

Strategies for Tackling the Forest Fires and Land: Case Study on the Regional Disaster Mitigation Agency of East Kotawaringin Regency of Central Kalimantan Province

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Abstract

In the history of forest fires in Indonesia, the largest forest fires occurred in 1997/1998 to reach the area of 9.7 million hectares of land with a total losses reached 9.5 trillion Rupiah. The cause of forest fires and land divided into two natural and man-made nature, but human factors lead to almost 100% of the incidence of forest fires and land either intentional or unintentional, for example, the api used in the opening of the land. Forest fires and land in East Kotawaringin Regency is also caused due to the manner of man that does the opening of the land at the time when the dry season comes. The emergence of big oil companies at the beginning of 2001 adds to a list of problems to damage nature in East Kotawaringin Regency by changing the status of land thus increasing function over a broad area of critical land. Hence the need for the strategy undertaken by the District Disaster Management Agency East Kotawaringin in tackling forest fires that occur each year. This form of prevention in tackling the forest fires and land was provide socialization as early warning to communities such as the installation of banners, billboards and pamphlets available places which are considered prone to the occurrence of forest fires and land, performing socializing in the citizens and improving the enforcement of the law for anyone who did the burning of forests and land. East Kotawaringin Regency Government also has done the opening program toasty without land and gardens Clean carried out by Forestry and plantations. Future of East Kotawaringin Regency Government focus to prevention so as to reduce the risk of occurrence of forest fires and land.

Keyword: Strategy, Tackling Forest and Land, Prevention.

1. INTRODUCTION

Province of Central Kalimantan is an area that is vulnerable to forest fires and land disasters. the region with the potential for forest fires and land one of the highest in the East Kotawaringin Regency, subdistrict in Ketapang and Baamang. Various efforts have been undertaken by the Government to prevent forest fires and land, but the fire was still being frightened either for the community or regional governments. the problems of forest fires and land backed by weak economic conditions of East Kotawaringin Regency society and low levels of public education that greatly affect the resource manager and the environment.

Land and forest fires are also inseparable from the culture of East Kotawaringin Regency society that performs switching fields. Switching fields is regarded as the cultural heritage of the indigenous dayak open agricultural land responsibly. In accordance with this, according to Lahajir (2001), that from the perspective of socio-cultural fields, the system moved generally regarded as the only agricultural systems that comply with the tropical forest ecosystem. However over time the community moved the fields no longer done by ditebas and maintain the balance of natural ecosystems, arguing more economical and easy to apply, the switch has been turned into the arena of burning land during the dry season arrives

The problems of forest fires and land also inseparable over the emergence of a large company of Palm in 1997-1998. With the advent of Act 22 of 1999 regarding the autonomy of the region, the Affairs of the estate was left to the local authorities in particular East Kotawaringin Regency Government for granting permissions to the location of the estate. At first the company Palm Regency East Kotawaringin amounted to four companies, namely Palm Wilmar Group, Sinar Mas Group, Musimas Group and Musirawas Group. opening land by burning is the best option at the time of the first opening of the land. CIFOR and Walhi (2006) stating the cause of forest fires and land directly related to human behavior or corporations who wanted the acceleration of land preparation (land Clearing) for the preparation of the planting of commodity plantations.

The establishment of the National Disaster Mitigation Agency or BNPB national and Regional Disaster Management Agency or BPBD in the local level on the basis of Act No. 24 of 2007 article 25 of disaster relief is strengthening the capacity of government agencies and the public in disaster mitigation efforts and disaster management in particular forest fires and land. Disaster relief agencies have Regional parties cooperation in doing businesses handling forest fires and land. in the study, researchers also see cooperation in tackling forest fires and land, for example, Forestry and estates that did land without opening program toasty and clean garden program and the rehabilitation of the forest and land fires, post Office of farm and Ranch program provides guidance to agricultural land without using a mechanical spring combustion engineering for the opening of the land, and a joint team comprising units of the fire brigade, army, police, fire the Hunter community team perform socialization of land and forest fires, fire suppression, and enforcement of the law against the perpetrators that did the burning of forests and land

Strategies for tackling the forest fires and land applied East Kotawaringin Regency Government includes prevention, pre-blackout, blackout, and the handling of devastating forest fires and land. Tackling forest fires and land the Government does East Kotawaringin Regency votes are already quite good, because it is considered capable of preventing impacts from forest fires and land that is smog. Preferred future for the prevention of the occurrence of forest fires and land that is by providing socialization to society about the dangers and penalties firmly when burning, sanctions or restrictive legal sesuasi rules applicable customary law as well as positive law as the deterrent effect against the pembakan forests and land. Due to forest fires and land that occurred in East Kotawaringin Regency is 100% attributable to human behavior.

2. RESEARCH METHODS

This research uses qualitative research with type a descriptive approach, because oriented at the symptoms that are naturalistic or scientific. Strauss and Corbin (2003) stated that the qualitative research is peneitian that produce inventions that can not be achieved or obtained using statistical procedures or measurement (quantification). As for the focus of this study are: (1) the cause of forest fires and land with sub focus factor of natural, economic and social; (2) Strategies for tackling the forest fires and land that operates on prevention; and (3) factors that affect mitigation forest fires and land.

The location of this research is in the area of disaster management Agency Office Regency East Kotawaringin municipality in the province of Central Kalimantan. Site selection research of interest to the researcher is given in the province of Central Kalimantan is the dry season every year-prone areas of occurrence of forest fires and land due to the structure of the soil is peat. The data source in the qualitative

research among other humans, an event or activity, the place/location and documents (photos, pictures, files, archives, letters, journals, publications, scholarly articles). The source of the data in this study were obtained through the data as well as data from statistics BPBD hotspot of BNPB site. Research instrument used is the researchers themselves, the results of the interviews from the speakers and recording devices. The data analysis used data analysis Miles Huberman Saldana (2014). As for the stages in the process of data collection process, condensing data, presentation of data and the withdrawal of the conclusion, as shown below:

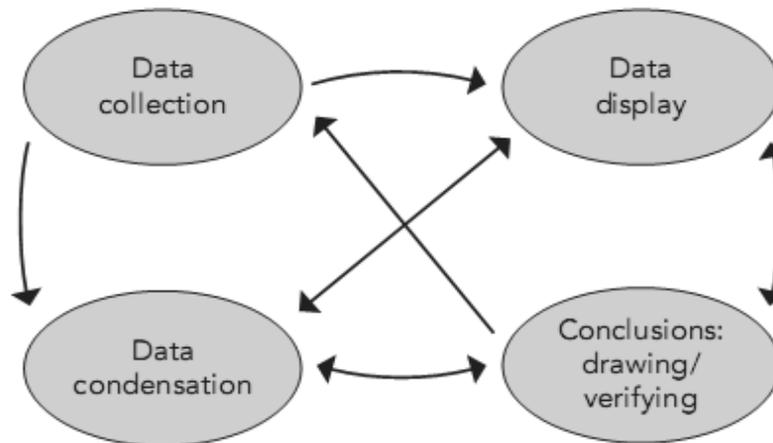


Figure 1. interactive model of data analysis

Source: Miles, Huberman and Saldana, *Qualitative Data Analysis A Methods Sourcebook Third Edition*, SAGE Publication. Arizona State University, USA (2014:14)

3. RESULTS AND DISCUSSION

3.1 The cause of forest fires and land

Generally the cause of forest fires and land is derived from natural events and human activities. In Indonesia, natural events that cause the occurrence of forest fires are rare. Forest fires by the human factors of the case will become more complex. In this socio-economic factors and to ignorance of the population are the main drivers of forest fires (Mangandar, 2000).

The cause of forest fires and land in East Kotawaringin Regency can be classified into three factors i.e. natural, economic, and social. the first cause is the natural factor, in addition to humans, Almost throughout the East Kotawaringin Regency area of land owned is peat. Forest fires and land at a drought almost occurred every year, burning peat and forest areas. With this type of ground as some areas potentially as a forest fire-prone areas and land. the five Subdistrict of seventeen sub-districts in the Regency has been defined by BPBD as the area is prone to forest fires and land, that is, Mentawa Baru Ketapang, Baamang, Cempaga, Kota Besi, and Cempaga Hulu. This is not apart of the high peat kontribusi about 60%.

The cause of the economic factors, the level of income of the population in the East Kotawaringin Regency still shows that communities with income below two million rupiah declared land opening technique used is burning with a percentage of 65,38%. When viewed from the ownership of land by the community, the community of East Kotawaringin Regency is generally used as a plantation in particular Palm oil plantations and rubber trees. According to Sunarto (2008) States that land tenure by the community which is used as a plantation can influence the occurrence of forest fires and land. about 71.67% of East Kotawaringin Regency society has had land that was ready to be planted. height of land ownership by the people of East Kotawaringin Regency will affect the conversion rate against the land and forests.

The cause of social factors, still low level of education of the population in the East Kotawaringin Regency affect the way of thinking to manage the land. with an average of old school namely of 7.44 years or only able to complete the primary level, indicating that the public needs to be given against the dangers of socialization as well as the impact of smoke haze arising from land burning by the public. with the level of education of the population is still weak, so the pattern of the fields still use tradisional way, namely by means

of the fields of cultural heritage which is the switching of dayak. cultural fields over time moved into the arena of burning land by local people during the dry season comes, because it is considered more economical and easy to do.

3.2 Strategies for tackling the forest fires and land

Strategies for tackling the forest fires and land applied in East Kotawaringin Regency includes three components, namely: prevention of forest fires and forest fire suppression of land, and land as well as the handling of the fire. It is a little bit different with the concept expressed by Suratmo et al. (2003). For the next few series of forest fire mitigation activities that applied in East Kotawaringin Regency is analyzed based on the concept of the strategy to combat forest fires, according to Suratmo et al. (2003). But the strategy for tackling the forest fires and land in East Kotawaringin Regency more emphasis to prevention, so that in future the impact of forest fires and land can be pressed, visible from the lack of fire disaster-prone areas every year.

According to Suratmo et al. (2003), fire prevention is a more economical way to reduce damages and losses caused by fire, without having to use expensive equipment/methods. The methods used in the prevention of forest fires is often done using methods of 3E: Education, Law Enforcement and Engineering.

Educational/counselling approach geared to the public is done in two ways, namely by directly and indirectly. Indirect illumination is done in conjunction with the patrol's activities, i.e. at the moment officers traveled in some areas that are considered prone to disturbances of security and fire-prone with go to residents who live around the forest that have agricultural land. The officers do patrol activities while simultaneously giving a warning to the community. Guidance material provided concerning the negative impact of burning against the productivity of agricultural land and fire hazard for the surrounding environment. While the extension is done directly in the form of outreach is done in the village level in the form of socialization to the villages which are considered prone to the occurrence of forest fires and land.

The legal approach has also been diterpakan so that the arsonists get deterrent effect of what is done. The process generally involves law enforcement agencies and related institutions such as the Police, Prosecution, Judiciary and others. To find out the cause of the forest fires, then every occurrence of cases of forest fires should be done carefully and the investigation has been completed. The umbrella law about forest fires and land made for deterrent effect of arsonists, e.g.: regulation of Central Kalimantan number 9 in 2011 about the management of the estate, in section 66 paragraph 1 mention opening land by burning result in pollution and environmental damage and article 67, opening land by burning and pollute/damage the environment. as well as the book of the Law of criminal law on article 187 which mentions when accidentally burn, a 12-year imprisonment, and article 188, fault/negligence resulted in criminal fires, 5 years. It is a small portion of forest burning and land regulations, there are still many regulatory/umbrella law as customary law and positive law.

The technical approach, according to (Suratmo et al. 2003), the technical Approach or a fuel management is the Act or practice that is intended to reduce the ease of fuel to burn and reduce difficulties in extinguishing forest fires. Fuel management consists of modifications to the fuel, fuel reduction and insulation fuel (Suratmo et al. 2003). Some of the courses conducted Forestry and Plantations to suppress forest fires and land figures for the public opening program planters, land without fuel and clean garden program that negates the burning at the opening of the land, because it's all done with humans and machines.

3.3 factors that affect Mitigation forest fires and land

Tackling forest fires and land in East Kotawaringin Regency covers tugal things IE: the arrival of the dry season, because there's a man-made source, and enforcement of the law is fair.

The arrival of the dry season is a problem faced by every year in East Kotawaringin Regency. The weather was quite hot will ignite the dry twigs oxidation reactions are due to friction, rubbing against each other is what will cause sparks and fire and there is also a change of the dry season and the wet season occasionally irregular sometimes come faster and ended up longer, this relates to the symptoms of El Nino-Southern Oscillation or ENSO.

In addition to natural factors, human beings have an important role in starting forest fires and land, humans usually do the burning of forests and land for economic purposes such as opening land for agriculture and plantations. the fire occurred at the opening of the land occurred because of negligence so the fire easily spreads to forest and land settlements.

Enforcement of the law is fair to become an absolute requirement for a workable Government in massive, to perform its obligations to provide a sense of security and protection of the rights and access of its constituents to the environment is good and healthy. In addition to that law enforcement is expected to be started seriously and systematically to can find facts facts for the Government and the public, in order to find real solutions for the discontinuation of a crime to the environment.

4. CONCLUSION

Forest and land fires events that occur in the East Kotawaringin Regency caused 100% of human behavior. Socio-economic conditions that affect the occurrence of forest fires and land in East Kotawaringin Regency is the level of education, cultural opening land by burning, types of jobs, income and land area. Therefore, the strategy to combat forest fires and land applied include prevention activities, pre-blackout, blackout and the handling of devastating forest fires, but the East Kotawaringin Regency Government focus more towards prevention through education approach, the approach of law and technical approach. As for the factors that influence the response to forest fires and land is the arrival of the dry season which each year gives the impact of drought so easily land and forest fires occurred, in addition to natural factors, human beings have an important role the occurrence of forest fires and land due to the burning of human beings for the purpose of economic needs, and later, a fair Law Enforcement becomes an absolute requirement for a workable Government in the massif so gives a fair for people.

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