

# Understanding, Attitude, and the Role of Buddhists towards Forest and Land Fires in Central Kalimantan

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The issue of forest and land fires is fundamental in Central Kalimantan. This condition affects the understanding, attitude, and role of the community, including Buddhists. This study aims to determine how understanding, attitude, and the role of Buddhists, in terms of forest and land fires in Central Kalimantan, are constructed. To collect data, a survey was administered to forty-five Buddhists in three regions of Central Kalimantan, Indonesia. They were asked to complete the questionnaire. The results of the study concluded that Buddhists have a sufficient understanding of the problem of forest and land fires in Central Kalimantan. However, there is still a small number of communities that do not have understanding, attitude, and role, and there are also those whose understanding, attitude, and role are contrary to the expectations of forest fires and land management in the regions.

**Keywords:** *Understanding, Attitude, Role, Buddha, Fire.*

## Introduction

Nowadays, there is environmental damage caused by forest and land fires in several areas in Central Kalimantan. According to Osone et al. (2016), Kalimantan is a Province that is prone to forest fires. Forest and peat fires in Central Kalimantan have become routine events every year. Large-scale land clearing by burning for HTI, and the existence of more than one million hectares of Peatland Projects (PLG), are the leading causes of forest and peatland fires in Central Kalimantan.

The impact of the haze that occurred at several points in Indonesia was not only felt by residents residing in Indonesia, but also spread to neighbouring countries, namely Malaysia

and Singapore (Kauffman et al., 2019). One example is in early October 2011, when most of Malaysia was covered with fog all day. The cause was none other than forest fires that occurred in Sumatra and Kalimantan. In particular, a forest fire that occurred the day before spreading to the territory of Malaysia, which is directly adjacent to these Indonesian regions.

Various efforts to control forest and land fires have been carried out, and nationally, the total hotspots (HS) have shown a significant decrease from 34,631 HS in 2012 to 4,613 HS in 2018 (Directorate of Forest and Land Fire Control in 2018). The data is displayed in Table 1.

**Table 1:** Recapitulation of NOAA Hotspots (ASMC) Per Regional Year 2010–2018

No.	Regions	Year								
		2010	2011	2012	2013	2014	2015	2016	2017	2018
1.	Sumatera	4,899	12,488	17,547	10,806	13,357	8,923	1,367	656	1,415
2.	Kalimantan	3,701	11,799	13,594	7,196	15,063	10,798	2,315	952	2,689
3.	Sulawesi	497	1,043	1,014	776	1,913	1,591	175	201	347
4.	Jabanasra	484	2,506	2,466	575	977	617	58	772	162
	Total	9,581	27,836	34,621	19,353	31,310	21,929	3,915	2,581	4,613

**Source:** website [spongi.menlhk.go.id](http://spongi.menlhk.go.id)

This data shows that the government cannot fully control the occurrence of hotspots. The resulting performance still contains the significant possibility of accidental factors, such as weather conditions that determine the occurrence of hotspots (Prasetyo et al., 2016). Based on the description above, this shows that the problem of forest and land fires is very complex and involves many parties. The sources of fire are not only from the forest, but most of them are outside the forest, while the impacts that are caused are also extensive and can directly affect the national economy. The WWF (2015) explains that forest and land fires cause smoke, which adversely affects the national economic cycle and bilateral relations with neighbouring countries. Forest fires should be considered a serious problem, both in terms of causes and consequences. Therefore, handling forest and land fires is not possible to be resolved by one particular party. The problem of forest and land fires must be solved by involving many parties.

According to the Peat Restoration Agency of the Republic of Indonesia/BRG-RI (2018), the source of fire that causes forest fires and peatlands in Indonesia generally occurs from human activities in deliberately setting fires, which spread without control and cause haze disasters. The source of the fire originates from activities such as land clearing for agriculture and plantations, use of fire for other purposes, land tenure and evidence of ownership, and intentional burning. Besides that, there are also supporting factors for forest and land fires, such as climate, physical, socio-economic, and cultural factors (Purnomo et al., 2017).



The results of the study of several parties also concluded that 99 per cent of forest and land fires in Indonesia occurred because of human intervention by burning forests and land for use. Some of the fires occurred in the peat swamp forest. Fires in the peatlands have several characteristics, in addition to producing canopy and surface fires, which can also cause an underground peat fire, which produces thick smoke to the extent that it harms various parties (Nurdiana & Risdiyanto, 2015). Therefore, the problem of forest and land fires is a matter of moral crisis. Besides that, it is also a social psychological problem which is close to resources and perspective problems where humans still view nature as an object rather than a subject that must be protected for the benefit of all creatures' lives. In addition to the current approach, countermeasures for the management of natural resources must also be grown with a moral approach (Zhang et al., 2020).

The Republic of Indonesia Peat Restoration Agency, as a Non-Structural Institution established by the President of the Republic of Indonesia and based on Presidential Regulation of the Republic of Indonesia Number 1 of 2016, concerning the Peat Restoration Agency, has the task of coordinating and facilitating peat restoration in seven provinces in Indonesia: Riau Province, Jambi Province, South Sumatra Province, West Kalimantan Province, Central Kalimantan Province, South Kalimantan Province, and Papua Province. One of the functions of the Peat Restoration Agency is to carry out socialisation and education on peat restoration (Moayedi et al., 2020).

In connection with one of its functions, namely as an implementer of the socialisation and education of peat restoration, the Deputy III of Education on Participatory Socialization and Partnership of the Republic of Indonesia Peat Restoration Agency in collaboration with the Institute for Environmental and Natural Resources Breeding of the Indonesian Ulema Council and the Center for Islamic Studies at the National University of Jakarta carried out peat education for religious and community groups. Furthermore, this activity aims to increase the capacity of *Khatib*, as an Islamic preacher in mosques regarding peat restoration in their respective areas. This is an implementation of the mandate of the issuance of MUI Fatwa Number 30 Year 2016, concerning the Law on Forest and Land Burning and Control (Fatwa Karhutla). This fatwa stipulates that it prohibits the act of burning land and forests that cause danger, including acts of facilitating, allowing, and taking advantage of it. It is hoped that increasing public awareness can increase the role of ulemas and the majority Muslim community in raising awareness and action for peatland conservation by the community.

Educating the community on forest and peatland fires was also carried out by Buddhists in the Central Kalimantan Province through the teachings of Buddhism. Buddhism is a universal love for all beings and without exception to the universe, as stated in the Tripitaka scriptures. Buddhists are taught how to respect and protect natural conditions so that disasters such as

forest and land fires do not have a detrimental impact on human life. This teaching is broadcast through da'wah and real social activities. The Buddha Gotama has issued warnings and appeals to mankind to avoid catastrophic and terrible fires, disasters for humanity, and disasters for life in the universe.

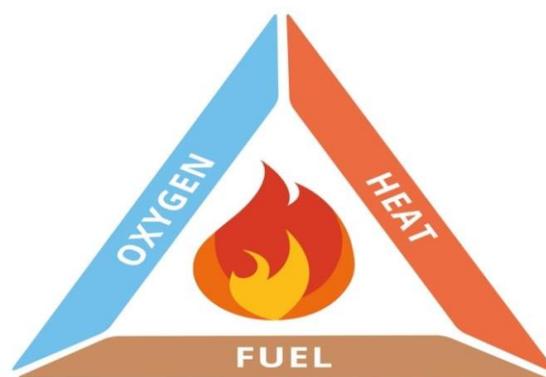
In an increasingly critical environmental condition, awareness in the midst of the community about the preservation of the surrounding environment is very much needed. This pressure has caused a change in the behaviour of people who are concerned about the environment. The research will discuss the perspective of community understanding of the importance of preventing and controlling forest and land fires, people's attitudes towards the effects of forest and land fires, and the role of the efforts that Buddhists can provide in preventing and combating forest and land fires in Central Kalimantan. Therefore, the study entitled "Understanding, Role, and the Attitudes of Buddhists towards Forest and Land Fires in Central Kalimantan" was conducted.

## Literature Review

### *Fire Process*

According to Lee (2020), the process of fire begins with a fire that is a result of physical and chemical processes. There are three interconnected components in the process of fire, namely material fuel, oxygen, and heat, as shown in Figure 1.

**Figure 1.** Fire Triangle: Fuel, Oxygen, and Heat



**Source:** <https://www.highspeedtraining.co.uk/hub/fire-triangle-tetrahedron-combustion/>

Fuels are all living or dead organic matter which, due to their physical and chemical properties, can be burned at any time. Oxygen is one of the components of air which is colourless and odourless and occupies about 21 per cent of the volume of air that exists in nature. Heat is the energy that is produced naturally, such as solar or lightning energy, as well as the results of human activities through direct ignition using matches (Mourao & Martinho,

2019). When the three components are united and undergo a process of heating to the point of burning, a flame will come out, including the flame. Conversely, if the three factors causing the fire did not reach the temperature of the burning point, the flame will not occur.

The process to reach the burning point has a lot to do with human activities. The occurrence of burn points is almost 99 per cent triggered by the ignition or initial combustion by humans. Furthermore, the fire that has occurred (through the process of convection, conduction, and radiation) produces ignition or the heating of other fuels around it, so that the fire will continue to burn as long as the fuel is still there. This initial burning is usually triggered by a variety of uncontrolled human activities, such as burning fields for farming, the burning of rejuvenated grass for livestock feed, the burning of idle lands on peatlands to show ownership, and burning to create access to the forest to obtain forest resources. Other causes can also trigger an initial fire. For example, due to violations of environmental discipline rules, both by companies and individuals. Other examples of cases include burning land clearing by industrial and plantation forest companies, disposing of cigarette butts that are still burning by the community when the fuel is very dry, burning to cook fish from fishing, burning to repel mosquitoes by fish anglers and natural wood finders during the dry season, and burning by illegal loggers to cook in the forest (Naderpour et al., 2019).

Preheating due to natural factors and lightning in Indonesia generally does not reach the fuel temperature point due to a high fuel water content of greater than 20 per cent. For example, lightning in Indonesia generally takes place in the rainy season so that lightning that occurs from lightning does not have the chance to produce perfect combustion because the fuel water content is still high. Unlike in non-tropical areas, such as Canada and the United States, these occurrences might happen because lightning also occurs in the dry season.

### **Forest and Land Fires**

The meaning of the word fire (noun) in the Big Indonesian Dictionary (KBBI), refers to the event of burning something (house, forest, etc.), which is derived from the basic word 'burn' (verb), which means to burn (ignite, destroy) with fire. The terminology of forest and forest fires (wildfires, forest fires) is used for uncontrolled fires that destroy forests and various types of vegetation, as well as animal species. According to the classification of disasters in the CRED general agreement (Center for Research on the Epidemiology of Disasters, 2009), forest and land fires are climatological disasters because they are very closely associated with drought. This event is usually triggered by accident or nature (thunder, heat) and is often unnoticed at first. Its spread can be very fast and especially damaging if they occur near forests, rural areas, remote areas, and around forests where there are residential settlements (Monzón-Alvarado et al., 2012).

According to the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.8/ME NLHK/SETJEN/KUM.1/3/2018, concerning Fixed Procedure for Field Checking Hotspots Information and/or Information on Forest and Land Fires, it provides the meaning of 'forest', 'land and forest fire', and 'land', as follows. A forest is an ecosystem unit in the form of a stretch of land containing biological natural resources dominated by trees in their natural environment, which cannot be separated from one another. Land is a stretch of terrestrial ecosystem outside the forest area which is designated for business and/or the activities of fields and/or gardens for the community. Whereas, forest and land fire, hereinafter, is referred to as Karhutla, which is an event of forest and/or land burning, both naturally and by human actions, resulting in environmental damage that causes ecological, economic, socio-cultural, and political losses (Aaltonen et al., 2019).

Associated with the event of forest and land fires, according to Acep Akbar (2016), the causes of forest and land fires can be interpreted as triggers of fires that cause fire or wildfire. The trigger of a fire is the result of a chemical combustion process that is deliberately made by humans and for a particular purpose. Usually, the tools used to ignite an initial fire are lighters, gas lighters, ignition torches, and distortion.

In more detail, Edwards et al. (2020) explain that the causes of forest fires can be divided into three types: human activities, natural factors, and other causes. Human activities that cause fires are divided into eight types, namely:

1. People who intentionally burn forests to the detriment of forestry or benefit burners.
2. Farmers who produce fires from burning their fields around the forest.
3. Smokers who throw cigarette butts and lighters that are still burning during a walk or from a car.
4. Fire originating from train chimneys that use coal fuel.
5. Negligent shifting cultivators after clearing land.
6. Hunting that uses fire in the reforestation area.
7. People who camp and loggers who are neglectful after making fires for cooking activities.
8. Farmers who burn grass vegetation with the aim of grass for animal feed.

Several socio-anthropological studies on the causes of forest fires that have been carried out in selected areas — including Central Kalimantan, East Kalimantan, South Kalimantan, West Kalimantan, North Sumatra, Riau, Jambi, South Sumatra, Nusa Tenggara, and Papua — show that in the regions, the study results are not dissimilar. The order of frequency of fire events (1–8) in selected areas is as a result of human neglect. The full results of the socio-anthropological study are presented in Table 2.

**Table 2:** Causes of Fire Based on the Experience of Respondents/Farmers in Ten Regions in Indonesia

No.	Regions	Percentage of Respondents Who Know the Causes of Fire (%)							
		Lg	Tk	Lc	Bu	Mg	Sa	Pm	Li
1.	Middle Kalimantan	100	40	80	30	70	60	50	20
2.	East Kalimantan	100	70	80	60	50	40	-	20
3.	West Kalimantan	100	80	90	50	60	40	30	30
4.	South Kalimantan	100	80	70	60	40	50	30	20
5.	East Nusa Tenggara	100	80	60	70	-	-	-	30
6.	Papua	100	-	70	80	-	-	-	20
7.	North Sumatera	100	80	70	60	-	50	-	20
8.	Riau	100	70	80	60	-	50	-	40
9.	Jambi	100	80	70	50	-	60	-	40
10.	South Sumatera	100	70	80	60	50	40	30	20

**Source:** Akbar (2007)

**Information:** Lg = field, Tk = livestock, Lc = land clearing, Bu = hunting, Mg = fishing, Sa = agricultural & household waste, Pm = salt wood finder, Li = other causes. The numbers in the table show the order of frequencies.

Most of the causes of forest fires have been supported by hotspot data that is produced every year. Table 2 shows that all causes of fire are human activities. What is different in each region, is its human profile and the intensity of the fires it causes. Of course, if the burning of preparations for farming — both burning grass and shrubs and burning leftovers — is carried out in a disciplined manner, this will not cause extensive forest and land fires. As a result of these unwise human actions, green and lush forests were sacrificed to meet their needs inappropriately (Ueyama et al., 2019).

In addition to the factors that cause forest and land fires, as has been stated, according to Çolak and Sunar (2020), the recurrence of forest fires shows symptoms of unwise forest management. The symptoms of inadequate forest management have, in fact, been a supporting factor for the recurrence of forest fires. These factors include land tenure, land use allocation, forest and land degradation, land economic considerations, and the impact of changes in population characteristics. In addition, natural supporting factors, such as the long dry season due to the El Nino natural phenomena, the low awareness of the community in killing wildfires early, and the low understanding of the community around the forest about the importance of the forest and the environment, have also been supporting factors, in that it is easy for forest fires to occur.

Natural factors, namely climate and daily weather, are very supportive of accelerating the process of fire. The large-scale fires of 1982/83, which struck 2.4–3.6 million hectares of forest area in East Kalimantan, were inseparable from the occurrence of a long dry season. The dry season is caused by natural phenomena, El Niño, causing drought throughout Southeast Asia. The same scenario occurred in subsequent fire cases, namely in 1987, 1991, 1994, 1997/1998, and 2015.

All forest and land fires cannot be separated from the occurrence of natural El Niño factors that cause daily weather to be very dry for months. Dry weather has affected the level of the water content of plants, so that forest trees become dry due to the high evapotranspiration process. Once a fire igniter comes, the fire that often occurs very quickly engulfs all the fuel that is around the initial fire.

Several studies (Li et al., 2019; Kaewthongrach et al., 2020) show that the impact of El Niño on the climate in Indonesia will be felt strongly if it occurs together with the dry season, and will be reduced or even not felt, if it happens together with the rainy season. The effects of El Niño also vary from place to place, depending on the local climate characteristics. Therefore, it is interesting for climate analysts to pay attention to the distribution of the impact of El Niño from month to month, especially in the dry season, and from one location to another based on the records of El Niño events in the past. This analysis can be used as a reference in formulating policies related to the impact of El Niño. For example, in policies on food security.

### **Impacts of Forest and Land Fires**

Forest fires have impacted on various aspects, such as the occurrence of forest and land degradation, environmental damage, crop productivity, health, and socio-economic community. During this time, the value of the ecological, economic, social or cultural losses as a result of the forest and land fires that almost occur every year are complicated to calculate. The value of the loss can only be predicted for the amount of impact directly suffered by the community, such as economic losses. For example, the impact of economic losses due to forest and land fires in 1997/1998 was estimated at US \$9.3 billion (Wu et al., 2019). As a result of fires like this, neighbouring countries, such as Malaysia, Brunei, and Singapore, often complain.

According to Bart et al. (2020), although the effects of fires are quite extensive and have a significant impact on the environment, economy, heritage, and social structure of rural areas and nearby cities, the researchers believe that the effects of fires are not all bad and have several benefits. For example, fire is useful in maintaining balance in an ecosystem by killing harmful insects and diseased plants. An added benefit is the increased exposure to sunlight on



the surface of the soil, which can help in the regeneration of plant seeds. However, if fires occur too often at a location, the adverse effects will be more dominant than the good benefits.

### ***Buddhists***

Buddhism is the fourth largest religion in the world, with more than 520 million followers or more than seven per cent of the world's population. Buddhism encompasses a variety of traditions, beliefs, and spiritual practices, which are based largely on the early teachings that are associated with Buddhism and produce interpreted philosophy. Buddhism was born in ancient India as a Sramana tradition between the sixth and fourth centuries BC, spreading to much of Asia. Buddha known by Buddhists as a conscious or enlightened teacher who shares his insights to help sentient beings end their suffering by eliminating ignorance or darkness (moha), greed (lobha), and hatred or anger (sin). The end or extinguishment of moha, lobha, and sin, is called Nibbana. To attain Nibbana, one does right actions, does not do wrong actions, practices meditation to keep the mind in a good or pure condition, and can understand mental and physical phenomena.

The existence of Buddhists in Central Kalimantan is classified as a minority. Based on data on the number of religious adherents by regency or city in the Central Kalimantan Province in 2018, it was recorded that in 2017 there were 17,950 Buddhists. This amount is only 0.63 per cent of the total population of Central Kalimantan, which is comprised of 2,846,851 inhabitants. Most of the 6,500 Buddhists (36.19 per cent) are in the East Kotawaringin Regency, followed by 5,350 people (29.79 per cent) in the West Kotawaringin Regency, and 3,000 people (16.70 per cent) in the Palangka Raya City. Whereas, in small amounts, there are Buddhist populations between 0.5–2.64 per cent in other districts in the Central Kalimantan Province.

Buddhists hold the beliefs that people do the right actions, do not do wrong deeds, practice meditation to keep the mind in a good or pure condition, and understand mental and physical phenomena. Therefore, this study aims to determine understanding, attitude, and the role of Buddhists towards forest and land fires in Central Kalimantan.

### **Method**

A survey method was employed in this study to capture respondents' perspectives. The main purpose of this method is to get a general picture through a sample of several people. The research location is in the area of the Central Kalimantan Province, in the City of Palangka Raya, and in the East Kotawaringin, and West Kotawaringin Regencies. These locations were

chosen because forest and land fires often occur in these areas. Environmental awareness is one's ability to realise the relationship between human activities and the surrounding environment to create a safe and healthy environment.

The data collection method in this study was a questionnaire. The population is a Buddhist community living in the Central Kalimantan Province. The sampling was carried out on Buddhists in the City of Palangka Raya, and the East Kotawaringin, and West Kotawaringin Regencies. The distribution of the questionnaires in the three regions was comprised of 14 respondents in Palangka Raya City, 16 respondents in East Kotawaringin Regency and 15 respondents in West Kotawaringin Regency. The questionnaire included a total of 51 questions or statement items about understanding, attitudes, and roles, with five answer choices per question or statement.

## **Results and Discussion**

Pei et al. (2020) contended that the causes of fire by human factors are far more dominant than due to natural factors. Various activities that are often carried out by communities around the forest using fire are inseparable from their relationship with livelihoods or additional activities. These activities include opening up fields for traditional farming, hunting for wildlife in the forest, rejuvenating fodder grass, constructing access roads to the forest, cooking fishing fish, and burning cooking, as well as driving mosquitoes for Galam wood gatherers. Another burning trigger is the burning of the sleeping land, so it does not become a forest.

Ecologically and economically, the recurrence of fires should have made all fire users aware of ceasing careless burning. In fact, if possible, land management is no longer carried out by burning. Land preparation by burning is actually not economical in the long run because it has resulted in a decrease in agricultural production (Dhahri & Omri, 2020).

It is not only the duty and responsibility of the Government to follow-up on the problem of forest and land fires, but it also becomes essential for the community in terms of understanding, attitude, and the role towards forest and land fires in Central Kalimantan, especially in this study for Buddhists.

Meanwhile, understanding, attitude, and the expected role in the community, especially Buddhists in Central Kalimantan, is to foster community participation in the context of controlling forest fires and to actively participate in the process of preventing, suppressing, and handling post-disaster activities. Fostering community participation in forest fire control activities can be carried out in the following forms: education and training, institutional strengthening, facilitation, and counselling. Community participation in forest fire control

activities are carried out together with the land government officials at every level. The form of community participation is done by increasing the ability and independence in forest fire control activities.

### ***Buddhist Understanding of Forest and Land Fires***

The data collected was based on the results of the questionnaire, which was distributed in three regions, as follows: 14 respondents in Palangka Raya City, 16 respondents in East Kotawaringin Regency and 15 respondents in West Kotawaringin Regency. The questionnaire was comprised of 27 questions or statements about the instrument items, with five answer choices per question or statement.

**Table 3:** Understanding Buddhists in Central Kalimantan about Forest and Land Fires

<b>Notes</b>	<b>East Kotawaringin Regency</b>	<b>West Kotawaringin Regency</b>	<b>Palangka Raya</b>
Strongly Agree	38%	50%	30%
Agree	43%	42%	52%
Neutral	9%	5%	13%
Slightly Agree	6%	2%	2%
Disagree	4%	1%	3%
Total	100%	100%	100%

The results of the data described above show that the majority of Buddhists in Central Kalimantan have a sufficient understanding of forest and land fires. It is also known that there are some respondents with less understanding of forest and land fires in Central Kalimantan. This shows that the community needs to receive better information about forest and land fires in Central Kalimantan.

In general, understanding is everything that is known regarding what is seen or information that is heard throughout one's life. From the understanding obtained, it can have a positive impact on one's behaviour, if the person uses their understanding well. This gives the meaning that one's understanding can change one's behaviour, and the behaviour depends on one's personality, and whether the understanding obtained is used for good things. The understanding of the respondents' knowledge about forest and land fires in Central Kalimantan includes their causes and impacts, prevention, and treatment after forest and land fires.

Information about the forest and land fires in Central Kalimantan was obtained by the respondents from other people, such as family, government, education, and others. Thus, the

understanding obtained in the form of information changes one's behaviour in a good direction.

The results of this study are in line with the opinion of Kaewthongrach et al. (2020), whom suggest that understanding as information is combined with experience, context, interpretation, and reflection. Furthermore, the opinion of Kotler (2000) suggests that understanding is a change in the behaviour of an individual that comes from experience.

### ***Buddhist Attitudes towards Forest and Land Fires***

The data collected was based on the results of the questionnaire which was distributed in three regions, as follows: 14 respondents in Palangka Raya City, 16 respondents in East Kotawaringin Regency and 15 respondents in West Kotawaringin Regency. The questionnaire consisted of 18 questions or statements, with five answer choices.

**Table 4:** Buddhist Attitudes in Central Kalimantan about Forest and Land Fires

<b>Notes</b>	<b>East Kotawaringin Regency</b>	<b>West Kotawaringin Regency</b>	<b>Palangka Raya</b>
Strongly Agree	30%	43%	15%
Agree	39%	43%	59%
Neutral	25%	8%	19%
Slightly Agree	6%	6%	6%
Disagree	0%	0%	1%
Total	100%	100%	100%

The results of the above data description show that the majority of Buddhists in Central Kalimantan have an appropriate attitude towards forest and land fires. It is also known that there are some respondents with a less appropriate attitude about forest and land fires in Central Kalimantan. This shows that the community needs to receive better information about the forest and land fires in Central Kalimantan, and further shows that there is an influence of community attitudes towards forest and land fires in Central Kalimantan (Edwards et al., 2020).

It is known that attitude is a reaction or process of someone who is still closed to the stimulus or object. Attitudes cannot be seen directly but can only be interpreted in advance from closed behaviour. The attitude clearly shows the connotation of the suitability of the reaction to a particular stimulus. This demonstrates that a closed attitude is only seen when there is an action that is shown by someone. The action shown indicates a person's behaviour. Thus, if someone responds to something positively, it will produce good behaviour, and vice versa, if someone responds to it negatively, it will result in bad behaviour. This can be proven through

the data obtained via the questionnaire, that the majority of respondents have attitudes that pay attention to the received stimulus given or do not respond to the stimulus received about forest and land fires in Central Kalimantan. This is understandable because of the lack of information about forest and land fires.

### *The Role of Buddhists in Forest and Land Fires*

The data collected was based on the results of the questionnaire which was distributed in three regions as follows: 14 respondents in Palangka Raya City, 16 respondents in East Kotawaringin Regency and 15 respondents in West Kotawaringin Regency. The questionnaire included several questions or statements, with five answer choices.

**Table 5:** The Role of Buddhists in Central Kalimantan on Forest and Land Fires

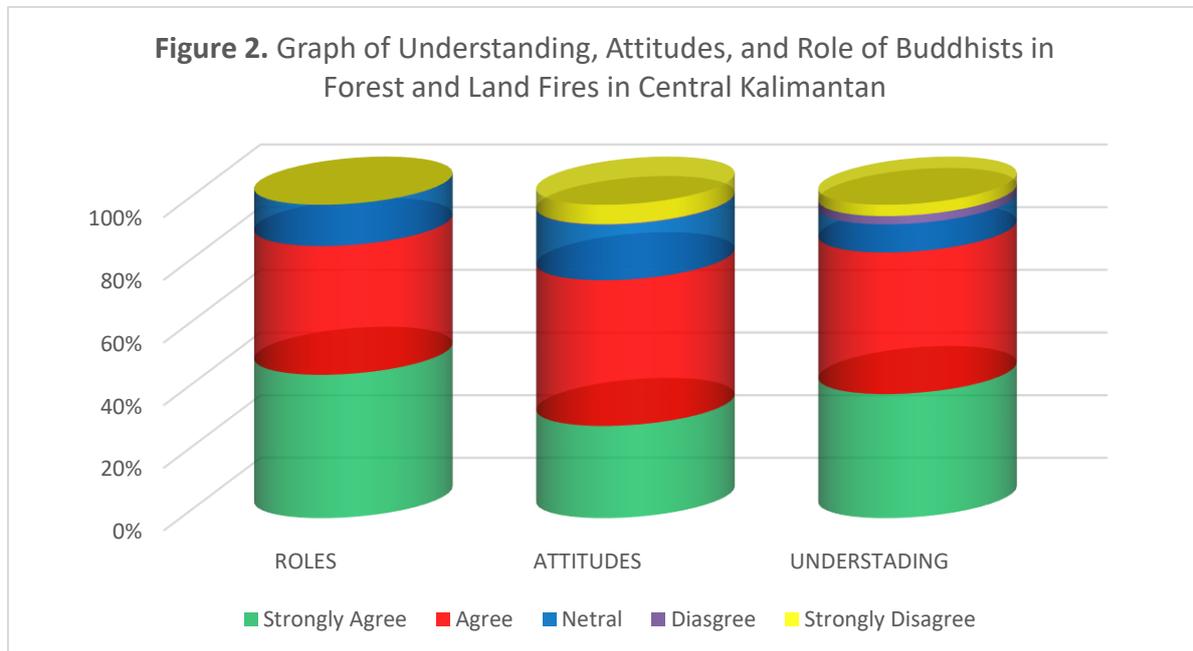
Notes	East Kotawaringin Regency	West Kotawaringin Regency	Palangka Raya
Strongly Agree	38%	65%	35%
Agree	40%	26%	57%
Neutral	22%	9%	8%
Slightly Agree	0%	0%	0%
Disagree	0%	0%	0%
Total	100%	100%	100%

The results of the above data description show that the majority of Buddhists in Central Kalimantan have an appropriate role in forest and land fires. It is also known that there are some respondents whose role is limited in regard to forest and land fires in Central Kalimantan. This shows that the community needs to receive better information about forest and land fires in Central Kalimantan. Understanding is everything that happens in one's daily life. Attitude is someone's readiness or willingness to act and is not an implementation of certain motives. In other words, the function of attitude is not yet an action or activity but is a predisposing behaviour or action. This shows that the behaviour domain is a unity of understanding, attitudes, and actions (activities) (Nóbrega et al., 2019).

### *Understanding, Attitudes, and the Role of Buddhists in Forest and Land Fires*

The results of the research regarding the understanding, attitude, and role of Buddhists towards forest and land fires in three regions in the Central Kalimantan Province can be illustrated through the following graph:

**Figure 2.** Graph of Understanding, Attitudes, and Role of Buddhists in Forest and Land Fires in Central Kalimantan



Based on the graphic image above, it is known that 85 per cent of the majority of Buddhists have an adequate understanding of forest and land fires. This is seen from the percentages of 'strongly agree' and 'agree' when completing the questionnaire that was provided. Meanwhile, there are nine per cent who do not understand, and there are six per cent who disagree or have a different understanding of forest and land fires in Central Kalimantan. The attitude is known that 76 per cent or the majority of Buddhists have an adequate understanding of forest and land fires, as seen from the percentages of 'strongly agree' and 'agree'. Furthermore, there is 18 per cent who do not have an attitude, and there are six per cent who disagree or have a different attitude regarding forest and land fires in Central Kalimantan. As for the role, it is known that 87 per cent or the majority of Buddhists have a sufficient role regarding forest and land fires, as seen from the percentages of 'strongly agree' and 'agree'. Meanwhile, 13 per cent do not have a role in forest and land fires in Central Kalimantan (Żmihorski et al., 2019).

From the results of this study, it can be seen that the majority of Buddhists in Central Kalimantan have an understanding, attitude, and role in accordance with what is expected regarding forest and land fires in Central Kalimantan. However, there are still some who are neutral or do not understand the cause and effect, prevention, and control of forest and land fires.



## **Conclusion**

Based on the results obtained, it can be concluded that understanding can affect one's attitude. Understanding is obtained from the information received throughout one's life. Attitudes provide an overview of the actions to be taken, so that attitudes can affect a person's role in their life. Meanwhile, the role is an action that has been done. In other words, understanding, attitude, and role are a unity of behaviour.

The role of the community in the case of forest and land fires in Central Kalimantan cannot be realised if they do not have a good understanding and attitude. As a minority who are part of the community in Central Kalimantan, Buddhists have a sufficient understanding of the problem of forest and land fires in Central Kalimantan. However, there is still a small sector that does not have understanding, attitude or role, and some who have understanding, attitude, and role contrary to the expectations of forest and land fires. Therefore, there needs to be room to provide equal opportunities for Buddhists to take an active role in maintaining environmental sustainability in Central Kalimantan.

The results of this study share implications for societies. This includes understanding the causes and effects of forest and land fires in Central Kalimantan by participating in socialisation to obtain more in-depth information. Determining attitude can play an active role in tackling forest and land fires. Community understanding is minimal with various factors that affect forest and land fires in Central Kalimantan. Therefore, the Government can be more proactive in the dissemination of information pertaining to forest and land fires in Central Kalimantan, and to reach all levels of society.



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