STUDIES ON THE CAUSES OF FOREST AND LAND FIRES IN THE PALM OIL PLANTATION IN CENTRAL KALIMANTAN PROVINCE

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ABSTRACT

This paper aims to find out the main factors that cause forest and land fires, especially in the palm oil plantation in Central Kalimantan province. This paper examines the various studies that have existed, both in Kalimantan and other regions that have similar problems. The results of this study can establish three categories of factors causing fires. The first relates to socio-economic factors, the second relates to law enforcement, and the third concerns management of forests and land.

Keywords: Fires, forest, land, socio-economic factors, law enforcement, management


1. INTRODUCTION

Forest fire is a condition in which a forest is struck by fire resulting in damage to the forest and / or forest products which results in economic losses and / or environmental value (Winarto, 2013). Whereas forest and land fires, hereinafter referred to as Karhutla, are incidents of forest and / or land burning, both naturally and by human actions, resulting in
environmental damage which results in ecological, economic, socio-cultural and political losses. Thus forest and land fires have a detrimental impact on social, cultural and economic life, impacts on ecological and environmental damage, impacts on relations between countries, and impacts on transportation and tourism.

Based on the Grand Design Document for the Prevention of Forest, Plantation and Land Fires issued by Bappenas, described in the last 15 years, 2000-2015, it is known that hotspot points exceeding 15,000 occurred in 2002, 2004, 2006, 2009, 2014 and 2015. These fires occurred both inside and outside the concession. The average hotspots during that period were 45% in the concession area with details of 4% in the area of Timber Forest Product Utilization in Natural Forest (IUPHHK-HA), 23% in the Industrial Plantation Forest IUPHHK area, 16% in the plantation area oil palm (KKS) and 2% in the overlapping area of the three. The remaining 55% occurs outside the concession area, namely 34% in the forest area and 21% in other use areas (APL). The total area of fires in the period 2000-2015 reached 101,791,661 hectares which occurred 34% inside the concession and 66% outside the concession (Medrilzam et al., 2017).

The government itself realizes that Forest and Land Fire is a multidimensional problem that requires cross-sectoral coordination to deal with it. In this regard, the government formulated a coordination strategy using a bureaucratic approach through Presidential Instruction (Inpres) No. 11 of 2015 concerning Improvement of Forest and Land Fires Control. In the last Inpres the government agencies involved in handling the issue of Forestry and Forestry included three actions, namely: (1) Prevention was coordinated by the Coordinating Ministry (Kemenko) on the Economy; (2) Countermeasures are coordinated by the Coordinating Ministry of Politics, Law and Security (Polhukam); and (3) Recovery and Impact Management are coordinated by the Coordinating Ministry for Human Development and Culture (PMK). Each Kemenko coordinates and monitors the activities of the ministries and related institutions that are under their authority. Meanwhile, the Ministry of PPN / Bappenas and the Ministry of Finance coordinate planning and budgeting.

Therefore, the main problem that is examined in this paper, is the factors that cause forest and land fires. These results will later be the basis of its control strategy in oil palm plantations in Central Kalimantan Province.

2. ECONOMIC AND SOCIAL FACTORS

The driving factor for the community in clearing land by burning is economic and social factors. Economic factors are cheap land clearing costs, and fast land clearing time, while social factors are the type of occupation community dominated in the oil palm plantation sector, and the effect of conflicts between actors, both fellow communities (Murhaini and ludang, 2020), communities and companies, and communities with enforcement law. Forest and land burning is classified as an environmental crime, which is done because the culprit takes into account the economic benefits of the behavior. In other words, almost all environmental crimes have economic motives.

Zainuddin et al (2019) studied for community participation in the prevention and control of peatland fires in the londerang peat protection forest (HLG) of Jambi Province. The relationship of knowledge with community participation in the villages of Rawasari and Manis Mato has a very strong correlation coefficient, the correlation value of rs (Spearman Ranking correlation coefficient) shows that rs rawasari = 0.9877 and rs manismato = 0.9895 indicates that there is a very significant influence ( α = 0.01) between knowledge of the level of community participation in the prevention and control of peatland fires in Indonesia Londerang Peat Protection Forest (HLG). Strategies to increase and strengthen community
knowledge and participation in both villages can be carried out through assistance to increase knowledge through socialization and community participation through training and improvement of supporting facilities and technical knowledge about the use of various facilities needed in the form of community empowerment to increase knowledge and participation in prevention and control of peat fires in the Londerang Protection Forest (HLG).

The Impact of 2015 forest fires on community life was studied by Septianingrum (2018). The results of the study mentioned many factors underlying the occurrence of forest and peatland fires in Indonesia, including factors of high economic needs, increased hotspot distribution, the influence of the El-Nino phenomenon, and draining of peatlands through excessive canals. Forest and peatland fires have various impacts that are not easy to resolve. Many perceptions from the public at large point in the corner and consider indigenous peoples around the forest as perpetrators of arson. In addition, due to forest fires, the economy of the lower classes has experienced a drastic economic decline. Socio-cultural activities of the community also suffer from limited visibility due to haze, as well as health factors that threaten survival with the large number of people exposed to smoke haze.

Nugraha et al (2019) provided Analysis of Economic Damage in Peatlands in Pusako District, and Dayun sub-district, Siak Regency, Riau Province. The total economic loss due to fire on peatlands in 2015 was experienced by the head of the household (HH) in Dayun District, Rp. 31,393,786,212 or Rp. 4,607,924 / HH with 6,813 HH households and a total area of 742.5ha. The total economic loss in Pusako Regency is Rp. 4,330,577,040 or Rp. 2,392,584 / HH with 1,810 HH households and 199.5 ha of burned land. The driving factor for the community in clearing land by burning is economic and social factors. Economic factors are cheap land clearing costs, and fast land clearing time, while social factors are the type of occupation community dominated in the oil palm plantation sector, and the effect of conflicts between actors, both fellow communities, communities and companies, and communities with enforcement law.

3. LAW ENFORCEMENT ISSUES

Studies on oil palm plantations often arise in the handling of unfinished forest and land fires, generally related to environmental (criminal) law enforcement issues against perpetrators of forest and land burning including preventive (preventive) law enforcement and repressive law enforcement (enforcement). This can cause unrest in the surrounding community which, if not taken seriously, can even lead to greater and wider social and economic problems in the community. Constraints experienced in carrying out law enforcement against perpetrators of forest and land burning include, among others, the costs of investigating Karhutla cases, the geographical location of Karhutla locations, land and weather conditions, the time of investigating Karhutla cases, the search for evidence and witnesses, and the limitations of police personnel.

Lumbantobing and Hikmah (2020) concluded that the inhibiting factor in implementing regional regulations was that the budget provided by the government and outreach is not evenly distributed.

Concerning law enforcement, Rizana (2019) presented law enforcement of the criminal acts of forest burning in Indragiri Hilir Regency, Riau Province according to Law Number 41 of 1999 concerning Forestry. It was concluded that the implementation of the Forestry Law on forest fires in Indragiri Hilir Regency, Riau Province, has not run as expected. The obstacles are the lack of community understanding about the long-term benefits of forests and the weak law enforcement in the case of forest fires. Law enforcement is in article 78 of Law Number 41 of 1999 concerning Forestry, it is emphasized that anyone who intentionally burns
forests can be threatened with imprisonment and fines. In addition, if the criminal act of forest burning is carried out by a legal entity or business entity and / or on behalf of a legal entity or business entity, the criminal sanction is added to 1/3 of the criminal sanction in article 78 of Law Number 41 of 1999 concerning Forestry. In addition, Emadewani (2019) provided Judge's Consideration to Accept Citizen Lawsuit Lawsuit in Environmental Case concludes in decision Number: 118 / Pdt.G / LH / 2016 / PN. The judge gave consideration regarding the filing of the lawsuit, namely the defendants were proven to have committed acts against the law relating to the public interest. Moreover, Mujiono and Tanuwijaya (2019) found corporate formulations as subjects of criminal law in environmental regulations in Indonesia. One of the main causes of environmental pollution is the element of error and negligence committed by companies or operating legal entities contained in article 116. Criminal liability for environmental crimes is also committed by PT. Kalista Alam, which is engaged in plantations, industry, suppliers and transportation in the oil palm business. In decision No. 131 / Pid.B / 2013 / PN.MBO PT. Kalista Alam has cleared land by burning land to expand oil palm cultivation. PT. Kalista Alam is legally considered to have committed environmental crimes, but without accountability from the section chief's stricture.

Ardiansyah (2019) studied solution in law enforcement against corporate criminal acts judging from aspects of criminal criteria and patterns. Perpetrators of crime in the development of corporate crime, not only done by humans as legal subjects, but also committed by corporations. The criteria for corporate crime, namely to determine the presence or absence of corporate crime are: First, is there an act or omission (not doing) from someone related to their work or for other reasons working in a legal entity. Second, whether the deeds or omissions carried out in accordance with the normal business of the corporation. Third, whether these actions benefit the corporation. Fourth, whether the corporation is able to decide the act must occur or not. Fifth, whether the act is accepted or usually accepted by the corporation. Penalties against corporate criminal offenses must consider effective deterrent efforts because corporate crime can damage the joints of a nation's economic life and can endanger the survival of a nation.

Criminal Acts of Forest and Land Burning by Corporations to Open Plantation Businesses was studied by Yusyanti (2019). It was concluded that forest and land burning in the context of opening up plantations should widespread forest fires cause environmental damage resulting in disruption: public health, educational activities, economic activities and transportation land and air, so it is difficult to get a prosperous life and soul. Perpetrators of corporate actions that repeatedly carry out forest fires should be resolved through a legal approach to criminal law, civil law in the form of compensation and administrative law in the form of revocation of license to manage business licenses.

Application of the strict liability principle in criminal acts of forest and land fire conducted by corporations (Study of Decision Number 186 / PID.SUS / 2015 / PT PBR) was studied by Haritia and Hartiwiningsih (2019). It was concluded that the Pekanbaru High Court ruled with Number 186 / PID.SUS / 2015 / PT.PBR, that the defendant as Regional Assistant was found guilty as the giver of the order, violating article 98 paragraph (1) jo article 116 paragraph (1) letter b UUPLH. The act was based on a more appropriate analysis included in corporate criminal acts, but the judge ignored the Decision of the Chief Justice of the Supreme Court Number 36 / KMA / SK / II / 2013, which stipulates that the doctrine of strict liability can also be applied to corporations that commit environmental crimes. Supposedly, the judge's decision handed down the defendant PT JJP as a corporation.

Nurhidayat and Sutiana (2018) studied corporate criminal liability for land burning based on strict liability theory: the case of PT Surya Panen Subur. The results of the research show that corporations cannot be held normatively for criminal liability for land burning crimes,
because the UU PPLH regulates corporate liability with the principle of strict liability, which is limited to the substitution of civil material damages and not criminal liability. In the case of PT Surya Panen Subur (SPS), based on the facts revealed in the trial there was no evidence of the element of burning, but only the fact that there was burning land. However, the judge still stated that PT SPS was guilty based on the principle of strict liability. Thus, the judge is not careful in his deliberations. Going forward, it is necessary to consider expanding the application of the strict liability principle to the effects of land fires.

Fadhli (2018) presented responsibility of corporate crimes in the criminal acts of forest and land fires. This study concludes firstly, the criteria of a corporation committing a forest and land fire crime if the crime is committed by, for or on behalf of a business entity carried out by a person in a work relationship or other relationships within the scope of work of a business entity. Second, the form of corporate criminal liability in forest and land fires is criminal liability Identification. Because there are errors in the corporate management (director) as the person in charge of the business whose business has the possibility / great impact on environmental damage and pollution such as forest and land fires and exceeding environmental quality standards.

Arrangement of corporate responsibility in environmental crimes was studied by Mardiya (2018). Forest and land fires, especially peatlands, have so far become a serious concern for governments that pay attention nationally and across countries. Enforcement of environmental laws for criminals who burn forests and land is important because it causes health problems and environmental damage. Provisions regarding corporate accountability for the environment in criminal offenses have been regulated in Law Number 40 of 2007 concerning limited liability companies which have said companies cannot exempt them from criminal liability in the event that companies pollute and damage the environment. Law Number 32 of 2009 concerning Environmental Protection and Management (PPLH) also regulates whether responsibility is subject to legal entities and managers jointly, in company activities and / or business if it causes pollution and or environmental damage. The PPLH law was then supported by a set of case handling rules in the Supreme Court such as the Supreme Court Regulation No. 13 of 2016 concerning procedures for handling criminal cases in companies and the Decree of the Supreme Court of the Republic of Indonesia Number: 36 / KMA / SK / II / 2013 concerning guidelines for handling cases in environmental matters.

Aminah (2018) also provided enforcing balanced environmental law (case study on forest burning). The environment has various functions and is very important for human life, so the government makes laws and enforces its laws to maintain environmental functions. Although law enforcement has been carried out, many environmental cases cannot be resolved so pollution and environmental damage often occur in Indonesia. This study wants to find out whether law enforcement in Indonesia has not yet created a balance and how the concept of law enforcement is balanced. The results of the study found that law enforcement in Indonesia has not created a balance, especially in law enforcement in the case of forest fires which have proven that forest fires repeatedly occur and have good impacts in the form of ecological impacts, economic impacts and sociological impacts, this is caused by various obstacles law enforcement, civil or criminal administration.

4. MANAGEMENT ISSUES

Al Muqsith and Rinto (2019) studied strategy of the katingan regency disaster management agency in handling forest and peatland fire disasters in Katingan Hilir District, Katingan District. This study aims to determine the BPBD Strategy of Katingan Regency in the Management of Fire and Peat Land Fires in Katingan Hilir District, Katingan Regency. The results show that the Katingan Regency BPBD Strategy in the implementation of forest and
peatland fire handling in the Katingan Hilir District area, by involving all the Human Resources available in the Katingan Regency BPBD. In addition, Management of Forest and Land Fire Management (Karhutla) for the Improvement of Community Economy was studied by Wibowono (2019). The results obtained indicate there must be a harmonized management of handling all parties, all involved, including the involvement of agencies that have not been actively involved. Understanding of people's economy is needed, because this is the key to effective implementation.

Wasisto et al (2019) studied impact of forest fires on flora and nature of mineral soils in the forest region of Pelalawan Regency, Riau Province. The results showed that forest fires caused flora death fires by 100% and erosion occurred at a depth of 5-10 cm. Forest fires cause an increase in pH, Ca and Mg of soil minerals, and reduce organic C, total microorganisms, total fungi and soil respiration significantly. Forest fires increase soil pH and soil fertility due to burning ash. Ash from combustion comes from organic materials (natural forest biomass and organic matter) that is burned is which nutrients are needed for the growth of vegetation in the forest. In the rainy season, these substances become leachate, which requires adequate physical processing (Mangkoedihardjo, 2007).

Analysis of policy on prevention and control of forest and land fires in Jambi Province was studied by Supriyanto et al (2018). Regulations and implementation policies on forests and land fires are weak and need improvement. The strategy of forest and land fire prevention and control policies are: Increasing the role of law and optimizing support from the central government in dealing with forest and land fires; Optimizing the role of regional heads in involving NGOs, communities and universities in forests and preventing and controlling land fires; Strengthening the function of spatial planning in the spatial planning document in an effort to overcome spatial problems; Improve the legislative role in supervision, legislation and budgeting in the prevention and control of forest and land fires; Enforce law enforcement in violation of legal and regulatory provisions; Improve coordination between institutions and clarify the basic tasks and functions of Regional Work Units and also improve the quality of human resources to overcome the rate of population growth and spatial problems.

Noor (2018) presented efforts to safeguard law against the existence of customary law communities in Central Kalimantan. Based on the constitution, each local government is given the authority to make regulations in order to protect the existence of an indigenous law community that still lives in its territory, including Central Kalimantan. However, at the implementative level various regulations made by the local government were not directly proportional to the protection of the existence of the indigenous and tribal peoples, there were many problems, conflicts between the indigenous and tribal peoples and various parties both local governments and investors. Good efforts need to be made so that the norms that are formed are not only used as symbols of protection for indigenous and tribal peoples but should really be implemented properly and provide guarantees for the protection of the existence of indigenous and tribal peoples, especially in Central Kalimantan.

Local wisdom of the ngaju dayak community in Central Kalimantan in carrying out land by burning was studied by Hadiwijoyo et al (2017). The Ngaju Dayak community used to manage peatlands for agriculture with the Handel system. The Handel System is a group farming activity in a certain area along a small river. Land preparation with burning activities has been carried out since the first generation of Dayak Ngaju. There are two important things in Ngaju Dayak land preparation in Mantangai Village, Kapuas Regency, Central Kalimantan, for example 1) Rule and ritual traditions for land preparation, and 2) land preparation techniques with burning activities. Combustion activities must be properly monitored, and fines will be given if the fire spreads out of control and burns other land. Techniques for land preparation are still in the traditional approach, ranging from thinning, cleaning and burning.
There is currently no appropriate land preparation technology, so the Ngaju Dayak people are still very dependent on the use of fire for their land preparation activities.

5. CONCLUSION

Many factors cause forest and land fires, both naturally and human activities. Influence factors include socioeconomic, law enforcement and management. The identification of the determining factors will be the basis for establishing a forest and land fire control strategy, which still needs further study.

REFERENCES


Studies on the Causes of Forest and Land Fires in the Palm Oil Plantation in Central Kalimantan Province


