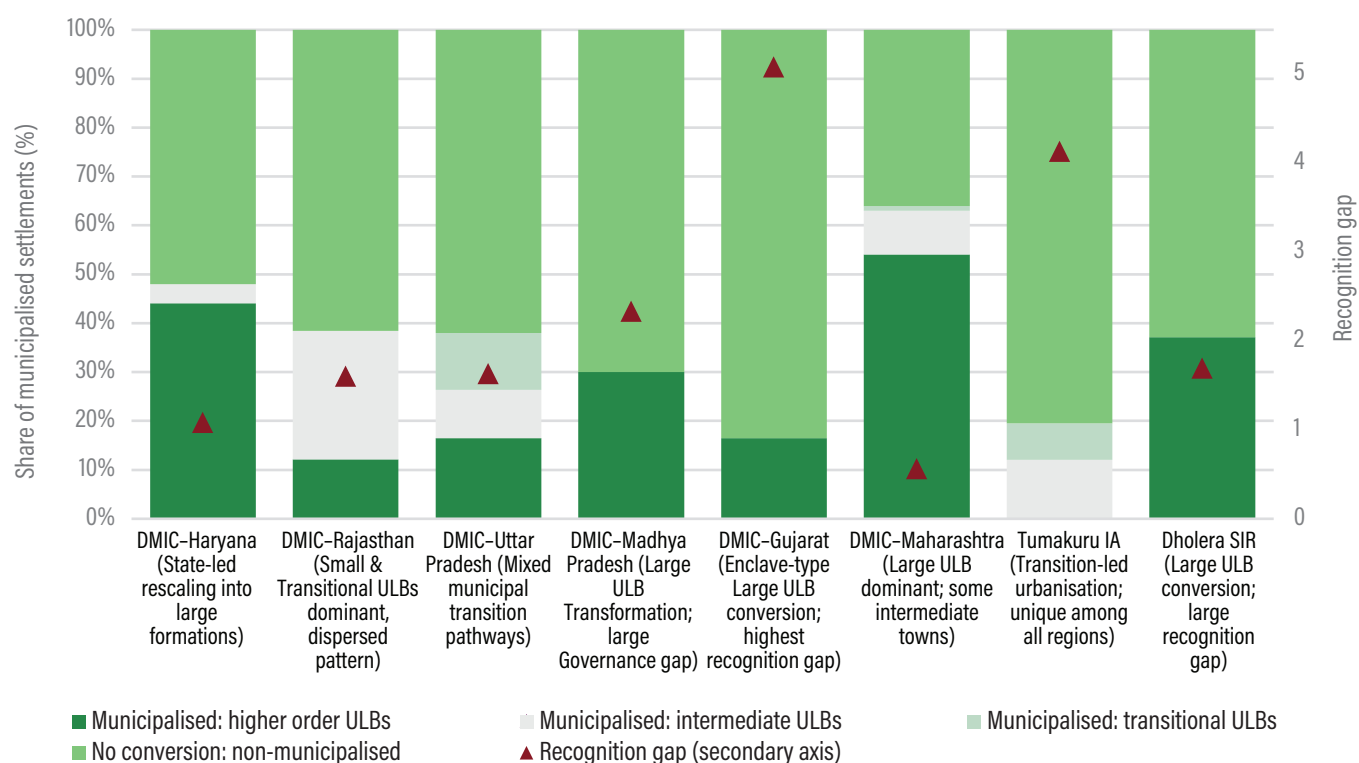
Table 4 | **Municipalisation and urbanisation outcomes across corridor regions (2011-2025)**

REGION/NODE	VILLAGE→ULB (NO.)	% VILLAGES MUNICIPALISED	CT→ULB (NO.)	% CTs MUNICIPALISED	% MUNICIPALISED TOTAL	URBANISATION CHANGE
DMIC – Haryana	232	4.6	0	0	4.6	+3.1
DMIC – Rajasthan	585	3.5	35	1.1	4.6	+6.9
DMIC – Madhya Pradesh	36	1.3	11	1	2.3	+1.1
DMIC – Gujarat	246	1.3	32	1.3	2.7	+0.8
DMIC – Maharashtra	143	4.8	0	0	4.8	+2.6
Tumakuru IA	662	11.7	4	0.6	12.4	+9.8
i. Core district	168	0.3	1	0.7	0.9	0.8
ii. Peripheral districts	499	15.7	3	0.6	16.4	+13.0
Dholera SIR	52	2.3	7	0.3	2.6	+1.8
i. Core district	8	4.8	1	0	4.8	+0.2
ii. Peripheral districts	44	2.2	6	0.3	2.5	+1.8

Note: % municipalised = share of rural + CT population converted to ULB out of total Rural + CT population; revised urbanisation rate = share of rural population converted to urban + existing urban population, as a proportion of total population.

Source: Authors' calculations based on Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b, 2011c.

Figure 24 | **Municipal conversion pathways, functional urbanisation, and recognition gaps across industrial corridor regions**



Notes: Stacked bars show municipal conversion outcomes for villages meeting all three Census urban criteria: conversion into higher-order ULBs (Municipal Corporations), intermediate ULBs (Municipal Councils and Municipal Committees, and Municipalities), or transitional ULBs (Nagar Panchayats and Town Panchayats), with the remaining share representing non-municipalised villages. The recognition gap is the ratio of non-municipalised to municipalised functionally urban villages; higher values indicate greater mismatch.

Source: Authors' calculations based on Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b, 2011c.

Economic expansion beyond the corridor core

Industrial corridors are reshaping a wider regional geography well beyond planned node boundaries: logistics, warehousing, ancillary industries, and labour mobility are pushing economic activity into peripheral areas, even as governance instruments remain anchored to narrower project footprints. The economic pattern differs sharply by corridor maturity (Figure 25): in completed industrial areas, core districts lead on both firm growth (4.7 percent Compound Annual Growth Rate (CAGR)) and employment growth (10.3 percent CAGR). In emerging industrial areas, this relationship inverts – peripheral districts expand employment at a 13.3 percent CAGR, compared with 7.8 percent in cores, and firm growth at 3.2 percent, compared with 0.7 percent. Industrial employment is growing fastest precisely where governance capacity is weakest.

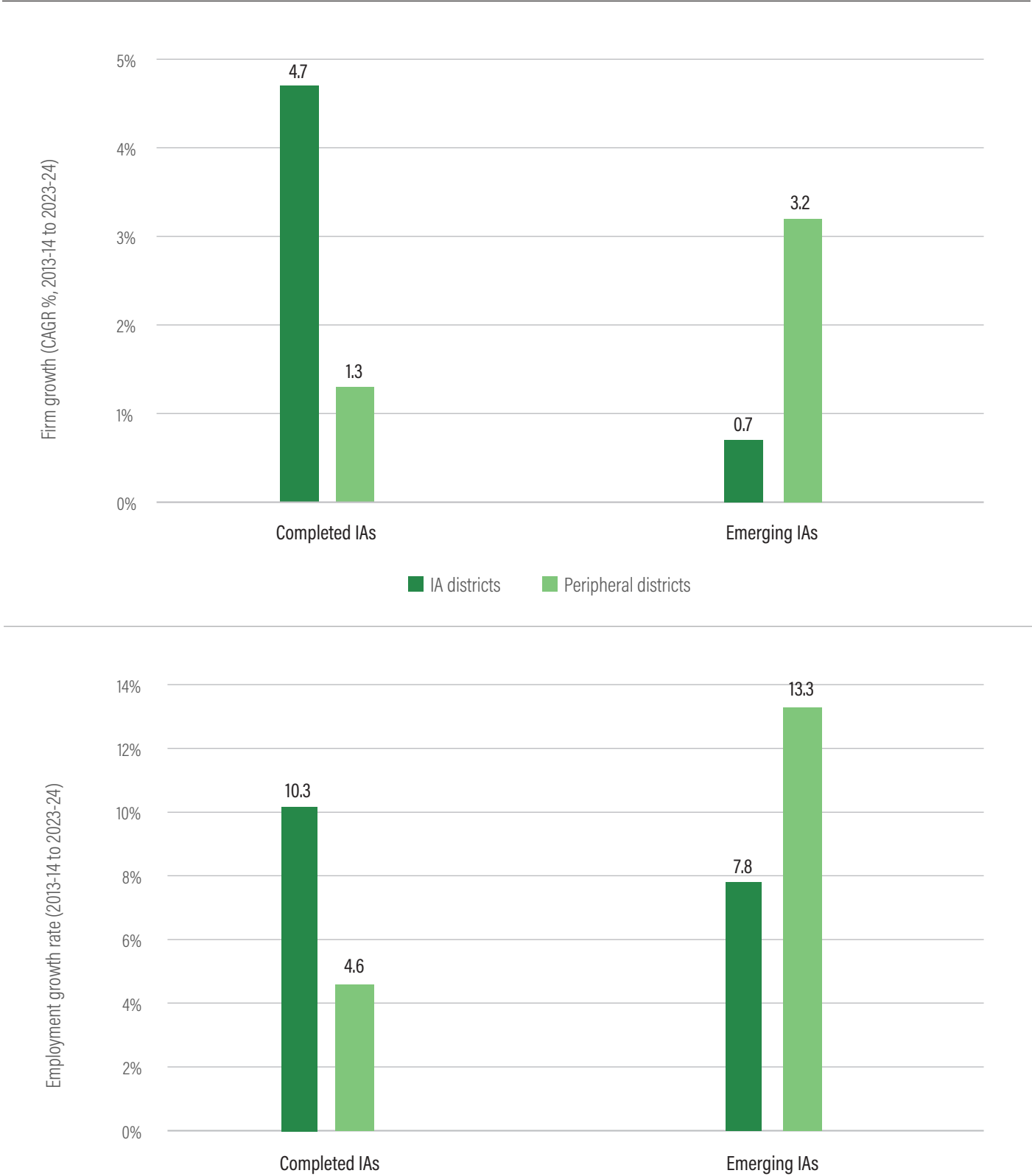
Four regional pathways of corridor urbanisation

From a governance perspective, corridor-led transitional urbanisation follows four distinct spatial pathways – metropolitan-adjacent belt, transport-influenced region, greenfield enclave, and predominantly rural hinterland – each producing different combinations of municipalisation rate, recognition gap, economic spillover pattern, and governance capacity deficit (Figure 26).

Governance architecture: Coordination without local capacity

Although corridor development is framed as state-led, private actors – consultants, Public-Private Partnership partners, logistics firms, and real-estate developers – play significant roles while the state absorbs land-assembly and infrastructure risks. PM GatiShakti (launched 2021) improves coordination of trunk infrastructure across 16 central ministries through

Figure 25 | Core-periphery divergence in employment and firm growth (CAGR, 2013-14 to 2023-24).



Notes: IA = Industrial Area. Stacked bars show municipal conversion outcomes for villages meeting all three Census urban criteria: conversion into higher-order ULBs (Municipal Corporations), intermediate ULBs (Municipal Councils and Municipal Committees, and Municipalities), or transitional ULBs (Nagar Panchayats and Town Panchayats), with the remaining share representing non-municipalised villages. The recognition gap is the ratio of non-municipalised to municipalised functionally urban villages; higher values indicate greater mismatch.

Source: Annual Survey of Industries 2013-14 and 2023-24 (MoSPI 2018, 2025).

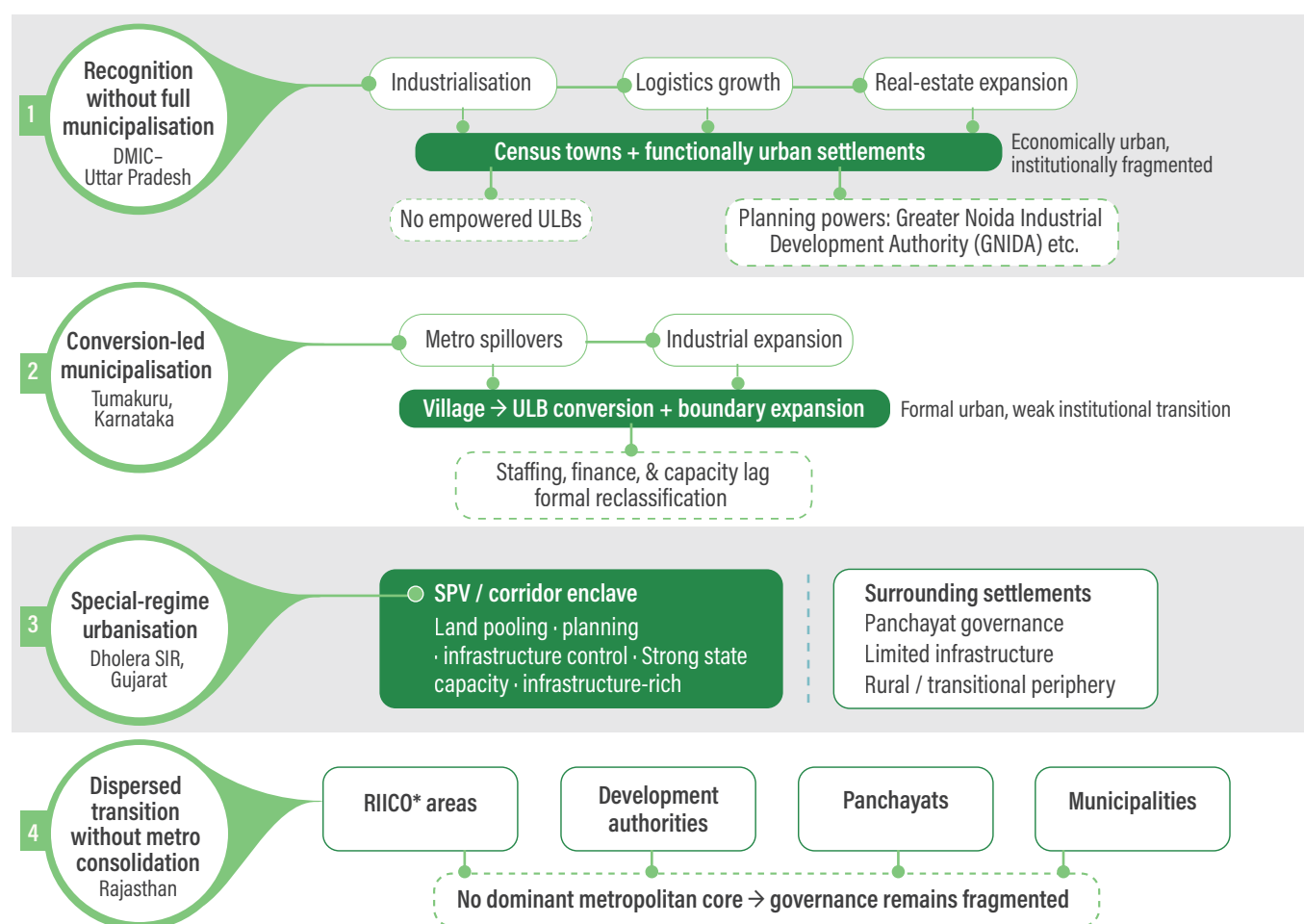
a unified Geographic Information System (GIS) platform, but operates as a project-level instrument with no mandate over the Gram Panchayats or capacity-constrained ULBs governing peripheral settlements: the governance gap at the bottom remains structurally unaddressed even as coordination improves at the top. Corridor urbanism creates spaces of exception in which SPVs and development authorities displace elected local governments; in Dholera, the Gujarat SIR Act enabled rapid land assembly and rezoning but generated significant land pooling and compensation contestation. URDPFI and RADPFI provide for integrated regional planning, but implementation remains partial: across all four pathways, development authorities control land while Panchayats, and low-capacity ULBs manage local services.

KEY CHALLENGES:

Identification: No comprehensive state-by-state mapping or official listing of corridor-region TUAs exists, and India has no dedicated administrative category for settlements undergoing corridor-driven transition – they are recorded as villages, CTs, or Gram Panchayats until formal reclassification, which routinely lags years behind functional change. Sustainable urbanisation requires knowing where transitions are occurring and of what kind – enclave, spillover, or hinterland diffusion – before appropriate instruments can be designed.

Governance: Corridor TUAs fall between two systems, neither equipped for them: Gram Panchayats hold jurisdiction but lack urban planning capacity; development authorities and SPVs hold planning and land powers but no service delivery mandate. No state has a dedicated governance instrument for corridor-region settlements in transition, even as industrial investment accelerates around them.

Figure 26 | Regional pathways of corridor urbanisation



Source: Authors' analysis.

Isolated urban clusters

Characterisation and typology

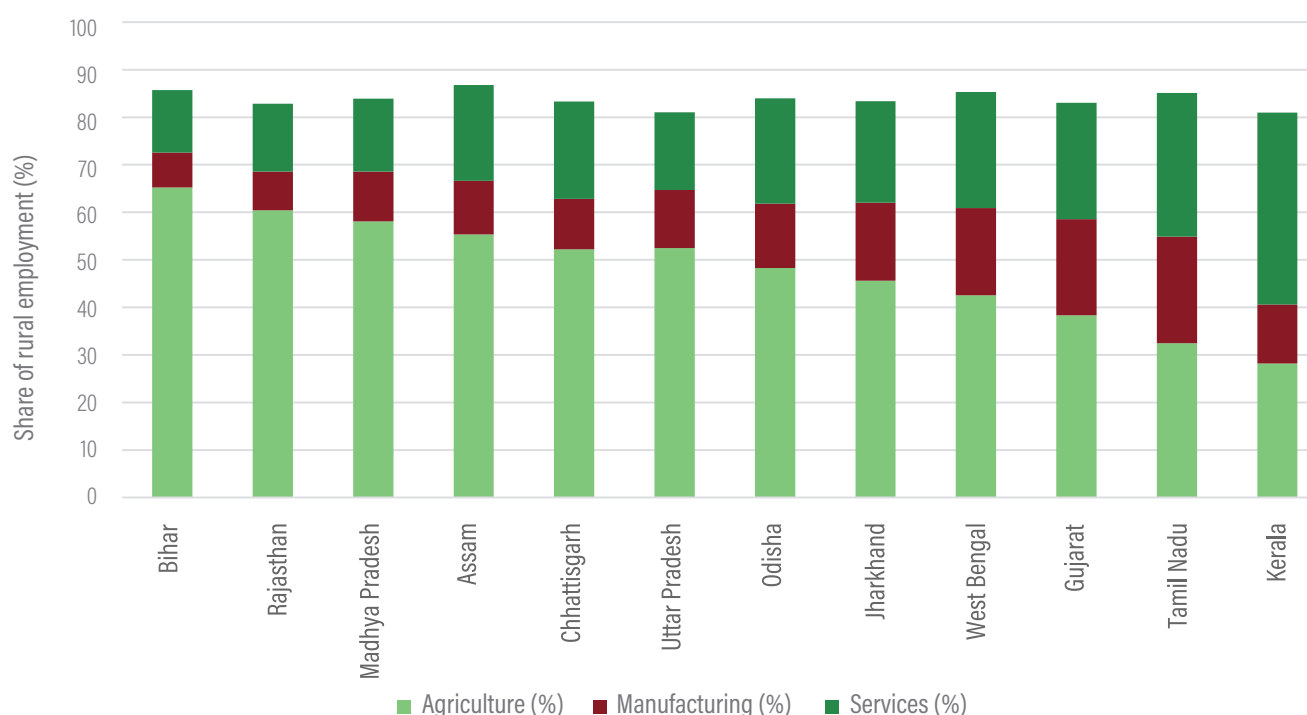
Isolated urban clusters are the most analytically challenging of the six transitional typologies because they are defined principally by what they are not. Unlike CTs, whose identification is a direct Census read, or TSTs, whose identification requires legislative inference, isolated clusters have no corresponding administrative category. They must be constructed analytically by combining proximity methodology (Roy and Pradhan 2018), CT sub-type classifications, and SPMRM cluster records.

We define isolated urban clusters as local agglomerations of CTs and large villages (population $\geq 4,000$) located beyond the influence zones of STs with populations of 100,000 or more, exhibiting non-agricultural economic functions (see Appendix A-6 for the methodology). The 4,000-population threshold follows the Census of India's own established practice to identify settlements in the previous Census most likely to have crossed the urban threshold by the next Census. Isolated urban clusters represent the dispersed, bottom-up face of India's urban transition – driven not by metropolitan spillover but by in-situ economic specialisation, labour diversification, and locally embedded production networks (Guin 2019). Roy

and Pradhan's (2018) proximity methodology provides the structural basis for this typology: approximately 53 percent of CT populations live outside the influence zone of any large ST, in settlements whose growth is anchored in local market functions. These processes unfold across diverse employment structures highlighting how isolated urbanisation emerges out of locally embedded economic transformations beyond metropolitan influence (Figure 27).

Isolated clusters are spatially widespread but unevenly distributed (Figure 28), reflecting two distinct spatial logics: established economic corridors – the DMIC zone, the Bengaluru–Chennai highway, and the Bagnan–Uluberia belt in West Bengal – where corridor investment has seeded dispersed settlement growth; and greenfield regional economies in Bihar, southern Maharashtra, northern Karnataka, and central Tamil Nadu, where agrarian transformation and small-scale manufacturing have generated urban-like clusters without proximate metropolitan anchors. State patterns reflect this bifurcation: West Bengal, Tamil Nadu, and Gujarat show stronger CT clustering linked to manufacturing and services; Bihar and Rajasthan remain

Figure 27 | Rural employment structure in selected states



Source: Periodic Labour Force Survey (PLFS) 2023–24 (MoSPI 2024).

more agrarian; Jharkhand, Odisha, and Chhattisgarh exhibit a hybrid structure anchored in extraction.

Four subtypes of isolated urban clusters emerge:

- Household industry and artisanal clusters, prominent in West Bengal, Kerala, Tamil Nadu, Uttar Pradesh, and Punjab, where dispersed subcontracting, petty manufacturing, and trade linkages across multiple settlements generate urban-like density and non-farm employment (Choithani et al. 2021; Denis and Zerah 2014).
- Mining-driven clusters, concentrated in Jharkhand, Odisha, Chhattisgarh, and parts of Madhya Pradesh; settlements grown around extraction sites, sustained by resource extraction, labour migration, logistics, and processing (EY Parthenon 2025).
- Rurban Mission clusters, the only subtype with explicit national policy acknowledgement, with 298 approved clusters (Ministry of Rural Development 2016; Negi 2020).
- Dispersed corridor clusters, emerging along major infrastructure investments – the DMIC zone, the Bengaluru–Chennai highway, and the Bagnan–Uluberia belt between Kolkata and Kharagpur – where SEZs, logistics nodes, warehousing, and ancillary manufacturing generate employment and population growth in surrounding villages (Narain et al. 2013; Rajendran et al. 2021).

Yet even the SPMRM (2016–2022), the first national acknowledgement of cluster-based transitions, conceptualised these settlements inadequately, because isolated clusters are not settlements in temporary transition but multi-functional, hybrid spaces where agriculture, manufacturing, and services stably coexist (Raman et al. 2015). This stability is most legible in South India, where large villages cluster around smaller STs, reinforced by high rural non-farm workforce participation – Kerala (52.83 percent), Tamil Nadu (52.61 percent), (PLFS 2023–24; MoSPI 2024) – generating local economic hotspots in market towns, transport nodes, and small industrial centres entirely beyond the gravitational pull of large cities.

Institutional arrangements and governance adequacy

Isolated clusters fall between two governance systems: rural local bodies with insufficient capacity for urban-scale service delivery, and statutory urban frameworks designed for nucleated towns rather than dispersed settlement regions. The five principal instruments that apply to these settlements each address a fragment of the problem without creating a governance framework for the settlement region as a whole (see Table 5).

States have experimented with industrial promotion, corridor development, and cluster support, but not with dedicated governance systems for dispersed settlement clusters. What exists is an economic-development architecture rather than a territorial governance model linking production networks, settlement planning, and local government (Government of West Bengal 2023).

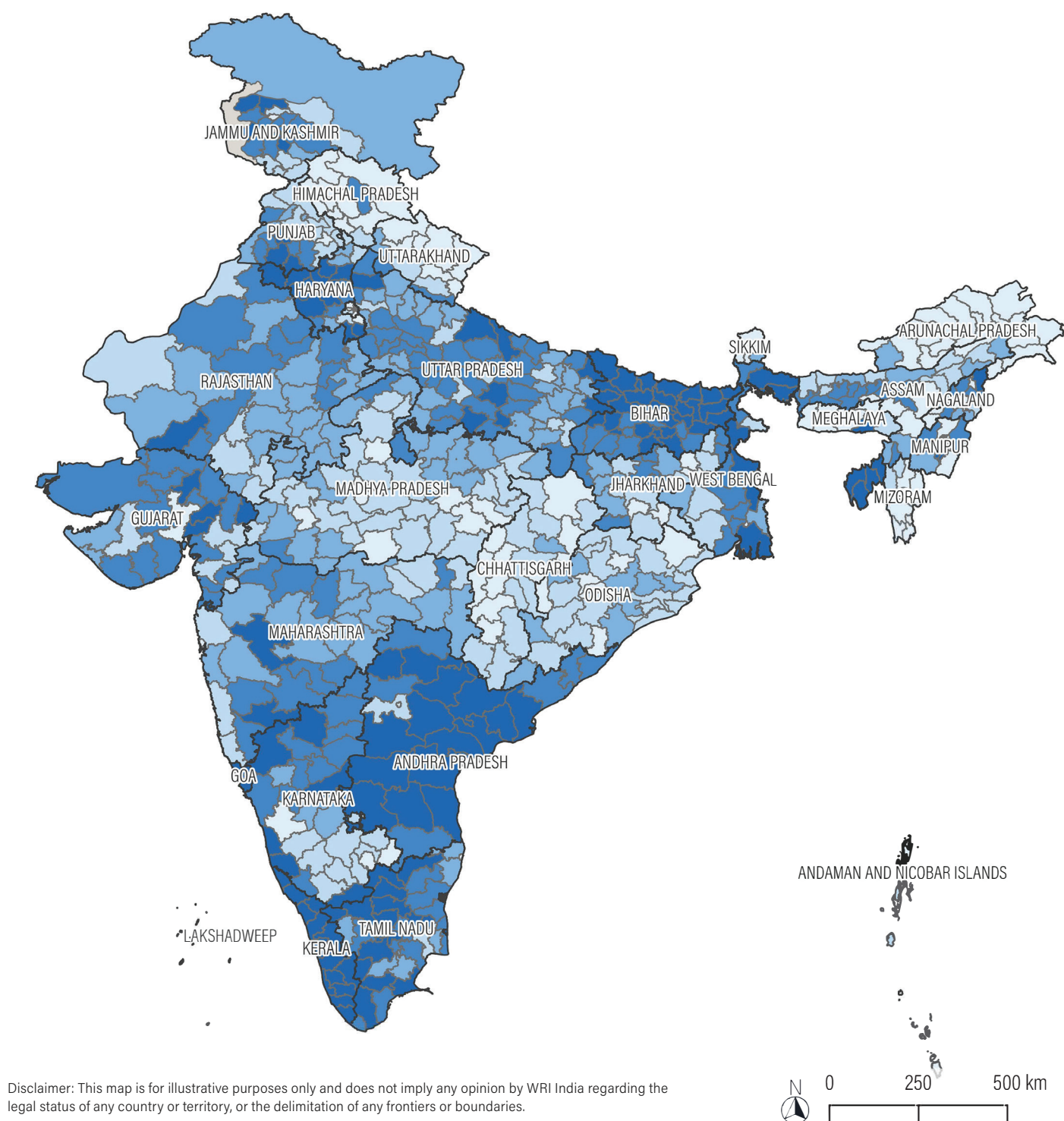
Chhattisgarh's Industrial Development Policy 2024–30 extends industrial infrastructure to backward areas through investment promotion and logistics integration, but does not address cluster-based settlement governance in mining- and industry-affected rural regions (Government of Chhattisgarh 2024). West Bengal's Industrial and Economic Corridor Policy 2023 adds corridor planning and environmental siting regulation – meaningful tools for managing industrial geography – but no governance framework for dispersed settlements spanning villages, CTs, and peri-urban territories (West Bengal Pollution Control Board 2024). Kerala's Bureau of Industrial Promotion comes closest to a functioning cluster-support ecosystem, coordinating diagnostics and enterprise development under MSE-CDP, but remains enterprise-oriented rather than settlement-oriented (Noufal and Ramachandran 2017).

KEY CHALLENGES:

Identification: Isolated clusters can be identified only through the analytically demanding process of combining proximity methodology, CT sub-type classifications, and SPMRM cluster records; no administrative category or inventory exists.

Governance: Every available instrument fails isolated clusters at the same point: it operates at the enterprise, settlement, or district level, never at the scale of the functional cluster region. Analytically, isolated clusters are not towns-in-waiting but a stable hybrid form of spatial organisation where agriculture, manufacturing, and services coexist, requiring instruments designed for multi-functional dispersed territories, not for either rural villages or nucleated STs.

Figure 28 | **Spatial concentration of isolated clusters across districts**



Notes: Location quotient = Ratio of the district's share of isolated cluster population in its total population to the corresponding national share; a value of greater than 1 means above-average concentration.

Source: Office of the Registrar General & Census Commissioner 2011a, 2011b; OpenStreetMap contributors n.d.

Table 5 | Governance instruments for isolated clusters- scope and gaps

INSTRUMENT	SCOPE	RELEVANCE TO ISOLATED CLUSTERS	GOVERNANCE MISMATCH AND GAP
Shyama Prasad Mukherji Rurban Mission (SPMRM) (2016–22) by Ministry of Rural Development (MoRD)	298 rurban clusters; Rs. 27,700 cr. approved; 39,554 of 75,999 works completed	First national recognition of cluster-based urbanisation outside metro areas	Infrastructure delivered; no statutory cluster governance body created; discontinued 2022
Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 by Ministry of Housing and Urban Affairs (MoHUA)	All statutory urban local bodies (ULBs); 500 priority cities for sewerage	Indirect benefit only if the cluster is already municipalised	Excludes villages, Gram Panchayat areas, and non-statutory settlements – the primary governance unit of most isolated clusters
Micro and Small Enterprises Cluster Development Programme (MSE-CDP) by Ministry of Micro, Small and Medium Enterprises (MSME)	Enterprise productivity, common facility centres, technology upgrading	Supports household industry clusters on enterprise side	Enterprise-oriented, not settlement-oriented; no integration with land use, housing, or environmental regulation
District Mineral Foundation (DMF)/Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) by Ministry of Mines	Welfare and mitigation in mining-affected districts	Can fund water, sanitation, health in mining settlements	Project-based, district-administered; authority split across mining depts., Gram Panchayats, DMF, CSR – no integrated spatial governance
Compensatory Afforestation Fund Management and Planning Authority (CAMPA) by Ministry of Environment, Forest and Climate Change (MoEFCC)	Ecological compensation for forest diversion	Afforestation and ecological restoration in mining regions	Not a settlement governance mechanism; no housing, drainage, or land-use mandate

Source: Comptroller & Auditor General of India 2025a; Ministry of Mines 2024; Ministry of MSME 2026; Ministry of Rural Development 2016; MoHUA 2021.

Discussion: Cross-typology synthesis

Identifiability, distinctiveness, and internal validity

The six typologies vary significantly in how easily they can be identified, and their characteristics – while analytically distinct – exhibit meaningful overlaps at their boundaries. Understanding both the distinctiveness and the overlap is essential to assessing the internal validity of the typological framework.

Distinctiveness and overlaps

The six typologies are analytically distinct across three dimensions: recognition basis (de jure, de facto, or spatially emergent), locational logic (peri-metropolitan, corridor-driven, or isolated), and governance pathway (direct municipalisation, boundary expansion, cluster consolidation, or SPV-led enclave management). Real-world settlements, however, frequently exhibit characteristics of multiple typologies. The analytically significant overlaps are:

CTs AND TSTs: The census-statutory distinction is the primary differentiator, but a CT notified as a Nagar Panchayat becomes a TST – the categories are sequential stages in recognition, not fundamentally different settlement types.

OGs AND PERI-URBAN METROPOLITAN AREAS: OGs are a formally recognised subset of peri-urban settlement – specifically those contiguous with an ST. The OG category is embedded within the larger metropolitan peri-urban population.

CORRIDOR ZONES AND NON-PROXIMATE CTs:

Many CTs within corridor regions are simultaneously non-proximate and potential elements of isolated urban clusters. The corridor-led category identifies the driver of transformation; the isolated cluster category identifies administrative position. A single settlement can belong to both frames depending on the research question.

Internal validity

These overlaps do not undermine the six-category framework, which is constructed across three dimensions simultaneously – recognition basis, locational logic, and governance pathway – so a settlement overlapping two categories will differ in at least one dimension. More importantly, policy implications remain distinct even where morphological overlaps exist: a CT in a peri-urban metro zone requires CT-to-ULB conversion combined with Metropolitan Planning Committee (MPC) integration; a CT in an isolated cluster requires a cluster-level governance instrument.

The framework is a governance-oriented analytical scaffold, not a mutually exclusive morphological classification.

Institutional arrangements and governance performance

Across the six typologies, a consistent pattern emerges: governance arrangements are systematically calibrated for the institutional form rather than for the functional reality of transitional settlements. Table 6 below synthesises the institutional arrangements and compares performance across planning, infrastructure provision, and service delivery.

Comparative analysis of conversion pathways

If governance arrangements are calibrated for institutional form rather than for functional reality (Table 6), the question is how settlements change institutional form at all. Municipalisation is not a single administrative act but an exercise of state power under Article 243Q. We find six distinct conversion pathways operating for TUAs:

- Boundary expansion (of existing ULBs)
- Direct statutory upgrade (settlement itself changes legal status, such as CT to ST)
- Jurisdictional restructuring (changes to the rules, such as the creation of development authorities and SPVs when the state legislates them into being)
- Consolidation/merger (by dissolving and combining two or more separate settlements into one new municipal council or corporation)
- Bottom-up peri-urban consolidation (when fast-growing peri-urban villages or clustered CTs, facing severe gaps in water, sanitation, and land regularisation, organise collectively – through joint village committees and interim planning instruments – to press the state for municipal status)
- OG absorption (by the parent town)

Table 6 | Institutional arrangements and governance performance across transitional urban typologies

CATEGORY	PRIMARY GOV. BODY	PLANNING	INFRASTRUCTURE PROVISION	SERVICE DELIVERY	OVERALL ASSESSMENT
Transitional Statutory Towns (TSTs)	Nagar Panchayats/state-equivalent bodies	Partial: land-use devolved in 20–21 states; sole urban local body (ULB) autonomy in 1 state (Jharkhand)	Weak: most infrastructure via parastatals; ULBs lack capital finance	Low: avg. 4 of 18 functions effectively devolved; parastatals perform 5	Weakest on capacity: constitutional recognition without functional capacity; structural capacity deficits
Census Towns (CTs)	Gram Panchayats (rural governance default)	No statutory master plan coverage, and uneven and ad hoc coverage in regional plans	Very weak: rural transfers only; no development charges, no ULB borrowing	Rural norms applied to urban-scale demand; solid waste, sewerage absent	Most acute paradox: statistically urban, institutionally rural; zero governance obligation on recognition
Outgrowths (OGs)	Parent ULB (post-merger) or gram panchayat (pre-merger)	Absorbed into the parent town's plan post-merger; no dedicated plan pre-merger	Systemic time lag post-merger; peripheral wards consistently under-served	Post-merger capacity does not scale automatically with boundary expansion	Conversion occurs but service delivery gap persists; institutionally dependent on parent town trajectory
Peri-Urban (Metropolitan)	Fragmented: Gram Panchayats, parastatal metro authorities, private developers	Metropolitan Planning Committees (MPCs) constitutionally mandated but non-functional in most states; URDPFI proposals are unimplemented	Trunk infrastructure via parastatals; last-mile absent; Gram Panchayats underfinanced	Fastest-growing zones governed by institutions designed for static agrarian settlements	Governance gap structurally produced; best state responses (Odisha, Rajasthan) not yet national
Corridor-Led Zones	Special Purpose Vehicles (SPVs), development authorities, ULBs, Gram Panchayats (concurrent, uncoordinated)	Development authorities have master plan powers; Gram Panchayats have none; three distinct pathways identified	Strong within SPV enclave; negligible in transitional hinterland; sharp spatial divide	Industrial employment is growing fastest where governance is weakest (periphery > core in emerging corridors)	Counter-intuitive inversion: economic dynamism highest, governance capacity lowest; pathway-dependent outcomes
Isolated Urban Clusters	Gram Panchayats (default); no cluster-level statutory body exists	No instrument operates at functional cluster-region scale; enterprise vs. settlement mismatch	SPMRM delivered infrastructure without statutory authority; discontinued in 2022; no successor	Five national instruments each address a fragment of the problem; no integrated governance framework	Most invisible: no administrative category; stable hybrid form mis-treated as transitional stage awaiting urbanisation

Note: SPMRM = Shyama Prasad Mukherji Rurban Mission. URDPFI = Urban and Regional Development Plans Formulation and Implementation.

Source: Authors' compilation from Census of India 2011 data tables, Ministry of Panchayati Raj 2026, CAG (Comptroller & Auditor General of India) audit reports, state municipal acts, and policy documents cited in the text.

Figure 29 maps these pathways against the six typologies, revealing three patterns. First, each typology's institutional deficit is produced by the pathway architecture available to it: TSTs carry a capacity deficit because direct statutory upgrade (B) by notification confers urban status without devolving functions or finance; CTs face a recognition deficit because no pathway operates automatically on statistical urban status; OGs remain dependent because absorption (F) by the parent town is their only viable route; peri-urban settlements suffer coordination failures because several routes operate concurrently with no institution coordinating them; corridor settlements are fragmented because jurisdictional restructuring (C) layers SPVs and industrial townships over existing authorities rather than replacing them; and isolated clusters are invisible because no pathway reaches them at all. Second, how many pathways a settlement can use depends on how close it is to an existing ULB, not on how urban it is: the settlements furthest from statutory structures have the fewest routes to recognition. Third, transitions unfold over time rather than in one step, and movement can reverse, with some STs declassified back to rural status. Odisha's and Rajasthan's frameworks essentially formalise Pathways B and E; Hyderabad's partial success combines A, D, and F under coordinated metropolitan direction.

Recommendations

The analysis presented in this paper points to a structural governance deficit that no single ministry, mission, or classificatory reform can resolve in isolation. If institutional deficits are produced by pathway design, they can be corrected by pathway reform – which is precisely what the Odisha and Rajasthan frameworks attempt at the state level. Scaling this logic nationally requires coordinated action across recognition, devolution, infrastructure investment, and inter-ministerial coordination – spanning ORGI, MoHUA, the Ministry of Panchayati Raj, and future national urban missions at the very least. Table 7 sets out seven recommendations, the core action each entails, and the actors responsible for implementation; see Appendix H for detailed explanations.

Figure 29 | **Typology-pathway matrix for municipalisation of transitional urban areas (TUAs)**

TUA categories Institutional deficit	Municipalisation Pathways					
	A Boundary expansion	B Direct statutory upgrade	C Jurisdictional restructuring	D Consolidation / merger	E Bottom-up peri-urban consolidation	F Outgrowth absorption
Transitional statutory towns Capacity deficit	○	●	●	○		○
Census towns Recognition deficit	●	○	○	○	●	—
Outgrowths Duplication deficit	●	—	○	○	—	●
Peri-urban (metropolitan) Coordination deficit	●	○	●	○	●	○
Corridor-led settlements Fragmentation deficit	○	○	●	○	○	—
Isolated urban clusters Invisibility deficit	—	○	○	—	○	

● Commonly operative ○ Conditional/rare — Not applicable

Source: Authors' analysis.

Table 7 | **Institutional arrangements and governance performance across transitional urban typologies**

RECOMMENDATION	CORE ACTION	RESPONSIBLE ACTOR
National Framework for Transitional Area Recognition	Mandate common minimum identification criteria; create dedicated pre-transition financing window; condition 16th FC Urbanisation Premium on state transition inventories	MoHUA; Government of India
New Census category for transitional areas	Introduce 'Transitional Urban Area'/Periurban Zone/Functional Urban Area' as an explicit Census category; adopt DEGURBA methodology beyond the current three-criterion CT definition	ORGI; Census of India; independent Central Urban Data Agency under MoHUA
Inter-ministerial coordination mechanism	Establish dedicated MoHUA–Ministry of Panchayati Raj mechanism for policy coherence; develop expedited municipalisation track with pre-notification infrastructure commitments	MoHUA; Ministry of Panchayati Raj
Capacity-linked devolution for transitional settlement tiers	Mandate ULB capacity assessments at reclassification; require two-year transition plans for function transfer and fiscal calibration; replace uniform devolution with size-sensitive frameworks	Ministry of Panchayati Raj; state governments
Corridor municipalisation timelines	Require municipalisation timelines and hinterland governance plans in all SPV-led corridor development frameworks	Ministry of Commerce and Industry; NICDC
Cluster-level governance for isolated urban clusters	Constitute statutory cluster governance body as SPMRM successor, with integrated planning authority across land use, environment, housing, and infrastructure at cluster-region scale through Metropolitan Development Plans (when clusters lie in influence zones) and District Structure Plans (when clusters lie beyond metropolitan jurisdictions).	MoHUA; MoRD; Ministry of MSME, MoEFCC, Ministry of Mines
Inclusion of TUAs in a National Urbanisation Mission focusing on the rural–urban continuum	Design dedicated fiscal windows, technical assistance streams, and monitoring frameworks for each transitional area typology, prioritising settlements with overlapping typology characteristics.	MoHUA

Source: Authors' compilation from Census of India 2011 data tables, Ministry of Panchayati Raj 2026, CAG (Comptroller & Auditor General of India) audit reports, state municipal acts, and policy documents cited in the text.

Appendix A. Methodology

The paper adopts a mixed-methods approach, combining quantitative analysis of Census and administrative data with qualitative institutional analysis of policy documents, governance frameworks, and state-level legislation. The analysis is organised around six typologies of transitional areas: three officially recognised and three spatially determined. For each typology, the paper addresses both research questions: characterising settlement type and assessing governance adequacy. The detailed methodology of each category is presented in Appendices A1–A6.

Data

Primary quantitative data are drawn from the Census of India 2011 (settlement classification, demographic, and economic tables); the Local Government Directory (LGD) 2025 (rural-to-urban conversions and ULB status changes 2013–25); Annual Survey of Industries (ASI) data for 2013–14 and 2023–24 (firms and employment in corridor regions); and the NICDC/ NICDP documentation for industrial corridor boundaries. The Socioeconomic High-resolution Rural–Urban Geographic Platform for India (SHRUG) and OpenStreetMap (OSM) are our primary sources of town and village boundaries and polygons; both are open access repositories containing multiple datasets. SHRUG provides, among other geospatial data, a set of town, village, sub-district, district, and state boundaries based on the 2011 Census. As with all spatial data mapping granular boundaries (particularly villages) in India, these datasets also suffer from limitations and certain inaccuracies – village and town boundaries in SHRUG, for example, may have a measurement error of up to 1 km.

The LGD datasets, compiled and published by the Ministry of Panchayati Raj, provide the most recent list of rural and urban local bodies along with their administrative status. This enables us to track the latest number of ULBs in India, rural-to-urban conversions, and administrative changes after the 2011 Census, making it the most updated repository of information regarding rural and urban local bodies. Further, policy analysis covers national frameworks (74th CAA, URDPFI, RADPFI, NICDP, JNNURM, AMRUT) and state-level legislation and policies across 28 states and union territories. State municipal acts were reviewed systematically to assess transitional statutory town (TST) recognition and functional devolution.

The Degree of Urbanisation (DEGURBA) methodology – developed jointly by the European Union, FAO, ILO, OECD, UN-Habitat, and the World Bank – classifies territory using 1 km² population grids into urban centres, dense clusters, semi-dense clusters, suburban or peri-urban cells, and rural areas, independent of administrative boundaries.

For the analysis of peri-urban transitional areas, the paper draws additionally on the DEGURBA Level 2 classification applied to India, using the Global Human Settlement Layer (GHSL) population grids (see Figure A). DEGURBA classifies each 1 km² cell into one of seven categories – urban centre, dense urban cluster, semi-dense urban cluster, suburban or peri-urban area, rural cluster, low-density rural area, and very low-density rural area – based on population-density thresholds and spatial-contiguity rules.

Under DEGURBA, there are seven categories as explained below.

Urban centre: Contiguous grid cells with a density of at least 1,500 inhabitants per square kilometre and a collective population of at least 50,000.

Dense urban cluster: Contiguous grid cells with a density of at least 1,500 inhabitants per square kilometre and a collective population of at least 5,000 and less than 50,000.

Semi-dense urban cluster: Contiguous grid cells with a density of at least 300 inhabitants per square kilometre and a collective population of at least 5,000; this cluster is neither contiguous with nor within 2 km of a dense urban cluster or an urban centre.

Suburban or peri-urban: Remaining urban cluster cells, those not part of a dense or semi-dense urban cluster; part of an urban cluster that is contiguous or within 2 km of a dense urban cluster or an urban centre.

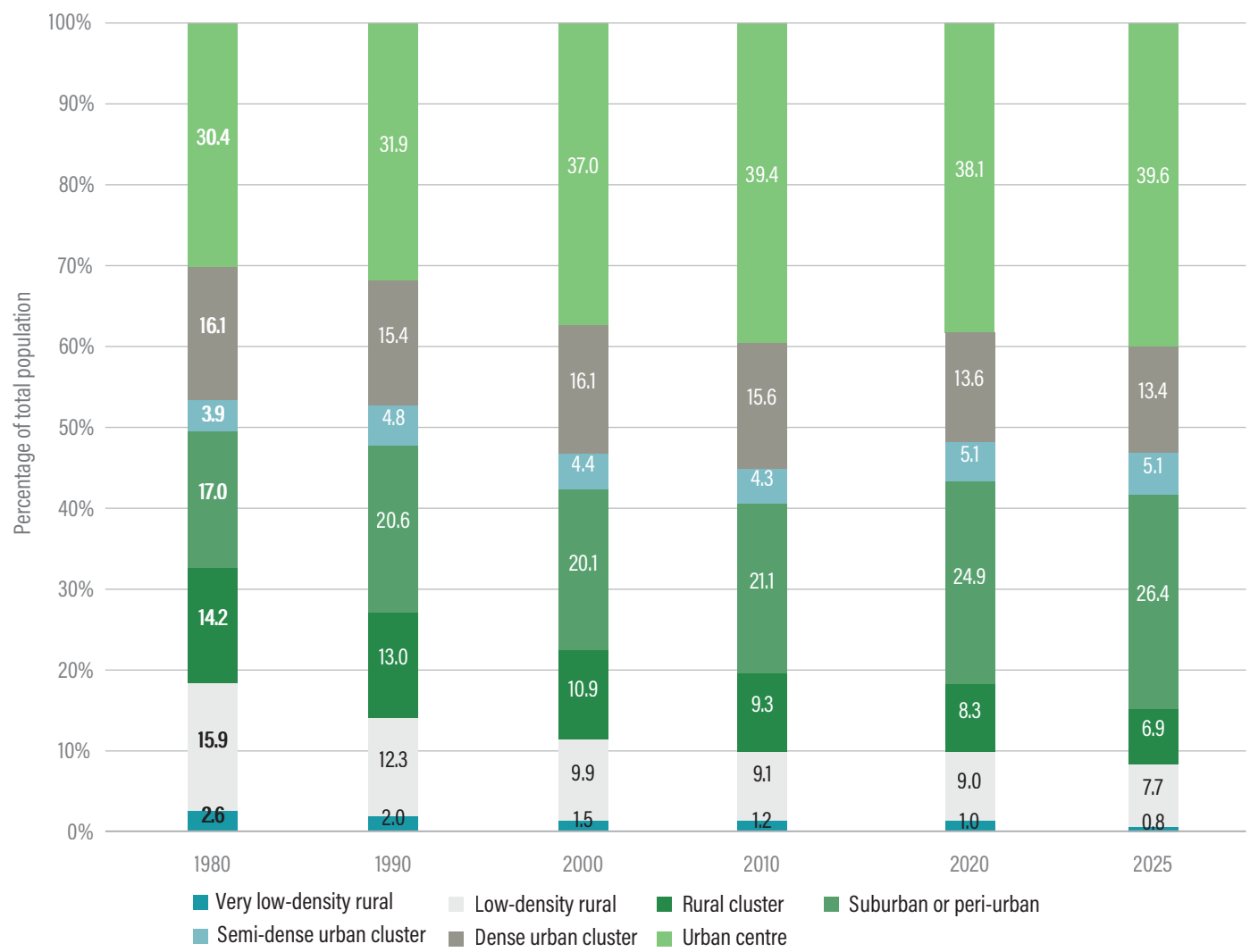
Rural cluster: Contiguous grid cells with a density of at least 300 inhabitants per square kilometre and a collective population between 500 and 4,999.

Low-density rural: Rural grid cells with a density of at least 50 inhabitants per square kilometre and are not part of a rural cluster.

Very low-density rural: Rural grid cells with a density of less than 50 inhabitants square kilometre.

This paper uses the aggregate of the suburban or peri-urban cluster and the semi-dense urban cluster categories as a proxy for peri-urban transitional settlements given the low density thresholds that DEGURBA prescribes. State-by-state DEGURBA suburban cluster population estimates for 2010 and 2025 are computed and used to establish the geographic distribution and scale of peri-urbanisation, independent of Census administrative classifications. This extends the analytical window to 2025, partially compensating for the absence of a 2021 Census baseline.

Figure A | Expanding peri-urban growth in India based on DEGURBA



Source: European Commission et al. 2021; Schiavina et al. 2026.

Analytical framework

The typological framework developed in this paper distinguishes transitional areas across three dimensions: the basis of recognition – officially recognised as de jure (statutorily defined) versus de facto (Census-identified), and spatially emergent as de facto urban areas; locational logic – peri-metropolitan, corridor-driven, or isolated; and governance pathway – direct municipalisation, boundary expansion, cluster consolidation, or Special Purpose Vehicle (SPV)-led enclave management.

A key methodological insight running through the paper is the distinction between three registers of urbanisation that do not necessarily align: administrative urbanisation, measured through LGD reclassification data; economic urbanisation, measured through ASI firm and employment data; and morphological urbanisation, measured through DEGURBA suburban cluster classifications. For officially recognised typologies (TSTs, CTs, OGs), the paper primarily uses Census 2011 and LGD 2025 data to measure the pace and pattern of administrative recognition. For the corridor typology, ASI data is layered onto LGD reclassification to reveal the gap between economic and administrative change. For the peri-urban metropolitan typology, DEGURBA suburban cluster data provide the primary quantitative framework, establishing the morphological extent of peri-urbanisation against which governance adequacy – measured through Census and policy analyses – is assessed.

Limitations

The following are some of the paper's limitations:

- Its primary baseline – the 2011 Census – is more than a decade removed from current settlement patterns, and the absence of a 2021 Census leaves significant data gaps.
- The use-case approach prioritises depth over representativeness, meaning findings from selected corridor nodes and metropolitan regions may not generalise across India's full diversity of transitional contexts. Primary fieldwork data on service delivery outcomes, institutional interactions, and resident experiences have not been collected for this paper.
- Official policy documents may underreport informal governance realities, though this is partially addressed by drawing on academic literature. DEGURBA, which has been used to understand the extent of peri-urbanisation, applies a uniform global grid methodology that may not capture the heterogeneity of Indian settlement patterns at fine spatial scales. The 1 km² grid cell is the unit of classification; settlement boundaries within those cells are not directly represented. The comparison between DEGURBA and Census classifications is therefore approximate.
- The Economic Census 2012–13 data on manufacturing workforce shares has not been updated with more recent rounds. This figure is treated as indicative of the structural economic character of CTs rather than as a current quantitative claim.

- Municipalisation rates by spatial type and ULB category are constructed by cross-referencing Census 2011 CT lists against LGD 2025 ULB records. This cross-referencing exercise involves matching settlement names across databases with inconsistent romanisation, and a small number of cases may be misclassified. Where ambiguity exists, the more conservative estimate is reported.

To partially offset these limitations, the paper supplements Census data with the Local Government Directory (updated to 2025) and ASI data through 2023–24. Multi-source triangulation – combining Census, administrative, economic, and policy sources – reduces dependence on any single dataset, while the inclusion of recent state-level policy experiments in Odisha, Rajasthan, and Kerala captures institutional developments beyond the Census baseline.

Appendix A-1. Transitional statutory towns

Overview

The identification of transitional statutory towns (TSTs) in 2011 is fundamentally a legal and administrative inference exercise rather than a spatial or demographic one. Unlike OGs, which are directly listed in the Census, or corridor areas, which are identified through spatial buffers, TSTs cannot be read from any single source. They must be reconstructed by cross-referencing state legislation against Census ULB nomenclature, then resolving ambiguous categories case by case. Step 4 in the flowchart (resolving ambiguous ULB types) is analytically central and methodologically demanding; it is where the bulk of the identification work sits.

Identification and classification (RQ1)

Legal and constitutional basis

Article 243Q of the 74th Constitutional Amendment Act (1992) provides the constitutional mandate for Nagar Panchayats as the institutional form for transitional areas. State Municipal Acts across all 28 states and union territories are the primary legislative sources for RQ1, reviewed systematically to extract criteria, nomenclature, and procedures for TST recognition.

Data sources

- Census of India 2011: Baseline count of all STs disaggregated by ULB category for each state, listing over 21 distinct ULB types (ORGI 2011a)
- Local Government Directory (LGD) 2025: Updated count of ULBs by state and category, enabling comparison over the 2011–25 period (Ministry of Panchayati Raj 2026)
- ORGI 2011a and 2011b: Definitional metadata against which ULB categories are assessed
- State government gazette notifications and municipal reorganisation orders: Verification of specific instances of ULB creation, upgrading, downgrading, and reclassification

Governance analysis (RQ2)

Devolution and functional analysis

The core analytical move of RQ2 is the distinction between formal devolution (what states have assigned on paper) and actual jurisdiction (what ULBs can actually do) – the engine that drives the finding of horizontal uniformity in law but vertical inequality in practice.

Data sources

- CAG Compendium of Performance Audits on the Implementation of the 74th CAA (2024, Volume I): National-level synthesis of functional devolution across 18 states (Comptroller & Auditor General of India 2024a)
- State-specific CAG performance audit reports (23 states, 2016–25): Granular data on devolved functions and ULBs exercising sole jurisdiction in practice; basis for the three-way categorisation of functions.

Key analytical distinctions

- Formal devolution vs. actual jurisdiction: What states have assigned on paper versus what ULBs can exercise in practice
- Legacy and civic functions vs. core shared services vs. strategic retained functions: The three-way categorisation that structures the functional analysis

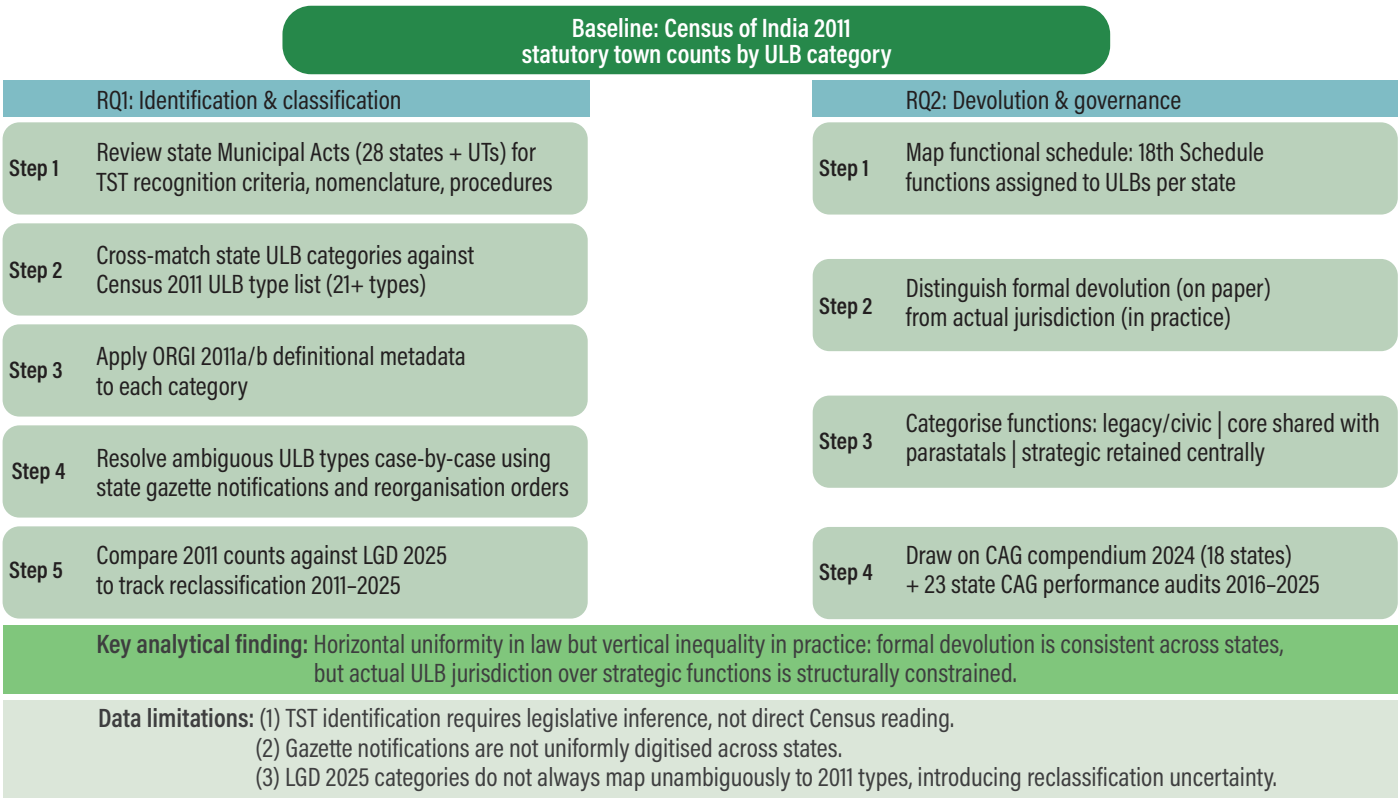
Key analytical findings

Formal devolution of functions to ULBs is broadly uniform across states at the legislative level. However, actual jurisdiction over strategic functions – spatial planning, land development, infrastructure investment – remains with parastatal agencies in most states, producing horizontal uniformity in law but vertical inequality in practice.

Data limitations and caveats

- TST identification requires legislative inference, not direct Census reading; it cannot be determined by any single authoritative source.
- Gazette notifications are not uniformly digitised across states, introducing completeness risks in the reconstruction exercise.
- LGD 2025 categories do not always map unambiguously to 2011 ULB type designations, introducing reclassification uncertainty in the 2011–25 comparison.

Figure A-1 | Methodology for analysing transitional statutory towns



Source: Authors.

Appendix A-2. Census towns

Overview

The methodological challenge of census towns (CTs) is not one of identification – CT status is determined by the Census and published directly – but of characterisation and governance analysis. Because CTs are constituted as a residual category (settlements that satisfy urban criteria but have not been notified as STs), the analytical work lies in explaining what CTs are, how they are distributed, how they are governed, and what policy interventions have been attempted.

Identification and classification (RQ1)

Definition and Census source

The primary data source is the Census of India 2011, specifically the Primary Census Abstract (ORGI 2011a) and town-level tables, which list all 3,892 CTs with their parent district, population, workforce composition, and infrastructure amenities. The 2001 Census recorded 1,362 CTs; the decade-on-decade increase of 2,530 settlements makes 2011 the key analytical baseline.

Spatial classification

The spatial classification of CTs – into proximate and non-proximate types – follows Roy and Pradhan (2018), whose spatial typology is the most methodologically systematic available in the literature. Proximate CTs are those that fall within specific distance buffers of large STs (100,000 or more in population). Other CTs that fall beyond these buffers are non-proximate CTs. The distance buffers are graduated in nature, with reference to the core ST size: 25 km for cities with more than 4 million population, 20 km for 1–4 million, 15 km for 0.5–1 million and 10 km for 0.1–0.5 million. A ± 5 percent robustness check for each of the distance buffers is performed.

Service delivery baseline

Infrastructure and service data – water supply, sanitation, sewerage, drainage, and solid waste – are drawn from the Census of India 2011 household amenities tables, disaggregated by settlement type, covering seven settlement categories from metropolitan STs (population above 4 million) down to villages above 4,000.

Governance analysis (RQ2)

Municipalisation tracking

Changes in CT status between 2011 and 2024–25 are tracked through the Local Government Directory (LGD) 2025 (Ministry of Panchayati Raj 2026), cross-referenced against state government gazette notifications and municipal reorganisation orders. Spatial classification of municipalised CTs by ULB type follows the LGD taxonomy.

Metropolitan governance model

The analysis of metropolitan parastatal governance (Model 2) draws on the GHMC boundary merger episode in Telangana as a case study of citizen resistance to municipalisation. The primary documentary source is the Governor of Telangana (2019), supplemented by contemporaneous press reporting.

In-situ development schemes

The analysis of in-situ development (Model 3) draws on official scheme documentation for PURA (2009) and the Shyama Prasad Mukherjee Rurban Mission (SPMRM), covering 300 clusters and 2,840 Gram Panchayats with convergence performance exceeding 75 percent (subsequently discontinued). Central scheme documents for JNNURM and AMRUT are reviewed for their coverage of CT-equivalent areas.

Key analytical distinctions

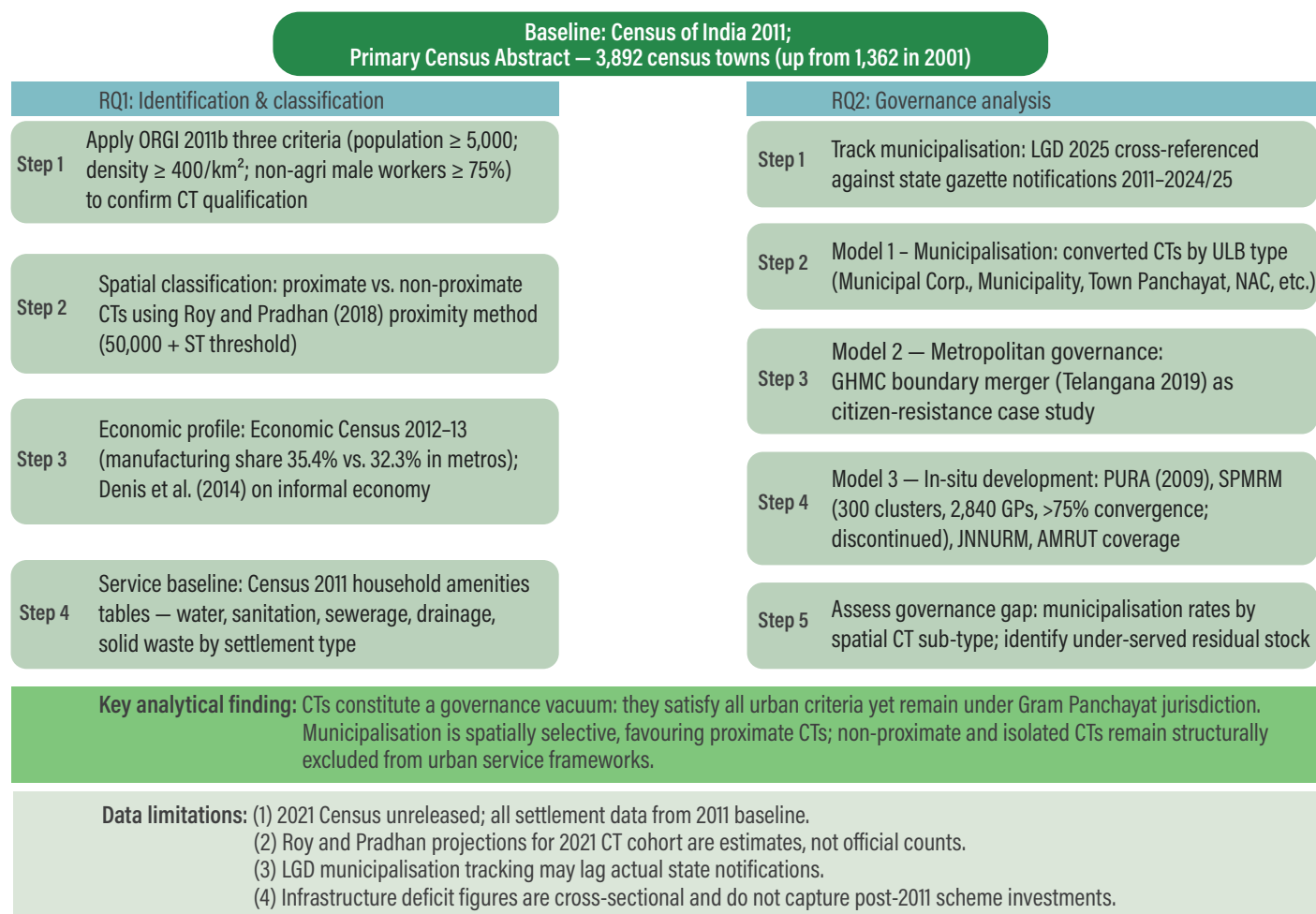
- Proximate vs. non-proximate CTs: Proximity to large STs determines access to spillover governance arrangements, infrastructure investment, and eventual municipalisation.
- Municipalisation vs. in-situ development: The two principal policy pathways represent fundamentally different theories of change regarding CTs' urban futures.

Key analytical findings

CTs constitute a governance vacuum: they meet all three urban criteria yet remain under the jurisdiction of Gram Panchayats. Municipalisation is spatially selective, favouring proximate CTs near large STs; non-proximate and isolated CTs remain structurally excluded from urban service frameworks and central urban scheme coverage.

Data limitations and caveats

- The 2021 Census has not been released; all settlement-level data are from 2011.
- Roy and Pradhan's 2021 CT cohort projections are estimated values rather than official Census figures.
- LGD municipalisation tracking may lag actual state notifications.
- Infrastructure deficit figures are cross-sectional and do not capture post-2011 scheme investments.

Figure A-2 | **Methodology for analysing census towns**

Source: Authors.

Appendix A-3. Outgrowths

Overview

Outgrowths are settlements contiguous to a parent statutory town that exhibit urban-like infrastructure. They are directly listed in the Census, making identification straightforward. The methodological challenge lies in tracking conversion status, assessing post-conversion service delivery outcomes, and evaluating state-level policy innovations for managing the transition.

Identification and classification (RQ1)

Definition and Census source

The primary data source is the Census of India 2011, specifically the Primary Census Abstract and town-level tables, which list all 980 outgrowths with their parent town, population, workforce composition, and infrastructure amenities. The ORGI 2011 metadata document provides the definitional basis – the two qualifying criteria of physical contiguity and urban-like infrastructure.

Data Sources

- Census of India 2011 (ORGI 2011a): State-by-state distribution and breakdown by parent town class.

Governance analysis (RQ2)

Conversion tracking

Changes in outgrowth status between 2013–14 and 2024–25 are tracked through the Local Government Directory (LGD) 2025, cross-referenced against state government gazette notifications and municipal reorganisation orders. The Telangana Municipalities Act 2019, GHMC boundary notifications for 2020–21 and 2024–25, and Gujarat Municipal Corporation expansion orders of 2020 are the principal documentary sources for the case study analysis.

Post-conversion service delivery

The assessment of post-conversion service delivery gaps draws on peer-reviewed literature: Sharma and Mitra (2024) on municipal finance and peri-urban infrastructure disparities, Valase (2024) on water supply in newly incorporated wards, and Sidique (2026) on governance challenges in non-metropolitan peri-urban areas. Central scheme documents for JNNURM and AMRUT are reviewed for their coverage of outgrowth-equivalent areas.

State policy review

- Odisha Rural–Urban Transition Policy (2023): Published in the Odisha Gazette
- Rajasthan Rural–Urban Transition Bill (2023) and accompanying Support Scheme (2023–2027): Analysed through the IIHS policy study
- Kerala Urban Policy Commission Report (2025)

Key analytical distinctions

- Conversion vs. capacitation: Incorporation into a ULB does not automatically produce adequate service delivery if the expanded ULB lacks fiscal resources and technical capacity.
- Metropolitan vs. non-metropolitan outgrowths: Conversion trajectories differ substantially by parent town size and state.

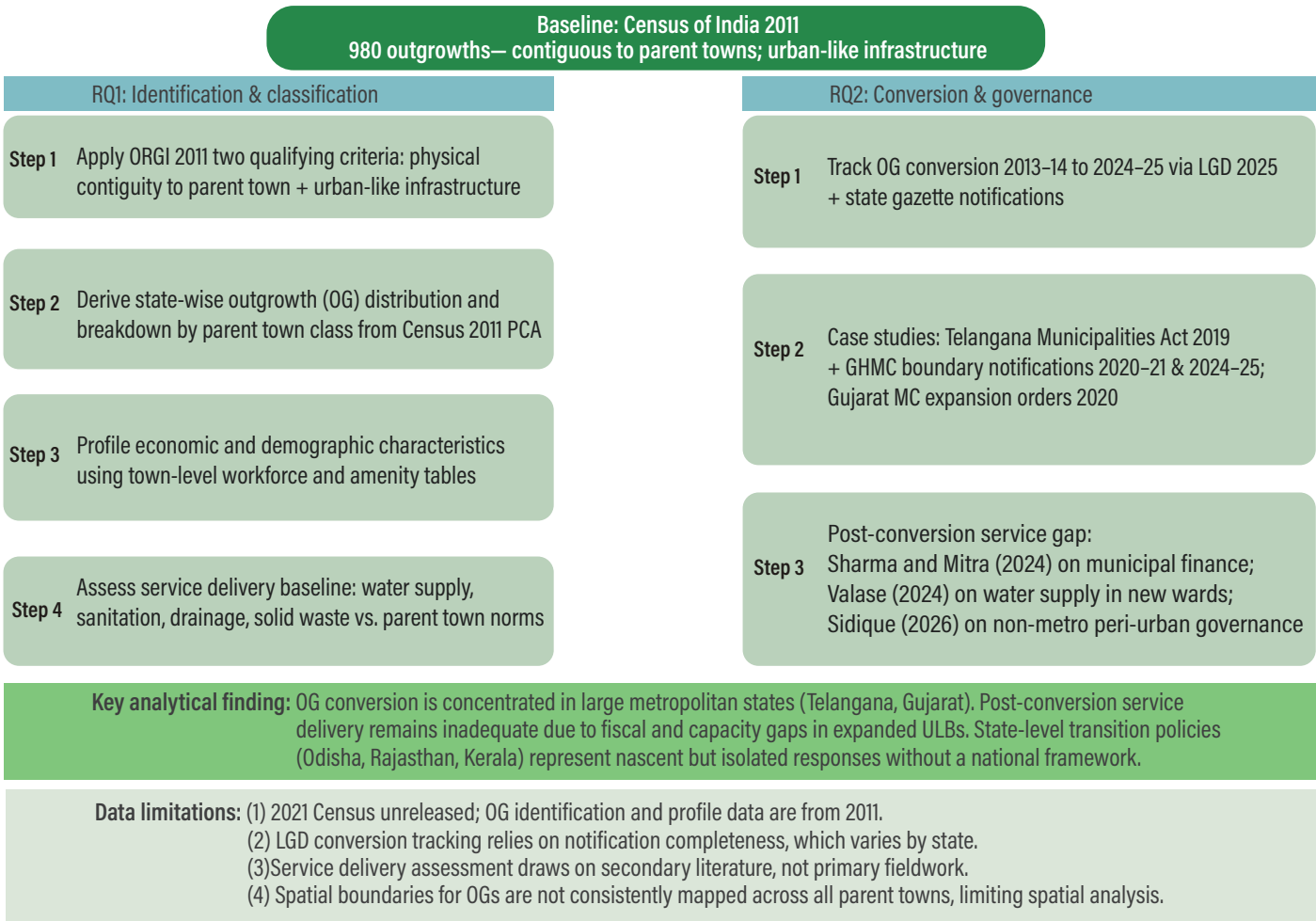
Key analytical findings

Outgrowth conversion is geographically concentrated in large metropolitan states (Telangana, Gujarat). Post-conversion service delivery remains inadequate due to fiscal and capacity gaps in expanded ULBs. State-level transition policies represent nascent but isolated responses in the absence of a national policy framework for outgrowth governance.

Data limitations and caveats

- The 2021 Census has not been released; outgrowth identification and profile data are from 2011.
- LGD conversion tracking relies on notification completeness, which varies by state.
- Service delivery assessment draws on secondary literature rather than primary fieldwork.
- Spatial boundaries for outgrowths are not consistently mapped across all parent towns, limiting systematic spatial analysis.

Figure A-3 | Methodology for analysing outgrowths



Source: Authors.

Appendix A-4. Peri-urban areas influenced by metropolitan growth

Overview

The methodological challenge for this category is one of spatial delineation and comparative gradient analysis: identifying how far metropolitan influence extends, how it varies across economic, infrastructural, and morphological dimensions, and how far administrative recognition keeps pace with functional transformation. There is no official Indian Census definition of a peri-urban area; the methodology adopts two complementary approaches for delineation.

Identification and classification (RQ1)

Defining the peri-urban zone

The first approach applies the Pradhan (2013) distance-buffer method: a 25 km buffer around metropolitan cities with populations above 4 million, and a 20 km buffer for those below 4 million, subdivided into 5 km concentric buffers based on straight-line distance between each settlement's centroid and the municipal boundary of the core metropolitan city. The second approach applies the UN Degree of Urbanisation (DEGURBA) methodology (European Commission et al. 2021), which classifies 1 km² population grid cells into urban centres, dense urban clusters, semi-dense urban clusters, suburban or peri-urban cells, and rural areas; this is initially done independently of administrative boundaries which are subsequently overlaid on the population grid to get DEGURBA classification for each administrative unit.

National-scale characterisation

The national baseline uses DEGURBA 2010 and 2025 data to establish the scale and distribution of suburban and peri-urban population across all states. Cross-referencing with Census 2011 CT and OG counts yields the correlation between peri-urban population magnitude and official recognition (CTs: $r = 0.54$; OGs: $r = 0.36$).

Occupational gradient and infrastructure analysis

- Occupational gradient: Census 2011 village- and town-level workforce data – proportion of male main workers in non-agricultural employment, disaggregated by distance buffers. Computed separately for large villages ($\geq 4,000$ population), smaller villages ($< 4,000$), and towns, and separately for the two case-study cities;
- Infrastructure profiling: Census 2011 HL-14 household amenities tables for each relevant district with information at the settlement level – piped sewer access, closed drainage, sanitation type, and motorised two-wheeler ownership across buffer rings.

Governance analysis (RQ2)

National policy framework

- URDPFI Guidelines 2014/2015 revision (MoUD 2015): Four-tier core-area planning, transit-oriented development, affordable housing, and regional integration for transitional settlements.
- 16th Finance Commission report (Joshi 2026): Urbanisation Premium – a one-time grant of approximately Rs. 10,000 crore for peri-urban village mergers into adjoining ULBs and state rural-urban transition policies.

Case study 1: Patna

Patna is selected as the case study for the low-recognition, high-peri-urban-population pattern: Bihar is the only state combining above-average peri-urban population with below-average CT and OG counts. Sources: Patna Master Plan 2031 (TCPO, Bihar 2016), Census 2011 amenities and occupation data tables.

Case study 2: GHMC/Hyderabad

Hyderabad is selected as the case study for the high-recognition, proactive-merger pattern. Sources: Chakraborty (2021); Hyderabad Metropolitan Development Plan 2031 (HMDA 2013); Kennedy (2007); Mitra (2018); Naveen (2021); Telangana Municipalities Act 2019 and GHMC boundary notifications 2020–21 and 2024–25; merger of 27 peripheral ULBs within the ORR (2025);

Key analytical distinctions

- Morphological vs. administrative urbanisation: Divergence between DEGURBA classification and Census administrative classification at each buffer ring defines the recognition gap.
- Gradient vs. threshold metropolitan influence: Hyderabad shows monotonic decline in non-farm workforce share with distance; Patna shows a sharp fall within 10 km followed by a plateau.
- Incorporation vs. capacitation: Administrative merger does not automatically produce service delivery improvement when institutional fragmentation persists.

Key analytical findings

Metropolitan influence operates as a continuous gradient (Hyderabad) or threshold effect (Patna). In both cases, morphological urbanisation outpaces administrative recognition. Proactive merger reduces the administrative recognition gap but does not close the service delivery gap because institutional fragmentation and capacity constraints persist post-incorporation.

Data limitations and caveats

- The 2021 Census has not been released; occupational and amenity gradient data are from 2011.
- DEURBA's 1 km² grid cell may not capture the heterogeneity of Indian settlement patterns at fine spatial scales; the DEURBA–Census comparison is therefore approximate.
- Governance analysis relies primarily on policy documents, academic literature, and secondary sources; no primary fieldwork on service delivery outcomes was conducted for this paper.

Figure A-4 | **Methodology for analysing peri-urban areas influenced by metropolitan growth**

Baseline: DEURBA 2010 & 2025 (1 km ² grid) + Census of India 2011 delineation: 25 km buffer (metros > 4M pop.); 20 km buffer (metros < 4M), subdivided into 5 km concentric rings	
RQ1: Identification & classification	RQ2: Governance & policy
Step 1 National baseline: DEURBA 2010 & 2025 — state-wise peri-urban population, share, and AEGR; cross-reference with CT and OG counts (CTs: $r = 0.54$; OGs: $r = 0.36$)	Step 1 National policy: URDPFI Guidelines 2014/2015 (four-tier core-area planning, TOD, regional integration); 16th Finance Commission Urbanisation Premium – Rs. 10,000 crore (Joshi 2026)
Step 2 Occupational gradient: Census 2011 village/town non-agri male worker share by 5 km buffer for Patna and GHMC/Hyderabad (large villages $\geq 4,000$; small villages < 4,000; towns)	Step 2 Case Study 1 — Patna: Patna Master Plan 2031 (multi-nuclei, TOD, urban agriculture); Bihar DPC arrangements; absence of state peri-urban policy as analytical finding
Step 3 Infrastructure profiling: Census 2011 HL-14 amenity tables — piped sewer, drainage, sanitation type, motorised two-wheeler ownership across buffer rings	Step 3 Case Study 2 — Hyderabad: Hyderabad Metropolitan Dev. Plan 2031 (radial- concentric, Peri-Urban Use Zone); Telangana Municipalities Act 2019; GHMC boundary mergers 2020–21 & 2024–25; 2025 merger of 2 peripheral ULBs
Step 4 Morphological classification: DEURBA settlement categories (urban centre, dense cluster, semi-dense, suburban/peri-urban, rural) by buffer ring, compared against Census administrative class	Step 4 Comparative assessment: Spatial reach of planning authority; pace of incorporation vs. morphological change; institutional coherence; service delivery in incorporated vs. non-incorporated settlements
Step 5 Conversion trajectory: DEURBA 2010–2025 morphological transitions vs. LGD 2025 administrative conversions 2013–14 to 2024–25 per buffer ring	Step 5 Governance finding: Proactive merger (Hyderabad) reduces administrative recognition gap but does not close service delivery gap due to institutional fragmentation post-incorporation
Key analytical finding: Metropolitan influence operates as a continuous gradient (Hyderabad) or threshold effect (Patna). In both cases, morphological urbanisation outpaces administrative recognition. Incorporation without capacitation (Hyderabad) leaves service gaps intact; non-incorporation (Patna) creates a stagnant under-served belt 10–20 km from the core.	
Data limitations: Data limitations: (1) 2021 Census unreleased; occupational and amenity gradients based on 2011 data. (2) DEURBA 1 km ² grid may not capture fine-grained Indian settlement heterogeneity. (3) DEURBA–Census administrative comparison is approximate due to grid vs. boundary unit mismatch. (4) Governance analysis relies on policy documents and secondary literature; no primary fieldwork on service delivery outcomes.	

Source: Authors.

Appendix A-5. Corridor-led transitional zones

Overview

Corridor-led transitional zones are identified through a two-criteria approach that combines settlement transition indicators with spatial association to corridor alignments. The two-criteria identification is the methodological heart of this typology, distinguishing settlements whose transformation is linked to corridor and node development from those undergoing general rural-to-urban transition.

Identification and classification (RQ1)

Two-criteria identification

- Criteria A – Settlement characteristics: Emergence of CTs, conversion of villages to ULBs, and expansion of peri-urban settlements in and around corridor alignments.
- Criteria B – Spatial association: Location within defined buffers around corridor alignments and nodes (DMIC planned influence area, Dholera SIR notified area, Tumakuru IA hinterland).

Recognition gap and economic gradient

- Recognition gap: Village-level Census criteria data – villages satisfying all three urban criteria (population $\geq 5,000$; density ≥ 400 per sq. km; male non-agricultural workforce ≥ 75 percent) remaining governed as rural – Appendix F, Table F-2.
- Economic gradient: Annual Survey of Industries – core corridor districts 10.3 percent employment CAGR; peripheral districts 13.3 percent CAGR, revealing fastest growth in least-governed zones.

Governance analysis (RQ2)

Institutional mapping

The institutional landscape is mapped across corridor regions at three levels: national (NICDC and the Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC), state (corridor corporations, Karnataka Industrial Areas Development Board in Karnataka), and sub-state (development authorities, Panchayats, ULBs). The multi-state character of the DMIC means each corridor segment operates within a distinct state legal and institutional framework. PM Gati Shakti strengthens infrastructure coordination but does not address local governance or transitional settlement management.

Functional responsibility and planning frameworks

- SPVs and development authorities control land pooling, master planning, and trunk infrastructure; Panchayats and low-capacity ULBs are left with routine service delivery without commensurate resources or jurisdiction.
- URDPFI Guidelines (2014) and RADPFI (2016) both envisage integrated regional and rural-urban planning, but implementation is partial; 11th and 12th Schedule responsibilities remain poorly coordinated.

Four governance pathways

- Pathway A – Recognition without municipalisation (DMIC-Uttar Pradesh): Development-authority-led model produces recognition without formal urban governance.
- Pathway B – Conversion-led municipalisation (Tumakuru/Bengaluru-Mumbai belt): Settlement conversion occurs but without adequate capacitation as growth outpaces institutional response.
- Pathway C – Special regimes and SPV-led enclaves (Dholera SIR/DMIC-Gujarat): High-quality enclave infrastructure without regional integration.
- Pathway D – Metropolitan-adjacency spillover (Tumakuru/Bengaluru outer belt): Municipalisation occurs but surrounding transitional settlements remain capacity-constrained.

Key analytical distinctions

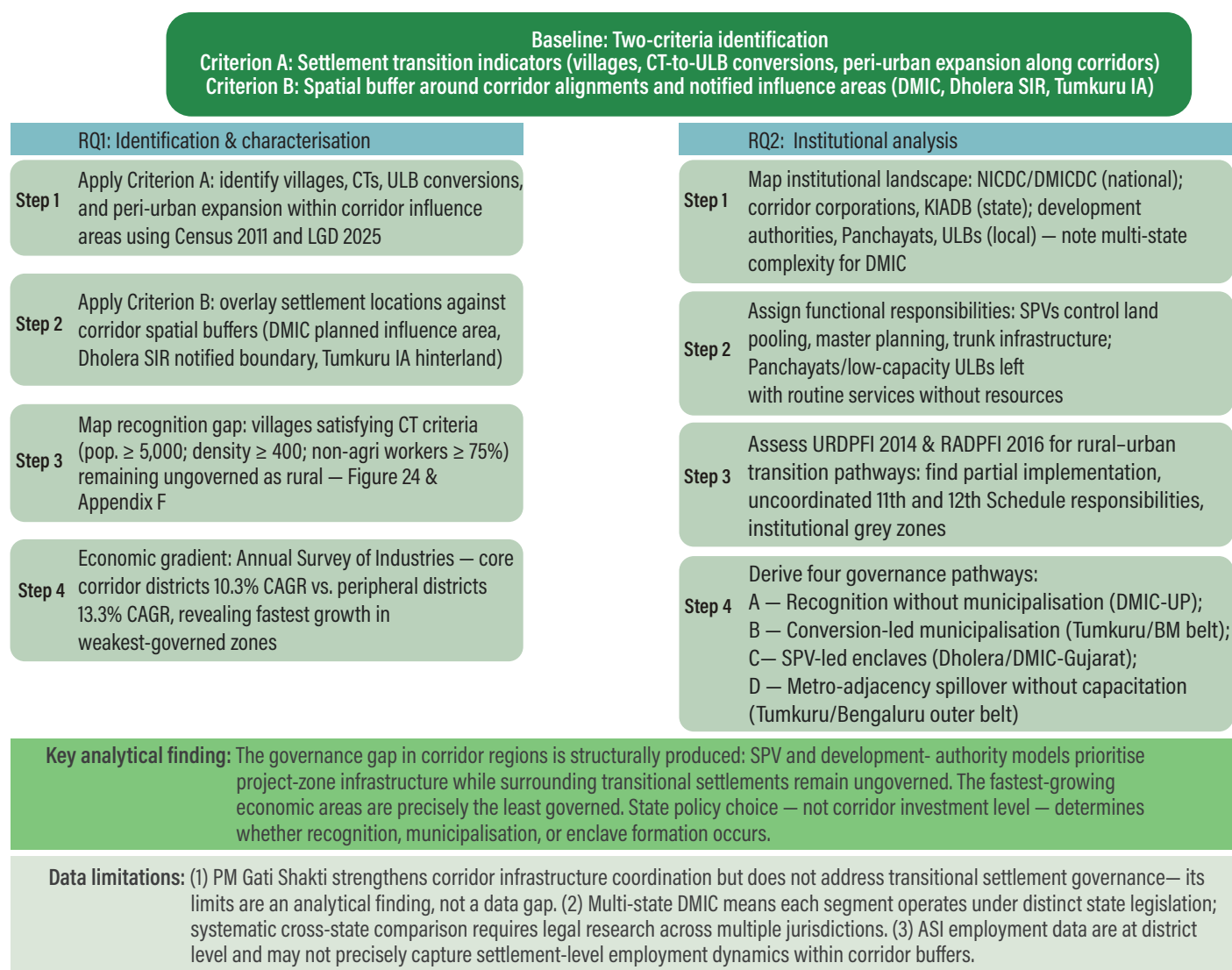
- Governance gap as structurally produced: The governance failure in corridor regions results from a deliberate development model, not administrative oversight.
- State policy choice vs. corridor investment level: State choices – not investment volumes – determine whether recognition, municipalisation, or enclave formation occurs.

Key analytical findings

The governance gap in corridor regions is structurally produced by a model of corridor development that prioritises project-zone infrastructure while leaving surrounding transitional settlements ungoverned. The fastest-growing economic areas are precisely the least governed. State policy choice — not corridor investment level — explains the variation in governance outcomes across DMIC corridor states.

Data limitations and caveats

- PM Gati Shakti's institutional limitations are an analytical finding, not a data gap; its scope does not extend to transitional settlement governance.
- The multi-state character of DMIC requires legislative research across multiple jurisdictions; systematic cross-state comparison of state-level legal frameworks is resource-intensive.
- ASI employment data are at district level and may not precisely capture settlement-level employment dynamics within corridor spatial buffers.

Figure A-5 | **Methodology for analysing corridor-led transitional zones**

Source: Authors.

Appendix A-6. Isolated urban clusters

Overview

Isolated urban clusters are the most analytically challenging of the six transitional typologies because they are defined principally by what they are not: settlements beyond the influence zone of large statutory towns. The methodological challenge has three dimensions: establishing which settlements qualify as isolated, characterising their economic and demographic profile, and assessing the governance instruments that nominally apply to them.

Identification and classification (RQ1)

Defining isolation

The isolation criterion adapts Roy and Pradhan's (2018) proximity methodology and classifies census towns as non-proximate when they fall outside the influence zone of any statutory town with a population of 100,000 or above. The paper's typology extends this criterion to large villages (population $\geq 4,000$). The aggregate significance of this category is established through PLFS 2023–24, which records that 53.5 percent of all manufacturing workers in India are rural, confirming that industrial transformation is occurring at scale outside statutory urban boundaries.

Spatial distribution and sub-type classification

- Location quotient (LQ) mapping: The location quotient is an analytical statistic used to measure and compare the relative concentration of a specific attribute in a specific region against a larger reference area. In this case, we have plotted the relative concentration of the population of the isolated clusters across districts using Census 2011 data in comparison to the national reference picture. It is calculated as a share of the population of isolated clusters to the total population of a district and then divided by a similar share at an all-India level. An LQ value of less than 1 means the isolated clusters are less concentrated than the national value in a district, while greater than 1 means the opposite.
- Four sub-types: (i) Household industry/artisanal (Tiruppur, Sivakasi, Kannauj, Howrah–Bardhaman belt; Chari 2000; Guin 2019); (ii) Mining-driven (Dhanbad–Jharia, Singrauli, Keonjhar–Sundargarh, Korba; CAG 2025); (iii) SPMRM clusters (298 approved clusters; Ministry of Rural Development data); (iv) dispersed corridor clusters (from Appendix A-5 corridor analysis, combined with Roy and Pradhan's non-proximate CT classification).

Governance analysis (RQ2)

Structural governance gap

Isolated clusters occupy a structural governance gap between Gram Panchayats (insufficient capacity for urban-scale service delivery) and statutory urban frameworks (designed for nucleated towns rather than dispersed settlement regions).

Five-instrument governance assessment

- SPMRM (Ministry of Rural Development 2016): First explicit national programme to recognise cluster-based rural–urban transformation; infrastructure delivered without statutory cluster governance body; discontinued in 2022 without an institutional successor
- AMRUT 2.0 (operational guidelines): Requires statutory ULB status, structurally excluding the Gram Panchayat areas that govern most isolated clusters
- MSE-CDP (MSME Ministry guidelines): Enterprise-oriented, not settlement-oriented; no integration with spatial planning, land use, housing, or environmental regulation
- DMF/PMKKKY (PMKKKY guidelines 2024 (Ministry of Mines 2024); CAG reports (Comptroller & Auditor General of India 2025a)): Project-based and district-administered; authority split across mining departments, Gram Panchayats, DMF, and CSR – no integrated spatial governance
- CAMPA: Ecological compensation mechanism only; no housing, drainage, or land-use mandate

State policy review

- Chhattisgarh Industrial Development Policy 2024–30: Investment promotion without settlement governance framework for mining- and industry-affected rural regions
- West Bengal Industrial and Economic Corridor Policy 2023: Meaningful for managing industrial geography; not a governance framework for dispersed settlements
- Kerala Bureau of Industrial Promotion (MSE-CDP coordination): Closest to a functioning cluster-support ecosystem; enterprise-oriented rather than settlement-oriented

Key analytical distinctions

- Isolation vs. dispersion: 'Isolated' means beyond the influence zone of large statutory towns – a hierarchical relationship – not low-density morphology. Many isolated clusters are densely settled.
- Cluster as economic region, not settlement: The analytical unit is the functional cluster region, not the individual settlement. All five governance instruments fail at this scale.
- Stable hybrid, not transitional stage: Isolated clusters where agriculture, manufacturing, and services coexist are a stable hybrid form requiring purpose-built regional governance, not instruments designed for either rural villages or nucleated statutory towns.

Key analytical findings

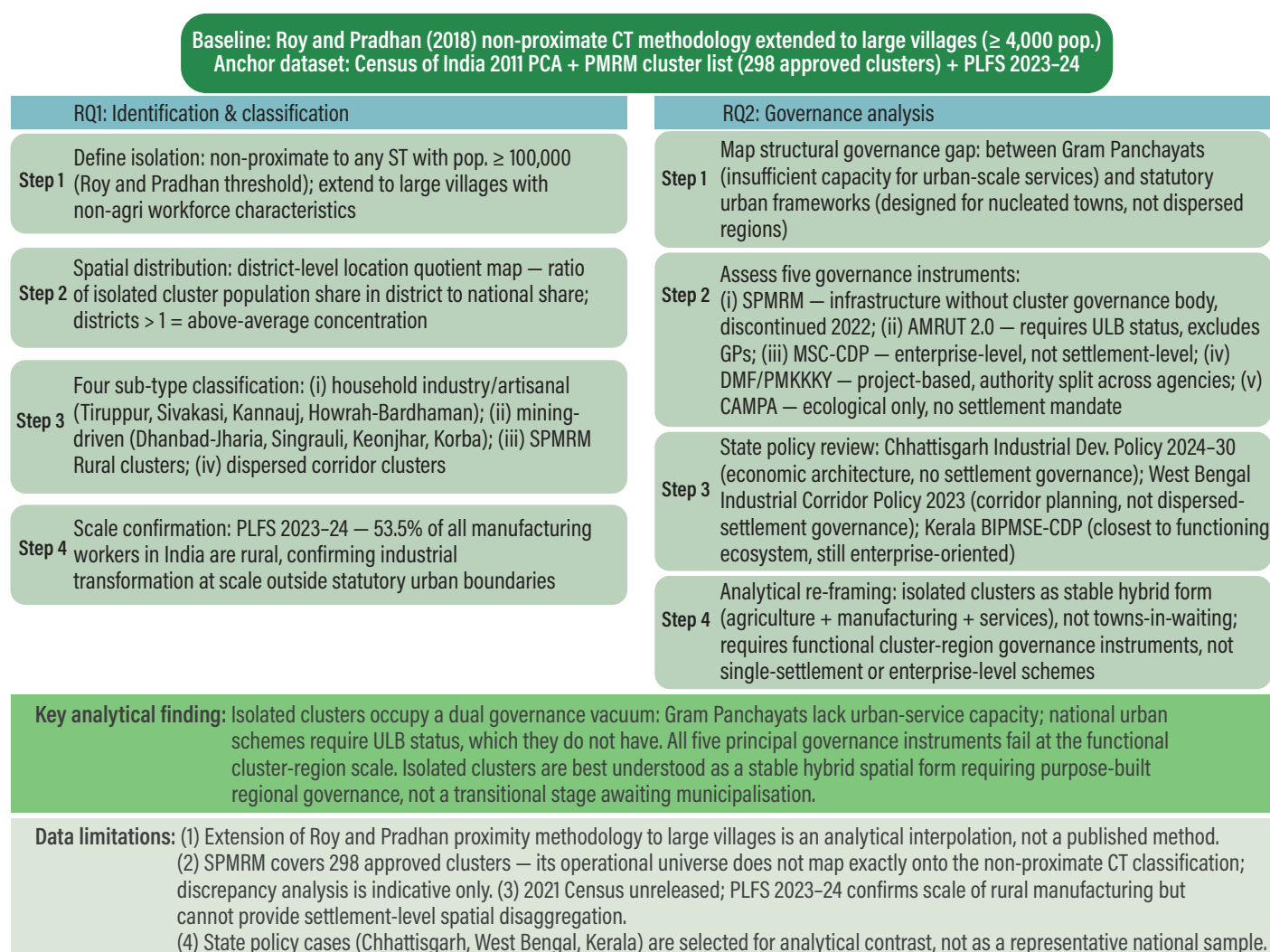
Isolated clusters occupy a dual governance vacuum: Gram Panchayats lack urban-service capacity; national urban schemes require ULB status, which they do not have. All five principal governance instruments fail at the functional cluster-region scale. Isolated clusters are best understood as a stable hybrid spatial form requiring purpose-built regional governance, not as a transitional stage awaiting municipalisation.

Data limitations and caveats

- Extension of Roy and Pradhan's proximity methodology to large villages is an analytical interpolation, not an application of a published method.

- SPMRM covers 298 approved clusters – its operational universe does not map exactly onto the non-proximate CT classification; discrepancy analysis is indicative rather than exhaustive.
- The 2021 Census has not been released; PLFS 2023–24 confirms the scale of rural manufacturing but cannot provide settlement-level spatial disaggregation.
- State policy cases (Chhattisgarh, West Bengal, Kerala) are selected for analytical contrast, not as a representative national sample.
- DMF and CAMPA financial data from CAG (2025) cover the period up to the audit date; utilisation rates may have changed subsequently.

Figure A-6 | **Methodology for analysing isolated urban clusters**



Source: Authors.

Appendix B. Transitional statutory towns

Table B-1 | **Recognition and definition of transitional statutory towns in municipal legislation and government notifications by state**

STATE CATEGORY	STATE	INSTITUTION	POPULATION	DENSITY	NON-AGRICULTURAL EMPLOYMENT	OTHER CRITERIA
Transitional areas explicitly defined in municipal acts	Bihar	Nagar Panchayat	12,000–40,000		>75%	
	Himachal Pradesh	Nagar Panchayat	>2,000			Annual local revenue > Rs. 5 lakh
	Jharkhand	Nagar Panchayat	12,000–40,000			
	Maharashtra	Nagar Panchayat	10,000–25,000		>25% if < 20 km from a Municipal Corporation/Class A Council; >50% if >20 km from a Municipal Corporation/Class A Council	Within 20 km of a a Municipal Corporation or Class A Council; employment threshold varies with proximity
	Tamil Nadu	Town Panchayat	>30,000			
	Sikkim	Nagar Panchayat	<5,000		>50%	
	Tripura	Nagar Panchayat	<50,000	>500/km ²	>50%	Revenue adequate for discharge of municipal functions
	Karnataka	Town Panchayat	10,000–20,000	>400/km ²	>50%	Taluka headquarters need not meet population criterion
	Arunachal Pradesh	Nagar Panchayat	<20,000			
Municipal acts provide Nagar Panchayats for transitional areas, but criteria specified in separate executive orders	Andhra Pradesh	Nagar Panchayat	20,000–40,000	400/km ²	>25%; lower threshold permitted if within 20 km of a Municipality (District HQ) or Municipal Corporation	Revenue >Rs. 40 lakh; lower income may be permitted if urban characteristics have developed; market facilities and potential to attract industries
	Chhattisgarh	Nagar Panchayat				
	Madhya Pradesh	Nagar Panchayat	>20,000		>50%	Own annual revenue > Rs. 10 lakh; >30% buildings in property-tax net; markets/cattle markets generate more revenue than nearby Gram Panchayats; >30% roads/drains paved; electricity poles in major portion of area; Gram Panchayat has own building with capacity for >10 employees and 15 councillors/members
	Punjab	Nagar Panchayat				

STATE CATEGORY	STATE	INSTITUTION	POPULATION	DENSITY	NON-AGRICULTURAL EMPLOYMENT	OTHER CRITERIA
Municipal acts provide Nagar Panchayats for transitional areas, but criteria specified in separate executive orders	Uttar Pradesh	Nagar Panchayat	>20,000 plains; >10,000 hills		>75%	Road traffic and urban amenities, including police station, development block, business centre, school, health centre, electricity, bank and post office
	Gujarat	Nagar Panchayat				
	Kerala	Nagar Panchayat				
	Manipur	Nagar Panchayat				
	Assam	Nagar Panchayat / Town Committee				
Municipal acts provide alternative institutions for transitional areas	Rajasthan	Municipal Board				
	Haryana	Municipal Committee	<50,000			
	Odisha	Notified Area Committee	>10,000			
	Mizoram	Municipal Board	>10,000			
No explicit transitional category, but municipalities graded by population/other criteria	Goa	Class A municipal area	>50,000			
		Class B	10,000–50,000			
		Class C	<10,000			
	Nagaland	Municipal Council	>20,000			
		Town Council	5,000–20,000			
		Urban Station Committee	1,000–5,000			
	West Bengal	Group A	>215,000	>750/km ²	>50%	
		Group B	170,000–215,000	>750/km ²	>50%	
		Group C	85,000–170,000	>750/km ²	>50%	
		Group D	35,000–85,000	>750/km ²	>50%	
		Group E	30,000–35,000	>750/km ²	>50%	
No transitional category or governance provision in municipal acts	Jammu & Kashmir					
	Telangana					
	Meghalaya					

Note: No criteria has been defined wherever rows/columns are empty.

Source: Compiled from state Municipal Acts; Malhotra and Kapur 2025.

Table B-2 | Final count of transitional statutory towns per state in 2011 and 2025

STATE	TSTs IN 2011	TSTs IN 2025	NET CHANGE
Rajasthan	0	193	193
Maharashtra	5	147	142
Uttar Pradesh	424	553	129
Bihar	84	160	76
Madhya Pradesh	249	298	49
Karnataka	73	119	46
Arunachal Pradesh	0	33	33
Haryana	0	24	24
Mizoram	0	22	22
Uttarakhand	30	51	21
Punjab	35	55	20
Nagaland	16	36	20
Jammu And Kashmir	0	19	19
Assam	56	74	18
Andhra Pradesh	7	25	18
Himachal Pradesh	23	26	3
Meghalaya	3	5	2
West Bengal	3	3	0
Goa	0	0	0
Kerala	0	0	0
Telangana	0	0	0
Sikkim	6	5	-1
Gujarat	2	1	-1
Jharkhand	21	19	-2
Tripura	15	13	-2
Odisha	65	62	-3
Chhattisgarh	126	121	-5
Manipur	19	0	-19
Tamil Nadu	561	479	-82

Notes: TSTs in 2011 include Notified Areas, Notified Area Councils, Nagar Panchayats, Town Panchayats, Small Town Committees, and Town Councils. TSTs in 2025 comprise Town/Nagar Panchayats and Notified Area Councils. We exclude Cantonment Boards, Industrial Areas and Townships, Municipalities (including Nagar Palika Parishad among other variations), and Municipal Corporations from this category. We exclude City Municipal Councils and Town Municipal Councils since these are specific to Karnataka and are expressly not for transitional areas. We also exclude Notified Towns in Arunachal Pradesh and Mizoram in 2011 since all towns are categorised as Notified Towns with no demarcations between different grades of ULBs.

Sources: Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b.

Table B-3 | **State-wise comparison: Functions devolved to ULBs versus those where ULBs have full jurisdiction**

SL NO.	STATE	FUNCTIONS DEVOLVED	FUNCTIONS WHERE ULBs HAVE FULL JURISDICTION
1.	Odisha	18	0
2.	Uttarakhand	14	0
3.	Uttar Pradesh	16	1
4.	Manipur	18	1
5.	Rajasthan	17	2
6.	Karnataka	17	3
7.	Mizoram (only AMC)	15	3
8.	Haryana	18	4
9.	Madhya Pradesh	18	4
10.	Tripura	18	4
11.	Himachal Pradesh	17	5
12.	Punjab	18	5
13.	Goa (Municipal Corporation)	16	5
14.	Goa (Municipal Council)	17	3
15.	Telangana	17	6
16.	Andhra Pradesh (Municipal Corporation)	16	5
17.	Andhra Pradesh (Nagar Panchayat/ Municipality)	12	5
18.	Kerala	17	7
19.	Tamil Nadu (Municipal Corporation/ Municipality)	17	3
20.	Tamil Nadu (Town Panchayat)	12	7
21.	Chhattisgarh	18	8
22.	Jharkhand	18	10
23.	Maharashtra	18	10

Note: AMC = Aizawl Municipal Corporation. ULB = Urban local body.

Sources: Comptroller & Auditor General of India 2016, 2020a, 2020b, 2021a, 2021b, 2021c, 2022a, 2022b, 2022c, 2022d, 2022e, 2022f, 2022g, 2022h, 2023a, 2023b, 2024a, 2024b, 2024c, 2025a, 2025b, 2025c.

Table B-4 | **Group-wise comparison: Functions devolved to ULBs versus those where ULBs have full jurisdiction**

GROUP	FUNCTION	DEVOLVED	FULL JURISDICTION
Administrative and regulatory	Vital statistics including registration of births and deaths	23	9
	Regulation of land-use and construction of buildings	21	1
	Urban planning, including town planning	20	1
Cultural and environmental	Promotion of cultural, educational, and aesthetic aspects	22	1
	Urban forestry, protection of the environment, and promotion of ecological aspects	21	1
	Provision of urban amenities and facilities such as parks, gardens, and playgrounds	23	9
Core municipal services	Public amenities including street lighting, parking lots, bus stops, and public conveniences	23	9
	Roads and bridges	22	2
	Fire services	12	4
	Water supply for domestic, industrial, and commercial purposes	21	3
	Public health, sanitation conservancy, and solid waste management	23	0
Social welfare	Urban poverty alleviation	22	6
	Slum improvement and upgradation	20	5
	Safeguarding the interests of weaker sections of society, including persons with physical and intellectual disabilities	19	1
	Planning for economic and social development	20	0
Civic and legacy functions	Burials and burial grounds, cremations and cremation grounds, and electric crematoriums	23	19
	Regulation of slaughterhouses and tanneries	23	16
	Cattle pounds; prevention of cruelty to animals	23	14

Sources: Comptroller & Auditor General of India 2016, 2020a, 2020b, 2021a, 2021b, 2021c, 2022a, 2022b, 2022c, 2022d, 2022e, 2022f, 2022g, 2022h, 2023a, 2023b, 2024a, 2024b, 2024c, 2025a, 2025b, 2025c.

Appendix C. Census towns

Roy and Pradhan estimate that future CT growth will remain concentrated in West Bengal, Tamil Nadu, Uttar Pradesh, Kerala, and Maharashtra, which together may account for nearly half of all 'upcoming CTs' by 2021. See methodological notes in Appendix A.

Table C-1 | **Spatial classification and distribution of census towns in India**

TYPE OF CT	ALL CTs 2011 (%)	UPCOMING CTs 2021 (%)	TOTAL CTs (%)
Proximate CTs	42.8 (50.6)	41.6 (37.6)	42.3 (47.3)
Non-proximate CTs	57.2 (49.4)	58.4 (62.4)	57.7 (52.7)

Note: Figures outside parentheses indicate percentage share of CTs, while figures inside parentheses represent percentage share of CT population.

Source: Authors' calculation using methodology from Roy and Pradhan (2018).

Appendix D. Outgrowths

Table D-1 | **Conversion of outgrowths to different ULB statuses by state**

	MUNICIPAL CORPORATION	MUNICIPALITY	TOWN PANCHAYAT	CITY MUNICIPAL COUNCIL	TOTAL PER STATE
Andhra Pradesh	9	5			14
Gujarat	26	4			30
Haryana	1				1
Himachal Pradesh	3				3
Karnataka				1	1
Kerala	1	2			3
Madhya Pradesh		1	3		4
Maharashtra	1				1
Odisha	3				3
Punjab	3	3			6
Telangana	17	39			56
Uttarakhand	14	1			15
Total per ULB type	78	55	3	1	137

Note: ULB = Urban local body.

Source: Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011a.

Appendix E. Peri-urban areas influenced by metropolitan growth

The gap between high peri-urban populations and low CT and OG counts indicates limited official recognition of peri-urban populations despite their large numbers. Bihar is the only state that has an above-average absolute peri-urban population, and yet a below average count of both CTs and OGs.

Table E-1 | **State-wise peri-urban population, population shares, census towns, and outgrowths**

STATE	PERI-URBAN POP. 2010 (ABSOLUTE)	CTs 2011	OGs 2011	PERI-URBAN SHARE OF STATE POP. 2010 (%)
Uttar Pradesh	66,087,120	267	66	32.40
Bihar	36,156,908	60	4	34.06
West Bengal	29,392,932	780	13	31.56
Andhra Pradesh	24,043,216	228	209	27.92
Tamil Nadu	17,680,078	376	14	23.97
Odisha	17,625,676	116	50	42.40
Assam	14,407,451	126	29	46.74
Madhya Pradesh	13,413,670	112	86	18.15
Jharkhand	12,814,698	188	1	38.15
Maharashtra	12,376,018	278	3	10.82
Rajasthan	10,516,308	112	39	15.04
Karnataka	9,931,900	127	69	15.96
Gujarat	9,917,313	153	129	16.20
Kerala	8,820,358	461	16	25.72
Chhattisgarh	7,265,049	14	40	28.48
Punjab	7,132,356	74	60	24.79
Haryana	4,841,886	74	15	18.79
Jammu & Kashmir	4,119,037	36	93	34.63
Himachal Pradesh	3,205,151	3	8	45.77
Uttarakhand	2,060,519	41	19	21.80
Tripura	1,514,207	26	0	41.45
Goa	583,923	56	7	40.23
Manipur	499,957	23	7	17.27
Meghalaya	486,493	12	0	20.45
Nagaland	287,261	7	0	14.99
Sikkim	273,841	1	0	47.07
Arunachal Pradesh	174,815	1	0	13.64
Puducherry	122,818	4	1	9.29

STATE	PERI-URBAN POP. 2010 (ABSOLUTE)	CTs 2011	OGs 2011	PERI-URBAN SHARE OF STATE POP. 2010 (%)
Dadra & Nagar Haveli	89,213	5	0	20.46
NCT of Delhi	74,121	110	0	0.44
Mizoram	44,653	0	0	4.76
Andaman & Nicobar Islands	38,249	4	0	11.21
Daman & Diu	10,369	6	0	7.30
Lakshadweep	2,205	6	0	6.27
Chandigarh	0	5	2	0.00

Notes: The average peri-urban population (2010) for all states is 9,028,851, the average count of CTs (2011) is 111.2, the average count of OGs is 28, and the average peri-urban share of state population is 23.1%; highlighted rows indicate states with above-average values.

Sources: European Commission et al. 2021; Office of the Registrar General & Census Commissioner 2011a.

Bivariate correlations between peri-urban population and Census settlement classifications across Indian States, 2010–2011

Data

The analysis draws on Table E-1, which reports state-level peri-urban population estimates for 2010 (derived from the European Commission et al. 2021 Global Human Settlement Layer classification) alongside the counts of census towns (CTs) and outgrowths (OGs) enumerated in the Census of India 2011.

The dataset covers 35 states and Union Territories (UTs). One entity – Chandigarh – recorded zero peri-urban population and is excluded from bivariate pairs requiring a positive population value. Mizoram records zero CTs and is excluded from the CT-inclusive pairs. All states and UTs recording zero OGs (11) are excluded from the OG-inclusive pairs, reducing those samples substantially (see Table E-1).

Statistical approach

Pearson's product-moment correlation coefficient (r) was computed for each variable pair on both raw and $\log_{10}$ -transformed values. Log transformation was adopted for substantive interpretation given the strong positive skew of all three distributions. Working on the log–log scale compresses these ranges, reduces the disproportionate leverage of a small number of very large states, and allows the correlation to reflect the broader associative pattern across the full sample rather than being driven by extreme values at the top of the distribution.

Results

PERI-URBAN POPULATION AND CENSUS TOWNS ($r = 0.738$, $p < 0.001$)

This is the strongest and most statistically robust relationship in the dataset (Figure E1). The positive association is clear across the full sample range and holds both on raw values ($r = 0.544$) and,

Table E-2 | **Bivariate correlations between peri-urban population, census towns, and outgrowths (Indian states and union territories, 2010–2011)**

VARIABLE PAIR	PEARSON r (RAW)	PEARSON r ($\log_{10}$)	n	t-STATISTIC	p (APPROX.)
Peri-urban pop. × census towns	0.544	0.738	33	6.10	< 0.001
Peri-urban pop. × outgrowths	0.366	0.425	23	2.16	≈ 0.043
Census towns × outgrowths	0.173	0.351	24	1.76	≈ 0.093

Notes: Correlations computed on $\log_{10}$ -transformed values; states/union territories with zero values on either variable excluded from the respective pair. Raw Pearson r values shown for comparison.

more strongly, after log transformation ($r = 0.738$), consistent with the expectation that compression of the upper tail reduces the leverage of the three largest states – Uttar Pradesh, Bihar, and West Bengal – which together account for approximately 41.6 percent of the total peri-urban population in the dataset.

Several states depart notably from the general pattern. West Bengal (780 CTs) and Kerala (461 CTs) record CT counts substantially above what their peri-urban population size alone would suggest, reflecting state-specific administrative practices: in West Bengal, the Left Front government systematically reclassified dense rural settlements as CTs across the 1990s and 2000s, a pattern extensively documented in the urban studies literature (Bhattacharyya 2016). Bihar lies well below the trend (60 CTs against a peri-urban population of 36.1 million), consistent with longstanding findings on Bihar's administrative undercount of de facto urban settlements. Chhattisgarh presents the starkest case (14 CTs; peri-urban population: 7.2 million), attributable to the state's recent formation in 2000 and its still-consolidating classification apparatus. The National Capital of Delhi (NCT) of Delhi is an outlier in the opposite direction: 110 CTs against a peri-urban population of only 74,121, reflecting the near-total absorption of the urban fringe into Delhi's statutory urban fabric.

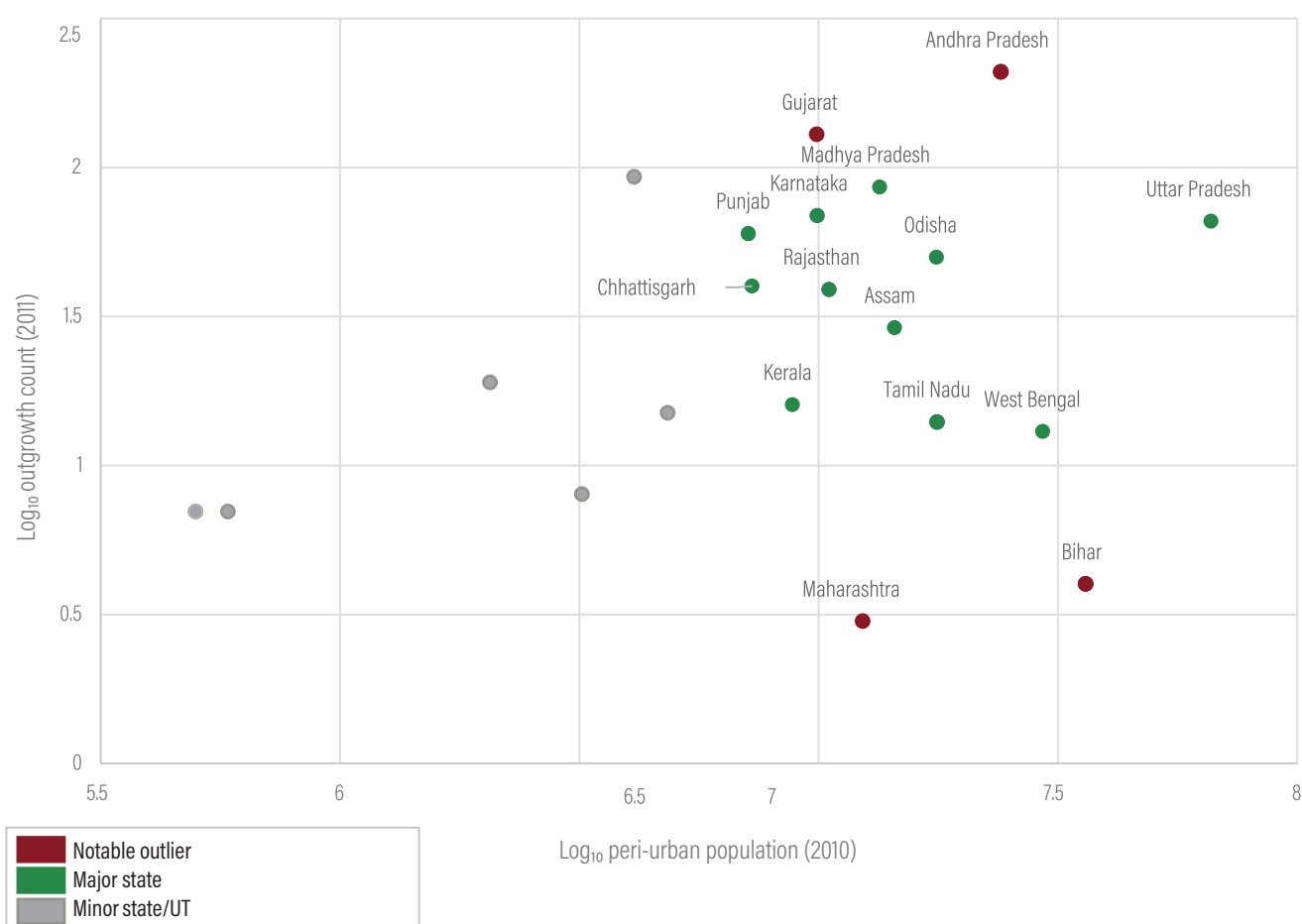
PERI-URBAN POPULATION AND OUTGROWTHS

($r = 0.425$, $p \approx 0.043$)

The association between peri-urban population and OG count is moderate (Figure E-2). The weaker coefficient – relative to the population–CT pair – reflects the definitional structure of the OG category: OGs are recognised only in relation to contiguous statutory urban bodies, meaning their count depends as much on the spatial configuration of existing municipal boundaries as on the scale of peri-urban population. The reduced sample ($n = 23$, given the large number of states with zero OGs) further limits the reliability of the estimate.

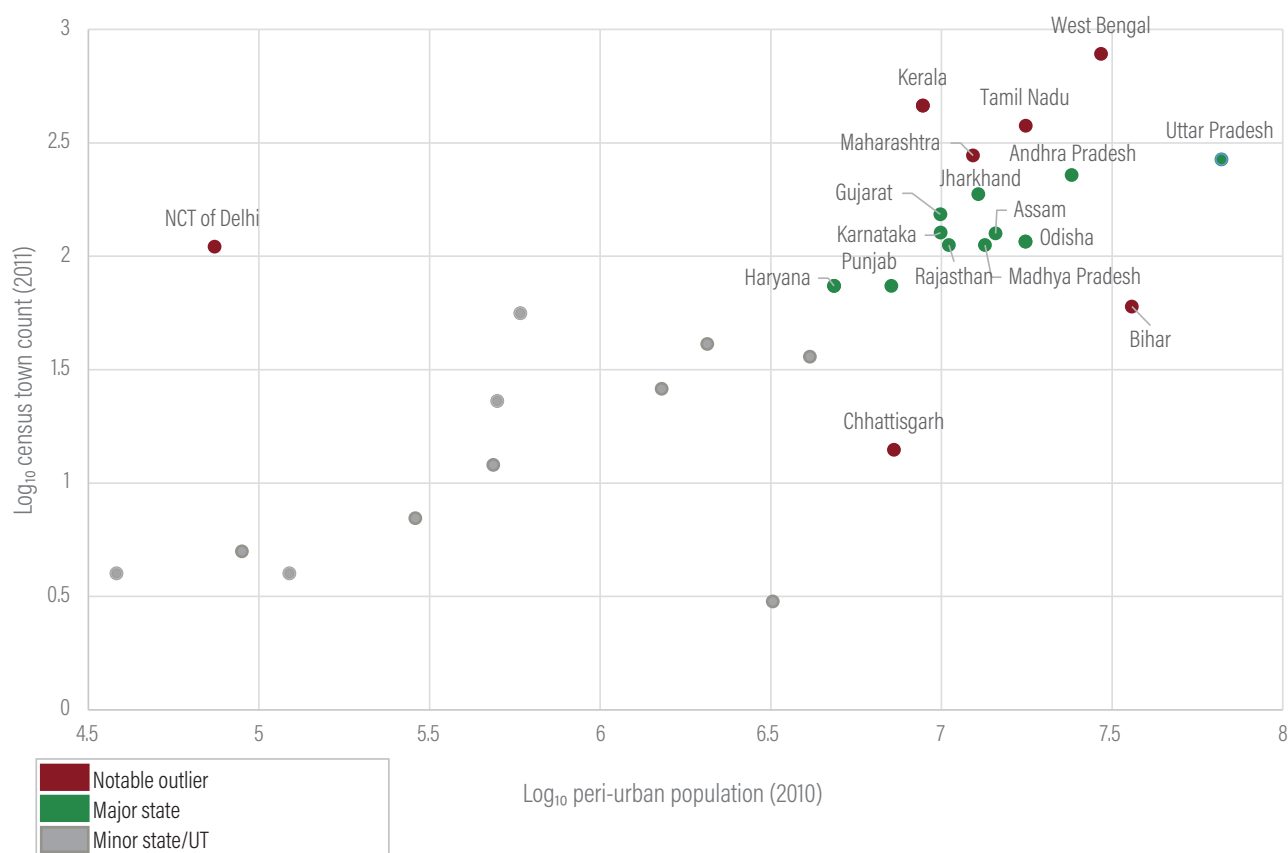
The scatter nevertheless reveals substantively important state-level variation. Andhra Pradesh (209 OGs) and Gujarat (129 OGs) lie considerably above the general trend, reflecting the density of their peri-municipal administrative geographies and historically permissive OG recognition practices. At the opposite extreme, Jharkhand (1 OG; peri-urban population: 12.8 million) and Maharashtra (3 OGs; peri-urban population: 12.3 million) have large peri-urban populations but negligible OG counts, suggesting that municipal boundaries in these states either already encompass contiguous settlements or have not been updated to reflect agglomeration patterns on the urban fringe.

Figure E-1 | **Log₁₀ peri-urban population (2010) against log₁₀ census town count (2011)**



Note: All 16 major states and NCT of Delhi labelled; red indicates states departing notably from the general trend.

Sources: European Commission et al. 2021; Office of the Registrar General & Census Commissioner 2011a; Schiavina et al. 2026.

Figure E-2 | **Log₁₀ peri-urban population (2010) against log₁₀ outgrowth count (2011)**

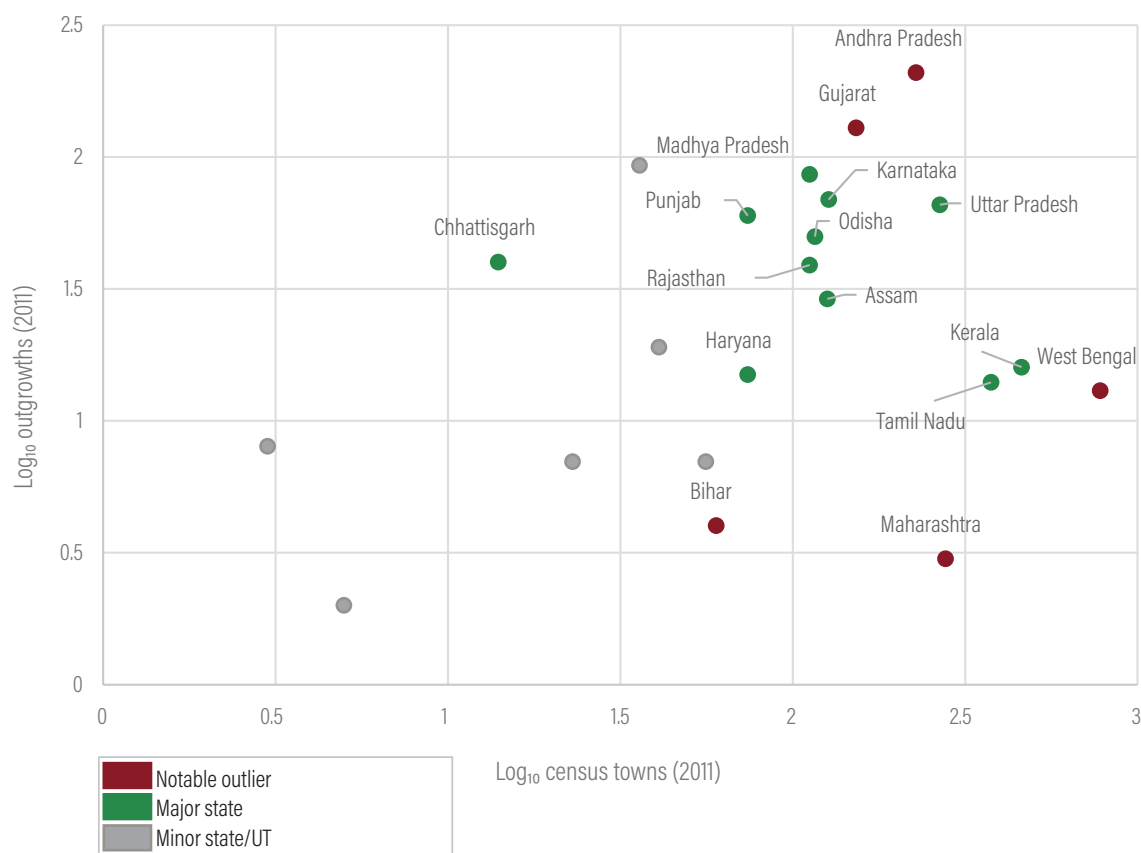
Note: Major states with at least one outgrowth labelled; red indicates states departing notably from the general trend; states with zero OGs excluded.

Sources: European Commission et al. 2021; Office of the Registrar General & Census Commissioner 2011a; Schiavina et al. 2026.

CENSUS TOWNS AND OUTGROWTHS ($r = 0.351$, $p \approx 0.093$)

The association between CT count and OG count is weak and does not reach conventional significance (Figure E-3). This is substantively meaningful: the near independence of the two counts confirms that CTs and OGs are not co-produced by the same state-level processes. High CT counts tend to reflect broader demographic pressure on the rural–urban transition zone; high OG counts reflect the municipal administrative geography of specific agglomerations. The divergence between West Bengal (780 CTs, 13 OGs) and Andhra Pradesh (228 CTs, 209 OGs) captures this well: the former generates CTs through demographic reclassification of dense rural settlements; the latter generates OGs through dense peri-municipal agglomeration around STs.

Figure E-3 | **Log₁₀ census town count against log₁₀ outgrowth count (2011)**



Note: Major states with non-zero values on both variables labelled; red indicates states departing notably from the general trend.

Sources: European Commission et al. 2021; Office of the Registrar General & Census Commissioner 2011a; Schiavina et al. 2026.

Interpretive caveats

Several limitations bear on the interpretation of these correlations.

First, the correlations describe a relationship between demographic scale and the Census's classification of settlements – not between population and the actual prevalence of peri-urban inhabitation or the richness of its spatial environments. The administrative artefact problem is particularly acute for the OG coefficient: since OG recognition requires physical contiguity with an ST – a criterion with no intrinsic demographic logic – the association with population is structurally attenuated.

Second, peri-urban share of state population (the fourth variable in Table E-1) is essentially uncorrelated with both CT and OG count ($r = 0.165$, and $r = 0.137$ respectively, raw). States in which a higher proportion of the population occupies the peri-urban fringe do not systematically generate more recognised settlement types. This points to what may be described as an epistemological failure of the classificatory apparatus: it does not track the intensity of peri-urban inhabitation, only its absolute demographic volume – and even then imperfectly.

Third, with sample sizes of $n = 23$ – 34 , all three coefficients should be read as indicative rather than definitive. Pearson's r is sensitive to individual influential observations at these sample sizes, as the outlier discussion in the Typology and findings section makes clear. The analysis is offered as a first-order characterisation of the associative structure in the data, not as a basis for parametric inference about the population relationship.

Appendix F. Corridor-led transitional urbanisation

Table F-1 | **Shifts in municipal forms before and after 2020 across corridor regions**

STATE/REGION	HIGHER-ORDER ULB CHANGE (POST 2020-PRE 2020)	INTERMEDIATE ULBs CHANGE (POST 2020-PRE 2020)	TRANSITIONAL ULBs CHANGE (POST 2020-PRE 2020)	TOTAL CHANGE (POST 2020-PRE 2020)
DMIC-Haryana	↑ 55.7 (0 → 55.7)	↑ 1.7 (0.9 → 2.6)	↑ 23.5 (8.7 → 32.2)	↑ 80.9 (9.6 → 90.4)
DMIC-Rajasthan	↑ 15.8 (0 → 15.8)	—	↑ 80 (2.1 → 82.1)	↑ 95.8 (2.1 → 97.9)
DMIC-UP	↑ 24.7 (0 → 24.7)	↑ 5.8 (0.2 → 6)	↑ 68.3 (0.4 → 68.7)	↑ 98.8 (0.6 → 99.4)
DMIC-MP	—	—	↓ 20 (60 → 40)	↓ 20 (60 → 40)
DMIC-Gujarat	↑ 46.9 (0 → 46.9)	↑ 25 (14.1 → 39.1)	—	↑ 71.9 (14.1 → 85.9)
DMIC-Maharashtra	↑ 58.7 (0 → 58.7)	↓ 8.7 (8.7 → 0)	↑ 13.8 (9.4 → 23.2)	↑ 63.8 (18.1 → 81.9)
Tumakuru IA	↓ 0.2 (0.2 → 0)	↑ 96.7 (0 → 96.7)	—	↑ 96.5 (1.7 → 98.2)
Dholera SIR	↑ 18.9 (0 → 18.9)	↓ 81.1 (81.1 → 0)	—	↓ 62.2 (81.1 → 18.9)

Notes: The table shows the changing share of converted settlements across Higher-order ULBs (Municipal Corporations), Intermediate ULBs (Municipal Councils, Municipal Committees, and Municipalities), and Transitional ULBs (Nagar Panchayats and Town Panchayats) before and after 2020. Values represent percentage distribution of converted settlements by municipal form. Pearson χ^2 tests indicate statistically significant shifts in municipal structure in Haryana, Gujarat, Maharashtra, and Karnataka/Tumakuru ($p < 0.001$).

Sources: Authors' calculations based on Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b, 2011c.

Table F-2 | **Functional urbanisation and municipal recognition across corridor regions**

CENSUS URBANISATION CRITERIA MET BY MUNICIPALISED VILLAGES (%)							
	Population	Density	Occupation	Population + Density	Population + Occupation	Density + Occupation	All 3 Criteria
DMIC-Haryana	5.3	6.1	32.4	6.8	47.9	34.5	47.9
DMIC-Rajasthan	14.9	8.5	12.8	22.5	32.1	20.8	38.4
DMIC-Uttar Pradesh	8.2	4.8	27.4	8.3	37.9	27.7	37.9
DMIC-Madhya Pradesh	7.5	5.5	14.3	14.9	30.0	19.5	30.0
DMIC-Gujarat	2.9	2.5	14.7	3.8	15.9	16.5	16.4
DMIC-Maharashtra	20.3	15.6	31.2	31.4	59.7	37.1	63.9
Tumakuru IA	6.0	3.4	12.1	8.1	19.5	14.5	19.5
Dholera SIR	3.6	4.5	31.0	4.5	31.0	40.7	37.1

Source: Authors' calculations based on Ministry of Panchayati Raj 2026; Office of the Registrar General & Census Commissioner 2011b, 2011c.

Appendix G. Isolated urban clusters

Labour diversifies, but structural transformation remains uneven in rural clusters

State-level patterns sharpen this divergence. In West Bengal, Tamil Nadu, and Gujarat, higher shares of manufacturing and services correspond with strong census town clustering and dispersed industrial growth, whereas in Bihar and Rajasthan, the continued dominance of agriculture limits such spatial transformation. Resource-based states like Jharkhand, Odisha, and Chhattisgarh exhibit a hybrid structure, where construction and extractive activities underpin more isolated cluster formation.

However, diversification does not necessarily translate into full structural transformation. Agriculture remains a significant component across all states, indicating that rural economies are becoming layered rather than transformed. The coexistence of farm and non-farm activities within the same regions – and often within the same settlements – suggests that economic change is incremental and uneven. The Rural cluster typology reinforces this, showing that multiple sectors operate simultaneously within clusters rather than replacing one another. Thus, while labour diversification provides the basis for cluster formation, it also produces complex, hybrid economies that do not align neatly with conventional sectoral or spatial classifications.

Appendix H: Elaboration of recommendations for the Government of India

The seven recommendations set out in Table 7 address distinct but interconnected failures in India's governance of transitional urban areas: failures of recognition, of devolution, of infrastructure sequencing, of inter-ministerial coordination, and of mission architecture. This appendix elaborates each recommendation in turn, drawing on the analysis in the main paper to propose indicative governance arrangements for better managing transitional areas rather than prescriptive institutional blueprints.

Recommendation 1. National Framework for Transitional Area Recognition

Responsible actors: MoHUA; Government of India

Since 'peri-urban' carries no official ORGI definition, the closest administrative approximations are outgrowths and census towns – instruments that, as the correlational analysis in Appendix E demonstrates, track the absolute volume of transitional settlement imperfectly and respond to different administrative logics. A National Framework for Transitional Area Recognition should establish common minimum criteria for identifying transitional areas – drawing on population, density, non-farm workforce share, contiguity, and infrastructure thresholds – while retaining flexibility for state-level adaptation.

Classification responsibility should be vested in a dedicated Central Urban Data Agency under MoHUA, distinct from ORGI's enumeration mandate. This agency would integrate Census

population data with a national GIS database of jurisdictional boundaries, incorporating additional indicators – Compound Annual Growth Rate (CAGR), decadal population growth, land price escalation, and built-up area expansion – to produce and periodically update transitional settlement inventories. ORGI's role would remain confined to demographic enumeration, serving as one authoritative input rather than the sole basis for urban classification.

Locating this function in MoHUA rather than ORGI is deliberate. ORGI's enumeration mandate is fixed by statute and offers states no negotiating room; MoHUA, by contrast, already operates through the intergovernmental channels – centrally sponsored schemes, Finance Commission conditionalities, National Urban Policy consultations – through which states routinely negotiate the terms of central engagement with urban governance, a domain the 74th Constitutional Amendment leaves substantially to state discretion. This matters because a national minimum framework faces a structural implementation constraint: state governments have already made durable political investments in their own definitional architectures, and a common minimum threshold requires either superseding or reconciling with these state-specific criteria for urban governance. Tamil Nadu offers the clearest example. It was the first state to institutionalise the Town Panchayat as a distinct transitional category, with a population band of 5,000–30,000 and income-based grading into full municipal status (Government of Tamil Nadu 2023). This is not a technical placeholder but an established administrative and electoral tier with its own service mandates, staffing, and political representation; a framework that redraws these thresholds outright would directly implicate the status of hundreds of existing local bodies. More generally, reluctance to reclassify settlements as urban is not confined to state governments – local politicians in rural bodies that meet census town criteria often resist 'going urban' because doing so forfeits access to rural development scheme funding and invites new regulatory obligations (Ahluwalia 2019). Housing the classification function in MoHUA allows the common minimum criteria to be introduced as a negotiated, phased alignment – sequenced state by state, adapted where existing categories like the Town Panchayat already do comparable work – rather than a uniform mandate imposed against these entrenched incentives.

This framework should be embedded in the National Urban Policy and include a dedicated financing window for pre-transition infrastructure investment. The 16th Finance Commission's Urbanisation Premium is a significant first step; its operationalisation should be conditioned on states preparing transition identification inventories. For de facto urban settlements not yet formally recognised, infrastructure investment should be triggered by measurable demographic and economic thresholds, decoupling service provision from the politically contingent act of reclassification. A substantial share of India's peri-urban population currently occupies a planning void, structurally excluded from the entitlements that statutory urban status confers.

Recommendation 2. New Census category for transitional areas

Responsible actors: ORGI; Census of India

The correlational analysis in Appendix E reveals that CT counts and OG counts are only weakly correlated and largely independent of each other ($r = 0.35$) and respond to different administrative logics: CT counts reflect demographic pressure on the rural-urban transition zone broadly; OG counts reflect the municipal administrative geography of specific agglomerations. Neither captures the peri-urban condition comprehensively, and peri-urban population share is essentially uncorrelated with either count. As a result, states where the peri-urban fringe constitutes a high proportion of the total population, such as Sikkim (47 percent), Himachal Pradesh (45.7 percent), Assam (46.7 percent), and Tripura (41.4 percent), are systematically undercounted by both instruments.

Future Censuses should introduce an explicit administrative category of 'Transitional Urban Area' or 'Peri-urban Zone' for settlements that meet functional urban criteria – such as population density, non-agricultural workforce share, or built-up area growth – but lack adequate municipal governance. This would replace the implicit and partial recognition of transitional areas through census town and outgrowth classifications with an explicit, policy-relevant category linked to targeted governance support. The category should draw on DEGURBA methodology – which classifies settlements on the basis of population density and contiguity rather than on administrative boundaries – to extend recognition beyond the current three-criterion CT definition and capture the full morphological extent of India's peri-urban population.

De jure urban settlements – census towns and outgrowths likely to gain statutory status under revised URDPFI guidelines – need an expedited municipalisation track with pre-notification infrastructure commitments, so that governance capacity is in place at the point of conversion rather than years after.

Recommendation 3. Inter-ministerial coordination mechanism

Responsible actors: MoHUA; Ministry of Panchayati Raj

Achieving policy coherence between MoHUA and the Ministry of Panchayati Raj for transitional urban areas requires a dedicated inter-ministerial mechanism that neither ministry currently operates. Transitional settlements exist within an institutional vacuum: they are too urban for effective rural governance but lack the statutory status that would bring them within the ambit of urban planning and service delivery frameworks. This gap is structural rather than incidental, and requires coordination between the two ministries to change from rural to urban jurisdiction based on established functional urban area criteria.

The inter-ministerial mechanism should have a specific mandate covering the identification and monitoring of transitional settlements; the development of expedited municipalisation tracks

for settlements meeting agreed thresholds; the design of pre-notification infrastructure commitments that ensure governance capacity is in place at the point of statutory conversion; and the coordination of fiscal transfer design across the 11th and 12th Schedule devolution frameworks and Finance Commission grant streams that currently apply differently to rural and urban local bodies. Without such a mechanism, recommendations addressed separately to each ministry risk being implemented in ways that reproduce rather than resolve the governance gap.

Recommendation 4. Capacity-linked devolution for transitional settlement tiers

Responsible actors: Ministry of Panchayati Raj; state governments

Functional devolution to transitional settlement tiers should be graduated and capacity-linked rather than uniform across all ULB tiers. The current practice of assigning identical functional responsibilities to Municipal Corporations and Nagar Panchayats – despite differences in administrative capacity, staffing, and fiscal bases that vary by several orders of magnitude – systematically overburdens newly constituted transitional bodies and produces a persistent service delivery gap.

States should be required to prepare ULB capacity assessments at the time of reclassification and to accompany the notification with a two-year transition plan covering the sequencing of function transfer, personnel training and recruitment, fiscal transfer calibration between the state and the local body, and performance benchmarks against which devolution progress will be assessed. This replaces the current implicit assumption that municipal absorption is self-sufficient with an explicit, time-bound accountability framework. Size-sensitive devolution frameworks – in which the functions, fiscal instruments, and oversight requirements assigned to a newly constituted body are proportionate to its demonstrated capacity – should replace the current one-size-fits-all approach.

Recommendation 5. Corridor municipalisation timelines

Responsible actors: Ministry of Commerce and Industry; National Industrial Corridor Development Corporation (NICDC)

Corridor-led urbanisation is one of the most significant but governance-deficient drivers of India's urban transition. Analysis of the Delhi-Mumbai Industrial Corridor (DMIC) and two major nodes – Dholera Special Investment Region (SIR) in Gujarat and Tumakuru Industrial Area in Karnataka – reveals that between 90 and 99 percent of villages within corridor influence zones remained under rural governance in 2025, despite rapid physical urbanisation. Municipalisation rates across corridor regions range from just 2.34 percent (DMIC-Madhya Pradesh) to 12.35 percent

(Tumakuru), and even where conversion has occurred, formal urban status has consistently outpaced governance capacity.

A further dimension of the governance gap is the decoupling of economic and administrative urbanisation. In emerging industrial areas, peripheral districts are experiencing higher employment levels and a higher growth in the number of firms than in core districts, reflected in a higher compound annual growth rate. This core-periphery inversion means industrial employment and business activity are spatially diffusing into hinterlands that lack any form of formal urban governance.

The recommendation follows directly from this evidence. SPV-led corridor development frameworks should be required to include transitional settlement governance plans for the hinterland beyond the project boundary, with dedicated provisions for Gram Panchayat capacitation, service delivery convergence, and Panchayat-to-ULB transition planning. Corridor development programmes should mandate municipalisation timelines alongside infrastructure investment – treating the governance trajectory of hinterland settlements as a planning requirement from project inception and a condition of project approval, not as a residual problem to be addressed after growth has consolidated. This is not a proposal to vest municipal functions in industrial bodies. The proviso to Article 243Q(1) already contemplates industrial townships whose establishments provide municipal services in lieu of a constituted municipality – a live arrangement in corridor nodes – and the recommendation addresses the coordination and accountability gap this existing constitutional arrangement creates between SPVs, development authorities, and elected local bodies.

Recommendation 6. Cluster-level governance for isolated urban clusters

Responsible actors: MoHUA; Ministry of Rural Development (MoRD); Ministry of MSME

Isolated urban clusters represent a governance challenge that is categorically distinct from the transitional settlement types addressed by the preceding recommendations. They are not proto-urban villages on the metropolitan fringe, corridor hinterlands, or settlements on the verge of municipal absorption. They are stable, multi-functional, dispersed settlement territories – often organised around small-scale industrial activity, craft production, or regional market functions – that will not be absorbed into larger urban agglomerations and for which standard rural or urban governance instruments are structurally ill-suited.

A successor to the Shyama Prasad Mukherji Rurban Mission (SPMRM) – institutionally distinct from both rural development and urban missions – should be constituted as a statutory cluster governance body with authority at the functional cluster-region scale. This body should integrate land-use regulation, environmental oversight, housing policy, and infrastructure planning for the dispersed settlement region as a whole, with co-ordinated planning across multiple Gram Panchayat jurisdictions rather than for individual enterprises or settlements. The SPMRM demonstrated the value of the cluster approach; its successor should have statutory authority, dedicated fiscal instruments, and a

mandate that is not subordinated to either the rural development or the urban mission architecture.

A statutory successor body is, however, a medium-term institutional project. In the interim, existing schemes should be recalibrated to take account of transitional urbanisation rather than operating as blanket instruments. As Table 5 shows, each of the five instruments currently engaging isolated clusters fails at the same point: its mandate stops short of the settlement region. Modest extensions of existing mandates could close part of this gap ahead of statutory reform. AMRUT, instead of blanket coverage of statutory ULBs, could recognise functionally urban settlements within identified clusters – for instance, by treating cluster inventories prepared under the National Framework (Recommendation 1) as an eligible planning unit for water supply and sewerage investment. MSME schemes such as MSE-CDP could similarly be linked to transitional urbanisation by conditioning common facility investments on their integration with settlement-level infrastructure and land-use planning, so that enterprise support and settlement development reinforce rather than bypass one another. Such recalibration asks existing schemes to go modestly beyond their direct mandates in order to enable good urbanisation – a lower-cost, earlier-acting complement to the statutory cluster governance body proposed above.

Recommendation 7. Inclusion of TUAs in a National Urbanisation Mission focusing on the rural-urban continuum

Responsible actor: MoHUA

The current national urban mission architectures presuppose a legally constituted municipal body as the recipient and implementing unit – a design inherited from JNNURM, AMRUT, and the Smart Cities Mission, which assumed urban development could be delivered as infrastructure through existing municipal institutions. Programmes that did reach transitional geographies stopped short of governance: the SPMRM extended urban-like infrastructure to rural clusters while retaining rural administrative structures, and corridor policy prioritised industrial infrastructure over the governance of the settlements urbanising around it. This architecture structurally excludes five of the six typologies and under-serves the sixth – transitional statutory towns, eligible in principle but entering missions with incomplete devolution and capacity deficits. The gap is not investment but governance, and it falls precisely on the segments the preceding six recommendations address.

The six typologies identified in this paper – transitional statutory towns, census towns, outgrowths, peri-urban metropolitan fringes, corridor-adjacent settlements, and isolated urban clusters – should be explicitly addressed in a national mission focused on urbanisation, with dedicated fiscal windows, technical assistance streams, and monitoring frameworks calibrated to their distinct governance challenges. Because the typologies overlap by design (see 'Identifiability, distinctiveness, and internal validity' under 'Discussion'), mission targeting should treat overlap as a prioritisation signal rather than a classificatory difficulty: settlements exhibiting multiple typology characteristics – a

corridor-adjacent census town on a metropolitan fringe, for instance – face compounded governance deficits and should be identified and prioritised for early intervention. This requires a fundamental redesign of mission eligibility rather than marginal adaptation. For the five rurally governed typologies, eligibility should be structured around settlement typology and functional urbanisation status, not statutory urban recognition; for transitional statutory towns, which are already eligible as urban local bodies, support should instead be calibrated to their incomplete devolution and capacity deficits. Without this, the investments made through Recommendations 1–6 will remain under-supported at the implementation stage, and the governance deficit documented in this paper will persist across the next planning cycle.

Abbreviations

AEGR	Annual Exponential Growth Rate	OECD	Organisation for Economic Co-operation and Development
AMRUT	Atal Mission for Rejuvenation and Urban Transformation	OG	Outgrowth
ASI	Annual Survey of Industries	ORGI	Office of the Registrar General and Census Commissioner of India
CAA	Constitutional Amendment Act	ORR	Outer Ring Road
CAG	Comptroller & Auditor General	PLFS	Periodic Labour Force Survey
CAGR	Compound Annual Growth Rate	PMKKKY	Pradhan Mantri Khanij Kshetra Kalyan Yojana
CAMPA	Compensatory Afforestation Fund Management and Planning Authority	PPP	Public-Private Partnership
CBUA	Contiguously Built Urban Agglomeration	RADPFI	Rural Area Development Plan Formulation and Implementation
CT	Census town	RRR	Regional Ring Road
DEGURBA	Degree of Urbanisation method	SEZ	Special Economic Zone
DMF	District Mineral Foundation	SIR	Special Investment Region
DMIC	Delhi-Mumbai Industrial Corridor	SPMRM	Shyama Prasad Mukherji Rurban Mission
FAO	Food and Agriculture Organization	SPV	Special Purpose Vehicle
FSI	Floor Space Index	ST	Statutory town
GHMC	Greater Hyderabad Municipal Corporation	TST	Transitional statutory town
GHSL	Global Human Settlement Layer	TUA	Transitional urban areas
GIS	Geographic Information System	ULB	Urban local bodies
HMDA	Hyderabad Metropolitan Development Authority	UP	Uttar Pradesh
IA	Industrial Area	URDPFI	Urban and Regional Development Plans Formulation and Implementation
ILO	International Labour Organization	UT	Union Territory
JNNURM	Jawaharlal Nehru National Urban Renewal Mission		
LGD	Local Government Directory		
LQ	Location quotient		
MoEFCC	Ministry of Environment, Forest and Climate Change		
MoHUA	Ministry of Housing and Urban Affairs		
MoRD	Ministry of Rural Development		
MPC	Metropolitan Planning Committee		
MSE-CDP	Micro and Small Enterprises Cluster Development Programme		
MSME	Ministry of Micro, Small and Medium Enterprises		
NCT	National Capital Territory		
NICDC	National Industrial Corridor Development Corporation		
NICDP	National Industrial Corridor Development Programme		

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