

# Friendly With Disaster: The Construction of Social Reality of the Bengawan Solo River Basin Community

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**Abstract:**-The floods come every rainy season every year into their homes. Even in the village of Sumbangtimun, in addition to inundating houses, floods also inundate the agricultural lands of the people. Yet they consider everything as normal and no longer something that is considered a disaster.

Such an attitude occurs because the understanding of the people in both locations is different from the general Indonesian people. The construction of the social reality that they obtained from the previous generation was as such. For them, something new is called a disaster if the losses that have occurred are related to life or human beings or large material losses or both, while the flood of Bengawan Solo is not as such.

At first glance, the Bengawan Solo flood did not cause great harm nor casualties. However, if analyzed in depth, the attitude of the people who consider the problem of the Bengawan Solo floods lightly is actually a mistake. Many losses occur due to this attitude.

**Keywords:** disaster, floods, Bengawan Solo, social construction

## I. INTRODUCTION

Indonesia is a country with a large population. Beck (1998) also stated that this country also has risks of disasters, including natural disasters. There have been frequent disasters in this country, both small and large. The Indonesian people certainly still remember the tsunami in Aceh, the eruption of Mount Sinabung, and the eruption of Mount Agung. The most recent ones have been the Lombok earthquake, as well as the earthquake and tsunami in Palu and its surroundings.

Natural disasters are certainly detrimental to the community, because they cause loss of life and property. There are disasters that occur at any time with different locations, but there are also natural disasters that are continuous or come at a fixed time every year. One of the natural disasters that regularly afflicts Indonesia is the flood of Bengawan Solo.

The Bengawan Solo floods as a natural disaster occurs every year and inundates 20 second-level regions in Central Java and East Java Provinces, consisting of 17 regencies and 3 cities. One of these is Bojonegoro Regency; even in 2007, there have been major floods that drowned the district.

However, the question of what exactly is the meaning of the Bengawan Solo floods for the people in the district is certainly not predictable, so it needs to be asked. To find out about that, interviews were carried out with informants at the research location about the meaning of the disaster and the meaning of the Bengawan Solo floods. As a note, the interviews took place during the period when mass media were busy reporting on two volcanic eruptions, including Mount Agung in the Province of Bali and the repeat eruption of Mount Sinabung in Tanah Karo, Batak, Province of North Sumatra.

The informants in Ledok Wetan and Sumbangtimun Villages generally experienced floods many times due to the overflow of Bengawan Solo. What still needs to be known is the response of the local community to the flood of Bengawan Solo.

## II. METHOD

This study aims to find out the meaning that is understood by the community related to the news in local and national mass media. As such, a phenomenological approach was chosen, which according to Moleong (2006) is a research that emphasizes subjective experience of humans and their interpretation of the world. Husserl (in Moleong, 2006) explains that phenomenology is a way of thinking emphasizing the focus of various subjective human experiences and interpretations of the world. Phenomenology concerns everything that happens in human life, or how they are formed. It is also related to behavior that can be a social relationship if humans give meaning to their behavior. The phenomenology chosen in this study is the descriptive type as developed by Husserl, which emphasizes what is experienced by humans through what is heard, seen, felt, remembered, believed, done, evaluated, and so on. The main focus of descriptive phenomenology is on "knowing"; in this case, Husserl philosophically refers to the main focus as knowing the description of a phenomenon (Zukhra, 2015). The type of phenomenology chosen in this study is the type of empirical-transcendental phenomenology from Husserl; transcendental phenomenology is a study of the appearance of phenomena, as seen emerging from consciousness (Kuswarno, 2009).

### III. FLOODS NOT AS DISASTERS

The informants in Ledok Wetan and Sumbangtimun Villages generally experienced floods many times due to the overflow of Bengawan Solo. What still needs to be known is the response of the local community to the floods of the Bengawan Solo.

Although overall the informants (18 in all) understood the meaning of the disaster as something dangerous or harmful, it was not the case with their understanding or meaning of the Bengawan Solo floods. All informants, although using different words, gave the same answer in regard to meaning.

The informants said that for them the flood of the Bengawan Solo is not a disaster. In Ledok Wetan Village, eight out of 11 informants clearly said it is “not a disaster”, while each informant said it is “not dangerous” or “not a problem”, and they are “not afraid”.

The same fact was also found in the village of Sumbangtimun. They felt that the overflowing of Bengawan Solo through the backflow of the Kawung River that flows in their village is not considered a disaster; the events that occur every year are considered as “not dangerous”, “not worrying” or “normal”. In particular, three informants said that the floods were “not dangerous”, one said “not worrying”, and three people said “normal”. The answers are ranked in the following table:

There were even some informants in Ledok Wetan Village who said that the Bengawan Solo floods were beneficial, because the mud carried by the river during the floods could make the riverbank wider. The mud sticks to the ground and expands the riverbank area every year.

The informants' answers related to the Bengawan Solo floods were based on the construction they received about the disaster. They consider a new event as a disaster if the event has caused heavy and considerable damage for them, such as through loss of life (deaths from flooding) or large property losses.

As long as the losses they suffer due to the Bengawan Solo floods do not involve lives and materials, even though the flooding occurs every year, the people in both research locations still consider it not a disaster. Yet it routinely happens each year.

### IV. LONG-TERM UNDERSTANDING

Bengawan Solo floods occur every year, even tens or maybe hundreds of years. Furthermore, Bengawan Solo is a river that never dries. Even in the dry season, the flow of water only decreases when compared to the rainy season.

It appears that not only informants at the study site recognize the river being as such. Evidentially, the composer Gesang wrote the song “Bengawan Solo” 1940 with these

lines: “In the dry season/so little are your waters/in the rainy season/so far they overflow”.

This means that in 1940, when Gesang was still 23 years old, Bengawan Solo flooded and the water had already overflowed inundating the surroundings. Long before Gesang even wrote an internationally famous song, the Bengawan Solo water had overflowed even in faraway areas through which the river passes through.

There is no concrete data that shows that the overflowing of the river causes damage to the community. Therefore, the opinions of informants who said that the Bengawan Solo floods are not dangerous, could be anticipated, or are just ordinary, are the perceptions and personal experiences of the community, as well as information passed down from generation to generation and from the surrounding communities.

The Dictionary of Indonesian Language (KKBI) (Depdikbud, 1995) suggests that perception is a direct response from something or a process by which someone knows many things through the five senses.

Sugihartono *et al.* (2007) explain that perception is the ability of the intellect to translate stimulus or the process of translating a stimulus into the human senses. Humans have differences in perception; some perceive that something is good (positive) or bad (negative). This will affect human actions realistically. He also explained that perceptions are different among people, who may have good (positive) and bad (negative) perceptions.

Based on the statements from Sugihartono and the KKBI, it can be reasoned that the perceptions and understanding of the people of Ledok Wetan Village and Sumbangtimun Village regarding floods are formed from hereditary perceptions and experiences.

Furthermore, according to Berger (1994) in the theory of construction of social reality, there are three things:

First, internalization is a process of infiltration from reality that emerges from the human environment, and transforms it once more from objective world structures into subjective self-awareness of structures.

Second, objectification is a stage after humans succeed in carrying out mental and physical activities, ultimately producing an objective reality that the producer cannot face as a reality. Objectification is the carrying of products of human activity (both physical and mental), a reality that is faced with the original producers, in the form of an external fact for the producers.

Third, externalization is the outpouring of human self or expression into the real world continuously, both in terms of physical and mental activity. This human nature always tries to reveal itself. It is in this process that humans find themselves in the world.

According to the theory of construction of social reality by Berger and Luckmann (2012), the construction process in the middle of the community takes place beginning with the externalization process from the previous generation to the next generation; for the Bengawan Solo, this was relatively long, depending on various factors.

The externalization process for the younger generation will be objectified in each individual, which of course is processed based on the experience of those who have also lived for a long time in that location. The results of the objectification then will later be released back to the community.

The construction of social realities that took place from generation to generation was what happened in the community in Ledok Wetan and Sumbangtimun villages. The understanding of the current generation is obtained from the construction process of the previous generation, which confirms that the Bengawan Solo flood is not a disaster, is not harmful, and can be anticipated.

#### V. WHY IS IT HARMLESS?

The answer to the Bengawan Solo flood being “harmless”, of course, incites curiosity and leads to the question: why do floods from a river with an average width of 180 meters and a length of more than 548.53 km are considered by the people of Ledok Wetan and Sumbangtimun Villages to be not disasters?

All informants in Ledok Wetan considered the Bengawan Solo flood as not being dangerous, although the reasons they gave were quite diverse. Six informants with unequal answers but the same meanings said that the Bengawan Solo floods could be anticipated.

The six answers included two people who said “the water rose slowly”, one person who said “the water always comes in the daytime, and never at night”, one person who said “it is possible to make preparations”, and two people who said, “the current is not heavy”.

Two informants in answering the question said “there have never been any casualties”. One person claimed that it was not a problem because “the house has been elevated”. Even two informants felt lucky with the arrival of the Bengawan Solo floods; “The Bengawan Solo floods for me are profitable,” they answered.

The informants in Sumbangtimun Village also considered the same things. Of the seven informants, all expressed their opinions that the increase in water level of the Kawung River around their village could be anticipated. Two informants answered “the water rises slowly”, two informants said “it is possible to prepare before the flood”, two people said “the flow was not heavy”, and one person said “the water always comes during the day”.

Floods that occur every year do not endanger the lives of the people. They seemed to have been given the

opportunity to anticipate the arrival of the floods, because the water of the Kawung River (child branch of the Bengawan Solo River) also rises slowly, following the increase in the Bengawan Solo River water level.

If the water was rising, they could evacuate their livestock first, especially the Limousine cattle, which are one of the villagers’ “assets”. As for other items, as well as residents in Ledok Wetan Village, once the water has entered the house, they move to a higher place.

In that place, they temporarily evacuate. Not only are humans displaced in the location of Sembung Kanten Village, they also brought their livestock with them, especially cows and goats. They set up tents for humans, as well as others close to the place for their domesticated animals.

Based on observations at the research location, in anticipation of flooding into the house, the residents of Sumbangtimun Village generally raise the yard by constructing barriers of earth, in order to withstand small flooding and prevent it from entering the house.

As they elevate their yards, they also elevate the floor of the house using soil so that it is higher or at least equal to the height of their elevated yards. That way, if the floods are not too large, water does not enter the house and remains on the road in front of the house.

With the answers given by the informants, it can be seen that they actually understand that a disaster can cause damage things related to people, including their environment. Yet they considered the floods of Bengawan Solo not to be disaster, because they are not dangerous. Their consideration of “dangerous” is actually large losses of life and losses of materials.

Based on various theories, Abdullah (2008) attempted to construct a rationale for disaster that is not an event that is sudden and inevitable, but becomes an integral part of routine and normal life. Disasters are actually an inseparable part of a community system with signs that are recognizable and predictable. Even so, there may be unexamined normality for human and system inability to anticipate disasters.

Abdullah's opinion is true. The Bengawan Solo floods have gone on for a long time, perhaps even longer, and thus the local community considers the event to be routine, becoming part of their lives.

Bengawan Solo floods, which come regularly every year in the rainy season, are seasonal natural events that become a part of their lives. Local people already recognize the signs and are able to predict them.

For the people of Ledok Wetan and Sumbangtimun Villages, in general they consider that the Bengawan Solo flood to be “not dangerous”, “not causing casualties”, “not harmful” in large numbers. Some even say that the floods are actually beneficial.

With the reality understood by the people of Ledok Wetan and Sumbangtimun Villages about the Bengawan Solo floods over tens, maybe even hundreds of years taking place downstream, they are different from disasters understood by other regional communities.

The process of constructing social reality (Berger and Luckmann, 2012), which is a process that has taken place from the previous generation, in this case the understanding of the public about flooding in their area, is not something fearsome. It is much different from what they see on television.

What the people of Ledok Wetan and Sumbangtimun Villages propose is in accordance with what Oliver-Smith and Hoffman conjectured (Abdullah, 2008), that not all natural phenomena must be disastrous, because the emergence of disaster depends on vulnerability of individuals, groups, environment, and institutions.

A symptom of the same nature somewhere else can cause death and destruction, but in other places, it may not cause such problems. Vulnerability includes the natural, physical, technical, economic, social, political, cultural, ideological and institutional dimensions.

The water condition of the Bengawan Solo is calm; even during floods, the water remains calm and rises slowly. It is not the same as other rivers in other areas, where the flood current is swift and washes away quickly. The people consider such conditions of the Bengawan Solo River, for the two locations, as something that is dangerous.

## VI. BENEFITS AND DISADVANTAGES DUE TO BENGAWAN SOLO FLOODS

All informants in Ledok Wetan and Sumbangtimun villages may say that the Bengawan Solo floods do not cause casualties and are harmless. These answers certainly may be questioned: are they not harming the community?

Seven of the eleven informants in Ledok Wetan Village gave similar answers; the losses they experienced were only "obligations" to clean mud if the flood "came to visit" their homes every year. Whereas, the mud outside their houses is cleaned up by the residents cooperatively.

Two other informants, because their houses are elevated, claimed to have no problems with flooding. In fact, houses of two informant actually become places to evacuate people around them if the flood comes and floods the other houses.

Various answers explain that the Bengawan Solo flood was actually detrimental to local residents. Those affected by the flood must move their belongings to a higher place if the flood comes. Even though the average citizen possesses an artificial attic, they call the ceiling as the place where all things are stored when flooded.

In addition, the flood victims of Bengawan Solo would have to clean up the mud that was left behind when the water subsided, though the arrival of the flood in the rainy season was not only one time. In one month, water can go up and down (in and out of the houses) three times. Meanwhile, floods on village roads must be cleaned cooperatively.

Another loss suffered by flood victims in Ledok Wetan Village, based on the informants' confessions, is disruption of the economy, because it interfered with their work. There were also those who said that during floods many animals entered the house, such as worms, leeches and cockroaches. There were even informants who said that the plants on the riverbank would be damaged if the Bengawan Solo floods come.

Yet, even though it is actually detrimental, they still say that the Bengawan Solo flood is not dangerous. This is because by the consideration of the local community regarding the dangers of loss human life or large material losses, they have never experienced them for as long as the longest and largest river in Java has flooded.

The majority of the community of Ledok Wetan Village did say that the Bengawan Solo flood incurred losses. However, two informants actually considered the floods of Bengawan Solo to be beneficial. This is because the work of those informants was actually helped by the floods of the Bengawan Solo.

An informant who worked as a brick maker felt that he was benefited by the floods of Bengawan Solo. The mud deposits on the riverbank that were taken to make bricks will return as mud is redeposited by the flood flow of Bengawan Solo. The other informant who works as a water pump technician also feels the benefits, because due to the floods of Bengawan Solo, many pumps owned by residents were damaged and they asked the informant to repair the pumps. This means an increase in income for the informant.

Another "advantage" of the Bengawan Solo floods for residents of the Ledok Wetan Village is the increased width of the riverbank, because the floods brought mud that settled on the edge of the river. The width of the riverbank continues to grow every year. There are even informants who said that the addition was between 20 and 50 cm every year.

There are also informants who said that when the flood comes, they receive benefits in the form of assistance provided by various parties to the informants, such as free treatment at the evacuation site (Multipurpose Building); some even provide food in the form of rice boxes delivered to their evacuation sites.

Sumbangtimun Village informants expressed different answers due to different natural conditions. The villagers have two things related to the Bengawan Solo flood events, or more precisely related to the Kawung River, a child branch of the Bengawan Solo River that flows through the village.



The floods do not only flood their homes, but their fields. When the flood comes, there are those with flooding only in their houses, only in their rice fields, or in both their houses and fields. This depends on the height of the overflow of the Kawung River, the child branch of the Bengawan Solo River that flows through Sumbangtimun Village.

Although in general they said that the Bengawan Solo flood was not dangerous and not detrimental in the sense of large losses, the owners of rice fields located on the banks of the Kawung River claimed that they also incur losses if they did not have time to harvest rice before the flood came.

The question for them then becomes why they continue to plant before the flood season. All informants who work as farmers, both landowners and shareholders, say that the arrival of the flood cannot be ascertained, and they can only guess between November and March every year. They have to plant before the flood season; sometimes they can harvest well, and other times the harvest is affected by floods.

When inquired further and pointed out that it seems to be a gamble with natural conditions, it was said that the informant generally was used to it. There was even one informant who jokingly said, "The only problem is when the gambler loses his courage".

Generally, the landowner or manager in the village makes a profit in the production process every flood season. They keep on planting before the rainy season, and sometimes they can harvest, because new floods come after harvest and they profit.

Yet, not infrequently, the big floods come before they have time to harvest and they suffer losses. Their paddy fields are between one and three terraces (one hectare on average is equal to eight terraces). The issue is that they are used to this routine, and thus they keep doing it from year to year without feeling a sense of loss.

Whereas for residents of Ledok Wetan and Sumbangtimun Villages, it does not matter if their houses are flooded. In fact, in general, residents of Sumbangtimun Village have raised the yard and/or the floor of the house with soil so that the flood does not enter. The people affected by floods just walk in front of their house.

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Based on the concept of perception, it can be seen that the perception of informants in Ledok Wetan and Sumbangtimun Villages regarding the floods of Bengawan Solo is not negative, nor was it positive, because in fact they still suffered losses due to the floods. Yet based on size, the losses they experienced did not become a problem.

The construction of social reality, according to Berger and Luckmann (2012), is indeed built over a relatively long time. Based on this theory, it can be said that the construction of social reality of the people of the two regions over a long time revealed that the Bengawan Solo flood is detrimental, but for them it is not a problem.

Similar conditions of construction of reality also occurred among the people of Sumbangtimun Village regarding the floods that flooded their fields. For them, there is no problem planting in the fields or gardens before the rainy season, because the arrival of floods is uncertain. The matter of successfully harvesting or not is not up to them. There are even two informants who said that they let things run their course.

## VII. CONCLUSION

The people of Ledok Wetan and Sumbangtimun Villages area customed to flooding, so they considerate harmless and not harmful. Whereas, broadly speaking, there were various disadvantages for the community at that location and also outside the environment of the two villages. There needs to be concrete steps from various parties to raise awareness about the issue.

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