Civil Society's Participatory Models: a Policy of Preventing Land and Forest Fire in Indonesia

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Forest fires are one of the severe security threats and national disasters faced by people in Indonesia. Forest fires in Indonesia have occurred massively in several regions in Indonesia such as East Kalimantan, West Kalimantan, Jambi and Riau Provinces. Forest fires in Indonesia are caused by natural and human factors. Natural factors are caused by the long and extreme dry season and human factors due to the conversion of forests into plantations and illegal logging. Therefore, we need the right policies in preventing forest fires in Indonesia. This paper uses the study of literature with policy theory. The research method used is descriptive qualitative method with interviews with research informants. The results showed that the Governor of Riau, as the head of the government, carried out various policies and activities, including conducting coordination meetings with elements of regional leadership through the Regional Leaders Communication Forum, enforcing legal sanctions for forest burners, forming a smoke disaster management team at the provincial, district/city level and district and conduct activities in the form of artificial rain. The novelty produced in this research is participatory civil society which is directly involved in assisting the government in the form of Community-based Fire Management as an effort to solve smoke disasters in Indonesia, especially in Riau Province.

Keywords: *Participatory, Society, Prevention and land fire.*

Introduction

Indonesia is one of the countries with the most extensive forests in the world. Forests in Indonesia are spread from the island of Sumatra to Papua. In 2009 the area of Indonesia's forest cover was 88.17 million ha or around 46.33 per cent of Indonesia's land area. The largest distribution of forest cover is in Papua Island with a percentage of 38.72 per cent of the total area of Indonesia's forest cover, or around 34.13 million ha. Forest areas in Indonesia have a vital role as oxygen producers throughout the Risnandar world. Indonesia is one of the tropical countries that has the second largest forest area in the world and is dubbed the world's lung because the amount of vegetation in this forest area can recycle the air and produce a healthier environment for humans, but lately, forest fires in Indonesia increasingly often occurred.

Forests are vital for life, and forest land is believed to influence the timing and distribution of flow, even forests can be seen as regulating water systems. Forests can store water during the rainy season and release it in the dry season. So we need various activities to support the preservation of the forest environment. Forest and land fires (karhutla) that occur almost every year in Indonesia have an impact on the economy and the environment. Although there have been many laws and regulations related to forest and land fires, the incident continues to recur. Throughout 2014, for example, the area burned in Riau Province reached 6,301.10 ha. This figure is increasing when compared to the area burned in 2010 and 2011 (26 and 74.5 ha) even higher than compared to the years in 2012 and 2013 (1,060 and 1,077.5 ha) (Ardhana, 2015).

Forest fires in Indonesia have occurred for decades. Large-scale forest fires that impacted on haze and economic losses occurred in 1982/83, 1987, 1991, 1994, and 1997/1998 (Applegate, 2001). When there have been many fires in 2015, Indonesia experienced severe forest fires in Sumatra and Kalimantan, which caused thousands of people to experience respiratory problems and disrupt education and the economy in the area. In addition, as a result of these forest fires, smoke generated to reach abroad (Sasmoko & Mahendra 2017). The impact of the fire that is felt by humans in the form of economic losses is the loss of benefits from the potential of forests such as forest trees that are commonly used by humans to meet their needs for building materials, food ingredients, and medicines, as well as animals to meet the need for animal protein and recreation. Other losses in the form of ecological losses are the reduction in forest area, the unavailability of clean air produced by forest vegetation and the loss of the function of the forest as a regulator of the water system and prevention of erosion. The immediate global impact of forest and land fires is air pollution from smoke caused by breathing problems and disrupting daily activities.

Forest and land fires occur due to 2 (two) main factors, namely natural factors and uncontrolled human activity factors. Natural factors, among others, by the influence of El-Nino which causes prolonged drought so that the plant becomes dry. Dried plants are a potential fuel if exposed to sparks coming from coal that appears on the surface or from other burning, intentionally or unintentionally. This causes the occurrence of fire below (ground fire) and surface fires (surface fire). These two types of fires damage the shrubs and undergrowth to the organic material that is under the layer of litter such as humus, peat, tree roots or weathered wood. If it is slow to handle, fires can spread and cause crown fires, which can damage the canopy of trees. However, this last type of fire can also occur due to lightning. Factors of human activities that cause forest and land fires include the activity of making campfires in the forest, but the embers of the former campfire are not extinguished. Land clearing activities with the uncontrolled slash-and-burn technique are usually carried out by HTI companies and shifting or sedentary cultivators. Intentional combustion to obtain a grazing field or hunting ground, throwing cigarette butts that are ignited carelessly and as a result of the use of equipment/machinery that causes a fire. (Fahmi Rasyid, 2014, pp. 47-59). According to Danny (2001), the main cause of forest fires in East Kalimantan is due to human activities, and only a small portion is caused by natural events. The natural fire process, according to Soeriaatmadja (1997), can occur due to lightning strikes, collisions of rock avalanches, coal seals, and stacks of srasahan. However, according to Saharjo and Husaeni (1998), fires due to natural processes are minimal, and for the Kalimantan case is less than 1%. Forest fires result in a) disruption to public health; b) disruption of air, land and water transportation, even smoke that crosses national borders becomes a serious problem at regional and international levels(Sudibyakto, 2003). The haze event is a routine event experienced by the people of Riau in the last 18 years, especially in the dry season (WALHI, 2015). Every dry season, Riau residents are treated with haze due to forest and land fires. When the haze struck, the mass media made this news their main topic. Likewise, with mass movements that demand smog prevention often done. But along with the arrival of the rainy season and the haze disappeared, news about the haze and mass movements disappeared. News and mass movements emerge when forest and land fires recur.

Therefore, to tackle forest fires that occurred in Indonesia, especially in Riau Province, it is necessary to have the right policies implemented by the government starting from the level of the Village, Regency, Provincial and National Government. One of the governmental affairs in Indonesia is a general governmental affair which in this case is a matter which becomes the authority of the President which is delegated to the Governor and Regent / Mayor and Regent / Mayor to the District Head. The implementation of general government affairs in the provincial government is assisted by a regional leadership coordination forum consisting of the chairman of the DPRD, the Regional Police Chief, the District Military Commander, the Chair of the High Court and the Head of the Ministry of Religion. Based on Law 23 of 2014 concerning Regional Government, the implementation of general government affairs is

financed by the state budget (APBN), one form of general government affairs is disaster management. The Riau region has experienced haze disasters since 2012 due to forest fires and a long dry season. Even in 2014, the haze disaster in Riau province was declared as a national disaster that could endanger the health of Riau's population of 6,558 million, spread in 12 regencies/cities in Riau Province by the central government. The Riau region has experienced haze disasters since 2012 due to forest fires and a long dry season.

In the government system in Indonesia, it is known that there is a regional government which is a sub-system of the national government, which in the implementation of regional government uses the principle of deconcentration, the principle of decentralisation and the principle of co-administration. In carrying out general government affairs, the principle of deconcentration is used. Based on Law 23 of 2014 concerning regional government, general government affairs include:

1. Fostering national insight and national resilience in order to strengthen the practice of Pancasila, the implementation of the 1945 Constitution of the Republic of Indonesia, the preservation of Unity in Diversity and the preservation and maintenance of the integrity of the Unitary State of the Republic of Indonesia;
2. Fostering the unity and integrity of the nation;
3. Fostering inter-tribal and intra-tribal harmony, religious communities, races and other groups to bring about local, regional and national security stability;
4. Handling social conflicts with statutory provisions;
5. Coordination of the implementation of tasks between government agencies in the provinces and regencies/cities to solve problems that arise by taking into account the principles of democracy, human rights, equity, justice, privileges and specialties, potentials and regional diversity in accordance with statutory provisions .
6. Development of democratic life based on Pancasila.
7. Implementation of all government affairs that are not the authority of the region and are not carried out by vertical agencies.

In relation to the haze disaster entered into the seventh general government affairs, in this case, the residual affairs (residual matters) because these affairs are not included in regional authority and are not carried out by vertical agencies. Riau Province is one of eight provinces in Sumatra located in the eastern part of which is mostly lowland. Of the land area of Riau Province 9.4 million ha, or around 40% (3.9 million ha) of which are low-lying peatlands and some of them are affected by tides. Massive exploitation of forest resources in the last two decades in Riau Province has changed land use from intact forest areas to plantations and transmigration areas, especially on dry land and tides with an area of more than 2 million ha. This has led to the increasingly limited dry land in the last 5 years, plantation investors and Industrial Plantation Forest (HTI) began to lead to wetlands/peat (Wilson, Rosnita, & Yulida,

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2017). The magnitude of the risk due to forest and land fires encourages the need for risk management involving stakeholders, for example, interactions between government agencies, academics, mass media, industry and society. This requires consideration of the legal, institutional, social and economic context, which evaluates risks and involves actors and stakeholders representing Renn (2008) in (Badri et al., 2018).

According to Brown and Davis (1973), forest fire is a process of rapid reaction of oxygen with other supporting elements with the characteristics of heat, light, and flame with the spread that is free and consumes fuel in the form of vegetation both dead or alive, littering, topsoil, bush, and weed. Forest fires are also defined as fires that occur in whole or in part in forests, shrubs or other flammable vegetation (Hussin, 2008). Syaufina (2008) defines forest fires as incidents of fire devouring vegetated fuels that occur freely and uncontrollably within the forest area. The increase in forest fire activity across the western continent of the United States (US) in recent decades has turned into several factors, including the legacy of fire suppression, climate change and also forest fires caused by humans(Abatzoglou and Williams 2016). Climate change also influences forest fires (Abrha and Adhana 2019). Forest fire is one of the disasters that has a multidimensional negative effect on social, economic and ecological problems. The possibility of forest ignition has increased sharply due to climate change and human activities. Forest fires reduce tree cover and cause an increase in our planet's gas emissions, and about 20% of atmospheric CO2 emissions are caused by forest fires (Ghazi and Zineb 2019). Forest fires have repeatedly occurred in Sweden over the past 30 years, some of them serious and demanding the concerted efforts of several city fire departments, smaller forest fires extinguished by local firefighters.

After the cold war, issues in international politics have moved to non-traditional security issues (Rendi Prayuda. IJICC. Volume 10, Issue 3, 2019. p. 268). One form of security threat is an environmental crime, namely forest fires. Forest and land fires are no longer a foreign phenomenon in some parts of Indonesia, especially Sumatra and Kalimantan. The term forest and land fires is used because fires occur not only in forest areas which are managed by the Ministry of Forestry but also on non-forest lands such as plantations, agriculture and shrubs. This natural phenomenon developed into a form of natural disaster that has an impact on aspects of people's lives (Sukana & Bisara. 2016). Starting from the beginning of January 2018, forest and land fires reoccurred in Riau, the area of burned land was estimated at 549 hectares, located in 9 districts and cities in Riau. The number of hotspots, which can be seen by BMKG since the beginning of 2018, is reaching 59 points. Forest fires have a very broad impact, Ahmad Jauli said the impact of forest fires in Riau in 2014 caused haze that disrupted community activities to disrupt flights that did not occur in the country but also harmed neighbouring countries such as Singapore and Malaysia, especially in terms of health(Apryani, 2018).

Forest fires are disasters that can be prevented and controlled by planned, comprehensive, integrated and sustainable handling. Indonesia government, through the Ministry of Forestry, has made efforts to prevent forest fires, including by patrolling forest areas, observing watchtowers, and using the Department of Forestry satellite imagery. In tackling the haze disaster in Riau Province, based on the pre-survey results of the Riau Governor with the capacity as head of government, several policies have been taken, such as holding a coordination meeting with elements of the regional leadership through Forkopinda, enforcing legal sanctions for forest burners, forming a smoke disaster management team at the provincial, district/city and sub-district levels, and carrying out activities in the form of artificial rain.

So far, the government through the national disaster management agency (BNPB) has only focused on data on the number of hotspots and their handling but does not have the number of victims resulting from land and forest fires. This can be seen from the BNPB website, which does not have casualty data from forest and land fires. Experience from several years of events from forest and land fires that hit Indonesia has never been a site or agency that provides developments regarding the amount of data on casualties due to forest and land fire disasters. This data is especially useful if it wants to channel aid to areas where there are victims. Data on casualties from forest and land fires can be in the form of displaced victims (Fitriansyah. 2017). Other problems are related to natural disaster management which is part of general government affairs that should be financed through the National Budget, but until now there has been no budget from the National Budget for the handling of the haze disaster so that the Riau governor uses funds from the Riau Province Regional Budget.

One area that often faces the threat of a forest fire disaster is Riau Province. Considering the factor of forest fires that occurred in Indonesia and especially in the Riau Province region, as well as the impact that will result from these forest fires, it is very important to know areas that are prone to hotspots, in order to prevent forest fires early on (Sukamto, Id, & Angraini 2018). The case of forest fires in Riau has become a national disaster, so the president must immediately intervene to resolve the haze problem in Riau Province. The impact of the forest fires caused smog that damaged health, disrupted community activities, endangered flights and had to be temporarily closed, protests from neighbouring countries due to haze and other losses. Companies that are the masterminds of forest fires naturally choose the easiest way to clear forest land for conversion into plantation land, that is by burning it (Zamil, 2015).

One of the problems of haze in Riau Province is due to the fact that law enforcement has not been firmly carried out by unscrupulous forest burners either carried out by the business community or by the local community as well as the weak element of supervision carried out by parties related to forest fires, one of which through the Forestry and Environment Service

of the Riau Provincial Government. At present Riau Province has a total forest area of 8,598,757 hectares for details, see in Table 1 below:

Table 1: Area of Forest Areas in Riau Province by TGHK

No	Allotment	Area (Ha)	Percentage (%)
1	Protected forest	228,794	2.66
2	Nature Reserve Forest and Forest Tourism	531,853	6.19
3	Production forest		
	a. Permanent	1,605,763	18.67
	b. Limited	1,815,950	21.12
4	Forest Production pliers can be converted / APL	1,913,136	22.25
5	Other Use Areas (APL) release	2,364,828	27.50
6	Mangrove/mangrove forest	138,434	1.61
	Amount	8,598,757	100

Source: Riau Province Forestry and Environment Office 2018.

Based on the table, it can be seen that there has been a change in the conversion of forest and land functions in Indonesia with use of the widest forest area used for other use areas (APL), which is around 2,364,828 hectares or around 27.57%. Preventive measures that can be carried out to reduce the occurrence of fires among them are through controlling the issuance of new location permits, controlling through and monitoring plantation areas as well as evaluating compliance with the principle of forest/land processing permits in the form of Industry Planting Forest company permits, business licenses for utilising timber forest products for forests industrial plants, natural forests, and ecosystem restoration or plantation business permit holders. DKPR (2015) in (Badri et al. 2018)mentions the triggering factors of forest and land fires in Riau in terms of climate and geographical conditions, namely: (1) domination of peatlands, (2) extreme weather, (3) excessive canalisation (draining) of peatlands, (4) wind direction, and (5) patterns sporadic settlement and land clearing. The spatial and socio-economic aspects include: (1) the Riau Regional Spatial Plan (RTRW) has not yet been established, (2) the community's choice to clear land by burning, (3) the community's limited ability to implement a land clearing system without burning, (4) the existence of companies clearing land by burning for efficiency reasons, (5) the rapid growth of oil palm plantations, and (6) not being maintained and managed by the company's concession area so that it is potentially controlled by the community.

Forest fires are carried out to open new land or as part of the process of the cultivation cycle. Burning as part of the cultivation cycle, carried out after the process of felling trees by knocking down wood that is already large enough, usually the diameter of the plant can reach 20 cm2. On a small scale, burning of land does not cause haze, but burning on a large scale causes smog. Mainly the forest burning process carried out by companies on a massive scale. (Rokhiman 2016). The activities studied included disseminating information about forest and

land fire hazards, promoting forest and land fire prevention, forest and land fire prevention actions, strengthening group communication and developing communication networks.

a. Dissemination of Forest and Land Hazard Information Dissemination of Forest and Land Fire Hazard is a socialisation activity about the forest and land fire hazard for the community both economically, environmentally and healthily. This socialisation activity was carried out by MPA members to the community at the study site.

b. Forestry and Land Prevention Counseling Land and Forest Fire Prevention Counseling is prevention activities carried out through preventive measures in the form of counselling to the community so that they avoid activities that can trigger forest and land fire. This counselling activity was carried out by MPA members to the community at the study site.

c. Karhutla Prevention Actions Karhutla Prevention Actions are actions taken by MPA members when there are forest and land fires in their area so that they do not spread and have broad impacts. This action was carried out by MPA members themselves and together with the community.

d. The Relationship between Communication Behavior and Islamic Values with Forest and Land Fire Prevention Patterns (Nurdin, 2016).

Research Methods

The method used in this research is to use descriptive qualitative methods in accordance with research problems that want to explain the implementation of general government affairs in the handling of the haze disaster in Riau Province. This research will be carried out using a qualitative method approach with the types of descriptive research types, namely a type of research that has the aim to analyse deeply against a phenomenon (Agus Salim, 2001: 5). Emudian Sukidin (2002: 2) also mentioned that qualitative understanding is one of the research methods aimed at gaining an understanding of reality through the process of inductive thinking, in this sense the researcher is involved in the situation and setting of the phenomenon under study.

Data collection techniques were carried out using the purposive sampling method with research informants namely the Governor of Riau, the Chairperson of the Riau Province DPRD, Communication Leadership Territory Forum Members, the Head of the Forest Service and the Head of the BNPB and the Regent/Mayor and sub-districts. This research was conducted with this context studied. Each event is something unique and different from the others because there are different contexts.
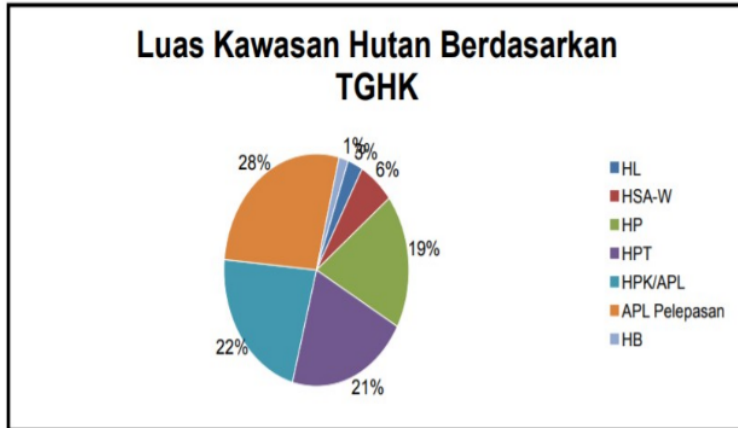
Results and Discussion

Detection of forest fires can be done with the help of remote sensing data through data processing with certain algorithms; it can be known the surface temperature of the land surface so that from remote sensing satellite imagery, it can be tapped for information about the distribution of hotspots which represent the presence of forest fires in an area. Based on the results of research conducted by the World Resources Institute (Zamil, 2015), clearing oil palm plantation land by burning forests in Indonesia is done for reasons including:

1. Fires reduce the quality of forest land and thus reduce the classification of protected forests into production forests so that the possibility of forest areas available for conversion to plantations is open;
2. In areas that have been allocated for oil palm plantations, burning forests is a cost-effective way to clear land. According to one company operating in Central Kalimantan, land clearing with mechanical tools costs twice as much as burning; and
3. Oil palm fruit must be processed within 24 hours of harvesting, so many companies prefer that the location of the plantations is as close as possible to processing facilities and transportation routes that can bring their crops to these facilities. However, areas such as those that are more accessible are generally owned by local residents. Palm oil companies then hire workers from outside to work and burn forests and plantation land owned by local communities whose land the company wants to take over to expel the community. Fires reduce the value of land by making the land degraded, and thus the company will be able to take over the land more easily by making cheap compensation payments to indigenous people.

Riau Province is one of the provinces that have a very large forest area for the sake of clarity of forest area in Riau province can be seen in the following figure:

Figure 1. Forest area based on TGHK in Riau Province.

Based on the results of research on the implementation of general government affairs in the management of the haze disaster in Riau Province showed that In 2015, six provinces experienced forest and land fires, namely South Sumatra, Jambi, Riau, West Kalimantan, Central Kalimantan, and South Kalimantan (Artharini, 2015: 1). The impact of this haze is felt in the provinces of North Sumatra, West Sumatra, as well as neighbouring countries Malaysia, Singapore, Thailand and the Philippines. Furthermore, Tacconi (2003) in (Hanifah, Syaufina, & Inscription, 2016) explained that forest and land fires are considered as a potential threat to sustainable development because of their direct impact on ecosystems, biodiversity, and the contribution of carbon emissions. Therefore, various efforts were made by the government to anticipate and overcome these disasters such as early detection of forest and land fires using hotspot data and the Fire Danger Warning System (SPBK), counselling to communities around the forest or other related institutions, procurement or addition of extinguishers fires, and installing signs prohibiting forest and land burning.

The haze disaster that hit Indonesia in 2015 was a very severe haze disaster. Robert Field, a Columbia University researcher who conducted a study at the US Space Agency's Goddard Institute for Space Studies, said, "If the dry season weather forecast lasts longer, it can be assumed that 2015 will be recorded as the worst event on record." The same thing disclosed by the Head of the Center for Information and Public Relations Data of the National Disaster Management Agency (BNPB), Sutopo Purwo Nugroho. Sutopo, based on the number of affected areas and the severity of the haze this year, estimates the number of losses this time will be greater. In 2014, for Riau Province alone, losses caused by haze reached Rp 20 trillion.

The Governor of Riau as the head of government has carried out various policies and activities related to the handling of the haze disaster, including:

1. Issued a policy on terminating forest management permits through the burning process
2. Conducting coordination meetings with elements of regional leadership through the Riau Regional Leadership Coordination Forum (Forkopimda) consisting of the Chairperson of the Riau Regional Representative Council (DPRD), the Riau Regional Police Chief (Kapolda), the Riau Regional Military Chief, the Chief Prosecutor, Chief of the High Court and others so.
3. Enforce legal sanctions for forest burners in accordance with statutory regulations
4. Form a smoke disaster management team at the provincial, district/city and sub-district level and conduct activities in the form of artificial rain.
5. Together with the community, they form a smoke-care community that is spread throughout the villages in Riau Province.

Inner son (Apryani, 2018) revealed the haze from forest fires will have an impact on all aspects of life, including;

a. From the social, cultural and economic aspects of the haze, it has the potential to cause loss of livelihoods of the surrounding community because the haze interferes with community activities, offices and schools have the potential to be closed. Public health will also be disrupted because the haze has the potential to cause acute respiratory infections (ARI), pneumonia, and eye irritation.
b. From the ecological aspect, the haze has the potential to cause environmental damage, including loss of species due to forest fires and increasing global warming.
c. From the aspect of transportation and tourism, the haze has the potential to disrupt air transportation and cause tourism to decline because people who will go on a tour or who will travel there have the potential to be cancelled due to haze conditions.
d.

The handling of the problem of forest fires which is focused on extinction and technology alone is apparently not able to stop the occurrence of fires that come every year. In reality, on the ground efforts to empower communities around forests and land based on socio-economic and cultural aspects, institutional and government policies also play an important role in controlling forest fires. Fire control based on the Forest Fire Control Brigade (Brigdalkarhut) or Manggala Agni (Galaag) which is the lowest at the DAOPS level in the Regency, apparently has not been effective in stopping fire incidents. The location of the fires, which were generally located in villages around the forest that were far from four-wheeled vehicle access, made the fire difficult to handle by cavalry troops from the city but must be handled by infantry squads of communities around the forest. For this reason, this paper presents the results of a prospective study of community-based forest and land fire control around forests and land in relation to REDD.

In the context of handling post-fire, identification and evaluation, law enforcement, and rehabilitation efforts are made: (1) Identification and evaluation, after the completion of the implementation of fire fighting or after the fire season in one year ends, further activities must be carried out in the form of evaluation of implementation. The results of this evaluation are used to revise or refine the next forest fire control plan (Suratmo, 2003) in (Prasetyo, 2013), (2) Law enforcement against forest fire criminal acts is carried out in accordance with applicable laws and regulations. Liability includes criminal liability, civil liability, paying compensation and/or administrative sanctions, (3) Rehabilitation of ex-fire forest areas is an important activity, in addition to restoring the function of the forest, also to reduce fuel hazard (fire hazard reduction) as a result of fires that have already occurred.

With so many incidents of land fire, the Ministry of ATR/BPN reinforced the mandate of the LoGA by issuing Minister of Agrarian and Spatial Regulation No. 15 of 2016. This regulation provides strict sanctions and penalties for HGU holders if their land is burnt. The most severe consequence of this regulation is that the HGU holder must relinquish his right to his land and pay a fine.

Table 2: Number of hotspots in Riau Province in 2019

No	Regency/city	Hotspot
1	Indragiri Hilir	45
2	Pelalawan	44
3	Rohil	28
4	Kampar	9
5	Indragiri Hulu	8
6	Meranti Islands	2
7	Dumai	1
8	Kuantan Singingi	7
9	Bengkalis	7
Total		151

Source: Field Research Results & Processed Researcher Data for 2019.

The research findings produced in this paper are an effective form of policy that can be used to prevent forest fires in Indonesia by establishing a Fire Concern Community in the Village area that has a range of forest fires. The findings of this study are called the participatory civil society model which is directly involved in assisting the head of government, in disaster management also carried out by the private sector and the community (governance). In ideal conditions, there is a balance of power and authority sharing between the Central Government and Regional Government, as well as the Central Government and the agencies that take care of governance related to forest and land fires. The dominance of the Central Government over the regional government under its authority in relation to dal-karhutla as

explained previously can be reduced by giving up some of its authority to the regional government. Meanwhile, the supervision of the performance of regional heads can be fully delegated to the Ministry of Home Affairs. Therefore, ideally the pressure of the Central Government regarding dalkarhutla activities should be stronger on the Ministry of Home Affairs. Other problems regarding the cessation of dalkarhutla activities only in extinguishing activities can be resolved slowly through the activity of peatland restoration by the BRG.

In dealing with forest fires in Riau Province, the Government is judged to be less strict in sanctioning perpetrators of forest fires including private companies allegedly involved. The Riau Provincial Government's lack of clarity can be seen from land clearing for oil palm plantation companies. The Minister of Environment and Forestry Siti Nurbaya said weaknesses in law enforcement of forest and land fires in Indonesia are generally related to procedural law and procedures in processing civil and criminal cases of forest-burning companies or land becomes a loophole of bad habits of companies and communities who open land by burning. Looking for the perpetrators of arson to date is still difficult to know because there is still a lack of supervision in the forest and land (Wilson, Rosnita, & Yulida 2017).

With the recurrence of fires in several leading provinces, from the environmentalists and people concerned about fire, new innovations have emerged regarding the control of land and forest fires. The new thinking is that land fires must be handled by people who are close to the initial fire incident. The fire that had arisen was from a small fire that was ignited by human users of fire in the field, while the land that has been proven to experience burning every year is agricultural land and cultivation. Maybe a small part of the fire due to negligence to dispose of cigarette butts, due to heavy equipment machine smoke and other causes of neglect. Similarly, fires due to natural friction, lightning and coal are challenging to prove in the tropics. With the basis of the initial fire from small areas in the villages, the efforts to empower the village community and even the village will be the determinant of the success of fire prevention. Other considerations underlying the need for village-based community based fire control are as follows (Marbyanto, 2004):

1. Forest and land fires in Indonesia are generally caused by human factors. Therefore community participation in fire prevention will reduce the appearance of forest and land fires.
2. The group most affected by forest and land fires is generally the people who live at the location of the fire. Therefore it is only natural that they are actively involved in efforts to manage forest and land fires.
3. The community has enormous potential resources (energy, nature/goods) to support fire management activities as a complement to the Government's limited resources.

4. People usually domiciled in areas close to fire-prone areas, so they are very potential to carry out an early attack (initial attack) in fire control. The initial attack is very important to prevent large and extensive fires.

5. Communities in Kalimantan and Sumatra have a culture of using fire to open their agricultural land so that to implement zero burning is still very difficult. A compromise that is most likely right now is "how to do fire management" so that the fire created does not have a significant negative impact on the environment.

Some of the villages that have been identified as having succeeded in preventing and controlling land and forest fires in their village area, are presented in Table 2. The Village Fire Control Organisations that were formed actually started in two ways. First, in the village community a local wisdom organisation has formed a fire control system that has become a custom for generations. Next, there was facilitation from the local government or other institutions interested in forest and land fires. Secondly, there has not yet been formed a traditional organisation in the village community, but the interest in organising is very high. Furthermore, the National Social Organisation (NGO), both national and international, facilitated the formation of village fire control teams (RPK). From the two mechanisms, the formation of the Fire Concern Community at the village level turned out to have resulted in the condition of the village community who were disciplined in controlling land fires and had a corporeal spirit to defend their village from fire. One of the triggers for the emergence of an organisational spirit is generally the facilitation of uniform clothing, fire control training, provision of extinguishers and assistance funds.

Within the established land fire control organisation at the village level, management patterns have been practised from program planning, program implementation, organising and evaluation activities. So that the RPK activities are not only limited to blackout activities. In fire control techniques, village fire control teams that have been formed have good knowledge and skills in prevention, suppression preparation, suppression response and post-fire activities. The names of fire control organisations at the village level vary depending on ethnicity and culture. For the village fire control team in Central Kalimantan, there are two names, namely the Fire Attack Team (TSA) initiated by Cimtrop Unpar (Limin, 2003) and the Village Fire Control Team (RPK) initiated by Care International (Care Internasional Indonesia, 2003). In East Kalimantan, the fire control team at the village level is often called the PKBM (Community Based Fire Control) which was initiated by the UPTD-PHKL together with IFFMP-GTZ (Marbyanto, 2003).

Conclusion

Based on the explanation, it can be concluded that the forest fires that occurred in Indonesia are a serious threat to the country's security and fall into the category of national disasters. Therefore comprehensive policy is needed in dealing with forest fires in Indonesia. Prevention of forest fires that occur in Riau Province is not only the responsibility of the Riau Province local government but also the responsibility of the central government and all elements of the community must play an active role in helping the Riau Province government and are serious in preventing forest fires that occur in the future. Participatory civil society model is a collaborative form of policy because it makes the community not an object of policy but a subject of policy in the form of a society concerned with fire. So that with the formation of the fire-caring community, it is hoped that there will be coordination and collaboration between the government and the community in preventing forest and land fires in Indonesia and Riau Province.

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