Influence of Working Conditions, Human Failures, Unsafe Action of Work Accidents on Farmers Palm Oil Garden Community

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Keywords: Working conditions, Human negligence, Unsafe actions, Work accident

Abstract: Occupational accidents at community oil palm plantations are very common based on the results of medical record data from the Lueng Keubeu Jagad Community Health Center in 2019 January-May, there were 29 cases of severe and minor accidents. The purpose of this study was to determine the effect of work accidents on community oil palm plantation farmers. This research was conducted in TripaMakmur sub-district, Nagan Raya Regency on June 23 - July 10, 2019 with a total population and sample of 72 farmers (total sampling) working on community-owned oil palm plantations and analyzed quantitatively using the Chi-square test. The results of the study were significant influences of work conditions (Pvalue = $0.011 < \alpha = 0.05$), human negligence (Pvalue = $0,000 < \alpha = 0.05$), unsafe action (Pvalue = $0,000 < \alpha = 0,05$) against work accidents. The conclusion is that there is a significant influence of working conditions, human negligence, unsafe actions on workplace accidents. It is expected that oil palm farmers can avoid working accidents to the maximum extent possible by taking into account working conditions, human negligence and unsafe actions, the government should provide clear information about work accidents to community oil palm farmers.

1 INTRODUCTION

A farmer is someone who is engaged in agriculture, mainly by carrying out land management with the aim of growing and maintaining plants (such as rice, flowers, fruit, etc.), with the hope of obtaining the results of these plants for their own use or selling them to others. They can also provide industrial raw materials, such as cereals for alcoholic drinks, fruit for juice, and wool or cotton for weaving and making clothes.

Everyone can become a farmer (as long as he has a plot of land or more), even though he already has a job not as a farmer. The purpose of the sentence does not mean that the landowner must hoe or cultivate his own land, but can work together with genuine farmers to plant crops on his farm. If this is applied, it means that the land owner has given someone else a job even though the results are not much. If you intend to cultivate yourself, of course you have to really be able to divide your time, but it is likely to be difficult if the land is more than one plot.

Palm oil (Elaeis) is an important industrial plant producing cooking oil, industrial oil, and fuel (biodiesel). Oil palm plantations produce large profits so that many forests and old plantations are converted to oil palm plantations. Indonesia is the world's largest producer of palm oil. In Indonesia the distribution is in the Aceh region, the east coast of Sumatra, Java, Kalimantan and Sulawesi.

Tree shaped palm oil. Its height can reach 24 meters. Palm plant fiber roots point down and side. There are also some breath roots that grow pointing sideways to get additional aeration.

As with other palm species, pinnate compound leaves composed. The leaves are dark green and the stem is slightly younger in color. Its appearance is somewhat similar to the salak plants, only with thorns that are not too hard and sharp. The stem of the plant is covered in fronds up to 12 years of age. After the age of 12 years, the dried up crust will come off so that it looks like a coconut.

Oil palm farmers are "farmers who plant oil palm, sometimes interspersed with other crops, where some workers are their own families. The land is the main source of income, which covers less than 50 hectares of oil palm land.

Some of the problems that are often faced by oil palm plantation workers include issues of wages, occupational health and safety, benefits, and other problems. In general, oil palm plantations are quite extreme areas. Located far from the city center and

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access that is difficult to pass, making this oil palm plantation in remote areas. This resulted in many dangers that threatened workers who worked in the middle of the garden. Based on research in South Kalimantan, oil palm plantations do not provide workers with adequate equipment. At the initial entry, workers are equipped with equipment including goggles, boots, helmets, and masks. According to the statement of laborers found in the field, this equipment cannot last long with heavy terrain in the middle of oil palm plantations. In the oil palm plantation industry there are several main parts of work, the first of which is part of harvesters. Harvesters are laborers who are tasked with harvesting oil palm fruit from the tree. In carrying out their duties, workers in this section must cut bunches of oil palm from their trees using dodos.

According to World Health Organization (WHO) data, Work Accidents are getting higher and higher, especially in developing countries such as Asia, Africa, Central America and Latin America, but these developing countries account for only 43% of total work accidents worldwide. Even though these developing countries only use 43%, 99% of deaths occur in occupational accidents in the region. This is due to the low level of education of employees in these countries so that the way to work is very unsafe. Data from the United Nations Environment Program (UN) estimates that there are 4 million people working in several companies in developing countries where workplace accidents occur and around 18,000 of them die each year. (WHO, 2016).

The Managing Social Security Agency noted the number of occupational accidents in Indonesia tends to continue to increase. The total number of work accidents in 2016 with a claim value of only more than Rp 792 billion, while work accidents in 2017 increased more by 123 thousand cases with a claim value of more than Rp 971 billion and in 2018 reached 173,105 cases with Work Accident Guarantee claims of Rp 1.2 trillion.

Based on data from BPJS Employment of Aceh Province in 2016, there have been work accidents as many as 105,182 cases and in 2017 as many as 80,392 cases. Whereas in 2018 there were 157,313 cases. The causes of work accidents are not yet optimal OHS supervision and implementation as well as OHS behavior in the workplace.

Based on work accident data from South West Aceh, work accident cases in 2016 there were 86 people died due to work accidents, in 2017 there were 87, and in 2018 there were 9 people who died due to work accidents and in 2018 decreased (BPJS Employment, 2019)

Errors caused by workers and due to unnatural attitudes such as being too brave, careless, ignoring instructions, neglect, daydreaming, not cooperating, and impatient. Unsafe actions are failures (human failure) in following the requirements and correct work procedures that cause work accidents, such as: actions without qualifications and authority, lack ofor not using personal protective equipment, failure to save equipment, working at a speed that dangerous, failure to warn, avoid or move work safety equipment. Accidents occur because of actions that are one of the unsafe conditions in the form of dangerous machines, noise and vibration, materials that harm the lungs, eyes and skin, physical injuries and stress, limited workplace, slipping, tripping falling and falling on the goods. (Winarsunu, 2010).

Occupational safety and health are those related to equipment, workplace & the environment, as well as ways of doing work. As well as the meaning and purpose of occupational safety and health is to guarantee the condition, wholeness & perfection both physically and spiritually of humans as well as the work & culture, aimed at the welfare of society in general and humans in particular.

Work accidents can be caused by environmental and human conditions. Hazard factors caused by working environment conditions include:

- 1. Physical factors, for example: lighting, sound, radiation, temperature, humidity and air pressure.
- Chemical factors, for example: gas, steam, dust, fog, smoke, clouds, liquid, fly ash and solid objects.
- 3. Biological factors, for example: viruses and bacteria both from plants or animals.
- 4. Ergonomic or physiological factors, for example, machine construction, attitude and work methods. And
- 5. Mental psychological factors, for example, work atmosphere, relations between workers and employers

Safety is not only the supervision of the equipment, but more important is the human or workforce. This is done because humans are the most important factor in a work process in progress, accidents often occur at the workplace both serious accidents and minor accidents. However, the accident was not reported and did not get a handler on the grounds that it was not a serious health problem and was considered not to reduce work productivity. Besides that, from observations there are many other sources of hazards that can cause workplace accidents seen from the type of work that has the potential to cause work accidents, the most fundamental thing potential for workplace accidents is human factors.

namely unsafe behavior (Unsafe action) and environmental factors (Unsafe Condition).

Unsafe actions are human actions and can protect yourself, others, equipment or machinery and the surrounding environment. There are four mistakes made by each employee, namely: 1. Skill-based errors, 2. Rule-based errors 3. Rule-based errors, 3. Knowledge-based errors, and 4. Violations. (Reason, 1997). In addition, according to Arksorn (2007), factors causing unsafe actions are 1. Personal factors, 2. Occupational factors, 3. Management factors, 4. Working group factors.

Environmental factors (Unsafe Condition) is a bad working environment or dangerous working equipment or machinery. Unsafe environment can lead to potential hazards that result in injury to workers and can interfere with work productivity. (Anizar, 2009)

Occupational accidents at community oil palm plantations in Tripa Makmur sub-district are very frequent, based on information from the community and the results of medical record data from the LuengKeubeuJagad Community Health Center in 2019 January-May, there were 29 cases of severe and minor accidents. Some cases of accidents that occur in farmers include severe accidents such as falling palm oil falling on the farmer's body parts, cuts and sickles of oil palm dodos and minor accidents such as being pricked by oil palm fruit spines and oil palm fronds, slipping and falling while walking in the garden Palm oil. The purpose of this study was to determine the effect of work accidents on community-owned oil palm plantation farmers.

2 METHOD

This research method is quantitative, with a cross sectional survey design that is a study in which variables including effects are observed at the same time (Notoatmodjo, 2010). This research was conducted in Tripa Makmur sub-district, Nagan Raya Regency on June 23 - July 10, 2019 with a total population and sample of 72 farmers (total sampling) working on community-owned oil palm plantations. The study was conducted by direct interviews with oil palm plantation farmers using a questionnaire so that respondents clearly understand the questions raised in answering questions that aim to find out the Determinants of Occupational Accidents in Community Palm Oil Plantation Farmers. Data were analyzed using a computerized system with SPSS application using the Chi-square test.

3 RESULTS

3.1 Effect of Factors Working Conditions on Workplace Accidents in Oil Palm Growers.

Based on Table 1, it is known that of 33 respondents whose working conditions are safe and there are no work accidents amounting to 21 respondents (63.6%), while of 39 respondents whose working conditions are unsafe and there are work accidents totaling 27 respondents (69.2%).

Table 1: Factors of working conditions that affect workplace accidents in oil palm growers

Working condition s	Work accident							
	There is		There is no		Total		P. Value RP	
	n	%	n	%	f	%		
Safe	12	36	2	63,	33	10	0,0 11	
		,4	1	6		0		0,2
Unsafe	27	69	1	30,	39	10		54
		,2	2	8		0		

This is in accordance with the results of the chi square statistical test known that the value of Pvalue = 0.011 and this is smaller than $\alpha = 0.05$ (Pvalue = 0.011 < $\alpha = 0.05$) so that it is concluded that there is a significant effect of working conditions on workplace accidents in garden farmers Palm oil.

Based on the results of the Prevalence Ratio of 0.254, it can be seen that respondents who have unsafe working conditions have a chance of getting 0.254 times more likely to experience workplace accidents compared to respondents who have safe working conditions.

3.2 Effect of Human Negligence Factors on Workplace Accidents in Oil Palm Growers.

Based on Table 2 it is known that of the 40 respondents who were human negligence and there were workplace accidents totaling 35 respondents (87.5%). While of the 32 respondents who did not exist and there were no work accidents, there were 28 respondents (87.5%).

Work accident Total P. ValueRP Human There is There is negligence no % n % f % n There is 35 87 5 12,5 4 10 .5 0 0 0,0 49 There is 4 12 28 87.5 3 10 00 5 2 0 no

Table 2. Factors of human negligence that affectworkplace accidents in oil palm growers

This is in accordance with the results of the chi square statistical test obtained value of Pvalue = 0,000 and this is smaller than $\alpha = 0.05$ (Pvalue = 0,000 < $\alpha = 0.05$) so it is known that there is a significant effect of human negligence on workplace accidents in coconut palm farmers palm oil.

Based on the results of the Prevalence Ratio of 49 it can be concluded that the respondents who have had human negligence have a total of 49 times the chance to experience workplace accidents compared to respondents whose human negligence does not exist.

3.3 The Influence of Unsafe Action on Work Accidents in Oil Palm Growers

Based on Table 3, it is known that out of 41 respondents unsafe actions (unsafe actions) are dangerous and there are work accidents totaling 36 respondents (87.8%). While of the 31 respondents whose actions were unsafe (unsafe action) were not dangerous and there were no work accidents totaling 28 respondents (90.3%).

Table 3. Factors unsafe actions that affect workplace accidents in oil palm growers

Unsafe action	V	Vork	accide	ent				
	There is		There is no		Total		P._{Volue}Rasio Prevalence	
	n	%	n	%	f	%		
Danger	3	87	5	12	41	10		
ous	6	,8		,2		0	0.00	67
Not	3	9,	28	90	31	10	0,00	67,
Harmf		7		,3		0	U	4
ul								

This is in accordance with the chi square statistical test results obtained value of Pvalue = 0,000 and this is smaller than $\alpha = 0.05$ (Pvalue = 0,000 < α = 0.05) so that it is known that there is a significant effect of unsafe action on the accident work for oil palm plantation farmers. The use of personal protective equipment is simply a set of tools used by workers to protect part or all of the worker's body from potential work hazards or accidents.

Based on the results of the Prevalence Ratio of 67.2 it can be concluded that respondents who are unsafe actions (unsafe actions) are dangerous will have the opportunity amounted to 67.2 times having work accidents compared to respondents who are unsafe actions (unsafe actions) are not dangerous.

3.3.1 Effect of Factors Working Conditions on Workplace Accidents

As a set of conditions or working environment conditions of a company that is a place of work for employees who work in that environment. Unsafe working conditions will result in various occupational hazards which will result in accidents in working for oil palm farmers. As for unsafe working conditions such as: slippery plantation land, there are a lot of sheath thorns that are not well ordered, unsafe garden conditions. Work hazards caused by unsafe working conditions include falling, pricked by thorns, and crushed by oil palm fruit. Accidents in the oil palm sector are relatively high. Cases in PT.XYZ company were 955 cases consisting of 91 crushed by palm fronds or fruit, 317 felled or other rubbish, 213 pricked by thorns, 121 injured due to work tools. The work accident eliminated 1434 working hours. (Nur, 2007)

Based on the research results obtained in the field that respondents who work conditions are not safe and have work accidents because respondents do not have enough knowledge to do work and only rely on the results of experience so far obtained whileworking such as not wearing personal protective equipment in accordance with work, for example, not wearing boots, helmets, gloves, as required under work safety laws. In terms of the working conditions of oil palm plantation farmers, it is said that the use of personal protective equipment still feels uncomfortable and uncomfortable when wearing personal protective equipment such as boots and gloves when working.

Based on the results of the study it is also known that the working conditions that occur in oil palm growers still do not understand working conditions well, where there are those who do not wear personal protective equipment when working such as helmets, boots, gloves, work clothes as protectors due to the workplace many thorns, bearing fruit on top and slippery soil and muddy, causing work accidents because there is no sanction for undisciplined, therefore employee discipline in this company is still low. To improve work safety supervision needs to be done in the form of enforcement efforts that must be obeyed. This is done so that the existing regulations are actually obeyed or not violated, so that what is the target or objective of work safety regulations can be achieved. For those who violate these rules should be given sanctions or punishment and The need to provide training because new workers tend not to know things that are in the company they just occupied. Because every workplace has policies and regulations that are not the same as other workplaces. The work hazards are also very different.

The results of the above study are in line with research by Fadhilah, et al (2013), at PT. X Cikarang Barat Bekasi Regency West Java where the results of this study indicate the effect of work procedures on workplace accidents by 0,009.

The Nagan Raya health office or puskesmas have an important role in increasing farmers' knowledge. The health office can work together with agricultural support institutions to provide training on the prevention of workplace accidents for oil palm stewards.

In addition to occupational safety and health training, the health department can also form a post occupational safety unit (UKK) in the group of oil palm farmers. The establishment of the UKK post is intended as a forum for information on occupational safety and health for oil palm farmers. Health efforts aim to protect workers so that they can live healthy and free from health problems and bad effects caused by work. The Occupational Health is a service for the improvement and maintenance of the highest degree of health for workers in all positions, prevention of health irregularities caused by work conditions, work protection from risks resulting from adverse health, placement and maintenance of workers in a work circle which is a adaptation between work and humans, and humans with their positions. (Law No. 36 of 2009).

3.3.2 Effect of Human Negligence Factors on Workplace Accidents

Often stated as the main factor causing an accident. For ordinary people, news about transportation accidents with human error as the cause is often interpreted as human error by the system operator. In the plantation sector, especially private oil palm plantations also have the same characteristics of human error. In addition to lack of knowledge, negligence on the job of oil palm plantation workers can also be caused by a lack of motivation of workers to maintain health and personal safety. We can see that from the actions of farmers while working. Farmers often ignore their safety and health for a variety of reasons. It is often found that oil palm farmers do not control personal protective equipment while working. Like not wearing a mask

when spraying, not wearing a helmet when cutting fruit, not wearing shoes when going to the plantation

Based on the results of the field research, it was found that respondents who experienced human negligence and had work accidents due to the respondent at work had almost an accident, often sleepy and fatigued, lack of supervision work from the government and owners of oil palm plantations in work never attended training, had physical problems and psychologically, have minimal work motivation or improper work placement, lack of rest time. Whereas respondents who did not have negligence and did not experience work accidents because respondents had experience in working because they had attended training, did not have physical and psychological problems and high work motivation or proper work placement.

The owner of the oil palm plantation must provide adequate personal protective equipment and in accordance with the standards that have been decided. If the Personal Protective Equipment that is prepared does not meet the standards, it will cause accidents that can harm the company and the workers. Example: Helmets worn by workers must be made of materials that are resistant to hard object clashes. For example the helmet is resistant to clashes of blocks or bricks. If the helmet that is used cannot stand the materials that have been written above, it will cause huge losses, especially for the workers because it can cause a commotion in the brain.

Based on the results of research in which the working conditions that occur in oil palm growers neglect human beings who are often sleepy when working, urgent time in completing work, and less motivated, causing work accidents. then the author's assumption relates to the fact that there are still employees who do not have actions, because employees still lack information related to the use of PPE, lack of employee information caused by employees lacking action about the use of PPE, then to improve the actions of employees it is better for the oil palm plantation owner to convey to the employee that if the employee do not pay attention to the use of PPE then it will result in work accidents. The use of a set of tools used by workers to protect part or all of his body from the presence of potential hazards or work accidents. PPE does not perfectly protect the body, but will reduce the severity that may occur. The use of personal protective equipment can prevent work accidents greatly influenced by the knowledge, attitudes and practices of workers in the use of personal protective equipment.

The above research results are in line with the research of Wirdati, et al (2013), at PT. X Semarang

where the results of this study show the effect of compliance with workplace accidents by 0,000.

In addition to representing and maintaining PPE, negligence workers also have several factors: First, education, according to Notoatmodjo (2009) the higher a person's level of education, the more workers entrust to repair work accidents. Secondly, Training, with training on safety and health for farmers can help and avoid potential work costs. Third, work period, work period can be avoided, potential work hazards. This is in accordance with research Jaji (2012) which says that workers have a new work period more often regarding workplace accidents than those with long years of work.

3.3.3 Effect of Unsafe Action Factors on Workplace Accidents

Unsafe action is a dangerous or unsafe behavior that can cause work accidents that result in injury losses to death. As many as 85% of work accidents are caused by unsafe actions. Unsafe actions are considered as a result of worker behaviour. There are four causes of unsafe working conditions, namely: 1. Skill-based error, 2. Rulle-based error, 3. Knowledgebased error, and 4. Violation. According to domino theory work accidents can be prevented by eliminating one of the causes of work accidents.

Unsafe actions are human mistakes in taking a position and actions caused by: 1. Errors due to forgetfulness, mistakes due to forgetfulness are caused by the negligence of the worker himself even though the worker knows, is able and wants to do it in order to avoid accidents. Second, the frustration of not knowing, the mistake of not knowing often happens to new workers or the existence of new equipment. This error is caused by lack of training, error in instructions and information that changes. Oil palm farmers must be given knowledge about how to work well and safely. Third, the mistake of not being able to, the oil palm farmers have several stages of work, one of which is cutting and lifting bunches from the ground to the place of transportation. The inability of workers to do this work can cause work accidents. Like crushed by fruit or crushed by equipment. Fourth, mistakes due to lack of motivation, motivation can come from personal and environmental impulses. Personal encouragement can be like being rushed to work, wanting to finish quickly so as to make farmers forget to use PPE.

For oil palm farmers unsafe actions are very often done. Like smoking while working. Smoking while working is very influential on the level of concentration. Very often farmers are affected by fruit on their limbs caused by loss of concentration while working. In addition to smoking, farmers also do land clearing without using safe shoes.

Based on the results of the field research, it was found that respondents who experienced dangerous unsafe actions (unsafe actions) and had work accidents due to respondents not following the established work methods, taking shortcuts that were not according to available standards, not using unsafe equipment, had accidents because personal protective equipment that is used when working is incomplete, failure to wear protective equipment against improperly is the cause of workplace accidents, dangerous actions that will cause danger that is using tools in the wrong way. Whereas respondents who did not have harmless unsafe actions (unsafe actions) and did not experience work accidents because respondents followed work methods that have been set, using equipment that is not safe, wearing protective equipment against the less true is the cause of work accidents.

Based on the results of research in which the working conditions that occur in oil palm growers unsafe action (unsafe action) because it does not follow the rules in force, resulting in work accidents. The above research results are in line with the research of Transiska, et al (2015), at PT. Putri MidaiBangkinang, Kampar Regency, where the results of this study indicate the influence of the work environment on work accidents at 0,000. Research conducted by Noviandi (2017), on the drivers of the Jember-Kencong-Lumajang route bus where there is a relationship between unsafe actions and traffic accidents on the drivers of the Jember-Kencong-Lumajang route bus with a value of Pvalue = 0.027.

4 CONCLUSIONS

- There is a significant influence on working conditions (Pvalue = $0.011 < \alpha = 0.05$) on work accidents on community oil palm plantation farmers in Tripa Makmur District, Nagan Raya Regency.
- There is a significant influence on human negligence (Pvalue = $0,000 < \alpha = 0.05$) on workplace accidents in community oil palm plantation farmers in Tripa Makmur District, Nagan Raya Regency.
- There is a significant effect on unsafe action (Pvalue = $0,000 < \alpha = 0.05$) on work accidents on community oil palm plantations in Tripa Makmur District, Nagan Raya Regency.

ACKNOWLEDGEMENTS

- It is expected that community oil palm farmers can avoid working accidents to the maximum extentpossible by taking into account working conditions, human negligence and unsafe actions (unsafe actions), the government should play a role in providing clear information about work accidents to community oil palm farmers.
- To the Nagan Raya Regency Government to be able to conduct socialization about the importance of using PPE at work accompanied by supervision so that employees can obtain information about the importance of using PPE at work so as not to cause work accidents.
- It is recommended that owners of oil palm plantations as those responsible for day-to-day operations and security be able to apply even tighter in company supervision so that no more employees will violate by giving sanctions to employees who violate established regulations.

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