

Implementation of the Disaster-Resilient Village (Destana) Program to Protect Community Assets

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Abstract

The Disaster-Resilient Village program is a government initiative implemented at the village or urban village level –by the central and/or regional governments– as part of efforts to carry out community-based disaster risk reduction, in accordance with the Regulation of the Head of the National Agency for Disaster Management (BNPB) Number 1 of 2012. A Disaster-Resilient Village is defined as a village or urban village possessing the independent capacity to adapt to potential disaster threats and to recover quickly from the adverse impacts of disasters. Data collection techniques employed included observation, interviews, and documentation review. Data analysis involved data reduction, data presentation, and conclusion drawing. Data validity was verified through source triangulation and qualitative methods. The research findings indicate that the implementation of the Disaster-Resilient Village program –specifically regarding the safeguarding of residents' assets– has generally proceeded well, although certain indicators were not effectively implemented. These include structural (physical) mitigation measures, economic resilience strategies to reduce community vulnerability, and the protection of key community assets; generally, these three aspects have not functioned effectively within the disaster management framework. Issues include unrepaired embankments, infrequent river normalization (leading to poor maintenance), and damaged roads submerged by floods, which hinder residents' livelihoods. Several factors pose challenges to the program's implementation and the pursuit of alternative disaster management strategies. In light of these challenges, the researcher offers recommendations for alternative flood management measures.

Keywords: *Disaster-Resilient Village Program (Destana), Protection of Community Assets*

Introduction

Hydrometeorological disasters are a type of disaster whose frequency continues to rise alongside climate change, environmental degradation, and land-use changes. Floods and droughts are the two most frequent forms of hydrometeorological disasters in Indonesia, significantly impacting the lives of the population (Rosyida & Nurmasari, 2019). Beyond causing loss of life, these disasters result in damage to economic, social, and physical assets, thereby diminishing community well-being. This situation indicates

that disaster management can no longer rely solely on emergency response; instead, it must shift toward sustainable risk reduction efforts (NR & Pinuji, 2023).

The disaster management paradigm has shifted from a responsive approach to a preventive one, centered on strengthening community capacity (Sadat, 2019). This approach positions the community as the primary actor in identifying threats, reducing vulnerability, and enhancing the ability to cope with and recover from disaster impacts. Consequently, building community resilience has become a crucial strategy for achieving effective and sustainable disaster risk reduction (Maruf et al., 2016).

To implement this paradigm, the government, through the National Agency for Disaster Countermeasure (BNPB), developed the Disaster-Resilient Village (Destana) Program. This program aims to build the capacity of village communities to independently identify threats, formulate disaster management plans, enhance preparedness, and accelerate post-disaster recovery (Pratiwi, 2019). The Destana Program also seeks to integrate disaster risk reduction efforts into village governance, ensuring that community resilience is built systematically and sustainably (Oktaviani et al., 2020).

Although the Destana Program has been implemented in various regions, its execution still faces numerous challenges. Current activities generally focus on enhancing preparedness, recruiting volunteers, creating risk maps, and conducting evacuation drills (Ginting & Simamora, 2020). This focus indicates that program success is largely measured by the community's ability to cope with emergency situations, whereas the protection of assets vital to community well-being has not received proportionate attention during implementation (Kurniawan & Fandayati, 2023).

Yet, a community's success in facing disasters is determined not only by the ability to save lives when a disaster strikes but also by the capacity to preserve the livelihood assets that underpin community well-being (Shalih, 2020). These assets include productive economic assets—such as agricultural land, livestock, business equipment, and capital; social assets such as social networks, community institutions, and solidarity; and physical assets such as housing, public facilities, and supporting infrastructure. Damage to these assets prolongs the recovery process and increases the community's vulnerability to future disasters (Widiyarta & Kriswibowo, 2023).

To date, mechanisms for protecting well-being assets within the implementation of the Destana (Disaster-Resilient Village) Program remain sub-optimally integrated. Mitigation efforts have focused primarily on protecting human lives through early warning and evacuation systems, while the protection of productive assets—through infrastructure reinforcement, economic risk management, reserve funds, and risk financing schemes—has not yet become a central component of village planning (Putri & Rai, 2019). Consequently, disaster survivors continue to face difficulties in economic recovery due to the loss of livelihoods and damage to means of production. This situation highlights a gap between the goal of building community resilience and the actual implementation of well-being asset protection at the village level (Buchari et al., 2017).

Given these conditions, research is needed to examine the implementation of the Disaster-Resilient Village (Destana) Program not only in terms of preparedness but also from the perspective of protecting community welfare assets. This study is crucial

because community resilience is measured not merely by the ability to survive a disaster, but also by the capacity to sustain livelihoods and accelerate socio-economic recovery in the aftermath. The research findings are expected to provide recommendations for village governments and stakeholders to strengthen the implementation of the Destana Program, making it more comprehensive and oriented toward sustainable community resilience.

Ranca Seneng Village was selected as the research site because it is highly vulnerable to hydrometeorological disasters specifically floods and droughts and has been a designated location for the Destana Program since 2020. Geographically, the village features relatively flat terrain and a suboptimal drainage system; furthermore, land-use changes in upstream areas have increased flood risks during the rainy season. Conversely, during the dry season, the community faces the threat of drought, which impacts the agricultural sector the residents' primary source of livelihood. Various Destana activities such as the establishment of a Disaster Risk Reduction Forum (FPRB), the creation of participatory risk maps, volunteer training, and evacuation simulations have already been carried out. However, preliminary findings indicate that the program's implementation remains focused primarily on saving lives, while the protection of community welfare assets has not yet been optimized. These conditions make Ranca Seneng Village a relevant site for examining the implementation of the Disaster-Resilient Village Program regarding the protection of residents' welfare assets.

Method

This study employs a qualitative research method with a descriptive approach to gain an in-depth understanding and description of the phenomenon under investigation. This approach was selected for its ability to depict real-world conditions based on data gathered through observation, interviews, and documentation. According to Bogdan and Taylor (cited in Moleong, 2007), qualitative research aims to generate descriptive data – comprising the written or spoken words of informants and observed behaviors. Consistent with this, Sugiyono (2018) states that descriptive analysis involves describing the facts obtained, followed by an analysis to derive meaning from the data. Sugiyono (2018) further explains that the descriptive approach in qualitative research enables the collection of in-depth data, thereby revealing the underlying meaning of the phenomenon being studied. Research informants were selected purposively using a "key person" approach identifying individuals with the knowledge, experience, and direct involvement relevant to the research focus, ensuring they could provide pertinent information. Subsequently, the collected data were analyzed using an interactive analysis model comprising data collection, data reduction, data display, and conclusion drawing/verification. These four stages were carried out continuously until valid and credible research findings were obtained.

Result and Discussion

The implementation of the Disaster-Resilient Village (Destana) program in Ranca Seneng Village, Cikeusik District, has generally demonstrated positive progress since its inception. Research findings indicate that planning documents and local institutional

structures – such as the Disaster Risk Reduction Forum (FPRB) have been established and are operating in accordance with technical guidelines set by the National Agency for Disaster Countermeasure (BNPB). The program has successfully shifted the local community's mindset from a reactive stance during disasters toward a preventive paradigm based on participatory disaster risk reduction.

This success is further evidenced by the high level of enthusiasm among disaster preparedness volunteer groups, who regularly participate in preparedness training. Evacuation routes have been mutually agreed upon, and hazard-warning signs have been effectively installed at critical locations throughout the village. These non-structural success indicators reflect a high level of social capital manifested through mutual cooperation and neighborly concern during emergencies – enabling rapid life-saving operations during annual floods with minimal casualties.

However, an in-depth evaluation of Destana indicators reveals a significant gap between administrative readiness and the actual implementation of protective measures on the ground. While the program is generally considered successful, research shows that this success remains largely confined to the stages of emergency response and evacuation management. Critical aspects concerning post-disaster livelihood sustainability particularly the safeguarding of vital assets owned by residents – continue to face major obstacles and have not yet been optimally implemented.

Shortcomings in the Destana program in Ranca Seneng Village were identified across three key indicators: the implementation of structural mitigation measures, the strengthening of community economic resilience, and the protection of residents' primary assets. These three dimensions constitute essential pillars for achieving comprehensive community resilience. When these three indicators fail to function effectively, community vulnerability to the annual cycle of hydrometeorological disasters remains at an alarming level.

Regarding structural mitigation, the physical infrastructure in Ranca Seneng Village is deemed incapable of withstanding high-water discharge during the rainy season. This functional failure stems primarily from the village's flat socio-geographic terrain, a situation exacerbated by a lack of adequate flood control infrastructure. The ongoing *Destana* (Disaster-Resilient Village) program has yet to successfully integrate village budgets for the large-scale physical construction needed to reduce the destructive impact of local river flooding.

Field observations indicate that damage to river embankments is a primary weak point triggering water overflow into residential areas. Most existing embankments consist merely of natural earth mounds that suffer severe annual erosion and have not undergone permanent reinforcement (such as sheet piling or concrete). The failure to repair these embankments reflects a sluggish budgetary response and weak cross-sector coordination between the village government and relevant regional agencies.

In addition to embankment issues, river normalization efforts in Ranca Seneng Village are infrequent and irregular. Consequently, massive sedimentation and river shallowing occur due to silt and debris carried downstream from upstream areas. The river's diminishing capacity causes inundation to form much more rapidly – even during

moderate rainfall—thereby expanding the area affected by flooding within residential zones.

A direct consequence of this inadequate physical mitigation is damage to transportation infrastructure, with main village roads frequently remaining submerged for extended periods. These damaged, flooded roads paralyze resident mobility and sever the economic lifelines connecting the village's hamlets. The distribution of goods and services comes to a complete halt, preventing residents from engaging in daily economic activities and resulting in compounded financial losses while the floodwaters persist. A second indicator that is not functioning effectively is the pattern of economic resilience aimed at reducing community vulnerability. The majority of Ranca Seneng Village residents rely on the monoculture agricultural sector for their livelihoods, making them highly susceptible to extreme weather fluctuations. The Destana (Disaster-Resilient Village) program in the village has yet to address livelihood diversification strategies, which could serve as an economic buffer when the primary agricultural sector is crippled by floods or droughts.

Household financial resilience in this village is also notably weak due to the absence of microfinance institutions or communal reserve funds specifically earmarked for disaster recovery. Residents lack access to agricultural insurance schemes that could guarantee the recovery of their business capital in the event of crop failure. Consequently, whenever cycles of flooding and drought alternate, family economic structures are severely shaken by the lack of an economic safety net.

This situation is exacerbated by residents' heavy reliance on informal loan capital which is ill-suited for disaster-prone contexts to restart their farming activities. This pattern creates a vicious cycle of post-disaster poverty (transient poverty), where profits from the subsequent harvest are entirely consumed by the repayment of past debts. The Destana program has yet to provide a solution that strengthens the disaster-adaptive financial management capacities of farmer groups in Ranca Seneng Village.

A third overlooked indicator is the protection of key community assets whether productive, physical, or social. Destana's overly safety-centric focus (prioritizing only the preservation of human life) has resulted in a lack of attention toward securing residents' property during evacuations. When floods strike, residents are forced to abandon livestock, harvested grain stocks, and small business equipment to the rising waters, lacking any form of protection or secure storage for these assets.

Damage to physical assets, such as homes and public facilities, also entails massive recovery costs that often exceed the residents' economic means. Without intervention from the Destana program to promote the adoption of flood-safe building standards (retrofitting), residents' homes will continue to suffer recurring structural damage. These cumulative material losses prolong the recovery time for both individuals and the community as a whole.

Conceptually, the loss of these productive assets undermines the foundation of village self-reliance, which is a primary goal of the Destana program. A region's resilience should not be measured solely by how quickly residents can flee to evacuation shelters, but also by how rapidly they can achieve economic recovery following a disaster. The reality in Ranca Seneng Village demonstrates that the absence of asset protection

mechanisms renders the recovery process protracted and exhausting, while also fostering chronic dependence on emergency social assistance.

Based on spatial analysis and in-depth interviews, several internal and external factors pose major challenges to the implementation of the Disaster-Resilient Village (Destana) program in Ranca Seneng Village. The most critical internal factor is the limited allocation of the Village Budget (APBDes) specifically earmarked for long-term disaster risk reduction programs. Village funds tend to be consumed by routine infrastructure development unrelated to disaster management, leaving the Destana program starved of the necessary funding for sustainable operations.

Another internal challenge concerns the lack of sustained active participation from the community itself. Following the completion of training sessions or evacuation drills, the level of engagement among residents and members of the Disaster Risk Reduction Forum (FPRB) tends to drop sharply. Residents' daily preoccupation with meeting economic needs often leads to disaster issues being sidelined, deemed important only when the threat of flooding becomes imminent.

Regarding external factors, the greatest challenge stems from poor integration of disaster management policies between the village government and higher-level authorities (specifically the Regional Disaster Management Agency/BPBD and the Public Works Agency). Issues such as river normalization and large-scale embankment repairs fall under the regulatory jurisdiction of regional governments or river basin authorities. Sectoral ego and convoluted bureaucracy often hinder proposals for physical improvements submitted by the Ranca Seneng community through the Village Development Planning Meeting (Musrenbangdes) forum.

Furthermore, uncontrolled land-use changes in the upstream areas present an external challenge beyond the village government's direct control. The conversion of forests into residential areas and commercial farmland in the uplands has caused a sharp annual increase in the volume of surface water runoff flowing into Ranca Seneng Village. This upstream ecological pressure consistently overwhelms local-level mitigation efforts downstream when floodwaters arrive.

To address these challenges and improve Destana indicators that are not yet functioning optimally, the researcher has formulated several recommendations for alternative disaster management strategies in Ranca Seneng Village. The first alternative measure involves reorganizing and reformulating village budgeting policies by establishing a local regulation specifically, a Village Regulation on Disaster Management. This regulation must mandate a consistent minimum allocation of 10% of the Village Fund specifically for financing structural mitigation and protecting residents' assets.

The second alternative measure focuses on a community-based mitigation approach to address embankment and drainage issues through self-help initiatives. Given the slow pace of assistance from the local government, the Ranca Seneng Village Disaster Risk Reduction Forum (FPRB) can mobilize periodic mutual cooperation activities to independently reinforce embankments. This can be achieved using vegetative methods such as planting vetiver grass or bamboo along riverbanks and installing sandbag gabions at points vulnerable to breaching.

Furthermore, routine normalization of tertiary water channels in rice fields and along village roads should be carried out using labor-intensive methods. Periodically clearing sediment and weeds from local drainage channels prior to the rainy season has proven effective in accelerating the recession of floodwaters on main roads. This directly minimizes the duration of transport disruptions and safeguards the continuity of the community's livelihoods.

Regarding economic strengthening, proposed alternative measures include initiating a community-based micro-insurance scheme or establishing a disaster emergency savings fund at the *Rukun Warga* (RW/community unit) level. Under this scheme, residents set aside a small portion of their harvest-season income into a dedicated fund managed transparently by the local Disaster Risk Reduction Forum (FPRB). These reserve funds can subsequently be disbursed quickly as interest-free stimulus capital for residents whose business assets have been damaged by disasters.

A further recommendation involves developing infrastructure to safeguard communal assets such as "Emergency Livestock Shelters" and "Grain Storage Warehouses" located at the village's highest, flood-free points. When the early warning system sounds, residents can not only evacuate themselves to the village hall but also safely move their livestock and harvests to these communal storage facilities, thereby preventing the loss of economic capital.

Ultimately, the success of these alternative measures hinges on sustained guidance from the Regional Disaster Management Agency (BPBD) and the enhancement of managerial capacity among the Ranca Seneng Village FPRB administrators. By integrating asset protection into the Disaster Resilient Village (Destana) curriculum, it is hoped that the village's disaster management approach will shift from a mere focus on survival during a disaster to a comprehensive strategy for securing the community's future well-being.

Conclusion

The implementation of the Disaster-Resilient Village program for flood management in Rancaseneng Village has proceeded well, as it has enhanced and engaged community participation in disaster management; residents are taught to be self-reliant in handling disasters within their village before external aid arrives. However, the program still faces shortcomings in its application, as three components remain unaddressed: the implementation of structural (physical) mitigation, economic resilience strategies to reduce community vulnerability, and the protection of the community's key productive assets. The implementation of the Disaster-Resilient Village program involves three stages interpretation, organization, and execution explained as follows: Interpretation a program succeeds only when there is proper preparation and planning during the implementation design phase; therefore, program objectives must be carefully planned and decision-making well-considered to ensure the goals are realized. Conversely, if a program is poorly planned, the implementation of activities will not proceed effectively. This planning is carried out by the Regional Disaster Management Agency (BPBD) and the village government. Organization – this refers to the process of arranging and determining who will execute the policy (identifying the implementing

institution) and who the specific actors will be. This involves determining the budget (required amount, funding sources, usage, and accountability mechanisms); identifying the necessary infrastructure and facilities for program implementation; establishing operational procedures (including general and technical guidelines); and defining the program's management structure. These elements encompass human, financial, and budgetary resources, as well as equipment, facilities, and infrastructure. Within the Disaster-Resilient Village program for flood management in Rancaseneng Village, a Disaster Risk Reduction (DRR) forum designated as Field Coordination Center 5 (POSKORLAP 5) was established by the Pandeglang Regency Regional Disaster Management Agency (BPBD). Implementation entails executing the plans formulated for the village, which cover three phases of disaster management: pre-disaster (preparedness), emergency response, and post-disaster (recovery). Pre-disaster activities involve executing the formulated plans—such as coordinating community-based flood warning systems—to alert residents of impending flood threats. Through this program, the government has successfully fostered village self-reliance, enabling the community to address local issues collaboratively while remaining under the supervision of the Pandeglang Regency BPBD.

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