

Model of Policy Synergy in Fire Management in the City of Bandung

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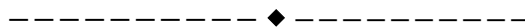
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Abstract

This research is based on the phenomenon of the city of Bandung which has a large and dense population and a high level of building density, so it is at risk of various disasters. One of the disaster risks that is quite vulnerable is the occurrence of fires in slums and densely populated areas. The high potential for fires and cases of fire incidents in the city of Bandung are empirically caused by various problems, including; Firefighters are hampered on their way, lack of understanding and knowledge of the public about fire services when providing information on fires, and traffic jams that occur on the highway, as well as crowds of residents who see the fire incident, making it difficult for firefighters to put out the fire. It is hoped that these various problems can be resolved immediately through policy synergy between the Bandung City Fire and Disaster Management Service and various other relevant agencies, so that the handling of fires in the City of Bandung can be carried out more effectively and efficiently. In line with this context, this study uses a qualitative approach through descriptive methods. Meanwhile, data collection techniques were carried out using in-depth interviews, literature studies, observation and documentation. The results of the study found that in order to synergize policies in handling fires in the city of Bandung, a clear concept and parameters were needed, so that they could be used as guidelines or references for all stakeholders involved in synergizing fire management policies. The parameters in question include; there is a common perception, potential resources, communication patterns, attitudes of policy actors, and the existence of an organizational structure.

Keywords: Synergy, Policy, Fire.



A. INTRODUCTION

Geographically, the city of Bandung is a city that is very densely populated by residents, because it is the capital of West Java Province. The population of the City of Bandung is 2,469,589 in 2023. The area of the City of Bandung is 16,729.65 or 166.59 km² consisting of 30 sub-districts and 151 sub-districts. Thus, the population density in the Capital City of West Java Province is 15, 17 thousand inhabitants per km². This figure is the highest compared to the population density in 26 other districts/cities in West Java.

The characteristics of the Bandung City area are dominated by offices, mountains, housing, shops, plantations, rice fields, tall buildings, entertainment venues, and also schools/universities. From the characteristics of the area, the city of Bandung has a tendency to increase in disturbances in the form of disasters. Topographic condition of Bandung City is located at an altitude of 700 m above sea level. The city of Bandung, which has a large and dense population and a high density of buildings, is also at high risk of various disasters. The city of Bandung, as a densely populated area with a high density of buildings, is threatened with fire risk, especially

in slums and densely populated areas. The frequency of these events can increase during the dry season which may occur in industrial areas and other vital objects such as terminals, train stations, Pertamina, shopping areas, and trade and markets throughout the city of Bandung.

Based on data from the Bandung City Fire and Disaster Management Service, the number of fires that occurred in Bandung City can be seen in the table below:

Table 1. The Number of Fires in the City of Bandung from Year to Year

Year	Number of events	Victim		Area (M2)	Loss (Rp)
		Death	Injury		
2007	160	3	10	38044	36,521,500,000
2008	141	1	8	23261	12,235,700,000
2009	121	2	9	21565	10,001,200,000
2010	101	0	4	24471	61,282,500,000
2011	124	1	5	12064	12,430,250,000
2012	137	0	0	36535	11,871,000,000
2013	131	1	3	24990	27,356,500,000
2014	162	2	4	40076	182,381,500,000
2015	177	1	4	100577	21,560,000,000
2016	107	2	10	9954	22,738,500,000
2017	198	5	18	43195	53,633,200,000
2018	258	3	24	96839	41,460,100,000
2019	272	7	82	61029	41,203,700,000
2020	195	0	39	82797	705,919,770,185
2021	182	3	19	22780	337,136,566,000

Source: Field of Fire and Rescue Operations Preparedness of the Bandung City Fire and Disaster Management Service (2022)

The Bandung City Fire and Disaster Management Office is currently a Regional Work Unit regulated by the Bandung City Government which is engaged in prevention, fire prevention and rescue actions as well as increasing its role in extinguishing and rescuing fire incidents and tackling other disasters. The roles and functions of the Bandung City Fire and Disaster Management Service tend to be increasingly complex and increasing in number, therefore their employees are required to have high performance. The Bandung City Fire and Disaster Management Service has the main task of carrying out government affairs in the field of public order and peace as well as public protection, fire affairs and disaster affairs.

Fire is indeed one of the potential disasters for urban communities living in the city of Bandung. Bandung is currently growing as a city densely populated by settlements and residents. Apart from the density of settlements and population, the use of flammable materials can also be a cause of high fire potential. The high potential for fires and cases of fire incidents in the city of Bandung is proven based on data presented by the Bandung City Fire and Disaster Management Service. Between 2007 and 2021, fire cases in the city of Bandung always exceed 100 fire cases per year. This is a problem that must be addressed immediately and requires synergy between

sectors starting from the Bandung City Fire and Disaster Management Service and other related agencies, including educating the public regarding fire prevention.

Synergy is a new idea, which is formed from various kinds of ideas put forward by many parties to produce a new idea, which is based on a new mindset or concept. Covey (2010) uses the term synergistic in a communication relationship formed from integration between high level of cooperation spirit and high level of mutual trust. This definition of synergy can be equated as a development of creativity that is built together from mutual trust and a very high spirit of cooperation, so that both parties will be able to openly express their respective ideas and opinions, without feeling themselves threatened and worried about possible conflict that occurred, the same thing was expressed by (Sani, 2019).

Fires can occur anytime and anywhere with completely unexpected causes, making fires a very frightening disaster (Putro, 2012). The impact arising from the fire hazard due to uncontrolled flames can threaten the safety of life and property.⁶ When responding to a fire disaster, firefighters are often late due to obstructions on their way, while the travel time for fire engines to arrive at the location the fire must be 15 minutes.⁷ These delays often occur because they are hampered by heavy traffic situations and it is sometimes difficult for motorists or traffic users to give way to fire-fighting unit vehicles. In addition, the lack of public understanding and knowledge about fire services when providing fire information is also a separate problem that must be solved immediately. The presence of a crowd of residents who saw the fire incident also made it difficult for firefighters to put out the fire. The implication is that the process of extinguishing a fire requires quite a long time, thus causing quite a detrimental impact, both property and property and even lives.

Seeing the complexity of the problems faced, when carrying out actions to deal with fires it is necessary to have synergy between the various related agencies, so that handling fires can be carried out more effectively and efficiently. In this context, there are several agencies that are involved and actually synergize to support the success of fire management policies in the city of Bandung. The agencies in question include the Fire and Disaster Management Service as the leading sector in handling fire disasters. Then the Department of Transportation has a role to regulate traffic conditions so that firefighters can smoothly reach the location of the fire quickly. The role of the police is to secure the scene of the incident from the crowd of people who want to see the fire incident. Meanwhile, the State Electricity Company "Perusahaan Listrik Negara" (PLN) plays a role in disconnecting the electricity network around the fire location so as not to trigger other potential hazards. The Regional Drinking Water Company "Perusahaan Daerah Air Minum" (PDAM) in Bandung City also has a quite strategic role, which is to help provide a water network that may be needed by the Fire and Disaster Management Service to speed up the blackouts. Then the Health Service, especially the Hospital is urgently needed when there are fatalities as a result of the fire. The synergy between the various agencies involved is expected to be able to overcome or at least be able to reduce the various adverse effects of the fire disaster.

B. METHOD

In accordance with the context of the topic above, this research uses a qualitative approach, while the research method used is descriptive. The use of this method is based on the consideration that this method is more based on facts and uses comprehensive analysis, establishes concepts and develops theories where data collection and data analysis go together. The basis of the analysis used is the Concept of Policy Synergy from Satibi et al. (2022).

The data collection was carried out by dept interviews, observation and documentation. While interviews were conducted with various stakeholders in fire management policies, including representatives from the Head of the Bandung City Fire Prevention and Management Service, Head of Prevention, Head of Extinguishing, Head of Technical Facilities, and representatives from the Department of Transportation, Police, PLN, PDAM and the hospital.

C. RESULT AND DISCUSSION

In accordance with the method, approach and research objectives to be achieved, the output of this research is directed to produce a narrative, description and argumentation through a systematic and comprehensive research process. The results of this study will reveal a model of policy synergy in handling fires in the city of Bandung by using the five dimensions of the Policy Synergy Concept. The five dimensions in question include the dimensions of common perception, potential resources, communication patterns, attitudes of policy actors, and dimensions of organizational structure.

Dimensions of Perception Equation

Perception is defined as "a process of interpreting or interpreting information obtained through the human sensory system". In the context of this study, shared perceptions are interpreted as similarities in interpreting and interpreting the essence of policies regarding shared perceptions between related agencies in handling fires in the city of Bandung.

The results of the study revealed that in determining the objectives, content and policy programs for handling fires in the city of Bandung, they were actually quite good. The various components (agencies) involved have provided input and suggestions regarding objectives, content and fire management programs. However, at the time of implementation it seems that it has not been fully effective. This is reflected in the existence of a sectoral ego attitude that emerges from some of the agencies involved, so that teamwork in dealing with fire disasters has not been fully developed optimally. Meanwhile, employees really hope that there will be a process of building good teamwork in the field. So far it has been formed just like that, even though the employees believe that by providing a forum for cooperation that is built systematically it will make work processes in the field much more effective.

The results of the study also found that through policy synergy between the various components involved, both the Bandung City Fire and Disaster Management

Service and other stakeholders, it is believed that they will be able to create a more effective communication and coordination network. In addition, the results of the study found that the policy synergy that was built was empirically expected to encourage innovation and change in efforts to solve the problem of handling fires in the city of Bandung.

Dimensions of Resource Potential

Conceptually, the resource in question is a potential value possessed by an agency in carrying out its roles and functions. Potential resources needed in the context of implementing fire management policies, including human resources, budgetary resources, facilities and other supporting resources (Muta'ali et al., 2018).

Empirically it was found that the human resource component within the Bandung City Fire and Disaster Management Office was not fully in line with the needs of the organization, even though in terms of the division of labor it was appropriate to the position. One of these conditions is caused by the factor of the number of employees and the nature of the work which is highly specialized, so that it cannot simply be represented. In terms of quantity, the comparison between employees and the number of fire emergency calls is still not handled, even though a 24-hour shift policy has been established for firefighters.

The results of the study also found that the limited personnel resources within the Bandung City Fire and Disaster Management Office caused them to be overwhelmed while on duty. The number of official employees is small (limited), so the workload for each employee will increase which then causes work not to be realized optimally. Another resource that is a constraint, is the limited facilities and infrastructure to support the implementation of tasks and work, such as fire engine facilities and limited fire hydrant points that are inadequate.

Other facts revealed in this study, among others, are still gaps or limited resources with the knowledge (skills) of officers in dealing with fires. The limited human resources in this aspect of quality are closely related to the qualifications and competence of employees in handling fire disasters. Therefore, in the long run the Fire and Disaster Management Service needs to design a kind of blueprint related to human resource planning, so that in the future the needs of staff (apparatus) can be mapped according to their needs. Efforts to rotate or transfer employees, which are currently being carried out frequently, actually refer to the design of a predetermined human resource plan, so as not to interfere with the performance and professionalism of the apparatus within the Fire and Disaster Management Office. The same thing must also be done at the time of change of leadership. Do not let the change of leadership also not be in line with the plans and policies that have been set. This is certainly not meant to close room for improvements, changes, and innovations in dealing with fire problems. Efforts to make improvements, changes and innovations are certainly very important in accordance with demands and needs. However, these efforts and steps should have coherence with the policies and plans that have been previously determined.

The results of the study also found that to make fire management more effective, support from other resources was needed to support the capacity of the apparatus resources in carrying out their duties. This is very important considering that the handling of the fire problem in the city of Bandung is a very complicated and complex activity, so it cannot rely solely on the aspect of human resources alone. The presence of supporting facilities and infrastructure as well as the involvement of various agencies is clearly needed to support the acceleration of fire disaster management.

Empirical facts show that the operational facilities and infrastructure for the work of the Fire and Disaster Management Service currently owned are considered not fully adequate in supporting fire management policies in the City of Bandung. In terms of the infrastructure aspect, it is generally considered not to be proportional, especially with regard to the ergonomic aspect. This condition can be seen from the troop barracks which tend to be stuffy because of the lack of air circulation and the relatively minimal lighting system. In addition, the room is relatively narrow and disproportionate to the number of firefighters, inadequate parking space for fire engines and private vehicles, which also has an impact on workplace discomfort.

Other infrastructure that is also in the spotlight is city hydrants which are fire protection systems (active category) which are also considered inadequate. Of the 175 hydrant units in Bandung City, only 3 (three) units function properly with a relatively large water discharge, so that they can support the performance of firefighters in extinguishing fires. The lack of properly functioning hydrants then has an impact on the performance of the fire department (Sukardi, 2020). Therefore, it is understandable if the fire fighting process is considered to be less effective and efficient, due to the distance the hydrant is far from the location of the fire, enabling users of vehicle fuel to be inefficient and tend to be at high risk on their way.

On the other hand, it was also found that fire engines were considered inadequate, both in terms of quality and quantity. In terms of quantity, operational fire vehicles currently owned are 50 units. Meanwhile, according to ideal calculations based on Minister of Home Affairs Regulation Number 69 of 2012 concerning Minimum Service Standards, the required operational vehicles are 80 units in good condition. Personnel equipment (Personal Protective Equipment / PPE) used by firefighters in the field is also considered to be inadequate and standardized, ranging from helmets, fire jackets, gloves, masks, boots, goggles, breathing apparatus which are actually what officers need in fire-fighting operations.

The various findings above indicate that the implementation of policy synergy for handling fires from the perspective of potential resources is considered not fully optimal, so that it does not support the success of policy synergy in handling fires in the city of Bandung.

Dimensions of Communication Patterns

The essence of communication is actually a process of conveying information, ideas or ideas, emotions, skills and so on, which is manifested through the use of

symbols such as words, pictures, numbers and others (Zamroni, 2022). In the context of this research, communication patterns are needed to support the synergy of fire management policies in the city of Bandung.

Communication is an activity of exchanging information between two or more people, both in giving messages, receiving messages, or giving responses to messages conveyed as a feedback process (feedback) (Sari, 2018). If this communication can be carried out properly, conditions will be created that support the smooth running and improvement of work results, both communication with superiors, co-workers and with parts of the community that must be served (Wardhana, 2018). In implementing a policy, it certainly involves many parties in order to optimize the policy.

The results of the study found that to optimize fire management policies in the city of Bandung, a pattern of communication was needed between the various parties involved, both between the apparatus and internal officials within the Fire and Disaster Management Office, as well as with officials in other agencies involved. In fact, this pattern of communication is also needed between officials and the public who are the targets of the policy. Good communication allows for a large chance of successful policy implementation, but on the contrary if communication is carried out poorly, it can certainly lead to the brink of failure. In the context of this study, it was found that communication in the implementation of fire management policies was seen as limited to giving instructions to field implementers, and did not provide sufficiently comprehensive explanations, making it difficult for members of the Volunteer Fire Unit "Satuan Relawan Kebakaran" (SATWANKAR) to carry out their duties and responsibilities. Therefore, there is a need for more intensive and comprehensive outreach regarding procedures for early management of fire hazards, both to officers and to the community (Arifin, 2020).

The intensity of this communication is needed to build synergy, both internally and externally to the organization (Efendi & Kurniatun, 2016). This is very important to do, so that the communication is not just temporary, but is expected to create an understanding from all parties related to the success of the fire management policy in the city of Bandung. Empirical facts show that the current communication and coordination is still considered not optimal, especially related to the aspect of intensity even though psychologically the stakeholders have a good relationship. The pattern of communication and coordination that is not yet optimal can be influenced by differences in tasks and functions as well as the orientation of the service products owned by each stakeholder. Nonetheless, the Fire and Fire Management Service is determined to continue providing the best service as a form of high accountability to the community.

Dimensions of Attitudes of Policy Actors

The success of public policy, one of which is determined by the attitude of policy actors or policy actors¹², this is in line with opinion (Kusumawati, 2019). That is why then policy making is heavily influenced by not only institutional arrangements

which may change according to the context, but also by various values, and the behavior of policy actors.

Based on the findings in the field, it shows that the policy synergy in handling fires in the City of Bandung carried out by the Fire and Disaster Management Service is still considered not to be fully running optimally. This is reflected in the still weak change in the mindset of stakeholders in handling fires in the city of Bandung. The existence of sectoral egos from some agencies in handling fires is one of the indications that the attitude of those policy actors does not seem to fully understand the essence of comprehensive fire management policies. There is a view from some agencies that the task of handling fires is the domain of the Fire and Disaster Management Service. The emergence of this view is certainly not wrong, but operationally it must be understood that fire management cannot actually be handled alone by the Fire and Disaster Management Agency, but must involve a number of parties according to their roles and functions.

Therefore, to foster a common attitude of all policy actors related to fire management, wisdom is needed from all parties so that there is a common attitude in translating fire management policies in the city of Bandung.

Organizational Structure Dimensions

The organizational structure shows how work tasks are formally divided, grouped and formally coordinated. In line with the essence and meaning of the organizational structure, as well as the findings of the research results, in the context of this study three indicators were found, namely; indicators of division of authority, stakeholder support, and clarity of procedures.¹³ In an organization, the division of authority is a must so that organizational goals can be achieved effectively.¹⁴ This concept inspires the thought that through a proportional distribution of authority, every job that is done will become lighter and easier.

The results of the study found that firefighters at the Bandung City Fire and Disaster Management Service were Civil Servants who were trained and equipped with skills in terms of fire disaster management in the Bandung City Region and its surroundings. Technical community services related to fire and disaster affairs in the city of Bandung, the service divides 4 (four) Fire Management Areas "*Wilayah Manajemen Kebakaran*" (WMK) in order to provide more optimal service to the community.

There are 390 firefighters at the Bandung City Fire and Disaster Management Service who have been trained professionally with quality qualification standards and with an adequate organizational structure to cover all the interests of the Bandung City Fire and Disaster Management Service. Thus, from the perspective of the organizational structure of the Bandung City Fire and Disaster Management Service in general it is in accordance with the demands and needs of the organization.

D. CONCLUSION

Based on the research that has been done, the following conclusions can be drawn; First, the synergy of fire management policies has not been fully implemented effectively, so that it has implications for the effectiveness of fire management in the city of Bandung. Second, to synergize policies in handling fires in the city of Bandung, a clear concept and parameters are needed, so that they can be used as guidelines or references for all stakeholders involved in synergizing fire management policies. Third, the concept of policy synergy as explained above, is constructed from five dimensions, namely the dimensions of shared perception, resource potential, communication patterns, attitudes of policy actors, and organizational structure where all of these dimensions are very important to be implemented as a reference for relevant agencies in translating policies. fire management in the city of Bandung.

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