

Village Funds and Disaster Risk Reduction:

Challenges to deal with the poverty caused by cultural belief systems

Yelladys Nuring Alifagusta*, Didik Gunawan Suharto, Rutiana Dwi Wahyuningsih
Public Administration
Sebelas Maret University
Surakarta, Indonesia

*nuringyelladys@gmail.com, didikusuharto@yahoo.com, rutiana.uns@gmail.com

Abstract—Disasters affect the increasing vulnerability of the community and positively correlated with the risk of poverty. The risk of poverty will increase if traditional societies perpetuate a cultural belief system in which people depend on the help of others. To break the dependency culture, the government seeks to carry out Disaster Risk Reduction (DRR). The Village Fund is one of the policies that supports the implementation of DRR because it carries the theme of village development within the framework of sustainable development. This article aims to discuss further how village funds can break the cultural system of dependence on the community so as to reduce vulnerability and poverty. This method used a literature review. The results of the study indicate that village fund policies are consistent in encouraging for sustainable development based on DRR. This is evidenced by the presence of programs related to the development of community and institutional capacity, the provision of cooperation in risk and disaster management, and programs that facilitate the strengthening of productive economies in disaster-prone areas. With community capacity, community resilience to disasters also increases so that people can empower themselves and not depend on the help of others.

Keywords—village funds; disaster risk reduction; poverty; cultural trust systems; sustainable development

I. INTRODUCTION

In disaster studies there are 3 parameters of disaster risk forming, namely threats / hazards (hazard), vulnerability, and capacity [1,2]. Disaster risk can increase when the threat of a major disaster, high vulnerability, but the capacity of the community in handling disasters is low. The study of vulnerability in disasters has been around since the 1980s and has been widely discussed in developing countries. Based on this, the threat to natural conditions and vulnerability is a condition that cannot be separated from disasters in developing countries such as Indonesia [3-5]. Due to the geographical conditions of Indonesia which is located at the confluence of four tectonic plates namely the Continent of Asia, the Continent of Australia, the plate of the Indian Ocean and the Pacific Ocean, it has the potential for natural disasters such as volcanic eruptions, earthquakes, tsunamis, floods, landslides and so on. Based on the results of the Indonesian Disaster Risk Index (IRBI) in 2013 it can be seen that out of 497 districts / cities in Indonesia there are 388 districts / cities with high risk and 109 districts / cities with moderate risks [6]. Along with the increasing potential of disasters in various regions, the issue of increasing vulnerability is a topic that is often discussed in several studies because disaster and vulnerability are two sides of the coin that cannot be separated.

Poverty is identified as the main risk factor due to vulnerability [7-10]. Based on the percentage of poor people in 2018, rural areas have 13.20 percent of the poor compared to urban areas who only have 7.02 percent of the poor [11]. Therefore, the potential for natural disasters often locks the community in the cycle of poverty, especially for marginalized rural poor [2,10,12]. With the condition of poor and vulnerable rural communities, the emergence of disasters will only create greater poverty. This is because the poor have only little or no financial and physical security [13]. As a result, disasters only make people's lives more difficult due to job losses, damaged infrastructure, lack of basic services, and declining economic conditions in the community [14,15]. In addition, the remoteness of the area and the complexity of the problem are also important factors in increasing the vulnerability of rural communities.

To overcome extreme post-disaster poverty, people will usually depend on the assistance of government and outside organizations and after-disaster rehabilitation [2,16-18]. These actions are caused by cultural factors where in vulnerable situations people will use the traditions that people usually do when exposed to disasters [19]. Without realizing it, it can cause dependence and ultimately form a culture of poverty [20]. Bradshaw further explained that the culture of poverty was created by a set of beliefs and values that were produced socially but individually. In other words, the culture of poverty is formed on the beliefs and values that poverty can be overcome with the help of people.

To respond to the issue, the government adopted a proactive approach in reducing the impact of disasters. Proactive, adaptive and aggressive approaches are applied through the application of Disaster Risk Reduction (DRR) programs [9,21,22]. Through DRR, the government is easier to create community resilience. This is because the concept of resilience refers to the function of adaptive capacity [8,21]. When the community has adaptive capacity, sustainable economic development can be done easily and can reduce dependence on the help of others.

One effort to create disaster resilience is to use village funds. Village funds are one of the policies that support the implementation of disaster risk reduction (DRR) programs because they carry the theme of village development within the framework of sustainable development. The scope of development is aimed at the development of disaster-prone districts, villages and disadvantaged areas [23]. The aim of the village fund policy is to align with disaster risk reduction programs, namely alleviating poverty, advancing the village economy, and strengthening rural communities as subjects in

sustainable development [24]. Based on this, the author would like to discuss further how village funds can break the system of cultural dependence on the community so that they can reduce vulnerability and poverty due to disasters. Because, in the era of Jokowi's leadership the village fund policy was very intense. Even the allocation for village funds each year is increased to maximize the realization of the goals of the *nawacita*.

II. METHODOLOGY

The methodology used in the study is literature review. Literature review of journals, theses, books and articles both national and international. The reason for using the literature review in reviewing article content is because the focus of the study is not specific to one place. Case exposure is done globally by reviewing policies, existing data, and previous research.

III. FINDING AND DISCUSSION

In developing countries like Indonesia, the occurrence of disasters, especially natural disasters, has an impact on disruption of future development. This is due to the transfer of financial assets from development to assistance for reconstruction [4]. Therefore, disaster risk reduction (DRR) must be a priority initiative in the context of poverty alleviation and sustainable development in developing countries. DRR is carried out with more emphasis on proactive actions [10,25]. A proactive approach is an action taken before the occurrence of a disaster. The choice of a proactive approach is motivated by the presence of insecurity in using a responsive and reactionary approach to disasters because often the results are ineffective and even cause economic destruction and delay in recovery [4,19]. Compared with solving problems after a disaster, disaster risk reduction is considered more capable of building community resilience in disaster because it involves risk assessment, capacity, vulnerability, risk reduction, early warning and disaster preparedness [4,8,10,26,27]. Moreover overcoming vulnerability and poverty by building resilience through risk reduction programs is actually more cost effective than emergency assistance [3,5,26].

Risk reduction includes physical / technological, environmental, economic, social / cultural and institutional activities [3,25]. Seeing the importance of the role of disaster risk reduction, the issue is scheduled in the national strategic plan. One of the policies included in the strategic plan is the village fund policy. Based on Permendes Number 19 of 2017, village funds are prioritized for village development and empowerment of rural communities. In the field of community empowerment, one of its activities is directed at supporting in dealing with and dealing with natural disasters and other extraordinary events [28].

Village funds are policies that integrate disaster risk reduction strategies with sustainable development through a bottom up approach [29,30]. Through a bottom up approach, the role of government and local communities is prioritized in development. This is motivated by the understanding that there has been a delegation of authority from center to the regions including in disaster management. In addition, bottom up

management is considered more embracing the first group affected by the disaster is the community it self. Therefore, post disaster management is more directly organized by the village government. Disaster management is accommodated through the Regulation of the Head of the National Disaster Management Agency Number 1 of 2012 concerning the general guidelines for *Destana* (*Desa tangguh bencana*). *Destana* is a village that has the ability to adopt and deal with disaster threats, as well as recovering immediately from the adverse effects of disaster. Beside knowing more about the condition of the village and affected communities, village government has a vital role in sustainable development. Sustainable development sought through village funds can be used to help vulnerable communities prepare for emergencies. The aim of sustainable development is to create a resilience [13,31]. Disaster resilience is an ability possessed by individuals, communities and organizations to be able to recover from danger immediately and be able to quickly adapt from shocks or stresses [13,26]. By building a strong economy before the disaster, the resistance to poverty will also increase.

Through village funds, disaster risk reduction is intended to create independence for the community. Communities are trained to break the cultural cycle of post-disaster welfare dependence because perceptions of disaster risk also contain the behavior of people governed by their culture [19]. Therefore, resilience formed in sustainable development also considers the adaptive capacity of the community and environmental characteristics [31]. The creation of adaptive capacity is carried out by focusing risk reduction directly on the community. This is because the community is the main resource that is affected and the first responds to being used as frontline actors in disaster [30]. Communities are important actors in rebuilding better from disasters with little or no external assistance [32]. Increasing adaptive capacity can be done by increasing institutional capacity, household income through creating new jobs and livelihoods, developing small businesses, empowering local people, and developing infrastructure services and facilities [2,10,32,33,34].

Economic development through village funds in the context of disaster risk reduction can be demonstrated through many activities including the construction of disaster infrastructure such as the construction of cliff retaining, construction of clean water facilities, construction of drainage, and the procurement of an early warning system. Another activity is the development of development through the formation of disaster preparedness cadres, procurement agents.

A. Disaster Risk Reduction Support

The development of national policies related to disaster risk reduction was first initiated by the Hyogo Action Framework 2005-2015 [35]. After that it was continued through the Sendai Framework for 2015-2030 disaster risk reduction [36]. The similarity to be achieved in these two actions is that the disaster must be dealt with seriously in a sustainable development context and included in the relevant policies. The expected goal in the framework of Sendai is to prevent and reduce exposure and vulnerability and increase resilience. One of the priority actions in supporting the framework is to make DRR investments for resilience. DRR investment in each country

varies depending on how political commitment is in building priorities for implementing risk reduction [37]. Political commitment must be applied at all levels of government from the center to the regions. Political commitment can be demonstrated through the integration of DRR in financial and financial instruments, as well as exploring risk sharing and transfer [38]. Based on the reference from the Sendai framework, national governments are required to follow the risk management trend so that the impact of the central government must also decentralize responsibilities and resources to local governments. The demands are motivated by problems in the slow making of decisions when managing disasters if governance is still centralized [14]. With disaster policy being decentralized, efficiency in responding to the needs of affected communities is also increasing, and the government can be more responsive in handling disasters.

Village funds are one form of fiscal decentralization whose benefits can be used for disaster risk reduction. Fiscal decentralization is part of the implementation of regional autonomy where regional governments have a large share in it. Through fiscal decentralization, opportunities for increasing community participation and democratization will also increase. One of the targets to be achieved in fiscal policy is to alleviate poverty. The target is very relevant to the targets to be achieved in disaster risk reduction. Therefore, both of them can be integrated with each other.

The totality of village funds in supporting sustainable development and disaster risk reduction can be reflected in the increase in financial resources every year. In 2018 the allocation for village funds was 60 trillion with an average income of each village reaching 800 million and in 2019 the allocation for village funds increased by 70 trillion with an average income of each village reaching 900 million [39]. The increase in the allocation of funds can be maximized by its benefits for risk reduction activities, especially for areas prone to disasters. From 2015-2018, the use of village funds was able to help support community economic activities and improve the quality of life of rural communities in building resilience. This was evidenced by the construction of 192,974 units of land retaining units, 29,557,922 m of large drainage, 959,569 units of clean water, 191,600 km of village roads, 37,830 Bumdes activities, 8,983 village markets, and so on [40]. Based on the total village funds allocated from 2015-2017 to the provision of infrastructure and village economic development in order to overcome village inequality and poverty, the results can be obtained that the rural poverty rate decreased from 14,2 percent in 2015 to 13,9 percent in 2017. In 2017 the number of rural poor fell to 17,10 million from 17,94 million in 2015. While the rural gini ratio fell to 0,320 in 2017 from 0.0334 in 2015 [41].

B. Challenges of Disaster Risk Reduction

Often villages located in small districts/municipalities lack humanity in the context of disaster risk reduction [35]. Although there is an increase in the allocation of village funds every year, the amount of funds provided is sometimes not balanced with the quality of human resources in the field. There are still many resources in the field that do not fully understand how to allocate funds effectively for disaster risk

reduction activities. Most villages still focus on allocating village funds only for infrastructure development. Even though in the context of disaster risk reduction community empowerment activities are also very important. This needs to be corrected and becomes a challenge for the government to evaluate the use of village funds in the field because it is useless for good infrastructure but human development is still low because it will only make people vulnerable.

Indeed for poorer regions, government actions in risk reduction only focus on urgent daily needs such as basic service provision and health [35]. For this reason, community-based risk reduction groups appear to be less active. The government is sometimes also reluctant to integrate disaster risk reduction in development because development is focused on other things [14].

IV. CONCLUSION

Basically natural disasters do occur outside the will of humans but disasters can also occur due to human negligence in including risk reduction factors in disaster management. Therefore, DRR has a big contribution in anticipating emergencies for the community, especially in rural areas, which in fact is very vulnerable to the threat of disasters. Without DRR, disasters will only make the poor in rural areas increasingly trapped in extreme poverty. In the end, the community will continuously cultivate dependency on welfare to the government or outside assistance.

Village fund policy is one of the tools used by DRR in realizing its goals. Village funds are a representation of the demands of the Sendai Framework to include sustainability development issues in relevant policies. Having the same goal of supporting sustainable development and reducing poverty in building resilience makes the two policies mutually integrated. Through village funds, community empowerment activities such as the creation of livelihoods and new jobs and the development of small businesses can build community adaptive capacity in the context of disaster risk reduction. Besides that, through village funds, infrastructure development such as the construction of turtle barriers to prevent landslides, the construction of drainage to prevent flooding, the construction of clean water to deal with drought, etc. can help communities to reduce disaster risk. Collaboration between the Ministry of Village PDTT and BNPB is a concrete step in reducing vulnerabilities and threats / hazards due to disasters. Such integration can build community resilience to rise better after a disaster. However, there are certainly challenges faced by the government in implementing village funds for disaster risk reduction. Among them are the low quality of human resources and the lack of political commitment of the village government in using village funds for disaster risk reduction activities.

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