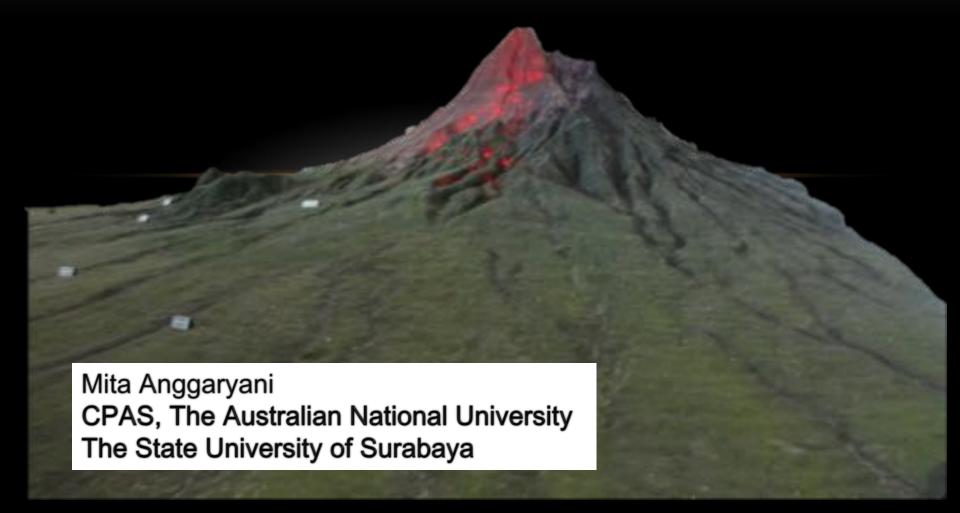
## Should DRR communicators learn from Yogyakartans?

AAHPSSS, Wollongong, November 2017



## OUTLINE

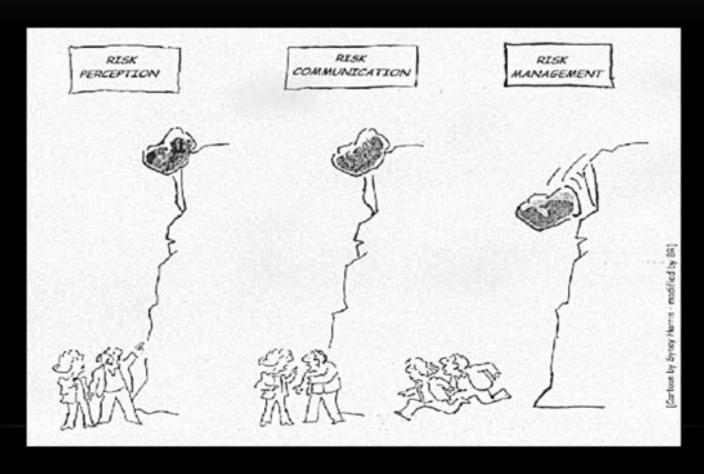
- Background
- Problem Statement
- Method
- Results
- Discussion
- Conclusion
- References

# Historical timeline of volcanic hazards



24 <sup>th</sup> August AD 79	Mt. Vesuvius, Italy
1631	Mt. Vesuvius, Italy
June 8 <sup>th</sup> 1783 – February 8 <sup>th</sup> 1784	The Laki Volcanic System, Iceland
1792	Mt. Unzen, Japan
April 10 <sup>th</sup> – 15 <sup>th</sup> 1816	Mt. Tambora, Indonesia
1882	Mt. Galunggung, Indonesia
1883	Mt. Krakatoa, Indonesia
1902	Mt. Pelee, West Indies
1919	Mt. Kelud, Indonesia
1985	Mt. Nevado Del Ruiz, Colombia

### Risk communication



https://www.fractracker.org/2011/02/when-messages-are-in-opposition-risk-communication-difficult/

#### Disaster Risk Reduction



Humanitarian Practice Network https://www.youtube.com/watch?v=y16aMLeh91Q

## PROBLEM STATEMENT

- There is still a debate on the assumption that hazard knowledge, risk perception, and people's behavior are closely related to volcanic activity, which is conditional.
- It followed by question:
  - 1. Does past experience with disasters influence people behavior toward disasters?
  - Does culture influence local people in processing the information?

## **PURPOSE**

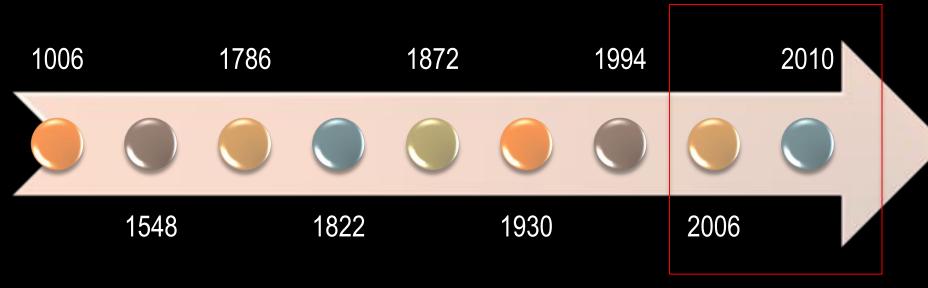
The purpose of the review was framing the disaster risk reduction program in risk communication study by looking at the experience with natural disaster events based on historical framework.

## **METHOD**

- This review includes papers from a broad range of disciplines focusing on a range of natural disasters and people behaviors.
- The review also looks at the historical timeline of disaster events and how people response to the events.
- In getting an incisive analysis the number of papers was narrowed by focusing on three topics on volcanic eruptions, Merapi in Javanese culture, and the local people's perspective.

## MERAPI ERUPTIONS TIMELINE





• What is the barrier in communicating DRR?







## RESULTS

People
Behaviors
and
Natural
Disasters

People might act based on their experience

People will tend to behave in a similar manner to the people around them

People willing to find information about the disaster

People might take spontaneous act

## RESULTS

Culture and people behavior towards natural disasters

Culture shapes people concerns and actions

Disasters are viewed as everyday hardship

There is a gap between modern and traditional knowledge

## DISCUSSION

The perception and concept of risk itself can be varied.



Sam Cossman took some incredible footage from the edge of a lava lake in the Marum Crater, an active volcano on Ambrym, an island in the Vanuatu archipelago, part of the volcanic Ring of Fire.

In some cases, (local) people tend to ignore the scientifically estimated risk

Hurricane Katrina in US



Merapi Eruption in Indonesia



- Other reasons why people refused to be evacuated:
  - 1. They worried about their livestock
  - 2. They worried about their belonging
  - 3. They believe they will be okay according to Merapi Eruption 2006
  - 4. They have little access to information
  - 5. They want to stay (too old to move)

#### What science communicators learn from Yogyakartans?

- 1. A significant experience or knowledge regarding natural disasters
- 2. A special condition regarding to environment, belief systems, local community
- 3. Adequate access to scientific information
- 4. A need to transform scientific information into such information that can be accepted by lay people or local community
- 5. Actors and their role in communicating DRR

## CONCLUSION

- There are three factors that influence people perspective towards the risk
  - Past experience
  - Access to reliable information
  - Belief system
  - Communal agreement
- Culture might influence people perspective towards the risk of natural disaster in some level.
- Science communicators have potential in helping local stakeholder to communicate DRR to certain community.

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