

EVALUATION OF THE DISASTER RESILIENT VILLAGE (DESTANA) PROGRAM IN WEDORO VILLAGE, WARU SUBDISTRICT, SIDOARJO REGENCY

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Abstract. Indonesia's geographical location makes it a country prone to natural disasters. The effects of climate change in Indonesia also cause environmental damage that results in disasters. The cause of a series of natural disaster symptoms cannot be separated from human actions that damage nature, so disaster mitigation needs to be done as a form of anticipation. Disaster management in each region has a particular institution, the National Disaster Management Agency, abbreviated as BNPB. One of the BNPB programs that aims to increase the independence and resilience of communities living in vulnerable areas is the Destana program. Wedoro in Waru Subdistrict is a disaster-prone area, especially in floods, and has been running the Destana program since 2022. Researchers are interested in researching the evaluation of the Destana program in Wedoro. The purpose of the research is to evaluate and provide recommendations for the Destana program in Wedoro according to 6 indicators in the form of effectivity, efficiency, adequacy, equity, responsivity, and accuracy. The type of research conducted is descriptive qualitative, using the William N. Dunn evaluation method and data collection techniques of observation, interview, and documentation. The results showed that of the six fulfillment of evaluation indicators, there was one indicator that had not gone well, namely the efficiency indicator, due to the lack of utilization of human resources, so it could be concluded that the Destana program in Wedoro could be continued by increasing human resources in Wedoro Village.

Keywords: Evaluation, Destana, Wedoro Village, Natural Disaster

I. INTRODUCTION

Indonesia is classified as a country vulnerable to natural disasters due to its geographical location surrounded by three active plates. In addition, disaster risk is also amplified by the Indonesian archipelago, which is home to about 13% of the world's active volcanoes. The effects of climate change in Indonesia also cause environmental damage that results in natural disasters [1]. Some of these conditions are the background for Indonesia to experience types of disasters, such as earthquakes, volcanic eruptions, fires, and tsunamis. Another reason for the impact of climate change in Indonesia is that it can cause erosion and acceleration of water flow on the land surface due to high rainfall intensity, which is the beginning of disasters such as landslides and floods [2].

The cause of the symptoms of natural disasters cannot be separated from human actions that damage nature, so it is necessary to make changes to minimize disasters and the impact of the damage caused. Disaster mitigation is the right step to take as a form of early anticipation [3]. Disaster mitigation in Indonesia is regulated in Government Regulation No. 21 of 2008, precisely in Article 1, paragraph 6, which reads, disaster mitigation is a series of activities carried out as a form of disaster risk reduction by increasing

awareness in the development of the physical ability to withstand incoming threats [4]. So, it can be seen that the function of mitigation is to minimize or eliminate the impact of disasters by educating the community to understand how to minimize the risk of disaster itself.

Natural disasters in Indonesia do not look at places and conditions; developed urban areas are also not free from natural disasters such as floods, fires, and tornadoes. As happened in Lamongan Regency, especially Waru Subdistrict, the density of residential housing, the crowded trade area, and the main industrial area [5] resulted in excessive waste production that made rivers or streams as a disposal container. The fact that these areas have inadequate drainage channels or domestic waste management has not been given much attention so that environmental problems can occur [6]. Based on these reasons, Waru Sub-district is one of the many subdistricts in Sidoarjo Regency that often experience flooding yearly, so disaster management must be done to overcome this problem.

Disaster management in each region has a particular institution, the National Disaster Management Agency, abbreviated as BNPB. As the name suggests, the purpose of this institution is to overcome or implement disaster management in each region, including Pre-disaster,

Emergency Response, and Post-disaster [7]. One of BNPB's programs that aims to increase the independence and resilience of communities living in vulnerable areas is the Disaster Resilient Village (Destana). When a disaster occurs in an area, it is hoped that the local community understands how to save themselves and the evacuation process to minimize casualties and reconstruct and rehabilitate the surrounding conditions [8].

Wedoro Village in Waru Sub-district, Sidoarjo Regency, has been running the Destana program since 2022 with the establishment of the Disaster Risk Reduction Forum (FPRB), which was directly authorized by the East Java Provincial Disaster Management Agency (BPBD). Wedoro Village is a disaster-prone area, especially floods that hit every rainy season. The Buntung River, a tributary of the Brantas River in Mojokerto, crosses the village. The Buntung River is prone to overflowing during the rainy season, so the focus of disaster prevention in the Destana program at that time was flood disaster reduction. However, it does not rule out the possibility that other disasters, such as fires and tornadoes, may occur in Wedoro Village. According to the Destana types of disaster threats that occur in Wedoro Village can be noted as follows.

Table 1. Ranking of Disaster Threats in Wedoro Village

No.	Type of Disaster	Impact	Probability	Total Score
1.	Flood	2	5	7
2.	Fire	3	2	5
3.	Tornado	1	1	2

The value between the impact and probability of disaster threats in Wedoro Village ranges from 1 to 5, using the value criteria shown in Table 2.

Table 2. Range of Impact and Probability Values

Nilai	Impact Estimation	Probability
1	Very Light	Very Small Possibility
2	Moderately Light	small possibility
3	Light	may happen
4	Severe	most likely to happen
5	Very Severe	will definitely happen

Table 1 and Table 2 show that flood disasters in Wedoro Village will definitely happen even though the impact is moderately light. Efforts made by the surrounding community as a form of flood disaster mitigation have been carried out by cleaning the river and raising the road, but according to the latest news delivered by the BPBD of East Java Province (15/02/2024), the Buntung River experienced an increase in water which caused several areas in Waru Sub-district, including Wedoro Village, to be submerged in water and caused flooding.

Based on the background of these problems, it is necessary to evaluate the Destana program, considering that it has been

running for two years in Wedoro Village. The evaluation of the Destana program was carried out to find out how far the impact of the Destana program was for the Wedoro Village community to overcome the disaster that occurred.

II. RESEARCH METHOD

This research is included in the type of qualitative research with a descriptive approach to obtain comprehensive information and in-depth understanding related to the Destana program for disaster management in Wedoro Village, Waru District, Sidoarjo Regency. The evaluation method used to determine the success of the Destana program in Wedoro Village is the William N. Dunn evaluation method. According to Dunn, the program is said to run well if it meets six indicators: effectivity, efficiency, adequacy, equity, responsiveness, and accuracy [9].

Data collection in this study was carried out by:

- 1) Direct observation at the BPBD of East Java Province and Wedoro Village,
- 2) Interviews with Provincial BPBD employees, Wedoro Village employees, and Wedoro Village residents,
- 3) Documentation in the form of photos or pictures supporting the research.

The data obtained is analyzed using the Miles and Huberman technique by collecting, condensing, presenting, and drawing conclusions [10].

III. RESULT AND DISCUSSION

Based on the data obtained regarding the implementation of the Destana program in Wedoro Village, Waru Sub-district, Sidoarjo Regency, the research findings can be described according to the following indicators:

A. Effectivity

In general, Dunn states that the effectivity of the Destana program is when public policy can answer the issue of the results of policies that have been determined by measuring closely based on technical rationality relationships; this is measured by the unit of product or service or monetary value [11]. The effectiveness of the implementation of the Destana program in Wedoro Village was assessed from the seriousness of the BPBD of East Java Province with the Wedoro Village Government with the formation of organizations and FRBP formed by the BPBD of East Java Province to implement the Destana program in Wedoro village on February 15, 2022.



Figure 1. Establishment of Destana in Desa Wedoro

The following form of effectiveness is seen in the implementation of the objectives of the Destana program in Wedoro Village. Destana, based on the Head of BNPB Regulation No.1/2012, is to protect communities in disaster-prone areas from the adverse effects of disasters and increase community knowledge about disasters and their handling. As a village prone to flooding, the community of Wedoro Village focuses on combing through garbage and cutting down trees on the riverbank every Sunday. The accumulation of garbage and water hyacinth is the main factor inhibiting the flow of river water. This action results in a cleaner river than before; the water flow also looks smooth, and there is almost no visible garbage piling up.

Another objective of the Destana program is to increase community knowledge about disaster mitigation and management in Wedoro Village. BPBD East Java Province took action to improve the understanding of the Wedoro Village community by providing guidance to several village officials regarding threat identification, disaster risk assessment, early warning SOPs, evacuation SOPs, and the preparation of flood contingency plans.

Based on the following, the Destana program in Wedoro Village, Waru Subdistrict, Sidoarjo Regency meets the effectivity indicator very well because the Destana objectives can be achieved based on the actions taken by the Wedoro Village community.

B. Efficiency

According to Dunn, policy efficiency concerns the relationship between effectiveness and effort. The per-unit cost of products or services is used to calculate efficiency. In addition to costs, time, people, equipment, and other resources can also be used to measure the level of efficiency [11].

The efficiency of the Destana program in optimizing human resources carried out by BPBD East Java Province is achieved by holding a 7-day socialization program by inviting the community into each village. However, this socialization is considered less effective because the follow-up in each region still cannot be coordinated directly to determine whether the Destana program is delivered well to each village. As stated by the Kelurahan employee of Wedoro Village who said that there had been no socialization by BPBD directly in Wedoro Village, so the hope for the future is that socialization can be held this year by sending a request proposal to BPBD, especially socialization about fire disasters and their handling because after the flood disaster can be reduced in frequency, the next disaster that needs to be handled in Wedoro Village is a fire disaster.

As for the efficiency of the parties involved in the Destana program in Wedoro Village, there are 9 BPD members every week who go directly to the river by being divided into two teams and assisted by Linmas, while women are still not involved in cleaning the river. The hope conveyed by the BPBD of East Java Province is that the involvement of women in the Destana program needs to be done, and they can take over the health sector or others. Women's involvement in the

Destana program has also been carried out in Bungurasih Village, Waru District, Sidoarjo Regency, in Wardhono research [12] regarding women's involvement in the Destana program by conducting Dasawisma programs such as the biopore-making program to overcome flooding. This may also be applicable in Wedoro Village.

Wedoro Village has also obtained and utilized facilities and assistance from the government to succeed in the Destana program. The facilities received by Wedoro Village were used to clean up the garbage in the Buntung River. In addition, clarity regarding the funds and budget for the Destana program in Wedoro Village is around 10 million; these funds are recorded in the APBDes (Village Revenue and Expenditure Budget).

Based on the explanation above, it can be seen that the effectiveness of efforts for disaster socialization in the Wedoro Village community does not yet exist because it is still trying to socialize activities. Regarding the clarity of the facilities provided by the government and the clarity of the budget, it can be said that the Destana program in Wedoro Village is an added value for the efficiency of the Destana program. Even so, women's less-than-optimal role in directly involving the Destana program needs to be improved or reevaluated. Based on the following, it can be said that the Destana program in Wedoro Village has not fulfilled the efficiency indicators well. Even though there are sufficient facilities and funds, if they are not utilized properly, the program cannot run optimally.

C. Adequacy

According to Dunn, public policy can fulfill the adequacy indicator, which measures how far a level of effectiveness can satisfy needs, values, or opportunities for solving problems [11].

The adequacy of the Destana program in Wedoro Village is evidenced by the statement of the formation of the Wedoro Village FRPB by the Decree of the Head of Wedoro Village No. 188/013/438.7.6.13/2022 to encourage the Wedoro Village Government to integrate the RPB (Disaster Management Risk) initiative into the RPJMDs. This proves that the policy issued by the BPBD of East Java Province in implementing the Destana program in Wedoro Village is clear.

In addition, the frequency of flooding has been reduced in the last few months. Flooding in Wedoro Village is not as frequent as in previous years due to the smooth flow of the Buntung River, which is cleaned every week. However, a problem still occurs: even though the river is cleaned once a week, there is still trash that can accumulate at any time. This is because Wedoro Village receives garbage from other villages that share a route with the Buntung River. Wedoro Village has two bridges that cross the Buntung River, and the bridges are located above the river, so household waste and water hyacinths cannot pass under the bridges. The negative impact of this is that the accumulation of garbage disrupts the flow of the river. The solution to this problem is for Wedoro Village to coordinate with surrounding villages to stop dumping garbage in the river. Another problem is that Wedoro

Village does not have a particular route or access to heavy equipment, so the cleaning and dredging of the river have not been optimized.

Apart from the problems that occur in Wedoro Village towards the stump river, the impact of reduced flooding can also be felt directly by the people of Wedoro Village. According to Dunn's evaluation method, the Destana program policy in Wedoro Village has met the adequacy indicator quite well.

D. Equity

According to Dunn, equity in policy can be seen from its fair efforts to allow people to experience a particular program effectively, efficiently, and adequately, with the key word being justice [11].

The Destana program in Wedoro Village is run by the RPB Forum and the Wedoro Village BPD, but the budget is the village budget from the APBDes. As a village budget, the use and distribution of the Destana program in each RT RW of Wedoro Village are said to be evenly distributed. In addition to the budget, the readiness of the Wedoro Village community from each RT and RW to overcome the next flood disaster is also evidenced by the Wedoro Village holding a Disaster Resilient Village Competition and winning three categories, one of which was the overall champion.

The excellent distribution of the Destana program in Wedoro Village proves that it can meet the indicators of equity according to Dunn's evaluation because the distribution of each Destana goal can be delivered.

E. Responsivity

Responsivity is the response of policy targets to the implementation of a program. It measures how far the program can satisfy community groups' needs, preferences, and values [11].

According to the BPBD of East Java Province, there are differences between the responses of urban and rural communities regarding the Destana program. Village communities tend to be more active in carrying out the Destana program, while urban communities are not very active; this problem is because urban communities tend to be busy working, as happened in Dadirejo Village, located in Purworejo Regency. This flood-prone village has been active in the implementation of Destana since 2017. The Dadirejo Village community actively carries out training in emergency response activities and the development of facilities and infrastructure for disaster management [13]. However, this statement is contradicted by implementing the Destana program in Wedoro Village. Wedoro Village is still in a large urban area of Sidoarjo, but the community response to the Destana program is relatively high. The community is also highly aware of not wanting to throw garbage in the river. In addition, the local government, such as the kelurahan, has installed CCTV to anticipate if there are unscrupulous residents who want to pollute the river.

Based on these things, it can be seen that community responsivity to the Destana program in Wedoro Village can be said to be very good.

F. Accuracy

Accuracy is the feasibility of the achievement or results of a policy in line with the planned indicators or targets [11]. The right question for accuracy is whether a policy's desired results and objectives are really useful or valuable (Zakirin & Arifin, 2022).

According to the BPBD of East Java Province, in the results of interviews by researchers, most people are still rigid or lazy towards disaster mitigation and only move when a disaster occurs. However, in Wedoro Village, the community has made pre-disaster efforts by cleaning the river and renovating the road to prevent flooding. As a result, when the rainy season arrives, the risk of flooding is reduced and the community becomes self-reliant in the event of a disaster. Although there was also a flood in February 2024, the frequency of flooding in Desa Wedoro was successfully minimized.

Based on the following, it can be seen that the Destana program in Wedoro Village is considered right on target, so the impact of the implemented program has a significant influence. After describing the six evaluation indicators that must be met in the William N. Dunn evaluation method for the Destana program, it can be seen that five indicators have been fulfilled, including effectivity, adequacy, equity, responsivity, and accuracy. However, there are indicators whose fulfillment is not very good, such as the adequacy indicator. Meanwhile, the efficiency indicator is insufficient to meet the good level because it still needs to be developed and improved again. Based on this, it can be seen that the Destana program in Wedoro Village has been running well and meets the existing evaluation assessment, so the Destana policy has met the community's needs. So that the Destana program in Wedoro Village can be continued following previously established policies and objectives with some additional improvements and innovations.

IV. CONCLUSIONS

Based on the results and discussions that have been carried out regarding the evaluation of the Destana program in Wedoro Village, Waru Subdistrict, Sidoarjo Regency, the research results can conclude that, according to William N. Dunn, one of the six fulfillment of evaluation indicators does not work well, namely the efficiency indicator, while the other five indicators work well. So, it can be said that the Destana program in Wedoro Village can be continued with improvements. The fulfillment of the six indicators is explained as follows: (1) The effectiveness indicator of the Destana program in Wedoro Village has been running very well because the objectives of Destana have been achieved; (2) The efficiency indicator of the Destana program has not been running well because even though Wedoro Village

maximizes existing resources from the use of facilities and funds for the Destana program. However, there are shortcomings, namely the absence of socialization or training to the entire community directly to increase good understanding, as well as the lack of utilization of women in the role of reducing disasters in the Destana program in Wedoro Village; (3) The indicator of the adequacy of the Destana program has been running quite well because it has had an impact on reducing the frequency of flooding in Wedoro Village which previously always flooded during the rainy season. However, there are still external obstacles with river cleaning that have not been fully optimized due to lack of access or paths for heavy equipment; (4) The Destana program equity indicator has been running very well because every RT and RW in Wedoro Village can feel the budget and benefits of Destana; (5) The indicator of the responsiveness of the Destana program has been running very well because the Wedoro Village community gives a positive response and is ready to be active in the implementation of the Destana program; (6) The indicator of the accuracy of the Destana program has been running well because the Destana program makes the community independent in dealing with disasters and this has a significant influence on the Wedoro Village community.

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