



Changing Land Values and Conversion of Agricultural Land in the Peri-Urban Fringe of Hisar City

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ABSTRACT

Peri-urban land is simultaneously a productive agricultural asset and a potential urban commodity. This dual character is increasingly visible around Hisar, where outward urban growth, transport corridors and the extension of residential and commercial uses have altered both the use and the valuation of farmland. The present study examines the relationship between changing land values and agricultural land conversion in the peri-urban fringe of Hisar City. It combines published geospatial evidence on land-cover change with official collector-rate schedules issued for Hisar tehsil for 2024 and 2025-26. Particular attention is given to Dabra, Gangwa, Satrod Khas and Satrod Khurd, where official rates permit comparison between village interiors, road-oriented segments and areas inside or outside the municipal boundary. Published land-cover analysis shows that the built-up area of Hisar and its peri-urban zone increased from 4,965.12 ha in 2001 to 9,889.20 ha in 2021, while 2,049.57 ha of agricultural land accounted for 41.62 per cent of total built-up gain. The land-value evidence reveals equally sharp spatial differentiation. In the 2025-26 schedule, irrigated agricultural land in Dabra was valued at ₹37.5 lakh per acre in the village segment, ₹130 lakh at 3-5 acres from the main road and ₹200 lakh within the first two acres of the road corridor. Satrod Khas displayed a municipal-boundary premium, with ₹75 lakh per acre outside the municipal area compared with ₹200 lakh within it. The results indicate that accessibility, planning status and expectations of future urban use are being capitalised into agricultural land values. These price signals raise the opportunity cost of farming and strengthen incentives for sale, subdivision and conversion. The study argues for closer integration of land-market monitoring with peri-urban agricultural protection and development control.

Keywords: peri-urban fringe; land value; agricultural land conversion; collector rate; urban expansion; Hisar; Haryana

1. INTRODUCTION

The edge of a growing city is not simply a line separating urban and rural land. It is a zone in which the meaning of land itself begins to change. A field that is valued primarily for crop production at one point in time may, within a few years, be valued for frontage, access to a highway, proximity to a residential colony or the possibility of future conversion. This shift is particularly important in the Indian peri-urban context, where agricultural land commonly becomes the principal reserve for horizontal urban expansion. The result is a land market in which agricultural productivity remains relevant, but no longer provides the only basis for value.

The transformation has two connected dimensions. The first is physical: agricultural parcels are converted into residential, commercial, institutional, industrial and transport uses. The second is economic: the expected value of a non-agricultural use is gradually capitalised into the price of land before conversion actually takes place. Once this occurs, continuing cultivation competes not merely with another crop or another farming system, but with the anticipated return from urban development. The price of land may therefore rise much faster than agricultural income, especially along roads and near municipal limits. This creates a powerful incentive to sell, subdivide, hold land speculatively, or wait for a change in planning status.

Research from India has established that agricultural land loss is not confined to the largest metropolitan regions. Pandey and Seto (2015) found that urban conversion of agricultural land was significant around smaller cities as well, while later work on peri-urban land transitions has emphasised the combined role of accessibility, institutions, market expectations and political economy (Jain et al., 2023). Studies of Gurgaon are especially relevant to Haryana. Narain (2009) documented the social and livelihood consequences of large-scale acquisition of agricultural land, and Cowan (2018) showed how formerly agrarian landowners could be drawn into rentier and real-estate economies after land conversion. Vij et al. (2018) further demonstrated that land-use change in peri-urban Gurgaon is inseparable from wider contests over resources and urban growth.

Hisar presents a different, but increasingly important, setting. It is a medium-sized regional centre with a strong agricultural hinterland, a large educational and institutional base, industrial activity, and road connections that radiate through surrounding villages. The city is also recognised as a counter-magnet in the broader planning



framework of the National Capital Region. These functions have encouraged outward growth. Rahul and Kaur (2024) delineated a peri-urban zone extending beyond the municipal limits and identified Gangwa, Satrod Khurd, Satrod Khas, Satrod Kalan and Mayyer as census towns with strong urban characteristics. Their geospatial analysis showed that most of the additional built-up area between 2001 and 2021 occurred in the peri-urban zone and that major highways were important axes of expansion.

The physical conversion of land around Hisar has been studied more frequently than its price geography. Yet the two processes are closely related. If road-side agricultural land commands several times the official value of land in the village interior, that differential reveals more than simple soil quality. It reflects accessibility, expected urban demand and the probability of future development. Similarly, a large difference between agricultural land inside and outside the municipal boundary can be read as an institutional premium generated by location and development status. These spatial premiums provide a useful way of understanding why conversion pressure is uneven across the fringe.

This paper therefore approaches peri-urban change through the land market rather than through land-cover mapping alone. It uses official collector rates as an administrative indicator of changing land value and places them alongside published evidence of agricultural-to-built-up conversion. Collector rates are not the same as open-market transaction prices; they are benchmark values used for registration and revenue purposes. Nevertheless, changes in these rates, and especially differences between nearby segments of the same village, capture an official recognition of spatially differentiated land values. When interpreted carefully, they provide a useful secondary source for examining the economic geography of conversion.

The study addresses three questions: (i) how rapidly has the built-up footprint expanded into the agricultural fringe of Hisar; (ii) how strongly do official agricultural land values vary with road access and municipal location; and (iii) what do these value gradients suggest about the conversion pressure faced by peri-urban agriculture? The central argument is that agricultural land conversion in Hisar should be understood not only as a land-use outcome, but also as a response to a changing valuation regime in which urban expectations increasingly outweigh the annual productive return from farming.

2. LAND AS AN AGRARIAN ASSET AND AN URBAN COMMODITY

Agricultural land in a peri-urban zone has a dual value. Its first value arises from its current use: crop income, fodder production, irrigation access, soil quality and the security associated with owning a productive asset. Its second value is anticipatory. A parcel may be attractive because it is close to a road, a city boundary, an industrial area or an expanding colony, even if it is still cultivated. The landholder and the buyer are then responding to the possibility that the parcel will acquire a more profitable use in the future. This anticipatory component can be described as an urban option value.

The option value does not develop uniformly. Accessibility is one of the strongest differentiating factors. Road frontage reduces the cost of subdivision, improves visibility and makes a site more suitable for shops, warehouses, institutions, housing or other urban uses. Consequently, two fields with similar agricultural productivity may acquire very different values when one lies directly along a major road. The same logic applies to municipal incorporation and planning status. Land inside a municipal boundary may be perceived as closer to urban services and more likely to receive infrastructure or formal development permissions. The resulting premium is institutional as much as geographical.

Peri-urban research in India repeatedly shows that land markets are shaped by this movement from agrarian to urban valuation. In Gurgaon, land acquisition and private transactions reworked village economies and encouraged a shift away from cultivation (Narain, 2009; Cowan, 2018). In Bengaluru, land assembly for large real-estate projects created substantial increments in value as agricultural parcels moved through successive stages of consolidation and development (Gidwani & Upadhyay, 2023). Studies from Jalandhar likewise show that road corridors, institutional development and commercial establishments were major drivers of agricultural land transformation (Ratnam & Kaur, 2023). These examples indicate that land conversion is rarely a single event. It is usually preceded by a period during which land prices, ownership expectations and local livelihoods begin to change.

This perspective is useful for Hisar because urban expansion there is dispersed rather than entirely compact. Rahul and Kaur (2024) reported a rise in Shannon entropy between 2001 and 2021, indicating a more scattered built-up pattern. Such a pattern places a larger interface between urban and agricultural uses. A field may remain under cultivation while residential or commercial activity appears on one side, a road is widened on another, and a nearby parcel is plotted for non-agricultural use. Under these conditions, the land market can change well before the land-cover class changes on a satellite image.

For this reason, the present study treats collector rates as a signal rather than as a direct measure of market price. Their analytical value lies in comparison. If the official rate for agricultural land near a road is five times the rate in the interior of the same village, the differential reveals the extent to which location has been capitalised into value. If a rate rises by 30 or 50 per cent in a single revision, it indicates that the administrative benchmark is



adjusting to a rapidly changing local market. These signals are then interpreted alongside observed land conversion to understand the economic pressure on agriculture.

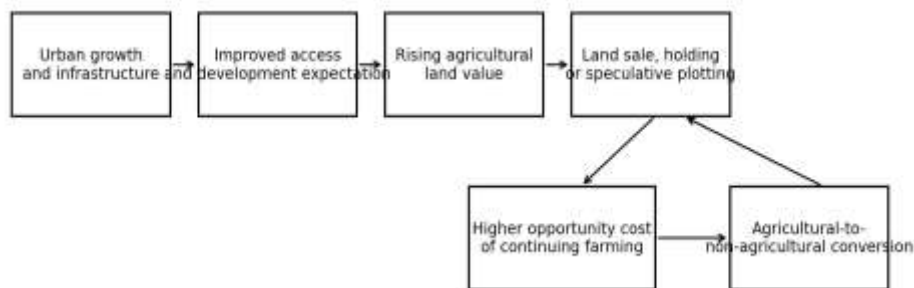


Figure 1. Analytical pathway linking peri-urban growth, land values and agricultural conversion.

3. STUDY AREA AND EVIDENCE BASE

Hisar District lies in western Haryana and covers 3,983 km². According to Census 2011 figures reported by the District Administration, the district had a population of 1,743,931. Hisar City is the district headquarters and is located about 164 km west of Delhi on National Highway 9. The city combines administrative, industrial, educational, medical and commercial functions and serves a wide rural hinterland. These functions, together with its road connectivity, have produced a broad zone of urban influence outside the municipal boundary.

The peri-urban area is agriculturally important. Irrigated farming, wheat, mustard, cotton and other crops continue to occupy a large share of the surrounding landscape. At the same time, the fringe contains residential colonies, educational institutions, industrial establishments, transport facilities, brick kilns and other non-agricultural activities. Rahul and Kaur (2024) identified 49 administrative units in the wider peri-urban zone, covering 776.62 km², and noted that the zone extends roughly 13-23 km from the city centre. Five census towns - Gangwa, Satrod Khurd, Satrod Khas, Satrod Kalan and Mayyer - lie in close functional association with Hisar. Dabra, another village in the fringe, provides particularly clear official land-value data for comparing interior and main-road segments.

The evidence used in the present paper comes from three types of secondary sources. First, published geospatial results provide the scale and direction of land-cover change. Second, official collector-rate schedules issued by the District Administration, Hisar, provide village- and segment-specific benchmark values for agricultural, residential and commercial property. The 2024 draft schedule reports the existing 2023 rate and the predictive 2024 rate. The 2025-26 schedule reports the collector rate prevailing after the December 2024 revision and the proposed rate for 2025-26. Third, wider peri-urban studies from Haryana and other Indian cities provide a comparative basis for interpreting the Hisar pattern.

The analysis concentrates on irrigated agricultural land because this category is available across several fringe segments and allows a more consistent spatial comparison. Values are converted from rupees per acre to lakh rupees per acre for readability. Where a schedule distinguishes land within two acres of a main road, land three to five acres from the road, and land outside or inside the municipal area, those categories are retained because they reveal the spatial gradient of development pressure.

Table 1. Evidence base used in the study.

Source / dataset	Period	Spatial detail	Analytical use
Published geospatial analysis of Hisar (Rahul & Kaur)	2001-2021	Hisar City and delineated peri-urban zone	Built-up expansion, peri-urban share, agricultural contribution to built-up gain
Draft Collector Rate, Hisar Tehsil	2024	Village and property segment	Existing 2023 rate and predictive 2024 benchmark
Proposed Collector Rate, Hisar Tehsil	2025-26	Village, road-distance and municipal segments	Short-term rate change and spatial land-value gradient
District profile and planning information	Current official records / Census 2011	Hisar District and city	Study-area context
Peer-reviewed peri-urban literature	2009-2024	India / Haryana comparison	Interpretation of land-market and conversion processes



4. METHOD OF ANALYSIS

The paper follows a secondary-data analytical design. It does not estimate unobserved market prices and does not treat collector rates as equivalent to actual sale prices. Instead, the official rates are used to measure three features of the peri-urban land market: temporal escalation, accessibility premium and municipal-location premium. This distinction is important because registered market transactions may differ from the administrative benchmark, while the benchmark itself remains useful for comparing officially recognised values across space and time.

Temporal escalation is calculated as the percentage change between successive official benchmarks. For Dabra, the 2024 schedule provides a 2023 base and a predictive 2024 value, while the 2025-26 schedule provides the post-December 2024 benchmark and the proposed 2025-26 rate. This produces a short but informative sequence for the village interior and two main-road distance bands. The overall change from the 2023 existing rate to the proposed 2025-26 rate is also reported.

Spatial premiums are calculated as simple ratios. For Dabra, the proposed 2025-26 irrigated agricultural rate for the village segment is treated as the local base, and rates in the 3-5 acre and within-2-acre main-road bands are divided by that value. For Satrod Khas and Satrod Khurd, the outside-Municipal-Corporation rate is used as the base and compared with road-oriented or within-Municipal-Corporation segments. These ratios do not imply that every parcel in a segment has identical market potential; rather, they show how the administrative valuation framework responds to accessibility and urban status.

The land-value results are then read against published land-cover change. This allows the study to connect a physical process - the conversion of non-built-up and agricultural land - with an economic process - the widening value gap between ordinary agricultural locations and urban-oriented segments. The analysis is deliberately interpretive rather than econometric because a complete parcel-level transaction database, including sale price, parcel size, buyer type and conversion date, is not publicly available for the full study period.

Two limitations should therefore be kept in view. First, collector rates may understate or smooth actual market differences, and proposed rates may be revised before final notification. Second, land conversion decisions are influenced by multiple factors, including household debt, inheritance, crop profitability, planning regulation and developer demand. A rise in value creates an incentive for conversion but does not by itself prove that a specific parcel was sold or converted. The strength of the present approach lies in demonstrating the spatial and temporal correspondence between official value escalation and the documented urbanisation of the agricultural fringe.

5. RESULTS

5.1 Urban expansion and the agricultural conversion context

The land-market evidence becomes meaningful when placed against the scale of physical expansion. Rahul and Kaur (2024) estimated that the built-up area within Hisar City and its peri-urban zone increased from 4,965.12 ha in 2001 to 9,889.20 ha in 2021. The increase of 4,924.08 ha represented a 99.17 per cent rise in two decades. At the same time, the non-built-up area declined by the same absolute amount. The spatial distribution of the new built-up area is especially significant: the share located outside the municipal boundary increased, and by 2021 about 70 per cent of the total built-up area in the study region lay in the peri-urban zone.

Agricultural land was one of the principal sources of this expansion. Of the total 4,924.08 ha of built-up gain identified between 2001 and 2021, 2,049.57 ha came from agricultural land, equal to 41.62 per cent of the gain. Open land contributed a slightly larger share, but the agricultural component is large enough to demonstrate that urban growth was not simply filling vacant spaces. It was also replacing cultivated land. The same study observed that expansion was strongly associated with major transport routes, including National Highways 9 and 52, and with the growth of census towns, residential development, institutions and industries in the fringe.

This pattern is consistent with a land-value mechanism. When the majority of new built-up land lies in the peri-urban zone, parcels close to roads and existing urban development acquire a different economic position from fields located deeper inside the rural landscape. The collector-rate schedules show that this difference is already embedded in official valuation.

Table 2. Published land-cover change in Hisar City and its peri-urban zone, 2001-2021.

Indicator	2001	2021	Change / share
Total built-up area	4,965.12 ha	9,889.20 ha	+4,924.08 ha (+99.17%)
Total non-built-up area	77,245.83 ha	72,321.75 ha	-4,924.08 ha (-6.38%)
Built-up within MC	2,114.82 ha	2,996.19 ha	+881.37 ha
Share of total built-up in peri-urban area	58%	70%	+12 percentage points
Agricultural land converted to built-up	-	-	2,049.57 ha (41.62% of total built-up gain)



Source: Compiled from Rahul and Kaur (2024).

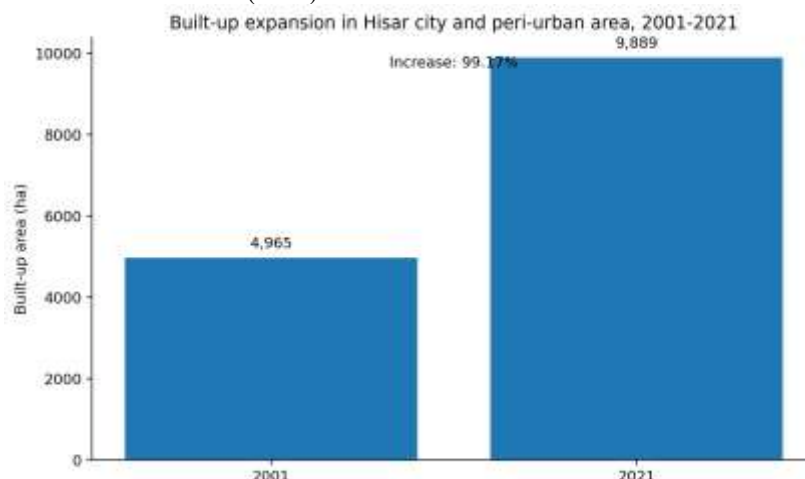


Figure 2. Built-up expansion in Hisar City and its peri-urban area, 2001-2021.

Source: data compiled from Rahul and Kaur (2024).

5.2 Rapid escalation of agricultural land values in Dabra

Dabra provides the clearest short-term sequence because the official documents distinguish the village segment from two main-road bands. In the 2024 draft collector-rate schedule, the existing 2023 rate for irrigated agricultural land in Dabra village was ₹19 lakh per acre and the predictive 2024 rate was ₹20.9 lakh per acre. By the December 2024 benchmark reported in the 2025-26 schedule, the rate had reached ₹25 lakh per acre. The proposed 2025-26 rate was ₹37.5 lakh per acre. Taken from the 2023 base to the proposed 2025-26 value, the administrative benchmark therefore increased by 97.4 per cent.

The road-oriented segments started from a much higher base. Agricultural land within two acres of the Dabra main road was valued at ₹130 lakh per acre in the 2023 column of the 2024 schedule, rising to a predictive ₹156 lakh for 2024. The December 2024 benchmark shown in the next schedule was ₹180 lakh, followed by a proposed ₹200 lakh for 2025-26. The overall rise from 2023 to the proposed 2025-26 rate was 53.8 per cent. Land three to five acres from the main road rose from ₹73 lakh in 2023 to ₹87.6 lakh in the predictive 2024 schedule, then to ₹100 lakh in December 2024 and ₹130 lakh in the proposed 2025-26 schedule. This produced an overall rise of 78.1 per cent.

These figures show two processes operating at the same time. First, rates are rising across all three segments. Second, the absolute value gap between the ordinary village segment and the road corridor remains very large. The road premium is therefore not a temporary anomaly produced by one revision; it is a persistent spatial feature of the valuation structure.

Table 3. Administrative agricultural land-value trend in Dabra (₹ lakh per acre).

Segment	2023 existing	2024 predictive	Dec. 2024 benchmark	2025-26 proposed	2023 to 2025-26
Dabra village	19.0	20.9	25.0	37.5	+97.4%
Main road, within 2 acres	130.0	156.0	180.0	200.0	+53.8%
Main road, 3-5 acres	73.0	87.6	100.0	130.0	+78.1%

Source: District Administration Hisar, Draft Collector Rate 2024 and Proposed Collector Rate 2025-26. Values refer to irrigated agricultural land.

5.3 Road-access and municipal-boundary premiums

The 2025-26 schedule allows a wider cross-sectional comparison across the fringe. The strongest gradient is again visible in Dabra. The proposed rate for irrigated agricultural land in the village segment is ₹37.5 lakh per acre. At a distance of three to five acres from the main road, the rate rises to ₹130 lakh per acre, 3.47 times the village rate. Within the first two acres of the main road it reaches ₹200 lakh per acre, 5.33 times the village benchmark. This is an exceptionally large accessibility premium for land that remains classified as agricultural in the schedule.

Satrod Khas displays a somewhat different gradient because both road-distance and municipal-status categories are reported. Irrigated agricultural land outside the Municipal Corporation is proposed at ₹75 lakh per acre. The rate rises to ₹138 lakh in the three-to-five-acre band and ₹150 lakh in the two-acre band. Agricultural land



within the Municipal Corporation is proposed at ₹200 lakh per acre. Relative to the outside-MC base, the within-MC rate is 2.67 times as high. The road-oriented two-acre segment is exactly twice the outside-MC rate. Satrod Khurd shows a similar but slightly less steep structure. The proposed outside-MC rate is ₹83 lakh per acre, compared with ₹130 lakh in the three-to-five-acre band and ₹180 lakh within two acres. The corresponding premiums are 1.57 and 2.17 times the outside-MC rate. Gangwa, for which the 2025-26 schedule reports an outside-MC irrigated agricultural rate of ₹87 lakh per acre, also sits well above the Dabra village-interior rate, reflecting its closer integration with the urban edge.

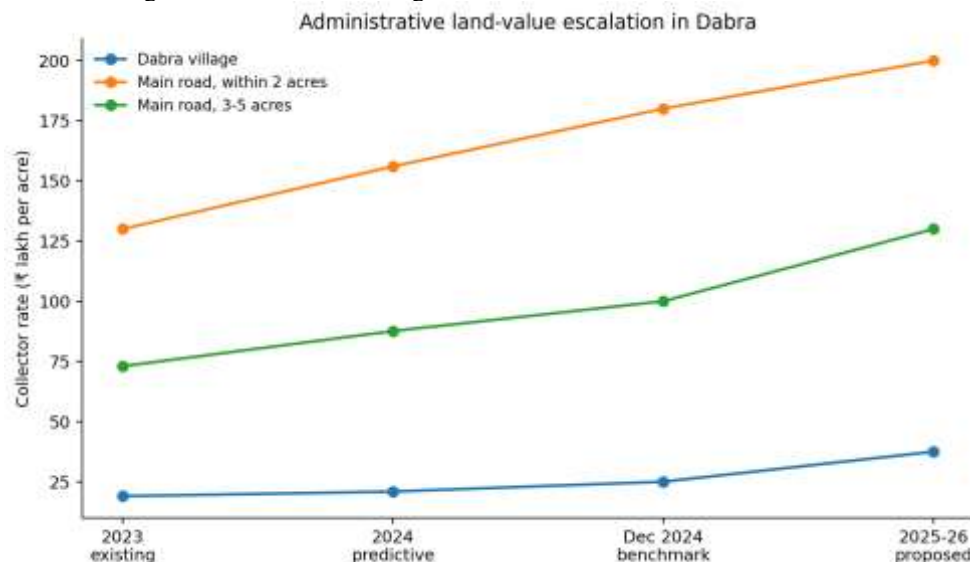


Figure 3. Administrative land-value escalation in Dabra. Note: predictive/proposed collector rates are official administrative benchmarks, not observed market transaction prices.

The differences cannot be explained by agricultural productivity alone. A fivefold difference within Dabra, or a 2.67-fold difference between outside- and inside-MC agricultural land in Satrod Khas, points to urban location as a major component of land value. Road access creates development flexibility, while municipal inclusion signals greater proximity to urban services, regulation and future built-up demand. The official valuation system therefore mirrors the very spatial conditions that encourage agricultural conversion.

Table 4. Proposed 2025-26 irrigated agricultural collector rates in selected peri-urban segments.

Location / segment	Rate (₹ lakh/acre)	Local base	Premium ratio
Dabra village	37.5	Dabra village	1.00
Dabra main road, 3-5 acres	130.0	Dabra village	3.47
Dabra main road, within 2 acres	200.0	Dabra village	5.33
Satrod Khas outside MC	75.0	Outside MC	1.00
Satrod Khas, 3-5 acres	138.0	Outside MC	1.84
Satrod Khas, within 2 acres	150.0	Outside MC	2.00
Satrod Khas within MC	200.0	Outside MC	2.67
Satrod Khurd outside MC	83.0	Outside MC	1.00
Satrod Khurd, 3-5 acres	130.0	Outside MC	1.57
Satrod Khurd, within 2 acres	180.0	Outside MC	2.17
Gangwa outside MC	87.0	Not segmented	-

Source: District Administration Hisar, Proposed Collector Rate 2025-26. Premium ratio = segment rate divided by the stated local base.

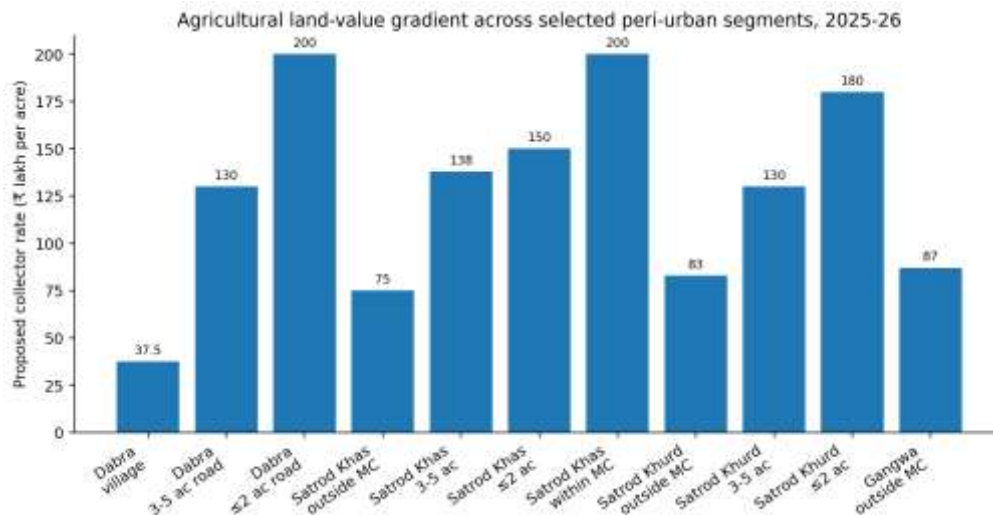


Figure 4. Agricultural land-value gradient across selected peri-urban segments, 2025-26.

5.4 From higher land values to conversion pressure

The collector-rate gradient by itself does not record a land sale, but it changes the economic context in which farming decisions are made. A farmer operating land valued at ₹30-40 lakh per acre faces a very different opportunity cost from a farmer whose road-side parcel is officially valued at ₹130-200 lakh per acre. Even if the annual crop return remains satisfactory, the capital value locked in the land becomes difficult to ignore. The household may decide to sell part of the holding, retain a roadside strip for future commercial use, divide land among heirs, or stop making long-term agricultural investments while waiting for a better offer.

This mechanism helps explain why conversion in peri-urban areas often appears fragmented rather than continuous. Developers and individual buyers do not necessarily acquire an entire agricultural block at once. Road-front parcels may be converted first because they provide the greatest immediate development advantage. Residential colonies or institutions then appear as isolated built-up patches, raising the value of adjoining land and creating a second round of expectations. The resulting landscape is a mosaic of active fields, vacant plotted land, construction sites and established urban uses.

Published evidence from Hisar supports this interpretation. Rahul and Kaur (2024) found that the built-up share of the wider study area doubled from 6 to 12 per cent and that the peri-urban area accounted for the majority of built-up land by 2021. Their reported increase in Shannon entropy indicates dispersed growth rather than complete concentration inside the city. A separate line of research on Indian peri-urban regions reaches a similar conclusion. Ratnam and Kaur (2023) linked rural land transformation around Jalandhar to transport corridors and institutional and commercial establishments. Udaykumar et al. (2024), studying Bengaluru, reported much higher land values in urban and peri-urban tracts than in rural areas and identified land sale and fragmentation as important consequences of sprawl.

The Hisar collector-rate schedules also distinguish agricultural land from 'gair-mumkin' land and from residential and commercial property. In several rapidly changing segments, new or much higher benchmarks appear for non-agricultural categories. These entries should not be read as proof that a particular agricultural parcel has been converted, but they do show that the revenue framework is dealing with an increasingly heterogeneous property market in former or current village landscapes. The boundary between an agricultural market and an urban property market is becoming less clear.

5.5 Uneven geography of conversion

Conversion pressure is not uniform around Hisar. The official rates suggest at least three distinct land-market situations. The first is the relatively lower-value agricultural interior, represented by the Dabra village segment. Farming remains the visible land use, and the development premium is comparatively limited. The second is the accessible corridor, where rates increase sharply with proximity to a main road. Dabra and Satrod Khurd fall strongly into this category. The third is the urban-interface location, where municipal inclusion and road access overlap, as in Satrod Khas. Here agricultural classification persists in the revenue schedule, but the value structure is already strongly urban.

This unevenness matters for agricultural continuity. A uniform policy for the entire fringe would overlook the fact that the strongest pressure is concentrated in specific corridors and boundary zones. Fields located a few hundred metres apart may face very different development expectations. In practical terms, the agricultural landscape is being reorganised by accessibility before it is fully replaced by built-up land.



6. DISCUSSION

The findings suggest that peri-urban transformation in Hisar is driven by a reinforcing relationship between land values and land conversion. Physical urban growth creates new accessibility, services and development expectations. These conditions increase the value of nearby agricultural land. Higher land values, in turn, make sale and conversion more attractive relative to long-term cultivation. Once a parcel is converted, adjoining land becomes still more accessible and its expected urban value rises. The process is therefore cumulative rather than linear.

This pattern resembles other Indian peri-urban regions but also has a distinctive Hisar character. Gurgaon represents an extreme case of metropolitan expansion, large-scale acquisition and developer-led land restructuring (Narain, 2009; Cowan, 2018). Hisar is smaller and retains a stronger agricultural landscape, yet the same basic valuation logic is visible. Land near roads and within the municipal interface is valued not simply for what it produces today, but for what it may become tomorrow. In this sense, Hisar illustrates how land-market urbanisation can reach medium-sized cities well before their fringe becomes continuously built-up.

The magnitude of the road premium is especially revealing. In Dabra, the proposed 2025-26 benchmark for irrigated land within two acres of the main road is more than five times the village-interior rate. This difference effectively prices accessibility as a development asset. A farmer with road-front land therefore faces a stronger incentive to treat part of the holding as real estate than a farmer with an otherwise similar parcel away from the corridor. The land may remain cultivated for some time, but its economic identity has already shifted.

Municipal status produces a parallel effect. The Satrod Khas comparison shows a proposed agricultural rate of ₹75 lakh per acre outside the Municipal Corporation and ₹200 lakh within it. Such a difference is consistent with the expectation that municipal inclusion improves access to urban services and formal development opportunities. It also demonstrates why municipal expansion and planning decisions can have immediate distributive effects. The value gain accrues primarily to landowners, while tenants, agricultural labourers and households dependent on local farming may not receive a comparable benefit. This issue has been documented in peri-urban Gurgaon, where the economic gains from land conversion were unevenly distributed (Narain, 2009; Vij et al., 2018).

The land-value approach also helps explain why agricultural land can decline even when farming remains technically viable. Conversion is not always triggered by poor soils, water scarcity or low yields. A productive field can be converted because the capital return from urban use is far greater than the discounted stream of agricultural income. Pandey and Seto (2015) found that urban conversion in India often affected agriculturally suitable land. The Hisar evidence fits this broader concern: urban expansion is taking place within a region where irrigated agriculture is well established.

At the same time, collector rates must be interpreted with care. They are administrative values used in property registration and taxation and may not capture negotiated market prices. In some locations actual transactions may occur above the collector rate; in others liquidity and legal restrictions may produce a different pattern. For this reason, the present paper does not claim that ₹200 lakh per acre is the universal sale price for every road-side parcel in Dabra or Satrod. The important finding is the relative gradient: the official system assigns much higher values to the same agricultural category when accessibility or municipal location changes.

The temporal sequence in Dabra strengthens this interpretation. The village-interior irrigated rate rises from ₹19 lakh per acre in the 2023 base to a proposed ₹37.5 lakh in 2025-26. The road-side segments also increase from already high starting points. Such repeated upward revisions indicate that the administration is responding to a rapidly changing property environment. In a stable agricultural land market, one would expect value differences to be driven mainly by irrigation and soil quality. Here the strongest differences are associated with road distance and urban location.

The wider implication is that agricultural conversion should not be studied only after it appears on a land-use map. By the time a field becomes built-up, the economic transition may have been underway for years. Monitoring land values, transaction volumes, mutation records and conversion permissions can provide an earlier warning of where agricultural land is under pressure. This is particularly important for a city such as Hisar, where the peri-urban zone is extensive and urban growth remains dispersed.

7. PLANNING AND POLICY IMPLICATIONS

The evidence points to the need for a more explicit land-market component in peri-urban planning. Development control is commonly organised around land-use categories, but the rate data show that conversion pressure can become intense while land is still officially agricultural. Planning agencies should therefore identify high-pressure agricultural corridors using a combination of collector rates, registered transactions, road accessibility, subdivision activity and recent built-up growth. Such monitoring would allow intervention before conversion becomes irreversible.

First, productive agricultural zones that remain spatially continuous should be distinguished from land already committed to planned urban expansion. A clear agricultural protection or transition framework would reduce



uncertainty and speculative holding. Second, road corridors require special attention. The extremely high accessibility premiums around Dabra and Satrod show that ribbon development can become the leading edge of conversion. Controlling unplanned access points, enforcing setbacks and concentrating development in designated nodes can reduce linear fragmentation of farmland.

Third, municipal expansion should be accompanied by transparent land-use and infrastructure plans. The Satrod Khas premium indicates that municipal inclusion itself can reshape land values. If boundary changes occur without clear development sequencing, they may intensify speculation and encourage premature conversion. Fourth, the district should make historical collector-rate and registered transaction data available in a machine-readable spatial format. Public data at village and segment level would improve both planning and academic assessment and would help separate speculative price movements from genuine infrastructure-led appreciation. Finally, agricultural policy in the fringe should recognise that land retention depends on more than crop productivity. Farmers facing very high land values may need alternative mechanisms if the public objective is to retain agriculture, such as secure zoning, support for high-value peri-urban farming, land pooling arrangements that return serviced plots while preserving selected green areas, or compensation mechanisms linked to development rights. The appropriate instrument will vary by corridor, but the principle is the same: urban planning and agricultural policy must address the economic value of land, not only its current land-use label.

8. CONCLUSION

The peri-urban fringe of Hisar is undergoing a transition in which agricultural land is increasingly valued through an urban lens. Published geospatial evidence shows that the built-up area of Hisar and its peri-urban zone nearly doubled between 2001 and 2021 and that agricultural land supplied more than two thousand hectares of this expansion. Official collector-rate schedules reveal the economic side of the same process. Agricultural land close to roads or within the municipal interface carries a substantial premium over ordinary village-interior land, and these rates have been revised upward rapidly.

Dabra offers the clearest example. The proposed 2025-26 rate for irrigated agricultural land within two acres of the main road is ₹200 lakh per acre, compared with ₹37.5 lakh in the village segment. Satrod Khas shows a different but equally important institutional gradient, with ₹75 lakh per acre outside the Municipal Corporation and ₹200 lakh within it. These differences show that accessibility and urban status are already capitalised into land values before agricultural classification disappears.

The central implication is that conversion pressure begins in the land market before it becomes visible as built-up land. Rising values increase the opportunity cost of farming, alter household expectations, encourage partial sale and subdivision, and make road-front parcels attractive for non-agricultural uses. The process is spatially selective, which means that the most vulnerable agricultural land can be identified through land-value gradients and accessibility indicators.

For Hisar, the challenge is therefore not to stop urban growth, but to manage the sequence and location of that growth. Linking collector-rate monitoring, transaction data, conversion permissions and geospatial land-use change would provide a stronger basis for protecting productive agricultural blocks while directing necessary development toward planned areas. Such an approach would make peri-urban planning more responsive to the actual economic forces that are reshaping the agricultural fringe.

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