A new decade for social changes
Participative disaster management: Post-disaster renewal of Palu City

Imam Sofyan¹, Erdiyansyah², Moh. Royfandi³

¹²³ Department of Public Administration, Faculty of Social and Political Science, Tadulako University, Indonesia
imamsofyan480@gmail.com¹, erdiyansyahwahab@gmail.com², mohroyfandi788@gmail.com³

Abstract. The potential for disasters in Indonesia is high and especially in Palu City, which an area with very frightening natural disasters such as earthquakes, tsunamis and liquefaction. This disaster has occurred in Palu City, so the government and its people need to be prepared to face it. Based on this, this study investigates the steps of the Palu City government in participatory urban renewal involving the post-disaster community. This research was designed qualitatively with a phenomenological approach. The results showed that the government has taken steps and reformed Palu City through post-disaster development that occurred on September 28, 2018. In this participatory development, the Palu City government carried out several stages of disaster management activities including pre-disaster, emergency response, and post-disaster. Disaster management involves various stakeholders, but the research results show that the government has not yet involved the community at every stage of disaster management. The three stages of disaster management, the last stage is that involves the community in carrying out urban renewal, but this is not visible. The impact is that the community is not satisfied with the development policies of the Palu City government, in which the government does not synergize with the community so the goal of reforming through participatory development policies not achieved.

Keywords. disaster, participation, disaster management, policy

Introduction

Indonesia is a country with a fairly high intensity of natural disasters (Gustaman, Rahmat, Banjarnahor, & Maarif, 2020; Rahmat & Alawiyyah, 2020; Rahmat & Kurniadi, 2020) and geographically, Indonesia is on a tectonic plate which also causes potential earthquakes. and the tsunami (Priambodo, Widyaningrum, & Rahmat, 2020). The geographical conditions on the one hand to make Indonesia as a disaster-prone area such as the eruption of fire, earthquake and tsunami. However, this natural disaster made Indonesia a fertile and biologically rich region. Indonesia ranked fourth after China, India and the Philippines (Bhatia et al., 2010), and the earthquake is the largest disaster that has claimed 3,600 lives compared to other natural disasters (Indonesia National Board for Disaster Management, 2018). The earthquake that occurs causes dangerous secondary effects, such as a tsunami and liquefaction that occurs in Palu City.

An earthquake with a magnitude of 7.5 occurred in Palu City, Central Sulawesi on 28 September 2020 which caused a local tsunami with a height of 4 to 7 meters and caused damage
These events lead to tsunami and likuifikasi and the impact on the number of casualties, damage infrastructure both houses and public infrastructure. The incident was so devastating that it made Palu City paralyzed from all aspects, it even caused moral degradation caused by the earthquake and made people loot everywhere.

This situation made the Indonesian government, especially the local government of Palu City, to clean up and make life from all aspects normal. It must involve all parties, including the community. Renewal area town hammer, after the event of an earthquake, tsunami and liquefaction would require the active participation of community participation in assisting the government to carry out the restoration of social life, both in infrastructure and in the economic recovery. The event of a natural disaster that befell hammer city.

The earthquake that occurred caused many people to die and even lose their property, at the same time people had to lose their work land so it affected the high number of unemployment, especially for some people in Palu City. The same from natural disasters that lead to a high number of destitution. Therefor, if it not integrated and not handled properly by the government of the city of Palu, then will create instability and social inequality in society. Assumptions Palu post-disaster community that the city government hammer slows and was not present at the time of society stricken disaster and takes the role of government. People feel derelict by the Government so that abandonment becomes a topic of public conversation that eventually emerged coloring phenomenon of public life Palu after the events of catastrophic nature.

Based on the description put forward, it is necessary for the Palu City government to follow up on the problems that occur by issuing a post-disaster participatory development policy. A policy that is born must involve all elements of having an interest, including people who are policy goals. Completed the study in the city's development of Palu oriented Pemba ha Ruan city, then the study of public policy must be the guidance and expected to give birth to a renewal of the form of constructive ideas and are as alternative solutions to address issues raised in the society after the earthquake on 28 September 2018, especially for people who were victims. For that we need to do research with the aim to investigate the government step in doing Pemba Palu ha Ruan city in a participatory manner involving post-disaster community.

**Literature Review**

Disaster is an event that is as old as humans when they live in groups (Quarantelli, 2006). Disaster as a field of study and practice seems to have come a long way since the inception of disaster sociology in 1917 with Samuel Henry Prince’s dissertation on Canada’s worst disaster, the Halifax explosion of 1917. This field has engaged many scholars from various disciplines to research and gain a better understanding about a disaster. However, although there is much dialogue and reflection on disasters in the social sciences, various disciplinary perspectives on the phenomenon of disasters seem to make a single definition difficult to understand (de Guzman & Unit, 2003). Natural disasters are increasing because of factors such as urbanization, population growth, degradation of the natural environment and climate change, and the Asian region accounts for nearly 90% of the world’s affected population (Center, 2005). Earthquakes, floods, droughts and other natural disasters cause tens of thousands of deaths, hundreds of thousands of injuries, and billions of dollars in economic losses every year worldwide (Dilley, Chen, Deichmann, Lerner-Lam, & Arnold, 2005). Losses because of natural disasters have increased in recent years because of population growth in hazard-prone areas and inadequate enforcement of building regulations (Kunreuther, 1996).
A disaster is an event or series of events that results in victims of human suffering, property loss, environmental damage, facilities and infrastructure and can cause disruption to the order of life and community livelihoods (Faturahman, 2018; Wulansari, Darumurti, & Eldo, 2017). The definition of disaster has many important functions, especially as an attempt to capture the content and essence of the concept (Perry, 2018). The government is developing a definition of disaster that used to define the boundaries of management and emergency response (Perry & Quarantelli, 2005). The government has morals and constitutionally to protect its people (Alexander, 2007; Richardson, 2005). Crisis and disaster are a challenge for politicians, public administrators, including community (Boin, 2005). The challenge faced by politicians and administrators is decision making in disaster management. Decision making in question is a policy issued for disaster management. It is interesting that during a disaster, policies are more attractive in promoting resilience in mitigation efforts than research on the impact of disasters (Cutter, Burton, & Emrich, 2010). Disaster policies are highly desirable, especially regarding participatory policies that involve the community in decision making. The realization of a participatory policy has long time to strive implementations (Santoso, 2004) and this policy is very helpful in realizing the will between the government and the community, especially in disaster management.

It has regulated disaster management by the Indonesian government to reduce the risk of the impact of natural disasters in Law Number 24 of 2007 concerning Disaster Management (Faturahman, 2018). Disaster in Act No. 24 of 2007 about Disaster Management has the sense that the events or series of events that threaten and disrupt the lives and livelihoods of society caused either by natural factors, non-natural or human factors resulting in human fatalities, environmental damage, property loss and psychological impact. According to the law, it divides the disaster into three types: (1) b Plan of nature such as earthquakes, tsunamis, volcanoes, hurricanes and droughts; (2) b Plan of social because of human activity such as conflict, war, terrorist attacks, technological failures and pest pe nyakit; and (3) b Plan of the natural mixture of human daie floods, forest fires and food shortages (IDEP, 2007).

Disaster Management includes several phases of which are prevention, reduction of the impact of hazards, preparedness, emergency response, recovery and development subtract of disaster risk (IDEP, 2007). We can divide the disaster management cycle into four stages, namely the preparedness stage, the pre-disaster stage, the emergency response stage, and the post-disaster stage (BNPB, 2011). Activities in disaster management include pre-disaster, emergency response, and post-disaster (Fedryansyah, Pancasilawan, & Ishartono, 2018).

1. Pre-Disaster
   Pre-disaster activities include prevention, mitigation, preparedness and early warning.
2. Emergency Response
   Activities when a disaster occurs should include emergency response activities to relieve the affected victims, distribution of aid, evacuation, and search and rescue.
3. Post Disaster
   Post-disaster activities are activities that include recovery, rehabilitation and reconstruction.

**Method**
This study uses a qualitative method with a phenomenological approach. One approach is in science and social, it is phenomenology. We commonly know phenomenology as an approach that is used to help understand the different symptoms or phenomena in society (Nindito & Nindito, 2013). There has been a development in the phenomenological approach and has become a foundation in research that emphasizes the uniqueness and experiences experienced by humans (Hasbiaysyah, 2008). Based on this opinion, this study uses the
community and stakeholders as a purposive sample. It bases the determination of this technique on the consideration that the research sample is the community who directly experienced the disaster in Palu City and stakeholders who are the policy makers in the post-disaster development planning of Palu City. Sources of data in this study comprised primary data and secondary data. The research data collection technique comprised participatory observation, interviews and focus group discussion (FGD), and documentation. Data was analyzed using interactive analysis, which included data reduction, data presentation, and conclusion pulling.

**Discussion**

Indonesia has the intensity of a disaster of nature is high and is at the top of the plate which causes the potential onset of a disaster. This research focuses on the earthquake that occurred in Palu City. After the earthquake, tsunami and liquefaction in the district of Sigi, Donggala, and in particular in the city's area of Palu. Palu City Government must find a middle way for social living space. Properly society must united and have the spirit of participatory to rebuild its territory, namely the region Kota Palu affected by natural disasters, earthquakes, tsunami, liquefaction to re-establish the spirit of urban civilization that paralyzed because of natural disasters.

It is a must for the Palu City government to guarantee certainty of social justice for its people who affected by the disaster. Countermeasures disaster became one of the most important political strategy to maintain economic stability, social, and physical, for the renewal of the development progress of Palu and also to give welfare for citizens. This study tried to map out the mechanism disaster management which can be divided into three stages based on order of occurrence that is pre-disaster, emergency response and post-disaster.

**Stage Pre Disaster**

Pre-disaster activities include prevention, mitigation, preparedness and early warning (Fedryansyah et al., 2018). The results of research and observations show that during the pre-disaster in Palu City, the government had not yet showed the strategies and mechanisms that must be faced in the event of a disaster. Although the Palu City government through the Disaster Management Agency has designed a mechanism for dealing with disasters, it has not implemented because of the low level of community participation. The government only provides socialization on pictures or signs when a disaster occurs, but it does not do this to the community. Lack of socialization in disaster management has made public awareness low, people are only aware when a disaster occurs.

This shows that in Palu City disaster management, the government has not prepared prevention and mitigation. Many people do not know about disaster management the government designed or prepared that, so that when a disaster occurs, the community cannot implement prevention and mitigation which results in many victims being unable to saved. The low level of community participation results from government policies that are not participatory. This means it does not involve the community in the policy process. Even though the government has involved in comprehensive development planning which carried out annually to the community through deliberations on regional development plans, however related to disaster management policies it has not involved the community. This has resulted in low public awareness of disasters.

Therefore, the problems that occurred at the pre-disaster stage were disaster preparedness and early warning systems that had not been implemented by the Palu City government. Preparedness can be done by providing a management information system in disaster management by providing a determination of disaster-prone areas and the direction of
evacuation routes. So far, the Regional Disaster Management Agency of Palu City has prepared signs showing disaster preparedness, but it damages many of them and cannot using anymore so they do not function as a means of socialization in the community.

The Palu City Government does not yet have an information management system that can support disaster mitigation, which aims to provide disaster information to the public. The system is such as a disaster-prone map and an evacuation route map as a gathering point for affected victims. Likewise, public knowledge about the pre-disaster stage is still very limited. Therefore, the actions are performed on the stage of pre-disaster still not be collective and significantly can reduce the impact of disasters (Fedryansyah et al., 2018). Activities in disaster management include prevention, reduction of the impact of hazards, preparedness, emergency response, recovery and development that reduce disaster risk (IDEP, 2007).

Improving the main transportation system and communication functions is the most important thing in a disaster area such as Palu City to survive the disaster. This is can achieve by increasing the number of maintenance and upgrading measures, while the safeguard measures to prevent accidental disasters can be maximized by increasing the level of security in public buildings and facilities (housing, schools and hospitals), and all means of communication.

**Emergency responses**

Law of the Republic of Indonesia Number 24 of 2007 states that the response of emergency (response) is a series of activities carried out with immediately at the time of occurrence of disaster to deal with the impact of the bad that generated, covering activities of rescue and evacuation of casualties, property objects, fulfilling the needs of basic, protection, management of refugees, rescue, and restoration of infrastructure and facilities. Activities during a disaster should include emergency response activities to ease the affected victims, distribution of aid, evacuation, and search and rescue (Fedryansyah et al., 2018).

An emergency is an unwanted event that can endanger and damage the surrounding environment (Annilawati & Fitri, 2019). Emergency response is the most critical thing in natural disasters because in this situation, everything becomes panic, decisions must be taken tactically, quickly and with assets to minimize the number of victims and the severity of the disaster (Indriatmoko & Widayat, 2007).

Regarding the earthquake, tsunami, and liquefaction disasters in Palu City, disaster emergency response was carried out repeatedly because disaster management was very difficult. BNPB implemented an emergency response situation for areas affected by the earthquake and tsunami in Donggala and Palu, Central Sulawesi (Noveria, 2018). Disaster emergency response ensures that injured victims, women and children receive priority treatment. One of them is through the distribution of aid, health services and handling of evacuations. During a disaster, BPBD officers, TNI, Polri, Basarnas, SKPD, and volunteers evacuate and help victims who are being handled by health officials (Noveria, 2018). The results showed that there were problems with access to transportation that had to be resolve immediately to facilitate the distribution of aid logistics.

After issuing policies affected desperate emergency response and then replaced with a transition period or cleaning. During the transition period, the Palu City government focused on the work of providing ready-to-build land for temporary shelters. Temporary dwelling that specifically designed for victims affected by the earthquake and tsunami in the four primary zones, namely patobo, balaraoa, torch, and Talise beach area. This has problems in the field where the determination of residential land does not involve all parties, including the community, resulting in rejection from the community. This shows that the government made
policies without the participation of the public. This shows that the participatory policies in post-disaster Palu City reform have not been effective. Disaster relief has been an issue where the Government of the City of Palu expected may involve the participation of the entire society to take part in disaster relief. Participations as behind feed the information that needs to have done by all parties after the disaster that struck the city of Palu. Participation of the society is the communication between the government as the policyholder and the people in the other party as the party felt the direct impact of the policy.

Post Disaster

Post-disaster activities are activities that include recovery, rehabilitation and reconstruction (Fedryansyah et al., 2018). Of all phases of disaster management by the government of Palu, the last stage is so related to the renewal of the city of Palu in a participatory manner through policy-oriented policies. The results show that the Palu City government has not involved the community in formulating participatory policies, especially in reforming Palu City after the disaster.

The post-disaster stage raises various problems in the recovery, rehabilitation and reconstruction processes. At this stage, the government has not worked optimally, especially in recovery. Because of, after two years of disaster, there are still many people who live and live in Temporary Shelters (Huntara). This means that in the recovery process, the Palu City government could not provide permanent housing or permanent shelter (Huntap) for the victims of the Palu disaster. This situation raises its own problem, where the plan to place a location for shelter continues to rejected by the community.

A part from that, various problems occurred during the rehabilitation process. The current picture of Palu City has risen from the downturn caused by the disaster, but there are still many houses or buildings and infrastructure that have not completely rehabilitated. This condition shows that the Palu City government has not worked in carrying out participatory development and renewal of the city. In addition, reconstruction problems also occurred. The government of Palu City is considered being inadequate, especially in helping the community because of the many complaints and process errors that was carried out during the reconstruction phase.

The targets for the provision of help are disaster-affected communities whose houses/environments have suffered moderate to moderate structural damage due to the disaster, and the affected communities wish to remain in their original places. Moderate level of damage is physical damage to buildings as per the Technical Guidelines (DepPU, 2006) and/or damage to the yard and/or damage to utilities, disrupting the implementation of their residential functions. It directed heavy damage or collapsed houses for reconstruction. In fact, the results of the study show that the Palu City government, in this case the Palu City Disaster Management Agency, has not made data on the community accurately. In the field, there were still errors in determining the damage so the community could not receive that assistance in the form of stimulant funds. There were various errors in the data input of the affected community, for example, it recorded houses with a minor level of damage in houses with severe damage. This shows that the Palu City government has not been effective in carrying out post-disaster reconstruction.

Based on the description carried out, they can discuss it that the participatory development of Palu City has not been effective. The government is still very slow in providing or fulfilling community needs. As a result, there are many complaints from the community, especially for people who until now or two years after the disaster are still in temporary shelters. The results are expected to contribute positively to the region or country any that experience a
disaster and can adopt participatory policies that can support Pemba ha Ruan city after the disaster, especially in involving the community because people should know and be able to minimize the impact of disasters for the individual and the group. This is because the community has not yet thought about what to do when a disaster occurs in their area (Fedryansyah et al., 2018).

We expect the results of the research to help the local government of Palu City as an effort to find alternative policy solutions in disaster management. Thus the operation of the emergency response quickly and fluent can expected to run disseminate warnings will get the possibility of disaster and evacuation and it can carry other activities that can help prevent damage and loss out just before the disaster struck. The distribution of information is one of the important instruments in disaster response, which will be able to provide an understanding of the impact of damage at an early stage, be quick to collect and share information about disasters, and secure the means of communication needed to develop an institutional response system in agencies related to disaster response in an effective and comprehensive manner, and developing a support system through coordination with other agencies.

The Government of Palu City handles disasters by forming a task force that expected to work optimally so it can help people who do not understand disaster management. The local government facilitates the community by providing help and how to interact with stakeholders regarding public infrastructure and the community must involved in making settlement plans to plan land use, spatial plans, public infrastructure and disaster mitigation. Palu City government disaster management can be successful if it involves the community as the target. The involvement of group or society as an entity that can be called collective participation, while the individual’s involvement in group activities can referred to the participation of the individual (Bryan & White, 1987). Participation mean that the participation of vertical and horizontal society. Participation vertical as could occur under certain conditions of society involved or take part in a program other parties, in relation to which the community is in a position as subordinates, followers or clients. Horizontal participation because at some point it’s possible people can start, where each member / community group took part horizontal one another, either in a concerted effort, and to do activities with other parties. Of course, such participation is a sign of the beginning of the growth of a society capable of developing independently. So it takes a sense of trust because it is very important from the social norms that give rise to social capital. If the community can relied on to maintain commitment, norms of respectful mutual help, and avoid opportunistic behavior, then various groups will formed more quickly, and the groups formed will achieve common goals more efficiently, especially in carry out post-disaster city renewal.

City renewal requires trust from both government and society. Trust is a significant measure of social capital for the government area Kota Palu to encourage the active participation of their peoples, especially in building the civilization of the city damaged by the natural disaster, there are signs that social capital in the form of citizen participation in town should have grown back. A right but if the opposite of social capital in the form of citizen participation suffered a slump means that people lose confidence in the local government of Palu post disaster nature happens, the city government assumed to slow in delivering the handling, both on efforts to evacuate victims, and in distributing logistic support, and rebuilding infrastructure.

Conclusion

The government has taken steps and reformed Palu City through post-disaster development that occurred on September 28, 2018. In this participatory development, the Palu
City government carried out several stages of disaster management activities including pre-disaster, emergency response, and post-disaster. Disaster management involves various stakeholders, but the results of the research show that the government has not involved the community, especially at every stage of disaster management. Of the three stages of disaster management, the last stage is actually the stage that involves the community in carrying out urban renewal, but this is not visible. The impact is that the community is not satisfied with the development policies of the Palu City government, in which the government does not synergize with the community so that the goal of reforming through participatory development policies is not achieved. The results of this research are expected to contribute to other regions and countries in overcoming disasters by involving all stakeholders, including communities who are the target of policies. This is in order to achieve goals in participatory development in which there is a role for the community. The existence of social norms that give rise to social capital in the community must be maintained, meaning that the role of the government must take care and even protect it. O leh therefore social capital in the community in the form of citizen participation is a form of value attitude of mutual cooperation and that attitude can be a driving force that can be adopted in the form of public policy for the government of the city of Palu so that a form of wisdom values in society will continue maintained and preserved.

References


