

The Policy of the Regional Border Management Agency of Nunukan Regency as a Data Information Center for Border Areas through the Desk Activity of Sub-District Profile Compilation

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Abstract

This study aims to analyze the policy of the Regional Border Management Agency (BPPD) of Nunukan Regency as a data information center through desk activities for compiling sub-district profiles in border areas. The main focus of this research is to describe the implementation of the policy and to identify the internal and external factors that influence it. The sub-district profile is considered a strategic instrument for data-based development planning, particularly in border areas characterized by complex geographical and demographic features. This study employs a qualitative approach using a case study method. Data were collected through in-depth interviews with key informants from BPPD Nunukan, the Central Statistics Agency (BPS), the Department of Communication and Information (Diskominfo), sub-district/village heads in border regions, and other related stakeholders. The data were analyzed thematically using triangulation techniques to ensure the validity of the information. The findings show that the BPPD Nunukan policy as a data information center through desk profile activities has been implemented systematically, although several challenges remain. The implementation process involves data collection, validation, presentation, and distribution in both printed and digital formats. This activity requires cross-sectoral coordination, but it is still hindered by limited human resource capacity, inadequate digital infrastructure, and inconsistent inter-agency collaboration. Internal factors affecting this policy include the quality of human resources, budget availability, and internal work mechanisms. Meanwhile, external factors involve national regulations, stakeholder engagement, geographic conditions of the border areas, and readiness for technology adoption.

1. Introduction

Border areas play a strategic role in safeguarding national sovereignty and identity, while also serving as spaces for social, economic, and cultural interaction. However, these regions often face serious challenges such as limited accessibility, inadequate infrastructure, and a lack of integrated data. Nunukan Regency in North Kalimantan, which shares a direct border with Malaysia, holds a vital role in supporting national integration and economic development. Approximately 40% of its population lives in border areas, making a deep understanding of the region's socio-economic conditions crucial for formulating well-targeted policies.

One of the main obstacles to border development is the lack of accurate and comprehensive data. Insufficient information about infrastructure and social conditions creates uncertainty in development planning

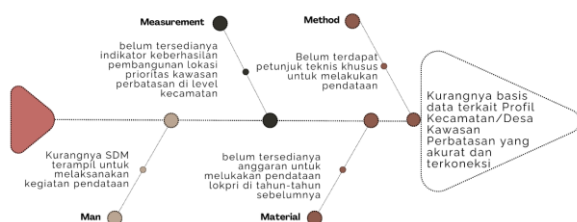
and the provision of public services. Studies show that data shortages hinder government responses to the needs of border communities. Furthermore, social issues such as poverty, unemployment, and limited access to education and healthcare worsen the situation. Therefore, comprehensive data-driven policies are essential to address the development challenges in border areas.

One of the main issues faced by Nunukan Regency is the lack of integrated and accurate data regarding the conditions of sub-districts and villages in border areas. Unintegrated data makes it difficult to analyze the needs and potential of each sub-district or village. According to research by Sari (2022), many sub-districts in Nunukan Regency lack complete demographic data, which hinders the government's ability to plan well-targeted development programs.

Another obstacle in data-driven development planning is the limited human resource capacity at the local level. Many government officers are not yet trained in data collection and analysis, resulting in suboptimal data processing. A study by Prasetyo (2021) noted that the lack of training and education for data collection officers in border regions is one of the main reasons for the low quality of available data. This highlights the need for investment in human resource capacity development to improve data quality.

Specifically, the compilation of sub-district/village profiles in Nunukan Regency serves as an essential solution to address the issue of insufficient integrated data, particularly in tackling the challenges of data scarcity in the country's border areas. Nunukan Regency, which comprises 17 sub-districts along the Indonesia-Malaysia border, faces various obstacles in development planning due to the lack of accurate and relevant data. In this regard, the preparation of sub-district/village profiles is a step that not only provides a comprehensive overview of socio-economic conditions, infrastructure, and demographics, but also serves as a crucial foundation for data-driven policy planning. Through the desk activities for profile compilation, the local government can systematically collect, process, and analyze data so that the specific potentials and needs of each border sub-district can be clearly identified, as illustrated in the following fishbone diagram.

Figure 1.2. Fishbone Diagram of the Lack of an Accurate and Connected Database on Sub-District/Village Profiles in Border Areas



Based on the problem identification results, it is evident that the lack of an accurate and connected database is not caused by a single factor, but rather stems from a

combination of various constraints, including a shortage of skilled human resources, unclear methodologies, and limited funding. Yet, the compilation of sub-district/village profiles plays a crucial role as the initial step in building an accurate and comprehensive database. These profiles include key information such as demographics, infrastructure, economy, education, and health. With complete profiles, local governments can better understand the actual conditions of each sub-district or village, which is highly valuable for formulating effective policies. According to research by Wijaya (2022), regions with well-developed data profiles tend to be more successful in planning and implementing development programs.

Moreover, sub-district/village profiles serve as an important reference in local government decision-making. With accurate data, governments can identify development priorities that need to be addressed and determine the appropriate allocation of resources. A study by Hasan (2023) found that regions that utilize profile-based data in their development planning are able to improve the effectiveness of the programs they implement. This highlights that the compilation of sub-district/village profiles is not only crucial for data collection but also for enabling better-informed decision-making.

The data produced from sub-district/village profile compilation also supports evidence-based policymaking aimed at improving community welfare in border areas. With valid data, the government can design programs that better meet the needs of the population and measure the impact of each implemented initiative. According to a report by the World Bank (2020), policies based on accurate data have the potential to significantly enhance the quality of life for the community.

The importance of compiling sub-district/village profiles is also evident from the perspective of community participation. Through the profile development process, communities can be involved in data collection and the identification of local issues. This not

only increases the accuracy of the data but also strengthens the community's sense of ownership over the development programs being implemented. A study by Setiawan (2021) found that regions involving communities in the data collection process tend to have a higher success rate in their programs.

2. Literature Review

2.1 Definition of Performance

Performance in the context of an organization can be defined as the result or output of tasks and responsibilities carried out by individuals or groups (Robbins & Coulter, 2016). According to Mangkunegara (2015), performance is the result of work, both in terms of quality and quantity, achieved by a person in carrying out tasks according to the responsibilities given.

Performance is a concept commonly used in organizational management to describe how well an individual or group carries out assigned tasks and responsibilities. Mangkunegara (2015) defines performance as the result of work, both qualitatively and quantitatively, achieved by an individual in performing duties based on assigned responsibilities. Meanwhile, Hasibuan (2016) defines performance as an individual's ability to complete work according to the goals set by the organization, where the performance results are evaluated based on specific criteria such as timeliness, efficiency, and quality of work output. In addition, Wibowo (2017) states that performance is the outcome of behavior assessed in relation to established job standards.

Robbins and Coulter (2016) emphasize that performance should not only be measured in terms of output, but also in terms of effectiveness in achieving objectives and efficiency in resource utilization. Performance also relates to a worker's ability to use available resources to produce something valuable for the organization (Mathis & Jackson, 2017). According to Prawirosentono (2018), performance can be measured using success indicators such as productivity, quality, profitability, and customer satisfaction.

Handoko (2019) adds that performance encompasses three key aspects: core tasks, adaptive behavior, and contextual contribution, all of which must work together to optimally achieve organizational goals.

2.2 Public Policy

Public policy is a crucial element in decision-making at the local government level. According to David Easton (1965), public policy can be defined as the authoritative allocation of values in society through legitimate decisions. In the context of Nunukan Regency, public policy serves as a guideline for regional development planning, especially in the preparation of sub-district and village profiles in border areas. This process involves various stakeholders, including the government, community, and private sector, to ensure that the resulting policies meet the needs and expectations of the local population.

The policy formulation process, as described by Dunn (1994), includes several stages—problem identification, policy alternatives formulation, implementation, and evaluation. In Nunukan Regency, problem identification often focuses on the challenges faced by communities in border areas, such as limited access to basic services, inadequate infrastructure, and security issues. The development of policy alternatives involves input from the public and experts to ensure the resulting solutions are more relevant and applicable.

In this context, data-driven policy is of great importance. Accurate and relevant data can provide a clear picture of regional conditions and community needs. By using data, local governments can make more precise and effective decisions. For instance, in the preparation of sub-district profiles, demographic, economic, and social data can be utilized to design more targeted policies. This aligns with the view of Kettunen and Kallio (2021), who emphasize the importance of data in public decision-making. During policy implementation, local governments must ensure that all processes are carried out

transparently and accountably. This is essential to build public trust in government institutions.

According to Bessant and Tidd (2015), transparency in decision-making can enhance public participation and result in better policy outcomes. Thus, effective public policy depends not only on the internal processes of the government but also on community involvement at every stage. In conclusion, public policy in Nunukan Regency must be capable of addressing the challenges faced by border communities. Through a data-based and participatory approach, the resulting policies are expected to have a positive impact on public welfare. Therefore, it is essential for local governments to continuously evaluate and improve the policies they have implemented.

3. Research Methods

This study employs a descriptive qualitative approach with a case study design, aiming to gain an in-depth understanding of the policies of the Regional Border Management Agency (BPPD) of Nunukan Regency as a data information center, particularly through the desk activities of compiling sub-district/village profiles in border areas. Primary data were collected through in-depth interviews, observations, and focus group discussions involving government officials, profile drafting teams, and local communities from 14 sub-districts, while secondary data were obtained from official documents, local government policies, and scholarly publications. The research site was selected in Nunukan Regency due to its strategic role on the Indonesia-Malaysia border. The data analysis technique follows the stages proposed by Burhan and Bungin, which include data collection, data reduction, data display, and conclusion drawing and verification, to produce evidence-based insights for formulating local policies.

4. Results and Discussion

The implementation of the sub-district profile development by the Regional Border Management Agency (BPPD) of Nunukan Regency begins with a data collection phase

using a combinative approach that integrates both primary and secondary data. Primary data is gathered through field observations, interviews, GPS surveys, and direct documentation, while secondary data comes from Statistics Indonesia (BPS), technical government agencies (OPD), and development planning documents. Due to the extreme geographical conditions in several sub-districts such as Krayan and Lumbis Ogong, door-to-door surveys and technologies like GIS and drones are used to ensure spatial data accuracy. The process is systematic and participatory, using indicator formats that include demographic, social, economic, infrastructure, and basic service aspects, aligned with national guidelines.

After data collection at the sub-district and village levels, BPPD performs internal consolidation, preliminary validation, and data processing using spreadsheet software and GIS. The data is then organized into narrative documents, maps, graphics, and infographics as part of the sub-district profile. Additional technical data is integrated to fill in gaps in field data, followed by a cross-sectoral desk forum as the final validation phase to ensure the data is accurate and representative. The collaborative and adaptive approach makes the data system more contextual and responsive to the development challenges in border regions.

The data validation process is conducted in a phased and collaborative manner. It involves internal verification by BPPD, cross-sectoral forums with sub-district heads, village officials, technical agencies, and vertical institutions, and cross-checking with secondary sources. Triangulation is applied between primary data, secondary data, and field observations to ensure consistency and accuracy. Discrepancies are resolved through direct clarification via communication or field revisits, especially for key indicators like infrastructure and administrative boundaries. Spatial validation is supported by GIS, drones, and official maps, which are matched with satellite imagery and administrative data to reflect real conditions.

Once all data is validated, BPPD compiles the final sub-district profile documents, approved by stakeholders. These are prepared for publication in print, e-book, and interactive dashboard formats, becoming official references for regional development planning. The presentation stage involves converting the data into narrative, graphical, and spatial formats. The printed version is distributed to sub-districts and relevant agencies, while the digital version is accessible through a web-based dashboard, allowing users to browse sub-district profiles, filter indicators, download documents, and view thematic and sectoral visualizations.

The BPPD dashboard is responsive and user-friendly, accessible via computers and mobile devices, with transparency indicators such as “validated” or “in progress.” It enables public and stakeholder access to relevant data for planning, policy-making, and development. All data is clearly sourced and visually standardized for accountability. BPPD also accommodates requests for additional data in print or digital formats to support cross-sector coordination, reporting, and border development program planning.

Inter-agency collaboration is key to the success of the sub-district profile development in Nunukan Regency. Given the border region’s complexity and cross-sectoral data requirements, BPPD works with BPS, the Department of Communication and Information, Civil Registration, and other technical agencies through formal mechanisms such as MoUs, Cooperation Agreements (PKS), and internal SOPs. Data exchanged includes sectoral indicators, spatial maps, and statistical data, which are synchronized regularly through cross-sectoral desk forums. These forums also function for data verification, clarification, and format harmonization.

This collaborative practice aligns with Collaborative Governance theory (Ansell & Gash, 2008), management information systems (Laudon & Laudon, 2016), and knowledge sharing theory (Nonaka & Takeuchi, 1995). Prior studies confirm that MoUs and SOPs

strengthen legal certainty in data exchange, while desk forums and digital dashboards improve efficiency and metadata quality. Technical collaboration in mapping enhances spatial validation, especially in underdeveloped areas. With an open, legal, and participatory data ecosystem, BPPD successfully builds an adaptive, evidence-based information system to support sustainable border area development planning.

5. Closing

5.1 Conclusion

The policy of the Regional Border Management Agency (BPPD) of Nunukan Regency to serve as a data information center through the desk activity of compiling sub-district profiles in border areas has now become a strategic instrument in supporting data-driven development planning. This activity involves a systematic process from data collection and validation to presentation in both printed and digital formats, carried out in a participatory and cross-agency collaborative manner. Through the use of technologies such as GIS and the development of a digital dashboard, BPPD aims to provide accurate, transparent, and publicly accessible data for policymakers and the public, although its implementation still faces several technical and resource-related challenges.

5.2 Suggestion

Local governments are expected to increase budget allocations specifically to support the strengthening of BPPD’s institutional capacity, including human resource development, technological upgrades, and the operationalization of an integrated digital data information system (such as dashboards and GIS).

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