

Enhancing Local Capacity Emergency Response and Assistance in Multi-Dimensional Crises through a People-Led Humanitarian Action Approach Project

Bamboo Shelter & ERT TOT Training for Community Mobilizers

Bamboo Shelter Training Report

I. Introduction

Bamboo Shelter is to have better protected shelter for a family of average five comfortable, especially for place to take cover where there is emergency or disaster happened and people can build up in an hour with the use of locally available materials. This Bamboo Shelter is designed to have good ventilation and since the roof of the shelter is fixed to the ground, this gives strong holdings.

II. Bamboo Shelter Training Participant

Attendance List

Date (နံ့စွဲ) :30 Sep& 1 Oct 2024

M- 35 , F- 27 , Total- 62

No စဉ်	Beneficiary Name အကျိုးခံစားခွင့်အမည်	Age အသက်	Gender ကျား/မ	Disability Type မသန်စွမ်းအားအမျိုးအစား	Received Items လက်ခံရရှိသောပစ္စည်း	Number အရေအတွက်	Phone Number ဖုန်းနံပါတ်	Signature လက်မှတ်	Remark မှတ်ချက်
1	Daw Khin Myint Aye	44	F		Water bottle, fabric bag,	1 set	09-698162615		
2	Daw Nan Ei Ei Phyo	18	F		manual, stationary	1 set	90-795396191		
3	Daw Nan Yin Yin Than	19	F			1 set	09-6950040		

							34		
4	U Myint Aye	45	M		II	1 set	09- 7916275 48		
5	U Thant Zin Aye	20	M		II	1 set	09- 7916275 49		
6	U Mg Mg Naing	40	M		II	1 set	09- 7671576 57		
7	Daw Mi Nge	65	F		II	1 set	09- 6758532 78		
8	U Kyaw Lwin	53	M		II	1 set	09- 6758532 79		
9	Mg Kyaw Zin Oo	16	M		II	1 set	09- 6926371 04		
10	U Khin Lay	69	M		II	1 set			
11	U Thein Myint	61	M		II	1 set	09- 7827421 99		
12	U Pan Shwe	70	M		II	1 set	09- 6636284 59		
13	U Kyaut Ya	58	M		II	1 set	09- 6796049 65		
14	U Tun Aye	67	M		II	1 set	09- 7810242		

							07		
15	U Mg Mae	46	M		II	1 set			
16	U Aung Ba	64	M		II	1 set	09- 7712794 14		
17	U Sein	70	M		II	1 set			
18	U Thein Naing	58	M		II	1 set	09- 7883056 53		
19	U Sein Kyaw	70	M		II	1 set	09- 6792983 33		
20	U Sein Win Tin	54	M		II	1 set	09- 7939339 73		
21	U Tun	51	M		II	1 set	09- 6738038 02		
22	U Saw Maung Myint	23	M		II	1 set	09- 6738038 02		
23	Daw Myo Thandar Aung	24	F		II	1 set	09- 6957791 72		
24	U Khaing Win Htay	24	M		II	1 set	09- 7974629 67		
25	Daw Hnin Wai Lwin	24	F		II	1 set	09- 9592551 57		

26	U San Aung Thu Win	36	M		II	1 set	09-957617214		
27	U Saw Myo Thet Htoo Aung	21	M		II	1 set	09-794921027		
28	U Man Min Min Oo	33	M		II	1 set	09-673072832		
29	U Soe Min	51	M		II	1 set	09-420173430		
30	Daw Nyo Mya Khin	42	F		II	1 set	09-698162615		
31	Daw Nan Thazin Khaing	23	F		II	1 set	09-684692912		
32	Daw Ohmn Mar Kyin	55	F		II	1 set	09-686891676		
33	Daw Htwe Hla	33	F		II	1 set	09-489487869		
34	Daw Htet Htet Khaing	18	F		II	1 set	09-670141744		
35	Daw Htet Htet Moe	21	F		II	1 set	09-692080034		
36	Daw Khin Htwe	20	F		II	1 set	09-		

	Oo						6763567 54		
37	Daw Naw Eh Thayu Thaw	21	F		II	1 set	09- 7775413 70		
38	Daw Myat Noe Oo	23	F		II	1 set	09- 6969043 4		
39	Daw Mi Thay Thay	20	F		II	1 set	09- 6986797 02		
40	Daw Sandar Aung	26	F		II	1 set	09- 7772188 53		
41	Daw Chit Chit Chaw	20	F		II	1 set	09- 6786797 02		
42	Daw Nandar Maung	20	F		II	1 set	09- 7807477 70		
43	Daw Htet Htet Khaing	18	F		II	1 set	09- 6701414 77		
44	Daw Sandar Maung	18	F		II	1 set	09- 6825950 23		
45	Ma Moet Moet Thawdar	16	F		II	1 set	09- 6933990 06		
46	U Jay	68	M		II	1 set	09- 9562478		

							13		
47	U Phan Sein	59	M		II	1 set	09- 7763771 14		
48	U Tin Aye	57	M		II	1 set	09- 6904244 99		
49	U Hla Tun	54	M		II	1 set	09- 6601380 05		
50	U Aung Htay Myint	52	M		II	1 set	09- 6859359 00		
51	U Kyaw Kyaw Mg	49	M		II	1 set	09- 7669181 25		
52	U Win Naing	40	M		II	1 set	09- 7736368 89		
53	U Chit Thaung	57	M		II	1 set	09- 6732697 89		
54	U Myo Nyunt Aung	55	M		II	1 set	09- 7715321 78		
55	U Saw Ohmn	55	M		II	1 set	09- 6615243 31		
56	Daw Myo Thandar Aung	51	F		II	1 set	09- 6957791 72		

57	U Khaing Win Htay	24	M		II	1 set	09- 7974629 67		
58	Daw Hnin Wai Lwin	24	F		II	1 set	09- 9592551 57		
59	U Soe Min	51	M		II	1 set	09- 4201734 30		
60	Daw Kyi Kyi Lin Shwe	25	F		II	1 set	09- 6852254 87		
61	Daw Nan Khin Khin Win	23	F		II	1 set	09- 6673815 68		
62	Ma Moe Aye Zin	17	F		II	1 set	09- 7924220 84		

1. Training Schedule

Bamboo Shelter Training courses have been conducted 2days training and a total participant= 62 (M=35, F= 27)from 31 villages attended and participated in the practicing the constructing the bamboo emergency shelters. During the training course, Bamboo Shelter Demonstration Kits were provided one set to each village of 10 target villages.

2. Information Sharing and Discussions on Bamboo Shelter

The base Bamboo Shelter unit is designed to provide emergency shelter for a family of 5. This could be extended by joining two or 4 units to make it for larger capacity to be used as emergency health care services or food preparation or other general needs for more people to be able to work or live under strong shelter protection.

The bamboo emergency shelters are made of one tarpaulin used as the roof and awning and a second tarpaulin is used to make the walls. This roof has been supported by 4 bamboo posts to support the roof frame and an additional bamboo side pole is used to complete the roof frame. The roof is reinforced with

the support of bamboo roof frame especially arranged to resist the external forces developed by cyclone or strong wind.

Advantage of Bamboo Shelter is as it uses 33% less bamboo than any other equivalent shelters. However, in large scale disasters, the reality is that bamboo is rarely available in the quantities needed to build it. The double Bamboo shelters use 65% less bamboo than this shelter and therefore may be the only practical alternative in most emergencies. In disaster situation, bamboo resources are often limited and people have to use a lattice of split bamboo or canes for their shelter roof. The roof has to be built "in place" overhead but is invariably not strong enough and is relatively weak to resist the forces of strong winds and cyclones.

The Bamboo Shelters are having very safe features for the families to take protection from outside hazards as the roof is load bearing, the fire risk is reduced and All Bamboo Shelters have a severe storm option.

Advantages of Bamboo Shelters as they can be easily and simply useful as Emergency Cyclone Shelter when existing shelters are destroyed, Rapid response: families build in less than 1 hour; Easily carried: enabling relocation to high ground. All terrain: can be built on sloping ground, Highly efficient: Uses 33% less bamboo, Minimal skills: so all family can assist in building, Can Use of together with any materials: can support CGI sheeting.

3. Bamboo Shelter Building Practicing

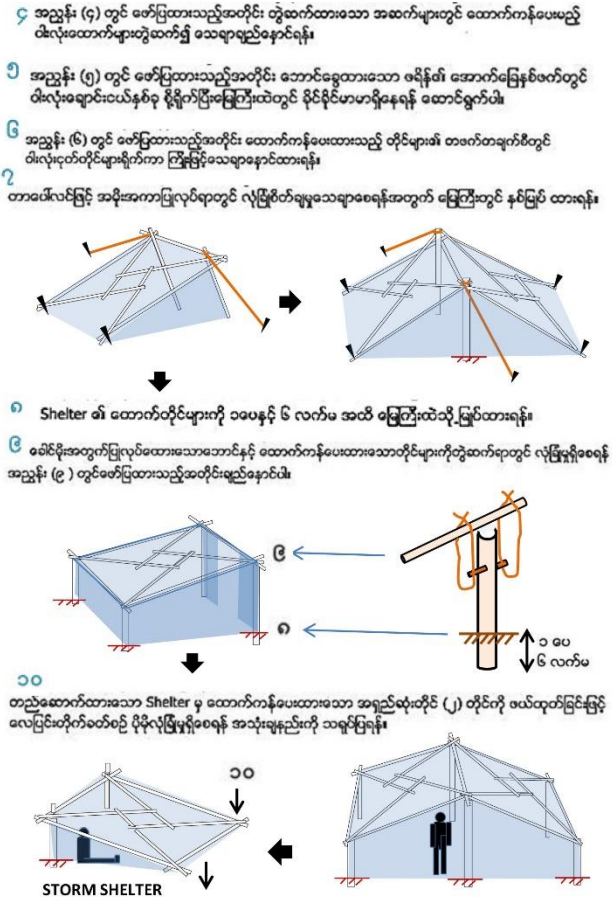
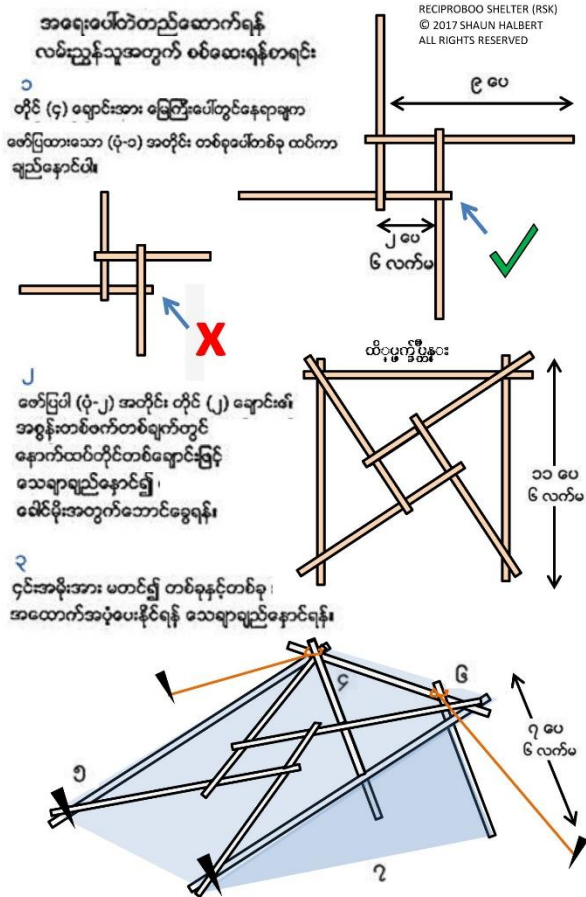
Bamboo Shelters can be built by anyone without specific tools and skills requirements. The roof frame of the bamboo shelter is first lashed together on the ground. The advantages of building the roof on the ground providing all the family members are able to participate in assembly. Stronger lashings can be achieved on the ground rather than working overhead, which would limit to skill person only. This roof frame is simply lashed to two bamboo props for support or lifted onto 4 corner posts that have had simple slots cut in their tops using a saw or machete. Any traditional methods are then used to attach the roof frame to these posts. Two less support posts being needed for the Emergency Shelter due to the side beams of the shelter frame is supporting as side post. Shorter and fewer lengths of bamboo being needed to provide tarpaulin support, especially in the center where it is needed most in other types.

The roof frames can be mass produced at one site and then each family can carry their frame to the location where they will build their shelter. The cross lashed joints are not dependent on the quality of the lashing or strength of the tying; they can always be strengthened if needed by adding to or replacing a weak lashing after the frame has been assembled.

The demonstration of the roof frame being lashed together on the ground is the only instruction needed. All the remaining construction steps use traditional methods, so that erection of wards can begin immediately.

4. Diagrams for Building Bamboo Shelters

The Training of Building of Bamboo Shelters are based on the following diagrams developed in Myanmar version.



5. Conclusions and Recommendations

The trainings of Bamboo Shelter Building have been conducted for the Social Cohesion Project with CDA is very useful for the communities at the project target villages, since all these villages are situated in the coastal areas of Rakhine State where prone to Cyclone Disasters. The communities are now able to prepare their own bamboo shelters as cyclone shelters by themselves which is one of the key disaster preparedness's. More bamboo shelters training are important for the people living at the cyclone disaster areas and strongly recommended to provide more support on this program and all disaster risk preparedness (DRR) programs.



Figure Community Mobilizer in flooded affected area, Kyaikmaraw ,MON State, Myanmar.

