

## Forest And Land Fire Management Strategies : Prevention And Law Enforcement

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### **Abstract.**

*Forest and land fires are hot topics discussed in both the mass media and electronic media. Forest and land fires have a huge impact on the economy and public health. Another impact of forest fires is the loss of various ecosystem benefits contained in the forest, flora and fauna, as well as other potentials contained therein, including biodiversity. The purposes of this paper are: (1) to identify and describe the strategies implemented by the government in an effort to reduce the occurrence of forest and land fires; (2) to know and describe the law enforcement carried out in dealing with forest fires. The results that can be obtained are the strategies that can be used to overcome forest and land fires carried out by the government are: by providing education to the public about the impacts that can be caused by forest and land fires, as well as providing infrastructure assistance in overcoming forest and land fires. Meanwhile, law enforcement against companies or corporations that carry out forest and land fires is still considered very weak and has not run optimally in accordance with the wishes of the law itself. The conclusion is that although the government has taken steps to deal with forest fires, if no action is taken to give sanctions to the perpetrators of forest and land burning, then everything will not work, especially for forest and land burning carried out by companies or corporations.*

**Keywords:** Strategy; prevention; law enforcement

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### **1. INTRODUCTION**

Most of Indonesia's biodiversity and natural resources are found in forest areas. The largest part of Indonesia's forest is in Kalimantan and Papua, which are included in the tropical rain forest which is located in the lowlands. In this kind of forest, various types of flora and fauna grow, which have high economic value and can be utilized. Internationally, Indonesia functions as the world's lungs that must be maintained and as the world's largest producer and supplier of oxygen, and is considered to be a significant contributor to global climate change.

Forest and land fires in Indonesia often occur and become regular customers every year during the dry season, this needs to be watched out for [1]. Recently, forest and land fires have increasingly disrupted the life of forest ecosystems, both from a social, economic and ecological point of view. Indonesia is a country where almost all of its provinces have forest areas. The total forest area owned by Indonesia as of 2020 is approximately 95.6 million hectares [2]. Therefore, it is necessary to preserve and protect forests in Indonesia from destruction and destruction, and must be made one of the main focuses of the government in its short-term and long-term development

plans. Currently, the rate of deforestation in Indonesia is still quite high, which is around 115.46 thousand hectares per year 2020. This shows that the high rate of deforestation will threaten the ecosystem and the existence of forest sustainability in Indonesia. One of the biggest contributors to the high rate of deforestation is: “the existence of forest destruction and forest fires carried out by humans and large private companies illegally with the aim of clearing land”.

The area of land burned from year to year has expanded over a period of 30 years (1966-1998), namely 1982/1983 (3.5 million ha), 1987 (49,323 ha), 1991 (118,881 ha), 1994 (161,798 ha) and 1997/1998 (383,870 ha). The Center for International Forestry Research (CIFOR) reports that in 1997/1998 some 10 million hectares of forest, scrub and grassland in Indonesia were burned, most of which were intentionally burned [3]. Most of the forest and land burned are areas that have previously been damaged and degraded as a result of human actions, some are peat lands that store a lot of carbon.

Based on satellite monitoring, it is estimated that 1.64 million hectares of forest and land burned between 1 January and 31 October 2019 were observed in seven provinces in Indonesia, including 670,000 ha (41 percent) on peat lands. This finding is data that states that the 2019 fires are of a large scale, comparable to the 2015 fire disaster where 2.1 million hectares experienced fires, of which 76 percent of the burning occurred on abandoned land. The land was previously forest land, but repeated cycles of burning have turned it into unproductive degraded scrubland and an estimated 60,000 hectares of forest have been affected by the fires, especially on peat lands and this burned peat swamp forest may never recover.

To find out the development of forest fires in every province in Indonesia from 2018 to 2021, it can be seen in table 1. Where forest and land fires mostly occur on the island of Kalimantan, as the lungs of the world that must be preserved.

**Table 1.** The Extent of Forest Fires in Each Province in Indonesia in 2018-2021

No.	Provinsi	2018	2019	2020	2021
1.	Aceh	1.284,70	730,00	1.078,00	540,00
2.	Bali	1.013,76	373,00	29,00	-
3.	Bangka Belitung	.055,56	4.778,00	576,00	137,00
4.	Banten	-	9,00	2,00	-
5.	Bengkulu	8,82	11,00	221,00	18,00
6.	DKI Jakarta	-	-	-	-
7.	Gorontalo	158,65	1.909,00	80,00	16,00
8.	Jambi	1.577,75	56.593,00	1.002,00	17,00
9.	Jawa Barat	4.104,51	9.551,00	2.344,00	-
10.	Jawa Tengah	331,67	4.782,00	7.516,00	-
11.	Jawa Timur	8.886,39	23.655,00	19.148,00	385,00
12.	Kalimantan Barat	68.422,03	151.919,00	7.646,00	14.052,00
13.	Kalimantan Selatan	98.637,99	137.848,00	4.017,00	520,00
15.	Kalimantan Timur	27.893,20	68.524,00	5.221,00	29,00
16.	Kalimantan Utara	627,71	8.559,00	1.721,00	158,00

17.	Kepulauan Riau	320,96	6.134,00	8.805,00	1.561,00
18.	Lampung	15.156,22	35.546,00	1.358,00	532,00
19.	Maluku	14.906,44	27.211,00	20.270,00	1.107,00
20.	Maluku Utara	69,54	2.781,00	59,00	41,00
21.	NusaTenggara Barat	14.461,38	60.234,00	29.157,00	2.424,00
22.	NusaTenggaraTimur	57.428,79	136.920,00	114.719,00	1.984,00
23.	Papua	88.626,84	108.110,00	28.277,00	740,00
24.	Papua Barat	509,50	1.533,00	5.716,00	-
25.	Riau	37.236,27	90.550,00	15.442,00	6.492,00
26.	Sulawesi Barat	978,38	3.029,00	569,00	461,00
27.	Sulawesi Selatan	1.741,27	15.697,00	1.902,00	1,00
28.	Sulawesi Tengah	4.147,28	11.551,00	2.555,00	1.056,00
29.	Sulawesi Tenggara	8.594,67	16.929,00	3.206,00	1.070,00
30.	Sulawesi Utara	326,39	4.574,00	177,00	106,00
31.	Sumatera Barat	2.421,90	2.133,00	1.573,00	306,00
32.	Sumatera Selatan	16.226,60	336.798,00	950,00	101,00
33.	Sumatera Utara	3.678,79	2.514,00	3.744,00	465,00
34.	Yogyakarta	-	23,00	181,00	-
<b>TOTAL</b>	<b>529.266,64</b>	<b>1.649.258,00</b>	<b>296.942,00</b>	<b>35.273,00</b>	

Source: Sipongi Mananggala Agni

The cause of forest and land fires is the direct action of human activities who want to prepare land quickly (*land clearing*) so that it can be quickly used for agriculture and plantations.[4] The method of burning forests and land by means of *land clearing* can reduce high costs, short time, and can result in an increase in the level of acidity (pH) of the soil (from 3 to 4 to 5 to 6), with estimates of plantation crops such as oil palm and acacia can grow faster and better.

The impact that can occur on forest and land fires is the most prominent is the smog that can spread to other areas and will disrupt public health including disrupting river, land, sea and air transportation systems. The impact of forest fires will cover various sectors such as transportation, health, economy, social, culture, and ecology, including the image of the nation in the eyes of neighboring countries and the world that is not good.

Seeing the background of the problem above, the problem of forest fires occurs not only because of the influence of nature but is also caused by human actions. For that we need a certain strategy that must be used to overcome the problem of forest and land burning due to human actions. Based on the background of the problem, the problems that occur here are: "what is the strategy carried out by the government in an effort to reduce the occurrence of forest and land burning? and how are environmental laws enforced in dealing with forest fires?"

## II. METHODS

The type of research used in this paper is normative juridical research. According to Rono Hanitijo, the principle of normative juridical research methods is: "finding problems then leading to problem identification and finally

leading to problem solving"[5]. Normative juridical research is library research, namely: "research on secondary data. Normative juridical research examines law from various aspects, such as aspects of philosophy, theory, comparison, consistency, composition, general explanation, and binding power contained in a regulation. Normative juridical research uses deductive thinking methods, namely a method of thinking which starts with drawing conclusions from a general nature and then that conclusion leads to something specific.

In this study, the authors use three types of approaches, namely: (1) the *legislation approach*, (2) the *conceptual approach*, and (3) the *case approach*. According to Marzuki [6], the *legislation approach*, namely: "an approach by analyzing all regulations or legislation that have relevance to the legal issues discussed. A *conceptual approach*, namely: an approach by moving from an understanding of the doctrines that develop in the legal world which can be a framework for building legal arguments when solving legal problems discussed. The *case approach* is an approach by examining cases that have relevance to the legal issues under study".

### **Data source**

Sources of data used in the author, namely secondary data. Secondary data can be divided into primary legal materials, secondary legal materials and tertiary legal materials. The secondary data can be described as follows:

#### 1. Primary Legal Material

Primary legal materials are legal materials consisting of statutory regulations, official minutes, court decisions and official state documents.[7] The primary legal materials used in this research consist of statutory regulations, namely:

- a. the 1945 Constitution of the Republic of Indonesia;
- b. Law Number 41 of 1999 concerning Forestry;
- c. Law Number 32 of 2009 concerning Environmental Protection and Management;
- d. Presidential Regulation of the Republic of Indonesia Number 59 of 2017 concerning Implementation of the Achievement of Sustainable Development Goals;
- e. Government Regulation of the Republic of Indonesia Number 23 of 2021 concerning the Implementation of Forestry;
- f. Regulation of the Minister of the Environment Number 10 of 2010 concerning Mechanisms for Prevention of Pollution and Environmental Damage Related to Forest/Land Fires;
- g. Minister of Forestry Regulation Number 75 of 2014 concerning Forestry Police;
- h. Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 32 of 2016 concerning Control of Forest and Land Fires;

2. Secondary legal materials Secondary legal materials are: “legal materials that contain an explanation of primary legal materials. The secondary legal materials used in this writing are books, legal journals, and research results that are related to this writing”.
3. Tertiary legal materials are legal materials that provide meaningful instructions or explanations for primary legal materials and secondary legal materials. The tertiary legal material used in this writing is the Big Indonesian Dictionary.

### **Data collection technique**

The data collection technique that the author uses in this research is literature study. According to Soerjono Soekamto,[8] literature study, is: “by tracing legal materials that are related to the problems or legal issues studied in this paper. The collected data is then processed by systematizing written legal materials.

### **Data analysis technique**

The data analysis technique used in this research is descriptive qualitative, namely data analysis in the form of descriptions. The legal materials obtained are then discussed, examined, and grouped into certain sections to be processed into information data. According to JR Raco [9], in his book “*Qualitative Research Methods: Types, Characteristics, and Advantages*”, data analysis here means systematically arranging the results of interviews and observations, then interpreting them descriptively qualitatively and producing a new thought, opinion, theory or idea, which is then referred to as the findings (*finding*) in a qualitative research, namely changing the data into findings”.

## **III. RESULT AND DISCUSSION**

### **Government Strategy in Efforts to Reduce Forest and Land Burning**

Forest is an area that is overgrown with trees and other plants that exist in a certain area. According to RI Law no. 41 of 1999 concerning forestry, what is meant by forest is: "an ecosystem unit in the form of a stretch of land containing biological natural resources which is dominated by trees in their natural environment, which cannot be separated from one another". Such areas are found in several areas in the world as well as in Indonesia and function as carbon dioxide sinks, animal habitats, hydrological current modulators, soil buffers, and are one of the most important aspects of the earth's biosphere.

Indonesia has the largest tropical forest in the world, the area of which ranks third after Brazil and the Democratic Republic of the Congo, so that Indonesia has enormous potential for forest resources. For 32 years, the New Order government placed the forestry sector as the second mainstay of foreign exchange earnings after the oil and gas sector. The forestry sector also absorbs a lot of manpower and is able to encourage the formation of economic centers and open up isolation in some remote areas. However, at the same time there is a negative impact on forest management that

is exploitative and not in favor of the people's interests, in the end leaving problems, including forest destruction which is very worrying.

The land referred to here is: "peat land which is used for the development of the surrounding ecosystem and is a wetland ecosystem that is waterlogged so that plant material cannot decompose completely". Peatlands have many important functions for both environmental and community sustainability, so they need to be protected and conserved.

Forests and land in an area can fire due to both natural factors and human activities. Natural factors include the influence of El-Nino which causes a prolonged drought so that the plants become dry. Dry plants are a potential fuel if exposed to sparks from coal that appears on the surface or from other combustion, either intentionally or unintentionally. This causes ground fires and surface fires. Human activity factors that cause forest and land fires include the existence of bonfires in the forest, but the embers from the bonfire are not extinguished. The existence of land clearing activities using uncontrolled slash-and-burn techniques, usually carried out by HTI companies and shifting or permanent cultivators. Intentional burning to obtain grazing fields or hunting grounds, carelessly discarding lit cigarette butts as well as due to the use of equipment/machines that cause fires.

Forest and land fires were initially considered as natural occurrences caused by nature itself, but in subsequent developments the human factor has played a very important role in initiating fires in the last decade. Forest fires according to SK. Minister of Forestry. No. 195/Kpts-II/1996, namely: "a condition where the forest is hit by a fire, causing damage to the forest and forest products which causes economic and environmental losses". Although the fires that have occurred in Indonesia for thousands of years, as the main characteristics of the forests in Indonesia from small to large frequency. The current fires are not a significant cause of deforestation. Various processes of forest degradation and deforestation have transformed a large area of forest in Indonesia from a fire-resistant ecosystem to one that is prone to fires. According to Wikipedia, "Deforestation or deforestation is the activity of cutting down forests or tree stands so that the land can be converted to non-forest uses, such as agriculture and plantations, livestock, or settlements".

Forest and land fires are a major contributor to air pollution, which can have an impact on health and others. Forest and land fires in Indonesia can spread to several neighboring countries such as Singapore and Malaysia, so that it will have an impact on relations between the two countries. Forest and land fires can produce 60-90% of emissions that cause smog and are the main source of polluting carbon emissions. Understanding fire in general, the basic word "fire" is "burn" which gets the affix "ke and an", so it has the meaning of activities that cause fire and smoke that is not accidental or the presence of fire and smoke that is not expected. For example, a house fire where the fire comes from a stove. A fire in a furnace is not categorized as a fire because its presence is expected and controlled, while a fire that has burned a house is called a fire, because the fire is not expected and its presence is not under control. The

definition of fire according to the Big Indonesian Dictionary is: "an event of burning something such as a house, forest and so on."

According to terminology to understand the occurrence of forest and land fires in an area can occur because:

1."The presence of fire or smoke in an area intentionally or unintentionally. Deliberately, such as burning to clear new land or not clearing new land. Unintentional, such as sparks from the adjacent land that is on fire or due to carelessly throwing cigarette butts.

2.Fires on peat are lands where the soil originates from piles of organic matter mixed with twigs and wood roots with a depth of between 2 and 10 meters, black in color, impermeable to water (porous) and flammable.

3.Non-peat fires are mineral lands formed from weathering of rocks such as alluvial, podzolic or grumusol".

The problem that really needs attention from the government is fire on peat land, both in plantation areas or HTI land as well as in permanent and shifting food agriculture. Some of the reasons why fires on peatlands are dangerous and take a long time can be explained as follows: (a) if fires occur below the surface of the peatlands, there are no tools that can extinguish them and deal with them, because peatlands are perfect for holding coals. the fire underneath. Peatlands can be extinguished only with heavy rain which can extinguish hotspots because it will cause puddles of water on the land; (b) if the rain that falls is relatively small and scanty, and does not inundate the peatlands, the peatland fires will become increasingly uncontrollable and will emit even greater smoke; and (c) The fire will quickly spread to the interior of the dry peatland, often causing new hotspots in several places.

Forest and land fires occur due to several factors, namely natural factors which usually occur during a prolonged dry season when the weather is very hot and climate change. So changes caused by natural factors, such as the addition of aerosols from volcanic eruptions, are not taken into account in terms of climate change. But the main cause of forest and land fires is land clearing by humans such as:

- a. "Burning is for land clearing that cannot be controlled so that it spreads to other lands. The land clearing is carried out by both the community and the company. However, if land clearing is carried out by burning on a large scale, the fire is difficult to control. The most dangerous burning is the burning of land clearing in swamp/peat areas.
- b. Burning for new land uses that make the land fire prone, for example in former HPH lands and in areas with reeds.
- c. Burning due to conflict between government, company and community over land status. Palm oil companies will hire workers from outside to work and burn community land whose land the company wants to take over.
- d. Fires reduce the value of land by degrading the land, and thus companies will more easily be able to take over land by making low compensation payments to indigenous people.

- e. Burning is carried out by local residents who want to take over their land controlled by oil palm companies.
- f. The level of community income is relatively low, so they are forced to choose an easy, cheap and fast alternative for land clearing
- g. Lack of law enforcement against companies that violate land clearing regulations”.

It can be seen that people who burn forest and land are not aware of the dangers of fire or smoke that will later be generated, but because apart from economic reasons, there is also no other better and cheaper alternative to clearing land of grass and shrubs (especially fern stems that contain bone substance, so it is difficult and takes a long time to rot). This fact has prompted them to burn the grass and shrubs and try it with burning techniques. However, fires often occur beyond their capabilities as humans because of sparks from the land/gardens that are burned, flown and stop at the surrounding land/gardens. These sparks can occur beyond their observation.

It is also necessary to know about the typology of forest and land fires, namely: (a) fires in upstream areas with non-peat soil types (alluvial or podzolic); (b) fires in the area of Business Use Rights (HGU) plantations with non-peat land types; (c) fires in HGU plantation areas with peat land types; (d) fires in permanent food agriculture areas with non-peat and peat types of land; and (e) fires in non-permanent food-agricultural areas on peatland types. This typology of fires needs to be known and understood, because it has important implications for understanding and the approach to be applied in dealing with it.

Based on the agreement that resulted from the meeting of The Riau Declaration on Peatlands and Climate Change which was attended by experts from 12 countries, several agreements and recommendations related to forest and land fires were produced, namely: “(1) stop the conversion of forests and peatlands that are not according to its purpose; (2) carry out efforts to rehabilitate, use and utilize tropical forests and peatlands in a responsible manner. The results of the meeting are expected to be able to overcome various problems that occur in forest and land fires and can overcome the occurrence of forest and land fires that are carried out by humans”.

There are several strategies that can be taken to overcome and prevent forest and land fires, namely:

1. Conduct counseling  
Extensions carried out during and before the dry season are further improved. The target of the counseling is people who live around forest areas, youth, nature lovers, and environmentalists. The extension method used can be in the form of anjangsana or meetings from home to residents' houses; lecture; fostering village communities by providing understanding and understanding about forest fires or by providing t-shirts that read "Let's prevent forest fires"; and fostering school children close to forest areas.
2. Carry out patrols and patrols

Guards are carried out in areas prone to forest and land fires that are the entry and exit of residents in forest areas. For conservation areas, guarding is carried out at the entrances to the conservation area. For patrols to be carried out routinely, which is carried out routinely at the most fire-prone, namely in the dry season, as well as periodic patrols which are carried out at any time when needed and certain things must be done.

3. Installing signs and warning signs of fire hazards in the area around the forest and within it.

The installation procedure is carried out in areas prone to forest and land fires.

4. Conduct fire fighting training for forestry officers and the community.  
Educational training for firefighters is carried out in collaboration between the Ministry of Environment and Forestry with the community and organizations of nature lovers and environmentalists.

5. The role of society

The role of the community in preventing forest fires needs to be carried out, especially people who live around forest areas so that they can assist officers in carrying out prevention and control of forest fires. The role of the community can be done by: (a) a sense of belonging to the forest by protecting the forest from disturbances, including forest fires; (b) have a high awareness of the dangers of forest fires by reporting to the officers in the event of a fire; (c) comply with all regulations related to forestry and give warnings to anyone who wants to burn forests; (d) assisting officers in dealing with forest and land fires; (e) participate in gathering personnel, equipment, and transportation to support the smooth operation of forest and land fire fighting activities.

6. Creating a barrier or green line

Firebreaks are areas where forest fires do not occur, which serves to localize the fire so that it does not spread to other areas. The firebreak is made by clearing the gaps between the possible sources of ignition and the accumulation of fuel.

7. Build a fire watch tower

Fire monitoring towers are built with a height of 12 to 18 meters with a visibility of more than 5 km. The fire monitoring tower must be equipped with a trophy and a communication device that can monitor the situation around the forest and provide reports to the central post.

Procedures and strategies for preventing and overcoming forest and land fires mean that there are instructions and procedures for implementing and overcoming the occurrence of forest and land fires. This strategy provides an opportunity for forest and land fires to be extinguished as early as possible so that they do not spread to the surrounding area or areas.

### **Enforcement of Environmental Laws in Handling Forest Fires**

Law enforcement against perpetrators of forest and land fires needs to be enforced and receive serious attention from the government. This is very important considering that one of the causes of forest and land damage is the occurrence of fires or the burning of forests and land on purpose before the forest and land are used. One of the conditions for realizing Sustainable Forest Management (SFM) depends on the legal policy conditions implemented and implemented by the government. This is important considering the laws and institutions that deal with it, all of which are included in Good Forestry Governance. [10]

Forest and land fires have a negative impact on environmental, economic, social and public health damage. It's not just the destruction of the forest ecosystem itself, but it can also cause health problems, because the smog it causes is disturbing public health and even the economy. Burning forest or land is a crime that must be combated comprehensively by every party. One of the efforts made to reduce and eradicate the perpetrators of forest or land fires is to impose imprisonment and fines as much as possible, to serve as a deterrent and serve as a lesson for the community and other elements not to burn forests again.

Law enforcement is a form of relationship between law and society, where the law works, it affects the social behavior of the community. In law enforcement know as the law enforcement system or criminal law enforcement, as part of criminal policy or crime prevention efforts, two facilities are needed, namely penal and non-penal facilities. [11]

In 2020, the President issued Presidential Instruction Number 3 of 2020 concerning Forest and Land Fire Management replacing the Presidential Instruction of the Republic of Indonesia No. 11 of 2015 concerning Improvement of Forest and Land Fire Control. The Presidential Instruction Number 3 of 2020 concerning the Management of Forest and Land Fires instructs:

- (1) "make efforts to control forest and land fires throughout the territory of the Republic of Indonesia which include activities: (a) preventing forest and land fires; (b) fighting forest and land fires; and (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 necessary actions as well as the imposition of administrative sanctions in accordance with statutory regulations.

Forest and land fires often occur every year, but no one has been able to ensnare the perpetrators with Law no. 32 of 2009 concerning Environmental Protection and Management. Law enforcement against forest and land fires is still considered very weak and has not run optimally in accordance with the wishes of the law itself. Here, *Greenpeace* Indonesia regrets that the government has not revoked any palm oil concession permits for forest and land fires carried out by palm oil companies. "Stopping this recurring fire crisis should be on the government's top agenda since 2015. But our findings show that it is mere words while law enforcement

is still weak and inconsistent with companies. President Jokowi and his ministers must immediately revoke permits for companies whose land fires occur.," said Kiki Taufik, Head of *Greenpeace* Indonesia's Global Forest Campaign, in an interview.[12]

Efforts to deal with forest and land fires have actually been carried out for a long time, but have not been carried out effectively and have not shown optimal results. This is partly due to the fact that the existing laws and regulations do not explicitly regulate criminal acts committed in an organized manner. The legal basis for the existence of a crime is the principle of legality, while the legal basis for convicting the perpetrator of a crime is the principle of error. This means that the perpetrator of a crime will only be punished if he has a mistake in committing the crime. When someone is said to have made a mistake is a matter of criminal liability. A person has an error when at the time of committing a crime, from a societal perspective, he can be reproached because of his actions [13]. According to Inosentius Samsul [14], regarding the legal instruments for combating forest, land and smoke pollution, said: "that the existing law enforcement has not been able to overcome the problem of forest and land burning. Even though in 2019 the handling and law enforcement against forest and land fires has begun.

However, there are several factors that hinder law enforcement against those who burn forests. As in Pelalawan Regency, Riau Province, namely: "(1) there is still a lack of public understanding about the long-term benefits of forests; (2) most people only think that forests are one of the wealth of natural resources that must be managed to improve their economy at that time, without considering that forests are the lungs of the world as a producer of fresh air that is good for human health and is useful for balancing global climate conditions, so that forests must be preserved and passed on to the next generation".[15]

According to Lawrence M. Friedman, "effectiveness in law enforcement is influenced by the legal structure, legal substance, and legal culture". Furthermore, Lawrence M. Friedman defines the legal structure, namely: "law enforcement officials who carry out law enforcement processes, such as police, prosecutors, and judges". Then the legal substance is defined by Lawrence M. Friedman, namely: "the content of the applicable laws and regulations". Then, Lawrence M. Friedman, explained: "that legal culture is the habits that exist in the midst of certain community groups that are passed down from generation to generation and are obeyed by the community".[16]

Examples of law enforcement against perpetrators who burn forest and land based on the decision of the Sarolangun District Court, Jambi Province, namely: "In Court Decision Number: 16/Pid.Sus/2015/PN.Srl violation of Article 92 Paragraph (1) letter a Jo Article 17 paragraph (2) letter b of the Republic of Indonesia Law Number 18 of 2013 concerning Prevention and Eradication of Forest Destruction. Where the Court declares that the defendant (1) has been legally and convincingly proven guilty of committing a criminal act by intentionally carrying out plantation activities without permission from the Minister in a forest friend; (2) Sentencing the Defendant with

imprisonment for 3 (three) years and a fine of Rp. 1,500,000,000 (one billion five hundred million rupiah), provided that if the fine is not paid by the Defendant, it will be replaced with a criminal sentence. confinement for 1 (one) month. Here, law enforcers in applying the article only look at real actions (*Actus Reus*) without considering the evil intentions of the perpetrators (*Mens Rea*), so that the punishment imposed does not touch the real perpetrator.

Based on the court's decision on Article 92 Paragraph (1) letter a Jo Article 17 paragraph (2) letter b of the Law of the Republic of Indonesia Number 18 of 2013 concerning Prevention and Eradication of Forest Destruction, there are objective elements and subjective elements. The objective element in relation to Decision Number: 16/Pid.Sus/2015/PN.Srl, namely the element of each person can be described as follows: "that what is meant by the word individual is the same as the word everyone". So each person can be an individual or a corporation which has been explained in Article 1 Paragraph 21 of the Law of the Republic of Indonesia Number 18 of 2013 concerning the Prevention and Eradication of Forest Destruction, namely: "Every person is an individual and/or corporation that commits acts of forest destruction". By considering the intent of the formulation of the legislators on this sub-element, from a grammatical interpretation, it can be formulated as follows;

1. Everyone is: "anyone and everyone who in this case is he who is addressed to every legal subject in the sense of a human being, who has rights and obligations that can be accounted for his actions, then he is considered a legal subject. While the individual is related to the person personally";
2. Corporations are: "a group of people who have assets in an organized manner, both in the form of legal entities and non-legal entities".

The formulation of this article contains alternative conditions where the legal rules provide several conditions which if one of these conditions is fulfilled then the legal consequences will be applied. Because the conditions are alternative, it is enough to fulfill only one of these conditions and the legal consequences can be applied.

While the subjective element in the decision concerns the public prosecutor who must be able to prove and convince the panel of judges in court proceedings. Here the public prosecutor can present witnesses to provide strong information relating to evidence, for example tools to burn forests, conditions that indicate the existence of burning such as fire, smoke, maps of forest areas by attaching a Government Regulation or the area is protected and may not be used for business or exploited, and proof of licensing. For the subjective element, namely: "it can be seen intentionally from the condition of the perpetrator, that the perpetrator has evil intentions and is not wearing it by bringing or preparing equipment in such a way and knowing that the forest area where the forest crime scene he burned is a forest area that has been granted concession rights "Industrial forest".

It has been proven that the perpetrator based on the decision can be held accountable for his actions, so that he can be convicted or guilty according to criminal

law, which consists of three conditions, namely: "(1) The ability to be responsible or accountable for the perpetrator; (2) the existence of an unlawful act, namely a psychological attitude of the perpetrator related to his behavior, namely: (a) intentional and (b) careless or negligent attitude; and (3) there is no justification or reason that eliminates criminal liability for the perpetrator".

#### IV. CONCLUSION

Strategies, prevention, and management of forest and land fires can be carried out in several ways, both internally and externally. The strategy is carried out internally by providing training and education to forestry officers and the community by providing training and skills in fighting forest and land fires. The external strategy is to encourage the community to participate in tackling and preventing forest fires by: (a) providing education on the importance of protecting forests and not burning forests and land; (b) there is a sense of belonging to the forest by protecting the forest from disturbances including forest fires; (c) have awareness of the dangers of forest fires; (d) comply with all regulations related to forestry and give warnings to anyone who wants to burn forests; (e) assisting officers in dealing with forest and land fires; (f) providing assistance in the form of manpower, equipment, and transportation to support the smooth operation of forest and land fire fighting activities.

Meanwhile, law enforcement carried out by those who burn forest and land is still weak and does not run optimally. This happens, because the law itself does not regulate criminal sanctions to be given to companies or corporations but only provides sanctions to individuals who commit crimes of forest and land burning. As contained in Article 108 of the Republic of Indonesia Law No.32 of 2009 concerning Environmental Protection and Management, states: "Everyone who burns land as referred to in Article 69 paragraph (1) letter h, shall be punished with imprisonment for a minimum of 3 (three) years and a maximum of 10 (ten) years. and a minimum fine of Rp.3,000,000,000.00 (three billion rupiah) and a maximum of Rp.10,000,000,000.00 (ten billion rupiah)". This proves that the sanctions imposed on companies or corporate bodies cannot be carried out.

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