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Optimizing The 2025–2029 Regional Medium-Term Development Plan As A Development Planning Instrument For Enhancing Regional Resilience: A Case Study Of North Padang Lawas Regency, Indonesia

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Abstract

*The **2025–2029 Regional Medium-Term Development Plan (RPJMD)** serves as a strategic planning document that guides regional development policies over a five-year period while functioning as a key instrument for strengthening regional resilience against economic, social, and environmental challenges. This study aims to analyze the optimization of the 2025–2029 RPJMD of North Padang Lawas Regency as a development planning instrument. The study employed a qualitative approach using a case study design. Data were collected through in-depth interviews with stakeholders from the Regional Development Planning Agency (Bappeda) and relevant local government agencies, field observations, and document analysis of the RPJMD, the Regional Government Work Plan (RKPD), and other regional regulatory documents. Data were analyzed using data reduction, data display, and conclusion drawing, with source triangulation employed to ensure the credibility of the findings. The results indicate that the RPJMD has incorporated performance-based and participatory planning principles and optimization as an instrument for strengthening regional resilience remains constrained by limited institutional capacity, inadequate integration of disaster risk and regional vulnerability data, and weak cross-sectoral coordination during the implementation phase. This study recommends strengthening a monitoring and evaluation system based on regional resilience indicators, enhancing the capacity of development planning personnel, and improving inter-agency coordination to support risk mitigation and strengthen regional resilience in a sustainable manner.*

Keyword: Regional Medium-Term Development Plan (RPJMD); Regional Development Planning; Regional Resilience; Policy Optimization; Case Study.

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INTRODUCTION

Regional development planning is a strategic instrument of public administration aimed at achieving community welfare in a systematic, measurable, inclusive, and sustainable manner. Within Indonesia's governance system, development planning serves not only as a guideline for implementing government programs but also as a mechanism for integrating national and regional development priorities in a coherent and systematic framework (Bappenas, 2025). This function is mandated by Law No. 25 of 2004 on the National Development Planning System and Law No. 23 of 2014 on Regional Government, which require every local government to formulate a Regional Medium-Term Development Plan (RPJMD) as a five-year strategic planning document translating the elected regional head's vision, mission, and policy agenda into measurable objectives, strategies, policy directions, priority programs, and performance indicators.

In recent years, regional development has faced increasingly complex challenges due to growing uncertainty in the strategic environment. Climate change, the increasing frequency of hydrometeorological disasters, global economic instability, rapid technological advancement, and evolving socio-political dynamics require local governments to develop planning documents that extend beyond administrative compliance and function as strategic instruments for strengthening regional resilience (UNDRR, 2022; OECD, 2020). Local governments play a critical role in disaster risk reduction by enhancing regional resilience (Parvin et al., 2016) and integrating interventions into policy frameworks that address barriers to adaptive capacity in the face of disasters and climate change (Birchall et al., 2023).

Resilience is generally defined as the capacity to withstand, recover from, adapt to, and rapidly rebound after hazardous events (Graveline & Germain, 2022). In the regional context, resilience refers to the ability of a region and its available resources to anticipate, respond to, adapt to, and recover from various threats, shocks, and stresses without compromising long-term development capacity or the quality of public service delivery (Cutter et al., 2008; UNDRR, 2022).

The concept of regional resilience has become increasingly significant within the sustainable development paradigm, where development success is no longer measured solely by economic growth but also by the capacity of governments to reduce risks, enhance adaptive capacity, and maintain social, economic, and environmental sustainability (United Nations, 2015). Consequently, the RPJMD, as a strategic development planning document,is expected to incorporate the principles of sustainable development, disaster risk reduction, climate change adaptation, and institutional capacity strengthening into regional development policies (Bappenas, 2025; BNPB, 2023).

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North Padang Lawas Regency, one of the autonomous regencies in North Sumatra Province, possesses distinctive geographical, social, and economic characteristics. Much of its territory consists of hilly and mountainous landscapes, while the local economy largely depends on agriculture and plantation activities (North Padang Lawas Regency, 2024). These characteristics make the region particularly vulnerable to hydrometeorological hazards, especially floods and landslides, which pose significant risks to economic activities, infrastructure, and public service delivery (BNPB, 2023). This condition makes the formulation of the 2025–2029 RPJMD a strategic opportunity to integrate regional resilience considerations into the regional development planning process. Accordingly, development policies should not focus exclusively on promoting economic growth but should also prioritize adaptive capacity, risk mitigation, and sustainable regional development.

Despite its strategic importance, optimizing the RPJMD as a development planning instrument for strengthening regional resilience remains challenging. Previous studies have indicated that RPJMD documents in many Indonesian regions are often prepared primarily to satisfy administrative and regulatory requirements rather than being grounded in comprehensive risk assessments, regional vulnerability analyses, or evidence-based planning approaches. Consequently, disaster risk reduction, climate change adaptation, and regional resilience considerations have not been fully integrated into regional development policies, limiting the effectiveness of the RPJMD as a strategic planning instrument capable of addressing contemporary development challenges.

Against this background, this study aims to examine the optimization of the 2025–2029 RPJMD of North Padang Lawas Regency as a regional development planning instrument for strengthening regional resilience. It also seeks to identify the enabling and constraining factors influencing the optimization process in order to provide policy recommendations for improving regional development planning toward a more adaptive, resilient, and sustainable governance framework.

Accordingly, this study addresses the following research questions:

1. How does the formulation process and substantive content of the 2025–2029 RPJMD of North Padang Lawas Regency accommodate regional resilience considerations?
2. To what extent has the RPJMD been optimized as a regional development planning instrument for strengthening regional resilience?
3. What are the key enabling and constraining factors affecting the optimization of the RPJMD in supporting regional resilience?

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Based on these research questions, this study aims to describe and analyze these three aspects comprehensively using a qualitative case study approach.

METHOD

This study employed a qualitative approach using a case study research design to gain an in-depth and contextual understanding of the optimization process of the 2025–2029 Regional Medium-Term Development Plan (RPJMD) of North Padang Lawas Regency as a development planning instrument for strengthening regional resilience. A qualitative approach was selected because it enables researchers to explore meanings, processes, and social dynamics holistically within their natural settings. As emphasized by Creswell and Poth (2018), qualitative research seeks to understand phenomena from the perspectives and meanings that individuals or groups assign to social or human problems.

A case study design was adopted because the research focuses on an in-depth exploration of a bounded system, namely the RPJMD policy process in North Padang Lawas Regency. Multiple sources of evidence were utilized to generate context-rich descriptions and analytical themes (Yin, 2018). This approach is particularly appropriate because the phenomenon under investigation is complex, dynamic, and involves interactions among multiple stakeholders, requiring an understanding not only of causal relationships but also of the processes and contextual factors underlying public policy implementation (Stake, 1995; Sugiyono, 2019).

The study was conducted in North Padang Lawas Regency, North Sumatra Province, Indonesia, focusing on the Regional Development Planning, Research, and Development Agency (Bappelitbangda) and other relevant local government agencies involved in the formulation of the 2025–2029 RPJMD. The study utilized both primary and secondary data sources. Primary data were collected through in-depth interviews with key informants, including development planners from Bappelitbangda, heads of planning and development divisions, and representatives from local government agencies responsible for regional resilience-related sectors, particularly disaster management and environmental affairs. Indepth interviews were chosen because they enable researchers to obtain detailed information regarding participants' experiences, perceptions, and understanding of the phenomenon under investigation (Moleong, 2018).

Secondary data consisted of official planning documents, including the 2025–2029 RPJMD, the Regional Government Work Plan (RKPD), regional regulations, policy documents, statistical reports, and other relevant governmental publications supporting the analysis of regional development planning and resilience. Data were analyzed using the interactive model of qualitative data analysis developed by Miles, Huberman, and Saldaña (2014), which consists

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of three interrelated stages: data reduction, data display, and conclusion drawing/verification. These analytical processes were conducted iteratively and continuously throughout the research, forming an interactive cycle that ensured the development of credible and trustworthy findings.

RESULTS AND DISCUSSION

The findings indicate that the preparation process of the 2025–2029 Regional Medium-Term Development Plan (RPJMD) of North Padang Lawas Regency has generally followed the stages prescribed by Indonesia's national regulatory framework for regional development planning (North Sumatra Provincial Development Planning Agency, 2024). These stages include the preparation of the technocratic draft, implementation of the Development Planning Consultation Forums (Musrenbang) from the sub-district to the regency level, public consultation, alignment with national and provincial development policies, and the formal enactment of the RPJMD through a regional regulation, as mandated by Law No. 25 of 2004, Law No. 23 of 2014, and Minister of Home Affairs Regulation No. 86 of 2017 (Ministry of Home Affairs, 2017). The formulation process involved a broad range of stakeholders, including local government agencies (OPDs), academics, community leaders, business representatives, and civil society organizations, reflecting the principles of participatory, transparent, and accountable development planning (Bappenas, 2025).

Despite complying with formal regulatory requirements, the findings reveal that the integration of regional resilience into the substantive content of the RPJMD remains incomplete (North Sumatra Provincial Development Planning Agency, 2024). Disaster risk, climate change, and regional vulnerability are generally presented only within the regional profile and situational analysis, rather than being systematically incorporated into strategic issues, development objectives, policy directions, priority programs, or key performance indicators. Consequently, regional resilience has not yet become a central foundation for medium-term development strategies capable of enhancing the region's adaptive capacity and resilience to future development challenges (UNDRR, 2022; OECD, 2020). This gap is reflected in the priority programs outlined in the 2025–2029 RPJMD of North Padang Lawas Regency.

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Table 1. Relationship between the Vision, Mission, Objectives, Targets, Indicators, and Priority Programs Related to Disaster Resilience in the 2025–2029 RPJMD of North Padang Lawas Regency

Vision	Mision	Objective	Target	Indicator	Priority Program
Realizing Sustainable Development in North Padang Lawas Regency through Faith, Intelligence, Progress, and Cultural Values	Strengthening Regional Infrastructure to Accelerate Regional Development and Improve Basic Public Services	Achieving Sustainable Infrastructure Development	Improving Regional Disaster Resilience	Disaster Risk Index	-

Table 1 demonstrates that the target of improving regional disaster resilience, together with the Disaster Risk Index as its performance indicator, has been explicitly formulated within the RPJMD. This finding reflects the local government's normative commitment to incorporating disaster resilience into its five-year development agenda. However, the absence of a corresponding priority program indicates that these strategic objectives have not yet been translated into concrete, measurable, and adequately funded operational programs. This disconnected between strategic objectives and operational programming represents a critical weakness in assessing whether the RPJMD genuinely functions as an instrument for strengthening regional resilience rather than merely serving as a normative planning document.

The analysis further reveals that the development budget of North Padang Lawas Regency remains predominantly allocated to infrastructure development, particularly road construction and maintenance programs (RPJMD of North Padang Lawas Regency, 2025–2029). This budgetary concentration reflects a fiscal policy orientation that continues to prioritize basic infrastructure as the primary driver of regional connectivity and economic growth, consistent with the RPJMD objective of achieving sustainable infrastructure development.

Interviews conducted with officials from the Regional Disaster Management Agency (BPBD) revealed that the agency has not yet developed a Disaster Risk Assessment (Kajian Risiko Bencana/KRB) or disaster hazard maps due to limited financial resources. The absence of these technical instruments has significant implications for development planning because both

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documents constitute the primary evidence base for identifying priority risk areas and formulating disaster mitigation programs within the RPJMD and the Regional Government Work Plan (RKPD).

Observations and document analysis of proposals submitted through the Musrenbang process indicate that community aspirations remain heavily concentrated on basic infrastructure needs, particularly roads, bridges, and drainage systems. While these proposals reflect immediate community priorities, they also suggest that disaster resilience and risk reduction have not yet become major concerns within participatory planning mechanisms.

The predominance of infrastructure-related proposals has consequently shaped the bottom-up planning process, contributing to the absence of priority programs explicitly supporting disaster resilience objectives. Therefore, the shortcomings identified in the RPJMD cannot be attributed solely to technical planning limitations within the regional planning agency but are also associated with the short-term orientation of community participation in the planning process.

Table 2. Summary of Research Findings

Aspect	Field Findings	Implications for RPJMD Optimization
Budget Allocation	The largest proportion of the regional development budget is allocated to infrastructure programs, particularly district road construction and maintenance.	Regional fiscal priorities remain insufficiently aligned with disaster resilience objectives. No dedicated priority programs or budget allocations are provided to support improvements in the Disaster Risk Index.

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Aspect	Field Findings	Implications for RPJMD Optimization
Institutional Capacity of BPBD	The Regional Disaster Management Agency (BPBD) of North Padang Lawas Regency has not yet prepared a Disaster Risk Assessment (KRB) or disaster hazard maps due to budget constraints.	The absence of disaster risk assessment and hazard mapping limits the availability of evidence-based data for formulating disaster mitigation programs, thereby constraining the operationalization of disaster resilience objectives within the RPJMD.
Musrenbang Participation	Community proposals submitted through the Musrenbang process are dominated by requests for roads, bridges, and drainage infrastructure.	Bottom-up planning remains focused on short-term infrastructure needs rather than long-term disaster risk reduction and regional resilience, reducing the integration of resilience considerations into development planning.
RPJMD Content	Disaster resilience targets and the Disaster Risk Index are explicitly included in the RPJMD; however, no corresponding priority programs are specified.	A missing link exists between strategic objectives and operational programs, limiting the effectiveness of the RPJMD as a strategic instrument for strengthening regional resilience.

Overall, these findings demonstrate that the incorporation of regional resilience into development planning continues to face significant challenges arising from both planning methodology and institutional capacity limitations. This observation is consistent with previous studies indicating that RPJMD documents across many Indonesian regions remain largely oriented toward achieving economic growth targets, improving public service delivery, and fulfilling macro-development indicators, while disaster risk reduction, climate change adaptation, and regional resilience have yet to be systematically embedded within regional development policy frameworks (Rahman et al., 2022; Sutrisno & Hidayat, 2021).

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Therefore, although the RPJMD formulation process has fulfilled its legal and administrative requirements, the substantive quality of the planning document requires further strengthening to respond effectively to increasingly complex development challenges. Integrating disaster risk assessment, climate adaptation strategies, resilience-based performance indicators, and dedicated operational programs into the RPJMD would substantially enhance its capacity to support adaptive, resilient, and sustainable regional development (United Nations, 2015; BNPB, 2023).

CONCLUSION

Based on the findings and discussion, this study concludes that the formulation process of the 2025–2029 Regional Medium-Term Development Plan (RPJMD) of North Padang Lawas Regency has generally complied with formal planning procedures that emphasize participatory and technocratic approaches. However, the substantive incorporation of regional resilience remains partial and has not been fully integrated into the formulation of strategic issues, development objectives, or regional performance indicators. Efforts to optimize the RPJMD as a regional development planning instrument have been undertaken through the refinement of development priorities and the strengthening of planning data. Nevertheless, the explicit integration of regional resilience continues to be constrained by limited disaster-related data and insufficient institutional capacity among planning agencies. Although the RPJMD contributes indirectly to strengthening regional resilience through infrastructure development, food security initiatives, and agriculture-based economic development programs, these contributions are not yet supported by an explicit and measurable regional resilience framework.

To enhance the effectiveness of future regional development planning, the Government of North Padang Lawas Regency should strengthen the integration of disaster risk assessment and regional vulnerability analysis throughout every stage of RPJMD formulation, from the identification of strategic issues to the establishment of key performance indicators. Capacity-building programs for development planners should also be expanded through technical training and professional assistance on resilience analysis and disaster risk reduction in development planning. Furthermore, an integrated disaster information and data management system involving all relevant local government agencies should be established to support evidence-based and responsive policymaking. In addition, a monitoring and evaluation mechanism based on measurable regional resilience indicators should be developed to improve the implementation and assessment of the RPJMD. Finally, future studies are encouraged to conduct comparative analyses across different regions to provide broader insights into the optimization of RPJMD as

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an instrument for strengthening regional resilience in diverse regional contexts.

REFERENCE

Badan Perencanaan Pembangunan Daerah Provinsi Sumatera Utara. (2024). *Rencana Pembangunan Jangka Menengah Daerah (RPJMD) Kabupaten Padang Lawas Utara Tahun 2025–2029*.

Badan Perencanaan Pembangunan Nasional. (2025). *Pedoman penyusunan Rencana* Pembangunan Jangka Menengah Daerah Tahun 2025–2029. Kementerian Perencanaan Pembangunan Nasional/Bappenas.

Birchall, S. J., Bonnett, N., & Kehler, S. (2023). The influence of governance structure on local resilience: Enabling and constraining factors for climate change adaptation in practice. Urban Climate, 47, 101348. https://doi.org/10.1016/j.uclim.2022.101348

Badan Nasional Penanggulangan Bencana. (2023). Data dan Informasi Bencana Indonesia (DIBI). https://dibi.bnpb.go.id

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). SAGE Publications.

Cutter, S. L., Barnes, L., Berry, M., Burton, C. G., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. Global EnvironmentalChange, 18(4), 598–606. https://doi.org/10.1016/j.gloenvcha.2008.07.013

Graveline, M.-H., & Germain, D. (2022). Disaster risk resilience: Conceptual evolution, key issues, and opportunities. International Journal of Disaster Risk Science, 13(3), 330–341. https://doi.org/10.1007/s13753-022-00410-7

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative data analysis: A methods sourcebook (3rd ed.). SAGE Publications.

Moleong, L. J. (2018). Metodologi penelitian kualitatif (Edisi revisi). PT Remaja Rosdakarya.

Organisation for Economic Co-operation and Development. (2020). OECD regions and cities at a glance 2020. OECD Publishing. https://doi.org/10.1787/959d5ba0-en

Parvin, G. A., Surjan, A., & Shaw, R. (2016). Urban risk, city government, and resilience. In R. Shaw, A. Surjan, & G. A. Parvin (Eds.), Urban disasters and resilience in Asia (pp. 21–34). Butterworth-Heinemann. https://doi.org/10.1016/B978-0-12-802169-9.00002-9

Pemerintah Kabupaten Padang Lawas Utara. (2024). Kabupaten Padang Lawas Utara dalam

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angka 2024.

Stake, R. E. (1995). The art of case study research. SAGE Publications. Sugiyono. (2019). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.

United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. https://sdgs.un.org/2030agenda

United Nations Office for Disaster Risk Reduction. (2022). Global assessment report on disaster risk reduction 2022: Our world at risk. https://www.undrr.org/gar2022

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.

Legislation

Republic of Indonesia. (2004). Law No. 25 of 2004 on the National Development Planning System.

Republic of Indonesia. (2014). Law No. 23 of 2014 on Regional Government.

Republic of Indonesia, Ministry of Home Affairs. (2017). Minister of Home Affairs Regulation No. 86 of 2017 concerning Procedures for Planning, Controlling, and Evaluating Regional Development; Procedures for Evaluating Draft Regional Regulations on Regional Long-Term Development Plans, Regional Medium-Term Development Plans, and Amendments to Regional Medium-Term Development Plans; and Procedures for Amendments to Regional Long-Term Development Plans, Regional Medium-Term Development Plans, and Regional Government Work Plans.

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