

# Community Preparedness in The Face of Smog Disaster in Taraibangun Village, Mining District, Kampar Regency, Riau Province

Fikri Ramadhan Maiyeldi Putra <sup>a, 1\*</sup>, Muzani <sup>a, 2</sup>, Cahyadi Setiawan <sup>a, 3</sup>

<sup>a</sup> Geography Education Study Program, Faculty of Social Science, State University of Jakarta

<sup>1\*</sup>[fikriramadhan1901@gmail.com](mailto:fikriramadhan1901@gmail.com)

Article information	A B S T R A K
<i>Article timeline</i> Accepted : 2021-10-19 Revised : 2022-12-21 Published : 2022-11-29	Abstrak menggunakan bahasa Indonesia dan bahasa Inggris. Menjelaskan intisari dari artikel yang bersifat informatif dan benar-benar jelas, dengan memuat pokok permasalahan yang ada, pendekatan atau solusi yang diusulkan dan menunjukkan temuan utama dan simpulan. Abstrak disusun dalam satu alinea terdiri dari kurang lebih 150 kata, mengandung semua kata kunci, tidak memuat rujukan, singkatan/akronim yang tidak dijelaskan, dan informasi yang tidak terdapat dalam naskah. Jika terdapat istilah-istilah asing yang belum dibakukan ditulis italic. Font yang digunakan untuk menyusun abstrak adalah Lao UI 9pt. Kata kunci perlu dicantumkan untuk menggambarkan ranah masalah yang dikaji dan istilah-istilah pokok yang mendasari pelaksanaan penelitian. Kata kunci dapat berupa kata tunggal atau gabungan kata. Jumlah kata kunci terdiri dari 3 hingga 5 kata yang terdapat dalam abstrak. Kata-kata kunci ini diperlukan untuk komputerisasi. Pencarian judul penelitian dan abstraknya dipermudah dengan adanya kata-kata kunci tersebut.
<b>Kata Kunci:</b> Kesiapsiagaan Asbut Desa Taraibangun	
<b>Keywords:</b> <i>Preparedness Smog Taraibangun Village</i>	<b>A B S T R A K</b> <i>Penelitian ini bertujuan untuk mengetahui tingkat kesiapsiagaan masyarakat di Desa Taraibangun dalam menghadapi bencana kabut asap. Penelitian ini dilaksanakan di Desa Taraibangun selama 5 bulan dari bulan Maret-Juli 2020. Metode penelitian yang digunakan adalah menggunakan metode deskriptif dengan pendekatan survei, serta teknik pengumpulan data dengan melakukan observasi dan kuesioner diseminasi kepada 100 responden di 4 dusun di Desa Taraibangun. Hasil penelitian ini adalah di Desa Taraibangun masuk kategori hampir siap dengan skor overall 62,45 untuk kesiapsiagaan dusun 1 Desa Taraibangun masuk kategori siap dengan skor overall 65,6, untuk warga desa 2 masuk kategori siap dengan skor overall 65,9, untuk masyarakat dusun 3 masuk kategori Hampir Siap dengan skor overall 57,45 dan yang terakhir untuk dusun 4 masuk ke dalam kategori Hampir Siap dengan skor overall 60,21. Parameter pengetahuan dan sikap bagi semua dusun memiliki pengetahuan yang baik dalam memahami bencana kabut asap, rencana tanggap darurat terlihat hasil yang rendah, hal ini dikarenakan banyak masyarakat yang rentan terhadap bencana namun tidak memiliki rencana, mobilitas sumber daya desa taraibangun juga sama rendahnya karena mobilitas sumber daya di masyarakat karena pemerintah desa belum pernah melakukan pelatihan kesiapsiagaan bagi warga desa.</i>

## Introduction

The coordinator of Riau Forest Rescue Work Network (JIKALAHARI) made an illustration of the smoke disaster that Riau people are currently experiencing that this area is like living in a burning firewood stove, nasal congestion, dizziness, sore eyes, such is the life that Riau people felt when the smog disaster hit.

Community activities also experienced disturbances such as the availability of food staples thinning due to the market being unable to operate, community activity in work was also disrupted, and some communities prone to smog began to make evacuations to the province of North Sumatra (Tirto.id, 2019).

Riau province is one of the provinces that is often affected by forest and land fires. Forest fires in Riau Province have been going on since 1997 until now entering 2019. Riau province which is rich in peatland is a supporting factor in the smog disaster. Ineligion from forest fires and peatlands occurs in the dry season, due to very low rainfall and high solar heat intensity. This condition generally occurs between June and October and sometimes occurs from May to November. Fire ineligion is higher if there are symptoms of El Nino (Wetlands, 1999).

Taraibangun village is one of the villages affected by the smog disaster in Riau Province, tarai bangun villagers call Tarai Bangun village a quiet and isolated village, this is because Tarai Bangun was very lacking in infrastructure development and attention from local government. This makes the problem experienced by the surrounding community still quite a lot especially regarding the preparedness of the community in the face of disasters. Based on the description done by the author, the author felt the need for an analysis that explained the community's level of preparedness in the face of the smog disaster in Taraibangun Village.

### Methods

**Table 1.** Level of Preparedness

Index Value	Category	Symbol
80-100	Very Ready	V
65-79	Ready	IV
55-64	Almost Ready	III
40-54	Not Ready	II
Less than 40	Not Ready	I

Source: LIPI-UNESCO/ISDR, 2006 : 44

This research was conducted in Taraibangun Village in March-July 2020. The research method used in this study is a descriptive method using the survey approach.

### Data Collection Techniques

1) Primary Data. In this study to obtain primary data, author used questionnaire used in this research uses "closed polls, which present questions and answer options so that respondents are asked to choose one answer that corresponds to give a tick". Using scale sourced from

LIPIUNESCO/ISDR (Yes counted 1 and No counted 0).

2) Secondary Data: Taraibangun Village Profile: Data Analysis Techniques in this study is use index value analysis, with techniques based on calculation. The collected data is in the form of numbers in the tabulation results, and then explained in the order of information you want to know, and then processed and summed and adjusted to the preparedness index value assessment classification. As for the score obtained will be categorized based on the level of preparedness, here is a table of preparedness categorization based on LIPI-UNESCO/ISDR.

### Results

**Table 2.** The result of calculating the Knowledge and Attitude Value

Hamlet Name	Score scoring	Description
Hamlet 1	93,4	Very Ready
Hamlet 2	96,8	Very Ready
Hamlet 3	94,2	Very Ready
Hamlet 4	88,5	Very Ready

Based on the results of table number 2 on the calculation of the calculation of the value of knowledge parameters and attitude then obtained the result that for hamlet 1 gets a value of 93.4 and entered into a very ready cagoti, hamlet 2 gets a value of 96.8 and enters into the category very ready, hamlet 3 gets a value of 94.2 and enters the category very ready and hamlet 4 gets a value of 88.5 and enters the category very ready

**Table 3.** Assessment of Emergency Response Plan per Hamlet

Hamlet Name	Value	Description
Hamlet 1	53,1	Not Ready
Hamlet 2	53,1	Not Ready
Hamlet 3	38,9	Not Ready
Hamlet 4	46,9	Not Ready

Based on the results of table number 3 concerning the calculation of the parameters of the emergency response plan perdusun then obtained the result that for hamlet 1 get a value

of 50.5 and enter into the category is not ready, hamlet 2 gets a value of 48 and enters the category of less prepared, hamlet 3 gets a value of 39.25 and enters the category is not ready and hamlet 4 gets a value of 45.25 and enters the category less prepared.

**Table 4.** Data Result of Resource Mobility of Each Hamlet

Hamlet Name	Score scoring	Description
Hamlet 1	50,5	Not Ready
Hamlet 2	48	Not Ready
Hamlet 3	39,25	Not Ready
Hamlet 4	45,25	Not Ready

Based on the results of table number 4 concerning the calculation of the calculation of the value of mobility parameters of perdusun resources then obtained the result that for hamlet 1 get a value of 53.1 and enter in the category of less prepared, hamlet 2 gets a value of 53.1 and enters into the category of less prepared, hamlet 3 gets a value of 38.9 and enters the category is not ready and hamlet 4 gets a value of 46.9 and enters the category less prepared.

## Discussion

**Table 5.** Village Preparedness

Hamlet Name	Value	Description
Hamlet 1	65,6	Ready
Hamlet 2	65,9	Ready
Hamlet 3	57,45	Ready
Hamlet 4	60,21	Ready

Based on the results of table number 4 on the preparedness of the perdusun in Taraibangun Village, the researchers will explain the analysis related to the results of preparedness in the perdusun area.

### a. Hamlet 1

Dusun 1 in Taraibangun Village scored 65.6, entered the category OF SIAP, and became the hamlet with the second largest value of the four hamlets in Taraibangun Village. Based on the results of tabulation explained that people who have a level of education and a good type of work, will better understand the importance of preparedness for smog disasters, for

education levels in the highest to lowest order namely S1/S2, High School and Junior High School, for this type of work based on the tabulation results that researchers do sorted by the highest to lowest namely civil servants, private employees, selfemployed and labor. the factors that make hamlet 1 become a hamlet that is ready in the face of smog disaster, namely because of the characteristics of respondents obtained by researchers at the education level and have a good type of work, for the education level of middle school educated respondents numbering 11, for high school number 8 and for s1/s2 which is the number of 6 respondents, for the type of work of respondents from hamlet 1 includes; 10 respondents worked as workers, 12 worked as selfemployed, and 3 respondents worked as civil servants. The higher the number of respondents who have education and good work, it will impact the level of preparedness for smog disasters, for the parameters of knowledge and attitude in hamlet 1 get a score of 93.4 and enter the category is very ready, for the emergency response plan gets a score of 50.5 in the category of underprepared, on the mobility of resources in hamlet 1 get a score of 53.1 entered in the category of less prepared , this makes hamlet 1 a hamlet that is ready in the face of smog disaster.

### b. Hamlet 2

Dusun 2 scored 65.9 in the SIAP category, this score is the highest score of the overall result of the hamlet in Taraibangun Village, hamlet 2 has characteristics of respondents who are superior to the characteristics of other respondents, characteristics of respondents for the level of education namely 6 respondents who only graduated from junior high school, 10 respondents who graduated from high school, and 9 respondents with the level of education of S1/S2. For the type of work held by the community, namely 6 respondents working as workers, 8 respondents working as self-employed, 5 respondents working as private employees 4 respondents working as civil servants and 2 respondents not working. The characteristics of the respondent are better

than hamlet 1, so there is a difference in the preparedness score. Hamlet 3 scored 57.45 and entered the category almost ready, this score is the smallest score of all hamlets in Taraibangun Village. The characteristic factor of the level of education and the type of work of respondents in hamlet 3 makes this hamlet has the least score compared to the scores in other hamlets, while the characteristics of the respondents are 3 that is; at the level of education, the number of respondents who finished junior high school was 12 people, high school education as many as 11 people, and for S1/S2 as many as 2 people. In this type of work is arranged 3 namely; 10 respondents worked as workers, 9 respondents worked as self-employed, 5 respondents worked as private employees and 1 respondent did not work. The following is table number 29 about the characteristics of respondents in hamlets 1,2 and 3.

c. Hamlet 4

Hamlet 4 scored 60.21 and fell into the category almost ready. Hamlet 4 became the number 3 hamlet in the preparedness score in the face of smog disasters. The thing that caused hamlet 4 to be 3rd in preparedness to deal with kabu asap disaster due to the characteristics of the level of education and the type of work that exists in hamlet 4, as well as the characteristics of the respondents of hamlet 4 namely; based on the level of education of respondents who graduated from junior high school of 6 people, for high school graduation of 15 people and for S1/S2 tamatan numbering 4 people. Based on the type of work in hamlet 4 that works as a laborer number 7 respondents, who work as self-employed number 6 people, who work as private employees number 7 people, 3 respondents work as civil servants and 2 respondents do not work. Dusun 4 has the most respondents at the high school education level and for the type of work in hamlet 4 is quite balanced not dominated by one type of work, if noted with the characteristics of respondents in hamlet 1, it is seen that the characteristics of respondents in hamlet 4 are better because junior high school graduates in hamlet 4 are less compared to hamlet 1. However, when

viewed in detail, that on the preparedness score in the hamlet 4 parameters of knowledge and attitude have the lowest score compared to other hamlets, and on the parameters of knowledge and attitude based on the level of education concluded that the score for high school graduation is smaller than the junior high school, as has been explained the characteristics of the respondents in hamlet 4 dominated by the level of high school education, this makes the score in hamlet 4 smaller than the score from hamlet 1, as well as plus respondents who finished S1/S2 in hamlet 1 more than hamlet 4. The result of the value of each parameter in hamlet 4 is; for knowledge and attitude parameters get a score of 88.5 in the category of highly prepared, for emergency response plans get a score of 45.25 and enter the category of underprepared, and on the parameters mobility resources have a score of 46.9 entered into the category not ready

**Table 6.** Taraibangun Village Community Preparedness in Facing Smog Disaster

Village	Value	Description
Taraibangun	64,25	Almost Ready

After seeing the description of the preparedness of taraibangun villagers in the face of smog disaster has been parsed based on the classifications, in closing this discussion, the preparedness of taraibangun villagers in the face of smog disaster that has a value of 63.45 and is classified as almost ready

**Conclusions**

After the researchers conducted the data retrieval stage, data processing and data analysis, it was concluded that the preparedness of the community in the face of the smog disaster in Taraibangun Village fell into the category almost ready with an overall score of 62.45. As for the characteristics of respondents based on the level of education the highest score is obtained the level of education S1 /S2 with an overall score score of 77.7, for the characteristics of the community based on livelihoods with the highest score is Civil Servants with an overall score score of 79.36. For the preparedness of hamlet 1 Taraibangun village entered into the ready category with an overall

value of 65.6, for the villagers 2 entered into the ready category with an overall value of 65.9, for the villagers 3 entered into the category of Almost Ready with an overall score of 57.45 and the last for hamlet 4 entered in the category almost ready with an overall value of 60.21.

### Recommendation

1. There needs to be preparedness training for the community in the face of disasters, especially smog disasters.
2. Researchers find it difficult to take respondents due to the openness of the surrounding community, so there needs to be further assistance related to the appeal from the head of the hamlet to RT/RW in encouraging the community.
3. The village government should participate in providing a viable evacuation place for people prone to smog.
4. There needs to be further attention from the Provincial Government to the District Government in addressing the preparedness of smog disasters in the surrounding communities, especially taraibangun villagers.

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