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## Evaluating Disaster Preparedness in West Sumatra through Media

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**Abstract** – Since the Indian Ocean Tsunami, disaster preparedness has been acknowledged as a key need in communities near the Sumatran fault line. This article presents the results of an evaluation of community disaster preparedness in Padang, West Sumatra. The disaster preparedness of the community was measured from interviews with key informants focusing on disaster matters. Even as awareness campaigns conducted by local media have improved disaster preparedness, more disaster simulations are needed in districts outside Padang. The interviews show that the local government officials and the NGOs think the community has learned disaster preparedness via media, including television, radio, leaflets and billboards. The topics focused on construction, evacuation routes, and what to do when an earthquake happens. Key individuals still see many needs remaining in the development of disaster preparedness for the community. Key informants recommend that the efforts of the local government to implement disaster preparedness programs should be based on public-private partnerships; it is noted that media and NGOs, as well as other interested stakeholders, should participate.

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**Keywords** – disaster preparedness, campaign, community, resilience, media

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### 1. Introduction

The Padang Pariaman area was hit by an unusually strong earthquake on September 30, 2009 at 5:16 pm local time. The epicenter of the 7.6-magnitude quake was located 60 km off the coast of Padang, and at a depth of 80 km. It took place along the same Sumatran fault line that caused the 2004 Indian Ocean Tsunami<sup>1</sup>.

As a result of the Indian Ocean tsunami, followed by the earthquake in Padang in 2005, the need for raising the awareness of disaster preparedness became obvious. Volunteer-based groups were formed in Padang. The government improved their organizational operations towards better disaster preparedness planning and readiness on all levels. In addition, the Padang earthquake prompted the local government, private sector organisations, and the media to work together to educate the communities on disaster preparedness.

This disaster preparedness research is part of a wider Disaster Mitigation and Preparedness (DMP) project launched in Aceh in 2007, with the purpose of develop-

ing disaster preparedness radio programs together with communities. The first evaluation of the DMP project showed that radio educates local communities in disaster preparedness; however, village leaders voiced their need for more disaster preparedness education on a community level (Romo-Murphy et al. 2011:812).

This evaluation was conducted in Padang in November 2010, one year after the earthquake. Key informants were interviewed about the disaster preparedness of the local community. Padang residents had experienced several recovery and construction programs organised both by local and international agencies. One of them was a media campaign towards better construction methods. Australia-Indonesia Facility for Disaster Reduction (AIFDR) and the National Agency for Disaster Management (BNPB) organized a building project and media campaign 'It's not the earthquake but it is the construction' ('Bukan gempanya, tapi bangunannya') from February to June 2010. This multimedia 'Build Better' -campaign transmitted the slogan via several media outlets<sup>2</sup>.

<sup>1</sup><http://www.earthobservatory.sg/files/resources/files/graph-origin-sumatran-earthquake.pdf> (8 October 2013), [https://www.eeri.org/site/images/eeri\\_newsletter/2009\\_pdf/Nov09.pdf](https://www.eeri.org/site/images/eeri_newsletter/2009_pdf/Nov09.pdf) (8 October 2013)

<sup>2</sup><https://sites.google.com/site/rumahamangempa/cerita-dari-lapangan/integrating-build-back-better-campaign-into-local-culture> (8 October 2013)

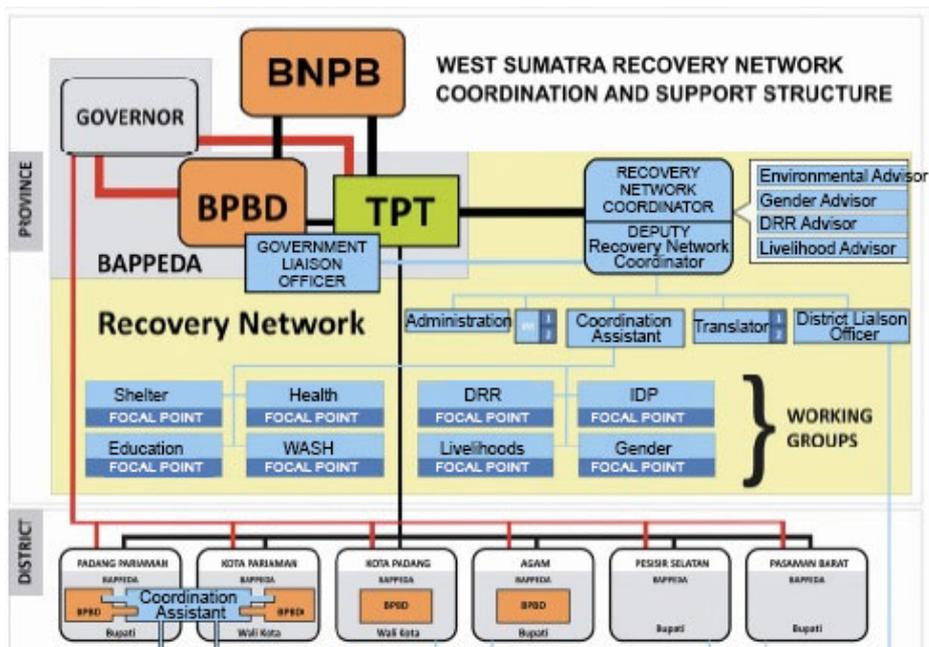


Figure 1: Framework of Early Recovery Network

## 2. Methodology and data

For this study, two groups of key informants were chosen by discretion; one group were officials from the district government level, and the second group consisted of representatives of non-governmental organizations. Informants of each group were knowledgeable about Padang and Pariaman disaster preparedness coordination and recovery. Key Interviews were carried out at first to those in the local government who are responsible for disaster preparedness education in the community, and secondly to representatives of NGOs who had been active in DRR. The questions were the same as those used in a similar evaluation in Aceh 2009 (Romo-Murphy, 2012:127).

Local research assistants conducted the interviews during November 2010. Three of the interviewers were post-grad students, who possessed experience in face-to-face interviews, while the other three were Respon radio programmers, and were trained in using the interview questions.

### 2.1. District key informants

The Indonesian government has reorganised its network of response to natural disasters. Each province has its district agency, since a district-based coordination mechanism is considered more relevant in the early recovery process, in comparison to having several agencies using different approaches. District coordination is a means to facilitate the early recovery process (Ratnanto, 2010: 71). Figure 1 (Ratnanto, 2010:73) identifies the West Sumatra early recovery coordination model. The purpose of the framework is to interlink various stakeholders from working groups, districts and levels of authority. The model

covers eight working groups and the six most-affected districts with the purpose of making it easy for the information to flow in between the districts, and between the districts and financial bodies. Near the top level there is BPBD (Badan Penanggulangan Bencana Daerah = Disaster Management District Agency), with the BNPB, at the very top, which is the equivalent at the national level. Identifying other actors at the district level; 'Bupati' or 'wali kota' is leading, while 'camat' leads the subdistrict, and 'nagari' or 'kepala desa' leads the village. BAPPEDA (Badan Perencana Pempangunan Daerah) is equivalent to the Regional Body for Planning and Development.

One option was to look for key informants from the top levels within the Framework of the Early Recovery Network; such people as the BNPB representative, the DRR advisor, the DRR working group advisor, and the district coordination assistants of Kota<sup>3</sup> Pariaman and Kota Padang. Based on the local researcher's advice, the key informants were not chosen from officials at the Kota level, but from the Kabupaten<sup>4</sup> level. These district officials were chosen since they know the Padang and Pariaman Districts best.

For this research, five district coordinators were interviewed from four districts; two from the Padang Pariaman District, and one each from Pariaman City, Agam District and the Pesisir Selatan District with no interviews conducted in the Padang City District and the Pasaman Barat Districts. The informants interviewed represent the views of the district coordinators in the four districts. (Kota Pariaman and Pesisir Selatan did not have a district disaster management agency at the time of the interviews). In addition to the five district coordinators, another three officials were interviewed from the Padang Pariaman legal office, the tourism planning board and the BPBD.

<sup>3</sup>Kota (Indonesian) = Municipality

<sup>4</sup>Kabupaten (Indonesian) = District

## 2.2. NGO key informants

The NGO key informants interviewed represented six organizations; Habitat for Humanity, Handicap International, the Ibu Foundation, KOGAMI, Mercy Corps, and World Vision. I interviewed Disaster Management Program Manager Endang Trisna from Mercy Corps, while the local research assistants interviewed all the others.

## 3. Data analysis

The interviews consisted of ten questions focusing on two main aspects: the level of disaster preparedness in the community, and what media has accomplished in educating the citizens. The interviews were transcribed and translated for the researcher to be analysed, using content analysis. From the interviews, patterns and themes were identified from the answers to the questions that follow. While reading the interviews several times, topics were listed from each informant. The researcher then categorized the topics into larger issues according to each question.

Questions asked are as follows:

1. How has community preparedness to disasters changed in the past year in this area?
2. What have the residents of Pariaman / Padang learned about DRR?
3. What else does the community need to learn about DRR?
4. How do you see the media in Pariaman/Padang contributing to DRR?
5. Have you seen DRR related messages on TV? What kind?
6. Have you seen/listened DRR related messages on radio? What kind?
7. Have you read DRR related messages on papers or leaflets? What kind?
8. How do you see the role of Respon Radio 94.7 in helping to improve disaster information dissemination?
9. What kind of action does the government take with media to improve the people's awareness about disasters?
10. What do you think: What is the response of the public towards DRR radio programs?
11. What kind of information has the government given about earthquakes and tsunamis to the public?
12. What do you think: Has the information about earthquakes and tsunamis that has been given by the officials reached all the residents of Padang and Pariaman?

## 4. Results

According to the district officials, community members use various media to learn about earthquakes, including television, radio, and local papers, as well as mobile communication. To make community disaster preparedness more effective, district officials suggest cooperation between the local government and the media.

Among all districts, Padang is a positive exception in that the Mayor uses RRI Padang (Radio Republic Indonesia Padang) to disseminate earthquake information. NGO informants agreed with this view in that they have noticed RRI Padang organising radio specials in response and recovery (R&R). However, on a wider scale, in other districts there is no disaster cooperation shown between the local government and the media.

Media's accomplishment of educating the community in disaster preparedness was recognised by both groups of informants, as there had been a media campaign on construction practises a few months before the interviews. The campaign message 'It's not the earthquake, but it's the construction' was delivered via posters, notice boards, banners, several radio stations, TVRI (television station), newspaper, bus, and film. The entire community was informed on how to build houses that withstand earthquakes.

The media gathered two negative mentions among the NGOs: first, the information given by the media has increased stress and led to panic in the community. (This actually took place just before the research project, when inaccurate information was aired after the Mentawai tsunami in October 2010.) Secondly, NGO informants evaluated the television messages claiming they tended to exaggerate the impact of disasters, and discuss details of less importance.

According to local officials, the districts seem to be at different levels of disaster preparedness. For example, the district of Agam is still dealing with reconstruction following the September 2009 earthquake. The district of Pesisir Selatan established its disaster management agency (BPBD) one year after the earthquake, while the district of Padang Pariaman had their BPBD established a few months after the earthquake. On a positive note, the BPBD of Padang Pariaman has been very active in cooperating with the NGOs and has even organized disaster simulations in Ulakan Tapakis and in other disaster-prone areas. There are also plans to install evacuation route signs. In addition to this, a rapid response team has been established in Padang Pariaman, consisting of government agencies, the health department, the department of transportation, RAPI (Radio Antar Penduduk Indonesia) and ORARI (Organisasi Amatir Radio Indonesia).

District officials have emphasized the fact that even though they realize that community members have a low level of preparedness for disasters, the local governments of the four districts (Padang, Padang Pariaman, Pariaman and Pesisir Selatan) do not have the funding to pay for such preventive activities. Officials suggest that one way of solving the financial issue is to team up with the NGOs in construction, and together supply materials as well as instruction. Currently, the community sees the NGOs, along with the private sector, as being active in disaster preparedness, which in turn decreases trust in the local government to carry out preventive activities. Yet, since there is such an obvious need for community based disaster preparedness programs, officials felt the government should work together with the media and the NGOs to build effective public-private partnerships.

NGO informants pointed out that the local government has provided notifications to keep the public alert, and has asked schools to instruct students on disaster preparedness. According to the NGOs, the government has carried out simulation drills to include the media, the army, the schools, the private sector, the community, and four villages. On the other hand, some NGO informants were critical about the government's actions saying there is a lack of systematical preparation in achieving proper results. When disaster occurs, there is emergency response, however, it lacks follow-up and simulations, and in addition to this the information delivered is not uniform throughout the various media outlets.

## 5. Discussion

This study confirms media's importance before disasters. Media, especially community media, can take the role of an educator and facilitator for citizens' disaster preparedness. Similar research was conducted in Aceh in 2009, showing that both local government and NGO representatives viewed disaster preparedness education positively. However, in Aceh, village leaders expressed discontent with the disaster preparedness education in villages. In this study, it would have been interesting to hear the opinions of village leaders from outside Padang.

These interviews resulted in the recognition of the need for disaster preparedness in communities. Both local district officials as well as NGO informants unanimously agree that Padang, and especially the surrounding districts still need preparedness education, even though much has been accomplished through the media campaign. District officials welcome NGOs and private organisations to partner with local governments in organizing disaster preparedness education, especially in districts outside the city of Padang. There is a crucial need for construction funding for those households desiring to improve construction methods. In addition to proper construction planning, all coastal areas need preparedness education on how to utilize evacuation maps, and on how to mark the evacuation routes effectively.

## 6. Conclusion

Two groups of informants were interviewed to evaluate the level of the society's disaster preparedness. On the dis-

trict government level, one group was actually involved in the West Sumatra recovery network coordination and support structure. The second group consisted of NGOs who had been working in disaster preparedness and in the recovery process.

In conclusion, the interviews show that both local government officials and NGOs affirm the community has learned disaster preparedness via media, including television, radio, leaflets and billboards. The topics covered were construction, evacuation routes, and what to do when an earthquake happens. The RRI Padang has been recognized by officials as educating in disaster preparedness. NGOs also approved of the Journalistic Network for Disaster Preparedness that was established to promote awareness campaigns. Both local officials and the NGOs voiced concerns that the media must give accurate information when reporting disasters, and to do so in such a manner as to avoid creating panic and undue stress within the community.

Local officials seem to appreciate all the disaster preparedness efforts organized by the NGOs, and see them as good partners for local governments to cooperate in DRR matters in the future. Although Padang Pariaman is acknowledged as being prepared as far as disaster simulations, both officials and NGOs agree the government needs to carry out additional simulations in other districts.

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