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### Original Research Article

# Community Empowerment Strategy as an Effort to Increase the Role of the Community Protection Unit (Satlinmas) in Disaster Management in Balangan Regency

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#### **Abstract**

The environment can cause havoc if the exploitation of natural resources that is only economically oriented has a positive effect on the economy, but has a negative effect on the survival of human life. The occurrence of floods is basically a result of deforestation, so the forest no longer functions fully as a rainwater absorber. Many forest lands are landslides and the landslides because river flows to become shallow. The flow of river water is not smooth due to the river being used as a garbage dump, and the construction of several industrial areas in urban areas. The importance of the involvement of the Community Protection Units (Satlinmas) in disaster management can be illustrated in the land fire disaster. This study aims to develop a community empowerment strategy as an effort to increase the role of the Community Protection Unit (SATLINMAS) in tackling disasters in Balangan Regency. This study uses a qualitative approach. This research is located in Balangan Regency with the object of research are related agencies, village government and members of the Community Protection Unit (Satlinmas) spread across Balangan Regency. Data were collected through interview, observation and document techniques. The main resource persons are the head of the agency in charge of fostering the Community Protection Unit (Satlinmas) and members of the Satlimas themselves. This study uses a SWOT analysis technique. Community empowerment strategies in an effort to increase the role of the Community Protection Unit in disaster management in Balangan Regency can be done by building synergy between stakeholders, budget support and legality of regulations made to create harmonization in the empowerment of Satlinmas according to their respective duties and functions.

Keywords: Community Empowerment, Role of SATLINMAS, Disaster Management.

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#### A. INTRODUCTION

Natural resources and the environment are important resources for human life and other living things. Humans and the environment are essentially like a building that should strengthen each other because humans are very dependent on the environment, while the environment also depends on human activities. The environment is seen from the human side, then the environment is something that is passive, while humans are active, so the quality of the environment is very dependent on the quality of humans.

The environment is the embodiment of the management and utilization of natural resources and the environment that is sustainable and equitable in line with improving the welfare of the community in a better and healthier environment, economic positive effects

but negative effects for the survival of human life such as errors in management can potentially accelerate the destruction of natural resources, including the destruction of protected forests that can cause flooding.

The onset of the flood disaster is basically the result of part of the forest being deforested by human activities, so that the forest no longer functions fully as a rainwater absorber. Many forest lands are landslides, and the landslides cause river flows to become shallow. Plus the flow of river water is not smooth due to the river being used as a garbage dump, the construction of several industrial areas in urban areas, causing pollution and widespread environmental degradation, and the failure of infrastructure in engineering the environment for development can be felt if the rainy season will

experience flooding, on the contrary if the dry season will experience drought.

Organizational performance is one of the sharpest highlights in the implementation of government, regarding the readiness, number, education, and professionalism of the implementation of good governance, especially in the implementation of regional autonomy. The existence of this regional autonomy, the region has the right to take care of its own affairs so that it can improve the ability of local governments which can be seen from the performance of organizations that are able to accommodate government activities, public services and development.

performance Improved is important considering the change in the direction of government policy as required by the spirit of reform to provide wider space for movement and greater participation for the community in government and development activities, where the government and its organizations play a more role as facilitators. This change in policy direction has implications for the professionalism of an organization or agency in responding to the challenges of the globalization era in facing fierce competition with other countries in the world. Starting from this thinking, improving organizational performance is an urgent matter to be implemented.

A government is considered effective if it can achieve its goals optimally, excel and be able to increase the capacity of human resources according to technological developments and a dynamic work environment. All institutions in a government must move forward to continuously improve the performance of their institutions in an effort to achieve government goals, including organizations or government support institutions, both official and voluntary statuses and social organizations in the community (Ormas).

One of the institutions that carry out the duties and functions of a government with a voluntary status is the Community Protection Unit or commonly called (Satlinmas). The role of the Community Protection Unit, formerly known as Civil Defense (Hansip), is a voluntary unit that is tasked with maintaining public peace and order and disaster management in the Kelurahan, Village or residential area. The duties of the Community Protection Unit (Satlinmas) in social society, besides fostering public order, also assist the community when there are social activities such as deaths, celebrations and religious ceremonies. In terms of disaster management, the Community Protection Unit (Satlinmas) helps carry out emergency response, handling refugees and establishing public kitchens in villages or sub-districts when there is a disaster.

These main tasks and functions really require adequate knowledge and skills from all members of the Community Protection Unit, because they are in direct

contact with the need for a sense of security and comfort for the community around where they work and even in a disaster emergency it will have an impact on the safety and security of the community. Members of the Community Protection Units (Satlinmas) who are reliable and professional will be obtained from the resource capacity of Members of the Community Protection Units (Satlinmas) themselves, both in terms of the level of education, experience and training obtained. According to Wignyosukarto (2007) the relationship between disaster and vulnerability results in a risk condition, if the condition is not managed properly.

In Balangan Regency alone, there are 2,335 Community Protection Units (Satlinmas) personnel spread across eight sub-districts as shown in table 1, recruited from local villagers with a minimum education level of Elementary School (SD) although in reality there are also those who have no education up to Elementary School (SD). SD).

The accommodation of this elementary school graduate to become a member of the Community Protection Unit (Satlinmas) is inseparable from the difficulty of finding community members with a junior high school education and above in certain villages who are willing or willing to become members of the Community Protection Unit (Satlinmas) so as to meet the number of Linmas personnel. The Village Government is forced to accept any citizens who are willing and willing to become members of the Community Protection Unit (Satlinmas) regardless of the level of education that has been required.

The importance of the involvement of the Community Protection Units (Satlinmas) in disaster management can be illustrated in the land fire disaster, for example, with difficult geographical conditions and the long distance between the Regency city and some sub-districts, land fires often spread quickly and are difficult to deal with because officers need time to reach the scene. The Community Protection Unit (Satlinmas) has been empowered and is included in the disaster management response system, of course it can contain and even overcome land fires so that they are not so widespread, considering that Linmas members are always present in the village or the location of the incident.

#### **B. RESEARCH METHOD**

This study uses a qualitative approach. This approach is carried out intensively so that it requires researchers to participate in the field, record carefully what happens, conduct reflective analysis of various documents and make detailed research reports. The type of research used in this study refers to descriptive research. The purpose of descriptive research is to describe the mechanism of a process and create a set of categories or patterns.

This research is located in Balangan Regency with the object of research are related agencies, village government and members of the Community Protection Unit (Satlinmas) spread across Balangan Regency.

Informants in qualitative research are research informants who understand information about the object of research. The selected informants must have criteria so that the information obtained is useful for the research carried out. There are criteria to determine the research informants said by the experts. According to Spradley (Moleong, 2004: 165) informants must have several criteria that must be considered, namely:

- Intensive informants unite with an activity or field of activity that is the target or attention of the research and this is usually characterized by the ability to provide information outside of the head about something being asked.
- 2. Informants are still fully and actively engaged in the environment and activities that are the target of research.
- 3. Informants have enough time and opportunity to be asked for information.
- 4. Informants who provide information do not tend to be processed or packaged in advance and they are still relatively innocent in providing information.

In the implementation of this research using the key person technique. This technique of obtaining research informants is used because researchers already understand the initial information about the research object and research informants so that researchers need a key person to start conducting interviews or observations. This key person is a formal character or an informal character. (Bungin, 2007: 77).

The author determines the research informants in this study amounted to seven people, consisting of:

- Head of the Balangan Regency Civil Service Police Unit.
- 2. Implementing the Balangan Regency Regional Disaster Management Agency
- 3. Head of the Community Empowerment Agency and Village Government of Balangan Regency
- Section Head of the Balangan Regency Satpol PP Community Protection Unit
- 5. Secretary of the Regional General Election Commission of Balangan Regency.
- Balida Village Head (as an outstanding Village Head).
- 7. Representatives of members of the Community Protection Unit from Balida Village.

Data were collected through interviews with stakeholders, observation and document review. The main resource persons are the head of the agency in charge of the development of the Community Protection Unit (Satlinmas) and members of the Satlimas themselves. This study uses a SWOT analysis technique, which is a descriptive analysis technique to

provide an overview of situations and conditions and then group them according to the category of the research method carried out opportunities and Threats (obstacles).

#### C. RESULTS AND DISCUSSION

#### 1. Overview of Research Sites

Balangan Regency was established in 2003 based on Law Number 2 of 2003 concerning the Establishment of Tanah Bumbu Regency and Balangan Regency of South Kalimantan Province which was ratified by the President of the Republic of Indonesia on February 25, 2003. The formation of Balangan Regency is a division of the North Hulu Sungai Regency.

The area of Balangan Regency with an area of 1,878.30 km2 is one of 13 regencies/cities in South Kalimantan Province, the area is 5% of the total area of South Kalimantan Province. Administratively, the Balangan Regency area consists of 8 sub-districts and 157 villages/kelurahan, which consist of:

- 1. Lampihong District
- 2. Paringin District
- 3. Juai District
- 4. Halong Kecamatan District
- 5. Batumandi District
- 6. South Paringin District
- 7. Awayan District
- 8. Tebing Tinggi District

The geographical conditions and characteristics of the Balangan Regency according to their use are an area of 1,819.75 km² consisting of 8 sub-districts and 160 villages. The topography of Balangan Regency consists of 179,269 ha of plains. The water area consists of 3,026 ha of swamps and 5,537 ha of rivers. The average air temperature in this area is 26 °C. The northern border is bordered by Tabalong Regency, in the east by Kota Baru Regency and Pasir Regency, East Kalimantan. To the south it is bordered by Hulu Sungai Tengah Regency and to the west by Hulu Sungai Utara Regency.

#### 2. RESEARCH RESULTS

Disaster Management is one part of national development, namely a series of disaster management activities before, during and after the occurrence of a disaster which includes the establishment of development policies that pose a risk of disaster, disaster prevention activities, emergency response, and rehabilitation and reconstruction. A strong legal basis for the implementation of Disaster Management is Law No. 24 of 2007 concerning Disaster Management. The law explains that disaster management is the responsibility and authority of the Central Government and Regional Government, which is carried out in a planned, integrated, coordinated, and comprehensive manner. On the other hand, the implementation of community protection and disaster management by the

community protection unit are all efforts and activities carried out in order to protect the community from disturbances caused by disasters as well as efforts to carry out the task of assisting disaster management in order to reduce and minimize the consequences of disasters.

The task of the Community Protection Unit in handling disasters in order to reduce and minimize the impact of the disaster allows members of the Community Protection Unit to play a role in the predisaster phase by being involved with the Regional Disaster Management Agency and the Regional Government in disaster stimulation, disaster socialization. and actively participating in the evacuation process. residents, establish public kitchens and maintain peace and order in the shelters. Activities in the disaster management program by the Community Protection Unit are expected not only to assist in routine activities but also to raise awareness about disaster response, disaster management and prevention in the community.

The community's need for protection from disasters, both social disasters, natural disasters and non-natural disasters must be taken seriously, especially for areas that are very disaster-prone, it is necessary to prepare as early as possible. Although the duties and functions of Satlinmas are not only about disaster management but also to maintain peace and order in society and social life, the empowerment of Satlinmas in its role in disaster management is very urgent because Balangan Regency is an area prone to disasters, especially floods and landslides and land fires.

Coordination with relevant agencies/SKPD in charge of disaster management and community empowerment to collaborate to improve the role of Satlinmas has not yet been maximally implemented. The technical agency in question is a technical agency that has the task and function of disaster management in this case the BPBD of Balangan Regency to provide disaster education and training. Initially, the Minister of Home Affairs Regulation number 84 of 2014 concerning the Implementation of Community Protection which gave authority to the Civil Service Police Unit to be able to carry out empowerment activities for Satlinmas members did not give a direct portion of authority to the Balangan Regency BPBD to participate in empowering Satlinmas in disaster management.

This condition can actually be circumvented by involving BPBD in the Satlinmas Human Resources Development and Capacity Building Team formed by the Balangan Regency Satpol PP, which after being studied did not involve them. Apart from that, if we look back, the Ministry of Home Affairs has actually launched a Circular Letter of the Minister of Home Affairs No. 362/4396/SJ dated December 11, 2009

concerning Empowerment of Community Protection Units in Assisting Flood and Landslide Disaster Management Activities to convey to the governors, and regents/mayors whose areas are prone to disasters are to order regional work units (SKPD) that have community protection to empower Satlinmas officers in assisting the program in question.

Members of Satlinmas according Permendagri 26/2020 in more detail can actually be given a special role in disaster according to their duties and functions, such as in the pre-disaster phase, in this phase the Community Protection Unit is involved in the preparation and socialization of disaster management, picket guard at vital district and BPBD objects. Then in the disaster or emergency response phase, the Community Protection Unit task force is involved in assisting the deployment of troops to help evacuate victims and property of disaster victims and help prepare temporary shelters and prepare temporary vital infrastructure, under the direction/command of BPBD.

In the post-disaster phase, the Community Protection Unit is positioned to assist in the distribution of food and material aid for disaster victims, establish public kitchens and assist post-disaster rehabilitation and reconstruction efforts. Increasing the role of Satlinmas in disaster management is a big challenge, especially in the effort to empower its members to increase knowledge and expertise in disaster management as well as providing operational costs for activities that have been considered very minimal.

The initiative currently given by the Civil Service Police Unit in the form of operational costs with the aim of motivating Community Protection Unit members to be involved in carrying out the activities carried out is actually an effective empowerment step. Unfortunately, these activities are only limited to the function of public order and peace and social activities, thus making Satlinmas feel uninvolved and recognized for its existence in disaster management efforts. Disaster management activities which are one of the main tasks of the Community Protection Unit in carrying out their activities have not involved Satlinmas directly. This condition was acknowledged by the Head of the Regional Disaster Management Agency (BPBD) of Balangan Regency as the results of the initial interview, he said:

"selaku Kepala BPBD, saya sudah berkoordinasi dengan beberapa dinas terkait untuk penanggulangan bencana yang ada di daerah, kami dari BPBD melakukan program kegiatan sesuai dengan regulasi dan visi misi yang sudah disusun, salah satunya adalah dengan membentuk Desa Percontohan Tangguh Bencana yang merekrut anggota masyarakat sebagai ujung tombak penanggulangan bencana, terkait kerjasama dengan Satlinmas yang dikoordinir oleh Satpol PP Kabupaten Balangan kami akui belum kami lakukan"

The Head of the Civil Service Police Unit of Balangan Regency emphasized the importance of cooperation and collaboration in increasing the role of Satlinmas as the results of an interview on one occasion he stated that:

"sejak dibuatkan keputusan tentang anggota Satlinmas yang difasilitasi Satpol PP, Anggota Satlinmas masih sebatas melaksanakan Fungsi Trantibum yang jadi Satpol PP, sedangkan untuk fungsi penanggulangan bencana mereka (Satlinmas) merasa kebingungan dengan tugas yang harus dilakukankarena memang belum ada pembinaan dan pelatihan tentang kebencanaan oleh instansi terkait. Melihat anggaran tahun 2021 tidak ada untuk peningkatan kapasitas anggota Satlinmas, untuk operasional kawan-kawan dilapangan pun belum jelas, karenanya perlu ada perhatian serius kalau kita ingin lebih memberdayakan Satlinmas ini terutama dalam penanggulangan bencana".

Representatives of members of the Community Protection Unit (Satlinmas) assigned to Balida Village also gave their opinion in the interview and stated that: "dalam proses penanggulangan bencana oleh satlinmas yang ada di Desa kami, kami belum mengetahui yang terkait dengan program ini, kawan-kawan masih belum banyak memahami tugas dan fungsi dilapangan, dikarenakan belum ada pembinaan khusus. Selama ini kami masih bekerja menunggu instruksi Kepala Desa sebatas penjagaan ketenramam masyarakat dan kegiatan sosial ditingkat desa. Kawan-kawan juga mengeluhkan kecilnya biaya operasional yang diberikan dan tidak sebanding dengan apa yang kami lakukan".

Responding to the issue of operational costs for Satlinmas Members, the Head of the Balangan Regency Community Empowerment and Village Administration in an interview, he emphasized that:

"Sebelum terbitnya Permendagri nomor 26 tahun 2020 memang ada multi tafsir tentang boleh tidaknya penganggaran biaya operasional bagi anggota Satlinmas pada APBDes, tapi sekarang semuanya sudah sangat jelas. Pemerintah desa bisa dan syah mengganggarkan biaya operasional dan pemenuhan sarana dan prasarana bagi anggota Satlinmas. Saat ini kami juga menyiapkan Perbub yang mengatur pembebanan biaya operasional Satlinmas itu ke desa, tapi permasalahan sesungguhnya adalah struktur keuangan desa saat ini memungkinkan atau tidak itu saja".

Interviews were also conducted with one of the village heads, specifically the village head of Balida, which is one of the villages in Balangan Regency that received CSR funds from Adaro related to the development of cultural tourism which is considered active in empowering the Satlinmas of his village. He gave a response related to Satlinmas that:

"kami selaku Pemerintah Desa sudah menyediakan alokasi dari APBDesa dan sumber daya manusia (Anggota Satlinmas) yang ada untuk melaksanakan tugas keamanan dan ketertiban desa, khusus Desa Balida Satlinmas lebih banyak aktif mengamankan tempat Wisata Racah Mapulang,untuk penanggulangan bencana selama ini tidak teroganisir dan tidak jelas jalur koordinasinya karena memang ini bukan tugas kami sendiri tapi perlu koordinasi dengan SKPD lain yang terkait. Kami berharap Satlimas kami mendapat pembekalan keahlian dalam melaksanakan tugas"

## 3. Establishment of a Community Protection Unit in Balangan District

The establishment of the Community Protection Unit (Satlinmas) is based on the Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 26 of 2020 concerning Public Peace and Order and the Implementation of Community Protection. In the legal basis it is regulated on the mechanism of recruitment, membership, duties, rights and obligations, empowerment, guidance, reporting, to the financing of the Community Protection Unit. In this Permendagri it is explained that the Community Protection Units (Satlinmas) are community members who are prepared and equipped with the knowledge and skills to carry out their duties and functions. reduce and minimize the effects of disasters, as well as participate in maintaining security, peace and public order, social activities.

Members of the Community Protection Unit (Satlinmas) who have never received knowledge and skills about their duties and functions, then that person does not have the capacity to become a member of the Community Protection Unit (Satlinmas) because they can only be categorized as ordinary people, even though the member is registered in the kelurahan/ village. The Community Protection Unit (Satlinmas) as written in the Balangan Regent Regulation Number 25 of 2019 concerning the Implementation and Guidance of the Community Protection Unit (Satlinmas), organization at the district level consists of a Trustee held by the Regent, the Director held by the Regional Secretary, the Head of the Unit held by the Regent The Head of the Satpol PP, and the Deputy Head of the Unit are held by the Head of the Work Unit dealing with Community Protection.

Community members who have been recruited meet the requirements to be designated as Community Protection Units (Satlinmas) with a Regent's Decree signed by the Head of Satpol PP. Members of the Community Protection Unit (Satlinmas) of Balangan Regency in carrying out their duties are provided with a Membership Card. The duties of the Community Protection Unit (Satlinmas) include assisting in disaster management, assisting in public security, peace and order, assisting in community social activities, assisting in handling peace, order and security in the

implementation of elections and assisting in national defense efforts.

Mechanism of formation and development of Community Protection Units (Satlinmas) In articles (2) and (3) it is explained that the implementation of community protection is carried out through community organizing and empowerment. by the Village Head/Lurah. The requirements must be met to become a Community Protection Unit (Satlinmas), namely Indonesian citizens who fear God Almighty, and are loyal to Pancasila and the 1945 Constitution of the Republic of Indonesia. Candidates for members of the Community Protection Unit (Satlinmas) are at least aged at least 18 years old and/or married with a minimum education level of elementary school and preferably junior high school education and/or equivalent.

Balangan Regency has officially formed a Community Protection Unit (Satlinmas) since 2019 with a total of 15 (fifteen) members from each village and kelurahan, in 2021 the Satlinmas members have been established through the Decree on the Determination of Satlinmas Members Number 188.45/009/SK/ Satpol PP-BLG/I/2021 dated January 4, 2021, totaled 2,335 members spread over 154 villages and 3 urban villages.

## 4. Community Protection Unit Empowerment Activities

Some of the education and training that has been carried out by the Balangan Regency Satpol PP, namely the Community Protection Unit (Satlinmas) Development Program in villages in the context of monitoring and assisting the Alert Community Protection Unit (Satlinmas). The Satpol PP has also carried out several socializations and provided knowledge to members about the main tasks and functions (tupksi) of the Community Protection Unit and regulations related to the implementation of community protection.

Furthermore, the capacity building of Satlinmas is also carried out through Poskamling competitions, and regional security patrols together with Satpol PP in maintaining public order and public peace as well as debriefing and involving Satlinmas in maintaining security and the smooth implementation of the General Election/Pilkada in Balangan Regency.

## 5. Satlinmas Empowerment Support Facilities in Disaster Management

The function of disaster management is closely related to the duties and functions of the Regional Disaster Management Agency (BPBD) of Balangan Regency. BPBD in carrying out its function of disaster management efforts in Balangan Regency in 2020 has launched the Disaster Resilient Village movement with Matanghanau Village, Lampihong District as a pilot.

The disaster-resilient village program is basically a community empowerment program carried out by BPBD to prepare community independence in prevention, response and post-disaster management. The target communities in this program are the general public who are recruited and given disaster response training.

The general election of people who are not members of the Community Protection Unit creates a question mark among Satlinmas Members. This is because the Satlinmas which was formed based on Permendagri RI number 26 of 2020 is an official unit that has been formed and has duties and functions, one of which is disaster management, while on the other hand the general public is not given that task and function by law. This situation is considered inversely proportional to the empowerment carried out by the Balangan Regency Satpol PP which empowers Satlinmas which has the function of maintaining public order and public peace in line with the duties and functions of the Satpol PP. It is Satlinmas that is seen by the Satpol as having the rights and obligations that have been determined in the legislation as the unit responsible for public order and the peace of the community.

The recognition of the rights and obligations of Satlinmas in maintaining public order and public peace should also be followed by BPBD as the agency in charge of disaster management because disaster management is also the task and function of Satlinmas. Satlinmas in disaster management in Balangan Regency. Until 2021 there is no special budget intended for empowerment, especially for Satlinmas operational assistance in disaster management by the Balangan Regency BPBD.

#### D. CONCLUSION

The Community Protection Unit is a great resource by involving the community as the front line that can be maximally empowered to become the main force in disaster management in Balangan Regency. Community empowerment strategies in an effort to increase the role of the Community Protection Unit in disaster management in Balangan Regency can be done by building synergy between stakeholders, budget support and legality of regulations made to create harmonization in the empowerment of Satlinmas according to their respective duties and functions.

#### E. REFERENCES

- BPBD Balangan. (2019). https://bpbd.balangankab.go.id/bpbd-balanganrilis-daerah-rawan-karhutla-dan-kekeringan-pertanggal-9-15-september-2019-berikut-datanya/
- Bungin, B. (2007). Penelitian Kualitatif: Komunikasi, Ekonomi, Kebijakan Publik dan Ilmu Sosial lainnya. Jakarta: Putra Grafika.

- Moleong, L J. (2004). Metodologi Penelitian Kualitatif. Bandung: PT.Remaja Rosdakarya.
- Peraturan Menteri Dalam Negeri Nomor 26 tahun 2020 tentang Penyelenggaraan Ketertiban Umum dan Ketentraman Masyarakat Serta Perlindungan Masyarakat
- Peraturan Menteri Dalam Negeri Nomor 42 tahun 2017 tentang Penyelenggaraan Peningkatan Kapasitas Anggota Satuan Perlindungan Masyarakat
- Peraturan Menteri Dalam Negeri nomor 84 Tahun 2014 tentang Penyelenggaraan Perlindungan Masyarakat.

- Peraturan Pemerintah Nomor 16 tahun 2018 tentang Satuan Polisi Pamong Praja
- Peraturan Presiden Nomor 08 tahun 2008 tentang Badan Nasional Penanggulangan Bencana
- Undang-Undang No. 3 Tahun 2002 tentang Pertahanan Negara
- Undang-UndangNo. 24 Tahun 2007 tentang Penanggulangan Bencana
- Wignyosukarto, B. (2007). Pengelolaan Sumberdaya Air Terpadu dalam Upaya Pencapaian Tujuan Pembangunan Milenium 2015. Pidato Pengukuhan Guru Besar FT UGM.