

**Monnin Community**  
**Including Lole**  
**Ebeye, Kwajalein Atoll**

**Hazard Vulnerability Capacity**  
**Mapping Report**

**Last updated**

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## **Hazard Vulnerability and Capacity Mapping with Early Warning Systems Methodology**

### **Introduction:**

The Community Hazard Vulnerability and Capacity Mapping with Early Warning System (HCVM) has been designed to assist communities and facilitators in conducting HVCM exercise and producing HVCM reports as part of the IOM Community Vulnerability and Capacity Mapping Exercise and Assessment (CVM) Project. The objectives and steps taken allow the facilitators to implement in a way that follows facilitators to ensure the communities is leading the process. It acknowledges that each community is unique, certain variations in the methodology are possible; however, the three sessions included are considered the minimum in order to effectively conduct the exercise. Community members' time is voluntary and valuable and there are many competing pressures, so it is essential that facilitators are always well prepared, efficient and mindful of not wasting time. The minimum time required to conduct all the activities in the HVCM is ten hours of community time. Not all members will be required for all ten hours.

### **Objectives and Process:**

Under the objective of the CVM program, IOM and its partners will conduct HVCM exercises in up to 10 communities across the RMI. HVCM is set to complement and inform other community based climate adaptation and disaster risk reduction activities such as:

The specific objective of the HVCM is to increase community members' awareness of disaster risk and the impacts of climate change in their community and help them to plan activities to reduce vulnerability and increase resilience to both slow and fast onset disasters as well as impacts of climate change. HVCM is a participatory, community-led series of activities that provides essential context-specific information on the local impact of climate change and community vulnerability and existing capacities.

In addition to assessing existing disaster preparedness capacity, HVCM can also help us to better understand the communities we work in in order to address their unique concerns. HVCM is an effective entry point to the community and offers an opportunity to allow community members to share their opinions on what is important to them. The results of the exercise can help us to focus future climate adaptation and disaster risk management plans, trainings and disaster mitigation measures towards the specific concerns of the community.

Where feasible, it is preferable for the activities to be conducted in Marshallese. Facilitators are Marshallese and speak both English and Marshallese.

The HVCM exercise will generally require three sessions:

1. Sensitization and Community Profile

2. Physical Mapping and Hazard Vulnerability Matrix
3. Early Warning System Mapping and Profile
4. Summary and Action Plan Generation

In all sessions, we should emphasize to participants that we are here to learn from them; we need them to teach us about their community. Much of the success or failure of the exercise will hinge upon everyone's participation and input. In all sessions, it is important to ensure participation of all groups in the community including women, different age groups including youth and any 'outsiders' in that community such as immigrant or under represented groups. It is essential that the community feel ownership of this process with facilitators only guiding the process. As with all community engagement, it is also important to be very clear at the outset as to what IOM's role and not to raise unrealistic community expectations. Sessions 2 and 3 will require snacks and drinks for all participants. Where possible community contributions such as coconuts or other refreshments should also be encouraged.

Throughout the HVCM, it is important that special consideration be provided to ensure the participation and engagement of traditionally under-represented groups. Ensuring women and youth are actively encouraged to participate is a critical ingredient to the success of the process. Natural disasters have the capacity to disproportionately affect vulnerable groups in society and the mapping exercise should assist the community in appreciating that physically and mentally disabled persons in particular will require additional support in protecting them from the identified hazards. It is therefore a critical outcome of the mapping exercise that these people be identified and their locations identified on the map. If possible ensure their participation in the HVCM exercise.

The following report is the output of the HVCM exercise.

## Monnin (including Lole) Community Profile

### Community Profile Questions

### Monnin Weto (including Lole)

About how many people live in your community?	500+
What are the major occupations of community members? (income and subsistence activities)	People work in order to earn a living.
What local resources does your community depend on? Explain why.	Ebeye is bare no plants
How are decisions made in your community? Who has the authority?	Traditional Leaders and Local Government
What social groups are active and what purpose do they serve?	Church group Club ko an kora Youth Male club
What natural hazards affect your community?	Community of Monnin have identified and prioritize Typhoon has number one hazard following drought in second place.
What are the social problems your community is facing?	alcohol drinking – male are drinking from Monday to Monday there is a church on Mmonin and the people are not happy about what they are seeing Kava – people drink kava from 7pm until 3am or 5am family are not happy about this Underage drinking and smoking
What are the main strengths of your community?	Pls see poster or report to find out more detail
Are there any new community improvement projects planned?	Yes KADA project building a pump house for water on Monin community project is called Water and Sanitation
Is the community participating in programs to improve natural protective barriers? (Mangrove, Steep slopes, rivers)	None
What natural disasters have occurred here in the past 100 years?	Monnin community member identified on the disaster timeline going hundred years to today, Typhoon, Drought, and King tide has natural disaster that have occurred in Monnin over the last 100 years.
Are there many people of different heritage in the community?	None

# Monnin Community Report: including (Monnin Weto and Lole Weto) Hazard, Vulnerability, Capacity Mapping Exercise – Final Report

**Introduction:**

The first session of the Hazard, Vulnerability and Capacity Mapping (HVCM) and Early Warning System (EWS) exercise was commenced on June 2<sup>nd</sup> 2018 followed by another second session on June 6<sup>th</sup> 2018 at *Old*

*Ebeye Post Office*. A total of 47 community members attended the workshop. 18 Male and 29 Female attended the workshop for Monnin Hazard Vulnerability Capacity Mapping and Early Warning System.



Community Consultation Breakdown	
Male	18
Female	29
<b>Total</b>	<b>47</b>
Children	10+
Disabled	
Government	



## **Monnin Community Profile Statement**

**Background:** Monnin Community is one of the village/towns of Ebeye, Kwajalein Atoll. 'Monnin Town' itself is one of the many villages of Ebeye including Bouj, Mwon Kubok, Loein, Ekojaja, Lojkomlak, Midcorader, and Tobikle

The population of Monnin is approximately 500+ according to the interview conducted. Employment is the main core of survival on Ebeye. Majority of employment are from Kwajalein Military Base and contracted. Local Resource is scare on Ebeye and mainly brought from neighboring atolls.

Monnin is under the jurisdiction of Ebeye Kwajalein Atoll Local Government and the Traditional Leaders of Ebeye. The protocol to conduct any activities with community members and local government is coordinate through Mayor and to pay respect to traditional leaders and have their blessing before any project can be good on the ground. For community members coordinate with Local Government, Traditional Leaders, and Land Owners.

Primary social concerns expressed by the community members were underage drinking alcohol, chewing betelnut, smoking cigarette, and hanging out around town very late into the night regardless of curfew hours.

### **Geography and location:**

**Hazards:** Because Monin was severely affected by a Typhoon and Drought once and the locals still remember what they experience majority of the community members voted for typhoon leading it to be their number one most hazardous hazards and Drought to be their second most hazardous hazards.

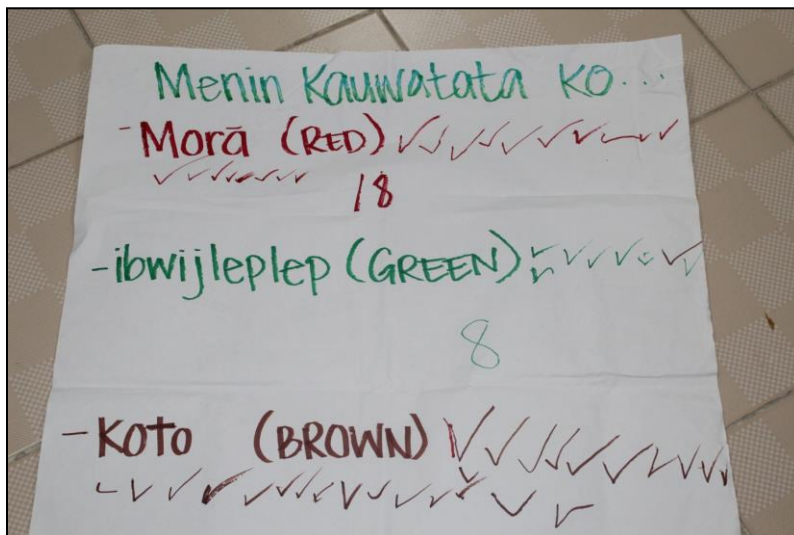


Figure 1 Monin Prioritizing their highest hazards

**Effects of Climate Change on hazards:** While long-term climate change projections based on findings from the Pacific Climate Change Science Program have indicated in their regional modeling that the incidence and severity of typhoons is set to reduce, the risks from a devastating typhoon are real for the

residents of Monnin. Also with the projected rise in sea level, the impacts of storms and typhoons may increase especially in relation to the effects of storm surge.

Based on experiences of Typhoon , the principal impacts of typhoons as reported by the community were the risk of immediate loss important property from the high winds, rain, falling trees and debris and waves. Following the typhoon, the effects of the storm surge, salt water inundation and coastal erosion onto land following the storms was also mentioned as a significant risk.

**Capacities:** The strengths of this community include the variety of social groups, including Kwajalein Atoll Local Government, Traditional Leaders, Community Members, Church Group and Families, Political Leaders, and Women Group. The community members are driven through strong generosity, cultural reliance and recognition deeply manifested into their very old and respected foundation roots.

### Hazard Vulnerability Risk Map



Figure 2 Map drawn by Monnin Youth Group. Red showing the areas that are dangerous and already at risk of costal erosion and old hospital, old hotel, and old ship that are eroding away and have already lead for the loss of some life.

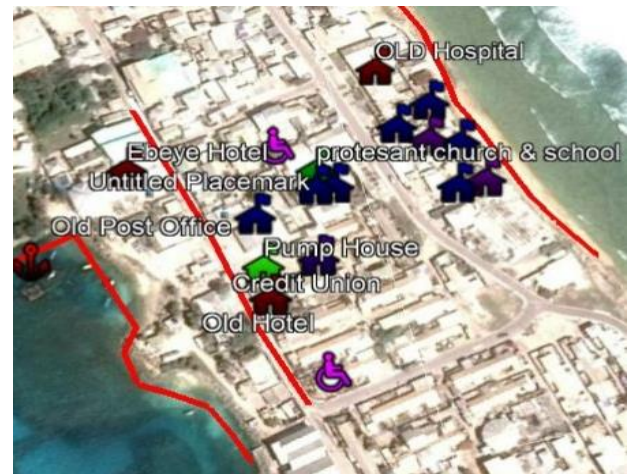


Figure 3 Map drawn by Monnin community members combine and in google earth format.



## Hazard Vulnerability Matrixes

Hazard	Impact/Risks	Vulnerabilities/ Weaknesses	Adaptive Capacities/ Strengths	Short-term Actions	Long-term Actions
1. Typhoon (KOTO)	<ul style="list-style-type: none"> <li>a.) Tin roofs blown off.</li> <li>b.) Damaged electric lines</li> <li>c.) Flooded houses, buildings and streets</li> <li>d.) Damaged vegetation</li> <li>e.) Damaged buildings and homes</li> <li>f.) Damaged sea walls</li> <li>g.) Starvation</li> <li>h.) Thirsty; dirty drinking water</li> <li>i.) Diseases / sickness spreading.</li> </ul>	<ul style="list-style-type: none"> <li>a.) Starvation from lack of help/aid.</li> <li>b.) No water</li> <li>c.) Not enough understanding of what is going on.</li> <li>d.) No notice or announcement of typhoon.</li> <li>e.) No tools for communication (phones, radios, walktalkies)</li> <li>f.) No transportation</li> <li>g.) No flashlight and other tools for blackout &amp; no electricity.</li> </ul>	<ul style="list-style-type: none"> <li>a.) Shelter (Church, Schools)</li> <li>b.) MIR hotel</li> <li>c.) People of the town</li> <li>d.) Generosity &amp; Help</li> <li>e.) Chiefs</li> <li>f.) Heads of the island (Senator, chief secretary, mayor, Landowners &amp; etc.)</li> </ul>	<ul style="list-style-type: none"> <li>a.) Food</li> <li>b.) Water</li> <li>c.) Emergency kits</li> <li>d.) Materials</li> <li>e.) Water catchments</li> <li>f.) Trainings</li> <li>g.) Action plan</li> </ul>	<ul style="list-style-type: none"> <li>a.) Building stronger sea walls.</li> <li>b.) Reinstate of buildings</li> <li>c.) Stronger safe houses</li> </ul>
2. Drought (MORA)	<ul style="list-style-type: none"> <li>a.) Damaged vegetation</li> <li>b.) Extinct of animals.</li> <li>c.) small amount of drinking water.</li> <li>d.) many different diseases and sickness</li> </ul>	<ul style="list-style-type: none"> <li>a.) Few water catchments</li> <li>b.) transportation</li> <li>c.) no announcements or notice</li> <li>d.) lack of communication</li> <li>e.) lack understanding of drought</li> </ul>	<ul style="list-style-type: none"> <li>a.) Kwajlein Atoll</li> <li>b.) KAJUR Dpt.</li> <li>c.) Chiefs</li> <li>d.) Government</li> <li>e.) Leaders of the Island.</li> <li>f.) Church</li> <li>g.) water stored under ground</li> <li>h.) full water catchments</li> </ul>	<ul style="list-style-type: none"> <li>a.) Sending of more water catchments</li> <li>b.) Medicine for the sick from drought diseases</li> <li>c.) transportation</li> <li>d.) Faster act of communication and announcements</li> <li>d.) leaders taking action</li> </ul>	<ul style="list-style-type: none"> <li>a.) Supplies and tools for aid in times of drought.</li> <li>b.) new/more underground water keepings.</li> </ul>

Menin Kauwatata	Joran KO	Mojno KO	Kajoor KO	Aikuj KO
<del>Ela...</del> K <del>Etam jaram</del>	* Ebelbel tin... * Etum to in joram ko * Eibwiji jiki Jake, lai to * Ejoren kai * Ekan ka...	* Ekole armej bwe venunij an itok jipan... * <del>maro</del> * Ejelok den * Ejabwe mekele... * Jajab jela ke en kat itok kotto * Ejelok radio * Ejelok telepho * Ejabwe wa... * Ejelok flash light nan komram...	* Mon konne - Mon Jar eo - MIP hotel - Mon jikau - Armej ro ilo jukjuk in ped eo. - Troij ro - Alop ro	* Mōnō Emergency Kit * Den * materials nan mekele... * Nukuk ak Ballir... * niien den * Konno nan mōnō... * Training ko nan armej * Action plan ko Emergency * Kokomannanbo in Kapenlok mon konne ke
O				
T	* Erup moko * Erup sea wall... * Kole * maro * Joran den - nin dok ko * na...			
O				

Figure 4 Table done by Monnin Community members showing the impacts, weaknesses, strength, and needs of storm/typhoon

Menin Kauwatata	Joran KO	Mojno KO	Kajoor KO	Aikuj KO
M	EMEJ IOK kin ekan	ejabwe Nieran dan	* Kwojjein KAJOUR	<sup>Bwjin</sup> Nieran dan ejabwe uno
O	EMEJ IOK MENIN MARO KO.	ejabwe wa ejelok kōjjein	Ri-tōl Ro ad Mon Jar KO	Bwjin wa Mokarlok an itok mekele
R	-elop MARO elop Naninmej	ejabwe mekele	Aibōj lai	Ri-tōl Beran
A				Supplies ko den nan jukjuk in ped eo

Figure 5 Monnin Community Members listing down the impacts, vulnerability and weaknesses of Drought

### Monnin Community Members Voting to Prioritize Needs

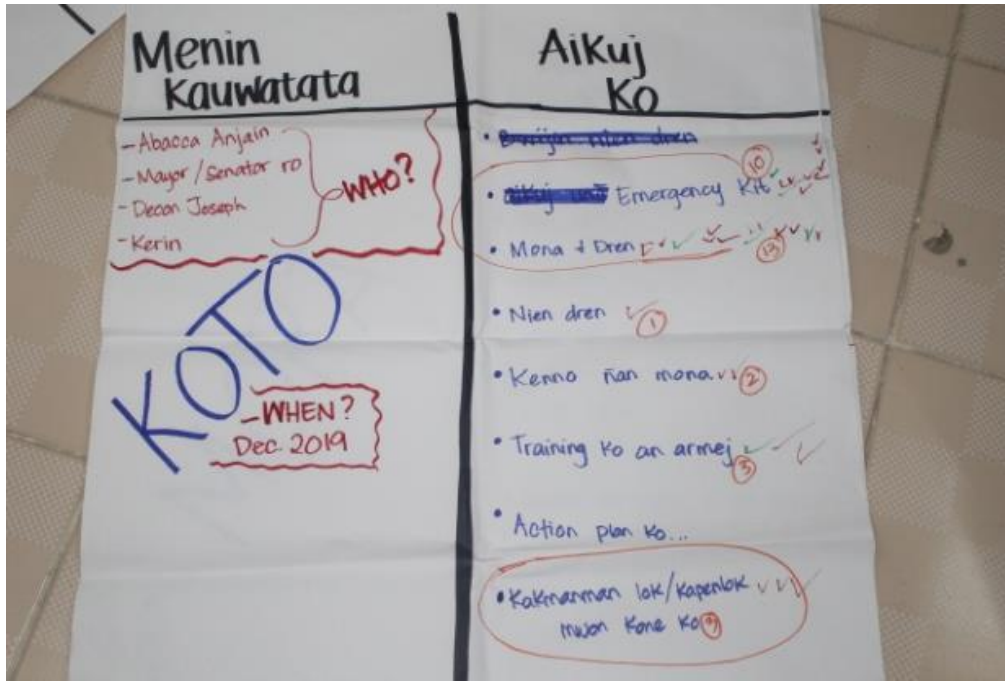


Figure 6 Monnin Community voting on the needs to increase typhoon capacity.

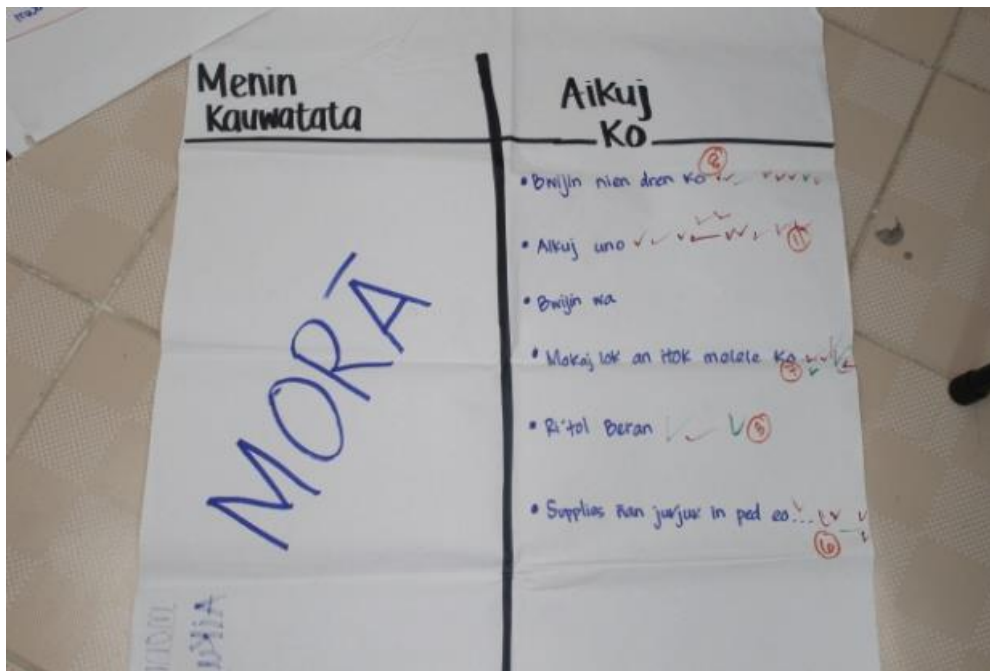


Figure 7 Monnin Community voting on the needs to increase drought capacity.

Community Action Plan Table

Community Actions	What has been done?	Who can authorize Action to proceed?	Is funding required?	Is technical support needed? Who?	Who in the community can lead this action? When?
1. Emergency Kits	Evacuation Shelters MIR Hotel Generosity and Help between community members Support from Traditional Leaders and Local Government	Traditional Leaders and Landowner	1. Yes	1a. Yes 1b. IOM, Office of the Chief Secretary National Disaster Office, and Programs or Agency that can help	1a. Office Of the Chief Secretary, Deputy Chief Secretary Abacca Anjain Maddison Kearin Dribo Joseph Loek 1b. December 2019
2. Maintain/Strengthen Evacuation Shelters	Trainings on Essential of Humanitarian Aids has been conducted on Ebeye Emergency First Respond Training for CPR and First Aid in the school and communities around Ebeye Jerry Cans distributed to members of the community Support from Traditional Leaders and Local Government	Traditional Leaders and Land owners	Yes	Yes . IOM, Office of the Chief Secretary National Disaster Office, and Programs or Agency that can help	5. 1a. Office Of the Chief Secretary, Deputy Chief Secretary Abacca Anjain Maddison

3. Watercatchment	a.) Kwajlein Atoll b.) KAJUR Dpt. c.) Chiefs d.) Government e.) Leaders of the Island. f.) Church g.) water stored under ground h.) full water catchments	Traditional Leaders and Land owners	Yes	Yes IOM, Office of the Chief Secretary National Disaster Office, and Programs or Agency that can help	6. Kearin Dribo
4. Medication	a.) Kwajlein Atoll b.) KAJUR Dpt. c.) Chiefs d.) Government e.) Leaders of the Island. f.) Church g.) water stored under ground h.) full water catchments	Traditional Leaders and Land owners	Yes	Yes IOM, Office of the Chief Secretary National Disaster Office, and Programs or Agency that can help	7. Joseph Loeak

### Early Warning System

Community Early Warning System Mapping	
<b>Type of hazard</b>	<b>Typhoon and Drought</b>
<b>How does early warning (EW) information reach the community?</b>	Where does the EW message come from? <b>Guam, Office of the Chief Secretary, Mayor, USAKA</b>
	Who in the community receives the EW message? <b>Mayor</b>
	How is the EW message sent?

	<b>TV</b> <b>POLICE MAN</b> <b>PHONE</b> <b>NEIGHBOR/COMMUNITY MEMBERS</b>
<b>How does the EW message get passed to the rest of the community?</b>	Does the community have an alarm system? <b>Yes</b>
	If so, what type of alarm is it? (List any that apply). <b>SIREN</b>
	If so, how many community members can hear the alarm system? Circle all that apply. <b>Few</b> <b>Some</b> <b>Most</b> <b>All</b> <b>Other:</b>
	Does the community have a word-mouth-system? <b>NO</b>
	If so, is there a plan for contacting every community member? <b>NO</b>
<b>After receiving the EW message, how does your community prepare?</b>	How many hours/days before this hazard would the community receive the EW message? <b>24 hours</b>
	What type of preparations do families do for this specific hazard? <b>Rally all our families take them down to the evacuation sites</b> <b>Prepare food, water, and drinks</b> <b>Help neighbors</b>
	What type of preparations would community leaders be responsible for? <b>Help arrange Emergency Plans</b> <b>Making sure that the evacuation shelter is open</b> <b>Help in informing community</b> <b>Request for help from traditional leader and local government</b>

<p><b>Does your community early warning system adequately warn all community members?</b></p>	<p>Please describe whether or not you believe all community members receive early warnings?</p> <p><b>Disability</b></p>
	<p>Are there any groups in your community that may not receive early warnings?</p> <p><b>Elderly, disable, mothers, children</b></p>
	<p>Are there special considerations for vulnerable groups, like people with disabilities or the elderly?</p> <p><b>None but we want to include them</b></p>
<p><b>How could your community's early warning system improve?</b></p>	<p>Would equipment like sirens or alarms help? If so which specifically and why?</p> <p><b>Yes Siren and Word of the Mouth</b></p>
	<p>Would better early warning coordination and planning help? If so, how do you think this could be achieved?</p> <p><b>Yes , Word of the Mouth by the police is only done on the main roads we needs to also be delegate to some people in the community so they can go around house to house . Developed a EWS that can work regardless of power and wifi. EWS of national government we are not aware of and should be share on radio programs and more awareness raising.</b></p>

**Summary**

The participants have identified typhoons and drought as their two main natural hazard concerns.

An underlying theme in the action plan is recognition that laws, programs and plans are already in place but education, participation, and implementation are needed.

In conclusion, the HVCM and EWS Mapping Exercise for the Monnin Community was successful and points were taken that ownership and initiative has to be community driven by utilizing their existing capacities to address their concerns.

It is anticipated that with the commencement of the World Bank CVM project, the communities will be better prepared and improved their capacity to identify appropriate community actions to deal with the hazards.

In terms of the community prioritization process, possible short-term Climate Adaptation/Disaster Mitigation activities that were identified include the following:

- Rehabilitation of the community evacuation centre to ensure minimum standards and safety measures
- Further training and awareness raising with community members on enhancing disaster response capacity
- Formation of community working group to further develop these initiatives.
- Strengthening disaster preparedness through establishments of Emergency Kits, Water catchments, and Medication.

The strengthening of individual homes could be facilitated through the development and printing of a how-to manual giving homeowners specific instructions.