



Spatial-Based Assessment of Village Development Levels Using Regional Potential Indicators in IV Koto Aur Malintang, West Sumatra

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Abstract: Village-level development is an essential component of regional planning that emphasizes the sustainable utilization of local potentials. This study aims to assess the level of development across five Nagari in IV Koto Aur Malintang Subdistrict, Padang Pariaman Regency, based on regional potential indicators outlined in the Indonesian Ministry of Home Affairs Regulation No. 12 of 2007. Using a quantitative descriptive approach, the Research analyzes secondary data on natural resources, human resources, institutional capacity, infrastructure, and public facilities. Each indicator was scored according to the official village profiling guidelines to categorize the development potential of each Nagari. The results indicate that the highest natural resource potential lies in the plantation and livestock sectors, particularly in Nagari III Koto Aur Malintang Selatan and Nagari III Koto Aur Malintang Utara. Agricultural potential tends to fall within the moderate-to-low range in most Nagari. In terms of human resources, population density and livelihood diversity vary significantly, influencing disparities in development outcomes. Institutional strength and infrastructure availability also vary across Nagari, with some exhibiting limitations in transportation and health facilities. Overall, development potential is categorized into three groups: high potential (Nagari III Koto Aur Malintang Selatan and Nagari III Koto Aur Malintang Timur), medium potential (Nagari III Koto Aur Malintang Utara and Balai Baiak Malai III Koto), and low potential (Nagari III Koto Aur Malintang). The study highlights the importance of adopting a place-based development approach to reduce inter-Nagari disparities. These findings are expected to inform more contextual, targeted, and sustainable village development planning.

Keywords: Institutional capacity; natural resources; regional potential; village development in IV Koto Aur Malintang.

Introduction

Regional development in the current era of decentralization positions villages and *Nagari* as key actors in achieving national and global development goals. The Government of Indonesia strengthens village capacity through decentralization, fiscal transfers, and community-based development policies, thereby enabling Nagari to play a strategic role in improving community welfare (Assajid et al., 2024).

Over time, the paradigm of rural development has undergone a substantial transformation. While earlier

development focused primarily on physical infrastructure, strengthening the Village SDGs framework has become the primary instrument for ensuring that development is more holistic, inclusive, and sustainable. The Village SDGs program, introduced by the Ministry of Villages in 2020, also serves as an evaluative framework for measuring village/Nagari progress across economic, social, institutional, and ecological dimensions, forming part of Indonesia's commitment to the 2030 SDGs (Anggraini, 2025).

In this context, the need for comprehensive *Nagari* development data has become increasingly important.

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The village/*Nagari* profiling system, as regulated in the Ministry of Home Affairs Regulation No. 12 of 2007, remains a foundational reference for identifying regional potential, including natural resources, human resources, infrastructure, institutions, and local economic activities. However, recent evaluations emphasize that the traditional village profile system must be updated to include SDG-based indicators to reflect better dynamic development needs (Sholikhatun Ma'rufah & Kusmarianto, 2025).

Moreover, recent studies highlight various challenges in implementing the Village SDGs. In several villages, program dissemination remains limited, local government capacity is still inadequate, and data utilization for planning and budgeting has not been optimized (Ulfah et al., 2024). From an institutional perspective, the legitimacy of Village Regulations (Perdes) with respect to the SDGs is crucial to ensuring the sustainability of program implementation. Tanda, Taufik, and Yuniarto (2022) show that SDG-based village regulations can strengthen village governance, making it more systematic and accountable (Setiya et al., 2022).

In addition, integrating the SDGs into the Village Medium-Term Development Plan (RPJM Desa) has become a growing practice across regions in Indonesia, ensuring that local development strategies align with both national and global SDGs targets (Setiya et al., 2025). This approach aligns with the theory of place-based development, which emphasizes that development strategies must be relevant to local characteristics, including geographical conditions, community capacity, institutional strength, and unique economic potentials (Barca, McCann, & Rodríguez-Pose, 2012). This theory rejects uniform development approaches, arguing that each region possesses distinct strengths, limitations, and development needs (Barca et al., n.d.).

In the context of *Nagari* development, regional potential indicators include agriculture, plantations, livestock, fisheries, mineral resources, education, health, basic infrastructure, and occupational structures. Recent studies show that disparities in regional potentials often lead to unequal development outcomes among villages/*Nagari*, including in rural areas of West Sumatra (Assajid et al., 2024)

In the IV Koto Aur Malintang Subdistrict of Padang Pariaman Regency, variations in natural resources and institutional capacity across *Nagari* lead to significant differences in development levels. However, potential assessments are often not conducted systematically, resulting in development policies that are not data-driven and do not fully reflect the actual needs of local communities. The hilly terrain, limited infrastructure, and low economic diversification further underscore the

need for a scientific, measurable evaluation of regional potential.

Considering these challenges, Research on *Nagari* development levels using both regional potential indicators and Village SDGs indicators is essential. Such Research is expected to provide a more comprehensive understanding of current conditions in each *Nagari* and to serve as a strategic recommendation for local governments in formulating targeted, inclusive, and sustainable development policies.

Method

This study employed a quantitative descriptive approach to assess the level of village (*Nagari*) development based on indicators of regional potential and the Village Sustainable Development Goals (Village SDGs) framework. The research was conducted in IV Koto Aur Malintang Subdistrict, Padang Pariaman Regency, and focused on five *Nagari* selected due to their varying characteristics of regional potential and development levels, allowing for a comparative analysis.

The data used in this study consisted primarily of secondary data obtained from official and authoritative sources, including *Nagari* Profiles, regional statistical reports, and administrative records provided by the subdistrict and *Nagari* governments. These data encompassed indicators of natural resources, human resources, infrastructure and public facilities, local economic activities, and institutional capacity. In addition, selected indicators from the Village SDGs framework—such as poverty reduction, education, health, economic diversification, environmental management, and governance—were integrated to provide a more comprehensive assessment of development conditions at the *Nagari* level.

The research process involved several stages, beginning with data collection and verification, followed by the identification and selection of relevant indicators in accordance with the Research objectives. Each indicator was then measured using a scoring and weighting system based on the assessment guidelines outlined in the Ministry of Home Affairs Regulation No. 12 of 2007 and the Village SDGs indicator matrix developed by the Ministry of Villages. This procedure enabled the quantification and comparison of development potential across the five *Nagari*.

Data analysis was conducted through tabulation, normalization, and comparative evaluation of the weighted scores. The resulting scores were subsequently classified into three categories—low, medium, and high development potential—based on predetermined interval criteria. The analytical results were interpreted to identify spatial disparities in regional potential and

development performance among the Nagari, to describe prevailing development patterns, and to formulate evidence-based recommendations to support future village-level development planning.

Result and Discussion

Recent studies highlight that spatial analysis is essential for understanding local development potential. Demonstrate that geospatial techniques strengthen regional profiling (Saputra & Santosa, 2020). variations in accessibility and governance strongly influence development disparities between Nagari (Prabowo et al., 2023).

Natural resource potential

Food Crops

The analysis of food crop data indicates that lowland rice (*padi*) and maize are the two most dominant agricultural commodities shaping the production structure of the study area. Lowland rice occupies the largest share in both cultivated area and harvested volume, making it the primary indicator of local food security. Its consistently high contribution demonstrates the region's continued dependence on traditional irrigated rice-farming systems, which generally remain stable from year to year. This aligns with findings from agricultural land-suitability research showing that rice remains the backbone of rural food systems in many Indonesian regions (Nurmiaty et al., 2020).

Table 1. Distribution of Food Crop Types, Cultivated Area, and Production Volume Across Nagari in IV Koto Aur Malintang

Nagari	Types of Food Crops	Food Crop Area	Total Food Crop Production
III Koto Aur Malintang	5	± 10 ha	8 tons
III Koto Aur Malintang Selatan	3	± 8,000 ha*	1,000 tons
III Koto Aur Malintang Timur	4	± 7,000 ha*	800 tons
III Koto Aur Malintang Utara	4	± 1,000 ha	2,000 tons
Balai Baik Malai III Koto	5	± 800 ha	100 tons

Maize also contributes substantially to the regional crop profile, although its cultivated area is smaller than that of rice. Its relatively high productivity indicates strong potential for development as an alternative leading commodity, particularly to support the rapidly growing livestock feed industry. Similar studies have shown that maize expansion is strategically feasible in mixed agroecosystems where both food and feed crops are cultivated (Marasabessy et al., 2019).

Other food crops, such as groundnuts, cassava, and sweet potatoes, show comparatively lower production volumes. Their limited contribution suggests that these commodities are cultivated on a subsistence scale, often grown in home gardens or dryland plots with minimal cultivation inputs. Nevertheless, minor crops remain vital for enhancing household-level food diversification, a trend observed across various rural landscapes in Indonesia (Saputra & Santosa, 2020).

Overall, the structure of food crop production reflects a strong dependence on irrigated rice as the primary commodity. This dependency poses potential

risks, particularly in the face of climate variability, declining irrigation infrastructure, and ongoing land-use conversion patterns documented in national-scale spatial assessments of food production vulnerability. Therefore, strengthening adaptive capacity through improved irrigation management, the adoption of climate-resilient rice varieties, and the expansion of diversified commodity systems including maize and other secondary crops becomes essential for enhancing long-term regional food security.

Plantations

Analysis of plantation land ownership shows a clear imbalance across the Nagari. Most households control only small plots (<5 ha), while only a limited number of families possess larger holdings, indicating socio-economic stratification in agrarian ownership. Similar patterns were documented in plantation-based rural economies, where unequal land access became a major factor shaping community welfare and production capacity (Ansor, 2021).

Table 2. Scoring Matrix for Household Plantation Land Ownership and State-Owned Plantation Enterprises

Indicator	Assessment	Score
Number of families owning plantation land	< 10% of total families	2
	10–20%	4
	20–40%	6
	40–60%	8
	> 60%	10
Families not owning plantation land	< 10% of total families	10
	10–20%	8

Indicator	Assessment	Score
Families with very small plantation land (0.5-5 ha)	20-40%	6
	40-60%	4
	> 60%	2
	< 10% of total families	2
	10-20%	4
Families with plantation land > 50 ha	20-40%	6
	40-60%	8
	> 60%	10
	< 10% of total families	10
	10-20%	8
Ownership by the state (Plantation business owned by the government)	20-40%	6
	40-60%	4
	> 60%	2
	< 10% of the total land business	3
	10-20%	4
	20-40%	5
	40-60%	6
	> 60%	7

Limited land ownership restricts farmers' ability to scale production and increases dependence on intermediaries for marketing. A study in Riau confirms that strengthening community access to plantation land requires structured spatial planning, partnership schemes, and corporate social responsibility (CSR) mechanisms to ensure fairer distribution of benefits (Herlon et al., 2023).

Plantation production patterns also vary substantially between Nagari. For instance, Nagari III Koto Aur Malintang Utara records the highest annual output (2,000 tons/year), indicating stronger commodity specialization than the others. The dominance of intermediaries in marketing further reflects structural limitations in local value chains, except in Nagari III Koto Aur Malintang and Nagari III Koto Aur Malintang Selatan, which can distribute directly to formal markets.

Plantation production patterns across Nagari not only reflect differences in agro-ecological conditions and levels of commodity specialization but also reveal structural constraints in market access and value chain organization. Empirical studies show that smallholder farmers who depend heavily on intermediaries tend to experience lower bargaining power and receive a smaller share of final market prices due to limited access to formal marketing channels and weak vertical integration (Wong-Parodi & Feygina, 2019).

Similar findings indicate that inadequate coordination between producers and buyers reinforces reliance on intermediaries and constrains income growth, even in areas with relatively high production output (Salimi et al., 2021). Moreover, diversification of agricultural production alone does not guarantee improved livelihoods unless accompanied by institutional support and effective market linkages that

allow farmers to capture greater value from their commodities (Wong-Parodi & Feygina, 2019).

Recent literature emphasizes that strengthening smallholder participation in short supply chains and direct marketing arrangements can substantially improve producer income and reduce dependency on intermediaries. Evidence suggests that digital platforms and collective marketing through farmer organizations enhance price transparency, shorten distribution channels, and facilitate access to higher-value markets (Salimi et al., 2021). In addition, studies highlight the critical role of supportive policies and institutional frameworks in enabling smallholders to integrate into modern food systems and formal markets sustainably (Salimi et al., 2021). Strengthening producer organizations and governance structures is therefore essential to transition from middleman-dominated value chains toward more equitable and efficient market systems (Qaim et al., 2020).

Overall, the scoring indicators used for plantation land ownership reflect essential "asset-based measures" for evaluating community capacity and economic opportunity. Low land ownership scores indicate weaker production potential and limited resilience, underscoring the need for policy interventions such as land redistribution, access to financing, and cooperative-based plantation management.

Livestock Sector

The livestock sector plays a significant role in agricultural development and offers substantial market opportunities. With population growth continuing rapidly, domestic demand for animal products is expected to increase, making this sector strategically important.

The livestock sector’s strategic importance is underscored by its contributions to food security, nutrition, and rural livelihoods, and its role is becoming increasingly critical as global demand for animal-based products continues to rise (Hossain et al., 2025). Recent projections indicate that population growth and changing consumption patterns are driving a substantial increase in demand for meat, milk, and eggs, particularly in developing regions where protein intake remains below recommended levels (Fonseca et al., 2025).

This trend creates significant market opportunities for livestock producers but also introduces challenges related to sustainability, efficiency, and value chain integration. Studies further emphasize that strengthening the livestock value chain through improved animal health services, feed systems, and access to formal markets can enhance productivity and amplify the sector’s contribution to economic growth and poverty reduction (Fonseca et al., 2025). As such, policies that support both production and market linkages are essential for capturing the full potential of the livestock sector amidst accelerating demand

Table 3. Scoring Matrix for Household Plantation Land Ownership and State-Owned Plantation Enterprises

Indicator	Assessment Criteria	Score
Families owning plantation land (<5 ha)	<10% of total families	2
	10-20%	4
	20-40%	6
	40-60%	8
	>60%	10
Families not owning plantation land	<10% of total families	10
	10-20%	8
	20-40%	6
	40-60%	4
	>60%	2
Families owning 0.5-5.0 ha	<10%	2
	10-20%	4
	20-40%	6
	40-60%	8
	>60%	10
Families owning >50 ha	<10%	10
	10-20%	8
	20-40%	6
	40-60%	4
	>60%	2
State-owned plantation enterprises	<10% of total plantation enterprises	3
	10-20%	4
	20-40%	5
	40-60%	6
	>60%	7

The evaluation of livestock potential is based on two main indicators: ownership (the proportion of the population that owns livestock) and population (the number of animals). According to Permendagri No. 12/2007, if fewer than 10% of the population owns livestock, the score is 1; as ownership increases, the score rises accordingly. For population growth, moving from under 100 animals (score 1) to over 5,000 animals (score 5) reflects increasing productivity and scale. Low ownership rates indicate that few community members have access to livestock, which could limit household-level economic benefits. Conversely, a high population score suggests potential for economies of scale, but only if the benefits are distributed fairly throughout the community.

The assessment of livestock potential should also be understood within the framework of inclusive development and the sustainability of rural livelihoods. Recent literature indicates that livestock ownership functions as a strategic productive asset that enhances household economic resilience, particularly in coping with economic and climate-related shocks. Empirical studies across developing countries demonstrate that households owning livestock tend to have more diversified income sources and lower vulnerability levels compared to those without livestock (Jiang & Yang, 2026). However, low ownership rates are frequently associated with limited access to financial capital, veterinary services, and extension support, which ultimately constrains the equitable expansion of benefits derived from the livestock sector (FAO, 2025).

Furthermore, a large livestock population in a given area must be accompanied by adequate institutional capacity and market integration to realize economies of scale fully. Recent Research emphasizes that scaling up production without efficient value chain support increases the risk of inefficiencies, environmental degradation, and unequal distribution of benefits (Fanzo et al., 2025). Other studies highlight that establishing cooperatives and strengthening collective action among livestock producers can enhance bargaining power, reduce transaction costs, and expand access to formal markets, thereby enabling the livestock population scale to be effectively translated into improved community welfare (Fanzo et al., 2025).

Overall, the scoring system highlights that both livestock ownership and population dynamics are crucial for assessing local potential. Even if ownership is limited, a large livestock population could support

agribusiness development, but this requires policies that increase access and investment. Strengthening smallholder participation through cooperative models, access to credit, and capacity building could help unlock the sector’s full potential.

Human Resource Potential

1) Human Resource Potential Viewed from Population Density

High population density in a *Nagari* might indicate greater labor availability and better potential for community-based economic activities; however, it could also pose risks such as overcrowding or strain on local infrastructure and services. On the other hand, *Nagari* with low density might struggle with labor shortages or limited economies of scale, but could benefit from more available land per capita.

Table 4 Population Density Scoring of Nagari in IV Koto Aur Malintang Subdistrict

Nagari	Population (People)	Nagari Area (km ²)	Population Density (People/km ²)	Score
III Koto Aur Malintang	7,135	15.18	356	4
III Koto Aur Malintang Selatan	8,331	58.84	147	3
III Koto Aur Malintang Timur	2,634	17.86	88	2
III Koto Aur Malintang Utara	3,083	18.85	164	3
Balai Baiak Malai III Koto	2,240	16.07	139	3

From Table 4, it is evident that Nagari III Koto Aur Malintang Selatan has the highest population and the largest area, while Nagari Balai Baiak Malai III Koto has the smallest population. The population density scoring reflects these variations: e.g., Nagari III Koto Aur Malintang has a density of 356 people/km², giving it a high score, whereas Nagari III Koto Aur Malintang Timur, with only 88 people/km², gets a much lower score. This uneven distribution of human resources suggests that some Nagari may have greater human capital potential than others, which could influence development dynamics. This scoring system helps highlight where human resource capacity is strong and where it may be underutilized. For policymakers, these insights are valuable: dense Nagari may require investments in social services and job creation, while less dense areas may benefit more from programs that attract residents or stimulate economic activity.

Differences in population density across *Nagari* indicate spatial disparities in human capital capacity that can significantly shape local development trajectories. Recent studies emphasize that areas with higher population density tend to benefit from more efficient labor markets, greater economic diversification, and improved access to public services, which together foster higher productivity and local economic growth. In contrast, low-density areas often face structural challenges such as limited workforce availability and

higher per-capita service delivery costs, potentially constraining rural development sustainability (Barouki et al., 2021).

Empirical evidence further shows that densely populated regions are more likely to benefit from agglomeration economies, including knowledge spillovers and intensified social interactions, which contribute to human capital accumulation when supported by adequate infrastructure and governance (Barouki et al., 2021). From a policy perspective, incorporating population density into spatial planning is crucial, as investments in education, health, and connectivity in dense areas have been shown to generate high social returns. Meanwhile, development strategies for sparsely populated Nagari are more effective when focused on improving rural attractiveness through basic service provision, digital inclusion, and support for local enterprises to retain and attract residents. Such density-sensitive policy approaches are increasingly recognized as essential for reducing regional inequality and promoting more balanced and inclusive territorial development (Barouki et al., 2021).

Human Resources Potential Viewed from the Level of Education

Such educational characteristics can constrain local development: low formal education may limit employment opportunities, reduce productivity, and

hinder innovation (Priyadarshana, 2026). On the other hand, these indicators also present an opportunity for development: by focusing on increasing school

participation, reducing drop-out rates, and improving educational infrastructure, the Nagari can strengthen its human resource potential.

Table 5. Distribution of School Attendance and Educational Completion Indicators in Nagari of IV Koto Aur Malintang

Nagari	Age 7-18 Not in School	Age 12-56 Never Attended School	Age 12-56 Not Completed Primary School (SD)	Age 18-56 Not Completed Junior High (SMP)	Age 18-56 Not Completed Senior High (SMA)	Special School (SLB)
III Koto Aur Malintang	1,070	570	713	1,427	2,854	71
III Koto Aur Malintang Selatan	2,296	2,649	1,501	883	618	88
III Koto Aur Malintang Timur	605	526	342	237	131	26
III Koto Aur Malintang Utara	3	10	290	372	383	40
Balai Baiak Malai III Koto	507	1,567	1,298	768	259	20

The data show significant variation in education levels across NaGari, particularly by age group and school attendance. For instance, a large number of individuals aged 7-18 years in several Nagari have never attended school. This highlights potential gaps in school enrollment for basic and intermediate education. Moreover, among people aged 12-56, many have not completed elementary (SD) or junior high (SMP) education, indicating that a sizable portion of the working-age population may lack foundational educational credentials. The number of people who did not complete secondary education suggests limited readiness for advanced economic activities.

These disparities in educational attainment across Nagari are not only a local concern but reflect broader challenges faced in rural and peri-urban contexts, where gaps in school enrollment and completion can hinder overall human capital development. Research in development economics shows that low levels of educational attainment are strongly associated with reduced labor market outcomes, lower productivity, and limited participation in higher-value economic activities (Wang et al., 2024). Moreover, studies indicate that individuals who do not complete secondary education are significantly more likely to experience unemployment or underemployment and to earn lower wages over their lifetimes than those who complete higher levels of schooling (Dubois et al., 2019). In rural settings, barriers to school attendance, including distance to schools, economic constraints, and household labor demands, exacerbate educational gaps and translate into persistent inequalities in skill formation and economic opportunities (Dubois et al., 2019). Therefore, the observed patterns of non-attendance and incomplete education among key age cohorts in your data likely indicate structural limitations that could impede broader development and workforce readiness unless addressed through targeted education policies and interventions (García-Lillo et al., 2015).

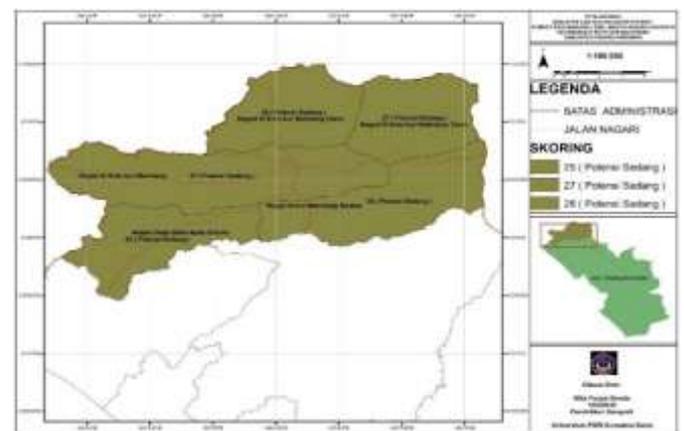


Figure 1. Spatial Distribution of Nagari Development Potential in IV Koto Aur Malintang Subdistrict

The presence of individuals who did not graduate from senior high school (SMA) and those attending special schools (SLB) also points to educational inequality and potential challenges with the accessibility or quality of mainstream education. This also implies that some segments of the population may require special interventions or tailored educational programs to improve their educational attainment. The spatial assessment of Nagari-level potential in IV Koto Aur Malintang Subdistrict indicates that all mapped areas fall within the medium potential category, with scores ranging from 25 to 28. This uniformity suggests that the biophysical characteristics, socio-economic conditions, and land-use patterns across the Nagari are relatively similar, resulting in no areas classified as low or high potential. Minor variations within the “medium –” to “medium +” subcategories are primarily influenced by factors such as accessibility, proximity to main transportation routes, and the availability of basic infrastructure. Nagari located closer to primary road networks tend to score higher (27-28), reflecting the critical role of accessibility in enhancing public service

provision and supporting local economic activities. This pattern aligns with the principles of spatially based rural development outlined in Minister of Home Affairs Regulation No. 12/2007 on Village/Urban Village Profile Data Utilization (Perbup, 2016).

The findings are also consistent with national evidence that infrastructure quality and service accessibility significantly influence rural development capacity. Consequently, the map highlights the need for targeted development interventions to improve accessibility, strengthen local governance institutions, and optimize key local sectors. This approach aligns with the spatial development framework promoted by Bappenas (Indonesia's National Development Planning Agency), which underscores connectivity and equitable service distribution as foundational to accelerating rural development.

These findings reinforce broader empirical evidence indicating that infrastructure quality and service accessibility are critical determinants of rural development capacity, particularly in geographically diverse regions. Recent studies demonstrate that improved rural connectivity through transport, digital infrastructure, and basic services enhances economic participation, reduces spatial inequality, and strengthens the effectiveness of local governance institutions (Hou et al., 2026).

Accessibility driven development has also been shown to enable rural areas to better integrate into regional markets and public service networks, thereby increasing the resilience and competitiveness of local economies (Lu et al., 2025). In the Indonesian context, this spatially targeted approach is consistent with the development framework promoted by Bappenas, which emphasizes connectivity, balanced service provision, and place-based policies as core strategies for accelerating rural transformation (Li, 2025). Consequently, the spatial patterns highlighted by the map provide a practical basis for prioritizing interventions to improve access, strengthen institutional capacity, and optimize key local economic sectors to achieve more inclusive and sustainable rural development outcomes.

Conclusion

This study demonstrates that the development levels of Nagari in the IV Koto Aur Malintang Subdistrict vary across indicators of natural resources, human resources, institutional capacity, and infrastructure. Spatial analysis reveals that most Nagari fall within the medium development category, indicating relatively similar biophysical and socio-economic characteristics but with notable disparities in accessibility, education levels, and land ownership

structures. Nagari located closer to main transportation routes tend to achieve higher scores due to better infrastructure and stronger institutional performance, while more remote Nagari exhibit limitations in service availability and economic diversification. The findings highlight the importance of integrating regional potential indicators with Village SDGs metrics to obtain a more comprehensive and future-oriented evaluation of local development conditions. Strengthening accessibility, improving educational attainment, enhancing institutional governance, and optimizing key economic sectors such as agriculture, plantations, and livestock are crucial strategies for reducing inter-Nagari disparities. Overall, the study underscores the need for a place-based development approach to support targeted, inclusive, and sustainable village development planning.

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Author Contributions

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Conflicts of Interest

The authors declare no conflict of interest.

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