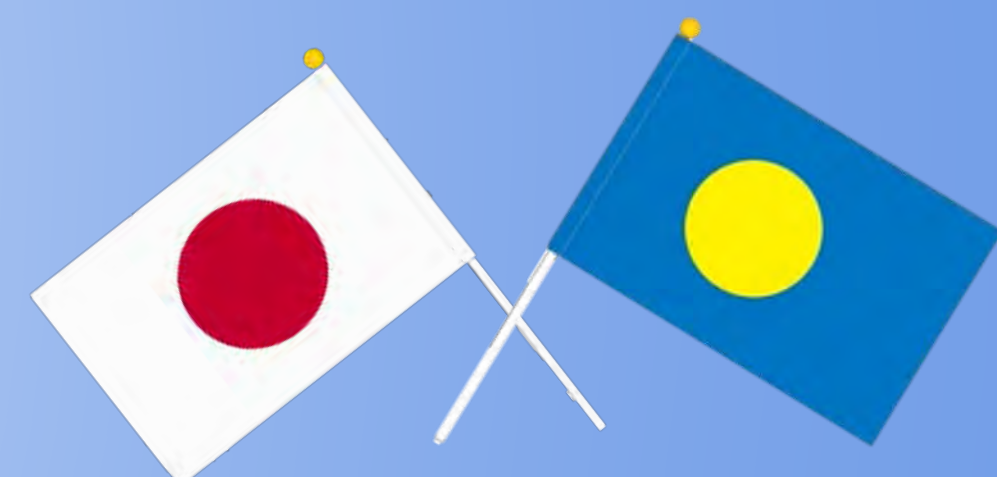


# Japanese Countermeasures against Water Shortage



## in Times of Disasters -From Cases in Palau and Japan



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### Research Motivation

#### Is Japan a disaster-prone country?!

- Experience of North Osaka Earthquake (M6.1)
- Field Work to the Republic of Palau (November, 2019)



At the time of disaster, what should we do to secure water which is essential for our life?

What kinds of measures are taken in the Republic of Palau?

### Research Question

Research Question : **"How should we deal with the shortage of water at the time of disaster?"**

Hypothesis : "Every citizen should store up enough water to live in case of emergencies."

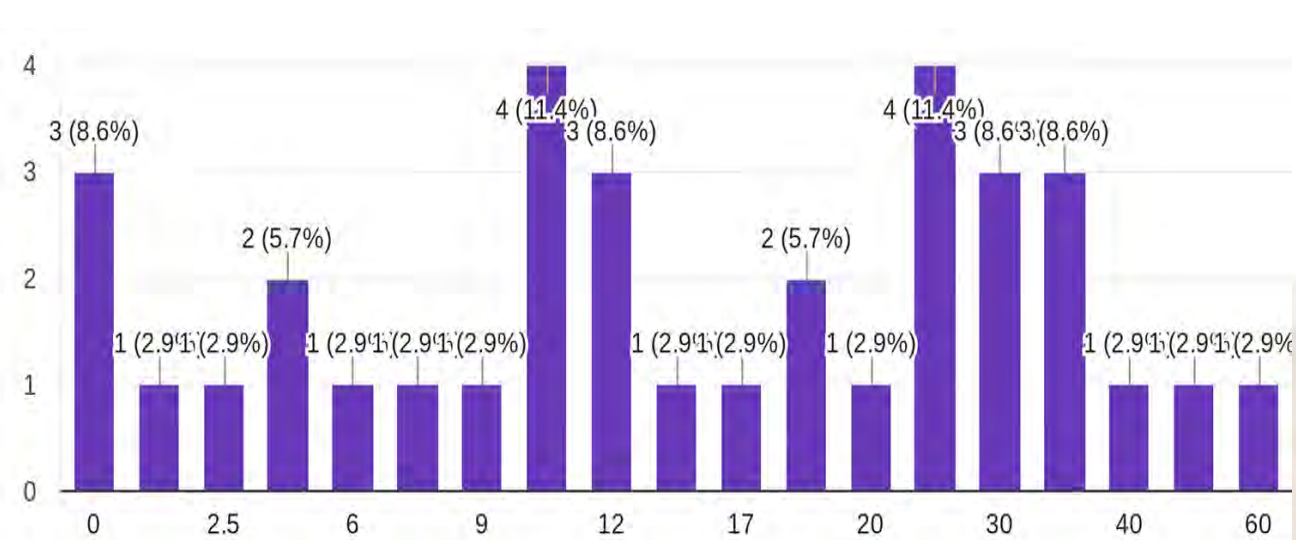
### Research Method

- Interview Investigation**
  - Ministry of Health
  - Peleliu Island
- Document Research**
- Questionnaire**
  - in the Republic of Palau
  - in Our School, Takatsuki

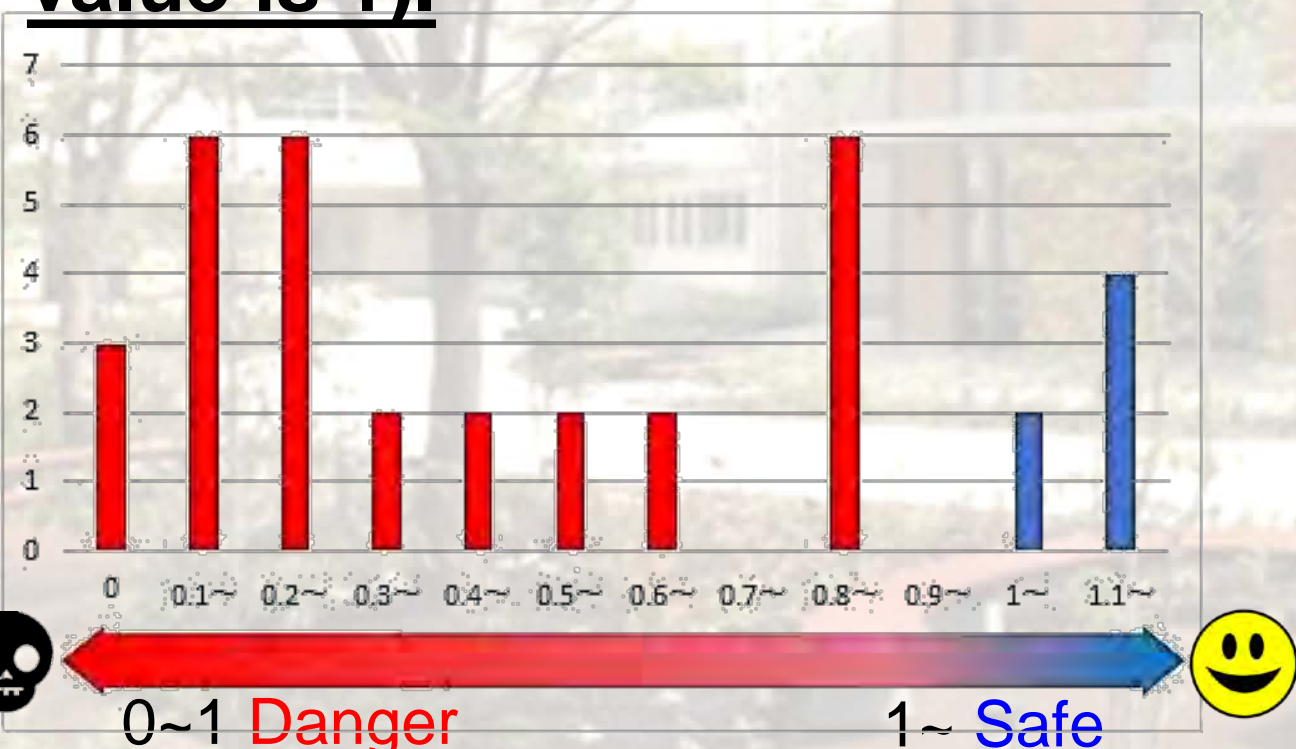
### Research Results

#### In Japan

Q. Please tell me how much water you stock in case disaster occurs.

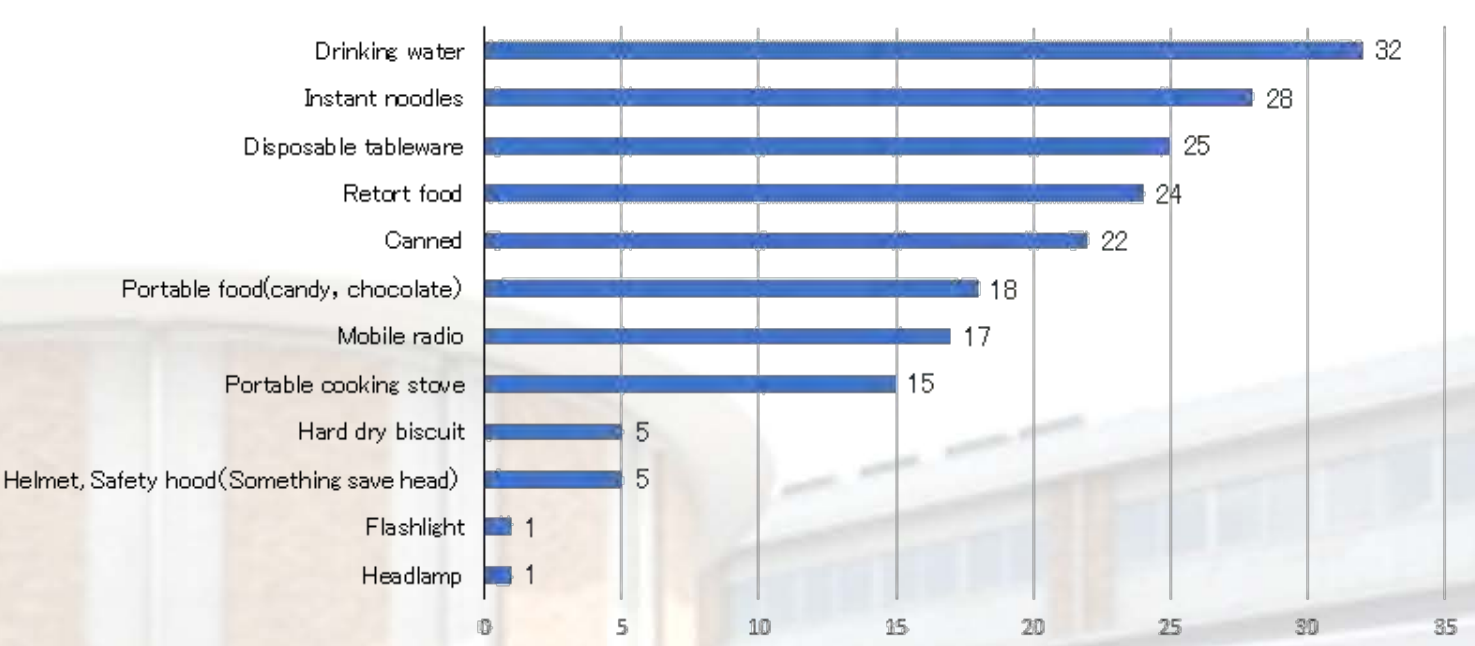


The ratio of the amount of stocking water (The required value is 1).

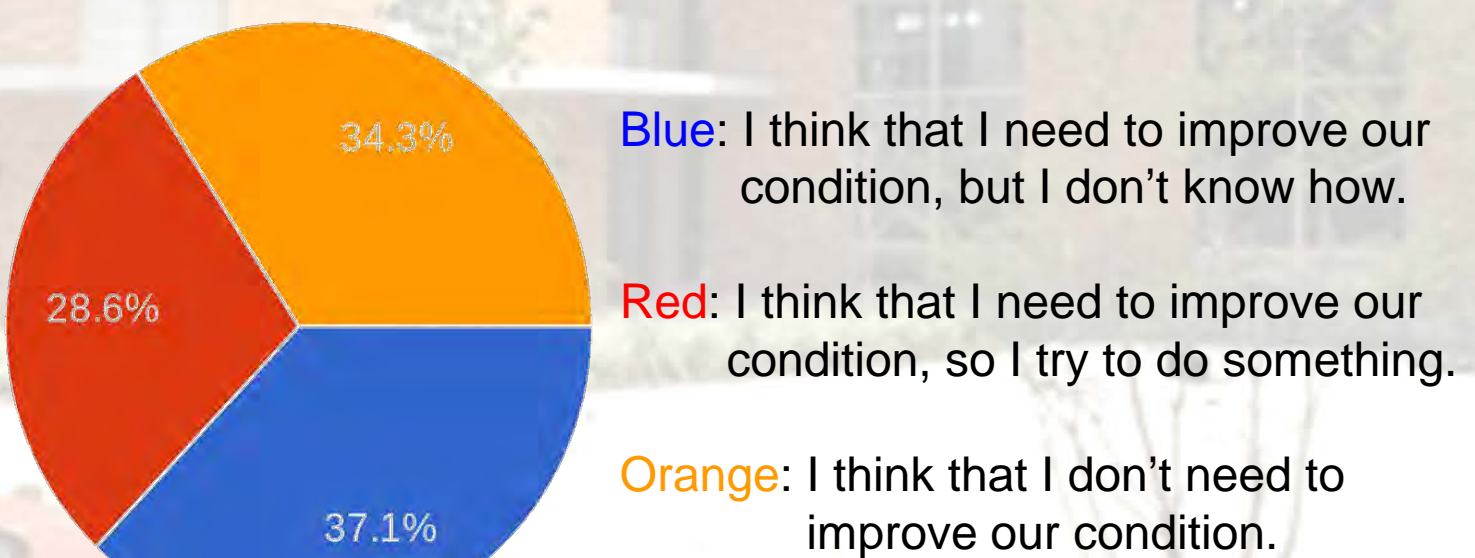


(the amount of water you stock) ÷ (the amount you need)

Q. Choose disaster prevention goods you have.



Q. Are you satisfy with the way to store water at your home?



Blue: I think that I need to improve our condition, but I don't know how.  
Red: I think that I need to improve our condition, so I try to do something.  
Orange: I think that I don't need to improve our condition.

#### In Palau

##### Ministry of Public Health

When natural disaster happens in Palau, Environmental Health Team is formed at a state level, and the team checks the quality of water and how water is preserved.

##### Peleliu Islanders

a small island very far from a main island

In 1990, a huge typhoon struck the island. It took two weeks to recover lifelines. U.S. army supported us, and we had to use rainwater for our daily use.

##### High School Student

( Mindszenty High School )

Most people in Palau stock a lot of plastic bottles of drinking water. And some people drink saved rainwater after they boil it.

##### Questionnaire to High School Students

Do you have a counterplan for water shortage in daily life? ( This question was answered by 54 high school students. )

①Yes	32
②N o	22
Total	54



### What We Learned

	Japan	Palau
Stocks of Water	×	○
Awareness	×	○
Measure by gov.	△	○

### Proposal

- Improve Awareness of Storing Water in Japan
- Cooperation between Residents and Volunteers

### Suggestion

- Keep enough amount of water
- Volunteer / Help each other



### What We Did

#### Experience of Volunteer

Last year I went to Hiroshima as a volunteer because of the Western Japan heavy rain disaster.

- What I did : Sweep Mud
- What I felt ? ⇒ Fulfillment

Farmer in Hiroshima : "You are my life saver!"

#### Enlightenment Activity

Posters: in Library, in Cafeteria, on Bulletin Boards  
Presentations: to our classmates and juniors

#### We made a display about disaster countermeasures in our school library.



Poster



Enlightenment Activity



Display



### Conclusion

- Store sufficient amount of water at home
- Actively participate in volunteer activity

⇒ Support



### References

- 京都産業大学国際関係学部教授・三田貴氏の講演 (2019/10/08, 本校にて)
- eしずおか〜災害が起きてても水が使えるように〜/https://iswac.eshizuoka.jp/最終閲覧日 2019/12/15
- 災害時に欠かせない水〜確保の場所は? /NHKMIRAIMAGAGINE/https://www.nhk.or.jp/shutoken/miraima/articles/01135.html/最終閲覧日 2019/12/15
- 2008.2.20.重要インフラセキュリティセミナー2008.人はなぜ危機に備えないのか〜災害に備えない人の心理を探る/片田敏孝 https://www.jpccert.or.jp/present/2008/20080220Katada\_sama.pdf/最終閲覧日 2019/12/19
- 第2章水に困らない避難生活のために〜1.水の無い避難生活〜/国土交通省近畿地方整備局 /https://www.kkr.mlit.go.jp/plan/daishinsai/2.html/最終閲覧日 2019/12/15
- 飲料水、必要量備蓄は2割、一人あたり3日分9リットル/2018年8月31日付日本経済新聞 /https://www.nikkei.com/article/DGXMOZ034816830R30C18A8CR0000/最終閲覧日 2019/12/15