

## Phenomenology Study: Resilience of Farmers About Natural Disaster

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### ABSTRAK

Banjir dan tanah longsor adalah bencana yang menyebabkan banyak kerusakan yang berkaitan dengan lingkungan, dan ada peningkatan jumlah morbiditas, serta jumlah kerusakan dari lingkungan yang terjadi, dan akan mempengaruhi psikologi masyarakat yang terkena dampak bencana. Efek psikologis dari peristiwa yang tidak biasa ini tidak diragukan lagi akan menyebabkan trauma atau apa yang disebut gangguan stress pasca trauma (PTSD). Penelitian ini bertujuan untuk mengeksplorasi pengalaman petani yang mengalami banjir langsung dan tanah longsor; desain penelitian yang digunakan adalah desain penelitian kualitatif menggunakan pendekatan fenomenologi interpretatif. Teknik pengumpulan data yang digunakan yaitu wawancara mendalam dengan panduan wawancara semi-terstruktur yang melibatkan lima peserta, dan data dianalisis menggunakan analisis fenomenologi interpretatif. Hasil dari penelitian ini mendapatkan enam tema. Pertama adalah bencana yang disebabkan oleh manusia, tema kedua adalah menerima kenyataan yang ada, tema ketiga semakin dekat dengan Allah, tema keempat memiliki keinginan untuk bertani lagi setelah bencana, tema kelima adalah memulihkan ekonomi keluarga, dan tema keenam adalah menjaga lingkungan di sekitar dan meningkatkan diri mereka sendiri. Mengingat dampak yang akan timbul dari kondisi ini, jika tidak mendapatkan perawatan yang tepat, diperlukan peran petugas kesehatan dalam memberikan layanan kepada petani yang terkena dampak banjir dan tanah longsor untuk memahami, hidup dan menerima kondisi yang terjadi serta mampu beradaptasi dengan baik, karena jika tidak diatasi dengan baik maka tidak diragukan lagi akan mempengaruhi psikologi masyarakat yang terkena dampak bencana. Efek psikologis dari peristiwa yang tidak biasa ini tidak diragukan lagi akan menyebabkan trauma atau apa yang disebut gangguan stres pascatrauma (PTSD).

**Kata-kata Kunci :** Adaptasi, Bencana Alam, Gangguan Kesehatan Mental

### ABSTRACT

*Floods and landslides are disasters that cause a lot of damage related to the neighborhood, and there is an increasing number of morbidity, as well as the amount of damage from the environment that occurs, and other impacts will undoubtedly affect the psychology of the communities affected by the disaster. The psychological effect of this unusual event will undoubtedly lead to trauma or the so-called posttraumatic stress disorder (PTSD). This study was aimed to explore the experiences of farmers who experienced direct floods and landslides; the research design was used is a qualitative research design using an interpretative phenomenology approach. The technique of collecting data used in-depth interviews with a semi-structured interview guide involving five participants, and the data were analyzed using interpretative phenomenology analysis. This research was conducted on six themes. First was disasters caused by humans, and the second theme was accepting the existing reality, the third theme is getting closer to God, the fourth theme has the desire to farm again after the disaster, the fifth theme was restoring the family economy, the sixth theme was keeping the environment around and improving themselves.*

**Keywords:** Adaptations, Mental Health Disorders, Natural Disaster.

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### INTRODUCTION

Indonesia is one of the countries with the most disasters in the world. Floods and landslides enter the most frequent disasters in Indonesia. In East Java itself, flooding became the

number 1 most frequent disaster. In Jember, some areas are included in areas prone to flooding and landslides. Floods and landslides cause much damage including environmental damage, material losses and of course fatalities. Jember's national disaster authority

noted that the damage damaged residents' houses and paddy fields and public facilities.

The psychological impact of flooding and landslides in the Panti area needs to be given more attention. This problem is because it is associated with the occurrence of posttraumatic stress disorder (PTSD). Residual symptoms due to natural disasters can certainly occur where psychosocial and psychiatric disorders most often appear. Excellent handling must undoubtedly be given to patients affected by disasters [5].

Most of the inhabitants along the orphanage river are working as farmers with farmland around the area of the river, consequently a lot of agricultural land has been submerged and affected by floods and landslides. In addition to experiencing economic losses, farmers also suffer psychological losses, where enthusiasm in farming decreases [14].

This psychological pressure needs to be overcome by increasing the ability of farmers to live post-disaster life. Resilience can be built through elements of psychosocial that are adaptive and can increase psychological resilience so that they can adapt quickly and return to disaster-affected areas strongly. Own ability to survive is called resilience, where resilience includes three fundamental aspects, namely resilience, recovery, and modification of disasters [15].

Disasters that destroy the dimensions in people's lives, such as income, economy, work, home, and the environment was motivating them to reorganize their lives gradually immediately. The decision of farmers to stay at home even though the flood and landslide disaster will come suddenly is based on the belief that this is a risk that must be taken when living on the slopes of mountains and river banks. Research carried out by states that surviving in disaster areas is a part of their lives. They have their pride that can be a differentiator compared to others. The economic situation is also the main reason for the majority of disaster victims to return to their original homes and move on [13].

Being resigned and resilient becomes the main force of affected communities to survive or resilience to the stressful situation. This situation encourages farmers on the banks of the orphanage to make efforts to survive. Where efforts to get closer to God Almighty is done by increasing worship and always come to places of worship. All of these activities make the community affected by disasters to become able to accept the situation and be able to understand that everything that happens is a test from God. A preliminary study conducted on farmers in the village of Panti, farmers, said that during the flood, all residents experienced extraordinary fear, evacuation became a safe place for my family and me. After the conditions are safe, I want to get out of the refugee camp immediately; I want to immediately see the condition of the residence and fix the damage that occurred. Housing is a top priority for me. Agricultural land is the next concern that can be improved slowly. The impact of the flash flood at that time was that my house and agricultural land were damaged, vegetables and durian were just waiting for the harvest. A farmer needs time, money, and energy to farm, and everything will be replaced when the harvest arrives. Feeling very sad when I saw the reality at that time, the long-awaited harvest was gone. Panti Village farmers said that to continue their lives, farmers worked together to clean their houses and fields so that they could be productive again. Together, the residents feel the burden they experience becomes lighter if they do the work together

## **METHODS**

### **Design**

A qualitative study guided by the phenomenological approach was incorporated to explore the disaster experience of the farmers. Using rigorous, critical and systematic methods, phenomologic studies create a plethora of rich data that facilitate a better understanding of the participants' lived experience [10]. Phenomenology attempts to describe the experience in conditions of

essential structures embedded in individual phenomena [10].

The theory underlying phenomenology posits that in order to understand social realities, it is necessary for the researcher to investigate knowledge that the interviewees put forth to describe that reality. Husserl's descriptive phenomenological method, emphasizes that researchers must thus put aside or 'bracket' prior knowledge or experience about the phenomenon [10].

### **Setting**

Purposive sampling was used to select participants. All participants provided written informed consent after researchers explained the study purpose, assured privacy, and informed them that they could withdraw at any time. Participants were interviewed in their home environment until data saturation occurred. This research was conducted in Panti Village sub district of Jember City

### **Sample**

Participants in this study are farmers who lived along the banks of the Bedadung River and were affected by the flash floods and landslides in 2018. The sample was five participants ranging in age from 50 -56 years. The method of selecting participants is done by purposive sampling, ie, the sample chosen is oriented towards the research objectives. Deliberately, Individuals are selected or chosen because they have experience by following the phenomenon under study.

At the recruitment stage, the researchers used the inclusion criteria, so those prospective participants matched the research objectives. The inclusion criteria include: 1) Farmers, as well as cultivators in Panti Village, Panti District who are affected by flash floods and, are still domiciled in the area, 2) Age 40-60 years because researchers assume that individuals are physically and cognitively mature, have resilience abilities which are sufficiently formed with the experience gained more than two times of flash floods, 3) is willing to participate as a participant by signing a letter of willingness to become a

participant, 4) can tell his experience well / cooperatively. The purpose of this study was to explore the experiences of farmers who experienced direct floods and landslides

### **Data Collection**

Participants were interviewed using a semi-structured approach that allowed them to elaborate on their personal experiences [10]. After an initial introductory period during which the participant gained familiarity and trust, the interviewer asked an open-ended question relative to their current experience of flood disaster in general. This research only uses interview for data collection because this project is the beginning of our upcoming project.

The researcher who collected the data was trained in conducting qualitative interviews. Predictive techniques such as probing, reflection, and paraphrasing were used to indicate understanding of the participants' experiences, which were often of a sensitive and emotional character. Follow up questions were asked only if essential for clarification. Interviews were terminated when participants indicated that they had exhausted their descriptions [10]. All interviews were audio-recorded and transcribed. The interviews lasted between 45 to 90 minutes and were conducted over an three-month period. Following all interviews, the researcher conversed with the participants related to neutral topics to reduce any emotional activation that may have occurred that was associated with the discussion of disaster's experience topics.

### **Data Analysis**

The audiotapes were reviewed several times and transcribed verbatim. Researchers examined transcripts line-by-line, highlighting key statements describing participants' experiences and coding them for content. Content codes were defined, categorized, and formulated into thematic clusters [10]. To explore the hidden meanings, the data were 'interrogated' [10]: For example: What was said?; how was it said?; What do you mean by this sentence?.

Two levels of phenomenological reduction to reduce study bias were incorporated to ensure scientific rigor, and to maintain the assumptions of the phenomenological approach [8]. The first assurance was via bracketing to reduce investigator bias [8]. The second level of rigor included continuous study during the interviews; allotting adequate time and building trust in the relationship between the interviewer and interviewee; review and revision of the content and translation by senior investigators; and finally, participants' view of notes and descriptions. Data analysis and validation were done as a research team to increase the study credibility. Theme categories were initially derived individually by members of the study team, and then compared as a group of sub theme until theme consensus was attained.

## **RESULTS AND ANALYSIS**

A total of 100 content units about the disaster experience were extracted from the data for analysis. We derived six major themes with corresponding sub-themes: (a) disaster caused by humans; (b) accept the reality; (c) draw closer to god; (d) having the desire to farm again; (e) restoring the family economy and (f) Maintain the natural environment and improve themselves. The following is a detailed description of the themes related to each sub-theme. We used pseudonyms to protect participant anonymity.

### **Disaster Caused by Humans**

The sub-theme of flash floods and landslides will occur at any time is the community's understanding of the time of the floods that occur when heavy rainfalls, although it is difficult to predict, it is not a burden on the lives of people who are on the banks of the river. Two example are provided :

"My thoughts are natural disasters ... which are unexpected ... yes, because I live on the edge of the river, suddenly it comes, bro, maybe this is also because of our behavior" (participant 1)

"Well, if the problem of flooding with the landslide determines from god, but if you look at the slopes, it's already bare" (participant 4)

### **Accept the Reality**

Farmers who were suffering because of closed financial resources finally began to open up again, even though the conditions were not yet full, but it had helped and could slightly reduce the family's financial burden. The improved psychological condition of farmers is preceded by abundant harvests and large selling prices. It was as expressed by several participants :

"Yes, the harvest is still not normal ... but allhamdulillah is able to help the family economy ... For a year the results are still minimal, but that is okay, we accept it" (participant 4)

"But yeah, what do you want to do, little by little the feeling decreases ... what else can you do that is the will and the power of god ... you have to come back later ... (participant 2)

### **Draw Closer to God**

"In the city, if you don't have anything your life just like in hell ... it's different here, calm and peaceful, and more people are willing to help you, it's a matter" (Participant 6)

The statement above shows that to meet the needs of community life around the disaster area is not too difficult because there is a lot of natural wealth that can be utilized and also the peace of heart that is used to get closer to the almighty god. several participants stated are :

"The important thing is if we want to get the money we must work hard, and another important thing is we must grateful to the almighty God" (Participant 5)

"We don't think anything, if we can eat and pray to the god, that's enough" (Participant 3)

### **Having the Desire to Farm Again**

The spirit of farming again is a surging instinct about the lives of farmers. They are starting to realize that everything that happens is God will, it cannot be denied or cannot be asked, we as human beings can only pray that there will be a trial. As expressed by participants :

"I do not dare to borrow at the bank, what guarantees will be made by me, if the harvest success maybe I can pay the debt, but what if not, so I likely borrow from another family member, despite the small number but it has low risk ... (Participant 1)"

"Well, when I ran out of money to buy medicinal plants, I sold my wife's necklace and borrowed money from my sister ... (Participant 5)"

### **Restoring the Family Economy**

To cover the economic shortcomings, the residents must be good at managing the economy and looking for other alternatives. Sub-themes that build these themes are looking for sources of income, raising livestock, and looking for sympathy to get money. The theme answers the research objectives of post-flood farmers and landslide behavior in homes. Two example are provided :

"Trying to look for work on a plantation department, search coffee plant and sell it or try to find leaves for livestock and find wood in the jungle and sell it ... (Participant 1)"

Maintain the Natural Environment and improve themselves

Preserving the community's old traditions is the theme of people's hopes after the floods

and landslides. The theme was built by the sub-theme of village governance reviving old habits, expecting blessings from doing tradition, preserving traditional entertainment and do naturally think about the environment. the hope of maintaining ancient traditions is the desire of the community, especially farmers to carry out the habits that had been run by their ancestors. Two example are provided :

"Yes, it must be the old one, right, but the old one doesn't want to think about nature and doesn't seem to want to know the condition of the surrounding environment (Participant 3)"

"The point is to give alms, give thanks and gratefully ... the results from nature are good, we must give alms (Participant 4)"

The contextual meaning of flood uncertainty is that floods and landslides can occur at any time. The flood is a reasonable condition because river water discharge depends on rainwater. God is the one who knows all of that, whether it is a reprimand or, calamity and blessing. As the results of research from Smet & Leysen (2012) flood is an unpredictable natural event that causes damage, loss, suffering, and even death for humans and the environment, caused by natural activities. Mitigation is the best to do to prevent and avoid disasters effect. Early detection of a catastrophe such as evacuation is the best thing that can be done to reduce the number of victims. Every disaster, both natural and due to human error, leaves sorrow, trauma, impressions, and unforgettable history, both by victims and their families and citizens of the world [9].

Accepting reality is the response of someone who has gone through various processes, starting to refuse, bargain, and accept. The reaction occurs many factors that influence usually start from the size of the loss, the threshold of stress, and support from the environment. In this condition a farmer begins to accepting because they start to realize that flood and landslide is a natural thing that

happens simultaneously, it's because the river is still flowing, no one can refuse or ask about that,

Bedadung river is not seen as a frightening natural force that must be shunned and avoided, but instead must be approached and maintained properly even though floods and landslides occur later. Evacuating for a moment when there is a flood and then rebuilding settlements and fields ravaged by floods is a common phenomenon when living along the river. This process means, there is a construction of thought on the river, there is self-awareness, there is acceptance to face and respond and continue to do good for the big rivers [1].

After the occurrence of floods and landslides, the sadness experienced by all residents appear, especially farmers, farmers do not want too long to dissolve in their grief. Looking for peace of mind is one of the actions taken by affected residents so that they immediately forget all events experienced and look towards a good future. Psychologically, almost all people experience stress after severe disasters such as floods and landslides. If it does not develop into a prolonged depression, post-disaster stress conditions are normal. Some of the survivors will recover in a few weeks, several months, but some survivors still experience anxiety for several years. According to the scale of Rahe and Holmes, the loss of a beloved one is the greatest form of life pressure [2], so that most people experience severe stress when losing their beloved ones, especially because of unexpectedly natural disasters.

The behavior of people affected by disasters, when returning to the home spirit of farming appears again, and it becomes a rapid act in the lives of farmers. They are starting to realize that everything that happens is God will, it cannot be denied or cannot be asked; we as humans can only pray that all will be okay. Bedadung river activity never deters residents who inhabit in the river banks to move back. Because in addition to threatening disasters, Bedadung River is also a source of life for residents around the river banks.

Efforts to restore the family economy are actions taken by farmers in carrying out their lives as farmers, we know at that time the family economy was in trouble because flash floods destroyed the crops. Even though the farmer was waiting for the harvest at that time, to cover the economic short comings, the residents must be good at managing the economy and looking for other alternatives.

The economy is the main reason for the victims with disasters return to their original place of residence; in addition, they need the shelter so that they can survive and continue their lives further. Damage to various dimensions ranging from income, economy, work, home, and the environment motivates them immediately to rearrange their lives

Various community expectations after the occurrence of flash flood disasters are proper disaster management. Natural disaster management became a people hope along the Bedadung riverbank, and it is an expression of the desire or future aspirations in the event of a flood based on the experience of various events. The main theme was built from six variety of sub-themes, and we can say that the main theme is Hoping for government assistance when the disasters are coming and be patience of the disasters also trust the god that everything will be okay, it's important because the aid it's very needed at that time because the condition was very sad, houses were damaged, agriculture was damaged, basic needs could not be fulfilled so the assistance would be beneficial and soothe the psychological burden that for people who are affected by the disaster.

## **LIMITATIONS**

The study is limited by its small sample size and a homogenous sample. The limitation on taking participants is that the researcher only looks at one location, namely in the most affected side of the village, the researcher does not see his family type, the researcher does not look at the family's economic background in detail and the researcher does not see the stage of his family's development.

## RESEARCH ETHICS

In this study, researchers explained to farmers related to the purpose, benefits, procedures of research, the role of being a respondent, and the question of willingness to be a respondent. Then allow farmers to decide whether or not to be a research respondent. Patients are given informed consent if willing to be a research respondent. This research has passed the ethical test with ethical approval No.3558/UN25.1.1.4/SP/2019.

## CONFLICT OF INTEREST

There is no conflict of interest from this research

## ACKNOWLEDGMENTS

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## CONCLUSION

This research produced six themes, there is: 1) human-caused disasters, 2) accepting the reality that happened, 3) getting closer to God, 4) having the desire to farm again, 5) restoring the family economy 6) protecting the natural environment and improving themselves. The recommendation for further study is that the researcher can genuinely search about the condition of mental health from farmers who affect for disaster. For health workers, this research can be the first data to examine mental health farmers who affect because of disaster

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