

Collaborative Governance In Flood Mitigation In Bojonegoro Regency

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Abstract.

The involvement of the government, community, and private sector is required in flood mitigation in Bojonegoro Regency. The problem is how to initiate and run the optimal collaborative efforts with these stakeholders. This study was conducted with a qualitative approach and data collection through interviews with key informants of state actors. The study found that less efficient flood mitigation in Bojonegoro was because the elements of the state and civil society remained working individually under their duties and responsibilities rather than in integrated processes. This proves the less effective collaborative government Disaster Management in Bojonegoro.

Keywords: Collaborative Governance, Policy, Disaster Risk Reduction.

I. INTRODUCTION

Disaster management is a development challenge that cannot be avoided by every region in Indonesia due to the different characteristics of disasters in each region (Cahyono 2021). Each region will have different characteristics, participation models, and a diversity of actions to mitigate disasters. The issue of disaster management is one of the issues raised in the achievement of Sustainable Development Goals/*sustainability* or SDG's (Mantasia and Jaya, 2016). East Java province is an area that has districts/cities that have a high natural disaster prone index (Febrian 2016). Natural disasters result in massive losses either directly or indirectly, for instance casualties, damaged and loss of property, damage to infrastructure, damaged environment, and trauma to survivors. Such natural disasters occur in the form of floods, landslides, tidal waves and so on. Considering the data from 2016 to 2020, floods are the most frequent natural disasters in East Java. The flood disaster resulted in losses and extensive casualties. Some areas in East Java is prone to experience annual flood because it is passed through several watersheds (DAS), so that the overflow of the river causing flooding is inevitable. In addition, the increasing population also affects land use that pays less attention to the environment resulting in an increase in flood disasters (Umar & Dewata, 2018). The north-western part of East Java is divided by the Bengawan Solo River which is broadly divided into three characteristics, namely the south central part (relatively fertile lowland), the south and North (rocky limestone mountains with medium fertility), and the north central part (flood-prone Bonorowo or Bengawan Njero). Bengawan Njero is a tributary of the Bengawan Solo River that often overflows when the rainy season arrives. Bojonegoro Regency is an area located around Bengawan Njero, so that the potential for flooding is high (Mutiarawati and Sudarmo, 2021). The floods occurred in Bojonegoro Regency from 2010-2020, in sum 56 events caused several adverse impacts to the community, including 23 people injured, 975 houses destroyed, and 54,345 Ha of agriculture affected (DIBI BNPB, 2020).

This is not only caused by factors of regional conditions and rainfall but also by human activities that aggravate flood disasters to the detriment of the community, government, and the environment. The people of Bojonegoro Regency are known to be always threatened and lost due to floods that soak and damage houses, rice fields, ponds and public facilities for days. The threats of disease haunt people who remain in the house when the flood is still soaking. Generally, people choose to stay at home during floods because of the fear of thieves who take advantage of the circumstances during evacuation process. Government activities are also hampered by floods that inundate the streets to offices. Floods also caused the destruction of embankments so that other areas were submerged. To control the effects of floods occurred in Bojonegoro Regency, disaster mitigation policies by the District Government are needed in accordance with the regulation of the head of the National Disaster Management Agency No. 4 of 2008 on guidelines for the

preparation of Disaster Management Plans. In the regulation, it is stated that the series of disaster management includes three stages, namely pre-disaster, which includes no disaster situations and potential disaster situations; emergency response carried out in a disaster situation; and post-disaster during the aftermath of a disaster. In pre-disaster activities, the Bojonegoro Regency government has carried out active and passive mitigation based on regional Regulation No. No. 7 year 2012 on Disaster Management in Bojonegoro Regency. In its implementation, it turns out that the risk of disaster has not been significantly reduced due to the absence of collaboration between policy actors, both government institutions, the public and the private sector. The success of disaster mitigation is determined by continuous stakeholder collaboration and a clear direction (Fitriyani and Suharto 2021). The involvement of the government, community and private sector is needed in flood mitigation in the corridor *governance*.

Likewise, in the context of flood mitigation in Bojonegoro Regency, a collaboration between stakeholders is required so that the mitigation process can be achieved in accordance to the preparation plan and the concept of collaborative governance. From the background of these problems, the question arises as to how collaborative governance in flood mitigation in Bojonegoro Regency could be implemented and what cooperation scheme to be selected so that collaborative can run optimally. Disaster mitigation has a general objective to reduce or minimize the impact of disasters. According to Adiyoso (2018: 167-168), citing UNDP (1994), mitigation aims to reduce losses in the event of future hazards by reducing the risk of death and injury to the population and reducing damage to infrastructure and the public sector. There are also specific objectives based on the needs and actions of Disaster Mitigation, which he quoted from Coppola (2007), as follows: 1). reduction of the likelihood of disaster risk, 2) reduction of risk consequences, 3) avoidance of risk, 4) acceptance of disaster risk, and 5) sharing or transfer of the impact of disaster risk. As a step in reducing the impact of disasters, mitigation consists of two types, according to Nick Carter (1991), namely structural and non-structural mitigation (Setiawan, 2015). The grouping of disaster mitigation is in line with Adiyoso (2018: 168-175) by categorizing mitigation based on its actions, namely structural and non-structural mitigation procedures. He also grouped the two mitigations into the following activity steps:

a. Structural Mitigation.

This mitigation form is carried out through physical development actions or changes in the environment through the application of certain engineering alternatives. It is also often referred to as human efforts to be able to control nature. The following are the types of structural mitigation activities, namely: 1) strengthening the resilience of building construction, 2) building code regulations (Building Codes), 3) relocation, 4) modification of building structures, and 5) construction of victim shelters.

b. Non-Structural Mitigation.

Risk reduction through modification or adjustment of human behavior or other processes without making physical changes or development. This mitigation form is the opposite of other forms because it does not make physical changes or development, but through awareness actions or adjustments to human behavior. It is also often referred to as human efforts to adjust to nature. The following are the types of non-structural mitigation activities, namely: 1) determination of regulations., 2) disincentives to high-risk areas, 3) population density Control, 4) regulation of building utilization, 5) awareness and Community Education Programs, and 6) behavior change. In the mitigation process, collaboration between actors is needed so that the process can be effective, known as *collaborative governance*. In public administration, the terminology *governance* is often used to explain the interrelationships between organizations. Understanding *governance* is not only the involvement of public institutions in the formulation, formation, and implementation of policies, but also the connection of various organizations to implement public goals. On the other hand, referring to its basic meaning, the administration is the cooperation of various parties to achieve a goal. This meaning confirms the existence of collaboration in administration. Therefore, it can be said that collaboration in the context of Public Administration is a cooperation between several related parties in an activity to achieve a goal. This argument shows that *collaborative governance* is one embodiment of Public Administration. Public institutions, in this case the government, have an orientation in policy making. Meanwhile, the goal and process of collaboration is to achieve a degree of consensus among policy-related stakeholders. *Collaborative governance* requires realizing social justice in meeting the public interest

(Hermawan et al., 2022). *Collaborative governance* presents as governance cooperation that directly involves stakeholders, both within the government and outside the government, in order to make or implement public policies and public programs.

Collaborative governance is essentially a step of bringing together public stakeholders and private parties in a collective forum with public institutions to engage in consensus-oriented decision-making (Ansel and Gash, 2008). Model *Collaborative Governance* according to Ansell and Gash includes several elements: 1) the initial conditions in a collaboration are influenced by several phenomena; the stakeholders that have common interests and visions to be achieved, the history of cooperation in the past, mutual respect for established cooperation, trust of each *stakeholders*, imbalance of power, resources, and knowledge, 2) facilitative leadership related to the deliberations conducted by *stakeholders*, establishing clear Basic Rules, building trust, facilitating dialogue between stakeholders and sharing mutual benefits, 3) institutional design relating to the procedures and Basic Rules in collaboration for procedural legal collaboration processes, process transparency, participant inclusiveness, and forum exclusivity, 4) building togetherness, or the process to equalize perception and togetherness in the process of collaboration. While Emerson, Nabatchi, and Balogh (2011) explained that *collaborative governance* is a process and structure in the management and formulation of public policy decisions that involve actors who constructively come from various levels, both at the level of government (public institutions), private institutions and civil society, in order to achieve public goals that cannot be achieved if implemented by one party only. The existence of interdependence between actors and between organizations makes collaboration very necessary. The greater the interdependence, both vertically and horizontally, the greater the need to collaborate. *Collaborative governance* is a style that seeks to facilitate the complexities of the union between government, private sector and society in consensus-oriented joint decision-making.

There are so many models of *collaborative governance* as a framework for analyzing the occurrence of collaboration between *stakeholders*. One of them is the *Collaborative Governance Regime* (CGR) model initiated by Kirk Emerson, Tina Nabatchi, and Stephan Balogh (2011). The CGR model is considered to deeply observe the collaboration process of *input, driver*, and the impact. The CGR model emphasizes that the substance of *collaborative governance* is not only an arrangement that involves several institutions in an interest, but rather a transformative and applicable process in the long term. The CGR framework integrates many components of collaborative governance, ranging from *system context* and *drivers* through *dynamic collaboration* as well as the action, impact, and adaptation. The CGR model considers that the process of collaboration between the actors involved (*stakeholders*), both governmental and non-governmental actors, should refer to continued cooperation. This model could determine the achievement of the realization of *good governance* which according to Nag (2018) has eight characteristics: participation, rule of law, equity (equality) and inclusiveness, transparency, responsiveness, consensus and legitimacy, effective and efficient, and accountable (accountable).

II. METHODS

This study was conducted through a qualitative approach focusing on the role of government, the private sector, and the community in flood mitigation in Bojonegoro. Data will be collected through the documentation for secondary data and direct interviews with informants for primary data. The determination of informants was carried out through the snowball method after the researcher purposively requested the head of the Regional Disaster Management Agency (BPBD) as the *Key informant*. After the data collection, the analysis was construed by interactive analysis method

III. RESULT AND DISCUSSION

Collaborative Governance in Flood Mitigation in Bojonegoro Regency

Disaster mitigation as an initial activity in disaster management highly determines the success to reduce the risk that occurs during a disaster. This activity definitely cannot be handled by one organization alone but requires a collaboration among institutions and the community within the framework of proper governance. This collaborative will be able to run well if you pay attention to the steps in the collaborative

governance model expressed by Ansell&Glash (2008;550), namely: 1) initial conditions, 2) facilitative leadership, 3) institutional design and 4) trust building. Flood disaster in Bojonegoro Regency is a seasonal regular disaster due to natural limitations, namely the existence of several areas in Bojonegoro which location is under the Bengawan Solo River. Consequently, the water in the Bengawan Solo River overflows and floods occur in the area during the rainy season. This initial condition is the point of collaboration that must be conducted. The involvement of Disaster Mitigation actors in Bojonegoro Regency has been carried out in accordance with their duties. The BPBD of Bojonegoro Regency actively conducts risk analysis by creating disaster-prone maps, measuring capacity in disaster management and budgeting activities related to flood disasters. The Cipta Karya government body conducts supervision of existing buildings around the Bengawan Solo River to ensure the risk of flood disasters. The community formed Destana (Disaster Resilient Village) to prepare themselves when a flood disaster occurs. The district government has also prepared a sufficient budget to anticipate the needs of flood mitigation. Facilitative leadership continues to be carried out by the Bojonegoro Regency government in mitigating flood disasters.

The Bojonegoro Regency government routinely coordinates stakeholders in flood disaster management coordinated by BPBD Bojonegoro Regency. Ideas that arise from stakeholders in disaster mitigation are expected to reduce the risk of flooding. The Bojonegoro Regency government also collaborates with the university in disaster mitigation, especially in making and installing danger signs and evacuation instructions. To cope with floods effectively, the Bojonegoro Regency government prepares rules as the basis for disaster relief activities, namely issuing regional regulations on disaster management, Regent regulations governing the Regional Disaster Management Agency and on assistance/compensation for disaster victims. Furthermore, the head of BPBD has also issued technical instructions, such as establishing the Operation Control Center by the Bojonegoro Regency government, a Quick Reaction Team through a regent's decree, and technical elaboration through the decree of the head of BPBD. In doing disaster mitigation through a *governance* perspective, commitment to the process is necessary. The process of building trust through this commitment has obstacles. The local community's commitment not to live around the banks of the river is still violated; proven that many buildings remain along the Bengawan Solo riverbank. The steps taken by the Bojonegoro Regency government in realizing flood disaster mitigation are still limited to the task distribution of each component. The *governance concept* has not maximized all the elements affecting the *governance*; the private sector has also not been much involved. The role of the government sector still dominates disaster mitigation through the implementation of their respective duties.

Collaborative Governance Cooperation Scheme in Flood Disaster Mitigation

Many studies have been conducted in flood management and showed that the element of *governance* and *distribution responsibility* is the most decisive element of successful *collaborative governance*. The aspects of *governance* includes four factors, namely: a) limits and exclusivity (regulating who is included in the collaboration and who is not included), b) regulations (regulating the limits of what can and cannot be implemented, with the threat of being excluded from the collaboration team if it violates), c) *self-determination* (regulating the freedom to decide how members or actors perform their duties), and d) network management (regulating dispute resolution or disputes, resource allocation, quality control, and maintenance of the organization).

Meanwhile, the aspects of distributed responsibility include the implementation of the principle of shared governance and decision-making across members/actors. Therefore, there is also a division of responsibility for achieving programmed results, both preventive and curative programs. Ishiwatari (2019) proposes that collaborative governance in flood management is not only limited by collaboration but must be in an integrated scheme. Through this scheme, the parties involved include stakeholders from the Central Government, Local Government, private sectors, academia, and local communities. However, running the mechanism in this scheme is a challenge that is not easy to do, nor easy to be thwarted. Therefore, each stakeholder has responsibilities that may conflict with each other. Considering the above, the collaborative governance scheme in flood mitigation should initiating a form of cooperation between institutions and communities. The proposed formation of cooperation to mitigate flood disasters is as follows:

Table 1. The Forms of Cooperation Scheme

The Forms of Cooperation	Actor
<i>Communities of shared mission</i>	Regional Disaster Management Agency (BPBD), the Office of Public Works and Housing (PUPR), Legal Section, District authorities, Destana, Private sectors
<i>Communities of shared practice</i>	Non-Governmental Organizations and Government
<i>Issue response networks</i>	The National Search and Rescue Agency (Basarnas), BPBD
<i>Strategic alliances</i>	Universities, research institutes with the Government
<i>The Joined-up government</i>	Private sector through CSR scheme

This scheme must be implemented in an integrated manner among the components; because in mitigation, mutual agreement is needed. This mitigation phase is the most crucial in flood management programs. During this phase, the government needs actors who can respond to disasters quickly and appropriately, such as the National Search and Rescue Agency (Basarnas) and BPBD. Previous research demonstrated that the main factors are preparation and maturity (Hapsari & Zenurianto, 2016). That is, the element of success does not lie in the presence of such bodies in the circle of *collaborative governance*, but rather on its ability to compensate for other actors in carrying out its obligations.

IV. CONCLUSION

The lack of collaborative governance causes the less effective flood mitigation procedure execution in Bojonegoro Regency. The elements of governance remain to work individually in accordance to their duties and responsibilities than integrated processes. Hence, cooperation among the governance *elements* is highly necessary to be able to mitigate excessively. The cooperation scheme in question is: 1). *Communities of shared mission*, 2). *Communities of shared practice*, 3). *Issue response networks*, 4). *Strategic alliances and 5). The Joined-up government*.

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