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# Understanding wetland environmental risk mitigation communication strategy: A case study in Banjarmasin

**Sri Astuty**[1*], Faculty of Social and Political Sciences, Universitas Diponegoro, Semarang, Central Java, Indonesia
**Yuwanto**[2], Faculty of Social and Political Sciences, Universitas Diponegoro, Semarang, Central Java, Indonesia
**Laila Kholid Alfirdaus**[3], Faculty of Social and Political Sciences, Universitas Diponegoro, Semarang, Central Java, Indonesia
**Bachruddin Ali Akhmad**[4], Faculty of Social and Political Sciences, Universitas Lambung Mangkurat, Banjarmasin, South Kalimantan, Indonesia

[*]Email for Correspondence: astuti.228900@gmail.com

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**ABSTRACT**

The environmental problems of wetlands in Indonesia, especially in Kalimantan, are not only problems of land fires, haze, floods, but can also be in the form of collapse of buildings due to the contour of swampland and the use of river channels with various uses both for community life, transportation facilities, and river channels as part of tourist destinations. The purpose of this study is to explain the problem of phenomena that often occur in wetlands for tourism activities. Qualitative research methods with case studies, data collection techniques are carried out by collecting various news about motorboat accidents, observations, interviews, and documentation of river crossing tours from social media. The results showed that mitigation communication to prevent accidents in river channel tourism activities has three components that should be jointly responsible, namely the government, river crossing tourism managers, and river crossing visitor communities. Three components are not partially but comprehensively responsible for overcoming problems with risk mitigation. The river is part of the local wisdom of the people in Kalimantan, by utilizing the existing potential to maximize the increase in tourism objects based on comfort and safety.

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## INTRODUCTION

Banjarmasin City is a city located in South Kalimantan Province (South Kalimantan) with wet soil geological conditions (alluvial). This natural condition makes this city has many rivers extending from the Meratus Mountains to the Java Sea and Makassar Strait. The condition of the city that is fed by this river has the potential to become a tourist spot. This tourism potential is also supported by the river culture owned by Banjarmasin City (Sugianti, 2016).

Examples of leading river tourist attractions in Banjarmasin City include Muara Kuin Floating Market and *Siring* Floating Market (Sugianti, 2016). *Siring* is a form of public space built in Banjarmasin City since 2005. *Siring* Tendean, with relatively more complete facilities, was built in 2009, located on the banks of the Martapura river. This *Siring* is equipped with a boat dock *Klotok*, the name of a traditional Kalimantan motorized boat (Andini & Mutia, 2016).

The riverside area that was converted into a tourist spot has a mainstay of river crossing. Tourists can ride *Klotok* boats for river crossing tourism activities (Andini & Mutia, 2016). The management of this area is a form of success of the local government to revitalize the river as well as a form of disaster management. Flood disasters are synonymous with river areas which if overcome can generate economic benefits for the local area (Munawar et al., 2022; Windiani, 2013).

Accidents can happen at any time without being predictable. Crew and passengers are not always prepared for accidents, especially because accidents can occur suddenly. Weather conditions can suddenly change, giving rise to high waves. The ingress of water into the boat can cause the boat to capsize (Komite Nasional Keselamatan Transportasi, 2008).

*Klotok* boat accident cases occurred in several provinces on the island of Kalimantan, including South Kalimantan, East Kalimantan, West Kalimantan, and Central Kalimantan. For example, the accident case

occurred in Barito Kuala Regency, South Kalimantan. The *Klotok* boat accident killed three of the nine passengers. The accident was caused by a high wave (Firmanto, 2017). The riverside tourism accident is not only in the form of sinking boats, there are accidents involving individuals at the Aluh Aluh pier, Banjar Regency, South Kalimantan. A female passenger had an accident, her hair wrapped around a *Klotok* machine until it bleds (Kurniawan, 2018).

*Klotok* boats are often rented with more passengers than capacity. *Klotok* boats should contain between 15-20 passengers, but the manager still accepts additional passengers. This overload factor increases the risk of accidents and causes the insurance to not want to help in the event of an accident (Yusmili, 2018).

Accidents can happen to both those who can swim and cannot swim. In fact, tourist safety is a form of excellent service from tourist destination managers. The provision of life guards and tourist safety signs is the government's way to ensure the safety of tourism. However, both are not enough, more comprehensive disaster communication management is needed to secure tourists (Wibawa, 2014). The strategy of making security and safety guidelines for river tourists has not received much attention from other researchers (Magdalena, 2012).

Tourists crossing the river have various risks if not supported by safety guidelines. This study aims to complement the understanding of safety guidelines that are part of disaster mitigation, especially in the context of river tourism, in hopes of giving readers more insight into the topic discussed and its further improvements in the future.

**METHOD**

This study uses a qualitative approach to develop guidelines for the security and safety of river tourism. The location of the research was carried out around the *Siring* Tendean tourist site which became one of the centers of river crossing tourism by *Klotok* boat. *Siring* Tendean is the location of several piers that depart *Klotok* boats.

Data collection techniques in this study used observation, documentation, interviews, and through social media screenshots. The four data collection techniques were combined to strengthen the research results.

Observations were made by visiting the location several times in May 2018 to find out the problems that occurred in river crossing activities. Researchers made observations after on April 28, 2018, there were fellow researchers who plunged into the river when going to ride *a Klotok* in *Siring* Tendean. The boat manager was unresponsive in rescuing the victim, so he had to be rescued by other passengers who happened to be able to swim. This incident underlies research on river tourism safety guidelines.

On May 10, 2023 at 08.00 WITA, researchers participated in river crossing tourism activities while making observations along the way. The journey starts from *Siring* Tendean pier until passing Basirih and returning to the original location. Research is carried out with documentation. Documentation is obtained during the research process, stored, selected, and used to corroborate research analysis.

Semi-structured interviews were conducted with visitors and *Klotok* boat managers. Interviews are informal and depend on the spontaneity of the interviewer. This type of interview makes it easier for researchers to direct the interview according to the desired flow and setting. The interview guidelines are only in outline research. Interviews were conducted to find out the reasons for the neglect of visitor safety and how the appropriate river safety and security guidelines are. Interviews flowed to informants around the research site, *Siring* Tendean. Researchers use pseudonyms to informants involved in research, because to maintain privacy factors (Taqwa, 2011).

Screenshots of social media posts are also a data collection technique. The social media chosen is Instagram, this is due to several reasons. The first reason is that Instagram is one of the fastest growing social media in Indonesia. Instagram social media was developed on October 6, 2010, at that time it was still not in demand by users from Indonesia. In just five years, the number of Instagram users in Indonesia reached 7% of the total internet users in Indonesia. The second reason is the characteristics of the social media platform Instagram that can be used to showcase photography and videography with a popularity calculation based on "likes". The Instagram phenomenon further gave rise to "selebgram", a term for popular users or Instagram celebrities (Krisnawati, 2016).

The third reason is the characteristics of the Instagram social media platform that can be used to search for posts located around *Siring* Tendean or to access river crossing activities. Researchers searched for posts based on locations that allow still accessible river crossing activities, such as "Muara Kuin Banjarmasin Floating Market", or with the hashtag "river crossing". The screenshot will take place on May 28, 2023, at 03:52 WITA. Research using data collection techniques through social media screenshots was also used by Simangunsong (2016) to examine interactions about religious topics on Ade Armando's Facebook page.

The research data is complemented by secondary data derived from supporting literature. Supporting literature can be in the form of academic literature, previous research results, documents, and mass media reports. The research data obtained were then analyzed in a qualitative descriptive way. Researchers collect all data and reduce data to determine relevant data to be included in the study. The relevant data is then categorized and used as material for interpretation and inferring the results of the study.

## RESULTS AND DISCUSSION

### Findings of Security and Safety Issues

Researchers first identify several issues that need to be underlined. After explaining the problems encountered in the field, researchers compiled guidelines for the security and safety of river crossing attractions. Figure 1 shows the first problem, that actually the Banjarmasin City Government through the Department of Tourism, Arts and Culture, has actually provided an appeal board for the installation of life jackets for *Klotok* passengers.




**Figure 1.** Safety Jacket Repertoire Board
*Source: Researcher Documentation, 2023*

The problem is, the owner of the *Klotok* and the passengers seem to ignore the warning board. Each *Klotok* boat is equipped with a special rack of life jackets located at the back of the boat. However, most passengers choose not to wear life jackets and sit on the roof of the *Klotok*.

The second problem comes from the owner and passengers of the *Klotok* who do not care about the safety of river crossing tourism. Some passengers choose to sit on the roof of the *Klotok* boat without security. In fact, some of the passengers sitting on the roof of the boat were children. As stated by the manager of the *Klotok* ship, Nizar (pseudonym) as follows: "Some want to be at the top, some are at the bottom, depending on where they are comfortable" (Interview: May 26, 2023).

*Klotok* managers are not entirely the main cause of abandonment of life jackets and sitting on *Klotok*. Passengers also choose to take the action, as explained by the owner of an Instagram account named sandi_avenger uploaded on May 19, 2023. The intention to board the *Klotok* is based on the passengers themselves: "It takes about 1 hour while *ngabuburit*. Together with new people around me who complied sitting on the roof of the *Klotok*. And mas tour leader who is always fun making a SHORT and SOLID vacation trip is one of the best choices to relieve fatigue and run away from the chaos of life drama 😆 😆 *wayyoo*.. I love this part of city!!."




**Figure 2.** Screenshot of a Social Media Post about Safety Neglect
*Source: Researcher Documentation*

The third problem comes from social media. The activity of sitting on a *Klotok* without wearing a life jacket is also exemplified by celebrity natasharizkynew with 2.1 billion followers. A video upload on March

3, 2018 shows how the account owner sits on a *Klotok* throughout the journey. The number of followers that reaches billions makes the celebgram account in the trusted category. A person is more likely to be easily influenced by his attitude when receiving messages from digital celebrities (Rahmi, Sekarasih, Sjabadhyni, 2016).

Celebgram is a form of celebrity endorser. A celebrity endorser is an individual who enjoys public recognition and uses his or her recognition for consumer goods by appearing with them or in advertisements. To influence purchases, endorsers need four aspects, namely visibility, credibility, attractiveness, and strength. Visibility is manifested by the level of frequency of appearances in the media, the level of popularity, and the level of admiration. Credibility consists of a level of experience, knowledge, trustworthiness, and a level of confidence. Attractiveness consists of entertainment level, personality, and lifestyle. Power consists of the power of enhancing an image, being inspiring, and reminding of something. The celebrity account natasharizkynew can be said to be included in several aspects needed to become a celebrity *endorser* that can influence the audience (Totoatmojo, 2015).

The ability of celebrities to change attitudes and inspire Instagram users can have a negative impact on awareness of the importance of tourism safety. Celebrities have a role in influencing users, especially their followers, to neglect safety in river crossing activities. What the celebgram does will then be imitated by his followers. Safety issues are not a consideration for *Klotok* managers and passengers because it has become a culture. The river crossing community only prioritizes the recreational aspect. This problem is compounded by the existence of celebrities who do not support the river safety movement.




**Figure 3.** Screenshot of a Social Media Post about a Celebrity Endorsement
*Source: Researcher Documentation*

Fourth, recreational photography requires tourists to ignore their own safety. Tourists consider river crossing activities as a means of recreation, especially for taking pictures. So, they were on the roof of the *Klotok* boat to get a good photo with the river in the background, as described in figure 4. Being in a *Klotok* boat is not a good choice for taking pictures. Often, they take pictures while the boat is running, this can magnify the presence of safety threats.




**Figure 4.** Screenshot of a Social Media Post about a Tourist Photo
*Source: Researcher Documentation*

Fifth, water culture and local wisdom that actually support the neglect of safety aspects. Water culture that has been formed for generations is also a cause of neglect of safety aspects. People around river crossing activities are considered to be accustomed to the river and can swim. In the end, all passengers are considered

all familiar with the river and can swim (Windiani, 2013). As the manager of the *Klotok* Ibn (pseudonym) explains: "People here (Banjar), (at) 3-year-old children (they) can already swim" (Interview May 26, 2023).

The claim that Banjar children can already swim is supported by the documentation we have obtained. Figure 5 shows that children swim in a river that is the path of the river. They can swim and climb onto the back of a running boat.



**Figure 5.** Water Culture of Banjar People
*Source: Researcher Documentation, 2023*

The water culture is associated with the environmental conditions of Banjarmasin City in the form of wetlands. Banjarmasin City is a city that is above the "river". As *Klotok* manager Hanif (pseudonym) explains: "Under the ground it's all rivers. So we usually take a boat. (We're) Not afraid of drowning" (Interview May 26, 2023).

The problem is, the water culture that assumes all local people can swim is not entirely true. Some of the tourists are not Banjar people and may not necessarily be able to swim. In fact, there are also Banjar people who are used to river life, but actually they cannot swim. As explained by a tourist from Banjar Hasna (pseudonym). "We are Banjar people, the river is normal (For us), (We're) not afraid..... Even though I can't actually swim" (Interview May 26, 2023).



**Figure 6.** Availability of Life Jackets
*Source: Researcher Documentation*

Sixth, the unavailability of life jackets is a problem encountered in the field. Figure 6 explains that there are at least eight life jackets stored inside each *Klotok* boat. Although it is quite a lot, it is not always enough for every travel group.

Seventh, the profit aspect of each trip is the reason for neglecting the safety aspect. There are costs that must be borne by the *Klotok* manager for one trip. Therefore, the benefits of the number of passengers must be more than the costs incurred. In fact, according to figure 4, there are as many as 18 passengers sitting on the roof of the *Klotok* boat. This number has not been added to the number of passengers who are on the back of the boat and in the boat. When compared to the number of life jackets available, the number of passengers on each trip has exceeded the limit. As explained by the manager of the *Klotok* Yadi (pseudonym):
"One way, 10,000 rupiah can ride together with others (other tourist groups), just close by. If you go to the island (Kembang) the fare is different. If you do it yourself, it's a loss. This happened to be quiet just because of the fasting month. If it's a normal day, it's really crowded" (Interview May 26, 2023).




**Figure 7.** Department of Transportation patrols against *Siring* tourism activities.
*Source: Researcher Documentation*

Eighth, the lack of government role in supervising river tourism activities. Figure 7 explains that the government through the relevant agency, namely the Department of Transportation, actually carries out its supervisory function as it should. However, government officials neither reprimanded nor cracked down on *Klotok* owners and passengers who were not wearing life jackets. In fact, the notice board in *Siring* requires government officials to crack down on safety violations.




**Figure 8.** Lack of Security for Getting in and out of Boats from the Pier
*Source: Researcher Documentation*

Ninth, the absence of passenger safety facilities is at risk of accidents. Figure 8 explains that passengers do not receive proper security from river crossing service providers. Passengers getting on and off the boat often encounter difficulties, especially elderly passengers. This is dangerous because it can cause accidents of passengers who fall into the river. In fact, not every passenger can swim.

**Drafting Security and Safety Guidelines**

The draft guidelines for security and safety of river tourism activities can consist of several strategies. The first strategy is to redesign a more communicative appeal board. The existing warning boards did not attract the attention of passengers and then realized the importance of safety. Messages in the form of the number of *Klotok* boat accidents that have occurred and the potential dangers and risks borne by passengers, need to be included in the design of the advisory board.

The second strategy is to educate *Klotok* managers to comply with safety guidelines. If the *Klotok* manager does not comply with safety guidelines, then the permit can be revoked. Passengers usually rely on the *Klotok* manager, if the *Klotok* manager does not warn the safety aspect, then they also do not care. Tour guides also need to be educated about this safety aspect.

The third strategy is the use of celebrity influence in educating the public, especially those who use social media. The government can work with several local and national celebrities to educate the public about the safety of river crossing activities.

The fourth strategy is a critical attitude towards water culture and local wisdom of the Banjar people. There is an assumption that all participants of river crossing activities can swim, as well as the assumption that the Banjar community can swim. Assumptions like today should be straightened out, because in fact, not every passenger can swim, even though they are Banjarese.

The fifth strategy is intense communication and supervision of the government through related agencies on *Klotok* managers. The government needs to synergize, especially the Department of Transportation and the Office of Tourism, Arts and Culture. Both agencies need to crack down on any violations that occur at the site.

The sixth strategy is the creation of a special dock path. Figure 9 is a simulation of the researchers' initiative on life jacket wearing. If the life jacket was previously placed on board, it should be moved to the mouth of the dock. There are supervisors from each pier to ensure that all incoming passengers must wear life jackets. Passengers who do not wear life jackets should be prohibited from boarding. The government needs to mandate a rule on the number of life jackets as many as the number of passengers. The government can also provide assistance to *Klotok* managers.



**Figure 9.** Simulated Creation of a Custom Dock Path
*Source: Researcher Documentation*

## CONCLUSION

Researchers have identified several issues in disaster mitigation communication in river crossing tourism activities. These include public indifference, ineffectiveness of the government's safety advisory board, indifference of passengers and managers in wearing life jackets, celebrity influence, and neglect of safety aspects. Water culture and local wisdom also contribute to these issues. Insufficient life jackets and profit motives also contribute to safety neglect. The researchers propose several strategies for improving security and safety in river crossing tourism activities. These include designing a more communicative appeal board, educating Klotok managers, using celebrity influence, addressing water culture and local wisdom, intensifying communication and supervision, and creating a special dock line for life jacket wear.

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