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Implementation of Spatial and Regional Plan Policies and Disaster Resilient Villages in West Nusa Tenggara

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Abstract
West Nusa Tenggara is located on active fault line along the Lombok and Sumbawa Faults, which often causes high magnitude earthquakes and can cause major impact on society, environment and infrastructure. The purpose of this study is to determine the implementation of spatial and regional planning policies in earthquake risk reduction in West Nusa Tenggara. The method used in this research is descriptive qualitative research using purposive sampling technique and literature study. The informant of this research is the Planning Analyst of the Regional Planning and Development Agency of West Nusa Tenggara. The result of this research is that disaster risk management strategies are implemented collaboratively between agencies from various sectors. In the pre-disaster stage, the local government ensures the readiness of the region and the community against the potential threat of natural disasters, by forming disaster resilient villages. Spatial and regional plan policies in West Nusa Tenggara are directed at natural disaster mitigation and adaptation to reduce disaster risk.

Keywords: spatial and regional plan policies, disaster resilient village, disaster risk reduction, planning, earthquake.

INTRODUCTION

The province of West Nusa Tenggara is located in the eastern region of Indonesia which often experiences natural disasters, including earthquakes (Pemprov NTB, 2023). The West Nusa Tenggara region is located on an active fault line along the Lombok and Sumbawa Faults, which often causes earthquakes with high magnitudes and often causes considerable impacts on the community, environment and surrounding infrastructure. Therefore, the implementation of spatial and regional plan policies is essential to reduce the risks caused by earthquakes in West Nusa Tenggara in order to support national security. The implementation of Regional Regulation Number 3 of 2010 on the West Nusa Tenggara Spatial Plan 2009-2029 has been ongoing for more than 10 (ten) years. Many benefits have been gained from the spatial plan and the West Nusa Tenggara region in directing the utilization and control of space for development sites. In addition, there are obstacles and problems that occur, especially in supporting investment activities to accelerate the economic development of the community and the regional economy (Setiawati, 2023).

Spatial and regional plans are spatial planning policies that include local planning, utilization of natural resources, and determination of development policies in a particular area. In some countries, the development and improvement of complex infrastructure (facilities, utilities, and transportation networks) has outpaced the development and improvement of soft infrastructure (Kurniawan et al., 2023). Spatial and regional plans can help reduce the risks caused by earthquakes through infrastructure development based on the principles of spatial planning. The principles of spatial planning are organized by prioritizing aspects of safety and preparedness in disaster management by considering geographical and environmental factors, as well as the impact that will be caused if a disaster occurs. In addition, spatial and regional plans

can also serve as a guide in determining the location of buildings and housing that are safe from earthquake hazards.

The West Nusa Tenggara Regional Development Planning Agency (Bappeda) is a regional technical institution that has the main task and function of coordinating the formulation of regional development plan policies in West Nusa Tenggara. Bappeda West Nusa Tenggara as a regional work unit (SKPD) has the authority to organize government in the field of development planning and acts as a regional agency that supports the achievement of the vision of the Governor of West Nusa Tenggara. The vision of Bappeda West Nusa Tenggara is directed at continuous improvement to achieve development planning as the basis for policy formulation and implementation in developing and managing regional resources to increase the prosperity of the wider community. Bappeda formulates regional development planning and budgeting policies based on community, spatial planning, and information technology (Bappeda NTB, 2023). The planning process and the implementation of regional development planning must be harmonized, including improving the quality of regional development plans that are synergistic based on spatial planning.

RESEARCH METHODS

This research method uses a qualitative approach with Husserl's transcendental phenomenology. Husserl's phenomenology interprets an event without interpreting, a particular theory, philosophy, or interest. This researcher raises the phenomenon of historic asset management at the Region XI Cultural Preservation Center in Trowulan District, East Java.

The type of data used in this study is primary data in the form of observations and interviews with financial parties, namely brothers H and brothers S who are in charge of managing historic assets at the Cultural Conservation Center Region XI located in Trowulan District, Mojokerto Regency. The data in this study uses a cross-section where the data obtained is at a certain time. This is because the research data collection activity is only done once through interviews with financial parties.

RESULT AND DISCUSSION

West Nusa Tenggara is one of the most vulnerable areas to disasters in Indonesia. A disaster is a severe disruption to a community that causes significant losses and impacts, such as death, injury, illness, displacement, property damage or loss, and disruption of community activities (Septanaya & Fortuna, 2023). As one of the most disaster-prone provinces in Indonesia, regional development planning needs to pay attention to disaster risk management. The earthquake that occurred in 2018 in Lombok has formed a way of mitigation in order to reduce the impact of natural disasters and the impact of climate change in West Nusa Tenggara (Pemprov NTB, 2023). Bappeda of West Nusa Tenggara as a regional work unit (SKPD) that is given the authority to organize government in the field of development planning, must be able to provide a role as a regional agency that supports the achievement of the vision of the Governor of West Nusa Tenggara. Therefore, the vision of the West Nusa Tenggara Bappeda must be directed at continuous efforts to realize development planning as the basis for formulating and implementing policies in the development and management of regional resources to increase the prosperity of the wider community (Bappeda NTB, 2023).

Evidence of the seriousness of the West Nusa Tenggara Government in disaster management includes the issuance of West Nusa Tenggara Local Regulation Number 9 of 2014

concerning Disaster Management. In West Nusa Tenggara, there are at least 14 regional apparatus that intersect with disaster management, namely the Regional Disaster Management Agency (BPBD); Community Empowerment and Village Government Agency (BPMPD); Housing and Settlement Agency (Perkim); Environment and Forestry Agency (LHK); Public Works and Spatial Planning Agency (PUPR); Marine and Fisheries Agency; Industry and Trade Agency; Industry Agency; Energy and Mineral Resources Agency (ESDM); Communication and Informatics Agency (Kominfo); Health Agency; Social Agency; Agriculture Agency; and Tourism Agency (Ilmi, 2023).

There are three stages of disaster risk management strategies that are implemented collaboratively between agencies from various sectors in West Nusa Tenggara. In the first stage (pre-disaster), the government ensures the readiness of regions and communities in facing potential natural disaster threats. Contingency plans are also prepared and developed, including the preparation of disaster threat maps in each region and ensuring a complete early warning system through the siAGA application. Then, in the second stage (disaster emergency response), the provincial government has also prepared emergency assistance for immediate distribution. In the third stage (post-disaster), the government rebuilt infrastructure by considering disaster risk (earthquake-safe buildings). In general, strategies for mitigation and adaptation of natural disaster-prone areas in West Nusa Tenggara include (Ilmi, 2023):

1. Equalization of natural disaster-prone areas.
2. Action planning for the management of natural disaster-prone areas.
3. Utilization of natural disaster-prone areas in accordance with applicable methods by following the principles of environmental conservation.
4. Preventing cultivation activities that have an impact on environmental damage in natural disaster-prone areas.
5. Utilizing environmentally friendly technology to minimize the impact of damage to areas prone to natural disasters.
6. Utilizing early response technology for disaster events.
7. Increase socialization and awareness to the government, private sector and the community about the dangers and efforts to anticipate natural disasters.

West Nusa Tenggara's regional development approach is focused on regional connectivity for equity (development of the main transportation network system), disaster risk reduction (adaptive planning and disaster response), restoration and preservation of protected areas, selective and environmentally friendly use of cultivation activities on land and at sea, coordination and cooperation between regions in terms of role sharing, and involvement of informal sectors that already exist in the community (Fardianto, 2022). The spatial and regional plan policies of West Nusa Tenggara are oriented towards mitigation and adaptation of natural disasters to reduce disaster risk. There are several regulations related to spatial and regional planning in earthquake-prone areas in West Nusa Tenggara (Raperda RTRW, 2020):

1. Utilization of built space in areas that have the potential for earthquakes and/or have experienced earthquakes with a scale of at least VI-MMI, must follow the requirements of earthquake-resistant building regulations.
2. The construction of building must be vibration/earthquake resistant and reinforced, following building quality standards.
3. Disaster early warning systems, information boards, evacuation routes, and disaster evacuation rooms are available.

4. If located on a fault line, it is regulated with a minimum left and right clearance of 250 meters; prohibition of various uses of built-up space; utilization of fault lines for forests, agriculture, greening and green open spaces; and buildings on fault lines are relocated gradually.
5. Prohibition of residential, tourism, industrial activities in bedrock areas in the form of loose sediment.

In order to accelerate the achievement of performance targets in the field of disaster in West Nusa Tenggara, there are three main concerns consisting of planning documents, disaster resilient village (Destana) implementation planning, and action plans for guidance and supervision of disaster sub-affairs. Planning documents consist of Disaster Risk Assessments (KRB) and Disaster Management Plans (RPB). Destana implementation planning refers to Governor Regulation Number 84 of 2022, the target of the Regional Medium-Term Development Plan (RPJMD), and is adjusted to the Regional Budget (APBD) both at the Provincial and Regency / City levels. The action plan for guidance and supervision of disaster sub-affairs includes Minimum Service Standards (SPM) and facilitating the Guidance and Supervision Team (Binwas) in the regency / city (Setiawati, 2023).

The Government of West Nusa Tenggara strives to reduce disaster risk by turning disaster-prone villages into Disaster Resilient Villages (Destana). Destana is a village that has the independent ability to adapt and overcome potential disaster threats, as well as to recover immediately from the adverse effects of disasters. Destana is one of the main programs of the West Nusa Tenggara government in order to cope with disasters. There are a total of 434 villages in West Nusa Tenggara that have been identified as disaster-prone villages. Until December 2022, the achievements of Destana that have been realized are 301 villages. However, there are still 133 Destana that must be formed to achieve the target of 434 Destana in 2023 (Bappeda NTB, 2023). The objectives of developing disaster resilient villages are (Bappeda NTB, 2022):

1. To protect communities living in hazard-prone areas from the adverse impacts of disasters.
2. Increase community participation (especially vulnerable groups) in resource management in order to reduce disaster risk.
3. Improving community institutional capacity in resource management and maintenance of local wisdom for disaster risk reduction.
4. Improving the capacity of the government in providing resources and technical support for disaster risk reduction.
5. Improving cooperation between stakeholders in disaster risk reduction (local government, private sector, university, non-governmental organizations, community organizations and other concerned groups).

Destana is very important, because dealing with disasters cannot be done individually but must be done as a group of villagers themselves before government assistance. The Destana program is a program that encourages village communities to work together and work together in anticipation of unexpected disasters, both natural and non-natural disasters. Destana needs to be improved in function and community involvement, because almost all areas in NTB are disaster-prone areas (Pemprov NTB, 2021). In order to maximize the available resources, West Nusa Tenggara has implemented strategies such as changing the approach, conducting assessments of target villages, and mobilizing collaboration from various parties. West Nusa Tenggara continues to strive in improving disaster management capabilities, especially in disaster risk reduction programs. This activity was organized with the hope of providing knowledge and learning in disaster risk management, especially in the preparation of a more efficient disaster risk management plan to overcome the challenges faced over the past few years.

One example of the implementation of spatial and regional planning in reducing the risk of earthquake disasters in West Nusa Tenggara is by designating areas that are safe from earthquake hazards as conservation areas. These areas should be prioritized to not be allowed to be developed or massively developed, so as to minimize the losses arising if an earthquake occurs. In addition, the implementation of spatial and regional plans can also strengthen disaster management infrastructure in West Nusa Tenggara. This can be done by determining the location of the construction of facilities and infrastructure needed for earthquake disaster management such as shelters, disaster management centers, and so on. Furthermore, implementation and evaluation monitoring in disaster management is carried out through five efforts (Ilmi, 2023):

1. Implementing disaster management using guidelines from the central and provincial governments.
2. Strengthening coordination and cooperation with all stakeholders related to disaster management.
3. Monitoring the achievement of key performance indicators to measure achievement and performance evaluation materials.
4. Institutional strengthening of the Disaster Risk Reduction Forum (PRB).
5. Annual reporting.

Revision of the West Nusa Tenggara spatial and regional plan is currently underway. Provincial and regency/city governments need revised regional regulations on spatial and regional plans to be ratified immediately. If the revision has been ratified, then the next step is to disseminate information to investors, developers, business owners, and the community so that development can be implemented without violating spatial regulations. The determining aspects of growth and development of a region are not only through infrastructure development (physical) only, but can also be encouraged through economic and social development. In order to reduce the risk of earthquakes in West Nusa Tenggara, the role of the community is also very important. The community must receive education about the importance of building houses that are safe from earthquake hazards and understand how important it is to protect the environment and the natural surroundings. In this case, local and central governments must work together to implement spatial and regional plan policies and strengthen the role of the community in reducing the risk of earthquakes in West Nusa Tenggara. Thus, national security can be maintained and people can live more safely and prosperously. One of the objectives of West Nusa Tenggara's spatial planning is to realize an advanced and sustainable provincial land and sea area through the management and protection of natural resources that consider environmental support and disaster mitigation in order to develop competitive agribusiness, tourism and industrial leading areas.

CONCLUSION

West Nusa Tenggara is one of the most disaster-prone regions in Indonesia. Thus, disaster risk management is important for West Nusa Tenggara in development planning, including spatial and regional plans. The West Nusa Tenggara government has its own local regulation on disaster management, which is contained in West Nusa Tenggara Regional Regulation Number 9 of 2014 on Disaster Management. West Nusa Tenggara is directed at continuous efforts to realize community-based development planning, spatial, and information technology, and improve the quality of regional development plans based on a synergistic spatial approach. West Nusa Tenggara is one of the most disaster-prone regions, so disaster risk management is important in development planning. The West Nusa Tenggara government has implemented a

collaborative disaster risk management strategy between various sectors. Regional development focuses on spatial connectivity for equal distribution, reducing disaster risk, restoration and preservation of protected areas, selective and environmentally friendly agricultural activities on land and sea, inter-regional coordination and collaboration, and informal sector involvement. Spatial and regional plan policies in West Nusa Tenggara are directed at natural disaster mitigation and adaptation to reduce disaster risk. In the pre-disaster stage, the local government ensures the readiness of the region and the community against the potential threat of natural disasters, by forming disaster resilient villages (Destana).

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REFERENCES

Badan Perencanaan Pembangunan Daerah Provinsi Nusa Tenggara Barat. (2022). Bappeda NTB Galang Kolaborasi, Demi Capai Destana Tahun 2023. Downloaded at https://bappeda.ntbprov.go.id/bappeda-ntb-galang-kolaborasi-demi-capai-destana-tahun-2023/ on June 1st 2023.

Badan Perencanaan Pembangunan Daerah Provinsi Nusa Tenggara Barat. (2023). Profil Bappeda Provinsi NTB. Downloaded at https://bappeda.ntbprov.go.id/profil/ on March 17th 2023.

Fardianto, Fian. (2022). Rapat Paparan Hasil Akhir Dokumen Pedoman Pelaksanaan Destana Provinsi NTB. Downloaded at https://bappeda.ntbprov.go.id/rapat-paparan-hasil-akhir-dokumen-pedoman-pelaksanaan-destana-provinsi-ntb/ on March 17th 2023.

Fardianto, Fian. (2022). Rapat Pedoman Pelaksanaan Desa/Kelurahan Tangguh Bencana (DESTANA) Provinsi NTB. Downloaded at https://bappeda.ntbprov.go.id/rapat-pedoman-pelaksanaan-desa-kelurahan-tangguh-bencana-destana-provinsi-ntb/ on June 1st 2023.

Ilmi, I.N. (2023). Implementasi Kebijakan Rencana Tata Ruang dan Wilayah Dalam Pengurangan Risiko Bencana Gempa Provinsi Nusa Tenggara Barat Guna Mendukung Keamanan Nasional (Disampaikan secara daring pada 28 Februari 2023 dalam kegiatan Kuliah Kerja Dalam Negeri (KKDN) Program Studi Manajemen Bencana Cohort 13 Universitas Pertahanan Republik Indonesia).

Kurniawan, C., Purnomo, E. P., Fathani, A. T., & Fadhlurrohman, M. I. (2023). Sustainable tourism development strategy in West Nusa Tenggara province, Indonesia. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1129, No. 1, p. 012022). IOP Publishing. Downloaded at https://iopscience.iop.org/article/10.1088/1755-1315/1129/1/012022/meta on June 6th 2023.

Pemerintah Provinsi Nusa Tenggara Barat. (2021). Bincang Gemilang Road to HUT NTB KE-63, Pemprov NTB Fokus Perkuat Destana. Downloaded at https://www.ntbprov.go.id/post/bincang-gemilang-road-to-hut-ntb-ke-63-pemprov-ntb-fokus-perkuat-destana on June 1st 2023.

Pemerintah Provinsi Nusa Tenggara Barat. (2023). Pentingnya Manajemen Risiko Bencana Bagi Provinsi NTB. Downloaded at https://www.ntbprov.go.id/post/pentingnya-manajemen-risiko-bencana-bagi-provinsi-ntb on March 17th 2023.

Peraturan Daerah Nusa Tenggara Barat Nomor 9 Tahun 2014 Tentang Penanggulangan Bencana (West Nusa Tenggara Local Regulation Number 9 of 2014 concerning Disaster Management). Downloaded at https://jdih.ntbprov.go.id/sites/default/files/produk_hukum/Perda%20No%209%20Tahun%202014.pdf on March 17th 2023.

Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 3 Tahun 2010 Tentang Rencana Tata Ruang Wilayah Provinsi Nusa Tenggara Barat Tahun 2009–2029 (Regional Regulation

Number 3 of 2010 on the West Nusa Tenggara Spatial Plan 2009-2029). Downloaded at https://jdih.ntbprov.go.id/sites/default/files/produk_hukum/Perda%20No.%203%20Tahun%202010.pdf on June 5th 2023.

Peraturan Gubernur Nusa Tenggara Barat Nomor 84 Tahun 2022 Tentang Pedoman Pelaksanaan Desa/Kelurahan Tangguh Bencana Di Provinsi Nusa Tenggara Barat (Governor Regulation Number 84 of 2022). Downloaded at https://jdih.ntbprov.go.id/sites/default/files/produk_hukum/Pergub%20No.%2084%20Tahun%202022%20ttg%20Pedoman%20Pelaksanaan%20Destana%20di%20Provinsi%20NTB.pdf on March 17th 2023.

Purwanza, S. W., Mufidah, A., Renggo, Y. R., Kom, S., Hudang, A. K., Setiawan, J., ... & Rasinus, M. T. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif dan Kombinasi*. Media Sains Indonesia.

Rancangan Peraturan Daerah (Raperda) Provinsi Nusa Tenggara Barat Nomor Tahun 2020 Tentang Rencana Tata Ruang Wilayah Provinsi Nusa Tenggara Barat Tahun 2020-2040. Downloaded at https://jdih.ntbprov.go.id/sites/default/files/01A.%20RANPERDA%20RTRW%20NTB%20%235%20%28pasca%20tkrpd%29.pdf on June 5th 2023.

Septanaya, I. D. M. F., & Fortuna, S. (2023). Gender mainstreaming efforts in disaster management plans: Case study West Nusa Tenggara province, Indonesia. *International Journal of Disaster Risk Reduction*, *87*, 103576. Downloaded at https://www.sciencedirect.com/science/article/abs/pii/S2212420923000560 on June 6th 2023.

Setiawati, B.S.R. (2023). Proses dan Progres Revisi Rencana Tata Ruang Wilayah (RTRW) Provinsi Nusa Tenggara Barat. Downloaded at https://bappeda.ntbprov.go.id/proses-dan-progres-revisi-rencana-tata-ruang-wilayah-rtrw-provinsi-nusa-tenggara-barat/ on June 5th 2023.

Setiawati, B.S.R. (2023). Rencana Tata Ruang Wilayah (RTRW) Sebagai Pintu Gerbang Investasi dan Peranannya Dalam Pengentasan Kemiskinan Di Provinsi Nusa Tenggara Barat. Downloaded at https://bappeda.ntbprov.go.id/rencana-tata-ruang-wilayah-rtrw-sebagai-pintu-gerbang-investasi-dan-peranannya-dalam-pengentasan-kemiskinan-di-provinsi-nusa-tenggara-barat/ on March 17th 2023.