

ADRC Online Tsunami Seminar

9 March 2022 10 am (JST, UCT+9)

Q&A:

1. Does Chile have SOP (Standard Operation Plan) for tsunami warning?

Yes, there are protocols to follow for the emergency related to tsunami. You can look at them here (in Spanish).

https://www.onemi.gov.cl/wp-content/uploads/2018/09/PEEVR_TSUNAMI_01_02_2018.pdf

2. You talked about Risk and Crisis Management. What kinds of risk and crisis management activities are done at schools and communities?

Thank you for attending my conference. I choose nice and colourful images to keep you all awake 😊.

We have drills mainly focused on evacuation in case of earthquakes and tsunami. We have to improve a lot our educational system to have a more complete preparation for Disasters (for example, first aid, cooking, multi-hazard disaster, etc.)

3. Could you explain more clearly "SIPAT" and "SNAM"?

SNAM is the National System for Tsunami Alarm. It is part of the Chilean Navy. It is an "institution" responsible for Tsunami Alarm.

SIPAT is the Integrated System for Prediction and Alert of Tsunamis. It is a software or tool that the SNAM uses to manage evacuation of the coast in case of near-field tsunamis. You can find a better description here:

<https://www.youtube.com/watch?v=1nvECsArJZY>

4. Probability of Hazard Occurrence is predictable up to certain level since it is "probability". In your equation $P \times I = R$ and if we have wrong estimation of P then R will also be wrongly estimated. Could you please explain? Also disaster Impact = f (Hazard, vulnerability, exposure). Hazard is a natural phenomenon but when it interacts with other factors it creates disaster and the Impact vary according to the magnitude of other two variables.

Earthquakes and Tsunamis are not so predictable. You can have some clues about where a big Earthquake can occur, but the confidence level is low. So, from my point of view, to trust predictions is not a good business. It is better to focus on the impact assuming worst scenarios (that depends on hazard magnitude, exposure and vulnerabilities, at least), and that finally lead to reduce exposure, work on vulnerabilities, and increase capacities. Of course, natural disasters are not purely natural (here we get into the matter of definition). Some people talk about “socio-natural” disasters. Anyways, many of the risk drivers in our society are human factors that can be fixed. Of course, it is not an easy task. And, in fact, it’s a multidisciplinary challenge and a political problem.

5. Thank you for your presentation!! It seems Chile has seen a big economic growth.

Is the investment for disaster management increasing in Chile? Is the government’s budget for DRR high or low?

Yes, there has been a good economic management and good prices for our products. We have a lot of trade agreements. But this growth comes with a lot of inequalities. Richness is concentrated in a little percentage of people in the urban area, so there is poverty in surrounding cities. It is a part of our challenge to improve everyone’s life conditions. However, the government manages the budget for disaster (this was used for COVID-19 pandemic). Another important point is that here you always need insurance, specially for houses or infrastructure (the Bank will not lend you money without earthquake and fire insurance). So, usually earthquakes and other natural disasters here in Chile, after a while became a booster for the economy. And because we are so accustomed to them, after the emergency the country moves up very fast for rebuilding. That means work and money flux into the market.

Notwithstanding, the economic impact of disaster is huge and the government usually has to ask the Congress for authorization to change the yearly financial plan and move money from several item to reconstruction.

Finally, there has been increases for the operation of SNAM, the Seismological Center and other institutions. Never enough, of course. As I said, Chile is a large country, with few inhabitants.

6. We do not have any local disaster management plan (in provincial level).

Do you have local disaster management plans in Chile?

If YES, does your university provide any opinion/suggestion for making local disaster management plan?

Yes, we have those local disaster management plans, but not everywhere. Those plans are usually focused on the emergency, not in the integrity of Disaster Risk Management. Also, at local level, a

large part of Municipalities has a lack of capacity, and does not have a very good risk governance. We need budget and human resources to go from the emergency management to integral risk management. At the universities we work with local and national institutions, but not necessarily involved in the development of DRM plans. My university, for example, have good ties with the Municipalities of Valparaíso and Viña del Mar, and we assess them to manage coastal storms and other extreme events in the coastal area (we have had a large increment on extreme waves since the last 10 years).