



Solomon Islands Media Assistance Scheme (SOLMAS)

# INFORMATION IN NATURAL DISASTERS

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Cover photo: Conducting focus group discussions in Nea, Temotu Province.  
Photo by Anouk Ride 2013.

# Acknowledgements

This report assesses current information materials on natural disasters in Solomon Islands, identifies the key factors in disseminating information during a disaster and provides recommendations for future disaster content and communications. This study was commissioned on behalf of the Solomon Islands National Disaster Management Office (NDMO) by the Solomon Islands Media Assistance Scheme (SOLMAS) with support from ABC International Development and funded by the Australian Government.

This report was authored by Anouk Ride, Melinda Kii, George West Dapelebo and Dallas Hila, with valuable consultations and technical input provided by Sipuru Rove, Jeremy Miller, Vipul Khosla and Angela Davis. The authors welcome feedback on the report.

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Any opinions represented in this report are those of the authors and research participants and do not necessarily reflect the views of the Australian Broadcasting Corporation.



# Introduction

In August 2013, research was commissioned to assess current information materials about natural disasters in Solomon Islands, identify key factors in spreading information in times of disaster, and make recommendations for content and approach of future communications.

National Disaster Management Office (NDMO) identified potential research sites of Kuma, Weather Coast region of Guadalcanal and Nea, southern coast of Nendo, Temotu province as being suitable sites for research given their vulnerability to disasters. The researchers (Research Manager Anouk Ride, Research Facilitator Melinda Kii) were accompanied by Local Research Facilitators (Dallas Hila in Kuma and George West Dapelebo in Nea) in each location to carry out three focus groups. The focus group participants were key male, female and youth actors, holding coordinator or leader roles in schools, church and other community institutions or in traditional leadership roles (e.g. chiefs).

In each location, there were people still affected by the disaster: Kuma from recent heavy rains, rough seas and flooding, and Nea from an earthquake and tsunami occurring in February. Recruitment was adapted to make sure safety and the need to not raise expectations of participants about the nature of the research. For instance, in Kuma, youth were not called upon to come down from hillside communities to participate in research as recent heavy rain and flooding could mean it was unsafe to do so. Similarly, in Nea, participants were largely recruited from people who had rebuilt their houses rather than those living in temporary accommodation such as tents. In this way, the participants represent a range of roles in the community (chief, church, business, public services) but by no means represent the demographic and geographic nature of the community, which would have required more extensive field research. However, questions about vulnerability were designed to seek some insights into the experience of these parts of the community that may not be represented in the sample.

The following report provides the research results from each case study, followed by recommendations for the approach, content and target for future communications materials and programs with disaster affected communities.

# Case Study 1

## INFORMATION IN FLOOD & CYCLONE CONDITIONS

### A Research Context

Kuma is a medium sized settlement of approximately 250 people, on a coastal plain surrounded by steep mountains to the west and south and a large river on its eastern border.

The people are serviced by a local clinic, primary and secondary school (offering classes up to and including Form 2 and boarding for secondary students). In its centre is a Seventh Day Adventist Church, with several community programs, notably for youth and women (although it also has South Seas Evangelical Church and Catholic Churches on the periphery of the centre which also have active community groups).

People do not have electricity and a few businesses have generators, which are used periodically. They recently have mobile reception thanks to a Telekom tower installed in 2012 in the centre of town; although, it is solar powered meaning in periods of heavy rain service can be intermittent or unreliable.

World Vision, based in Marao on the tip of the island, is currently running a health, water and sanitation program at the Kuma School. Apart from that there is no national or international NGO presence in the community.

Subsistence lifestyles and reliance on a single shipping line for supplies means that most people are reliant on family vegetable gardens and fishing. Sometimes raising pigs and chickens supplements this diet, along with hunting of birds and wild pigs in mountain areas.

Houses in Kuma are mainly made of wood and brick, but in the surrounding mountain villages leaf roof houses are common. Outmigration of educated people to Honiara is common, and these in turn become a social security net for those in and around Kuma, often sponsoring school fees and rice supplies for example.

### B Disaster Context

Situated in the middle of the aptly-named Weather Coast, Kuma commonly experiences rough seas (limiting access to food supplies such as staples like rice and also information from Honiara). It also has heavy rains, flooding of the river, landslides, sea rise and more rarely, cyclones and earthquakes.

Some of these conditions people have become habituated to – Kuma fishermen are known to be very tough and able to negotiate large swells in canoes to catch bonito and yellowfin tuna and people are used to the mud, rain and heavy winds. Adaptation has also taken place, for example Kuma used to be situated closer to the sea side and now is a short walk from the beach.



Image 1: Kuma village, Weather Coast. Photo by Anouk Ride 2013.

The reason for this adaptation is due to sea rise, Cyclone Namu, one of the country's largest ever that hit Guadalcanal in 1986, and the experience of the tensions when militant and "Joint Operation" (police-militant militias) raids came in from the sea, causing many people to run away to the hills. More recently, people have been moving further and further from the river as erosion and landslides put some village settlements in danger.

During the last six months, Kuma has experienced particularly heavy and non-stop rains, causing landslides and flooding. While no people have been killed or injured in these events, the majority of the population is experiencing food shortages. Unknown levels of hunger and malnutrition have been caused by the inability of people to farm their usual foods, and the spoiling of fresh fruit and vegetables due to water and humidity.

## C Data Collection

The research team of three, including one researcher born in Kuma, visited the settlement from Monday 9-Friday 13 September 2013. The team originally planned to arrive on Saturday 7 September but rough seas and weather delayed the visit. In the week prior to the arrival of the research team, two boats had been capsized by high swell and waves, rain had been very heavy and strong winds also reported.

Due to these weather difficulties, and the general hardship of the people at the time, the program was kept simple with three focus group discussions: 1) Male Church and Chief Leaders recruited from the centre and one village in the mountains 2) Women leaders and representatives (also recruited from the same 2 locales) and 3) Prefects and captains, were recruited at the local school, who came from a range of villages around Kuma. It was viewed as risky to ask other youth to come down to the centre for research purposes due to the rising river and other rough weather. The school itself had suspended many of its classes in the week prior to the arrival of the research team for this reason.



In total, 39 people participated in the research, details of which are provided in the table below:

**Table 1: Participant Details**

Participant detail	Numbers	% of Total
<b>Gender</b>		<b>Percentage of Total Sample</b>
Male	20	51%
Female	19	49%
<b>Age</b>		
Under 18	19	49%
18-24		<b>Percentage of Adult Sample</b>
25-34	8	40%
35-44	4	20%
45-54	3	15%
55+	5	25%
<b>Role*</b>		
Chief	1	5%
Church	9	45%
Public Service	2	10%
NGO	3	15%
Business	4	20%
Farmer/Fisher	3	15%
Household Duties	4	20%
Student	19	
<b>Education level</b>		<b>Percentage of Total Sample</b>
No School	2	10%
Primary School	9	23%
Some Secondary School	25	64%
Completed Secondary School	2	10%
Completed Tertiary School	1	3%

\* It should be noted that participants were able to identify as having more than one role. Percentages were calculated based on the total number of adult participants.

## D Information Sources and Networks

Kuma has very limited access to the media, compared to Honiara on the other side of the island. Radio, particularly the national channel Solomon Islands Broadcasting Corporation (SIBC), is the only commonly accessed media. People who own radios then are often a source of information to those that do not – meaning people’s experience of the media is often mediated through social discourse.

Mobile phones are also common in Kuma centre and mobile reception, when the weather is fine, is clear. Students in particular appear to most use mobile phones as a source of information, boarding students call their parents in other locations, and people share mobile phones for information and entertainment. However, just a short walk from Kuma (around two hours), mobile phone reception fails, meaning many people are without access to telecommunications services.

**Table 2: Sources of Information During Disaster Time**

Focus Group Type	Men	Women	Youth
Source of information  (not ranked in any particular order)	Radio  Personal experience of disaster, weather  Awareness programs (World Vision, Church) (Pathfinder groups at SDA for youth)  Common sense	Radio  Learning at School  Learning by Elders (e.g. short rainbows, black clouds from east mean long rains)  Solomon Star (When available, if someone brings from Honiara)  Awareness Programs	Radio  School - Social Studies subjects  Learning from Elders  Learning from Parents  Newspaper (When available, if someone brings from Honiara)

**Table 3: Networks of Information During Disaster Time**

Focus Group Type	Men	Women	Youth
Information Networks  (not ranked in any particular order)	Radio warning (e.g. strong winds don't go to sea)  Stories passed down generations  Mobile phone-Contacts from family in other province sometimes ring to spread information  Community meetings (called with bell, conch shell)  Friends relatives talking	Stories ancestors passed down generations  Radio-and community passing on to people who don't have radio  Friends relatives talking	Meetings at school of student  Mobile phone - boarding student hear news from other places and pass on  Friends talking



While students reported mobile phones as one of the top two sources of information, women did not report mobiles at all as a source of information, and men qualified their references to mobiles and radios pointing to them as sources of information for some but not all people. All of the focus groups reported radio as a main source of information during disaster time. During the male focus group, the point was made that people had become habituated to weather and disaster so sources of information and responses were seen as “common sense” or natural. In the youth focus group, the difference between difficulty and disaster was seen in human terms – hunger – so when the students were hungry or saw people hungry they realised there was a natural disaster.

## **E** Key Actors During Preparations for/Response to Disasters

In this slow-onset disaster of flooding, it was difficult to identify how key factors in disaster time could be different or the same as general community relations. Nevertheless, all focus groups listed Chiefs and Church Leaders as important, however apart from sharing weather information there was no reference to these leaders involvement in how to prepare or respond to the disaster. Instead, the men and women’s focus group emphasised how this year’s rains were longer in duration than any experienced before and in fact they had little idea how to respond to the food shortages that occurred.

There were however, frequent mentions of families making decisions on how to keep their house and garden so it appears that decisions about disaster preparations and response occur mainly at the family level. This has implications for awareness activities as will be discussed further below.

## **F** Impact of Information on Behaviour and Decision-Making

The impact of information on behaviour and decision-making in the recent disaster is difficult to assess as it appears there is a paucity of information on how to respond. People expressed a need for information about how to grow and store food in the current conditions, as most crops have failed, spoiled or been washed away by the river. Fishing remains difficult due to strong wind and waves, and alternate sources of protein such as chicken and pigs seem to be in short supply.

For the male focus group, in the absence of advice on how to survive, previous experience was the most often referenced source of information, people who had experienced disaster doing things differently the next time and telling others.

Both men and women said the situation is such that people cannot predict or adequately prepare based on the information and knowledge people already have that they have used before. For example, they expect long periods of rain but not this long, so the preparedness for food and other things is not there. They used to have a calendar of certain times to plant and harvest food but the weather has interfered with this, so the old schedule is not possible.

They feel that people in Honiara do not know the situation in Kuma in terms of weather (for example weather reports are north-focused so limited in relevance) and disaster. Men, women and youth, expressed the need for information with relevant authorities to be “two way” i.e. they send back information to Honiara about weather and disaster conditions locally and receive advice about safety and agriculture from Honiara.

In the youth focus group, it was seen that most information that came from Honiara needed to be interpreted – for example they did not understand the terms used in weather reports and expressed a desire for education to fill the gaps in knowledge to interpret information.

The SIBC Radio Community Service Announcement on flood was well recalled. All remembered at least two elements of the advice given, with people remembering pieces of information from the notices about flood and cyclones:

*“If umi lukim dat wata hem hae den umi muf go lo haea graun fo seifti”*  
**“If we see that the water level is getting high then we must move to higher grounds for safety.” (Men’s focus group)”**

The greater recall is most likely due to the fact that everyone said they had heard the Radio Community Service Announcements before, although it was also mentioned this information was easy to follow as in Pijin and simple in its message.

New information provided in the Announcements was the role of the radio and advice to turn off electricity (most people do not have electricity in Kuma and were not always aware of regular updates on disaster on the radio):

*“Taem disasta hem straek, iu mas tanem on redio blo iu evri taem”*  
**“When disaster strikes, you must listen to your radio at all times.”**  
 (Men’s focus group)

*“Evritaem iu mas onem redio blo iu bikos afta evri aoa bae olketa talem kam moa eni mesij”*  
**“Your radio must be turned on at all times because they have hourly updates.”**  
 (Men’s focus group)

The women’s focus group also mentioned that an element of the Radio Community Service Announcements that made them think was the advice not to go fishing during a flood. They said it was a time for easy fishing and collecting shellfish. Discussion revealed that sometimes flash flooding occurs because a pool in the river develops and then breaks or rain occurs in the mountains while areas close to the coast do not see the rain therefore do not expect the flood.

The posters on cyclones and floods were not well recalled, in a few cases people mentioned elements of the posters that were not there such as people being swept away by the flood or that the topic of the posters was climate change. Information was seen as confusing (especially red, yellow, blue alerts and how that could possibly be actioned in a context like Kuma without reliable weather information and warnings):

*“Mifala like save na lo mining blo olketa kala ia. Hao na difren raraet hem garem difren kala”*  
**“We want to know the meaning of these alert colours. How come these texts have different colours?” (Youth focus group)”**

*“Wanfala samting bae mi kuestenim na olketa kala lo hia ia, blu, ialo en red, olketa kala’s ia hao na bae mifala olketa komuniti aedentifaem?”*  
**“I would like to question the different colours in the posters, blue, yellow and red, how can the community identify or understand the colours and the meanings?”**  
 (Men’s focus group)

*“Mifala lo Wedakos olketa taem wea olketa kalas ia soum bae hem no folom mifala, umi save tsenim taem ia o no soum eksakt taem bikos kasem taem flad kasem mifala lo sort taem noma.”*  
**“The duration where the colours show does not refer to the Weather Coast, can we not be exact because sometimes flooding reaches us before the given duration.”**  
 (Men’s focus group)

Useful to the idea that radio was important as a source of information in disaster was the cartoon in the posters of a man holding a radio to his ear:

*“Wanfala man hem holem radio en hem herehere fo nius, so me mas peim wanfala redio fo herehere seleva lo nius”*

**“A man was holding onto a radio listening to news thus I must get a radio to listen to updates myself” (Women’s focus group)**

*“Man garem redio fo herehere lo disasta en redim hem seleva”*

**“There was a man with a radio listening to disaster warnings to get himself prepared” (Men’s focus group)**

The women’s focus group in particular mentioned the need to have more pictures – requested was pictures of people clearing around their houses to be free from falling objects, pictures of preparation and contents of emergency kit, and pictures of flood levels and what a red, blue and yellow alert looked like in terms of the rising water and damage. Youth too wanted the poster to show visually cause and effect:

*“Insaed posta mifala no lukim eni ren lo dea so mifala no save what na kosim flad ia. Mifala needim fo lukim ren so dat mifala save ren na kosim flad ia.”*

**“The poster(s) should show rainfall so that we know what (rain) really causes flooding of rivers” (Youth focus group)**

Pictures were seen as universally relevant:

*“Pipol learn different ways, but everiwan learn pictures, words no everiwan followim, usim story wit pictures, barava clear winnim words”*

**“People learn in different ways, but everyone learns through pictures, words not everyone will follow, but if you make a story with pictures, it’s very clear, more clear than words” (Women’s focus group)**

*“Pipol wea hem school bae save English, but stacca pipol sa luk lo picture en analysim fo hem seleva”*

**“People who have been to school might know English but most people look at pictures and analyse them for themselves” (Women’s focus group)**

Other people mentioned the advice given to prepare an emergency kit, but differing views were given about what exactly should go in the emergency kit. There was discussion particularly in the women’s focus group about what is useful to go in an emergency kit to take if need be to higher ground. It appears that women would do the bulk of the work in preparing such a kit and could do with further information and preparation about what might be useful. Women mentioned they had seen flooding already so knew a little about how to prepare but had not seen a cyclone (except for one elder woman who had experienced Cyclone Namu) so it was new to think about how to prepare an emergency kit.



The Television Community Service Announcement's main message "do not underestimate the power of nature" was well received and seen as valuable by all the focus groups:

*"Staka taem olketa pipol save and aestimeitim na paoa blo neitsa, hem wanfala samtin wea olketa stron lo saed lo aweanes lo hem bat staka mifala kostol pipol mifala stil dinaem iet ia, mifala heherem aweanes bat mifa stil stastap lo kos iet"*

***"People tend to underestimate the power of nature, tsunami awareness has been stressed out a lot but many of us coastal people still deny it that's why we are still living in the coast." (Men's focus group)***

*"Hem teachim mi, mi mas ready, anytime"*

***"It teaches me, I must be ready at all times" (Women's focus group)***

*"Actually mi tink mi OK becos mi stay lo bush, but bush pipol kum lo sea, so mifela mas readi too"*

***"Actually I thought I was OK [from natural disasters] because I live in the bush, but bush people come to the sea, so we must be ready too." (Women's focus group)***

The link between pictures and messages was seen as helpful to remembering information:

*"TV hem gud, taem mifala herem man toktok mifala lukim piksa tu"*

***"TV is good, audio and visual at the same time" (Youth focus group)***

However, the pictures used to illustrate the message were not seen as always relevant, or telling a story. The participants requested footage that dramatised events, using Solomon people and Solomon stories and showed Solomon places so they could relate to the experience better:

*"Lo tingting blo mi, TV ad ia sud putim na olketa samtin wea happen lo Solo mekem pipol I ukim"*

***"In my opinion the TV message should show what happened exactly here in the Solomon Islands so that people can see and know the effects." (Men's focus group)***

Women and youth particularly said the television ads were "too fast", and needed to slow down and simplify information:

*"Hem mas slow lelebet, show picture wat nao pipol duim, pikinini hao fo runaway"*

***"It must be slower, show images of what people are doing, children how to run away" (Women's focus group)***

Across the board, pictures that tell a story were said to most likely be effective across a wide spread of population, given limited literacy and language skills on the Weather Coast:

*"Mifala laekem olketa postas ia soum olketa step fo tekem taem disasta hem happen"*

***"We would like the posters to show each step taken during a disaster" (Men's focus group)***

*"Showim step by step, so mifela save gud hao fo prepare and runaway"*

***"Show it step by step, so we know fully how to prepare and escape" (Women's focus group)***

Dramatisations in information materials was preferred by all groups, and nominated as the best way to reach people such as those with disabilities that were seen to be most vulnerable during disaster:

*“Mi bae beisim baek moa lo treinin en aweanes ia, if olketa kam en duim ekseases lo hia bae evri wan save na wat fo duim, nomata iu blaen o ia pas o wat”*

**“I will base it [my answer to the question of how to reach the most vulnerable] on trainings and awareness again, if exercises and dramatisations are done then all individuals will know what to do, whether blind, deaf etc. (Men’s focus group)**

*“Bush pipol bae no save wat fo duim, givim awareness lo language en dramatisim fo makem hem save”*

**“Bush people won’t know what to do, give them awareness programs in their language and dramatise it to make them understand” (Women’s focus group)**

All groups had a strong preference for community awareness to accompany information materials – a feeling organisations should “come down” to the village level to talk about these issues:

*“Lo tingting blo me, olketa atoritis wea wakem posta’s ia sud kam daun en ekspleinim en lanem mifala hao fo laef lo taem blo fladin en saeklon”*

**“In my opinion the authorities who created these posters should come down and explain or give us instructions on how to survive during flooding or a cyclone.” (Men’s focus group)**

*“Mifala nidim samfala pipol fo kam en givim aweanes lo hao fo stap sef time disaster hem kam”*

**“We need people to give awareness on safety before any disaster strikes” (Youth focus group)**

*“Lukluk lo disfala posta ia staka grup na fandim bat so fa mifala lo hia Wol Vison noma kakasem mifala finis, olketa grup ia sud kam daon en trainim mifala lo saed lo disasta”*

**“It seems that these posters are funded by a lot of authorities but so far World Vision is the only group that has reached us, the others should also be involved in giving us training in disaster situations.” (Men’s focus group)**

There was a strong preference for Pijin and local language materials rather than English, as only a few are comfortable reading and writing English and the information was seen as important to be distributed widely:

*“Man tok lo radio mas spikim langus bicos oloketa ol pipol no herem savve na Pijin”*

**“The radio announcer should talk in the indigenous language (Tolo) because old people do not understand Pijin” (Youth focus group)**

*“Olketa posta ia hem gud bat if hem stei lo haus blo mifala bae staka no minim bikos hem lo langus wea staka no save”*

**“The posters are okay but if we put them up in our houses most people here will not understand it because it is in a language where a lot of us don’t understand” (Men’s focus group)**

*“Lo taem blo disasta olketa instraksens ia trae fo talem impotent samting ia bat if iu talem lo langus wea pipol no save den bae hem no impotent na ia”*

**“When there is a disaster, instructions are critical and seen as important but if the messages are not in the dialect that is understood by people then it will be considered useless or less important.” (Men’s focus group)**

## **H** Unmet Information Needs

In relation to the content of information the most urgent need was information to adapt food cultivation to heavy rain/flood conditions.

Other information requested was about how to prepare and respond to cyclones, given that these had not been experienced directly on the Weather Coast since Cyclone Namu. Leaders requested information that community leaders (e.g. chiefs) can use in village meetings and simulations or exercises where people could practice or enact disaster preparation was also seen as a need:

*“Sumtimes mifela panic en no takem basket, den time mifela kasem bush tingim hem. Time tsunami warning iu lukim pipol go allabout tumas. Mifela forget fo putim safety rules into practice, bae needim practice fo safety rules en wat fo duim”*

**“Sometimes we panic and don’t take a basket, then when we are in the bush we think about it. When the tsunami warning happened, you saw people confused and doing things randomly. We forget to put safety rules into practice, so we need practice of safety rules and what to do.” (Women’s focus group)**

*“Mi tingim osem ia, ufala sud kolem a gadaring taem disasta hem happen, osem olketa tsif sud kolem evri wan lo vilej na fo talem olketa”*

**“I think that during a disaster chiefs should gather villagers to inform all what to do.” (Men’s focus group)**

*“Evri wan mas garem treinin lo wat fo duim so taem disasta hem happen umi save wat fo duim”*

**“All individuals must be trained in what to do during a disaster so that if it strikes we all know what to do wherever we are” (Men’s focus group)**

Such information was wanted in Pijin and local language. Media formats that can be used either on radio or in village setting (i.e. posters, products, awareness) were seen as most appropriate. Existing community hubs such as the school, clinic and churches were identified as useful points for awareness and distribution of information materials as they were likely to be places of community organisation in disaster:

*“Olketa kiliniks mas redim tu olketa samting osem seifti kit bifo mifala ranawe”*

**“Clinics must also prepare things in advance like safety kits before we flee.” (Men’s focus group)**

*“Disasta hem happen eni taem noma ia, nogud disasta hem happen taem olketa studens lo klas so olketa atorotis ia mas provaedem infomeison fo olketa skuls tu ia”*

**“Disasters occur suddenly, authorities must also provide information’s to schools as well in case of situations when disaster strikes whilst students are still in class.” (Men’s focus group)**



# Case Study 2

## INFORMATION IN FLOOD & CYCLONE CONDITIONS

### A Research Context

Temotu province is the easternmost region of the Solomon Islands, bordering Vanuatu with approximately 20,000 inhabitants, around one quarter of which are clustered on the major island of Nendo (or Santa Cruz island). Others inhabit the many outlying islands. Santa Cruz island is 660 km from Honiara.

Nea is a settlement of approximately 600 people on a coastal plain on Santa Cruz island, around one hour's drive on a logging road from the Temotu provincial capital Lata. In the Nea/Noole Ward, 48% of the population is under 20 years old. The area is serviced by a primary and secondary school providing classes to Form 3. The nearest clinic is several hours walk away, and all other services are provided in Lata. Only a few houses (e.g. of the pastor/church) have generators, most are without electricity. Some people are still residing in tents provided by relief agencies in the hills around Nea after the February earthquake and tsunami. There are conflicting reports about whether they are doing so out of necessity or waiting for promises of provisions of houses from agencies to be fulfilled. Traditional building materials such as wood and sago palm are readily available.

People subsist on agriculture and fishing and have a regular diet of fish, breadfruit (which is also dried and stored for up to a year), root vegetables and fruits. Some also raise chickens and pigs.

There are three major churches in Nea and the surrounding area – Anglican, which is the predominant faith on Nendo island, Church of Christ and a new breakaway group from this church called Kingdom Transformation. The vast majority of people are Melanesians, indigenous to the area. In Nea itself there are a few children with disability (Downs Syndrome, physical disability) and one man who was identified as having a mental disability (not diagnosed).

Prior to the tsunami, Red Cross had conducted a disaster awareness and Oxfam an agriculture project. After the tsunami, many agencies visited Nea to conduct research and new projects such as World Vision (relief, water and sanitation), Provincial Government (data collection/disaster programs), UNICEF (relief/tents/school assistance), Shelterbox (emergency tent supplies) and others.

### B Disaster Context

On Tuesday 6 February 2013 at 12.12pm, an earthquake of 8.0 magnitude occurred 33 kilometres West-Southwest of Santa Cruz island. It was followed by a tsunami with waves of approximately 1.5-3 metres which swept over the southern side of Santa Cruz island.



Image 2: Disaster shelters still housing communities after the February earthquake/tsunami. Photo by Anouk Ride 2013.

The earthquake was followed by more than 130 tremors, one of which was 7.1 magnitude just 16 kilometres from land, causing landslides and further damage to homes. While the number of deaths was relatively small (10 people) an estimated 4509 people or 1066 households had their houses destroyed or damaged – 37% of the population of Santa Cruz island. People also lost other valuable assets such as cash stored in their homes, kitchen equipment, solar panels and tools.

The earthquake triggered a tsunami warning from the Pacific Tsunami Warning Center (PTWC) for the whole Pacific. However, many communities like Nea, without access to radios were unaware of the warning.

The National Disaster Council met on 6 February and approved a budget of SBD 1,000,000 to be used for response operations. International NGO's and the Solomon Islands Red Cross were asked to support the provision and distribution of non-food items, while donor partners supported aerial assessments, shipping of relief supplies, cash grants, and replenishment of in- country relief stocks. A Humanitarian Action Plan (HAP) was developed by the Government of Solomon Islands and its humanitarian and development partners with a four month timeframe.

## C Data Collection

In total, 34 people participated in the research, details of which are provided in the table below.

**Table 4: Participant Details**

Participant detail	Numbers	% of Total
<b>Gender</b>		Percentage of Total Sample
Male	18	53%
Female	16	47%
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Under 18	10	
18-24		<b>Percentage of Adult Sample</b>
25-34	2	8%
35-44	7	29%
45-54	7	29%
55+	8	33%
<b>Role</b>		
Chief	3	12%
Church	10	42%
Public Service		
NGO	2	8%
Business	3	12%
Farmer/Fisher	5	21%
Household Duties	4	17%
Student	10	
<b>Education level</b>		<b>Percentage of Total Sample</b>
No School	3	9%
Primary School	16	47%
Some Secondary School	15	44%
Completed Secondary School		
Completed Tertiary School		

## D Information Sources and Networks

The primary source of information, mentioned by all participants, was oral stories passed down the generations of a large tsunami approximately 150-200 years before today. The pattern and magnitude of this earthquake and tsunami reportedly closely mirrors recent experience.



The story from ancestors about the previous large tsunami was also accompanied by a prediction that there would be a big earthquake followed by tsunami 150 years after the last one. Other elements mentioned in the story that the ground would appear to shake up and down (rather than side to side as in other earthquakes) and directions that people needed to run away to a place of higher ground that was not close to hills likely to have landslides. This story was widely told throughout the community.

Some people mentioned in case the earth split, you must sit on a large piece of timber that would cover the hole. Others mentioned animals would run away and try and escape before the tsunami came. Others said the story also advised not to look back if you heard any strange sounds while running, even if they sounded like human screams, these sounds were made by devils that would disturb you from running to safety. So if you turned to look it is likely the tsunami wave would hit you and you could lose your life.

After the tsunami there were said to be “long dark nights” for about two weeks (whether this is metaphorical or literal is not known). These oral stories were passed down from generation to generation and most people when recalling the story, recalled being told it by a family member:

*“Man ia hem krae lo wata sos ia, evri wan se wanem na man ia krae fo ia? Hem se ‘Mi jes rimembam na wanem ol man hem talem kam, hem barava tru na wanem hem talem kam’, so hem minim olketa stori wea ol man blo iumi talem hem happen tru na, olketa stori ia tru wan na, afta 150 ias bae tsunami hem kasem ufala”.*

***“I saw him crying beside our water source, the other men were asking what he was crying for, he said ‘I remember now what your dad meant and was saying, it has happened and it is very true’, so it means what my father told us is a fact, we will expect a tsunami after 150 years .” (Men’s focus group)***

*“Dadi blo mi storim kam lo mifala dat if ert kuek en tsunami kasem mifala bae ufala save go lo ples osem, hem talem kam na wat fo duim en ples fo go lo hem so mifala folom en no eni wan lo mifala dae”*

***“My father told us what to do when there is an earth quake and tsunami, he told us where we would be safe and where to run to, so we followed his instructions during the tsunami and none of us ended up dead” (Women’s focus group)***

*“Mi harem from mami blo mi dat taem ert kuek o tsunami hem kam iu no ran go lo hil bae olketa ston rol daon en kasem iu, iu go lo ples hem hae en klia”*

***“I heard from my mother that when there is an earthquake or tsunami don’t run straight to the hills because the falling rocks may kill you, go to higher grounds but must be clear” (Women’s focus group)***

The second most common mentioned source of information about how to respond was Red Cross Solomon Islands. The organisation had a long standing relationship with Nea and had previously done an awareness program about one week before the tsunami occurred, including a demonstration/exercise on how to escape if a tsunami occurred. This drama was seen as useful in helping people imagine what to do:

*“Apat lo olketa storis wea hem handed daon from olketa ansestas ia wat mifala olredi save tu en olketa pikinini distaem ia save na from aweanes blo olketa Red Kros abaotim na disasta”*

***“Apart from the stories of our ancestors including the children we got other information from the Red Cross awareness on disaster.” (Men’s focus group)***

*“Drama barava naes, pipol lukim na wat fo duim en bae olketa foloum na*

***“Dramatisation during awareness is very useful because individuals actually see it and then put it into practice” (Men’s focus group)***

There was also a video about tsunami showing Indonesia and Japan tsunamis and stories from Western Province that had been previously circulated at a fundraising event in Nea for people affected by the Western Province tsunami in 2007 (and reportedly shown in Churches elsewhere on Santa Cruz Island):

*“Taem tsunami hitim West wanfala man lo West nem blo hem Boaz hem stei lo Lata, waka lo Agriculture hem kam mekem fanreising fo olketa lo West ia, hem kam na en soum vidio blo tsunami hem strikem Indonesia den afta Red Kros hem kam moa weitem blo Japan, dat wan na barava mekem pipol no mata smol pikini save wat fo duim en no eniwain dae”*

***“When the tsunami hit Western Province, a man named Boaz who lives and worked in Lata for the Agriculture came over for a fundraising drive for his people in the Western Province and showed us a video of the tsunami which hit Indonesia and then right after the Red Cross organisation came and showed us the video of the tsunami which hit Japan. Those videos gave us and the children ideas on what to do in a tsunami situation.” (Men’s focus group)***

Prior knowledge and awareness played a crucial role in disaster response in Nea, as there were no radio warnings heard or mobile phone reception at the time. The tsunami struck people by surprise.

*“Aweanes Red Kros givem lo mifala barava helpem mifala tumas, no long taem nomoa olketa kam givem aweanes en go bak nomoa tsunami kam na, so hem barava fres lo olketa pikinini en olketa mami so olketa save wat fo duim na”*

***“The awareness from Red Cross helped us out a lot, the tsunami hit us right after they came and gave the awareness so it was still fresh in our minds that even the children and mothers new exactly what to do” (Men’s focus group)***

*“Mifala garem olketa ivakueison saet wea olketa grani talem mifala so taem si ia hem drae mifala save na ia tsunami kam na en mifala save wean a fo run”*

***“We have evacuation sites where our grandparents told us so when we saw that the sea was dried up we knew that a tsunami was coming and we knew where to run to” (Youth focus group)***

**Table 5: Sources of Information During Disaster Time**

Focus Group Type	Men	Women	Youth
<b>Source of Information</b>  <b>(not ranked in any particular order)</b>	Stories from ancestors  Sea Tide  Magnitude and frequency of earthquakes  Verbal communication  Early reaction of animals  Previous awareness and video information - Red Cross & videos of tsunami	Stories from ancestors  Sea tide  Magnitude of frequency of earthquakes  Verbal earthquakes  Early reaction of animals  School bell  Previous awareness and video information - Red Cross & videos of tsunami	Stories from grandparents (including evacuation sites)  Sea tide  Length of earthquake  Fine sea for long time prior to tsunami  Early reaction of animals

**Table 6: Networks of Information During Disaster Time**

Focus Group Type	Men	Women	Youth
<b>Information networks</b>	Verbal communication with family and friends      In relief phase: Village Disaster Committee Aid projects	Verbal communication with family and friends	Verbal communication with family and friends

## E Key Actors During Preparations for/Response to Disasters

The tsunami happened rapidly and the people did not have access to warnings, so that there was not time for substantial preparation or leadership by key actors. However, based on oral stories and previous awareness, everyone knew to run to higher ground and the magnitude of the earthquake was such that people knew it was likely to be followed by a tsunami, so action was rapid. This quick response resulted in only one death in the wider Nea/Namboi area, reportedly of an old woman who went back to get her purse.

People recall shouting “tsunami, tsunami” and “run” and the school bell was rung, however one research participant commented that “by the time the bell started ringing, all the children had already run away”.

When residing on the hill in the days after the tsunami, people gathered together in families and under the direction of chiefs, however, some people were scattered all around and communication between the group was reportedly difficult. One of the lessons learnt from the tsunami, identified by research participants was to have a key gathering place that would enable people to stay together and distribute information and relief supplies more effectively.

## F Impact of Information on Behaviour and Decision-Making

The information that had the most impact on people’s behaviour and decision-making seems to be oral stories from family members. This gave people prior knowledge about how to recognise a tsunami was about to happen, and what to do to escape.

However, the recent awareness program run by Red Cross Solomon Islands, as one participant put it, meant that tsunami response was “fresh in our minds” and videos shown in the community gave people a sense of what a tsunami would look like and gravitas of the situation in terms of damage to properties and risk to people’s lives. On the converse side, some people pointed out that simulation and reality were different things, for instance people forget to blow a conch shell or do other things that were previously practiced in the preparedness exercises. Behaviour was based on survival instinct and previous knowledge:

*“Sapos mi jif mi bisi fo bloum kon sel moa, bae mi of tu ia”  
“I’m a chief but if I’m busy blowing the conch shell to warn others I might end up dead” (Men’s focus group)*

## G Assessment of Information Materials

Thanks to traditional knowledge, prior awareness programs and experience of tsunamis, the community already had a good understanding of the key ways to keep safe during this type of disaster in particular. In this way, the information materials particularly on earthquake and tsunami tended to reinforce what they already knew, but some advice was seen as counterintuitive or confusing. There are some tensions in the materials themselves given that earthquakes and tsunamis can occur together – for instance the poster about earthquake advises to get under something strong, the tsunami to run to higher ground – which people pointed out could be



confusing. It seems the participants did not think getting under a table was good advice as it was seen that houses were likely to fall on tables and a person could get crushed. It was also pointed out that most tables were not strong so offered no protection. There were also people who thought it was a good idea to grab some things to take with them, as advised with the emergency kit, and others who advised to not think of taking anything but to focus on running away from the disaster. This suggests behaviour would be different across the community in disasters of a lesser magnitude. In the recent tsunami, given the magnitude of the earthquake, the vast majority reported their instinct and behaviour was just to run away without carrying anything.

Recall of the posters varied across groups. Some youth had particularly good recall of the information in the posters, recalling text and advice, although this was by no means representative of the whole youth group. Men recalled the visual elements of the posters (pictures primarily, and some drawings). Women had particularly poor recall of the information in the posters and radio announcement, which may be due in part to the lower levels of education of this group compared with the other focus groups. Similarly, they did not understand the television announcement as it was in English and seen as overly complicated.

There was a strong feeling, particularly in the male and youth focus groups that pictures of real people and places were vastly preferable to cartoons. Reasons cited for this preference included the need to visualise and put information in pictures into practice in real life and the need for it to be easily seen (some cartoons were seen as too small). However the primary reason cited for a dislike of cartoons was that disasters were serious events, while cartoons were for entertainment:

*“Umi shud tsenjim na olketa katun insaed lo hia en putim na ril man bikos samtaems olketa man lukim nomoa olketa katun ia en bae olketa fani nomoa en laf lo hem”*

**“The cartoons should be changed to a realistic picture because individuals may see it and just make fun of it and laugh at it” (Men’s focus group)**

*“Usim real pictures. No garem interest fo cartoon, mifela interest lo picture, pipol lukim cartoon, no interest fo readim, use real picture for man interest for readim wat nao inside”*

**“Use real pictures. No interest in cartoons, we are interested in pictures, people see cartoons they are not interested to read it, use real pictures to make people interested to read what is inside.” (Youth focus group)**

*“No usim cartoons inside posters. Bae hem nothing givim courage lo pipol bae hem try fo funny. Information inside barava important, bae hem luk funny pipol bae no readim gud”*

**“Do not use cartoons in the posters. It really does not give people courage if you are trying to be funny. Information here [in the posters] is important, but if it looks funny people will not read it carefully.” (Youth focus group)**

The strong feeling about this issue likely reflects the fear, distress and difficulties people faced in the tsunami and the need for acknowledgement of this experience in communication materials and awareness activities (see Bretherton & Ride, 2011).

Each group identified that to reach the whole community, rather than just those that could read, the posters should include key information in clear pictures.

*“Sumfela school, sumfela nomoa. Bae usim picture yeah? Den pipol save, mi mas act olsem, time earthquake, mas go lo safe ples”*

***“Some people have gone to school, some have not. But use the pictures yes? Then people know, I must do this, in an earthquake, go to a safe place.”  
(Women’s focus group).***

*“Disfela picture lo plan small tumas, makem picture big lelebet fo makem pipol save iu meanim evacuation sites, plans.”*

***“This picture of the plan is very small, make the pictures bigger to make people understand you mean evacuation sites, plans” (Women’s focus group)***

Some commented on the need for the English to be simpler also:

*“Sumfela mifela school and sumfela pipol nomoa, usim simple English dea, no words olsem English fo pipol wea school finis, for makem everiwan readim and understandim”*

***“Some of us have been to school and some of us have not, use simple English here, no words that are English for people who have finished school, to make everyone read it and understand it. (Youth focus group)”***

Women wanted a focus on what to do, whereas youth also wanted the posters to be educational including cause and effect of natural disasters. Other specific comments about the content include making the pictures more logical and instructive, for example showing a man running to a certain location, indicating where to run, not just a man running:

*“Putim piktsa blo hil or mauntin lo ples wea man ia ran go lo hem en wanfala aro fo soum dat lo dea na fo ran from man ia go lo hil or mountain, lo dis wan bae nomata man no save rid bae lukim noma den minim na”*

***“Include a hill or a mountain in the picture with an arrow giving directions where to run to from the person to the hill or mountain, with this those who are illiterate will understand it as well” (Men’s focus group)***

*“Mi lukim hem man fo runaway, waswe? Sumfela word or sumthing fo explainim waswe man runaway, special fo pipol no school.”*

***“I see a man running away but why? Some words or something to explain why the man is running, especially for people without school education”  
(Women’s focus group)***

Other examples of the need to make the visual information more practical suggested by participants included showing contents of emergency kit, a larger depiction of the phone number to call for more information and the colour alerts to be depicted visually.

People disputed the information in the posters seen as not practical/actionable such as hiding under tables:

*“Sapos umi se fo haed andanit teibol lo taem lo ert kuek hem no luk stret, if haus foldaun kam bae brekem teibol den kasem umi moa”*

***“Suppose we hide under a table during an earthquake, it does not seem right, the house may collapse on the table which will break and hurt us” (Men’s focus group)***

*“No hide under table, sum tables no strong so time earthquake bae you hide under table, house break lo table en iu en breakim head”*

***“Don’t hide under the table, some tables are not strong so when earthquake comes and if you hide under the table, the house will fall down on the table and crack your head” (Youth focus group)***

Another participant mentioned it was not a good idea to advise people to go to windows, rather they should go to a clear area. The Radio Community Service Announcements were seen as useful in that the information was straightforward, the messages logical, and in Pijin, a generally more accessible language than English. However, youth and women requested that the voice and information be slower to allow comprehension. Men and youth also said it would be useful to include some real sounds, such as the sound of tsunami (similar to a jet sound or roar, which occurs immediately prior to the wave coming to shore). This sound could help people recognise audio information that can identify an imminent disaster.

Some participants in the youth group also did not like the use of different voices, some of which were not seen to have the right tone. The following is a report by young men:

*“Usim proper tone lo voice. Wanfala man stori, anatha wan stori, nating proper lo hem. Music mas change too fo makem sum things kum out, den addim sound lo tsunami wave fo makem pipol save en readi. No stori fast tumas, bae mas slow down lelebet en no fast tumas.”*

***“Use proper tone of voice. One man talks, another talks, there is nothing proper about it. Music must change too for emphasising some things, then add the sound of a tsunami wave to make people know it and be ready. Don’t talk too fast, slow it down a little, not too fast.” (Youth focus group)***

While there were only a few critical comments about the Radio CSAs, people complained about the lack of access to radios and the need for assistance from government and non-government agencies to get radio sets so they could access advice and warnings. While people expressed a preference for information in pictures, people had some obstacles to understanding the Television Community Service Announcement. Foremost of these was the language used – English – which people recommended should be changed to Pijin. Because of this obstacle, women said they did not understand the key message of the announcement – do not underestimate the power of nature. Men said the message of being ready was good, but the announcement needed to be in Pijin and also include messages about adaptation – notably not to live on the coast, as some people were still living on the beach. Youth said an adaptation message which they wanted to be included was to plant mangroves (or retain them) so these plants would act as a buffer for tsunami waves. One woman participant said she found the numbering of the recommendations confusing:

*“Mi jus lukim picture nomoa, den numbers 1,2,3, but mi no save wat nao disfela numbers meanim. Tsunami mi lukim finis, earthquake mi feelim finis, mi luk lo picture en mi tinkim mi mas lukluk safety blo mi and pikinini”*

***“I just saw the pictures, then some numbers 1,2,3, but I don’t understand what it meant. Tsunami I have already seen it, earthquake I have felt it, I just saw the pictures and thought I must think about my safety and the safety of my children” (Women’s focus group).***

## H Unmet Information Needs

What appears to have been missing in the recent community response to the tsunami is clear identification and community-wide communication of where the evacuation sites were. People reported losing family members in the escape and being confused where to run and what route to take. Future awareness or community development programs could help leadership better identify some specific local information needed to make escape more timely and minimise confusion or panic.

Another element of resistance to adaptation is the rebuilding of school and water pipe in the same coastal location as before the tsunami. Then because of this, houses have been built around these key community assets. This leaves school children for example particularly vulnerable to tsunamis, some of which are boarding students, so without support of family in times of disaster, a point which was made strongly by the youth participants in the research:

*“Addim wanfala important message – buildim schools lo suitable site. Students stay barava far away from parents and time everyting happen mifela no safe. Build schools lo safe ples, up lo higher ground, away frum landslides en tsunami”*

***“Add an important message – build your schools on a suitable site. Students stay far away from their parents and when everything [the disaster] happened we are not safe. Build schools in safe places, up on higher ground, away from landslides and tsunamis” (Youth focus group)***

The emergency kit left by an aid agency prior to the tsunami, was also housed in a coastal location, meaning all the supplies were washed away by the waves. It appears most people do not have an emergency kit and could do with better planning in case of future tsunamis or other coastal disasters such as cyclones.

However in relation to information materials, the biggest unmet need is simply access to technology – a Telekom tower is reportedly being built that will supply mobile reception to Nea in coming years and many youth have mobiles already. There are only a few people with radio sets in the community and it appears messages from radio are not widely known. There is also a request for two way radio so the community can communicate with Lata or Honiara in times of emergency. People reportedly stayed in the bush without adequate supplies or information for four days before any assistance arrived from government and non-government agencies.

The different focus groups had different requests for further information summarised in the Table below. Women and youth mentioned advice should include advice to stay calm and manage fear and anxiety. Men and women also mentioned advice about the preparation, carrying and storage of emergency kits, whereas youth put more emphasis on location of the school in a vulnerable area and the need to have safe evacuation sites. There were also differences between the groups in requested formats for information with the youth focus group putting a particular emphasis on the impact and usefulness of videos that could show things in practical/real life terms. All groups agreed if the community had access to mobile reception and radios this would be useful so they could receive more information about disaster preparedness and warnings to reduce their vulnerability.



Common areas are identified in italics in the Table below:

**Table 7: Information Identified as Needed - Content and Format**

Focus Groups	Men	Women	Youth
<p>Content</p> <p>(not ranked in any particular order)</p>	<p>Give audio/video of what the sound of tsunami was like (as this is another warning)</p> <p><i>Advice about emergency kit/ whether to take or not take things at certain times</i></p> <p><i>Warnings</i></p>	<p><i>How to manage fear and anxiety</i></p> <p>How and where to have emergency kits</p> <p><i>Warnings</i></p> <p><i>Advice about emergency kit/ whether to take or not take things at certain times.</i></p>	<p><i>How to manage fear and anxiety</i></p> <p>Relocation of settlement from coastal to higher areas</p> <p>Proper evacuation sites</p> <p><i>Warnings</i></p>
<p>Format</p> <p>(not ranked in any particular order)</p>	<p><i>Radio - radio reception and radio sets for warning and information</i></p> <p><i>Mobile phones - reception and warnings</i></p> <p><i>Two way radio to receive direct info and advice</i></p> <p>Posters</p>	<p><i>Radio - radio reception and radio sets for warning and information</i></p> <p><i>Mobile phones - reception and warnings</i></p> <p><i>Two way radio to receive direct info and advice</i></p> <p><i>Awareness</i></p>	<p><i>Radio - radio reception and radio sets for warning and information</i></p> <p><i>Mobile phones - reception and warnings</i></p> <p>Video</p> <p><i>Two way radio to receive direct info and advice</i></p> <p>Pamphlets</p> <p>Textbooks especially for schools</p> <p><i>Awareness</i></p>

# Recommendations

## A Approach

### Test Materials, Prioritise Vulnerability

- 1.1 Information materials should be tested with communities through commonly used awareness techniques such as focus groups, interviews or community meetings to assess whether the materials are comprehended, hold attention of their audience and whether they are perceived as likely to influence behaviour in relation to preparedness and response to natural disasters.
- 1.2 Distribution of materials should be at the family level, as families collectively are the key decision making units in most disasters. Families in disaster-prone areas should be prioritised.
- 1.3 People isolated from normal social support networks (notably boarding school students) should be especially included in distribution of visual materials and awareness programs (see also Recommendation 6.2).

## B Content

In relation to content, there is a need to keep content accessible to the general community through use of commonly understood languages and pictures which could be easily comprehended regardless of literacy and education levels.

As all focus groups identified radio and mobile phones as a good form to instantly communicate with communities, these areas could be developed further as priority areas.

### Use Radio More Effectively

- 2.1 Radio information and access to radio sets for remote communities should be prioritised as an effective way to reach the maximum number of people in disaster affected communities.
- 2.2 Radio information should be prepared in Pijin in a slow authoritative voice that clearly tells people a logical set of steps to take before and during disasters to keep safe.
- 2.3 Weather/meteorology reports and information about natural disasters should be linked in radio programming so weather reports can be accompanied by appropriate recommendations about how to prepare for adverse weather and disasters.
- 2.4 NDMO should look at options to partner with other organisations and funding agencies to try and increase access to two way radios for disaster affected communities to feed information to authorities as well as receive information.
- 2.5 Radio programs could also help facilitate “two-way” communication between disaster affected communities and relevant authorities on how to best prepare and respond to disasters e.g. by talkback shows.

## **Consider Use of Mobile Phones for Warnings**

3.1 Options for agencies to send disaster warnings and advice via mobile phone text message should be explored. Such text warnings should be prioritised particularly to areas identified as vulnerable to sudden onset disasters (earthquake/tsunami) with the intent that warnings could save people from death and injury.

## **Focus on Drama in Film or Theatre for Awareness Sessions**

4.1 In terms of awareness materials to be distributed to communities, perhaps as part of community awareness programs, materials should be highly visual. Key messages about how to keep safe should be readily understood from pictures or films.

4.2 Awareness programs in villages should be accompanied by theatre, documentary or film dramas showing and telling “real life” Solomon people preparing and responding to disasters. Content should be as local as possible and in Pijin or local languages.

## **Make Printed Materials Pictorial (Not Textual)**

5.1 Future posters, banners and other similar information (such as pamphlets) should contain local photographs of people preparing to disasters or places affected by disasters as much as possible. It should be 80%-90% images rather than text, the images containing the main messages so these are understood by people without school education.

5.2 Materials such as posters should be distributed to key community services that most people visit – schools, clinics, transport hubs.

## **Address Youth and Disability Vulnerability to Disasters**

6.1 Schools, particularly those with boarding students, should be particularly targeted for awareness and community development programs that help plan for natural disasters, given the isolation of many students from families and normal ‘wantok’ social support systems during disasters.

6.2 Information about natural disaster preparedness and response could be incorporated into the Social Sciences and Sciences curriculum (which has already a section on causes and types of natural disasters).

6.3 Community rehabilitation officers and other organisations working with people with disabilities should be consulted on awareness programs for advice about distribution of materials and participation of people with disabilities and their families in disaster preparedness programs. Incorporate Traditional Knowledge into Disaster Preparedness

## **Incorporate Traditional Knowledge into Disaster Preparedness**

7.1 People's collective experiences - traditional knowledge, skills and behaviour patterns - need to be recorded to ensure that traditional knowledge of survival and coping techniques during a natural disaster are passed on to future generations. This will help embed traditional disaster preparedness responses as cultural norms for future generations and ensure that they continue to form a part of people's reflex response to natural disasters.

## **Case Study Specific Needs**

### **Kuma**

- 8.1 General awareness on how to respond to all types of disasters desirable in community if possible, including drama, exercises and/or role-plays to help people visualise how to respond. Awareness could perhaps link with the school or World Vision, which along with churches and clinics should be distribution points for information materials.
- 8.2 Coastal and river regions could be prioritised for awareness given their vulnerability to flooding, erosion, cyclones and bad weather.
- 8.3 From a humanitarian/food security point of view, agencies should be invited to go down to the Weather Coast and give training and advice about how to diversify crops and store food to prevent further food shortages, malnutrition and hunger.
- 8.4 Posters or other visual information should show flooding levels and action to be taken as the flood rises, so people can visualise what to do when.

### **Nea**

- 9.1 Access to two way radio and/or mobile phone reception should be provided to tsunami-risk areas if possible by government and non-government authorities so they can receive warnings and information from authorities during disasters.
- 9.2 Advice about what exactly is a safe place (e.g. under desk, clear area, higher ground) could be revised to develop a clear definition of where is safe in earthquake and tsunami conditions.
- 9.3 Posters or other visual information should show evacuation sites or other visualisations of safe places.

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Additional Sources: 1. Humanitarian Action Plan for the Santa Cruz Earthquake and Tsunami Response 2013. Prepared by the Government of Solomon Islands Ministry of Environment, Climate Change, Disaster Management & Meteorology and Disaster Management Partners. 2. Bretherton, D. & A. Ride, 2011, Community Resilience in Natural Disasters, Palgrave Macmillan.







For further information please visit  
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