

The Implementation of Critical Land Policy in Bandung Regency

Raisa Rafifiti Choerunnisa¹, Fawzy Shihabudin²

{raisa.raffiti@poltek.stialanbandung.ac.id¹, shihabudinfawzy@gmail.com²}

Politeknik STIA LAN Bandung, Bandung, Indonesia

Abstract. This research was motivated by the extent of critical land in Bandung Regency which reached 53,656 ha, so it was ranked 6th as the largest critical land area in West Java. Therefore, researchers discovered the problem that in Bandung Regency there is often community insensitivity to the environment which causes land conversion. This research aims to determine the implementation of critical land management policies and the efforts made to overcome them in order to provide policy recommendations for the quality of critical land management programs. The critical land management policy is implemented by the West Java Provincial Forestry Service in terms of the Van Meter and Van Horn implementation model indicators which include Policy Standards, Resources, Communication, Characteristics of the Implementer, Disposition of the Implementor, and Social, Economic and Political Conditions. This research uses a qualitative approach with data collection methods using interviews, observations and literature studies. The results of the research show that there has been no monitoring and evaluation process carried out by the government to monitor the tree planting program down to tree maintenance, resulting in a large amount of land still being open and changing function. Therefore, the recommendation for the West Java Provincial Forestry Service is to carry out monitoring and evaluation activities as an act of supervising the tree planting program and strengthening government relations with the community.

Keywords: Management, Land, Critical, Planting, Environment

1 Introduction

As time progresses, the existence of land in the Republic of Indonesia is decreasing both in terms of quality and quantity. This is caused by various interests relating to the increasing needs of living creatures. The decreasing amount of land with increasing land use means that land has limited capacity when used [1]. This situation causes land to experience rapid degradation and the land's carrying capacity is disrupted. A land can be said to be critical if the land's function has been significantly disturbed in its intended use [1].

The decrease in land productivity caused by the loss of soil layers due to erosion experiences physical, chemical and biological damage which damages the hydrological function and productivity of the soil and can endanger the social and economic life of the community [2]. Generally caused by land use exploitation that exceeds the capabilities of the land. However, naturally critical land is supported by unfavorable regional conditions such as high rainfall, land slope, and soil conditions that are very susceptible to erosion [3].

Decree of the Director General of Watershed Management and Forest Rehabilitation Number SK.49/PDASRH/PPPDAS/DAS.0/12/2022 dated 27 December 2022, states that the area of critical land in West Java Province has reached $\pm 829,556$ Ha.

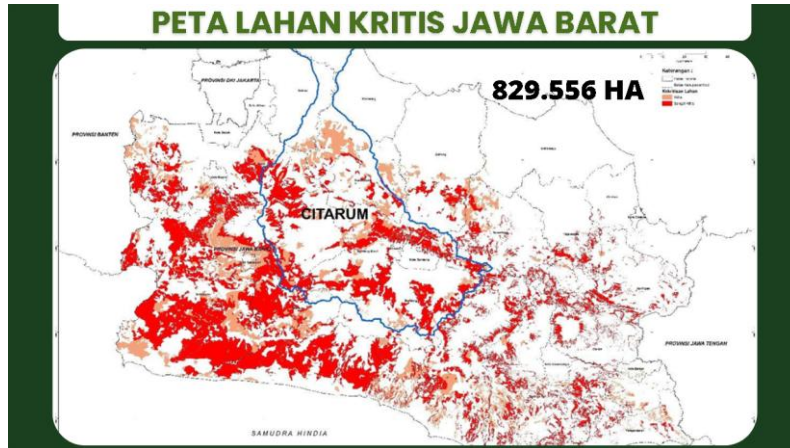


Fig. 1. West Java Critical Land Map
Source: West Java Open Data, 2022[4]

Based on Figure 1, it can be seen that the area of critical land reaches 829,556 Ha. Critical land includes various forms of land damage, such as decreasing soil quality and water absorption, erosion, natural damage which is detrimental to local farmers, water resources and community welfare. The main factors causing the occurrence of critical land in West Java involve unsustainable agricultural practices, rapid urbanization or massive population movement, climate change, deforestation and deforestation, increasingly rapid population growth and people's consumption patterns which are changing with the times. one of the main contributors to worsening land conditions.

West Java Province has diverse geographical characteristics, including mountainous areas in the south and lowlands on the north coast. Forest areas in West Java, including conservation forests, protected forests and production forests, account for 22.10% of its area. However, several forest areas in West Java Province have been affected due to the need for population growth along with significant progress over time. One of the areas that was quite heavily impacted was Bandung Regency.

Table 1. Critical Land Area in West Java Province

No	Regency/City	Land Criticality (before 2020)		Total Area (Ha)	Land Criticality (after 2020)		Total Area (Ha)
		K	SK		K	SK	
1	Bekasi	3.296	52	3.349	408	27	436
2	Bogor	25.622	67.934	93.556	19.961	52.935	72.896
3	Karawang	18.852	2.026	20.879	2.693	8.761	11.454
4	Purwakarta	13.586	7.918	21.504	14.661	9.117	23.778
5	Subang	6.836	9.403	16.240	7.781	10.317	18.098
6	Sukabumi	63.045	172.591	235.637	81.424	130.307	211.732

7	Kota Bekasi	1.971	25	1.996	0	0	0
8	Kota Bogor	75	1.274	1.350	74,13	97,42	171,54
9	Kota Depok	3.847	151	3.999	1,21	0,62	1,83
10	Cianjur	23.687	135.228	158.916	38.141	115.758	153.900
11	Garut	30.946	65.784	96.730	54.487	34.109	88.596
12	Kota Bandung	0	837,42	837,42	175	563,74	738,74
13	Kota Cimahi	60,51	555,32	616,83	87,17	403,81	490,98
14	Kota Sukabumi	1.723	0	1.723	252,97	62,93	315,8
15	Bandung Barat	8.499	38.179	46.678	16.107	24.465	40.572
16	Bandung	8.499	38.179	46.678	30.700	22.956	53.656
17	Ciamis	4.045	20.212	24.258	21.590	1.437	23.027
18	Cirebon	4,38	368	372,96	826	258	1.085
19	Indramayu	550	1,92	552,51	1.984	875	2.859
20	Kuningan	476	10.990	11.466	11.068	1.380	12.448
21	Majalengka	1.198	11.807	13.006	13.823	295	14.118
22	Pangandaran	4.311	8.856	13.167	826	258	1.084
23	Sumedang	11.910	20.096	32.006	22.126	7.839	29.965
24	Tasikmalaya	14.758	46.351	61.110	817	0	817
25	Kota Banjar	598	21	620	625	0	625
26	Kota Cirebon	313	29,45	342,60	31	0	31
27	Kota Tasikmalaya	178	1,40	179,47	817	0	817

Source: Division of Patterning and Utilization of Forest Areas, West Java Forestry Service, 2023

Based on table 1 above, Bandung Regency still tends to be in 6th position as the largest area of critical land in West Java with a total area of 46,678 Ha pre-covid-19 and 53,656 Ha post-covid-19. The interesting thing is that even though it is in 6th position, based on existing data, only Bandung Regency has increased the total area of critical land after Covid-19. This means that Bandung Regency currently tops the potential for environmental emergencies in West Java. This indicates that the critical land issue is an important problem and needs more focus from the government and society. Because, if critical land is not immediately handled, it will disrupt the function of the land as a medium for regulating water management, flood protection and temporary sedimentation in downstream areas. In line with the reduction in the quality of water absorption, flooding will often occur in various areas.

There are quite a lot of causes of critical land problems that occur in Bandung Regency. Both from the people themselves and from the government there which is related to social, political and economic factors. One of them is the low level of community participation in critical land management, which is a problem that needs to be addressed. Low participation can hinder the success of rehabilitation programs [5].

The West Java Provincial Forestry Service as the leading sector in this case is trying to minimize the negative impact of the critical land phenomenon in Bandung Regency. In accordance with one of the mandates of Law 11 of 2020 concerning Job Creation which states "The Central Government determines and maintains sufficient forest area and forest cover for each river basin and/or island in order to optimize environmental benefits, social benefits and economic benefits for local communities". Referring to the priority programs of the West Java Provincial Forestry Service, there are 2 programs to tackle critical land in Bandung Regency, they called Gerakan Tanam Pelihara Pohon (GTPP) and Jum'at Menanam (JUNA). With these two priority programs from the Forestry Service, it is hoped that it will be able to reduce the negative impacts of critical land and create a green economic environment.

Critical land refers to land that is less able to support its ecological functions optimally. The phenomenon of critical land is caused by several factors. The causal factors vary depending on the geographical context, environment and human activities in the relevant area. Some of the causes of critical land are soil erosion, deforestation or deforestation, unsustainable agricultural practices, urbanization and development, and climate change. Critical land is one of the serious threats that is currently occurring. The impacts resulting from critical land on an ongoing basis can cause changes in land function. Land conversion will cause land deforestation and environmental pollution. As happened in Bandung Regency. The Bandung Regency area is indicated as an area with extensive critical land coverage in West Java.

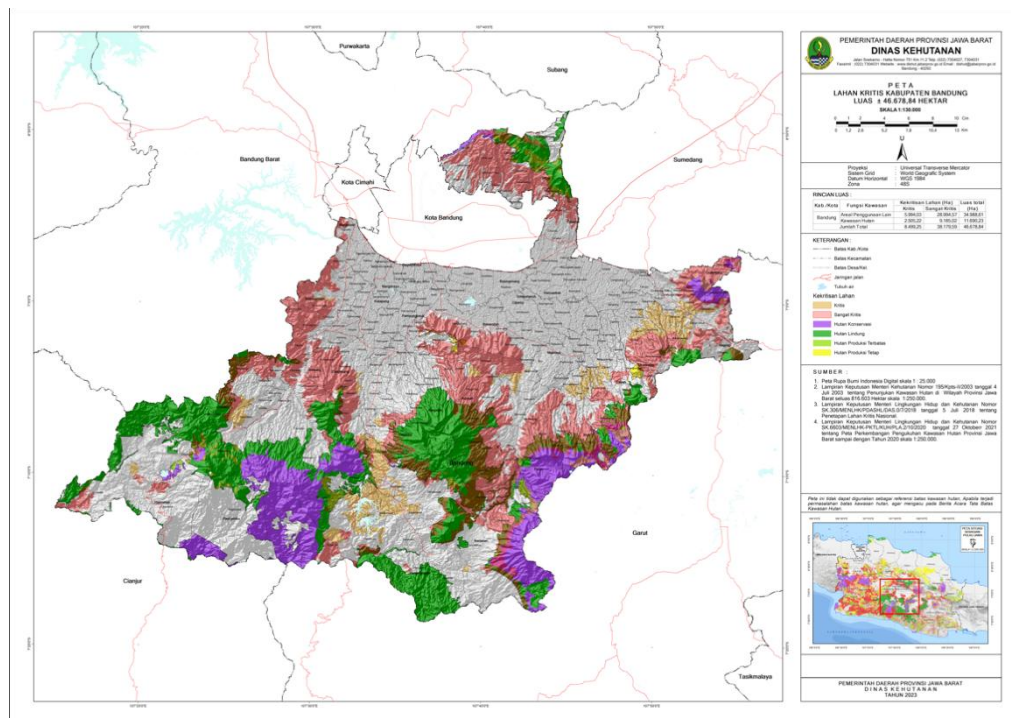


Fig. 2. Map of Critical Land in Bandung Regency

Source: Division of Patterning and Utilization of Forest Areas, West Java Forestry Service, 2022

Based on Figure 2, the critical land problem in Bandung Regency is proven by data from the Forest Area Patterning and Utilization Division of the West Java Forestry Service which states that the area of critical land in Bandung Regency reaches 46,678 Ha. Bandung Regency and West Bandung Regency are ranked 6th in the West Java Province region with the largest critical land area before Sukabumi, Cianjur, Garut, Bogor and Tasikmalaya Regencies. This indicates that the area is quite worrying. Because, as time goes by, of course this number will increase and cause damage to land functions.

Seeing these conditions, the West Java Provincial Forestry Service as the person responsible for the Bandung Regency area is trying to minimize the negative impact of the critical land phenomenon in Bandung Regency. Referring to the priority programs of the West Java Provincial Forestry Service, there are 2 interrelated programs to tackle critical land in West Java,

Gerakan Tanam Pelihara Pohon (GTPP) and Jum'at Menanam (JUNA). With these two priority programs from the Forestry Service, it is hoped that it will be able to reduce the negative impacts of critical land and create a green economic environment.

To make monitoring easier, the West Java Provincial Forestry Service provides 3 online information system services open to the public. These include SIMANTAP (Tree Maintenance Planting Monitoring Information System), SIMANTRI-BIBIT (Seedling Contribution Monitoring Information System), and SINGMANFAAT (Geospatial Information System for Forest Benefits). These three information systems currently provide real-time data containing information about forestry, forest products, number of trees planted, critical land area, and so on. The SIMANTAP information system is one that contributes to organizing the GTPP and JUNA programs. Through this information system, the implementation of monitoring and evaluation of response programs can be realized effectively and efficiently.

2 Methods

This research approach involves the role of the government and the community who participate in its implementation. To obtain accurate and specific data, the author uses qualitative research methods. Qualitative methods can be a means of approaching research that concerns social phenomena or human behavior in a more in-depth and comprehensive manner. Qualitative methods focus on collecting and analyzing non-numerical data, such as interviews, observations and field surveys. Qualitative research as a method of collecting data with the aim of understanding complex social phenomena. Qualitative research emphasizes the quality of data collected from interviews, observations, and official documents from related departments or agencies. Qualitative data collection techniques emphasize understanding the meaning of the policies being realized. The research was conducted at the West Java Provincial Forestry Service. The purpose of choosing this place as a research location is to obtain specific and complete data to find out how the policy for dealing with critical land threats in Bandung Regency is implemented.

Sources of qualitative research data can be obtained from interviews, observations and documentation. Qualitative research methods emphasize the deep meaning of the data sources obtained. In this research, two types of data sources were used, namely primary data used were interviews and secondary data were journals related to the research topic. There are also official reports and documentation belonging to the West Java Provincial Forestry Service. The data analysis technique used in this research uses the Miles and Huberman model, namely data collection, data reduction, data presentation, and drawing conclusions.

In this research, the testing method was carried out using the triangulation method. The reason is that data triangulation is a comprehensive method because it combines three qualitative data collection processes carried out from various information sources to validate the data. Data credibility testing can use a combination of various sources to check the results of interviews conducted, reinforced by direct observation in the field, supported by documentation obtained from data processed by researchers to ensure the correctness of the data.

Policy implementation refers to the process of implementing policies that have been formulated by the government. In implementing policies, it involves various concrete steps to implement these policies in everyday life. Implementing a policy will involve several stages, starting from initial planning to impact evaluation. Therefore, policy implementation includes various things, such as resource allocation, division of tasks and authority, communication,

monitoring implementation, and system settings that support the implementation of the policy. The aim is to ensure that when the policy is implemented it can have a good impact in achieving the desired goals.

Van Meter and Van Horn as cited in M. S. Grindle[6] stated that implementation aims to build relationships that can achieve policy goals through government actions involving stakeholders. In their theory, Meter and Horn argue that differences in the implementation process are influenced by the nature of the policy to be implemented involving related policy processes and actors. They offer a conceptual approach that tries to link policy issues with implementation and models. conceptually related to policy. Change, control, and compliance are important elements in implementation procedures. There are 6 variables that influence public policy according to Meter and Horn as cited in Subarsono [7], namely Policy Standards and Targets, Resources, Communication, Characteristics of the Implementer, Disposition of the Implementor, Social, Economic and Political Conditions.

Based on the explanation of the Meter and Horn implementation model, the model illustrates that policy implementation takes place linearly from public policy, policy implementers, to policy performance. Meter and Horn [6] suggest that the implementation model aims to form connections that can result in the achievement of policy goals through government activities involving stakeholders. This implementation model will be used by the author to analyze the process of implementing policies for overcoming critical land threats in Bandung Regency. The reason is because the Meter and Horn implementation model variables are variables that are able to thoroughly explain implementation performance and explain how the implementation process works.

3 Result and Discussion

The area of productive land in Bandung Regency will decrease in 2023, reaching 20,611 ha. This number is reduced from the previous year (2022) which reached 28,394 ha. This means that of the total area of Bandung Regency which reaches 176,239 ha, only around 12% of the area is productive land. This number is also decreasing, $\pm 3\%$ since 2022. This indicates that there is increasingly less productive land in this area. More clearly can be seen in the table below

Table 2. The Productive Agricultural Land in Bandung Regency

No	Region	Year	Productive Agricultural Land Area
1	Bandung Regency	2019	27.969
2		2020	27.747
3		2021	27.747
4		2022	28.394
5		2023	20.611

Source: Bandung Regency One Data Portal, 2024

In contrast to table 2, the total area of critical land (outside forest areas) in West Java as of 2022 will reach 829,556 ha, while in Bandung Regency itself it will reach 53,656 ha. This makes Bandung Regency ranked 6th in West Java as the area with the largest area of critical land. Based on the phenomenon that occurred, the Governor of West Java issued Circular Number: 522.4/17/Rek concerning the Implementation of the Tree Planting and Maintaining Movement on Critical Land in Regencies/Cities throughout West Java. This step is one of the

vegetative/planting forest rehabilitation activities. Based on the implementation of the critical land threat management program by the West Java Provincial Forestry Service, there are 2 forest rehabilitation activities, namely vegetative and technical civil.

Based on the explanation of the resource person, Gerakan Tanam Pelihara Pohon (GTPP) and Jum'at Menanam (JUNA) programs are vegetative activities in dealing with critical land. This program is a direct direction from the Governor of West Java. The implementation of this program invites the community to participate in planting as reforestation. This can be seen from the aspect of the policy model, as follows:

- a. Policy Standards & Goals
According to the Public Relations Coordinator, the community not only contributes to the JUNA program, but can also implement the greening program every day by intensively conducting outreach. As a result, the planting target ordered directly through the GTPP Circular Letter by the Governor was achieved, even exceeding the planting target (50 million trees) since it was implemented.
- b. Resources
According to the Head of the Watershed Management Division, this is due to intensive community intervention in forest management (outside the area). This limits the role of the West Java Provincial Forestry Service in forest management because it does not have the authority to intervene in people's forests. This means that commitment is needed from both the government and especially the community itself to always protect the environment.
- c. Communication
According to the Public Relations Coordinator, the most effective way to disseminate information massively is through social media so that the reach of the information is wide. Information disseminated on websites, Instagram, YouTube and various other social media platforms belonging to the West Java Provincial Forestry Service is very possible to reach nowadays. In addition, to create collaboration with the private sector, the West Java Provincial Forestry Service is collaborating with various NGOs, CSR, and various related farmer groups in procuring seeds which are increasing in number among the community because community participation in the demand for seeds for vegetative programs is considered to be higher based on expression of the Head of the DAS Management Division.
- d. Characteristics of the Executor
The characteristics or actions shown by the West Java Provincial Forestry Service as the leading sector in dealing with threats to critical land are conducting program evaluations coupled with an approach to the community. Based on the results of observations, there is no monitoring and evaluation policy after the planting program. Based on the Forest Extension Officer's statement and the reality of field conditions, monitoring and evaluation need to be carried out so that the critical land management program does not stop at tree planting activities, but continues through to maintenance.
- e. Implementor Disposition
There are several values and principles of the West Java Provincial Forestry Service in dealing with critical land. Among them are non-egosectoral, communication, collaboration, scientific basis, and sustainability. According to the Head of the Watershed Management Division, the ego-sectoral situation can cause differences in treatment among Forest Farmer Groups (KTH) so that handling critical land becomes hampered. Based on the results of observations, apart from the fact that there is no monitoring and evaluation policy after the planting program, tree planting activities

also overlap because they are carried out by several related agencies that have the same locus and focus. Based on the Forest Extension Officer's statement and the reality of field conditions, apart from the West Java Provincial Forestry Service, there are the Environment Service, Agriculture Service, Plantation Service, Food Crop and Horticulture Service which carry out the same activities. This can cause problems because the same type and locus of activity can cause the locus in several places to be given less attention.

f. Social, Economic and Political Conditions

Critical land threat management programs can influence social, economic and political conditions. Socially, the opinion that is developing in society regarding the implementation of programs to overcome threats to critical land is quite high. This can be seen from the involvement in tree planting and enthusiasm on social media belonging to the Provincial Forestry Service, West Java. Politically, this is recognized by various environmental communities and the private sector so that the planting program is supported through the provision of free ready-to-plant seeds for the community. Meanwhile, economically, the Head of the Watershed Management Division is trying to do this through an agroforestry system which combines aspects of forest management with agricultural crops. Thus, this can maintain forest functions while supporting the smooth running of river basins while maintaining biodiversity to continue to exist in the area. This aims to support economic aspects for related sectors.

Management of critical land is an effort to repair or restore the function of land that has been degraded or damaged. In terms of dealing with critical land, the West Java Provincial Forestry Service has 2 methods, namely vegetative and technical civil. As explained in Law Number 37 of 2014 concerning Soil and Water Conservation Article 24 Paragraph 1 which reads "Improving the function of soil on critical land, damaged land in protected areas and cultivated areas that have been restored is carried out using the following methods: (1) vegetative, (2) agronomy, and (3) civil engineering. Gerakan Tanam Pelihara Pohon (GTPP) and Jum'at Menanam (JUNA) are examples of vegetative methods. Meanwhile, the construction of control dams, retaining dams, retention ponds and infiltration wells are some examples of civil engineering methods. These two methods are implemented by the West Java Provincial Forestry Service as the leading sector for dealing with critical land threats. Apart from that, there is also an agroforestry scheme being planned by the Head of the Watershed Management Division, namely a land management pattern that combines forestry and agricultural cultivation systems. Apart from aiming to overcome critical land due to land conversion, this aims to increase the economic achievement targets of the community, starting from forest farmer groups (KTH), entrepreneurs, livestock breeders, and so on.

In the process, the implementation of overcoming critical land threats has experienced several significant obstacles. This has bad consequences because it can cause the response process to be less than optimal. Moreover, within its authority the West Java Provincial Forestry Service is responsible for community land. When carrying out tasks in the field, this becomes a challenge in itself, especially for forest extension workers. Community-owned land is land owned by the community itself. This means that land allocation, land conversion, and land conversion are also the authority of the community. The West Java Provincial Forestry Service cannot arbitrarily intervene in community land, because absolute authority lies with the land owner.

Based on the interviewee's explanation, it can be explained that the main factor causing critical land is land conversion. Land conversion outside forest areas is caused by a lack of community awareness in managing the use of their own land. Some communities do not

participate in the tree planting program, as a result their land becomes open and increases the amount of critical land in several areas. This is a factor inhibiting the sustainability of critical land management, namely the lack of commitment and shared vision between the government and land owners.

Another factor inhibiting maximum results, apart from the polemic over land conversion between the government and land owners, is the absence of a precise "formula" or clear action after tree planting. The tree planting activity is only an activity that seems interesting at first. However, there is no continuity in how the trees will be maintained, cared for and looked after. In this case, the inhibiting factor is the absence of monitoring and evaluation activities carried out by either the Forestry Service or the community. This was explained by the forest instructor of the West Java Provincial Forestry Service: Based on the explanation from the forest instructor of the West Java Provincial Forestry Service, it can be explained that the shortcomings of the tree-keeping and Friday planting movement programs are the aftermath of these activities. This means sustainability after planting, namely tree maintenance. One way is to carry out monitoring and evaluation.

4 Conclusion

The main factors causing critical land are land conversion and the absence of a monitoring and evaluation process after tree planting. Land conversion is caused by intensive community intervention in forest management (outside the area). This limits the role of the West Java Provincial Forestry Service in forest management because it does not have the authority to intervene in people's forests. Meanwhile, the absence of a monitoring process means that the tree planting program is not monitored, as a result, land that has been closed becomes open again, thereby increasing the area of critical land.

Implementation activities for dealing with critical land or implementing forest rehabilitation is one of the authorities of the Provincial Government in forest management. In this case, the West Java Provincial Forestry Service as the leading sector for dealing with critical land threats is responsible for carrying out rehabilitation outside state forest areas (people's forests). Based on the implementation of the critical land threat management program by the West Java Provincial Forestry Service, there are 2 forest rehabilitation activities, namely vegetative (tree planting) and technical civil (infiltration wells and control dams). Gerakan Tanam Pelihara Pohon (GTPP) and Jum'at Menanam (JUNA) programs are vegetative activities in dealing with critical land.

References

- [1] E. Rustiadi, S. Saefulhakim, and D. R. Panuju, *Perencanaan Dan Pengembangan Wilayah*. Crestpent Press dan Yayasan Obor Indonesia, 2009.
- [2] D. Herdiana, "Identifikasi Lahan Kritis dalam Kaitannya dengan Penataan Ruang dan Kegiatan," 2008.
- [3] Poerwowidodo, *Telaah Kesuburan Tanah*. Angkasa, 1992.
- [4] P. J. Barat, "Open Data Jawa Barat." <https://opendata.jabarprov.go.id/id>
- [5] D. Suparwata, M. Arsyad, and M. Hamidun, *PARTISIPASI MASYARAKAT PADA*

TAHAP PELAKSANAAN PROGRAM REHABILITASI LAHAN KRITIS. 2018. doi: 10.31227/osf.io/t6szp.

- [6] M. S. Grindle, *Politics and Policy Implementation in the Third World*. Princeton University Press, 1980.
- [7] Subarsono, *Analisis Kebijakan Publik: Konsep, Teori, dan Aplikasi*. Pustaka Belajar, 2005.