

# Disaster Risk Governance In Flood Disaster Management Program In North Kalimantan Province

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**Abstract:** North Kalimantan, as the youngest province in North Kalimantan, has geographical conditions that mostly consist of lowlands, large rivers, and tropical forest areas. Its strategic location in river basins such as Sesayap, Kayan, and Sebuku Rivers makes this area very vulnerable to hydrometeorological disasters, especially floods. In recent years, the intensity and frequency of flooding in North Kalimantan has increased significantly. Floods not only cause damage to infrastructure and agricultural land, but also disrupt the socio-economic activities of the community and cause mass displacement. Alam and Ray-Bennett (2021) explain that disaster risk governance is understood as the way in which public authorities, civil servants, the media, the private sector and civil society at community, national and regional levels work together to manage and reduce disaster and climate-related risks. Accordingly, this research focuses on nine characteristics of good governance to evaluate administrative performance in risk assessment, risk communication and preparedness, emergency response and evacuation, rescue and relief, rehabilitation and reconstruction - collectively referred to as the disaster risk management cycle. This research was conducted using qualitative methods by conducting observations, interviews and data management sourced from relevant informants who are in direct contact with Flood Disaster Management in North Kalimantan Province. The results of this study show that disaster risk governance of flood disasters in North Kalimantan province has not been effective. Accountability is not optimal, community participation is limited, and collaboration between actors is situational. Transparency is not supported by inclusive communication, and information exchange between institutions is minimal. Decision-making is dominated by the government, leadership depends on certain figures, and resource coordination is not integrated, causing inequality of assistance.

**Keywords:** Disaster Risk Governance, Flood, North Kalimantan

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## 1. INTRODUCTION

In recent years, flooding in North Kalimantan has tended to increase in terms of intensity, duration, and area affected. Data from the Regional Disaster Management Agency (BPBD) shows that a number of districts such as Bulungan, Malinau, and Nunukan often experience floods that cause thousands of houses to be submerged, economic activities paralyzed, and transportation access cut off. Not only physical losses, floods also cause social and psychological losses for the community, such as the increase in post-flood diseases, vulnerability of vulnerable groups, and obstruction of educational activities.

One of the main factors causing flooding in North Kalimantan is high rainfall, which is exacerbated by the phenomenon of global climate change. In addition, exploitation of natural resources such as mining, palm oil plantations and illegal logging has reduced the ability of upstream areas to absorb rainwater. On the other hand, weak spatial planning and lack of flood management infrastructure, such as dams and adequate drainage systems, have also worsened the situation.

Flood management in North Kalimantan has not been running optimally due to various obstacles, such as budget constraints, weak institutional capacity, and low community participation in mitigation efforts. Local governments through the Regional Disaster Management Agency (BPBD), technical agencies, and support from the center need to strengthen cross-sector coordination, improve early warning systems, and build community resilience to disasters through education and involvement of local communities. Flood

management cannot be done sectorally and reactively, but must be based on a planned and sustainable disaster risk reduction approach.

Based on PERKA BNPB NO.2 of 2012, disaster risk assessment is an approach to show the potential negative impacts that may arise due to a potential disaster. Disaster risk is an event that is likely to occur and is designed to manage events whose countermeasures are not appropriate. The picture of disaster risk in Indonesia is also identified by BNPB in the RBI (Indonesian Disaster Risk) book with various kinds of natural disaster risk studies throughout Indonesia. The development of disaster studies is currently very developed. Disaster events from year to year become records as well as data on how disasters are very detrimental to human survival as a history.

Disaster risk governance is understood as "the way in which public authorities, civil servants, the media, the private sector and civil society at community, national and regional levels work together to manage and reduce disaster and climate risks" UNDP (2013). This means, according to Lidskog (2008), ensuring "adequate levels of capacity and resources are available to prevent, prepare for, manage and recover from disasters". With more than 20 years of experience in disaster risk reduction, providing direct advice on democratic governance and development to national governments in low- and middle-income countries, the United Nations Development Programme (UNDP) has been advancing practical and conceptual work on disaster risk governance and mainstreaming since 2010 (Mizutori, 2020). Since then, UNDP has supported disaster risk reduction policies, disaster risk governance and advocacy in more than 20 countries. In Bangladesh, UNDP has helped local governments to develop local risk assessments and action plans in 40 districts (UNDP, 2012).

Despite these successes, national governments, with little or no funding and limited resources, have difficulty in devolving or decentralizing disaster risk reduction (United Nation, 2015). Organizational and disaster response capacity building at national and local levels has also received little attention (UNDP, 2012; Ray-Bennett, 2018). An assessment of the performance of the Hyogo Framework found that it has had very limited impact on improving governance at international, national and local levels and reducing social vulnerability to empower specific vulnerable social groups (Schipper et al, 2015). Most importantly, disaster risk governance at the local level lags behind national and international levels (Djalante and Lassa, 2019). There is currently no comprehensive data or systematic reporting on the extent to which local governments are implementing disaster risk reduction (Djalante and Lassa, 2019). This is consistent with the findings of the research project in Rangamati. Therefore, the multisectoral approach and the goal of reducing vulnerability at the local level are not fully realized.

Alam and Ray-Bennett (2021) explain that disaster risk governance is understood as the way in which public authorities, civil servants, the media, the private sector and civil society at community, national and local levels work together to manage and reduce disaster and climate-related risks. In this regard, this study focuses on nine characteristics of good governance to evaluate administrative performance in risk assessment, risk communication and preparedness, emergency response and evacuation, rescue and relief, rehabilitation and reconstruction - collectively referred to as the disaster risk management cycle. The characteristics of Disaster Risk Governance (DRG) are accountability, participation, collaboration, transparency, information sharing, communication, decision-making sharing, leadership and resource sharing Alam and Ray-Bennett (2021). This approach or theory is considered very relevant to the reality of the implementation of disaster management in Indonesia and especially in areas classified as disaster-prone such as North Kalimantan Province. In addition, this research is still very rarely carried out so that it becomes an urgency in this study as an effort to improve disaster risk governance in governance.

The problems faced in the context of disaster risk governance indicators in disaster management governance in North Kalimantan Province are as follows. From the accountability aspect, disaster management governance such as in terms of budgeting has not been accountable as well as performance accountability that has been carried out according to the roles and responsibilities of stakeholders involved in disaster management.

The aspect of participation in disaster management shows that many stakeholders are involved, consisting of: Government, private and business actors, non-governmental organizations, affected communities, academics and mass media, but the participation of these actors still needs to be improved to achieve maximum performance in disaster management.

The collaboration aspect shows the findings that the collaboration management shown in disaster management has been well planned but this collaboration does not work well in the implementation

process. The transparency aspect found in this study is the transparency of actions demonstrated by stakeholders and budget allocations. In addition, it is often difficult for local government BTT budgets for disaster management to be allocated and used because of the tendency to wait for assistance from various parties.

The information sharing aspect shows that information about disaster cases and their mitigation has been distributed among stakeholders but disinformation and hoaxes are still often found in the community. The aspect of communication between stakeholders has been running quite well but the intensity of communication is still less intensive and sectoral ego is quite an obstacle to communication between stakeholders.

The aspect of various decision-making is sometimes an obstacle for BPBD as the leading sector to react and work quickly when it needs the decisions of other stakeholders such as vertical agencies. The leadership aspect shows that although BPBD acts as the leading sector, BPBD leaders often face obstacles to empower and coordinate other stakeholders such as organizations or institutions whose leaders have a higher position so that ideally this leadership role is played directly by the provincial secretary (sekprov) or governor. The aspect of resource sharing in disaster management shows that stakeholders sometimes do not maximize the use of resources for disaster management even though the amount is limited.

Thus, it is important to further examine the causes, impacts and challenges of flood risk management in North Kalimantan, and formulate a comprehensive and long-term oriented management strategy. This approach is needed so that regional development is not hampered by recurring disaster cycles and so that communities can live more safely and resiliently against the threat of flooding. Through the Disaster Risk Governance approach in analyzing natural disaster management programs, it will encourage local governments and related stakeholders to improve the quality of their governance performance in the field of flood disaster management and management. Where the leading sector in the field of disaster management at the regional level is the Regional Disaster Management Agency (BPBD). This research itself focuses on one aspect, namely disaster management in North Kalimantan Province.

## 2. METHOD

The resource persons in this study are all relevant stakeholders who have links with the Flood Disaster Management Program in North Kalimantan Province. In this study, the researcher used a qualitative research method in collecting data related to the Disaster Risk Governance in the Flood Disaster Management Program in North Kalimantan Province.

## 3. FINDINGS AND DISCUSSIONS

When viewed from the perspective of accountability theory within the framework of Disaster Risk Governance according to Alam and Ray-Bennett (2021), the practices that occur in the field reflect a form of institutional responsibility that is relatively good but not fully optimal. In the context of disaster, accountability must include not only performance reporting and auditing, but also meaningful participation from the community as affected parties. Based on the explanation of the findings and theory, it can be concluded that accountability in disaster management in North Kalimantan has shown a strong institutional foundation, but has not fully reflected the ideal accountable governance practices in contemporary governance literature. Strengthening public data systems, two-way discussion channels with the community, and improving evaluative mechanisms for the impact of disaster management policies are needed so that accountability can function not only as formal accountability, but also as a learning mechanism and strengthening public legitimacy.

Field findings show that community participation in disaster management in North Kalimantan tends to be passive, reactive and limited to the emergency response phase. Community involvement is more common during evacuation, aid distribution and post-disaster, while the mitigation and planning stages are not well structured. This has implications for low collective awareness, lack of understanding of local risks, and high dependence on government agencies and external volunteers. Thus, participation in the context of Disaster Risk Governance cannot be separated from the principles of transparency, accountability and equitable division of roles. In this regard, the findings of this study indicate that participation that is not yet meaningful can reduce the effectiveness of disaster response and hinder the formation of community resilience. To improve the quality of participation, strategies are needed to strengthen school and community-based disaster education, structured involvement of NGOs and

traditional leaders, and incentives for community groups that are active in early warning systems and environmental monitoring.

Collaboration is a form of cooperation that involves various stakeholders or groups with different background roles to jointly plan and implement a form of activities and programs to achieve common goals. The research findings show that collaboration in disaster management in North Kalimantan is still sectoral and not optimal in terms of integration across institutions. Coordination between BPBD, TNI, Polri, technical agencies, as well as elements of civil society such as PMI and Tagana, has indeed been running, but it is more operational when a disaster occurs. Collaboration is still minimal in the pre-disaster (mitigation and preparedness) and post-disaster (rehabilitation and reconstruction) phases. Thus, it can be concluded that collaboration in disaster management in North Kalimantan has not reached the ideal strategic synergy stage as described in the governance literature. It is necessary to strengthen the formal structure of collaboration, such as the establishment of a permanent cross-sector task force, improving data interoperability and cross-agency training, and building a culture of collaborative work that does not only emerge during emergencies, but becomes part of the disaster risk management system. Transparency implies that disaster risk management stakeholders are accountable for their actions to line management, interdepartmental organizations and the communities they serve. Field findings show that transparency in disaster management governance in North Kalimantan still faces a number of obstacles. One of the main issues is limited public access to planning documents, financial reports and regional vulnerability databases. The absence of an information platform that is easily accessible to the public leads to low public accountability and lack of informed participation. Therefore, to strengthen transparency in disaster risk governance, local governments need to develop an integrative online-based disaster information system, open policy and financial data for public audit, and establish a risk communication team that is able to convey information in a language that is easily understood by the public. This approach is in line with the principles of open governance and e-participation, which are considered effective for increasing the legitimacy and efficiency of responses to conditions that occur in disaster management.

Information sharing between different departments and communities during different disaster risk management cycles, through formal and informal channels. Based on the interview results, the process of sharing information between stakeholders in North Kalimantan has been carried out with various approaches, both formal and informal. The Secretary of the Summit, Mr. ED, underlined the importance of the push-download system as a disaster information data center that is not only controlled by BPBD, but is participatory and collaborative. This system allows all stakeholders to submit and receive data from one central node that is jointly managed. This shows that North Kalimantan is starting to adopt an information technology-based approach in developing disaster information systems. Field findings show that the information sharing process between agencies in North Kalimantan is still limited, vertical-top-down, and generally not real-time. Delays in information, fragmentation between agencies, and the absence of an integrated data center system cause a slow response to disasters and lead to overlapping interventions between actors. In addition, not all information held by BPBD or technical agencies is shared with the village level or disaster-prone communities. Thus, the findings in this study confirm that information sharing in disaster risk governance must be institutionalized, not just a technical response. Advances in information technology will not have a significant impact without being accompanied by an open culture, collaborative leadership, and policies that encourage real-time and cross-sectoral data exchange.

Communication is a fundamental element of institutional capacity for effective disaster response and management. Research findings on this element show that communication in disaster management in North Kalimantan has not run optimally, both vertically (central government to regions, or regions to communities) and horizontally (between agencies). In the pre-disaster period, information about potential risks has not been systematically conveyed to the community. During disasters, early warning messages are often late, inconsistent and do not reach vulnerable groups. Meanwhile, post-disaster communication focuses more on the distribution of aid than on psychosocial recovery or inclusive rebuilding. Therefore, improving communication systems in disaster management is not only about infrastructure, but also about strategy, empathy and information governance. Local governments need to establish cross-sector risk communication units, conduct training for spokespersons and local media, and involve traditional leaders and community leaders as trusted communicators.

Shared decision-making is the active involvement of horizontal and vertical agents and stakeholders to make decisions related to clear and mutually agreed objectives, and to implement those objectives. Research findings on this element show that decision-making in disaster management in North Kalimantan is still centralized and dominated by government authorities, especially the BPBD and regional heads. The roles of other actors, such as local NGOs, community organizations, traditional leaders, and vulnerable groups (women, children, people with disabilities) have not been optimally accommodated in the planning process, determining aid priorities, and post-disaster recovery. This reflects the lack of space for participation and the low quality of participatory democracy in disaster governance. Thus, efforts to strengthen disaster governance in North Kalimantan need to be directed at establishing a more participatory and representative decision-making forum. Local governments can initiate a Disaster Risk Governance Board/Committee that involves representatives of the community, private sector, NGOs, and academics at one decision table. This process not only increases policy legitimacy, but also enriches alternative solutions that emerge from a diversity of actors and perspectives. Strong leadership lends legitimacy and credibility to collaborative processes between organizations and communities. Leadership is very important because it is one of the vital keys to organizational success. The research findings show that the role of leadership in disaster management in North Kalimantan determines the success or failure of a response. Some successes in disaster management are supported more by the initiative and personal courage of a regional head or agency leader, rather than by a collectively built system. On the other hand, weaknesses in decision-making, public communication and inter-agency coordination are often related to the absence of strong and visionary leadership figures.

Sharing resources between departments when working in disaster risk management can result in something greater than any individual or team could produce independently. The research findings show that resource sharing practices in disaster management in North Kalimantan are still not optimally managed. Disaster management activities are often constrained by limited budgets, logistics, personnel and equipment. Each agency works with its own resources without a coordinated cross-sector allocation mechanism. As a result, there are imbalances in aid distribution, logistics accumulation at one point, and vacancies at other points.

#### 4. CONCLUSION

Based on the research results, it can be concluded that Disaster Risk Governance in Flood Disaster Management in North Kalimantan Province still faces various problems. The accountability element has not run optimally. Community participation is still limited. Collaboration between actors depends on emergencies, not the results of joint planning. Information transparency has not been supported by inclusive and open communication. The practice of sharing information between institutions is still minimal, causing data gaps and delays in response. The communication aspect has not been fully effective. In terms of sharing decision-making, authority is dominated by the government as the leading sector. The leadership element is highly dependent on the capacity of certain figures. Finally, resource sharing has not been built in an integrated coordination system, causing overlaps and inequalities in aid distribution.

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