# **Indonesian Government Policy in Forest and Land Fire Management**

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#### **Abstract**

The 1945 Constitution has mandated that natural resources, including forests, are controlled by the state and used as much as possible for the prosperity of the people. Natural resources have a very important position for human life that must be maintained, preserved and managed properly. Regarding the management, the government must make policies on natural resources so that natural resources, including forests, are not damaged, including due to forest and land fires. Therefore, government policies are very important in the management and prevention of forest and land fires so that they do not occur and do not cause harm to the environment and society.

Keywords Government policy; management; forest and land fires



#### I. Introduction

The 1945 Constitution of the Republic of Indonesia, Article 33 paragraph (3) as the constitutional basis of the Indonesian state has also mandated that "Earth, water and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people". (Article 33 paragraph (3) of the 1945 Constitution). With the background that it is realized that natural resources in this world have an important position and role for life, as well as gifts from God Almighty, they need to be managed and utilized in a sustainable, harmonious and balanced manner for the welfare of the people at large for the present and the future. Not being touched by existing natural resources, does not guarantee the balance of the ecosystem, Basically the elements of natural resources and their ecosystems are interdependent and influence each other with the damage and extinction of one element will result in the disruption of the ecosystem. (P. Joko Subagyo, 1992).

One element in the ecosystem is forest and land which are natural resources controlled by the state, have a very important position and role in supporting national development. This is because forests and land are beneficial for the greatest prosperity and welfare of the Indonesian people. (Emil Salim, 2005).

In the development of the world of education, especially after the rolling reforms, new phenomena have arisen in educational institutions, which are schools that use the term Integrated Islamic Schools (Titik, 2010: 42). The school is essentially aimed at helping parents teach good habits and add good character, also given education for life in society that is difficult given at home. Thus, education in schools is actually part of education in the family, which is also a continuation of education in the family (Daulay in Ayuningsih, W. et al. 2020).

However, in its development, environmental pollution occurs in forests and land which results in the destruction of the forest and land environment in Indonesia, along with the times and various motifs and types. The damage to the forest and land environment is getting worse day by day. This condition has directly threatened the lives of the Indonesian people

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and other living creatures. The level of environmental damage to forests and land also increases the risk of natural disasters. The causes of environmental damage to forests and land can be caused by two factors, namely due to natural events and due to human activities. One of them is the destruction of forests and land due to human activities in order to exploit natural resources and clear land by burning land and fire spreading to forest areas.

Forest and land fires have a large enough impact on human losses, both material and immaterial. The government has made great efforts to solve this problem, either through policy support, institutional support, or funding support. But in reality this incident is still repeated. (Supriyanto, Syarifudin, Ardi, 2008).

According to the data from the Ministry of Environment and Forestry of the Republic of Indonesia (KLHK RI Year 2019) above, the area of forest and land fires in Indonesia from 2014 to 2019 reached an area of 3,776,009.81 Ha, namely in 2014 it was 44,411.36 Ha, in 2015 it was 2,611,411.44 Ha, in 2016 it was 438,363.19 Ha, in 2017 it was 165,483.92 Ha, in 2018 it was 529,266.64 Ha, and in 2019 it was 1,649,258.00 Ha. If you refer to the 2019 KLHK RI data above, it can be seen that from 2014 to 2019 the largest area of forest and land fires occurred in 2015 covering an area of 2,611,411.44 Ha, then there was a decrease in 2016, 2017, and 2017. 2018 but in 2019 forest and land fires increased again with an area of 1,649,258.00 Ha. (Saniya Ilma Arifa, 2015).

The impact of forest and land fires is felt directly by all elements of society who are exposed to the haze disaster. The government and all relevant stakeholders are starting to wake up by taking steps to anticipate forest and land fires in making policies in the form of legislation and institutional structures to tackle the problem of forest and land fires.

Based on the description above, it is important to identify problems, namely, first, what is the philosophical basis for the Indonesian government's policies in forest management for forest and land fires, and second, what are the policies carried out by the Indonesian government in overcoming the occurrence of forest and land fires.

In connection with the identification of the problems above, this study aims to explain the philosophical basis of the Indonesian government's policies in forest management for forest and land fires and the policies carried out by the Indonesian government in overcoming the occurrence of forest and land fires.

#### II. Research Methods

The research method used in this study is normative legal research, meaning that legal materials used as studies such as legislation, books, journals, internet and empirical data to support and sharpen the study in analyzing the problems in this study.

#### III. Results and Discussion

## 3.1. The Philosophical Foundation of the Indonesian Government's Policy in Forest **Management on Forest and Land Fires**

Forests as a gift and mandate from God Almighty are an invaluable wealth which can then be used to provide added value for mankind. Therefore, its existence must be grateful for, managed, and utilized optimally, and its sustainability must be maintained for the greatest prosperity of the people. As one of the determinants of the life support system and source of people's prosperity, the existence of the forest tends to decline in condition, so that its existence must be optimally maintained, its carrying capacity maintained in a sustainable manner and managed with noble, fair, wise, wise, open, professional and responsible character. (Yusuf Abdul Muis and Mohammad Taufik Makarao, 2011).

The philosophical foundation of the Indonesian government's policy in forest management for forest and land fires is contained in the Pancasila and the Preamble to the 1945 Constitution of the Republic of Indonesia. Pancasila as the basis and philosophy of the state is a unified and unified whole that gives confidence to the people and the Indonesian nation that happiness is Life will be achieved if it is based on harmony, harmony, and balance, both in the relationship between humans and God Almighty and humans with humans, humans with nature, and humans as individuals, in order to achieve physical progress and inner happiness. Between humans, society and the environment there is a reciprocal relationship, which must always be nurtured and developed in order to remain in harmony, harmony, and dynamic balance. Therefore,

The philosophical basis is also contained in the 1945 Constitution, Article 33 paragraph (3) states "Earth, water and natural resources contained therein are controlled by the State and used for the greatest prosperity of the people". Philosophically, forests must be used for the greatest prosperity and welfare of the people. The utilization must be carried out with due regard to the sustainability and sustainability of the elements of the social, cultural and economic environment. For this reason, the implementation and management of forestry must be carried out in an integrated manner by taking into account local wisdom and ecoregions.

The history of forest fires in Indonesia has been managed since before the country's independence. The Dutch East Indies government has issued several regulations on Forestry and forest fires including: (SiPongi, 2021).

- 1) Forest Ordinance for Java and Madura 1927 (Article 20 paragraphs 1 and 2);
- 2) Provinciale Bosverordening Midden Java (Article 14);
- 3) Rijkblad-Soerakarta Ongko 11 (1939);
- 4) Lombok Raad (1947);
- 5) Council of Kings in Bali No. 9 (1948).

After the proclamation of independence, the issue of forest fires was handled by the Forestry Bureau and subsequently by the Directorate General of Forestry, Dep. Agriculture. In 1988, the Directorate General of Forestry changed to the Ministry of Forestry. Forest fires are handled by the Forest Fires section (Eselen IV) at the Directorate of Forest Protection, Directorate General of Forest Protection and Nature Conservation (PHPA). At that time the forest fire control system began to develop, including the development of human resources through various trainings for forestry personnel and the community as well as the procurement of forest fire control equipment. The fire and air suppression systems were developed with helicopter and bamby bucket aircraft as well as FFK units operated with Transall C-60 aircraft. In response to the increasing problem of forest and land fires, in 1994 the handling of forest fires at the Directorate of Forest Protection was increased to Echelon III, namely the Sub-Directorate for Forest Fire Control with two sections, namely the Fire Prevention Section and the Fire Management Section. During that period the Minister of Forestry also established the National Forest Fire Control Center (PUSDALKARHUTNAS) at the Central level and was followed by the Governors who formed the Forest and Land Fire Control Center (PUSDALKARHUTLA) at the provincial level and the Forest and Land Fire Control Implementation Unit (SATLAK DALKARHUTLA) at the provincial level districts where each has a Forest and Land Fire Fighting Brigade.

Triggered by forest and land fires and smoke pollution in 1997-1998 where fires were identified not only in forests but also in land, especially plantations, the Directorate General of Plantations, which was previously under the Ministry of Agriculture, was previously under The Ministry of Forestry and Plantations. In July 1999 the Directorate of Forest and Garden Fire Management was formed. Subsequently, in 2004 it changed to the Directorate of Forest and Land Fire Control.

# 3.2.Policies Implemented by the Government of Indonesia in Overcoming the Occurrence of Forest and Land Fires

Since the occurrence of large forest and land fires in 1982 and a series of forest and land fires in the following years, the Indonesian government has issued various policies in order to deal with the problem of forest and land fires. Several laws and regulations were enacted emphasizing severe sanctions for forest and land burning perpetrators, namely Law Number 41 of 1999 concerning Forestry, Law Number 32 of 2009 concerning Protection and Management of the Environment, Law Number 39 of 2014 concerning Plantations, as well as Government Regulation Number 45 of 2004 concerning Forest Protection which has been revised by Government Regulation Number 60 of 2009 concerning Amendments to Government Regulation Number 45 of 2004 concerning Forest Protection and other implementing regulations.

Several laws and regulations regarding Indonesian government policies in controlling forest and land fires in Indonesia, among others:

- 1) Law Number 41 of 1999 concerning Forestry.
  - a) The responsibility for the occurrence of fires is regulated in article 49 where the holders of rights or forest management permits are responsible for the occurrence of forest fires in their working areas;
  - b) Forest protection efforts (including fires) are carried out by involving the community (article 48 paragraph 5 basically everyone is prohibited from burning forests and throwing objects that can cause fires (article 50 paragraph 3 d);
  - c) Criminal sanctions for violators of these provisions are regulated in Article 78 paragraphs 3,4, and 11. Anyone who intentionally burns forests is threatened with a maximum imprisonment of 15 years and a maximum fine of 5 billion rupiah and may also be subject to additional penalties. If it is done unintentionally (due to negligence) it is punishable by a maximum imprisonment of 5 years and a maximum fine of 1.5 billion rupiah. As for those who throw objects andcausing a fire is punishable by a maximum imprisonment of 3 years and a maximum fine of 1 billion rupiah.
- 2) Law Number 32 of 2009 concerning Environmental Protection and Management.

  The Law on Environmental Protection and Management which consists of 5.
  - The Law on Environmental Protection and Management which consists of 52 articles contains terms related to environmental management; principles, objectives and targets of environmental management in Indonesia; the rights and obligations of the community in managing the environment in Indonesia; the rights and obligations of the community in managing the environment; provisions in the preservation and management of the environment; investigation, dispute resolution and sanctions for violators of environmental management provisions.
- 3) Law Number 39 of 2014 concerning Plantations.
- 4) Government Regulation Number 4 of 2001 concerning Control of Environmental Damage and/or Pollution related to Forest and/or Land Fires.
  - PP. No. 4 of 2001 concerning the control of environmental damage and/or pollution related to forest and/or land fires. This regulation covers efforts to prevent, control and recover as well as control over environmental damage and/or pollution related to forest and/or land fires, responsibilities and authorities of the central, regional and business actors in controlling environmental damage and/or pollution, granting regional authority to form forest and land fire organizations, knowledge of the obligations of individuals, groups and business actors in the event of forest and land fires as well as criminal provisions for violators.

The policy carried out by the Indonesian government in overcoming the occurrence of forest and land fires in terms of legal structures (institutions) is to form an integrated team to

combat forest and land fires based on Presidential Instruction Number 3 of 2020 concerning Forest and Land Fire Management. Several government institutions and authorities in dealing with forest and land fires are described in the table below:

**Table 1.** Integrated Team of Government Agencies and Authorities in Forest and Land Fire Management

No.	Institution	Authority
1.	Minister of	· ·
1.	Minister of Environment and Forestry	<ul> <li>a. Together with the Minister of Home Affairs to provide guidance and supervision to the policies and actions of the Governor and the Regent/Mayor in the effort to combat forest and land fires;</li> <li>b. Increasing the patrols of the Forestry Police within the forest area or its jurisdiction;</li> <li>c. Mandatory and supervise the fulfillment of the obligations of business license holders and forest area managers to have human resources, systems, facilities and infrastructure in an effort to combat forest and land fires in their working areas;</li> <li>d. To make effective the imposition of administrative</li> </ul>
		sanctions on business license holders and forest area managers who do not have human resources, systems, facilities and infrastructure in an effort to combat forest and land fires in their working areas;  e. To make efforts to enforce criminal law effective against unlawful acts related to forest and land fires;  f. Coordinate efforts to restore the environment due to forest and land fires;  g. Carry out an inventory and initiative to resolve overlapping laws and regulations related to efforts to combat forest and land fires in coordination with the Head of BNPB and related ministries/institutions.
2.	Head of the National Disaster Management Agency	<ul> <li>a. Provide assistance in handling forest and land fires in the form of: 1) financial assistance to local governments, ministries/agencies, TNI, Indonesian National Police, community institutions, and other parties deemed necessary; and 2) assistance for supporting facilities and infrastructure for air operations and ground operations at the national, provincial and district/city levels in accordance with the conditions or needs for overcoming forest and land fires;</li> <li>b. Carry out the command function for mobilizing resources in coordinating the management of forest and land fires at the national level in accordance with the provisions of laws and regulations;</li> <li>c. Collaborating on community socio-economic improvement activities in an integrated manner with ministries/institutions, the TNI, the Indonesian National Police, and communities in areas prone to forest and land</li> </ul>

		fires; d. Provide support to the Minister of Environment and Forestry to carry out an inventory and settlement of overlapping laws and regulations related to efforts to combat forest and land fires.
3.	Attorney General	<ul> <li>a. Improve coordination between law enforcement officers and optimize law enforcement efforts in handling forest and land fire crimes;</li> <li>b. Optimizing the application of laws and regulations against the crime of forest and land fires through the maximum prosecution plan by the Public Prosecutor/Prosecutor;</li> <li>c. Organizing joint training for law enforcement officers to increase capacity and synergy in handling forest and land fire crimes.</li> </ul>
4.	TNI Commander	<ul> <li>a. Assist the Head of BNPB by mobilizing TNI forces to extinguish forest and land fires;</li> <li>b. Together with the Head of the Indonesian National Police and other agencies in an integrated manner with the regional government, to intensify patrols of forest and land areas;</li> <li>c. Conduct community development to participate in efforts to combat forest and land fires;</li> <li>d. Imposing maximum sanctions based on the provisions of laws and regulations for violations, omissions, and/or conspiracy involving TNI soldiers.</li> </ul>
5.	Chief of Police of the Republic of Indonesia	<ul> <li>a. Assist the Head of BNPB by mobilizing TNI forces to extinguish forest and land fires;</li> <li>b. Together with the TNI Commander and other agencies in an integrated manner with the regional government, to intensify patrols of forest and land areas;</li> <li>c. Conduct community development to participate in efforts to combat forest and land fires;</li> <li>d. To make efforts to enforce criminal law effective against unlawful acts related to forest and land fires;</li> <li>e. Imposing maximum sanctions based on the provisions of laws and regulations for violations, omissions, and/or conspiracy involving members of the Indonesian National Police.</li> </ul>
6.	governor	<ul> <li>a. Prepare Provincial Regional Regulations regarding the system for handling forest and land fires;</li> <li>b. Optimizing the duties and functions of the Provincial BPBD as a coordinator in efforts to combat forest and land fires in the province;</li> <li>c. Allocate the costs of implementing the fire and forest fires in an adequate manner in the routine budget items and the Unexpected Expenditure budget in the Provincial Revenue and Expenditure Budget;</li> <li>d. As the commander of the task force carrying out the handling of forest and land fires in the province,</li> </ul>

- accompanied by the deputy commander of the task force consisting of the Commander of the Regional Military Command, the Head of the Regional Police, and the Executive Head of the Provincial BPBD;
- e. Facilitating cooperative relations between district/city regional governments in efforts to combat forest and land fires in the provinces;
- f. Mandatory forest utilization business actors and agricultural business actors to have human resources, facilities and infrastructure for fire prevention, as well as carry out forest and land fire management for which they are responsible;
- g. Provide the strictest sanctions to forest utilization business actors and agricultural business actors who do not carry out the handling of forest and land fires for which they are responsible;
- h. Conduct community development to participate in efforts to combat forest and land fires;
- i. Reporting the results of the implementation of forest and land fire control in its territory to the Minister of Home Affairs, the Minister of Environment and Forestry, and the Head of BNPB.

Source: Presidential Instruction Number 3 of 2020 concerning Forest and Land Fire Management.

Based on the Presidential Instruction Number 3 of 2020 concerning the Management of Huran and Land Fires in the context of strengthening the prevention and enforcement of the law structure of the policy for handling forest and land fires, it instructs the institutions and their authorities:

- 1) Carry out efforts to overcome forest and land fires which include the following activities: a) prevention of forest and land fires; b) extinguishing forest and land fires; c) post-forest and land fire management;
- 2) Streamlining law enforcement efforts against forest and land fire crimes as well as payment of compensation in accordance with the level of damage or consequences required for rehabilitation costs, restoration of forest and land conditions, or other actions that are considered, as well as the imposition of administrative sanctions in accordance with statutory regulations.

The implementation of forest and land fire control activities is carried out through cooperation and coordination between several relevant ministries/agencies, involving the participation of the community and relevant stakeholders, and increasing law enforcement.

Policies for controlling forest and land fires are generally carried out through prevention, suppression, and post-fire management efforts carried out at the national level to the level of forest management units. Efforts to prevent forest and land fires are carried out through public awareness campaigns; improvement of prevention technology such as warning and early detection of forest and land fires; physical development of forest and land fire prevention; and software enhancements. Efforts to extinguish forest and land fires are carried out through improving extinguishing technology, extinguishing operations (early extinguishing and advanced extinguishing), as well as rescue and evacuation. Meanwhile, post-fire handling efforts are carried out by monitoring, evaluating, and inventorying the forest ex-fires; socialization and law enforcement and rehabilitation.

The implementation of the above policies is spread across various ministries/state institutions. First, the Ministry of Environment and Forestry (KLHK) is implemented by the Directorate of Forest Fire Control. The forest fire policy in the Ministry of Environment and Forestry is implemented by the Directorate of Forest Fire Control under the auspices of the Director General of Climate Change Control. The Directorate of Karhutla Control has the task of carrying out the preparation, formulation, implementation, coordination and synchronization of policies, technical guidance and evaluation of technical guidance and supervision of the implementation of affairs in the area of forest and land fire control. In carrying out its duties, the Directorate for Control of Karhutla carries out the following functions: (Directorate General of PPI-KLHK, 2021).

- 1) Preparing the formulation of policies for prevention, control, partnership systems and fire care communities, personnel and infrastructure for controlling forest and land fires;
- 2) Preparing the implementation of policies on prevention, control, partnership system and fire care community, personnel and infrastructure for controlling forest and land fires;
- 3) Preparation of coordination and synchronization of policies on prevention, response, partnership system and fire care community, personnel and infrastructure for controlling forest and land fires;
- 4) Formulation of norms, standards, procedures and criteria for prevention, mitigation, partnership system and fire care community, personnel and infrastructure for controlling forest and land fires;
- 5) Provision of technical guidance and evaluation of providing technical guidance on prevention, control, partnership systems and fire care communities, personnel and infrastructure for controlling forest and land fires;
- 6) Supervision of the implementation of the affairs of prevention, control, partnership system and fire care community, personnel and infrastructure for controlling forest and land fires in the regions; and
- 7) Implementation of the administration of the Directorate.

The implementation of the policy is supported by structural institutions within the Ministry of Forestry at the echelon II level, namely the Directorate of Forest Fires and non-structural institutions at the central level to the sub-district level throughout Indonesia with a coordination mechanism. To support these efforts, the government also empowers communities around forest areas that are prone to fires. It is these communities who are in direct contact in the event of forest and land fires. Given the importance of preventing and controlling forest and land fires, the Ministry of Forestry has a policy to involve the community in forest and land fire prevention through the establishment of community-based organizations.

The policy for controlling forest and land fires at the Ministry of Environment and Forestry is part of an effort to realize one of the national development agendas, namely realizing economic independence by moving strategic sectors of the domestic economy. To realize this agenda, one of the targets to be aimed at is the prevention and control of forest and land fires quickly and well as well as reducing the number of hotspots for forest and land fires. To achieve this target, the KLHK's strategy is to improve facilities and infrastructure as well as forest protection and control of forest and land fires; and increasing the quantity and quality of Manggala Agni in the context of preventing forest and land fires. (Attachment to Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.39/Menlhk-Setjen/2015 concerning the Strategic Plan of the Ministry of Environment and Forestry for 2015-2019).

Efforts to prevent, extinguish, and handle post-fires are the responsibility of the forest and/or land management agency or unit. These forest or land management agencies or units include: the government; provincial government, district/city government; KPHP; KPHI; KPHK; Perum Perhutani KPH; holders of IUPHHK or UPHHBK or IUPHHK ecosystem restoration in natural forests in production forests; holders of IUPHHK or IUPHHBK in HTI or HTHR; holder of a permit for borrow-to-use forest area in protection forest and production forest for mining activities; holders of IUPK, IUPJL, IPHHBK in protection forests and production forests; IPHHK holders in natural forests in production forests and HTR; the holder of a lease-to-use forest area permit for non-mining activities; community forest manager; village forest manager, person in charge of customary forest; private forest owners; KHDTK manager; plantation manager; and farmer groups around the forest or conservation village or climate village or forest ecosystem-based tourism village.

*Second*, Karhutla is also a form of disaster that is the responsibility of BNPB. BNPB policies in controlling forest and land fires: (BNPB, 2016).

- 1) develop a contingency plan for forest and land fires. The contingency plan contains the roles and responsibilities of each ministry/institution involved in controlling forest and land fires, division of tasks in forest fire suppression operations, mechanisms and coordination in resource mobilization, and efforts made in forest fire suppression operations;
- 2) coordinate so that law enforcement is applied to prevent forest and land fires;
- 3) coordinate the implementation of an early warning system for forest and land fires in risk areas.

ThirdApart from KLHK and BNPB, the Ministry of Agriculture also handles forest and land fires. The Ministry of Agriculture's policies in handling forest and land fires are contained in Law Number 39 of 2014 concerning Plantations and Minister of Agriculture Regulation No. 98/Permentan/OT.140/9/2013 concerning Guidelines for Plantation Business Licensing. In plantation licensing, each plantation permit holder is required to make a statement of ability to have the facilities, infrastructure, and systems to clear land without burning and control fires. In addition, the Ministry of Agriculture also issued the Minister of Agriculture Regulation No. 47/Permentan/OT.140/4/2014 concerning Brigades and Guidelines for the Implementation of Prevention and Control of Forest and Garden Fires. This guideline is prepared as a legal basis in the implementation of land and garden fire control.

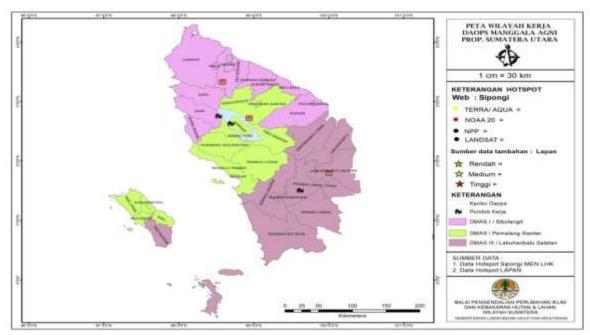
Control of forest and land fires is also supported by Presidential Instruction Number 8 of 2015 concerning Postponement of Granting of New Permits and Improvement of Governance for Primary Natural Forests and Peatlands which has been renewed by Presidential Instruction Number 6 of 2017 concerning Postponement and Improvement of Governance for Granting New Permits for Primary and Natural Forests. Peatlands, Presidential Regulation Number 1 of 2016 concerning the Peat Restoration Agency, Government Regulation Number 71 of 2014 concerning Protection and Management of Peat Ecosystems as amended by Government Regulation Number 57 of 2016 concerning Amendments to Government Regulation Number 71 of 2014 concerning Ecosystem Protection and Management peat. These regulations were issued by the Government in the context of preventing forest and land fires in peat areas and efforts to restore damaged peat ecosystems due to forest and land fires.

Another institution that was formed was the Center for Climate Change and Land and Forest Fire Control. The organization and working procedures of this institution are as regulated in the Regulation of the Minister of Environment and Forestry Number P.13/MenLHK/Setjen/OTL.0/2016. This institution is a new force in tackling and preventing

forest and land fires in Indonesia. This institution also partners with Manggala Agni, both at the provincial and district levels.

Based on the law above, where forest protection is one of the ways to limit and prevent forest damage due to fires and the occurrence of forest fires every year is a threat that must be resolved immediately, the Ministry of Forestry established Manggala Agni. Manggala Agni is the Indonesian Forest Fire Control Brigade which was formed by the Ministry of Forestry in 2003. This brigade was formed in order to carry out the task of controlling forest fires whose activities include prevention, suppression, and post-forest fire management. This institution was formed by the central government to control forest and land fires in the regions.

In North Sumatra Province, there are three working areas of Daops Manggala Agni as follows:



Source: Forest Protection and Forest Conservation Division of the Forestry Service of North Sumatra Province.

Figure 2. Map of Daops Manggala Agni, North Sumatra Province

Daops region I in Sibolangit, Daops region II in Pematang Siantar and Daops region III in Labuhanbatu Selatan and each has regional responsibilities. (Forest Protection and Conservation Division of the Forestry Service of North Sumatra Province, 2019).

In connection with the integrated team mentioned above, it has also been followed up with the formation of an integrated team on a provincial scale to the district/city level. In North Sumatra Province, the regional government of Sumatra Province has made a regulatory policy in controlling forest and land fires based on the Decree of the Governor of North Sumatra Number 188.44/138/KPTS/2017 concerning the Integrated Team for Forest and Land Fire Control in North Sumatra Province. The composition of the integrated team for forest and land control of North Sumatra Province starting from the Governor, Forestry element, BPBD element, Plantation and Agriculture element, Environment element, BMKG and LAPAN elements, Health element, Transportation element, Prosecutor's element, Regency element, Permit Holder element, military elements,

In connection with this integrated team, which was previously formed in 2014 related to forest and land fires, it has been quite effective in reducing hotspots (*hot spot*) every year but the amount of land burned is quite large. The policies made by the government have been

quite effective, but there are still problems related mainly to funding when forest and land fires occur, because the costs needed, especially for the fires are quite large and wide, of course, the budget is not small. On the other hand, the supporting facilities and infrastructure are still inadequate in fire fighting activities. Therefore, The government seeks to utilize climate or weather information submitted by the Meteorology and Geophysics Agency which is getting closer to the accuracy of the situation in the field as material for early warning information on the dangers of disasters from forest and land fires so that the potential for forest and land fires can be anticipated as early as possible on the side others by establishing disaster preparedness posts to prevent forest and land fires in the regions. The integrated team formed with various sectors is certainly expected to have a synergistic role for each party in efforts to control forest and land fires.

The consequences of forest and land fires are not only caused by natural and human factors, both individuals and community groups but also caused by companies. Government policies in overcoming forest and land fires which are caused by companies, policies are carried out with preventive and repressive efforts. Preventive efforts are efforts to prevent pollution and environmental damage in this case related to preventing forest and land fires that can cause air pollution and damage the environment. One of the prevention efforts is to carry out surveillance. In Law Number 32 of 2009 concerning Environmental Protection and Management, Article 71 states "supervision is the authority of the minister, governor, the regent/mayor to the obedience of the person in charge of the business". The objectives of supervision are:

- 1) so that environmental management carried out by business actors and/or activities can be continuously monitored;
- 2) so that the implementation of environmental management carried out by business actors and/or activities is in accordance with the provisions of permits and environmental laws and regulations;
- 3) so that environmental and forestry law enforcement can be carried out in accordance with the provisions of licensing and statutory regulations;
- 4) so that the preservation of environmental functions can always be maintained.
  - Aspects of supervision in the environment, among others:
- 1) Environmental permit. Includes environmental permits and environmental protection and management permits;
- 2) Control of water and air pollution. The point of compliance, parameters, fulfillment of quality standards, reporting, technical provisions, fulfillment of quality standards based on the results of supervision;
- 3) Forest and land fire control. Hotspot data, infrastructure for controlling forest and land fires and procedures for measuring ground water levels.

In relation to forest and land fires, the government's efforts to supervise companies are related to environmental permits, business permits, environmental protection and management permits, supervision in land clearing and forest and land fire control.

If there is a violation in supervision, the company will be given administrative legal sanctions first. In Law Number 32 of 2009 concerning Environmental Protection and Management, Article 76 paragraph (2) environmental administrative sanctions in the form of: written warnings, government coercion, freezing of environmental permits and revocation of environmental permits.

Then the government's efforts are repressive efforts. Repressive measures are follow-up efforts from administrative legal sanctions or the results of verification/supervision proved that there have been administrative violations and also if administrative sanctions have not been effective, then law enforcement efforts will be carried out in the form of civil law

sanctions and criminal law sanctions. This policy in law enforcement is very important because it is the last milestone in overcoming and suppressing the problem of forest and land fires caused by companies.

Then the application is continued with the application of criminal law sanctions. The application of criminal sanctions against the perpetrators of arson has been running, some have been arrested, and some have been imprisoned and are still under investigation at the Jambi Regional Police. As a result of the application of criminal law sanctions, it has a deterrent effect on forest and land burning perpetrators so that they can reduce the number of forest and land fires carried out by several companies, based on data from the Environmental Compliance Division of the Jambi Province Environmental Service in 2019 the area burned in September was approx. 39,131 Ha reduced to 1,229 Ha in October. (Fitria Syamsir, 2020).

#### IV. Conclusion

The policies made by the government have been quite effective, but there are still problems related to funding, supporting facilities and infrastructure that are still inadequate in overcoming forest and land fires. Then regarding the institutions that have been formed, there is no synergy from the roles of each party and the lack of coordination and synchronization in efforts to overcome and control forest and land fires which causes the success rate in the implementation is not optimal.

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