



*Approved.
A-1 option,
Ms. clear with
Habitat + communities
An 26/5*

Interoffice Memorandum

To: Mr. Akbar Usmani
Senior Deputy Resident Representative

Date: 26 May 2011

Through: U Aye Lwin
Assistant Resident Representative
Programme Supervision and Support Unit

From: Daw Thin Thin Aung
Programme Analyst

Subject: Request approval for Emergency Response for earthquake in Tarchileik Township, Shan State

We conducted shelter damaged assessment from 3rd to 12th May 2011 in Tarchileik Township, Shan State. Based on the assessment, we identified 106 houses which really need shelter immediately and have not received any provision from Government, other individual donors, INGOs and LNGO. And we developed required budget for them to rebuild their houses based on designs which were developed by Sectoral Specialist (Infra and WASH), ICDP project as follows:

Type A -1 (RC Structure) : budget amount is about USD 361,243 for 106 Totally Damaged Households which were covered by 50 villages out of 65 earthquake affected villages

Type A -2 (RC Structure) : budget amount is about USD 173,647 for 58 Households which were covered by 30 villages out of 65 earthquake affected villages

Type B -1 (Timber Structure) : budget amount is about USD 294,604 for 106 Totally Damaged Households which were covered by 50 villages out of 65 earthquake affected villages

Type B -2 (Timber Structure) : budget amount is about USD 159,817 for 58 Households which were covered by 30 villages out of 65 earthquake affected villages

Team suggestion: Type A-1 is appropriate in local situation and all totally collapsed households and villages are covered by this option and construction materials are available in Thai border Town. And more quickly implementation can be conducted.

Therefore we would like to request to approve budget with appropriate options to provide the houses which were totally damaged by earthquake in Tarchileik Township. We're here attaching all necessary documents.

Best regards,

Summary plan for Proposal of Emergency Response for earthquake in Shan State

Introduction

On 24 March 2011, an earthquake of magnitude 6.8 on the Richter scale and 10 km depth struck the southern parts of Shan State, Myanmar. The epicenter was estimated to be located about 47km far from the Tarchileik Township. Households in Tarlay Sub-Township (Urban), including Mong Linn (West), Mong Linn (East) and Naryaung Village Tracts, were among the most affected, with significant infrastructure damage such as bridges, roads, rural health centers and sub-centers, schools and houses, among others. In table one the Department of Development Affairs, Tarchileik Township as of 2nd May 2011 indicated that up to 837 houses were affected as follow:

Table one: Damaged Households affected by earthquake in Tarchileik, Shan State

No	Township	Village Tract	no of Villages affected	Totally collapsed houses	Partially Walling collapsed houses	Partially Walling Cracked houses	Less Damaged houses	Total damaged HH	Government rebuild	Company rebuild
1	Tarlay	Tarlay	4	68	41	49	56	214	116	
2	Tarlay	Mong koe (Kya Ku Ni)	19	146	54	46	34	280	146	
3	Tarlay	Mong Lin (East)	7	11	1	38	39	89	10	
4	Tarlay	Mong Lin (West)	15	48	13	15	28	104	48	48
5	Tarlay	Naryaung	20	46	20	25	59	150	46	10
6	Mong Phyak	Mong Phyak							31	
	Total		65	319	129	173	216	837	397	58

Source: Department of Development Affairs, Tarchileik as of 2 May 2011

1. Damaged Assessment result

UNDP team conducted shelter damaged households assessment in 255 households in 54 villages of 5 village tracts from 3rd to 12th May 2011. The situation of these households is as follow:

Table Two: Damaged households in Tarchileik Township as shelter damage assessment by UNDP from 3rd to 12th May 2011

No	Village Tract	No of Village	UNDP collected HH					HH which was Fully Supported by others donors	Total
			Totally Collapsed HH	Partially Walling	Partially Roofing	Partially Wall & Roof	Less collapsed HH		
1	Mong Koe	17	13	18	-	5	10	-	46
2	Mong Ling (E)	7	23	-	-	1	2	-	26
3	Mong Ling (W)	13	80	11	-	17	8	16	132
4	Naryaung	13	19	9	-	5	6	12	51
5	Tarlay	4 wards							
	Total	54	135	38	-	28	26	28	255

2. Targeted number of houses to rebuild

Based on the above information, UNDP team identified houses which really need shelter immediately and have not received any provision from Government, other individual donors, INGOs and LNGO. The following table three shows targeted households to be selected to rebuild:

Table Three: No of Targeted houses plan to rebuild by UNDP

No	Village Tracts	No of villages	Totally collapsed		
			Brick Nogget	Timber	Total
1	Mong Koe	17	3	1	64
2	Mong Ling East	7	-	18	2218
3	Mong Ling West	13	5	63	68
4	Naryaung	13	1	15	1716
	Total	50	9	97	106

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Criteria: UNDP team selected targeted households of the poor which really need shelter immediately based on the following criteria:

- Types of houses (RC, Brick Nogget, Timber) (RC is not targeted as owned by the rich)
- Situation of damaged (totally or partially or less) (totally damaged only selected)
- HH not yet received support from other sources (e.g. government, USDA, other individual donor, LNGOs, INGOs etc)
- income earning activities (they are living on shifting cultivation less than two acres or they are daily wages labor in shops of Thailand border Township and shops of Tarchilieik Township, Myanmar border, or they are casual labor such as in agricultural land, industries in Thailand border Township area)
- women headed household and PWD (13 women headed household, 3 PWD)
- On-site observation on their current situation

3. Local availability of construction materials

- Earlier days, local people used timber woods for building constructions but later on timber woods are very rare and now they substitute cement concrete posts, frames and cement bricks block for walling instead of timber frame and plank walling.
- Constructions materials such as cement, roofing sheet etc are reasonable price and are available from Thailand e.g the price of cement is amount kyts 3500 in Tarchilieik but Kyts 5,000 in Yangon and no permission for transportation of them.

4. Suggested construction options based on the construction techniques

Types	Advantages	Disadvantages	Recommendation
<p>Type A: The cost is about ks-2,000,000/- (USD 2350)</p> <ul style="list-style-type: none"> • 24' length x 12' width x 9' height (RC structure Household) • RC (Column, ground beam and roof beam) • Flooring by own initiative, Bamboo mat walling and CGI sheet roofing 	<ul style="list-style-type: none"> • RC structure; column, ground beam and roof beam is more strengthen than Timber structure • Cement bag is easy to procure and cheaper price than Yangon • Using walling with Bamboo is plenty and local available material in affected area. • Quick implementation 	<ul style="list-style-type: none"> • More cost • Easy to set outside with moisture • Bamboo mat cannot be used for long time. 	<ul style="list-style-type: none"> • By consideration on local situation above 3 and good quality of timber is very rare. • RC structure building is more appropriate for shelter support.
<p>Type B: The cost is about Ks 1500000/- (USD 1760)</p> <ul style="list-style-type: none"> • 24' length x 12' width x 9' height (Timber structure Household) • Flooring by own initiative, Bamboo mat walling and CGI sheet roofing 	<ul style="list-style-type: none"> • It is suitable for construction of affected victims' houses • It is easy to construct in short time, if timber is available smoothly • Cost of Timber structure building is lower than RC structure building. • Timber is easy to shrinkage without seasoning. 	<ul style="list-style-type: none"> • For good quality of timber and longer size of timber scantling is not easy to procure in local market • It takes more time required for collection of timber 	

5. Financial Requirement

No	Activity description	Unit	Unit cost	No of unit	Total cost (USD)	Remark
	Option A .I					
	<ul style="list-style-type: none"> • Construction type A (RC structure) • 106 HH in 50 villages of 4 village tracts 					
	Program Cost				316621	83%
1	Shelter assessment	Lump sum	3671	1	3671	255 HH were assessed in 54 villages
2	Shelter construction	HH	2350	106	249119	Current market price may be fluctuate.
3	earthquake resistant construction practices training for carpenters	Lump sum	4176	1	4176	technical support from UNHABITAT or Myanmar Engineering Society

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4	Strengthening Early Recovery Coordination	Lump sum	30000	1	30000	For UN external relation specialist
5	Program Personal					
	TPM salary (50%)	M-Month	750	2	1500	
	2 Technical specialist (infra)	M-Month	582	8	4656	
	4 CDF	M-Month	253	16	4048	
	DSA and Travel including HO staff and all field staff	Month	4862	4	19452	
5	Operation Cost				44622	12%
6	Personal (Operation)	M-Month	750	2	1500	
	TPM (50% salary)					
	Finance Assistant	M-Month	423	4	1692	
	Logistic and supplies (stationary, office supplies, car rental, fuel, motorcycles etc.)	Month	2267	4	9069	Hire car and motor cycles
	Communication	Month	250	4	1000	
	Office rental	Month	350	4	1400	Hire a room of River side hotel
	Procurement (4 laptops, one printer, 2 camcras, desk and chairs)	Lump sum	2328	1	2328	Buy them from Mae Saing, Thailand Border
7	Contingency				4000	
8	Project support cost				23633	
	Grand Total				361743	

No.	Activity description	Unit	Unit cost (USD)	No. of Unit	Total cost (USD)	Remark
2	Option A. 2 • Construction type A (RC Structure) • 58 HH in 30 villages of 2 village tracts	HH	2350	58	73796	Grand Total: USD 173647 Program cost: USD 141298, 81% Operation cost: USD 32,349, 19%
3	Option B. 1 • Construction type B (Timber Structure) • 106 HH in 50 villages of 4 village tracts	HH	1763	106	186839	Grand Total: USD 294604 Program cost: USD 254342, 86% Operation cost: USD 40262, 14%
4	Option B. 2 • Construction type B (Timber Structure) • 58 HH in 30 villages of 2 village tracts	HH	1763	58	60870	Grand Total: USD 159817 Program cost: USD 128372, 80% Operation cost: USD 31,444, 20%

Team suggestion: Option A.1 is appropriate in local situation and their practice since all totally collapsed HH and villages are covered this option and construction materials are available in Thai border Town, the prices are reasonable and easy for transportation from this border town. And most of victims express they prefer RC house. And more quickly implementation can be conducted.

6. Staffing

- Township Project Manager: oversee technical and operational implementation of project and ensures timely implementation, coordination with UN agencies, INGOs and LNGOs at field level and overall resource management
- 2 Technical Specialists: experiences technical specialists are responsibility for technical design and quality assurance and regular project monitoring and quality assurance
- 4 Community Development Facilitators: each one will be responsible for providing close support to the villages in village Tracts for which they have responsibility. All will be locally recruited and village based assigned.
- Operation Assistant: Provides support in the area of financial management, HR and administration.

Operation

- Most of materials inputs required are locally available especially from Thailand border Township without permission
 - Hire a vehicle monthly based for travel between two townships and motorcycles for travel from villages by CDF
 - Hire a telephone for communication with Yangon Offices since charges of hotel's phone is very expensive
 - Three options for office set up:
 - First option is to hire a hotel's room, amount is about USD 350 per month, no security guard, no maintenance cost, etc.
 - Second option is to hire a hall type room, amount is same, but we will hire 3 security guard, have maintenance, generator cost etc
 - Third option is to request National Director of World Vision, Yangon to share the cost of office and office supply but existing Coordinator does not wish to share with UNDP since they have too much staff, they are not enough the existing spaces and they are sharing one room for OCHA.
- Team suggestion:** first option, hire a hotel's room is appropriate since the project duration is only under 6 months, we don't need to expense for the salary of security guards, the cost of cleaning office and maintenance etc,

7. Implementation arrangement

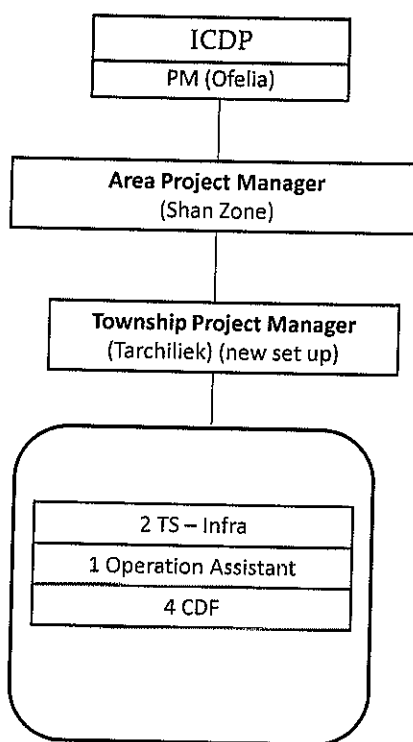
- Formation of construction committees in targeted villages which include representatives of direct beneficiaries who were affected in earthquake to supervise construction
- Participatory planning processes will enable beneficiaries to develop work plan for procurement arrangement and local resource collection such as carpenters, masonries, etc.
- Project team provides fund by installment based on work plan when they complete the activities according to work plan following UNDP's financial rules and regulation
- Project Manager and Technical Specialist based in Yangon: provide support including regular project monitoring and quality assurance
- Area Project Manager: Provide support including project monitoring for timely delivery and quality assurance
- PSSU unit support in implementation and monitoring as required

8. Work plan : Emergency Response for earthquake in shan state

No	Sector/Activity	2011					Responsibility person
		May	June	July	Aug	Sep	
1	Project Management						
1.1	Recruitment field level staff	End May					PM, TS in Yangon
1.2	Orientation and training for field staff	End May					PM, TS in Yangon
1.3	Advocacy and sensitization meetings in Township and village Tracts		1 wk June				TPM, TS
1.4	Reconfirm beneficiaries who needs reconstruction of houses through participatory process		1 wk June				TPM, TS
1.5	Village level Formation construction committee which are representatives of direct beneficiaries who will be provided by UNDP		2 wk June				TPM, TS
2	Shelter Construction support						
2.1	MPP Preparation Process for fund delivery to the villages		3/4 wk June				TPM, TS, FA
2.2	Capacity building for training on earthquake resistant construction practices			1 wk July			Field Team , Technical support from UNHABITAT or Myanmar Engineering Society
2.3	Shelter construction			2 wk July			Communities, TPM, TS, CDFs
3	Strengthening Early Recovery Coordination						
3.1	support for coordination at the local level through external specialist who will share part of their time for earthquake coordination in consultation with OCHA						UNDP project team and program team
4	Participatory monthly ongoing joint monitoring, review meetings, closing of project						TS, CDFs, and construction committee members

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**UNDP Myanmar, Emergency Resonse to Earthquake in Shan State,
Myanmar Project Organization Chart**

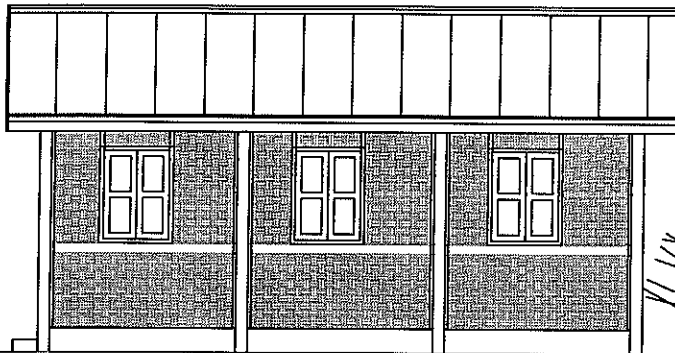


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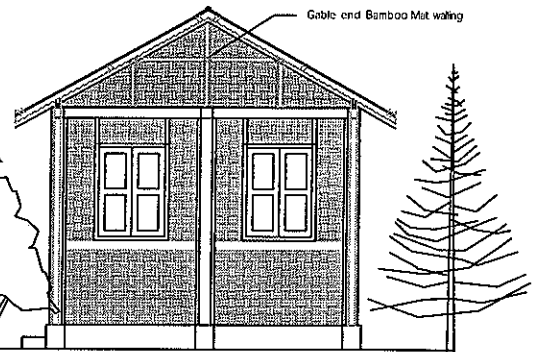


Proposed Shelter for Earthquake affected Families In Tarchelike Township

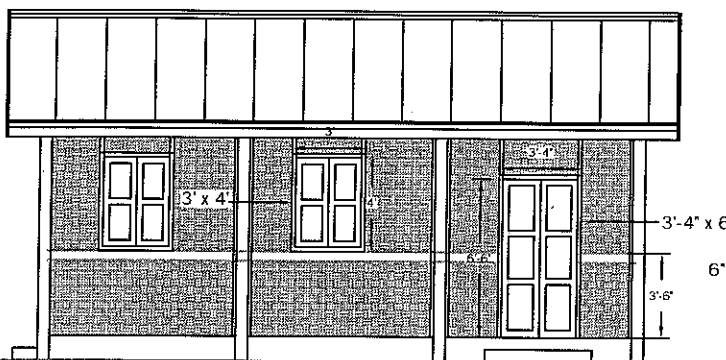
(Type A) : RC column, beams, bamboo mat walling & CGI sheet Roofing



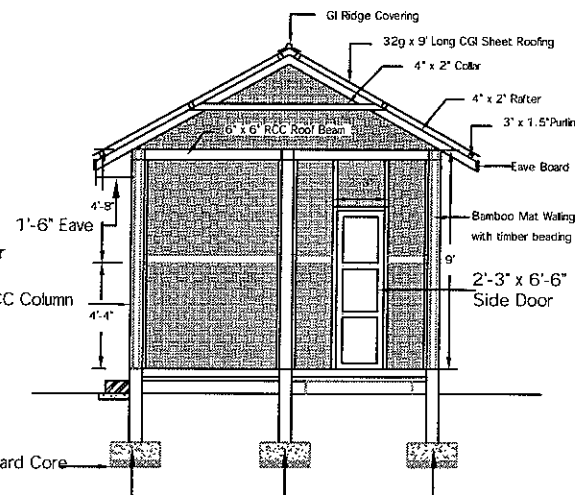
Back View



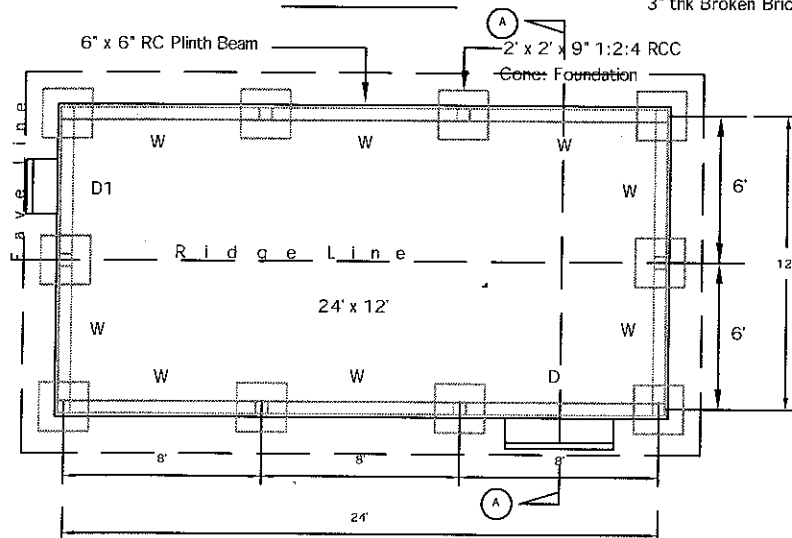
Right Side View



Front View



Cross Section on A - A



Foundation Plan

Specification	
Flooring :	by Own initiative
Walling :	Bamboo Mat Walling
Roofing :	30-g x 9' L Corrugated Galvanized Sheet
Ridge Cover:	G.I Plain Sheet
Post :	6"x 6" RCC Post with 6" x 6" Ground Beam, 6"x 6" Roof Beam and 4" x 4" Walling Beam
Door (D):	3'-4"x 6'-6" GI door
Door (D1):	2'-3"x 6'-6" GI door
Window (W):	7 x 3'-0"x 4'-0" GI windows

**Abstract Cost of Proposed Shelter for Earquake affected Household
In Tarchileik Township**

Village name:

Village code:

Village tract name:

Village tract code:

Length

24 -rft

Width

12 -rft

Type of Work: Type: A; (RC column, plinth beam, wall beam & Roofing beam) and bamboo mat walling

Item No	Description	Unit	Qty.	Unit cost Ks.	Total cost Ks.	Comm:Cost Ks.	ICDP Cost Ks.
<u>Materials</u>							
1	Cement	bag	70	3584	250880	0	250880
2	Sand	cuft	193.24611	84	16233	0	16233
3	River Shingle Aggregate	cuft	366.49222	112	41047	0	41047
4	Broken Brick	no.	10	84	840	0	840
5	Brick	no	0	84	0	0	0
6	Block Brick	cuft	0	140	0	0	0
7	Hard Wood	cuft	49.850035	8400	418740	0	418740
8	J Wood	cuft	43.560417	5600	81313	0	81313
9	Nail	viss	5.7502056	586.66667	3373	0	3373
10	2"x1/4" 1" Long MS Strap	no	16	420	6720	0	6720
11	1/2" dia 4" Long Bolt & Nut	no	20	42	840	0	840
12	1/2" dia MS Rod	rft	1198	300.53333	360039	0	360039
13	3/8" dia MS Rod	rft	792	90.533333	71702	0	71702
14	1/4" dia MS Stirrup	rft	1084.6667	55.066667	59729	0	59729
15	18 SWG wire	viss	13.131335	560	7354	0	7354
16	9' Long 32 G CGI Roofing	sheet	28	3591	100548	0	100548
17	8'x 3' GI Plain Sheet Ridging	sheet	7.01125	5180	36318	0	36318
18	Roofing Nail	viss	2.1021429	176	370	0	370
19	Bamboo Mat	sq ft	793.5	100	79350	0	79350
20	Doors and windows leaves	no	120.27	0	0	0	0
21	4" Hinge	no	36	336	12096	0	12096
22	6" Handle	no	18	168	3024	0	3024
23	6" Tower bolt	no	18	224	4032	0	4032
24	4" Hook & staple	no	14	112	1568	0	1568
25	screw	doz	27	151.66667	4095	0	4095
Sub Total			75.7%		1,560,211	0	1,560,211
<u>Labour & Supervision Charges</u>							
1	Supervision Charges	LS					
2	Mason & Iron Smith	no	18				
3	Carpenter	no	31				
4	Semi Skilled Labour	no	66				
5	Unskilled Labour	no	2				
Sub Total			19.4%	LS	400,000	0	400,000
<u>Transportation</u>							
1	Transport for labour & All Materials	Item			100000	0	100000
Sub Total			4.9%		100,000	0	100,000
Total					2,060,211	0	2,060,211
Contingencies							
Grand Total					2,060,211	0	2,060,211

Designed by:	Htun Tin
Checked by:	
Approved by:	

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Abstract Cost of Proposed Shelter for Earquake affected Household
In Tarchileik Township

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1.79558	0.67	0.024	112
12	0.17	112	0.642

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**Abstract Cost of Proposed Shelter for Earquake affected Household
In Tarchileik Township**

2,000,000	0	73.6256696	128	28	263874.4
1309331	0	193.246111	3	28	16232.6733
690,669	0	366.492222	4	28	41047.1289
2,060,211	0	10	3	28	840
	0	0	3	28	0
	0	0	5	28	0
	0	49.8500347	300	28	418740.292
	0	43.5604167	200	28	121969.167
	0	5.75020556	20.952381	28	3373.45393
	0	16	15	28	6720
	0	20	1.5	28	840
	0	1198	10.7333333	28	360038.933
	0	792	3.23333333	28	71702.4
	0	1084.66667	1.96666667	28	59728.9778
	0	13.1313354	20	28	7353.54783
	0	28	128.25	28	100548
	0	7.01125	185	28	36318.275
	0	2.10214286	6.28571429	28	369.977143
	0	793.5			132250
	5.01125	120.27	0	0	0
	0	36	12	28	12096
	0	18	6	28	3024
	0	18	8	28	4032
	0	14	4	28	1568
	0	27	5.41666667	28	4095

Mason	0	3.98361111	300	28	33462.3333
Carpenter	0	30.5706167	300	28	256793.18
Smith	0	13.5718354	300	28	114003.418
Worker	0	65.7229465	150	28	276036.375
unskilled Labour	0	2	120	28	6720
Transportation charges	0	0	0	0	100000

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2,060,211

0

Proposed Shelter for Earthquak affected community

Sr No	Description	No	Measurement			Contant	Requirement	
			L	B	H			
Material Requirement :								
	Cement					73.63 bag	128.0 28.00	263,874.40
	Sand					193.25 cuft	3.0 28.00	16,232.67
	River Shingle Aggregate					366.49 cuft	4.0 28.00	41,047.13
	Broken Brick					10.00 cuft	3.0 28.00	840.00
	Brick					0.00 no	3.0 28.00	-
	Block Brick					0.00 no	5.0 28.00	-
	Hard Wood					49.85 cuft	300.0 28.00	418,740.29
	J Wood					43.56 cuft	200.0 28.00	121,969.17
	Nail					5.75 viss	21.0 28.00	3,373.45
	2"x1/4" 1" Long MS Strap					16.00 no	15.0 28.00	6,720.00
	1/2" dia 4" Long Bolt & Nut					20.00 no	1.5 28.00	840.00
	1/2" dia MS Rod					1198.00 rft	10.7 28.00	360,038.93
	3/8" dia MS Rod					792.00 rft	3.2 28.00	71,702.40
	1/4" dia MS Stirrup					1084.67 rft	2.0 28.00	59,728.98
	18 SWG wire					13.13 lb	20.0 28.00	7,353.55
	9' Long 32 G CGI Roofing					28.00 sheet	128.3 28.00	100,548.00
	8'x 3' GI Plain Sheet Ridging					7.01 sheet	185.0 28.00	36,318.28
	Roofing Nail					2.10 viss	6.3 28.00	369.98
	Bamboo Mat					793.50 sqft	5.95 28.00	132,250.00
	Doors and windows leaves					5.01 25	120.27 sqft	-
	4" Hinge					36.00 no	12.0 28.00	12,096.00
	6" Handle					18.00 no	6.0 28.00	3,024.00
	6" Tower bolt					18.00 no	0.0 28.00	4,032.00
	4" Hook & staple					14.00 no	4.0 28.00	1,568.00
	screw					27.00 doz	5.4 28.00	4,095.00
Materials Cost						1666762		
Labour Cost						400000		
Transportation Cost						150000		
						2216762		

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Emergency Response for earthquake in Shan State

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No	Sector/Activity	Unit	Price/rate	Target	Budget Requirement (US\$)	Remark
0	Project Management					
0.1	Recruitment field level staff					
0.2	Orientation and training for field staff					
0.3	Advocacy and sensitization meetings in Township and village Tracts					
0.4	Reconfirm beneficiaries who needs reconstruction of houses through participatory process					
0.5	Village level Formation construction committee which are representatives of direct beneficiaries who will be provided by UNDP					
0.6	Monitoring and winding up and closing of project					
	Program cost				316621	88%
1	Shelter Construction				256966	
1.1	Shelter assessment	Lump sum	3671	1	3671	
1.2	MPP Preparation Process for fund delivery to the villages					
1.3	Capacity building for training on earthquake resistant construction practices				4176	
	carpentry tools	set	59	3	176	
	DSA for 20 participants for 10 days	day	6	200	1175	
	Travel cost (round trip) including accommodation	trip	12	20	235	
	DSA for technical support person (3)	day	60	30	1800	
	Travel cost for technical support person from Ygn to Tarchileik (round trip)	trip	263	3	790	
1.4	Shelter construction	HH	2350	106	249119	
2	Strengthening Early Recovery Coordination				30000	
2.1	support for coordination at the local level through external specialist who will share part of their time for earthquake coordination in consultation with OCHA	Lump sum	30000	1	30000	
3	Programme Personal				29656	
3.1	Project Cost				10204	
	1.TPM: Tarchileik (SC7) (50%)	M-month	750	2	1500	
	2.Township Technical Specialists, Infra, Tarchileik (SC6)	M-month	582	8	4656	
	4 Community Field Facilitators/Monitors	M-month	253	16	4048	
3.2	Travel				19452	4862.878966
	DSA (including local DSA) and travel for facilitation and monitoring for TPM (Internal moving)	Day	60	30	1800	
	DSA (including local DSA) and travel for facilitation and monitoring	Month	2100	4	8400	

	DSA (Including local DSA) for travel for facilitation and monitoring for UNDP HQ staff	Month	1260	4	5040	
	Travel cost from Tarchileik to Yangon (round trip)	Month	1053	4	4212	
4	OPERATIONS AND COORDINATION				20,989	12%
	4.1 Personal (UNDP Operations)				3,192	44,622
	1 TPM, Tarchileik (SC7) (50%)	M-month	750	2	1,500	
	1 Township Finance Assistant, Tarchileik (SC4)	M-month	423	4	1,692	
	4.2 Logistics and supplies				9,069	2,267
	Office consumables (Stationary, office supplies, repair & maintenance of equipment etc.)	Month	300	4	1,200	
	Transport (car rental, fuel, motorcycles etc.)	Month	1,967	4	7,869	
	4.3 Communication				1,000	
	Utilities (phone (landline and CDMA), electricity, fuel for generators, water etc.)	Month	250	4	1,000	
	4.5 Rental and maintenance				1,400	
	Office rental and maintenance, Tarchileik	Month	350	4	1,400	
	4.6 Procurement				2,328	
	4 Laptops (1 for TPM, 2 for Ts, 2 for AS and FS)	No	329	4	1,318	
	Printer	No	100	1	100	
	Digital camera	No	106	2	212	
	CDMA 500000 phone	No	200	1	200	
	Furniture (Tables, chairs, cupboards, filing cabinets etc.)	Sets	100	5	499	
	4.7 Other operations costs				4,000	
	Miscellaneous / contingency	Month	1,000	4	4,000	
	TOTAL IMPLEMENTATION COST				337,610	
5	PROJECT SUPPORT COST (7%)				23,633	
6	TOTAL PROJECT COST				361,243	

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