

Historical Evolution and Spatial Pattern of Urbanization in India's Border Districts Adjoining Pakistan (1901-2011)

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Abstract: *Urbanization in border regions differs significantly from urbanization in interior regions because it is shaped not only by economic forces but also by geopolitical events, security concerns, migration, and state policies. This study examines the historical evolution and spatial pattern of urbanization in sixteen Indian border districts adjoining Pakistan across Jammu & Kashmir, Punjab, Rajasthan, and Gujarat during 1901–2011. Using Census of India data, the study analyses changes in the number of towns, Compound Annual Growth Rate (CAGR), district-wise distribution of towns, and regional differences over four historical phases: the colonial period (1901–1941), the Partition decade (1941–1951), the post-independence period (1951–1991), and the post-liberalization period (1991–2011). The findings reveal that border urbanization has been highly uneven and strongly influenced by political events. Punjab experienced rapid post-liberalization urban expansion, Rajasthan's growth was primarily irrigation-driven, Gujarat followed a stable industrial and port-based trajectory, whereas Jammu & Kashmir exhibited discontinuous growth because of political instability and conflict. The study demonstrates that historical events, infrastructure investment, refugee resettlement, and administrative reclassification collectively shaped the urban geography of India's western borderlands. These findings contribute to border studies and urban geography by highlighting the long-term influence of geopolitical boundaries on regional urban development.*

Keywords: Border urbanization; Pakistan border; Urban growth; Spatial pattern; Census towns; India; Partition; Border geography

1. Introduction

Urbanization is a multidimensional process involving demographic concentration, economic transformation, and spatial expansion of settlements. In border regions, however, urban growth is additionally influenced by political boundaries, national security, refugee movements, and cross-border interactions. Consequently, border towns often experience development trajectories that differ substantially from those of inland urban centres.

India shares an international boundary of approximately 3,323 km with Pakistan, extending across Jammu & Kashmir, Punjab, Rajasthan, and Gujarat. Since Partition in 1947, this frontier has remained one of South Asia's most politically sensitive regions. Military conflicts, restricted cross-border trade, refugee resettlement, irrigation projects, industrial policies, and infrastructure development have all significantly affected urban growth in this border belt.

Although considerable literature exists on Indian urbanization, comparatively few studies have examined the long-term evolution of towns in border regions over an extended historical period. This study addresses that gap by analysing the changing spatial pattern of urbanization in India's western border districts over more than a century (1901–2011). The research examines how political transformations, economic restructuring, and government policies have influenced the emergence, decline, and expansion of urban settlements in these strategically important regions.

2. Objectives

The study aims to:

- Examine the historical evolution of urbanization in India's border districts adjoining Pakistan;
- Analyse changes in the number of towns during 1901–2011;
- Examine state-wise and district-wise variations in urban growth;
- Evaluate the impact of Partition, economic reforms, and government policies on urban development;
- Identify regional disparities in the spatial pattern of border urbanization.

Study Area

The study covers sixteen border districts located within approximately 50 km of the India–Pakistan international boundary across four states:

- Jammu & Kashmir
- Punjab
- Rajasthan
- Gujarat

The study includes 157 towns identified in Census 2011. These districts represent diverse physical environments ranging from Himalayan foothills to desert landscapes and coastal regions, allowing comparison of different border urbanization processes.

3. Data and Methodology

The study is based primarily on secondary data obtained from the Census of India (1901–2011). Historical census publications, District Census Handbooks, and published literature were used to reconstruct long-term urban growth.

The analysis employs:

- Number of towns
- Compound Annual Growth Rate (CAGR)

- District-wise urban distribution
- Historical comparison
- Spatial analysis

Urban development is analysed across four historical periods:

- Colonial Period (1901–1941)
- Partition Period (1941–1951)
- Post-independence Period (1951–1991)
- Post-liberalization Period (1991–2011)

4. Literature Review

Urbanization in India

India's urbanization has evolved through multiple phases. The first phase dates back to ancient civilizations, including the Harappan, Aryan, and Dravidian (2350 B.C.–600 B.C.), followed by significant development under Hindu and Muslim monarchs. The British colonial period had a significant influence on the development of many present-day cities, particularly port towns. Cities like Delhi exemplify the contrasts between historic Mughal areas and planned colonial zones (Ramachandran, 2012). Urbanization reflects broader structural changes, including the shift from agriculture to industry and services, the expansion of the formal economy, and the growth of urban areas. Between 1901 and 1951, India's urban population increased by 88%, and projections suggest that urban residents will outnumber rural residents by 2040–2050 (Colmer, 2016). Definitions of "urban" have evolved from broad colonial criteria to the 1961 census standard, which required municipal governance or thresholds for population, density, and workforce composition, and were later refined in 1981.

In Punjab, British canal colonies spurred early growth. The partition in 1947 led to significant refugee inflows, followed by the Green Revolution and the expansion of agro-industry, particularly in Ludhiana. Improved infrastructure and planned cities, such as Chandigarh, further boosted urbanization, with the urban share reaching 39% by 2011 (Kumar & Kaur, 2018).

Rajasthan's historic centres, such as Jaipur and Jodhpur, grew under royal patronage. British infrastructure, the Green Revolution, the Indira Gandhi Canal, industrial zones, and tourism drove expansion. By 2011, migration and economic opportunities spurred growth in both major cities and smaller trade towns (Tripathi, 2010).

In Jammu & Kashmir, Srinagar and Jammu were traditional hubs. Partition migration, tourism, small-scale industries, and infrastructure, such as the Jammu-Srinagar Highway, supported growth, although conflict from the late 1980s slowed it in the Kashmir Valley. By 2011, 27.38% of the population was urban (Bhat & Murtaza, 2011).

Gujarat's urbanization was built on British-era textile hubs, such as Ahmedabad and Surat. Post-independence industrial estates, GIDC (Gujarat Industrial Development Corporation), the Green Revolution, and port development (Kandla, Mundra) accelerated growth. Infrastructure, such as highways, and policy initiatives, such as Vibrant Gujarat,

further strengthened the industrial and service sectors. By 2011, over 42% of the population was urban, making Gujarat one of India's most urbanized states (Dholakia, 2006).

Urbanization in the Border Region of India Adjoining the Pakistan Boundary

In 1933, Hartshorne studied Upper Silesia, a German-Slavic border region with diverse geography and a major industrial zone, and found that political boundaries hindered economic development. Border areas were generally less developed, with private investment being reluctant due to security concerns, which slowed industrialization (Kaur & Ghuman, 1992).

Krishan (1968) noted demographic changes in Amritsar and Gurdaspur (1951–1961) linked to proximity to Pakistan, water logging, reduced farmland, improved roads, increased defence presence, and refugee resettlement. The new border disrupted service zones, led to outmigration, and discouraged private capital investment, ultimately affecting urban growth.

Rajbala and Krishan (1982) found that urbanization slowed in Indian border areas after Partition, particularly in Punjab, while towns in Jammu & Kashmir grew due to their strategic importance. The border's impact was strongest within a 40 km radius, moderate up to 100 km, and negligible beyond that distance. Larger towns suffered more than smaller ones, and trade towns grew faster than industrial ones, with Rajasthan's border zone narrowly affected and Gujarat largely unaffected.

For this research, we studied areas within a 50 km radius of the border, focusing on 16 peripheral districts across four Indian states: Jammu & Kashmir, Punjab, Rajasthan, and Gujarat. The districts examined include Baramulla, Jammu, Kathua, Kupwara, Poonch, Rajouri, and Samba (Jammu & Kashmir); Amritsar, Firozpur, Gurdaspur, and Tarn Taran (Punjab); Barmer, Bikaner, Jaisalmer, and Ganganagar (Rajasthan); and Kutch (Gujarat). The total number of towns in each state is as follows: Jammu & Kashmir (56), Punjab (59), Rajasthan (28), and Gujarat (14).

Pattern

In urban geography, the pattern refers to the spatial arrangement of settlements. It shows how settlements are spaced and sized. Here we observe the distribution of towns with their CAGR (Compound Annual Growth Rate) (Table 2.1), (Table 2.2) and size class (Table 2.3) during four time periods (colonial period (1901–1941), partition decade period (1941–1951), post independence to liberalization period (1951–1991) and post liberalization period (1991–2011).

Urban Growth in Terms of Number of Towns and CAGR (Compound Annual Growth Rate) The evolution of the number of towns and their corresponding Compound Annual Growth Rates (CAGR) across the border states of Jammu & Kashmir, Punjab, Rajasthan, and Gujarat demonstrates both temporal fluctuations and regional disparities in the urbanization process.

Table 2.1: Number of Towns and CAGR (Compound Annual Growth Rate)

State	Number of Towns					CAGR(%)			
	1901	1941	1951	1991	2011	(Compound Annual Growth Rate)			
	1901-1941	1941-1951	1951-1991	1991-2011					
Jammu & Kashmir	8	14	13	DNA	56	1.41	-0.74		
Punjab	16	20	24	31	59	0.56	1.84	0.64	3.27
Rajasthan	6	10	14	26	28	1.29	3.42	1.56	0.37
Gujarat	6	6	7	10	14	0	1.55	1.7	0.77
Total	36	50	58	67	157	0.82	1.5	0.36	4.36

Source: Compiled by researcher, based on A-4 Table, Census of India 2011

Note: Data not available for Jammu & Kashmir (1991).

During the colonial Era (1901–1941), the total number of towns in the border states rose from 36 to 50, registering a CAGR of 0.82%. Growth was relatively modest in Punjab (0.56%), steady in Jammu & Kashmir (1.41%), and more pronounced in Rajasthan (1.29%), reflecting the expansion of princely-state capitals and canal-colony initiatives. Gujarat, however, stagnated with no increase in towns (CAGR 0.00%), indicating the limited impact of colonial investments on the peripheries of Kachchh. This phase highlights the uneven colonial urbanization strategy, which concentrated investments in select canal colonies and administrative nodes (Chandna, 2006; Kundu, 1983).

The Partition decade (1941–1951): This decade produced a marked divergence in trajectories. The total number of towns increased from 50 to 58, yielding a CAGR of 1.50%. Punjab recorded the highest growth rate (1.84%), driven by refugee resettlement and the recognition of new urban settlements along the border (Talbot, 2006). Rajasthan also experienced sharp expansion, with towns increasing from 10 to 14 (CAGR 3.42%), linked to rehabilitation efforts in Ganganagar and canal-based expansion. Gujarat grew moderately (CAGR 1.55%), while Jammu & Kashmir declined from 14 to 13 towns, reflecting the disruption of Partition and subsequent conflict, with a negative CAGR of 0.74%. This phase demonstrates how political upheavals and migration flows reshaped urban hierarchies in borderlands (Gilmartin, 1998).

In the post-independence to pre-liberalization phase (1951–1991), the total number of towns rose from 58 to 67, but with a relatively slow CAGR of 0.36%. Rajasthan maintained steady growth (1.56%), supported by the Indira Gandhi Canal project and the development of administrative towns. Gujarat demonstrated consistency with a CAGR of 1.70%, reflecting industrialization and the rise of port towns, such as Gandhidham. Punjab's growth slowed significantly (0.64%), highlighting the predominance of agricultural modernization (the Green Revolution) over expansion in the number of towns. Jammu & Kashmir displayed stagnation, with no consistent data for 1991, further underlining the impact of political instability on urban development (Bhat & Murtaza, 2016).

The post-liberalization period (1991–2011): This period saw a dramatic acceleration, with the total number of towns rising from 67 to 157, achieving a CAGR of 4.36%. Punjab witnessed the most significant expansion (3.27%), with many villages upgraded to census towns due to growth in non-farm employment and infrastructural investment (Kundu, 2011). Jammu & Kashmir experienced a substantial increase in towns (from 13 in 1951 to 56 in 2011), although

missing 1991 data limit precise growth rates. Gujarat maintained a moderate pace (0.77%), while Rajasthan's growth slowed sharply (0.37%), indicating the exhaustion of canal-induced urbanization models. This phase reflects the transformative effects of economic liberalization, census reclassification, and industrial restructuring on the urban landscape of border states.

Overall, the five time periods (1901–1941, 1941–1951, 1951–1991, 1991–2011, and the whole 1901–2011 trajectory) reveal how historical ruptures, state policies, and economic restructuring shaped the quantitative expansion of towns and their relative growth rates. Punjab and Jammu & Kashmir exemplify politically driven urbanization, while Rajasthan reflects the limits of irrigation-led expansion. Gujarat, on the other hand, demonstrates industrial and port-based stability.

Table 2.2 presents the district-wise distribution of towns across the border region adjacent to Pakistan for the census years 1901, 1941, 1951, 1991, and 2011. The data highlight the number of towns within each district of Jammu & Kashmir, Punjab, Rajasthan, and Gujarat, reflecting both the historical continuity and later emergence of new urban centres.

The Colonial Era: Examining urban growth by district in the border states reveals modest, highly uneven growth. In Jammu and Kashmir, Baramulla experienced a decline in towns, while Jammu registered a modest increase, suggesting that administrative centres benefited from limited colonial infrastructural investment. Districts such as Punch and Rajouri remained static, reflecting marginalization of the frontier belt in colonial development priorities.

In Punjab, towns in Amritsar and Ferozpur experienced slight increases, underscoring their significance as trade and religious hubs, while Gurdaspur declined marginally, indicating instability in settlement growth (Chandna, 2003). Rajasthan experienced slight increases in Bikaner and Ganganagar, whereas Barmer and Jaisalmer remained unchanged, indicating the ecological constraints of the desert frontier. Gujarat's Kachchh district exhibited complete stagnation, with the number of towns unchanged, reflecting its peripheral location and harsh physical environment.

Partition Decade (1941–1951): The border belt experienced sharp spatial discontinuities during urbanization. Punjab experienced contrasting patterns: Amritsar declined as it lost part of its hinterland to Pakistan, while Ferozpur and Gurdaspur gained towns through the establishment of

refugee settlements and administrative restructuring (Kundu, 2014). Kasur, Shakargarh, Narowal,

Table 2.2: District-wise Distribution of Towns

District	1901	1941	1951	1991	2011
Baramulla	6	3	4	DNA	7
Jammu	1	4	4	DNA	20
Kathua		2	2	DNA	6
Kupwara				DNA	10
Punch	1	1	1	DNA	3
Rajouri		1	1	DNA	4
Samba		1	1	DNA	6
Amritsar	3	5	4	9	15
Firozpur	3	6	7	10	13
Gurdaspur	7	6	10	12	27
Tarn Taran	0	0	0	0	4
Barmer	2	2	2	4	4
Bikaner	1	3	4	4	6
Ganganagar	1	3	6	16	16
Jaisalmer	2	2	2	2	2
Kachch	6	6	9	9	14
Total	33	46	55	67	157

Note: Data not available for Jammu & Kashmir (1991).

Source: Compiled by Researcher, based on A-4 Table, Census of India (2011)

Muridke, Eminabad, and Gujranwala suburbs, all important towns within the Amritsar, Gurdaspur, and Firozpur service hinterland, shifted across the border after 1947. Several small notified areas and cantonment-linked towns in Gurdaspur and Firozpur were de-notified when their populations fell below the urban threshold due to refugee outmigration (DCHB tables, e.g., Mamdot and Makhu temporarily disappeared in 1951). Massive displacement during the 1947 tribal invasion led to depopulation.

In Jammu & Kashmir, districts such as Baramulla experienced contraction as violence, refugee movements, and administrative retrenchment triggered outmigration and the downgrading of smaller urban places (Talbot, 2006; Gilmartin, 1998). In Baramulla and the surrounding region, Uri and Sopore experienced sharp declines, and some were temporarily not considered towns in 1951. In the Punch and Mirpur region (now in Pakistan-occupied Kashmir), Mirpur, Bhimber, and Kotli towns that figured in pre-partition statistics ceased to appear in Indian census volumes after 1951 because of territorial loss. Several small towns disappeared during the conflict and administrative restructuring in the Rajouri and Poonch areas. By contrast, Jammu and Kathua remained comparatively stable as administrative and military hubs. At the same time, the northern frontier (e.g., Kupwara, later carved out of Baramulla) experienced significant urban growth in subsequent decades, driven by renewed state investment, securitization, and road expansion. These patterns align with census evidence on post Partition population movements and reclassification, as well as with broader accounts of the restructuring of Kashmir's urban system after 1947 (Census of India, 1951; Kundu, 1983; Bose, 2003; Snedden, 2012; Zutshi, 2014).

In Rajasthan, Bikaner and Ganganagar recorded notable increases, with Ganganagar benefiting from irrigation and refugee rehabilitation, whereas Barmer and Jaisalmer

remained static. Kachchh in Gujarat experienced only modest growth, as its remoteness shielded it from a large influx of refugees; however, Partition nonetheless marked the beginning of slow urban expansion.

Post-Independence to Pre-Liberalization (1951–1991):

Over the four decades following independence, town growth was unevenly driven by state-led development initiatives and refugee resettlement. In Punjab, towns in Amritsar and Firozpur expanded gradually, while Gurdaspur registered notable growth, underscoring its role as a key urban district in the post-Partition landscape (Kundu, 2019). Amritsar, despite losing a substantial part of its hinterland to Pakistan in 1947, gradually consolidated its position as a religious and commercial hub. The city absorbed large numbers of Hindu and Sikh refugees from West Punjab, which compensated for earlier demographic losses. New peripheral towns and outgrowths emerged, particularly along the Amritsar–Tarn Taran axis, though overall growth remained moderate compared to larger metropolitan centres like Delhi (Kaur, 2012). Gurdaspur exhibited the most pronounced urban expansion among Punjab's border districts. Strategically positioned along key road and rail corridors, the district registered the emergence and upgrading of towns such as Pathankot and Batala, which benefitted from their roles as refugee reception centres and industrial bases. Pathankot, in particular, became a critical junction town, linking Jammu, Himachal, and Punjab, and was designated a Class-I town by 1971. This underscores Gurdaspur's transformation into a critical urban anchor in the border belt (Kundu, 2019; Singh, 2018). Firozpur witnessed slower yet steady expansion. Its location along the Sutlej River and the India-Pakistan border restricted free urban expansion, yet the district sustained growth through its cantonment and transport-related functions. Abohar and Fazilka rose in significance as agricultural market towns, benefitting from canal irrigation and refugee agricultural colonies established after Partition. The development of cotton and wheat processing industries further strengthened the region's secondary urban base (Kumar, 2014).

Jammu and Kashmir experienced growth in districts such as Kupwara carved out of Baramulla in 1979 which developed as a new administrative-urban hub; Jammu and Kathua also gained additional towns, though the state's trajectory is partly obscured because the 1991 Population Census was not conducted in J&K (figures are projections) (District Kupwara, n.d.; Registrar General & Census Commissioner of India, 1992). Rajasthan's Ganganagar underwent dramatic expansion, transformed by the Gang/Indira Gandhi Canal system and planned settlement policies, which catalyzed agricultural colonization and urban development (Rahul, 2023; Singh, 2019; Sharma, 2019). By contrast, Barmer and Bikaner grew more modestly, while Jaisalmer remained largely static. In Gujarat, Kachchh began to show steady increases, with refugee-founded Gandhidham (in the early 1950s) and additional towns present by 1991, signalling recovery from earlier stagnation (Shahani, 2022; Census of India, Kutch DCHB, 1951). Overall, the period highlights how irrigation projects, refugee rehabilitation, and state-led planning shaped borderland urbanization (Yadav, 2013; Sharma, 2010).

Post-Liberalization Period (1991–2011). The post-liberalization Era was the most dynamic in terms of town growth, reflecting the combined effects of economic reforms, infrastructural expansion, and census recognition of small towns. Jammu and Kashmir witnessed remarkable expansion, with Jammu district's urban centres multiplying, alongside new growth in Samba and Kupwara, despite ongoing instability in the region (Bhagat, 2015). Punjab registered a sharp surge, as Amritsar and Gurdaspur expanded rapidly, and the newly formed Tarn Taran added additional towns, underscoring the role of industrialization, improved connectivity, and border trade potential in fostering urban growth.

Rajasthan's trajectory, however, slowed markedly, while Bikaner added towns; Barmer and Jaisalmer stagnated, and Ganganagar plateaued, suggesting a saturation of earlier irrigation-led urbanization models. Gujarat's Kachchh continued a steady trajectory of growth, reinforced by post-earthquake reconstruction, industrial investment in Gandhidham and Kandla, and administrative recognition of new settlements. Administrative recognition of new settlements as Census towns and municipalities further consolidated this growth trajectory (Shah, 2005; Mukhopadhyay & Mahadevia, 2014; Government of Gujarat, 2012).

The district-level patterns reveal how the urbanization of India's border states evolved through four distinct phases: slow colonial expansion, partition-induced disruption and resettlement, post-independence state-driven consolidation, and post-liberalization acceleration. While Punjab and Jammu and Kashmir experienced significant growth during the liberalization era, Gujarat maintained a gradual yet steady pace, and Rajasthan displayed signs of stagnation after an earlier period of dynamism. These variations highlight the interplay between political upheavals, ecological constraints, infrastructural interventions, and economic reforms in shaping the uneven geography of borderland urbanization in twentieth- and early twenty-first-century India.

5. Conclusion

The historical evolution of urbanization in India's border districts adjoining Pakistan demonstrates that border regions follow development trajectories distinct from those of inland areas. Political events such as Partition, wars, refugee resettlement, and security considerations have had enduring impacts on settlement patterns.

Urban growth remained modest during the colonial period, accelerated during refugee rehabilitation after Partition, expanded through state-led development after independence, and experienced unprecedented growth following economic liberalization.

Punjab emerged as the most dynamic urban region after 1991, Gujarat maintained stable industrial growth, Rajasthan's canal-induced expansion eventually slowed, and Jammu & Kashmir displayed discontinuous but significant urban growth shaped by strategic importance.

Overall, the study demonstrates that urbanization in border regions represents a complex interaction among historical events, government policy, infrastructure investment, economic restructuring, and geopolitical circumstances. Understanding these dynamics is essential for designing balanced regional development strategies for India's international borderlands.

References

- [1] Bhagat, R.B. (2011) 'Emerging pattern of urbanisation in India', *Economic and Political Weekly*, 46(34), pp. 10–12.
- [2] Bhagat, R.B. and Hassan, M.I. (2025) 'Urbanisation and access to basic amenities', in *Urbanisation and Urban Policies in India*, pp. 123–141. Springer. https://doi.org/10.1007/978-981-96-3181-0_7
- [3] Census of India (2011) Houses, household amenities and assets: Census 2011 (visualising through maps). Office of the Registrar General & Census Commissioner, India (RGI).
- [4] Kundu, A. (2011) Trends and processes of urbanisation in India. International Institute for Environment and Development (IIED).
- [5] Kundu, A. (2011) 'Politics and economics of urban growth', *Economic and Political Weekly*.
- [6] Kundu, A., Bagchi, S. and Kundu, D. (1999) 'Regional distribution of infrastructure and basic amenities in urban India: issues concerning empowerment of local bodies', *Economic and Political Weekly*, 34(28), pp. 1893–1906.
- [7] UN-Habitat (2020) *World Cities Report 2020: The Value of Sustainable Urbanization*. Nairobi: United Nations Human Settlements Programme.
- [8] WHO and UNICEF (2017) *Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines*. Geneva: World Health Organization and United Nations Children's Fund (WHO/UNICEF Joint Monitoring Programme).
- [9] World Bank and partner agencies (2019) *Tracking SDG 7: The Energy Progress Report 2019*. (Electricity access and clean energy access benchmarking).
- [10] World Bank (n.d.) Access to electricity (% of population) – India (indicator EG.ELC.ACCS.ZS). World Development Indicators.