

# Behavior of the Use of Personal Protective Equipment for Forest and Land Fires on the Quick Response Team Officers at Badan Penanggulangan Bencana Daerah, Bengkalis Regency, 2022

Diah Tantri Kusumaningtyas<sup>1</sup>, Endang Purnawati Rahayu<sup>2</sup>, Oktavia Dewi<sup>3</sup>

<sup>1,2,3</sup>Universitas Hang Tuah Pekanbaru, Indonesia

[diahtantrik@gmail.com](mailto:diahtantrik@gmail.com)

## Abstract

*The purpose of this research is to find out behavior of the use of personal protective equipment for forest and land fires on the Quick Response Team Officers at Badan Penanggulangan Bencana Daerah, Bengkalis Regency in 2022. This study uses a qualitative research design with a phenomenological approach. Data collection methods use are interviews, observation, and documentation. The technique uses in determining the informants is using a purposive sampling technique. The data processing technique used in this study is a triangulation technique. The results show that the behavior of using personal protective equipment for forest and land fires at the Bengkalis Regency Regional Disaster Management Agency's Quick Response Team in 2022 had not been carried out optimally.*

## Keywords

behavior; personal protective equipment; forest; land fires



## I. Introduction

Based on the Law of the Republic of Indonesia Number 24 of 2007 concerning Disaster Management, what is meant by disaster is an event or series of events that threatens and disrupts people's lives and livelihoods caused by both natural and/or non-natural factors as well as human factors, resulting in fatalities, human, environmental damage, property loss, and psychological impact. Disasters are divided into three types as follows: natural disasters, namely disasters in the form of events caused by nature. Examples include earthquakes, tsunamis, and volcanic eruptions. Non-natural disasters, namely disasters in the form of non-natural events such as disease outbreaks and technological failures. Social disasters, namely disasters in the form of events caused by humans. Examples such as social conflicts between groups in society and terror. Natural disasters are divided into three types, namely geological, extra-terrestrial and climatological natural disasters. Climatological natural disasters are natural disasters that occur due to climatic factors, such as wind and rain. An example of a climatological natural disaster is forest fires. Forest fires can be caused by several natural factors such as lightning strikes, prolonged dry season, exposed to molten lava, and many more.

Data on the incidence of forest and land fires in Indonesia throughout 2021 recorded 114 disasters spread across several provinces. In Riau Province, 41 forest fires were recorded, Bengkalis Regency recorded 6 forest fires and land was ranked 2nd after Indragiri Hulu with 7 disasters.

Meanwhile, data on reports of forest and land fires in Bengkalis Regency in 2021 the number of forest fire cases was recorded at 132 cases. Fire incidents have the potential to

cause work accidents, especially for fire rescue officers. Organization must have a goal to be achieved by the organizational members (Niati et al., 2021). The success of leadership is partly determined by the ability of leaders to develop their organizational culture. (Arif, 2019). According to data from the National Occupational Health and Safety Month foreword and Data from the Labor Social Security Administration, the number of work accidents in 2021 is 225,000 cases. Meanwhile, according to online media news, throughout 2019, the number of work accidents in Riau Province reached 14,325 cases. Data from the Manpower Office of Bengkalis Regency in 2020 showed that there were 10 cases of work accidents and 2 cases of death in 2021.

With the high incidence of forest and land fires, the higher the risk for the Quick Response Team Officers, because they are the ones who have to do forest and land fires prevention. Risks that occur include work accidents and occupational diseases. This is because the officers do not behave in occupational safety and health. The behavior of using personal protective equipment can be influenced by knowledge, education, attitudes, years of service, availability of personal protective equipment, training activities, supervision and punishment and rewards.

The Quick Response Team Officers of Badan Penanggulangan Bencana Daerah, Bengkalis Regency are forest and land fires firefighters who have a very important role of responsibility for dangerous events and forest and land fires extinguishing that occur in the Bengkalis Regency area.

The implementation of the prevention of forest and land fires is carried out by the Quick Response Team Officers of Badan Penanggulangan Bencana Daerah, Bengkalis Regency. The Quick Response Team Officers in Bengkalis Regency are divided into 4 teams, with 36 officers. The Quick Response Team Officers, apart from being in the district, are also spread over 11 sub-districts of Bengkalis Regency with a total of 90 the Quick Response Team Officers.

The main job of the Quick Response Team Officers as firefighters is to respond to emergencies in various locations with a view to saving lives, carrying out rescues and minimizing property damage. Response preparation and prevention are also important aspects of his work. Firefighters work in an environment that is constantly changing and often unstable, therefore the job of firefighters is very tough and many situations will require the use of special personal protective equipment (International Labour Organization, 2000).

According to the Kementerian Dalam Negeri (2009) in carrying out their duties, firefighters must use personal protective equipment in accordance with the needs at the scene to avoid the risk of accidents or health problems. At the time of extinguishing forest and land fires, personal protective equipment that must be used by the Quick Response Team Officers is as follows: firefighters' clothing is one of the most important tools for firefighters, because when a fire occurs, firefighters will directly deal with the firefighters. firefighters, and if they do not wear fire-resistant clothing, it will be very dangerous for firefighters, therefore firefighters must wear fire-resistant clothing to protect firefighters from all possible risks. Fire-resistant clothing serves to protect firefighters from sparks or fire strikes, by not forgetting to wear firefighter boots that serve to protect the feet of firefighters from hot surfaces, embers, sharp objects, heavy objects falling on their feet, pinched and protects against chemical liquids that may be spilled around burning objects. Wearing gloves when fighting fires, which are considered to be able to function to withstand the heat of the fire, and are not slippery even in wet conditions, light, and flexible. Wearing masks that are considered to function to protect firefighters from

inhaling dust, smoke, harmful gases, and other particles that can be found when extinguishing fires.

The purpose of this research is to find out behavior of the use of personal protective equipment for forest and land fires on the Quick Response Team Officers at Badan Penanggulangan Bencana Daerah, Bengkalis Regency in 2022.

## II. Research Method

This study uses a qualitative research design with a phenomenological approach. Qualitative research is research that is descriptive and tends to use analysis (Octiva et al., 2018; Pandiangan, 2018). Process and meaning are highlighted in qualitative research. The theoretical basis is used as a guide so that the research focus is in accordance with the facts on the ground. Phenomenological approach is a research approach that does not use temporary hypotheses or conjectures in the analysis process, although phenomenology can also produce a hypothesis for further testing. In addition, phenomenology is not initiated and has no purpose to test the theory through a hypothesis (Asyraini et al., 2022; Octiva, 2018; Pandiangan, 2015).

Data collection method is carried out to obtain the information needed in order to achieve the research objectives. Before conducting research, a researcher usually has a guess based on the theory used (Jibril et al., 2022; Pandiangan et al., 2018; Pandiangan, 2022). Data collection methods use are interviews, observation, and documentation.

The technique uses in determining the informants is using a purposive sampling technique, namely the technique of sampling data sources with certain considerations (Octiva et al., 2021; Pandiangan et al., 2021; Pandia et al., 2018). With a purposive sampling technique, a sample of informants was finally determined, namely the Quick Response Team Officers, Head of the Emergency Division, Functional Officers of the Young Expert Disaster Management, and Data and Information Center Officers.

The data processing technique used in this study is a triangulation technique, namely data processing using various sources such as documents, archives, interviews or also more than one subject who is considered to have a different point of view (Pandiangan et al., 2022; Tobing et al., 2018).

## III. Result and Discussion

### 3.1 Overview of Research Sites

Bengkalis Regency is one of the regencies in the Riau Province which has 11 sub-districts located on the mainland and coast of Sumatra Island, Rupal Island, and Bengkalis Island. Its area reaches +/-7,773.93 kilometers. With a population of 651,139 people who have Regional Limits:

North: Strait of Melaka.

East : Meranti Islands Regency.

South : Siak Sri Indrapura Regency.

West : Dumai Municipality/Rokan Hilir District.

The Bengkalis Regency Regional Disaster Management Agency is one of the Regional Technical Institutions which is a supporting element for the tasks of the Regional Head/Regent of Bengkalis Regency in the preparation and implementation of specific regional policies that are in accordance with their task environment in the field of Disaster Management. By referring to the 2015 to 2019 National Disaster Management Plan, the 2016 to 2021 Regional Medium-Term Development Plan and taking into account the

potential, conditions, problems, challenges and opportunities that exist in Bengkalis Regency as well as the culture that lives in the community, as well as the natural conditions possessed, a Renja is set. The Regional Disaster Management Agency to support the Regency's Vision for the next 5 years is, "Realizing the Resilience of Bengkalis Regency's People in Facing Disasters".

Basically, the impact of a disaster knows no boundaries of government administration. Therefore, there is a need for fundamental thinking about accelerating disaster management that is able to accommodate logistics and equipment, training for disaster-aware communities and gathering disaster information through the concept of regional disaster management which is carried out in "one unit of disaster impact area" and not "one administrative area". With the concept of regional disaster management, it is deemed necessary to have an organizational unit for the Regional Disaster Management Agency that is regional in nature and has technical operational tasks that will handle several technical operations supporting disaster management covering several administrative areas (across administrative areas) covering several districts or some areas and islands that are prone to disasters.

Even though in the Autonomy Era the Government only has roles and functions in policy formulation, strategic planning and the preparation of norms and standards and procedures that are national in nature, in accordance with the mandate of the Law on Disaster Management, the Government must carry out the roles and functions as coordinator, implementer and commando in Disaster Management.

### **3.2 Behavior of the Use of Personal Protective Equipment for Forest and Land Fires on the Quick Response Team Officers at Badan Penanggulangan Bencana Daerah, Bengkalis Regency in 2022**

The results show that the behavior of using personal protective equipment for forest and land fires at the Bengkalis Regency Regional Disaster Management Agency's Quick Response Team in 2022 had not been carried out optimally because it was not in accordance with applicable regulations and was influenced by predisposing factors (knowledge and attitude), supporting factors (availability of personal protective equipment facility and training activity), and driving factors (supervision and penalty and reward) that underlie the use of personal protective equipment for forest and land fires, so it can be concluded that:

1. Most of the officers are sufficiently knowledgeable about the types and functions as well as the consequences or impacts that can be caused if they do not use complete personal protective equipment, during disaster management, the Quick Response Team Officers always use personal protective equipment, even though they are incomplete, such as a headgear, shirt and trousers, goggles, masks, gloves, and boots. The Quick Response Team Officers has a positive attitude in the use of personal protective equipment at work, namely that personal protective equipment must be used during disaster management.
2. Availability of personal protective equipment is intended for Rapid Response Team Officers who are in the field, where the available amount is only sufficient for one team, if necessary, the Quick Response Team Officers will purchase their own equipment. The proposal for the procurement of personal protective equipment for forest and land fires is included in the budget work plan almost every year, but it has not been realized. Basic training with materials on fire prevention, rigging and installation of emergency tents, emergency first aid, mental discipline and unity, as well as survival in the open for the Quick Response Team Officers has been carried out every year, it's just that it

has not focused on special material for personal protective equipment forest and land fires.

3. Supervision is carried out by the Head of the Emergency Division and Functional Officers to the Quick Response Team Officers in the use of complete personal protective equipment, but there is no routine schedule and no punishment and consequences in the form of a written warning and no award for the Quick Response Team Officers who uses complete personal protective equipment for forest and land fires.

#### **IV. Conclusion**

The results show that the behavior of using personal protective equipment for forest and land fires at the Bengkalis Regency Regional Disaster Management Agency's Quick Response Team in 2022 had not been carried out optimally.

Suggestions from this research are as follows:

1. Badan Penanggulangan Bencana Daerah, Bengkalis Regency

- a. It is recommended to provide education and information regarding the availability, types and functions of personal protective equipment, on a regular basis to the Quick Response Team Officers by the Head of Division or related Functional Officers as leaders and supervisors of forest and land fires prevention.
- b. It is recommended that the Quick Response Team Officers use personal protective equipment in full in accordance with their work during disaster management with more improved facilities and infrastructure in accordance with the Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 122 of 2018 concerning Standardization of Firefighting Facilities and Infrastructure in the Region.
- c. The availability of personal protective equipment for forest and land fires needs to be followed up in accordance with the strategic plan of Badan Penanggulangan Bencana Daerah, Bengkalis Regency by proposing the procurement of personal protective equipment for disasters including personal protective equipment for forest and land fires contained in the work plan and budget work plan every year by including justification for the importance of using personal protective equipment for forest and land fires for the prevention of work accidents which will reduce the risk of disease caused by work and improve occupational safety and health for the Quick Response Team Officers.
- d. It is recommended that the training provided be carried out continuously by following the latest developments in science and technology, especially material on personal protective equipment for forests and land fires.
- e. It is necessary to increase the special supervision for complete personal protective equipment, with a regular monitoring schedule.
- f. It is recommended that strict sanctions be imposed and supported by the availability of personal protective equipment for all officers.
- g. It is necessary to give appreciation or appreciation to the Quick Response Team Officers who have used personal protective equipment in full by following the applicable regulations.

2. Further Research For further researchers

It is hoped that they can conduct research related to the behavior of using personal protective equipment for forest and land fires in the Quick Response Team Officers and the factors behind it using quantitative research methods in other agencies related to forest and land fires disaster management such as The Fire Department is in accordance with the

Ministry of Home Affairs Regulation Number 122 of 2018 concerning Standardization of Firefighting Facilities and Infrastructure in the Region.

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