



Analysis of human resources readiness in facing natural disasters study case: Lapindo Sidoarjo mud disaster

ADNAN HUSSAIN¹, NAZA DEVIANSARI^{2*}, RIZAL ALAMSYAH², INGGRID DISREY², MOCH FADIL ANSORI², RAMDHANI AMRULLAH²

¹ *Institute of Aquatic Science and Technology, National Kaohsiung University of Science and Technology, Kaohsiung, 811213, Taiwan*

² *Institut Teknologi Adhi Tama Surabaya; Jl. Arief Rachman Hakim No. 100, Klampis Ngasem, Sukolilo, Jawa Timur, Indonesia*

*Correspondence: nazadevi2002@gmail.com

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ABSTRACT

The Lapindo Mud Disaster is a phenomenon that occurs due to the overflow of mudflows emit from the malfunction of exploration by company, named PT. Minarak Lapindo Jaya, that occurred in Sidoarjo, East Java, Indonesia. So far, the efforts of the government and Lapindo have shown no success in stopping the flow or managing the social and environmental impacts of the overflowing mud. Until now, no less than 60.000 residents in the Tanggulangin, Porong, and Jabon sub- districts have been uprooted from the roots of their homeland. Sidoarjo, which is located between Surabaya and Gempol, is the main of East Java's Transportation, which has an impact on economic losses in the macro and micro sectors. This study uses a descriptive research strategy, conduct by questioner to the refuges and analyze with Multiple Linear Regression Analysis. To determined which factors are significantly affect their livelihoods. But this is not necessarily felt by all residents, there are also those who are greatly disadvantaged because the main livelihood activities in the village/residence environment are disrupted.

KEYWORDS: disaster; lapindo; mud; mudflows; Sidoarjo

1. Introduction

The Lapindo Mud Disaster is a phenomenon that occurs due to the overflow of mudflows from the bowels of the earth that occurred in Sidoarjo. (Davies, 2008; Anton, 2010) since May 26 2006, hot mud gushed to the surface of the earth in Porong, Sidoarjo. There are geologists who claim that the eruption was the result of the activities of an oil company that was exploring there, Lapindo Brantas Inc. The eruption of water and mud that occurred has become a polemic that is quite complex to this day. Regardless of the cause of the controversy, Lapindo Mud presents impacts which is quite complete. So far, the efforts of the government and Lapindo have shown no success in stopping the flow or managing the social and environmental impacts of the overflowing mud.

In its development, more and more mudflow points. Until now, no less than 60.000 residents in the Tanggulangin, Porong, and Jabon sub-districts have been uprooted from the roots of their homeland. Siring village's bowels of the earth still emit mud with low

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intensity (Mamuk Ismuntoro, 2014:4). Before mud gush, Sidoarjo district is a relatively stable area, indicated by the lack of social political movements or large-scale conflicts in this area. Sidoarjo, which is located between Surabaya and Gempol, is the backbone of East Java's transportation, which was later broken by the overflowing mud, resulting in a huge impact on the economy of East Java because it hampered the pace of distribution of logistics and export-import goods through the Porong-Gempol section. Kindly simple, sinking slowly productive (buildings, yards, ponds and rice fields) have killed off the productivity of these lands. If you look at it broadly, the disruption of the backbone of the transportation system has an impact on economic losses in the macro and micro sectors. The unique character of the land of Sidoarjo is ponds for breeding all types of shrimp and fish (Milk, Snapper, Gurami and Patin). The ecological damage that has occurred has resulted in the sinking of factories and small and medium industries related to pond products such as crackers and shrimp paste as Sidoarjo's superior products. Other problems are also related to efforts to restore the ecological areas submerged in mud. The mud containing heavy metals just flowed into the Porong river.

Based on a Resource Center Report Power Geology (2007) states, the average metal content is rather high, consisting of Pb, Zn, Mn, Ag, Cd, Sb, Au, Se and Hg. In the long term, these heavy metals can trigger various disturbance health. Constitution number 23 1997 regarding: Environmental Management CHAPTER I article 1 paragraph 14 states that environmental destruction is an action that causes direct or indirect changes to its physical and/or biological characteristics which results in the environment no longer functioning in supporting sustainable development. Referring to this, PT Lapindo Brantas Inc, has been negligent in carrying out its obligations as a contractor in the Work Contract and it can be said that PT Lapindo Brantas Inc. has committed an act that resulted in environmental damage.

The government's involvement in resolving this problem by providing bailout funds worth Rp. 781 billion with a total of 3,337 parcels of land and buildings used for compensation payments for residents in the area affected by the Lapindo Brantas Mud. Meanwhile PT Minarak Lapindo Jaya (MLJ), as a spokesperson for PT Lapindo Brantas Inc. Once claimed to have completed the payment of 9,900 files with a total value of IDR 3.03 trillion. Documents that have been paid are then requested by the government as collateral. Within four years, PT Minarak Lapindo Jaya must immediately return the bailout funds to the government. And if you can't pay off, all the collateralized assets will belong to the state (Tempo.co, 2015).

2. Methods

The data used in this study are primary data obtained through questionnaires distributed to respondents. Data collection was carried out using a questionnaire from google form. The data processing method used in this study is Multiple Linear Regression Analysis. This method is used to measure the influence of two or more independent variables on one dependent variable, as well as predict the dependent variable using the independent variables.

3. Results and Discussion

Researchers carried out mitigation actions for the Lapindo mudflow disaster using electronic media with a questionnaire to find out the response from disaster responders. The following are the results of a survey conducted by researchers:

Question 1: Do you stay in area which caught impact mud Lapindo?

Results Respondents: 12 respondent answer No, 8 respondent answered Yes.

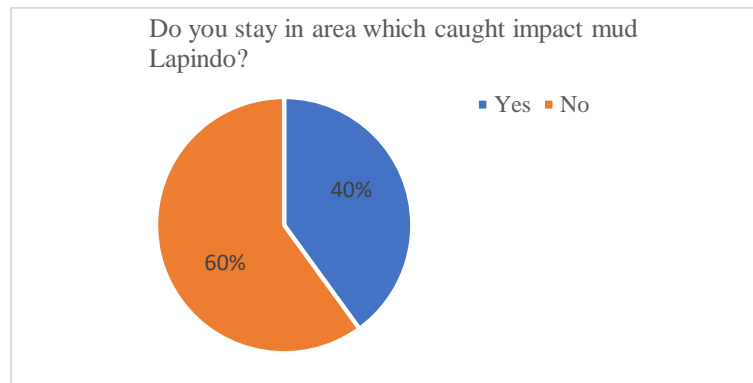


Figure 3.1. Diagram analysis for the results of question 1

Question 2: Do you and your family experience loss financial consequence Lapindo mud?

Results Respondents: 11 respondent answer No, 9 respondent answered Yes.

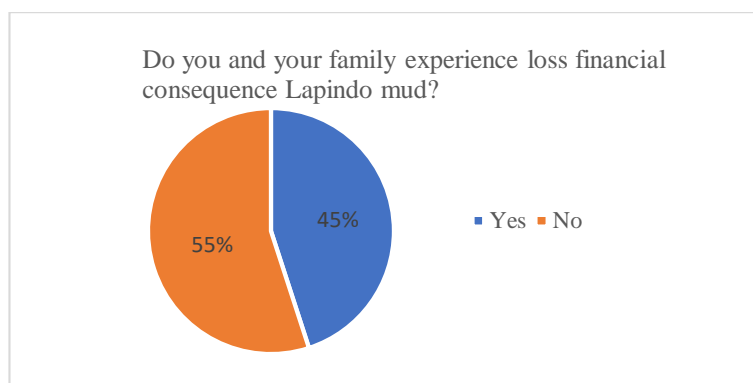


Figure 3.2. Diagram analysis for the results of question 2

Question 3: Do you feel government has respond deep enough dealing with impact Lapindo mud?

Results Respondents: 9 respondent answer No, 4 respondent answered Yes, with notes.

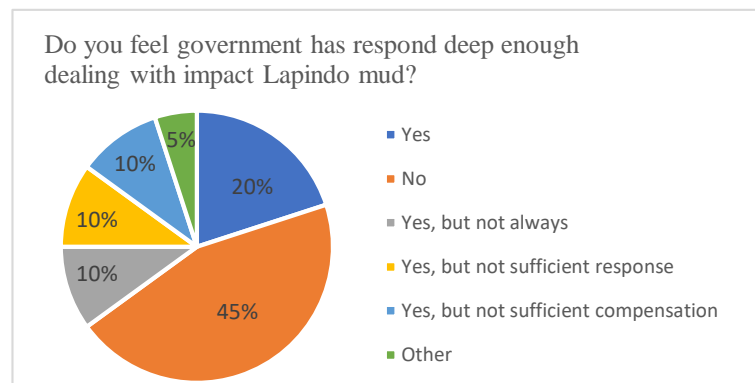


Figure 3.3. Diagram analysis for the results of question 3

Question 4: Have you accepted training or information about risk and impact of Lapindo mud?

Results Respondents: 16 respondent answer No, 4 respondent answered Yes, with notes.

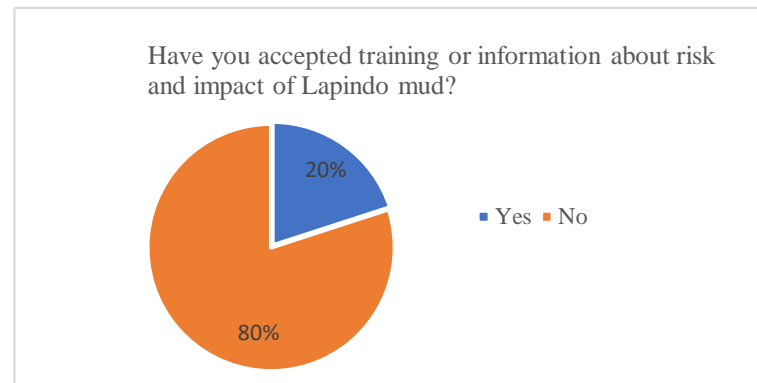


Figure 3.4. Diagram analysis for the results of question 4

Question 5: Do you have enough knowledge about the emergency action in facing mud Lapindo?

Results Respondents: 10 respondent answer No, 2 respondent answered Yes, 8 respondent answers Likely

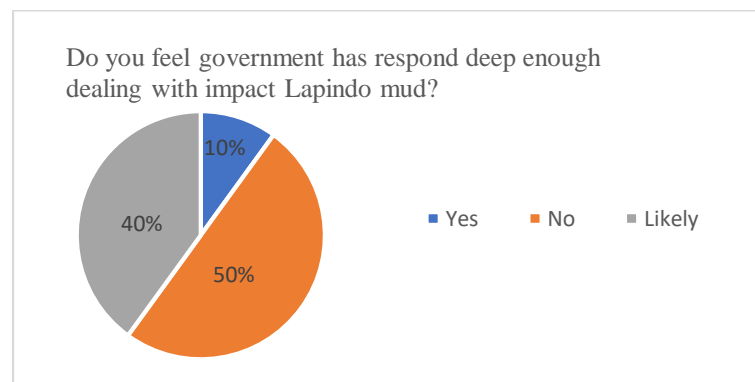


Figure 3.5. Diagram analysis for the results of question 5

Question 6: Have you equipped with equipment and safety tools which needed on facing mud Lapindo?

Results Respondents: 18 respondent answer No, 2 respondent answered Yes.

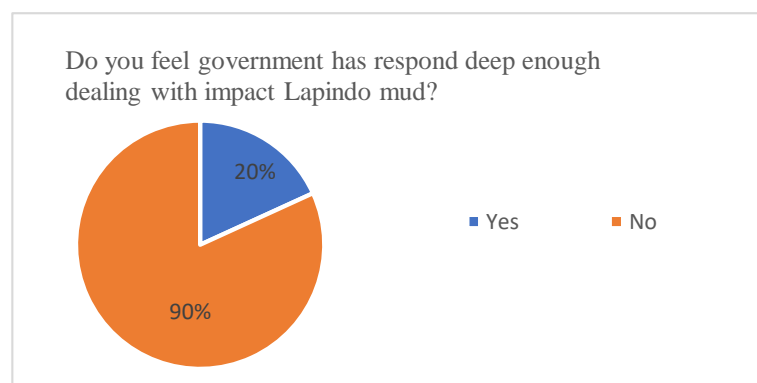


Figure 3.6. Diagram analysis for the results of question 6

Question 7: Do you understand about steps that should be taken in manage the damage of infrastructure consequence Lapindo mud?

Results Respondents: 18 respondent answer No, 2 respondent answered Yes

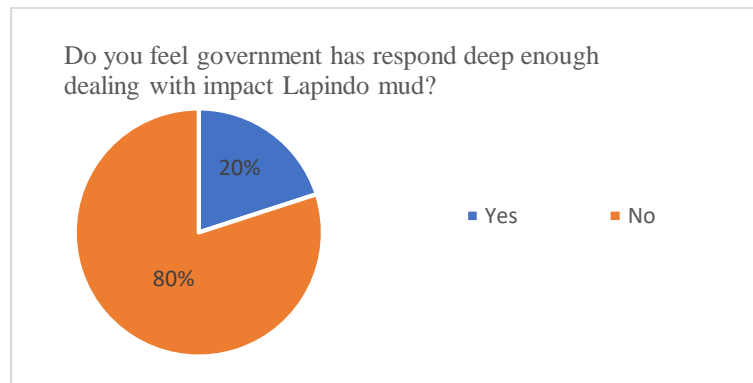


Figure 3.7. Diagram analysis for the results of question 7

Question 8: Do you understand the importance of cleanliness and sanitation in Lapindo mud situation?

Results Respondents: 9 respondent answer No, 11 respondent answered Yes

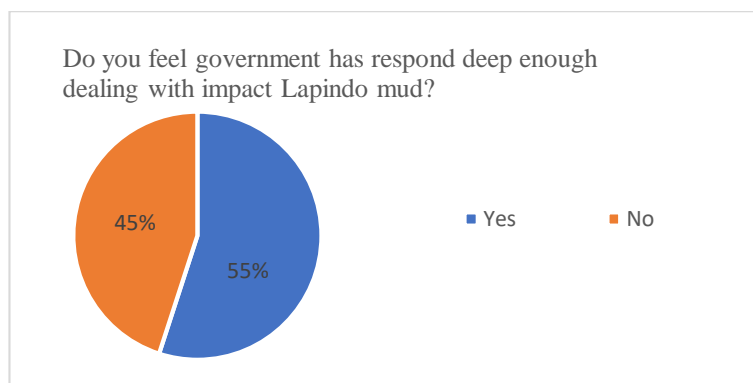


Figure 3.8. Diagram analysis for the results of question 8

Question 9: Do you understand about steps that need to be taken in recovery and reconstruction after mudLapindo under control?

Results Respondents: 14 respondent answer No, 4 respondent answered Yes, 2 respondents answered not likely with notes

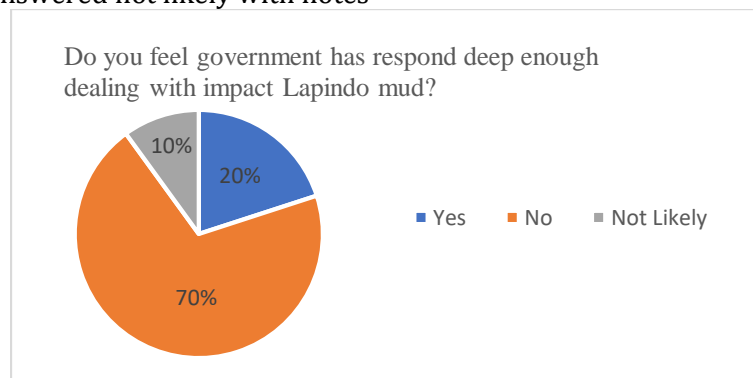


Figure 3.9. Diagram analysis for the results of question 9

4. Conclusions

Based on the survey results obtained at this time, most of the respondents answered that the Lapindo mud disaster did not significantly affect their livelihoods. But this is not necessarily felt by all residents, there are also those who are greatly disadvantaged because the main livelihood activities in the village/residence environment are disrupted. We hope that would be further research that contain about the future conditions of Lapindo mud disaster.

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Author Contribution

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Informed Consent Statement

Informed consent was obtained from all subjects involved in the study

Data Availability Statement

Not applicable

Conflicts of Interest

The authors declare no conflict of interest

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Biographies of Author(s)

ADNAN HUSSAIN, Institute of Aquatic Science and Technology, National Kaohsiung University of Science and Technology, Kaohsiung, 811213, Taiwan.

- Email: adnan.gilgit09@gmail.com
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -

NAZA DEVIANSARI, Institut Teknologi Adhi Tama Surabaya; Jl. Arief Rachman Hakim No. 100, Klampis Ngasem, Sukolilo, Jawa Timur, Indonesia.

- Email: nazadevi2002@gmail.com
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -

RIZAL ALAMSYAH, Institut Teknologi Adhi Tama Surabaya; Jl. Arief Rachman Hakim No. 100, Klampis Ngasem, Sukolilo, Jawa Timur, Indonesia.

- Email: rizal300598@gmail.com
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -

INGGRID DISREY, Institut Teknologi Adhi Tama Surabaya; Jl. Arief Rachman Hakim No. 100, Klampis Ngasem, Sukolilo, Jawa Timur, Indonesia.

- Email: idisrey@gmail.com
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -

MOCH FADIL ANSORI, Institut Teknologi Adhi Tama Surabaya; Jl. Arief Rachman Hakim No. 100, Klampis Ngasem, Sukolilo, Jawa Timur, Indonesia.

- Email: fadilansori2000@gmail.com
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -

RAMDHANI AMRULLAH, Institut Teknologi Adhi Tama Surabaya; Jl. Arief Rachman Hakim No. 100, Klampis Ngasem, Sukolilo, Jawa Timur, Indonesia.

- Email: haldhani@gmail.com
- ORCID: -
- Web of Science ResearcherID: -
- Scopus Author ID: -
- Homepage: -