GOVERNMENT OF MEGHALAYA

सत्यमेव जयते

SOIL & WATER CONSERVATION DEPARTMENT
RI-BHOI DISTRICT

DETAIL PROJECT REPORT OF LOWER UMLATHU

INTEGRATED WATERSHED MANAGEMENT PROJECT - VI (2010-2011)

UNDER UMLING C&RD BLOCK

RI-BHOI DISTRICT

M E G H A L A Y A

SUMMARY

Name of the Sate	:	Meghalaya
Name of the District	:	Ri Bhoi District
Name of the C&RD Block	:	Umling
Name of the Villages	:	(i) Umtyrnga (ii) Jorsyiem
		(iii) Chibra (iv) Nakrabil
Name of the Project	:	Ri Bhoi – IWMP – VI
Total Geographical Area	:	1073 Ha
Total Treatment Area	:	1000 Ha
Total Project Cost	:	150 lakhs
Project Duration	:	5 Years
Project Implementing Agency	:	Soil & Water Conservation Ri Bhoi Division, Nongpoh.

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CHAPTER I

INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Lower Umlathu (IWMP-VI) project is located in Umling C&RD Block, Ri Bhoi District of Meghalaya. Consisting of a single micro-watershed, the project area is drained by the Umlathu Sream and its tributaries flowing in a south to north direction. The total area is 1073 Ha. with 1000 to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 45 km from Nongpoh the District Head Quarter and about 125 km from Shillong the State Capital. A total of four villages are covered under the project. These are –

1 Umtyrnga
2 Jorsyiem
3 Chibra
4 Nakrabil

1.2 Micro-watershed Information:

The Sub-watershed code is 3B2A1b as codified by the North East Space Application Centre (NESAC). The total area of the micro-watershed is 1073 Ha., with 1000 hectares to be treated under the Integrated Watershed Management Programme (IWMP).

1.3 Need and Scope for Watershed Development:

The Sub-watershed 3B2A1b falls under the Medium Priority category as per the prioritization of watersheds by the North East Space Application Centre (NESAC). Located on the Northern aspect sloping towards Assam the 4 villages do have kutcha road connectivity. The farmers are all marginal and 146 households are below the poverty line, which is 62.9% of the total households. Jhum cultivation is still practiced by most of the inhabitants of these villages on the slopes.

Even though the area receives ample rainfall during the monsoons, there is acute shortage of water during the dry seasons and the villagers have to travel long distances for fetching water even for domestic use.

1.4 Other developmental projects/schemes running in the Project Area:

The other developmental projects/schemes undertaken in the Project Area are:-

i. MGNREGS
ii. Border Area Development Programme (BADP)
iii. Total Sanitation Campaign (TSC)
iv. Swarnjayanti Gram Swarozgar Yojana (SGSY)
v. Indira Awas Yojana (IAY)

CHAPTER II
BASIC INFORMATION OF THE PROJECT AREA

2.1 Location:

The Project area is located within the area of Raid Marwet Syiemship under Umling C&RD Block of Ri Bhoi District. It is situated at a distance of about 45 km from Nongpoh the district Head Quarter and about 125 km from Shillong which is also the State Capital. The geographical location is between 91^0 46' to 91^0 49'30"E Longitude and 26^0 02' to 26^0 04' 30"N Latitude. There are 4 villages within the Watershed which are as follows –

1. Umtyrnga
2. Jorsyiem
3. Chibra
4. Nakrabil

At present, only Umtyrnga village is connected by motorable road others only with four wheeled drive.

2.2 Physiography:

The physiography of the micro-watershed is moderateky undulating. The altitude ranges from a minimum of 80m to a high of 500m above mean sea level. In the lower reaches (valley lands) the slope ranges from 0% to 20%, however, in the middle and upper reaches it is greater than 45 %, and can reach up to 70%.

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
80 m to 500 m	0% to 70 %	Micro Watershed	Umlathu	Moderately Sloping

2.3 Drainage: The major stream draining the micro-watershed is the Umlathu which is a 4th order stream flowing in a south- north direction. The slopes of the micro-watershed are dissected by numerous small tributaries flowing to the Umlathu.

2.4 Soil: Soil Texture is gravelly on the sloping lands and clayey to sandy clay on the low lying areas. Soil depth varies from shallow to deep. Soils are permeable and generally acidic in nature. Owing to moderately undulating land form and absence of good vegetation cover, the area is exposed to erosion hazards. The soil nutrient status in the area shows a general trend of low phosphorous content.

Table 2.2: Details of soil erosion in the project areas:

1	2	3	4	5	6	7	8	9
Sl. No.	Names of State	Names of District	Names of Projects	Cause	Types of erosion	Area affected (ha)	Run-off (mm/ year)	Average soil loss (Tonnes/ ha/ year)
1	Meghalaya	Ri Bhoi	RB-IWMP-VI	Water erosion:				
				a	Sheet	773	2500-4000	40.90
				b	Rill	200	2500-4000	30.00
				c	Gully	100	2500-4000	30.00
				Sub total				
				Wind erosion		Nil	Nil	Nil

2.5 Climate: The area in the foothills or low lying areas and mid-slopes are hot in summer and remain warm throughout the winter. The area on the higher reaches is hot during summer and warm during winter. The average annual rainfall is 1500 mm.

Table 2.3: Agro-climatic zones of the project areas, soil types, average rainfall and major crops.

1	2	3	4	5	6	7		8	9	
Sl. No.	Name of State	Name of the Agro-climatic zone	Area (in ha)	Names of the districts	Names of the Projects	Major soil types		Average annual rainfall in mm (preceding 5 years' average)	Major crops	
						a) Type	b) Area (ha)		a) Name	b) Area (ha)
1	Meghalaya	Warm Humid Hyperthermic)	1000 Ha	Ri bhoi	RB- IWMP –VI	i. Loamy ii. Clayey Loam	1073 Ha	1205 mm Patharkhmah	Betel nut	120
									Betel leaf	30
									Oranges	50
									Bay leaf	20
									Broom stick	560
									Black pepper	20
									Litchi	20
									Banana	15
									Pineapple	51
								Total		**886 Ha**

2.6 Agriculture: Agriculture is the primary occupation of the people of the area.The principal agricultural crops grown are Hill Paddy,Banana, and vegetables. Fruit crops are well suited in the lower reaches which include, orange, pineapple, jackfruit, litchi. The slopes of the Lower Umlathu are also very suitable for betel nut, betel leaf, black pepper, broomstick, which contribute to the income of the people.

Table 2.4: Crop yield and production

Crops	Area (ha)	Average Yield (Qtl) per ha.	Total Production (Qtl.)
Betel nut	20	5.56	111.20
Betel leaf	30	10	300
Oranges	50	72.61	3630.50
Bay leaf	10	23.5	235
Broom stick	560	60	33600
Black pepper	20	6.05	121
Banana	15	163.56	2453.40
Pineapple	30	115	3450

2.7 Natural Vegetation: The tree species common to the watershed area includes - *Quercus* spp. *Castanopsis* spp. *Toona ciliata, Albizia* spp. *Aporosa* spp. *Bahunia variegata Duabanga* spp. and *Ficus* spp. However, due to Stone Quarrying the forest cover of the area has reduced considerably.

2.8 Socio-Economic Profile: Economically, the project area is still backward compare to other part of the district. The main reason is due to the absence of road communication, primitive way of agricultural practices ,excessive stonequarrying and the terrain of the area.

Demographic Status: The total households in the watershed project is 348 with a total population of 2088, of which 1127 are male and 961 are female. The detail of the household in each of the villages in the watershed project is as follows:

1. Umtyrnga - 211 Nos
2. Chibra - 51 Nos
3. Nakrabil - 60 Nos
4. Jolsyiem - 26 Nos

348 Nos

Infrastructure facilities **:**

2.1.1 *Roads:* All the villages within the Project Area are not connected by road. The Project area depends entirely on the kutcha road connected to Umtyrnga

2.1.2 *School:* There are only 5 L.P Schools within the Project Area run either by the Mission or by the Government.

2.1.3 *Electricity :* Connections have been provided but some villages are yet to have electricity.

2.1.4 *Health :* No Community Health Centre is available in the Project Area, the local community has to depends on facilities available at Beltola or Guwahati.

2.1.5 *Water Supply :* Drinking water supply have been provided by the PHE Deptt.. However, during lean season the entire population have to depend on springs,ringwells available in the area as the supply is not sufficient to meet the daily requirement.

2.1.6 *Market :* There is a weekly market held once in a week at Beltola. However, the main market where the people sell their produce is at Beltola and also at Shillong.

Table 2.5: Infrastructure Status.

1	2	3		4			
Name of District	Name of Project	Parameters:		Status			
Ri Bhoi District	RB-IWMP-VI	(i)	No. of villages connected to the main road by an all-weather road.	1 No			
		(ii)	No. of village provided with electricity	2 nos. electrified and 2 without electricity			
		(iii)	No. of households without access to drinking water	86 nos.			
		(iv)	No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI)	(P)	(S)	(HS)	(VI)
				5 Nos.	-	-	-
		(v)	No. of village with access to Primary Health Centre	Nil			
		(vi)	No. of village with access Veterinary Dispensary	Nil			
		(vii)	No. of village with access Post Office	Nil			
		(viii)	No. of village with access Banks	Nil			
		(ix)	No. of village with access Markets/ mandis	Nil			
		(x)	No. of village with access Agro-Industries	Nil			
		(xi)	Total quantity of surplus milk	Nil			
		(xii)	No. of milk collection centres (e.g. Union (U)/ Society (S)/ Private agency (PA)/ Others (O))	(U)	(S)	(PA)	(O)
				Nil	Nil	Nil	Nil
		(xiii)	No. of villages with access to Aganwadi Centres	1 No.			
		(xiv)	Any other facilities with no. of villages (please specify)	Nil			

2.9 Livestock: There are only 4 kinds of livestock farming being farmed in the area viz. Piggery, Poultry,Goatery and Dairy.

Table 2.6: Existing livestock population

Type of Animal	Population
Piggery Farming	150 Nos
Poultry Farming	886 Nos
Dairy Farming	117 Nos
Goatery Farming	48 Nos

2.10 Land ownership: There are primarily two types of land holding system, namely private lands (Ri Kynti i.e. individually owned land) and community lands (Ri Kur i.e. clan land and Ri Raid i.e. village community land).

Table 2.7: Land Holding:

1	2	3	4	5	6		
Name of District	Name of the Project	Types of Farmer	No. of households	No. of BPL households	Land holding (ha)		
					Irrigated	Rainfed	Total
Ri Bhoi	RB–IWMP-VI	(i) Large	-	-			
		(ii) Small	-	-			
		(iii) Marginal	321	123	-	886 Ha	886 Ha
		(iv) Landless	27	23	-	-	-
		Sub - Total	348	146		886 Ha	886 Ha

Table 2.5: Common Property Resources in the Project Area

1	2	3	4				5			
Name of District	Name of the Projects	CPR Particulars	Total Area (ha) Area owned/ In possession of				Area available for treatment (ha)			
			Pvt. Person	Govt. (specify deptt.)	PRI	Any other (Community)	Pvt. Person	Govt. (specify deptt.)	PRI	Any other (Community)
Ri Bhoi	RB – IWMP-VI	(i) Wasteland/ degraded land	-	-		556.0 Ha	-	-	-	556 Ha
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Private Agriculture land	3 Ha	-	-	-	3 Ha			
		(iv) Village woodlot	-	-	-	-				
		(v) Forest	-	-	-	470.0 Ha				444 Ha
		(vi) Village Ponds/ Tanks	-	-	-	-				
		(vii) Community Buildings	-	2 nos.	-	-.				
		(viii) Weekly Markets	-	-	-	Beltola				
		(ix) Permanent Markets	-	-	-	Beltola				
		(x) Temples/ Places of worship	-	-	-	Church- 1 no				
		(xi) Others (Pl. specify)		-	-	47 Ha				
		Total	3 Ha	**-**	**-**	**1073 Ha**	**3 Ha**	**-**	**-**	**1000 Ha**

2.11 Land use and land cover : As per the land use land cover map generated by NESAC, Meghalaya from Satellite Image taken during 2005 – 2006 (LISS – III, Image) the Watershed area has been broadly classified into the following land uses.

a) Built-up Area = 44 Ha

b) Agriculture = 3 Ha

c) Tree clad Area-close = 470 Ha

d) Tree clad Area-open = 195 Ha

e) Wasteland/Dense Scrub = 131 Ha

f) Wasteland/Open Scrub = 230 Ha

Total = **1073 Ha**

2.12 Problems of the Area : The primary problems of the area is stone quarrying. Majority of the population depends on stone quarrying for their livelihood. Vast tracks of abandoned Jhum areas are converted to Stone Crusher Units which has further degraded the capability of the land. Mention may also be made here that the land use categorized as Tree-clad Area-open in the land used land cover map generated using Satellite Images of 2005 – 2006 are actually Broom-stick cultivation areas. In other words, unscientific method of cultivation has not only reduced the Jhum cycle, low crop yield but had adversely affected the ecological balance within the area. Road communication is another infrastructural problems that the area is facing where large volume crops like pineapple, jackfruits etc do not find their way into the market which has resulted in poor socio-economic status of the people. However, to control or to overcome the said problems an innovative approach has been formulated and documented in the Action Plan or the Treatment Plan the Detailed Project Report. The method of identification of the problems is through the Participatory Rural Appraisal Exercises conducted in all the villages within the Watershed.

CHAPTER III

PROJECT PLANNING & INSTITUTION BUILDING

3.1 Scientific Planning

i) Base Line Survey: To establish a benchmark for assessing the impact of any intervention (pre-project & post project) a baseline survey is essential. The baseline survey included household census & socio-economic survey by using structured and semi –structured questionnaires, bio-physical survey to identify and assess the status of natural resources in the project area.

ii) Participatory Rural Appraisal: To further obtain information on the project area, the people, resources, various PRA techniques like resource mapping, social mapping, seasonal calendars, matrix ranking, Venn diagrams were used.

iii) GIS & Remote Sensing: To facilitate the process of prioritization and planning Geographic Information System was use. The land use and land cover (LULC) maps were prepared by the North Eastern Space Application Centre (NESAC) using the LISS III images (2006). The activities were located on the field by using GPS and accordingly transferred to the maps on GIS platform.

Table 3.1: Details of Scientific Planning and Inputs in IWMP projects:

1	2	2
Sl.No.	**Scientific criteria/ inputs used**	**No. of projects in which scientific criteria were used**
A.	**Planning**	
	Cluster approach	3
	Whether technical back-stopping for the project has been arranged? If yes, mention the name of the Institute.	Yes, NESAC, Nongsder
	Baseline survey	Yes
	Hydro-geological survey	No
	Contour mapping	Yes
	Participatory Net Planning (PNP)	Yes

1	2	2
	Remote sensing data-especially soil/ crop/ run-off cover	Yes
	Ridge to Valley treatment	Yes
	Online IT connectivity between	
	(1) Project and DRDA cell/ZP	Yes
	(2) DRDA and SLNA	Yes
	(3) SLNA and DoLR	Yes
	Availability of GIS layers	
	1. Cadastral map	No
	2. Village boundaries	No
	3. Drainage	Yes
	4. Soil (Soil nutrient status)	Yes
	5. Land use	Yes
	6. Ground water status	No
	7. Watershed boundaries	Yes
	8. Activity	Yes
	Crop simulation models[#]	No
	Integrated coupled analyzer/ near infrared visible spectroscopy/ medium spectroscopy for high speed soil nutrient analysis	No
	Normalized difference vegetation index (NDVI)#	Yes
	Weather Stations	No
B.	**Inputs**	
	1. Bio-pesticides	No
	2. Organic manures	Yes
	3. Vermi-compost	Yes
	4. Bio-fertilizer	Yes
	5. Water saving devices	No
	6. Mechanized tools/ implements	Yes
	7. Bio-fencing	Yes
	8. Nutrient budgeting	Yes
	9. Automatic water level recorders & sediment samplers	No
	Any other (please specify)	-

3.2 Project Implementing Agency:

The PIA is the Soil & Water Conservation Division, Nongpoh, Ri Bhoi Hills District of Meghalaya. The Project Manager will be the Divisional Soil and Water Conservation Officer and will be assisted by an Asst. Soil & Water Conservation Officer along with WDT members in which expertise is drawn from the relevant fields for achieving smooth and successful implementation of the project.

1	2	3	
Names of Districts	Names of projects	Details of PIA	
East Khasi Hills	East Khasi Hills – IWMP III	(i) Type of organization#	Government
		(ii) Name of organization	Soil & Water Conservation Division, Nongpoh
		(iii) Designation & Address	Divisional Soil & Water Conservation Officer,Nongpoh
		(iv) Telephone	03638 –232257
		(v) Fax	Do
		(vi) E-mail	dswco_ribhoi@yahoo.com

3.3 Institution Building

i) Watershed Committee (WC)

The Watershed Committee of the Lower Umlathu, IWMP VI was constituted with the active involvement of the villagers with strong support of the Traditional Institutions (Village Durbar/Council). The Lower Umlathu Watershed Committee has been registered under the Society Registration Act 1983.

Table 3.2: Details of Watershed Committees (WC):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Names of the Districts	Names of projects	Names of WCs	Date of Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educational ualify-cation	Function/s assigned#
Ri Bhoi District	RB- IWMP – VI	Lower Umlathu	April/2011	Chairman	M	-	ST							1		Cl – X	A to I
				Secretary	M	-	ST								1	BA	A to I
				Member	8 M	-	ST				1	1	2	4		Cl – VI to IX	Do
				Member	3 F	-	ST					2	1				Do
				Member													

A. PNP and PRA
B. Planning
C. Maintenance of Accounts
D. Signing of cheques and making payments
E. Supervision of construction activities
F. Cost Estimation
G. Verification & Measurement
H. Record of labour employed
I. Social Audit
J. Any other (please specify).

ii) Self Help Group

Awareness programmes were organized in the villages to inform and sensitize the people on the essence of organizing themselves in to homogenous groups for uplifting their livelihood especially for the women and the landless. Discussions were held at length with the WDT on the scope and procedure of group formation, availing credit, grading of the groups and so on.

Table 3.3: Details of Self Help Groups (SHGs) in the project areas:

1	2	3				4				5			6		
Names of the Districts	Names of projects	Total no. of registered SHGs				No. of members				No. of SC/ST in each category			No. of BPL in each category		
		With only Men	With only Women	With both	Total	Categories	M	F	Total	M	F	Total	M	F	Total
Ri Bhoi	RB-IWMP VI	-	-	5 nos	5 nos	(i) Landless									
						(ii) SF									
						(iii) MF	38	22	60	38	22	60	NA	NA	NA
						(iv) LF									

iii) User Group

To manage the assets created and ensure their sustainability User Groups will be formed. The people have been sensitized on the importance of ensuring that the assets created are sustainably used and the essentiality of having User Groups for maintenance and operation of their assets.

Table 3.4: User Group Details

1	2	3				4				5			6		
Names of Districts	Names of Projects	Total no. of Ugs				No. of members				No. of SC/ST in each category			No. of BPL in each category		
		Men	Women	Both	Total	Categories	M	F	Total	M	F	Total	M	F	Total
Ri Bhoi	RB-IWMP-VI					(i)Landless									
						(ii) SF									
						(iii) MF									
						(iv) LF									
Total		Nil	Nil	Nil	Nil				Nil			Nil			Nil

CHAPTER IV
PROJECT ACTIVITIES

4.1 Preparatory Phase:

i) Entry Point Activities (EPA)

(Financial – Rs. in lakh)

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	State	District	Names of Project	Amount earmarked for EPA	Entry Point Activities planned	Estimated cost	Expenditure incurred	Balance	Expected outcome	Actual outcome
1	Meghalaya	Ri Bhoi	RB – IWMP-VI	6.0 Lakhs	Construction of 1 No Betelnut Fermentation Tank Construction of 3 Nos Community Water Harvesting Structures	4.00 2.00	6.0	-	N.A	N.A

ii) Other activities of Preparatory Phase:

1	2	3	4	5	6	7	8	9	10	11	12	13
District	Name of Projects	Initiation of village level institution	Capacity building	IEC activities	Baseline survey	Hydro-geological survey	Identifying technical support agencies	Resource agree-ments	Preparation of DPR	Evaluation of DPR	Any other (please specify)	Cost incurred (Rs. In lakh)
Ri Bhoi	RB – IWMP-VI	1 no. W/C 4 nos. Sub Watershed Committee at each benefiting village	2 nos.	2 nos.	Participatory Rural Appraisals	N.A	Done	Done	Done	Done	Entry Point Activity	6.0

4.2 Watershed Works Phase:

4.2.1 Activities related to surface water resources in the project areas:

1	2	3	4	5	6			7											
					Pre Project			Proposed Project											
								Augmentation/ repair of existing structures				Construction of new structures				Total target			
Sl. No	Name of States	Name of Districts	Name of Projects	Type of structures	No	Area irrigated (ha)	Storage capacity	No	Area to be treated (ha)	Storage capacity	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (per unit)	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (m^3)	Estimated cost
1	Meghalaya	Ri Bhoi	RB – IWMP - VI	(i) Tank	-	-	-	-	-	-	-	10 nos.	-	7 m^3	5.0	10 nos.	-	70 m^3	5.0
				(ii) Pond	-	-	-	-	-	-	-	19 nos.	172.50 Ha	300 m^3	25.8775	5 nos.	172.50 Ha	5700	25.8775
				(iii) Lake	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-
				(iv) Check Dam	-	-	-	-	-	-	-	3 Nos	-	25 m^3	4.14	3 nos.	-	75 m^3	4.14
				(v) Percolation Tank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				(vi) Channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				(vii) Any others (please specify)															
			Total																

8											9	10
Achievement due to project												
Augmentation/ repair of existing structures				Construction of new structures				Total achievement			Change in storage capacity (col 8-6)	Change in irrigated area (ha) Col. (8-6)
No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	Area irrigated (ha)	Storage capacity	Estimated incurred		-
-	-	-	-	10 nos.	-	7 m^3	5.0	-	70 m^3	5.00	70 m^3	-
-	-	-	-	19 nos.	172.50 Ha	300 m^3	25.8775	172.50 Ha	5700 m^3	7.50	25.8775 m^3	172.50 Ha
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	3 Nos	-	25 m^3	4.14	-	75 m^3	4.14	75 m^3	-

4.2.2 Activities related to recharging ground water resources in the project areas:

1	2	3	4	5	6		7									8								9
S. No.	Names of States	Names of Districts	Names of projects	Type of structures	Pre-project		Proposed target									Achievement due to project								Change in irrigated area (Col. 8-6) (ha)
							Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total target			Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total achievement		
					No.	Area irrigated (ha)	No.	Area to be irrigated (ha)	Estimated cost	No.	Area to be irrigated (ha)	Estimated cost	Area to be irrigated (ha)	Estimated cost		No.	Area irrigated (ha)	Expen di-ture incurred	No	Area irri-gated (ha)	Expen di-ture incurred	Area irri-gated (ha)	Expendi -ture incurred	
	Meghalaya	Ri Bhoi	RB – IWMP-VI	(i)Open wells	-	Nil	-	Nil	-		Nil		Nil				Nil			Nil			Nil	
				(ii)Bore wells																				
				(iii)Any others (Pl. specify)																				
				Total for the project																				

4.2.3 Activities executed by User Groups in the Project Areas.

	2	3						
Names of Districts	Names of Projects	Major activities of the UGs –Targets				No. of UGs involved	Estimated Cost	Amount of WDF to be collected (Rs.)
		Structure/ activity proposed						
		Sl. No.	Type	No.#	Treatment (ha)			
Ri Bhoi	RB – IWMP- VI	1. 2.	Betel Soaking Stone Cutting	10 unit 2 unit	- -	2 nos. 2 nos.	5.0 7.0	0.25 0.35

4.2.4 Activities executed by User Groups in the Project Areas:

4									
Major activities of the UGs – Achievements									
Structure/ activity				No. of UGs involved	Expenditure incurred (Rs.)	No. of mandays			Amount of WDF collected (Rs.)
Sl. No.	Type	No.#	Treated Area (ha.)			SC	ST	F	
1. 2.	Betel Soaking Stone Cutting	2 Nos 2 Nos	- -	2 Nos 2 Nos	5.0 7.0	- -	1600 2800	- -	0.20 0.35

4.2.5 Activities related to livelihoods by Self Help Groups (SHGs) in the project areas:

1	2	3		
Names of the Districts	Names of projects	Major activities of the SHGs		
		Name of activity	No. of SHGs involved	Average annual income from activity per SHG
Ri Bhoi	RB – IWMP- VI	Betel nut soaking Tank	1 nos.	60,000
		Fruit Processing unit	1 nos.	1,20,000
		Rural godown/ cold storage	1 nos.	1,10,000
		Apiculture @ Rs. 1000/ unit	1 nos.	85,000
		Piggery @ 20,000/ unit	2 nos.	60,000
		Poultry @ Rs. 20,000/ unit	2 nos	60,000
		Canes and Handicrafts	1 no	60,000

4.2.6 Activities related to livelihoods by Self Help Groups (SHGs) in the project areas:

4	5				6	7	8			9	10
No. of SHGs given training	Total assistance received by the SHG (Amount in Rs.)				Total annual Income generated (Rs.)	Total annual Savings (Rs.)	No. of SHGs Graded as			Total Amount of loan sanctioned by the bank(s)	No. of SHGs federated
	Loan from revolving fund	Training	Material	Others (pl. specify)			I	II	III		

4.2.7 Other activities of watershed works phase:

1	2	3		4		5		6		7		8		9		10		11		12		13
District	Names of projects	Ridge area treatment		Drainage line treatment		Nursery raising		Land development		Crop demonstrations		Pasture development		Veterinary services		Fishery development		Non-conventional energy		Any other (please specify)		Total cost incurred (Rs. In lakhs)
		(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	
Ri Bhoi	RB – IWMP-VI	85 Ha	12.75	915 Ha	137.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109.50

4.2.8 Details of engineering structures in watershed works:

1	2	3	4			5			6	7						8						
District	Project	Name of structures	Type of treatment			Type of land			Executing agency	Target						Achievement						
			(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land Dev. (L)	(i) Pri-vate	(ii) Com-munity	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	No. of units (No./ cum./ rmt)	Estimated cost (Rs. in lakh)				Expected month & year of completion (mm/yyyy)	No. of units (No./ cu.m./ rmt)	Expenditure incurred (Rs. in lakh)				Status of comple-tion	Actual month & year of completion (mm/yyyy)
											M	W	O	T			M	W	O	T		
Ri Bhoi	RB – IWMP- VI	Staggered trenching																				
		Loose boulder Contour bund																				
		Graded bunding																				
		Bench terracing																				
		Earthern checks dams																				
		Masonary stop dams																				
		Gully plug																				
		Gabion structures																				
		Underground dykes																				
		Field bunds																				
		Any others (Water Harvesting Structures)		√			√		UG	14 units	14.76	22.15		36.91	2014-15							

Contd.

4.2.9 Details of engineering structures in watershed works.

9																	
Outcomes																	
Reduction in run off (cu.m)	Area treated# (ha)	Water level (m)		Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries				
		Pre-project	Post project	Pre-project	Post project	Pre-project	Post project	SC	ST	Others (Men)	Women	Total	SC	ST	Others	Women	Total

4.2.10 Details of activities connected with vegetative cover in watershed works:

1	2	3	4			5			6	7				8			
			Type of treatment			Type of land			Executing agency	Target				Achievement			
District	Project	Name of structure/ work	(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land dev. (L)	(i) Private	(ii) Community	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	Area (ha)	No. of plants	Estimated cost (Rs. in lakh)	Expected month & year of comple-tion (mm/ yyyy)	Area (ha)	No. of plants	Expendi-ture incurred (Rs. in lakh)	Actual month & year of comple-tion (mm/ yyyy)
Ri Bhoi	RB – IWMP-VI	Afforestation	✓				✓		UG	25 ha	12500 nos	18.0375	3 yrs				
		Regeneration															
		Agro-forestry															
		Fuel wood															
		Fodder															
		Agro-Horticulture				✓				60 ha	18000 nos	31.08	3 yrs				
		Pasture dev.															
		Nursery raising															
		Others															

in case two or more activities are executed over same area, the figures in area treated should be accounted only once and should reflect only the actual watershed area treated.

4.2.11 Details of vegetative structures in watershed works: Phase – II (contd.):

9														
Outcomes														
Reduction in run off (cu.m)	Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries				
	Pre-project	Post project	Pre-project	Post project	SC	ST	Other	Women	Total	SC	ST	Others	Women	Total
						4329			4329		100 nos			100 nos
						7459			7459		260 nos			260 nos

4.2.12 Details of allied / other activities:

1	2	3	4			5	6		7	
District	Project	Name of activity	Type of land			Executing agency	Target		Achievement	
			(i) Private	(ii) Community	(iii) Others (landless)	(i) UG (ii)SHG (iii) Others (pl. specify)	Estimated cost (Rs. in lakh)	Expected month & year of completion (mm/yyyy)	Expendi-ture incurred (Rs. in lakh)	Actual month & year of completion (mm/yyyy)
Ri Bhoi	RB – IWMP-VI	Tailoring @ 8000/-	-	-	8 units	SHG's	0.64	3 yrs.		
		Carpentry/ Agri-implements/ Basket making etc @ 5000/-			107 units	SHG's /Individual	5.35	3 yrs.		
		Hollow Block making/ Stabilized Mud block making @ 25,000/-			4 units	Do	1.00	3 yrs.		
		Apiculture @ Rs. 8000/ unit			10 units	Do	0.80	3 yrs.		
		Betel nut soaking Tank @ Rs. 50,000/-			10 units	UG's	5.00	3 yrs.		
		Piggery @ 30,000/ unit			8 units	SHG's	2.50	3 yrs.		
		Vermi-Composting @ Rs.12,500/-			4 units	SHG's	0.50	3 yrs.		
		Kitchen Gardening @ Rs. 2500/-			300 units	Individual	7.51	3 yrs.		
		Fruit Processing unit @ Rs 50,000/ unit	-	-	5 unit	SHG's	2.50	3 yrs		
		Rural godown/ cold storage @ 2.0 Lakh			3 units	UG's	6.00	1 yrs.		
		Poultry @ Rs. 30,000/ unit			5 units	SHG's	1.50	1 yrs.		
		Canes & Handicrafts @ Rs. 30,000/ unit			4 units	SHG's	1.20	3 yrs.		
							34.50			

(Contd.)

* from column no. 2, no. of States; from column no. 3, no. of Districts; from column no. 4, total no. of Projects; from column no. 5, activity-wise totals, from column no. 6, type-wise totals, from coulmn no. 7, agency-wise totals, from column no. 8, total estimated cost, from column no. 9, total expenditure incurred, structure-wise no. of completed works, from column no. 10, item-wise totals, for the entire country may be indicated at the end of the table

@The activities given in this column are merely indicative and States are free to choose any other activity suited to the project area.

4.2.13 Details of allied / other activities:

8											
Outcomes											
Income (Rs.)		Mandays generated					No. of beneficiaries				
Pre-project	Post project	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total

4.3 Consolidation and withdrawal phase

Details of activities in the CPRs in the project areas:

1	2	3	4	5	6				7						
Names of the Districts	Names of projects	Name(s) of the villages	CPR particulars	Activity proposed	Target				Achievement						
					Target area under the activity (ha)	Estimated expenditure (Rs.)	Expected no. of beneficia-ries	Estimated contri-bution to WDF (Rs.)	Area treated under the activity (ha)	Expenditure incurred (Rs.)	Actual no. of benefici-aries	No. of mandays			WDF collected (Rs.)
												SC	ST	F	
Ri Bhoi	RB – IW MP-VI	Umtyrnga	D/Water		-	0.50		5% of Estimated Amount							
		Jorsyiem	D/Water		-	0.50									
		Nakrabil	D/Water		-	0.50									
		Chibra	D/Water		-	0.50									

CHAPTER V-PROJECT PHASING AND BUDGETING

ACTION PLAN OF LOWER UMLATHU WATERSHED UNDER IWMP – VI, RI BHOI DIVISION : NONGPOH

Name of District: Ri Bhoi District
Name of C&RD Block: Umling Block

No. of villages – 4 nos.
Project Area – 1000 Ha.

Sl. No	Activities	Ist Year		IInd Year		IIIrd Year		IVth Year		Vth Year		Total	
		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
I	**MANAGEMENT COST:**												
A.	**Administrative cost:**			**2 %**	**3.0**	**5 %**	**7.5**	**3 %**	**4.5**	**-**	**-**	**10 %**	**15.0**
i.	Honourarium of WDT Members @ Rs. 5000/ month – 1 no.	-	-	-	-	12 months	0.60	12 months	0.60	-	-	2 yrs	1.20
ii.	Hon^{rm} of Watershed Volunteers @ Rs. 2500/- month – 2 nos.	-	-	-	-	12 months	0.60	12 months	0.60	-	-	2 yrs	1.20
iii.	Hon^{rm} WCO's @ Rs. 750/ month.	-	-	12 months	0.09	12 months	0.09	12 months	0.09	-	-	3yrs	0.27
iv.	Hon^{rm} WCM @ Rs. 100/members/ month for 25 nos.	-	-	12 months	0.30	12 months	0.30	12 months	0.30	-	-	3 yrs	0.90
v	Hon^{rm} Office assistant @ Rs. 3000/- month.	-	-	12 months	0.36	12 months	0.36	12 months	0.36	-	-	3 yrs	1.08
vi	Hon^{rm} Chartered Accountant	-	-	-	0.15	-	0.15	-	0.15	-	-	3 yrs	0.45
vii	TA/DA of Field Asstt. @ 5000/ month	-	-	6 months	0.60	6 months	0.30	6 months	0.30	-	-	1.5 yrs	1.20
viii	Hiring charges of office building @ 1000	-	-	-	-	12 months	0.12	12 months	0.12	-	-	2 yrs	0.24
ix.	Hiring charges of vehicle @ 5000/ month	-	-	12 months	0.60	12 months	0.60	-	-	-	-	2 yrs	1.20
x	Office expenses, POL, Stationeries, printing of SHG's books, pamphlets, tea, snacks etc, cost of camera.	-	-	-	0.90	-	4.38	-	1.98	-	-	-	7.26
	Total of A:	**-**	**-**	**2 %**	**3.0**	**5 %**	**7.5**	**3 %**	**4.5**	**-**	**-**	**10 %**	**15.0**
	PREPARATORY PHASE :												
B.	**Entry Point Activities:**	**4 %**	**6.00**	-	-	-	-	-	-	-	-	4 %	6.00
i.	Construction of Betelnut Fermentation Tank	1 unit	4.0	-	-	-	-	-	-	-	-	1 unit	4.0
ii.	Construction of Communty Wash & Bath Place	3 units	2.0	-	-	-	-	-	-	-	-	3 units	2.0
	Total of B:	**4 %**	**6.00**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4 %**	**6.00**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
C.	**Training:**	**1 %**	**1.50**	**2 %**	**3.0**	**1 %**	**1.5**	**1%**	**1.5**	**-**	**-**	**5 %**	**7.50**
i.	Awareness Campaign & Capacity building	1 no	0.50	-	-	-	-	1 no.	0.30	-	-	2 no	0.80
ii.	Exposure visits – off. Campus	1 no	0.30	-	-	-	-	1 no.	0.30	-	-	2 no	0.60
iii.	Capacity building of SHG's/ UG's.	3 nos.	0.20	4 nos.	2.00	4 nos.	2.00	1 no.	0.30	-	-	12 nos.	3.50
iv.	Capacity building of WC Members.	2 nos.	0.25	1no.	0.5	2nos.	0.50	1 no.	0.30	-	-	6 nos.	1.30
v.	Capacity of WDT/WV	2 nos.	0.25	1 no.	0.5	2nos.	0.50	1 no.	0.30	-	-	6 nos.	1.30
	Total of C:	**1 %**	**1.50**	**2 %**	**3.0**	**1 %**	**1.5**	**1%**	**1.5**	**-**	**-**	**5 %**	**7.50**
D.	**Detailed Project Report:**	**1 %**	**1.50**	-	-	-	-	-	-	-	-	1 %	1.50
i.	Cost of Resources Inventories works	-	0.25	-	-	-	-	-	-	-	-	-	0.25
ii.	Cost of PRA Exercises	-	0.50	-	-	-	-	-	-	-	-	-	0.50
iii.	Cost of Land use Survey works	-	0.25	-	-	-	-	-	-	-	-	-	0.25
iv.	Cost of formulating	-	0.50	-	-	-	-	-	-	-	-	-	0.50
	Total of D:	**1 %**	**1.50**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1 %**	**1.50**
E.	**Monitoring & Evaluation:**	-	-	**0.5%**	**0.75**	**1%**	**1.5**	**0.5%**	**0.75**	**-**	**-**	**2 %**	**3.00**
i.	Monitoring	-	-	0.2%	0.30	0.5%	0.75	0.3%	0.45	-	-	-	-
ii.	Evaluation	-	-	0.3%	0.45	0.5%	0.75	0.2%	0.30	-	-	-	-
	Total of E:	**-**	**-**	**0.5%**	**0.75**	**1%**	**1.5**	**0.5%**	**0.75**	**-**	**-**	**2 %**	**3.00**
	Total of I (A to E)	**6%**	**9.00**	**4.5%**	**6.75**	**7 %**	**10.50**	**4.5 %**	**6.75**	**-**	**-**	**22 %**	**33.00**
II	**PROJECT COST/WATERSHED WORKS PHASE :**	-	-	-	-	-	-	-	-	-	-	-	-
A.	**Arable Land Treatment:**	-	-	-	-	-	-	-	-	-	-	-	-
i.	Horticulture Devt. for 480 ha @ Rs.8600/Ha	-	-	480 ha(c)	6.24	480 (1m) 262(2m)	22.08 7.074	218 (2m)	5.885	-	-	480 ha	**41.279**
	Total of A :	**-**	**-**	**-**	**6.24**	**-**	**29.154**	**-**	**5.885**	**-**	**-**	**480 Ha**	**41.279**
B.	**Non- Arable Land Treatment:**												
i.	Afforestation Devt. Works for 185 ha @ Rs. 10,100/ ha.	-	-	185 ha	3.145	185 ha	10.175	185 ha	5.365	-	-	185 ha	18.685
	Total of B:	-	-	**-**	**3.145**	**-**	**10.175**	**-**	**5.365**			**185 ha**	**18.685**

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
C	**Drainage Line Treatment:**												
i.	Water Harvesting Structures as per Estimates(Convergence)	-	-	2 Nos	1.865	12 Nos.	13.171	-	-	-	-	14 Nos.	15.036
	Total of C :	-	-	-	**1.865**	-	**13.171**	-	-	-	-	**335 ha**	**15.035**
	Total of A + B + C	-	-	**7.5 %**	**11.25**	**35 %**	**52.50**	**7.5%**	**11.25**	-	-	**50% (1000 Ha)**	**75.00**
D	**Livelihood Activities for landless persons:**												
i.	Tailoring @ Rs.8,000/-	-	-	5 units	0.40	3 units	0.24	-	-	-	-	8 units	0.64
ii.	Carpentry/ Agri- Implements/ Basket Making etc @ Rs. 5000/-	-	-	22 units	1.10	48 units	2.40	37 units	1.85	-	-	107 units	5.35
iii.	Hollow Block making/ Stabilized Mud block making Rs. 25,000/-	-	-			4 units	1.00	-	-	-	-	4 units	1.00
iv.	Vermi-Composting @ Rs.12,500/-	-	-			4 units	0.50	-	-	-	-	4 units	0.50
v.	Kitchen Gardening @ Rs. 2500/-	-	-			14 units	0.36	286 units	7.15	-	-	300 units	7.51
	Total of D:	-	-	**1 %**	**1.5**	**3 %**	**4.50**	**6%**	**9.0**	-	-	**10.0 %**	**15.00**
E.	**Production System and Micro Enterprises (SHG's):**												
i.	Betel nut soaking Tank @ Rs. 50,000/-	-	-	1 unit	0.50	9 units	4.50	-	-	-	-	10 units	5.00
ii	Fruit/Food Processing unit @ Rs. 50,000/ unit	-	-			-	-	5 unit	2.50	-	-	5 unit	2.50
iii	Rural godown/ cold storage @ 2.0 Lakh	-	-			-	-	3 unit	6.00	-	-	3 unit	6.00
iv	Apiculture @ Rs. 8000/ unit	-	-			-	-	10 units	0.80	-	-	10 units	0.80
v	Piggery @ 30,000/ unit	-	-	5 units	1.0	5 units	1.5	-	-	-	-	10 units	2.50
Vi	Poultry @ Rs. 30,000/ unit	-	-			5 units	1.5	-	-	-	-	5 units	1.50
vii	Canes & Handicrafts @ Rs. 30,000/ unit	-	-			-	-	4 units	1.20	-	-	4 units	1.20
	Total of E :			**1 %**	**1.5**	**5 %**	**7.5**	**7 %**	**10.50**	**-**	**-**	**13 %**	**19.50**

	2	3	4	5	6	7	8	9	10	11	12	13	14
F.	**Consolidation & Exit Phase:**												
i.	Repairs, Maintenance of CPR's.	-	-	-	-	-	-	-	-	-	3.00	-	3.00
ii.	Improving the sustainability of various Interventions	-	-	-	-	-	-	-	-	-	2.00	-	2.00
iii.	Documentation of successful experiences & Preparation of Completion Report	-	-	-	-	-	-	-	-	-	2.50	-	2.50
	Total of F:	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5%**	**7.50**	**-**	**7.50**
	Total of II (A+B+C+D+E+F)	**-**	**-**	**9.5 %**	**14.25**	**43 %**	**57.00**	**20.5 %**	**31.50**	**5%**	**7.5**	**78 %**	**117.00**
	Grand Total (I + II)	**6 %**	**9.00**	**14 %**	**21.00**	**50 %**	**75.00**	**25 %**	**37.50**	**5%**	**7.50**	**100 %**	**150.00**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
F.	**Consolidation & Exit Phase:**												
i	Repairs, Maintenance of CPR's.	-	-	-	-	-	-	-	-	-	3.00	-	3.00
ii	Improving the sustainability of various Interventions	-	-	-	-	-	-	-	-	-	2.00	-	2.00
iii	Documentation of successful experiences & Preparation of Completion Report	-	-	-	-	-	-	-	-	-	2.50	-	2.50
	Total of F:	-	-	-	-	-	-	-	-	5%	7.50	-	7.50
	Total of II (A+B+C+D+E+F)	-	-	9.5 %	14.25	43 %	57.00	20.5 %	31.50	5%	7.5	78 %	117.00
	Grand Total (I + II)	6 %	9.00	14 %	21.00	50 %	75.00	25 %	37.50	5%	7.50	100 %	150.00

Deputy Commissioner
Ri - Bhoi District Nongpoh

Divisional Officer
Soil & Water Conservation
Ri Bhoi Division
Nongpoh

DETAILS OF CONVERGENCE OF I.W.M.P. PROJECT –VI UNDER THE OFFICE OF SOIL & WATER CONSERVATION OFFICER, RI-BHOI DIVISION, NONGPOH WITH MGNRGA

District	Name of Project with name of village and C&RD Block	Year of implement ation of the Scheme	Name of Deptt. With Schemes convergence with IWMP	Fund made available to IWMP due to convergence		Name of activity/task/structure undertake with converged fund a) Structure b) Livelihood c) Any other	Reference no. of activity/task/stru ctures in DPR	Level at which decision for converge was taken	Remarks
				Phy (unit)	Fin (Rs. in lakh)				
1	2	3	4	5	6	7	8	9	10
Ri-Bhoi	IWMP Project – VI Umling C&RD Block 1. Umtyrnga	2010-11 to 2014-15	C&RD Deptt. MGREGA	10 units	18.06	Development of water bodies	Nil	Village & Block	12.04 IWMP
	2. Cibra	2010-11 to 2014-15	2010-11 to 2014-15	2 units	1.58	Water harvesting	Nil	Village & Block	1.05 IWMP
	3. Nagrabil	2010-11 to 2014-15	2010-11 to 2014-15	2 units	.51	Water harvesting	Nil	Village & Block	1.67 IWMP
	4.								
Total				14 units	22.15				14.76 IWMP

Deputy Commissioner
Ri - Bhoi District, Nongpoh

Divisional Soil & Water Conservation Officer
Ri-Bhoi Division
Nongpoh

Details of the types of areas covered under the IWMP Programme:

1	2	3	4	5	6		7	8	9	10				11				
SL No	Name of State	Name of Districts	Names of Projects	Year of sanction	Project duration (dd/mm/ yyyy)		Area of the projects	Project cost (Rs. In lakh)	Names of Micro watersheds & Code nos. (as per DoLR's unique codification)	Area (ha) of the projects				Area details (ha) (falling within the projects)				
					From	To				Cultivated rainfed area	Cultivated irrigated area	Uncultivated wasteland		Pvt. Agri. Land	Forest land	Community land	Others (pl. specify)	Total area (ha)
												a) Temporary fallow	b) Permanent					
1	Meghalaya	Ri Bhoi	RB-IWMP-VI	2010-11	2010 - 11	2014-15	1000 Ha	150 Lakhs	Lower Umlathu 3C1B5g2a	3	Nil	665	361	3	592	361	44	1000 Ha

Fund provision for the IWMP projects from all sources:

1	2	3		4										5
District	Name of Projects	IWMP Fund		Funds from other sources in addition to IWMP funds										Total
				Convergence funds		PPP		Community		Institutional finance		Others (Pl. specify)		
		Central Share	State Share	Name of Scheme	Amount (Lakhs)	Name of private sector	Financial contri-bution	Name	Financial contri-bution	Name	Financial contri-bution	Name	Financial contri-bution	
Ri Bhoi	RB-IWMP-VI	135 lakhs	15 lakhs	NREGS	22.17	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	178.99

Details of Project Fund Accounts of Distt. Agency and Watershed Committees:

1	2	3	4	5				6				
Sl. No.	Names of States	Name of Districts	Names of Projects	Distt. Agency's Project Account details				Watershed Committee (WC) account details:				
				Name of the Bank and Branch where project account has been opened	Account Number (to be obtained confiden-tially)	Account type (Savings/ Current/ Others)	Name & Designation of authorized persons who operate the account.	Name of Watershed Committee	Name of the Bank and Branch where project account has been opened	Account number (to be obtained confiden-tially	Account type (Savings/ current others)	Name & Designation of authorized persons who operate the account.
1	Meghalaya	Ri Bhoi	RB-IWMP-VI	Indian Bank Nongpoh Branch	930331820	Saving	Smti.V.Papang, DS&WCO	Lower Umlathu, Watershed Committee	Indian Bank Nongpoh Branch	928877091	Saving	Chairman W.C, Secretary W.C, Project Leader / WDT

Details of Convergence of IWMP with other Schemes:

	1	2	3	4	5	6	7
Sl. No.	District	Names of projects	Names of Departments with Schemes converging with IWMP	Fund made available to IWMP due to convergence (Rs. in lakh)	Name of activity/task/structure undertaken with converged funds (a) Structures (b) livelihoods (c) Any other (pl. specify)[#]	Reference no. of activity/ task/ structure in DPR[@]	Level at which decision for convergence was taken[$]
1	Ri Bhoi	RB-IWMP-VI	* Community Rural Development Department NREGS	22.17	Development of Water Bodies Water Harvesting Structures Water Distribution Works	-	Block Level & District Level
2			* PHE Department TSC	n.a	Construction of Low cost sanitary unit	-	

Public-10 in the IWMP projects: NIL

1	2	3	4			5		6	7	8	9
District	Name of project	Name of Private Sector Partner Agency	Type of agreement signed			Financial contribution		Partnership Interventions	Expected Outcomes	Actual Outcomes	Comments
			a)MoU	b)Contract	c) Any other (pl. specify)	IWMP	Private sector				

***** from Column no. 2, total no. of States implementing the programme, from Column no. 3, total no. of Districts; from Column no. 4, total no. of projects under PPP; from Column no. 5, total no. of private companies/ agencies, from column no. 7, total amounts may be mentioned at the end of the table for the entire country.

CHAPTER VI
CAPACITY BUILDING

Capacity Building is a process to systematically upgrade the skill of individuals or groups for achieving a specific target. Capacity building in the project has been planned for all the stake holders involved i.e. State Level, District Level, Project Level and Village Level. The relevant details pertaining to Capacity Building has been shown below.

Table 6.1: List of approved Training Institutes for Capacity Building:

1	2	3	4	5	6	7	8	9				
S. No	State	Name of the Training Institute	Full Address with contact no., website & e-mail	Name & Designation of the Head of Institute	Type of Institute[#]	Area(s) of specialization[$]	Accre-ditation details	Performance				
								Refer-ence Year	No. of trainings assigned	No. of trainees to be trained	No. of trainings conducted	No. of trainees trained
1	Meghalaya	NIRD (NER)	Guwahati	Director	Central Govt.	Remote Sensing, Rural Devt.	NA	-				
2		SIRD	Nongsder	Director	State Govt.	Capacity Building	NA	-				
3		RRTC	Umran	Director	Don-Bosco	Agri-Horti, Animal Husbandry, Entrepreneurship	NA					
4		ICAR	Umiam	Director	Central Govt.	Do	NA					
5		VTC	Kyrdem Kulai	Director	State Govt.	Animal Husbandry	NA					
6		Fruit Garden	Shillong	Director	State Govt.	Agri-Horti, Fruit Processing	NA					

- From Column no. 2, total no. of States implementing the programme, from Column no. 3, no. of training institutes, from column No. 9, total no. of category-wise trainings and trainees may be given at the end of the table for the entire country
- # Central govt. Dept./ State govt. Dept./ Autonomous Body/ Research Institutes/ Universities/ Others (pl. specify)

$ Capacity Building/ Agriculture/ Horticulture/ Animal Husbandry/ Pisciculture/ Remote Sensing/ Water conservation/ Ground water/ Forestry/ livelihoods/ entrepreneurship development/ others (pl. specify)

[@] The training institutes must fulfill the conditions mentioned in the operations guidelines.

(i) Technical experts in fields required by IWMP
(ii) Past experiences
(iii) Annual Turnover
(iv) Receives funds either from the Central or State Government
(v) Publications
(vi) Not blacklisted by any Govt. organizations
(vii) Audited accounts
(viii) Organizational structure

Table 6.2: Capacity Building activities for the year 2010 – 11 as on 31/03/2011 (dd/mm/yyyy)*

1	2	3	4	5	6		7	
Project Stakeholders	**Total no. of persons**	**No. of persons trained so far**	**No. of persons to be trained during current financial year**	**No. of persons trained during current financial year**	**Sources of funding for training**		**Funds utilized (Lakhs)**	
					a) DoLR	**b) Any other (Pl. specify)**	**a) DoLR**	**b) Any other (Pl. specify)**
SLNA			400 Nos.	-	1.50	-	1.50	-
DRDA/ZP cell			25 Nos.	-				
PIAs			25 Nos.	-				
WDTs			4 Nos.	-				
UGs			20 Nos.	-				
SHGs			30 Nos.	-				
WCs			16 Nos.	-				
GPs			15 Nos.	-				
Community			250 Nos.	-				
Others Pl. specify)								

Table 6.3: Information, Education & Communication (IEC) activities for the year 10-11 as on 31/03/11 (dd/mm/yyy)*

	1	2	3	4	5
	Activity	**Executing agency**	**Estimated expenditure (Rs.)**	**Expenditure incurred (Rs.)**	**Outcome (may quantity, wherever possible)**
1.	Awareness	S&WC Ri Bhoi Division	0.50	0.50	
2.	Exposure Visits	S&WC Ri Bhoi Division	0.30	0.30	
3.	Capacity Building	S&WC Ri Bhoi Division	1.70	1.70	
4.	Photos/Pamphlets/Literature	S&WC Ri Bhoi Division	0.50	0.50	

CHAPTER VII
EXPECTED OUTCOME

Table 7.1 Employment related outcomes:

Sl No	Name of Village	1										2				
		Wage employment										Self employment				
		No. of mandays					No. of beneficiaries					No. of beneficiaries				
		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
1.	Umtyrnga		100 %	7500	7000	14500		100 %	111	110	211		100 %	8	4	12
2.	Nakrabil		100 %	7800	6200	14000		100 %	34	26	60		100 %	6	2	8
3.	Chibra		100 %	7000	6500	13500		100 %	27	24	51		100 %	5	3	8
4.	Jorsyiem		100 %	3200	2800	6000		100 %	14	12	26		100 %	4	1	5
						36000					**348**					**68**

Table 7.2 Migration Details:

1	2	3	4	5	6	7	8	9	10	
Names of the Districts	**Names of Projects**	**Name of village**	**No. of persons migrating**	**No. of days per year of migration**	**Major reason(s) for migrating**	**Distance of destination of migration from the village (km)**	**Occupation during migration**	**Income from such occupation (Rs. in lakh)**	**For reduced migration identify major activities of IWMP responsible**	
									(a) Structures	**(b) Livelihoods**
				N	I	L				

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects; from column no. 5, total no. of villages; from column no. 6, total no. of persons migrating; from column no. 7, average no. of days for annual migration; from column no. 9, average distance of migration from the village and form column no. 11, average income from occupation during migration, for the entire country may be given at the end of the Table.

Table 7.3 Economic benefits accrued to women:

1		2		3		4
Wages		**Training**		**Livelihoods**		
Woman days	**Amount (Rs. in lakh)**	**No. of women participants**	**Amount (Rs. in lakh)**	**No. of women beneficiaries**	**Value of assistance provided (Rs. in lakh)**	**Total (Rs. in lakh)**
22500	22.50	150	0.60	60 nos.	6.0	6.60

* from Column no. 2, total no. of States implementing the programme, from Column no. 3 to 6, category-wise totals, may be mentioned at the end of the table for the entire country.

Table 7.4 Details of rights conferred in the CPRs of the project areas:

1	2	3	4	5	6	7				8
Names of the Districts	**Names of the projects**	**Names of the villages**	**Particular of CPR**	**Nature of right**	**Period of right**	**Beneficiary details (no. of families)**				**User Charges (Rs.)**
						SC	**ST**	**Others**	**Total**	
Ri Bhoi	RB-IWMP-VI	Umtyrnga	Community Forest	Fw	6 months	-	211	-	211	Nil
		Nakrabil	Community Forest	Fw	6 months	-	60	-	60	Nil
		Chibra	Community Forest	Fw	6 months	-	51	-	51	Nil
		Jorsyiem	Community Forest	Fw	6 months	-	26	-	26	Nil

* From column no. 2, no. of States; from column no. 3, no. of Districts; from column no. 4, no. of projects; from column no. 5, no. of villages; from column nos. 9 & 10, particular-wise totals for the entire country may be given at the end of the table.
@ In column no. 6, the categories given in table no. M(SP) 10, column 5 may be filled as required.

In column no. 7, only the letter assigned to each type, as given below, needs to be typed.

F	for right to	fishing [culture, harvest and sale]
Fw	for right to	collect firewood for domestic purposes
G	for right to	grazing for cattle and
MFP	for right to	collect and sell minor forest produces
P	for right to	passage across the CPR
Rd	for right to	construct a road for access to individual property
S/M	for right to	collect and sell sand and minerals
T	for right to	collect timber for construction of house
Wd	for right to	collect/ use water for drinking
Wi	for right to	use water for irrigation
O	for any right other than indicated above (please specify)	

Table 7.5 Water related outcomes:

Table 7.5.1 Details of average ground water table depth in the project areas of the Country: State-wise * (in metres)

1	2	3	4	5	6	7	8
Names of Districts	**Names of Projects**	**Sources**	**Pre-Project level**	**Mid-term project level**	**Post-Project level**	**Increase/decrease (Col. 8 – Col. 6)**	**Remarks**
Ri Bhoi	RB-IWMP-VI	Open wells	-	-	-	-	-
		Bore wells	-	-	-	-	-
		Others (specify) Springs	-	-	-	-	-

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 to 9, the average measurements, category-wise, for the entire country may be given at the end of the table. The data must be based on the average of the Ground Water Table collected by PIA with the help of concerned technical expert in the same sample of 10 % of selected wells and bore wells in the villages in the watershed project area during pre-project, mid-term and post-project periods.

Table 7.5.2 Status of Drinking water:

1	2	3			4			5
District	**Name of the project**	**Availability of drinking water (no. of months in a year)**			**Quality of drinking water**			**Comments**
		Pre-project	**Post-project**	**Change in availability**	**Pre-project**	**Post-project**	**Change in quality**	
Ri Bhoi	RB-IWMP-VI	Insufficient	Sufficient	10 – 12 months	Moderate	Improved	Improved	-

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, category-wise no. of projects, from column no. 5, average no. of months may be given at the end of the table for the entire country.

Table 7.5.3 Water Use efficiency:

1	2	3	4			
District	**Name of the project**	**Name of major crop**	**Water savings in cu.m.**			
			through water saving devices[$]	**through water conserving agronomic practices[#]**	**Any other (pl specify)**	**Total**
Ri Bhoi	RB-IWMP-VI	Betel leaf	PVC pipes	Vermi-compost, mulching	-	-
		Black Pepper				

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 6, practice-wise totals may be mentioned at the end of the table for the entire country.

[$] Sprinkler, Drip, PVC pipe, etc.

[#] Vermi-compost, organic manuring, Mulching, Check basin, Alternate furrow, Ridges & furrow & other scientific practices.

Table 7.6: Vegetation/ crop related outcomes:
Table 7.6.1 Details of Kharif crop area and yield in the project areas:

1	2	3	4						5						6					
Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
			Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)	
			Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.
Ri Bhoi	RB-IWMP-VI	Betel nut	-	20	-	5.56	-	111.20	80	20	6.0	5.56	480	111.20	80	20	6.0	5.56	480	111.20
		Betel leaf	-	30	-	10	-	300	70	30	12	10	840	300	70	30	12	10	8840	300
		Oranges	-	50	-	72.61	-	3630.50	25	50	75	72.61	1875	3630.50	50	50	75	72.61	3750	3630.50
		Bay leaf	-	10	-	23.5	-	235	15	10	24	23.5	360	235	40	10	24	23.5	960	235
		Broom stick	-	560	-	60	-	33600	-	300	60	60	-	18000	-	300	60	60	-	18000
		Black pepper	-	20	-	6.05	-	121	40	20	7	6.05	280	121	80	20	7	6.05	560	121
		Banana	-	15	-	163.56	-	2453.40	35	15	165	163.56	5775	2453.40	85	15	165	163.56	14025	2453.40
		Pineapple	-	30	-	115	-	3450	70	30	120	115	8400	3450	120	30	120	115	14400	3450

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of crops; from column no. 6 to 8, the totals for the area, average yield per ha and total production, category-wise, for the entire country may be given at the end of the Table.
Irri. – Irrigated Rf – Rainfed

Table 7.6.2 Details of Rabi crop area and yield in the project areas: NIL

1	2	3	4	5	6						7						8					
Sl No.	Names of States	Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
					Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)	
					Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of crops; from column no. 6 to 8, the totals for the area, average yield per ha and total production, category-wise, for the entire country may be given at the end of the Table.

Irri. – Irrigated Rf – Rainfed

Table 7.6.3 Details of Zaid crop area and yield in the project areas of the Country: State-wise:

1	2	3	4	5	6						7						8					
Sl No.	Names of States	Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
					Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)	
					Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.
	Ri Bhoi	RB-IWMP-VI	EKH-IWMP III	Betel leaf	-	-	-	-	-	-	60 Ha	-	27	-	1620	-	120	-	29	-	3480	-
			Total for the District																			

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of crops; from column no. 6 to 8, the totals for the area, average yield per ha and total production, category-wise, for the entire country may be given at the end of the Table.

Irri. – Irrigated Rf – Rainfed

Table 7.6.4 Increase/ Decrease in area under fodder:

1	2	3	4			5		
			Existing area under fodder (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under fodder	Area under fodder proposed to be covered through IWMP	Area under fodder actually covered through IWMP	Change in area under fodder
Ri Bhoi	RB-IWMP-VI	5 yrs	NA	NA	NA	nil	nil	nil

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.6.5 Increase/ Decrease in Forest/vegetation cover:

1	2	3	4			5		
			Existing area tree cover (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under forest/vegetative cover	Forest/vegetative cover area proposed to be covered under IWMP	Forest/vegetative cover area actually covered under IWMP	Change in forest/vegetative cover area
Ri Bhoi	RB-IWMP-VI	5 yrs	NESAC	2006	470 Ha	25 Ha	-	-

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.6.6 Increase/ Decrease in area under horticulture:

1	2	3	4			5		
			Existing area under horticulture (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under horticulture	Area under horticulture proposed to be covered through IWMP	Area under horticulture actually covered through IWMP	Change in area under horticulture
Ri Bhoi	RB-IWMP-VI	5 yrs				60 Ha	60 Ha	60 Ha

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.6.7 Increase/ Decrease in area under fuel-wood:

1	2	3	4			5		
			Existing area under fodder (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under fuel-wood	Area under fuel-wood proposed to be covered under IWMP	Area under fuel-wood actually covered under IWMP	Change in area under fuel-wood
Ri Bhoi	RB-IWMP-VI	5 yrs				25 Ha	25 Ha	25 Ha

* From column no. 2, total number of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 6 & 7, total area in ha may be given at the end of the table for the entire country.

Table 7.7 Livelihood related outcomes:

Table 7.7.1 Details of livestock in the project areas (for fluids please mention in litres, for solids please mention in kgs. and income in Lakh):

1	2	3	4			5			6			7
Names of the Districts	**Name of Projects**	**Type of Animal**	**Pre-project**			**Mid-term**			**Post-project**			**Remarks**
			No.	**Yield**	**Income**	**No.**	**Yield**	**Income**	**No.**	**Yield**	**Income**	
Ri Bhoi	RB-IWMP-VI	Piggery Farming	150 Nos	-	12.0	200nos	nil	16.0	270nos	-	22.95	
		Poultry Farming	886 Nos	-	1.77	1200nos	-	2.40	1600nos	-	3.20	
		Dairy Farming	117 Nos	-	23.40	118nos	-	29.50	120nos	-	30.00	
		Goatery Farming	48 Nos	-	1.92	50nos	-	2.25	50nos	-	2.50	
	Total for all projects		**1201 Nos**	**-**	**39.09**	**1568nos**	**-**	**50.15**	**2040nos**	**-**	**58.65**	
Total for all Districts												

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column nos. 5 to 8, the total nos. of animals and the average yield and incomes, category-wise, for the entire country may be given at the end of the Table.

Table 7.7.2 Details of other livelihoods created for landless people:

1	2	3	4	5				6	7					8				
District	Project	Name of activity	Fund required for the activity (Rs.)	Sources of funding (Rs.)				Actual Expenditure incurred on activity (Rs.)	No. of beneficiaries trained					No. of beneficiaries taking up activity				
				Project Fund	Benefi -ciary	Others (pl. specify)	Total		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
Ri Bhoi	RB-IW MP-VI	Tailoring	10000/-	8000/-	2000/-	-	10000/-	10000/-	-	10	-	10	10	-	10	-	10	10
		Basket - making	5000/-	3000/-	2000/-	-	5000/-	5000/-	-	70	25	35	70	-	70	25	35	70
		Stabilized Mud - making	50000/-	35000/-	15000/-	-	50000/-	50000/-	-	4	4	-	4	-	4	4	-	4
		Vermi - compos - ting	25000/-	20000/-	5000/-	-	25000/-	25000/-	-	4	-	4	4	-	4	-	4	4
		Kitchen - gardening	2000/-	500/-	2500/-	-	2500/-	2500/-	-	300	-	300	300	-	300	-	300	300

(Contd.)

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of activities; from column no. 6, total funds required for the activity, from column no. 7 to 12, category-wise totals, from column no. 13, category-wise totals, for the entire country may be given at the end of the Table.

Table 7.7.3 Details of other livelihoods created for landless people:

9		10	11				12
No. of persons employed indirectly in the activity		Annual increase in income due to activity (Rs.)	Impact of livelihoods programme				Any other information (pl. Specify)
			Migration (No. of beneficiaries)		Development of backward-forward linkages		
Total	Grand Total (8+9)		Pre-project	Post-project	Pre-project	Post-project	
(i) 5	15	30,000	-	-	-	-	-
(ii) 50	120	50,000	-	-	-	-	-
(iii) 10	14	45,000	-	-	-	-	-
(iv) 10	14	25,000	-	-	-	-	-
(v) 60	360	20,000	-	-	-	-	-

Table 7.7.4 Details of other livelihoods created for farmers:

1	2	3	4	5				6	7				8			
District	Project	Name of activity	Fund required for the activity (Rs.) in lakhs	Sources of funding (Rs.) in Lakhs				Actual Expenditure incurred on activity (Rs.)	No. of farmers trained				No. of farmers taking up activity			
				Project Fund	Benefi -ciary	Others (pl. specify)	Total		SF	MF	LF	Total	SF	MF	LF	Total
Ri Bhoi	RB-IWMP-VI	i) Betelnut soaking	5.0	4.75	0.25	-	5.0	5.0	-	-	-	100	-	-	-	100
		ii) Fruit processing	2.0	1.90	0.10	-	2.0	2.0	-	-	-	20	-	-	-	20
		iii) Rural Godown	6.0	5.70	0.30	-	6.0	6.0	-	-	-	30	-	-	-	30
		iv) Canes & Handicraft	1.60	1.52	0.08	-	1.60	1.60	-	-	-	40	-	-	-	40

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects, from column no. 5, total no. of activities; from column no. 6, total funds required for the activity, from column no. 7 to 12, category-wise totals, from column no. 13, category-wise totals, for the entire country may be given at the end of the Table.

Table 7.7.5 Details of other livelihoods created for farmers * (contd.)

9		10	11				12
No. of persons employed indirectly in the activity		Annual increase in income due to activity (Rs.)	Impact of livelihoods programme				Any other information (pl. Specify)
			Migration (No. of beneficiaries)		Development of backward-forward linkages		
Total	Grand Total (8+9)		Pre-project	Post-project	Pre-project	Post-project	
(i) 203	303	50,000	-	-	-	-	-
(ii) 147	167	40,000	-	-	-	-	-
(iii) 200	230	25,000	-	-	-	-	-
(iv) 200	240	60,000	-	-	-	-	-

Table 7.8 Marketing related outcomes:

Backward-Forward linkages *

1	2	3	4	5	6
District	**Project**	**Type of Marketing Facility**	**Pre-project (no.)**	**During the project (no.)**	**Post-project (no.)**
Ri Bhoi	RB-IWMP-VI	**(A) Backward linkages**			
		(i) Seed certification	-	-	-
		(ii) Seed supply system	-	-	-
		(iii) Fertilizer supply system	-	-	-
		(iv) Pesticide supply system	-	-	-
		(v) Credit institutions	-	4	10
		(vi) Water supply	-	-	3
		(vii) Extension services	-	20	30
		(viii) Nurseries	-	-	1 no.
		(ix) Tools/machinery suppliers	-	2	2
		(x) Price Support system	-	-	-
		(xi) Labour	-	4000	6000
		(xii) Any other (please specify)	-	-	-
		(A) Forward linkages		-	-
		(i) Harvesting/threshing machinery	-	-	-
		(ii) Storage (including cold storage)	-	1 no.	1 no.
		(iii) Road network	-	-	-
		(iv) Transport facilities	-	2 nos.	2 nos.
		(v) Markets / Mandis	-	1 no.	1 no.
		(vi) Agro and other Industries	-	120 nos.	150 nos.
		(vii) Milk and other collection centres	-	-	-
		(viii) Labour	-	6000	8000
		(ix) Any other (please specify)	-	-	-

* from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects; from column no. 6, 7 & 8, category-wise totals may be given at the end of the table for the entire country.

Table 7.9 Abstract of outcomes:

1	2	3	4	5	6	7
Sl. No.	**State**	**Item**	**Unit**	**Pre-project Status**	**Post-project Status**	**Remarks**
		Status of water table		-	-	
		Ground water structures repaired/ rejuvenated		-	19 nos.	
		Quality of drinking water		Moderate potable	Improved	
		Availability of drinking water		Insufficient	Sufficient	
		Increase in irrigation potential		-	19 nos.	
		Change in cropping/ land use pattern		Monocropping	Doublecropping	
		Area under agricultural crop				
		i Area under single crop		-	-	
		ii Area under double crop		-	-	
		iii Area under multiple crop		-	1000 ha	
		Net increase in crop production area				
		Increase in area under vegetation		-	25 ha	
		Increase in area under horticulture		-	60 ha	
		Increase in area under fuel & fodder		-	-	
		Increase in milk production		-	-	
		No. of SHGs		2 nos.	10 nos.	
		Increase in no. of livelihoods		-	12 nos.	
		Increase in income		-	45,000	
		Migration		-	-	
		No. of school going children		120 nos.	350 nos.	
		SHG Federations formed		-	-	
		Credit linkage with banks		-	15 nos.	
		Resource use agreements		-	4 nos.	
		WDF collection & management		-	4 no.	
		Summary of lessons learnt	May be attached as a separate file			

Table 7.10 Cost effectiveness of structures/ activities*

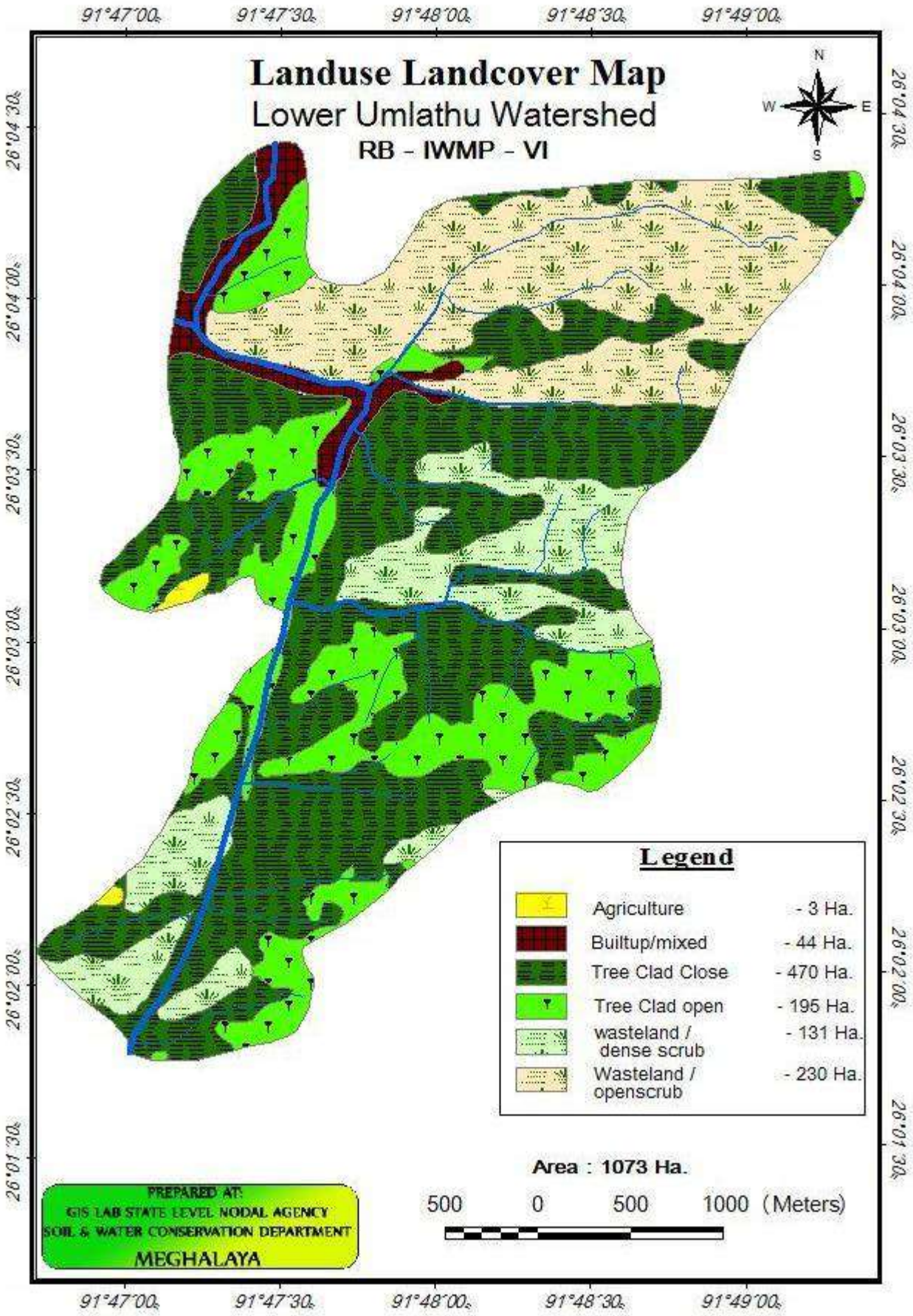
1	2	3	4	5	6	7	8	9	10
District	**Name of project**	**Name of WC**	**Name of structure/ activity**	**Estimated cost (Rs.)**	**Expected quantifiable benefits (Rs.)**	**Expenditure incurred (Rs.)**	**Actual quantifiable benefit (Rs.)**	**Benefit: Cost ratio#**	**IRR**
Ri Bhoi	RB-IWMP-VI	Lower Umlathu	As per Treatment Plan	117.0 lakhs	175.50 lakhs	117.0 lakhs	146.25 lakhs	1.25	-

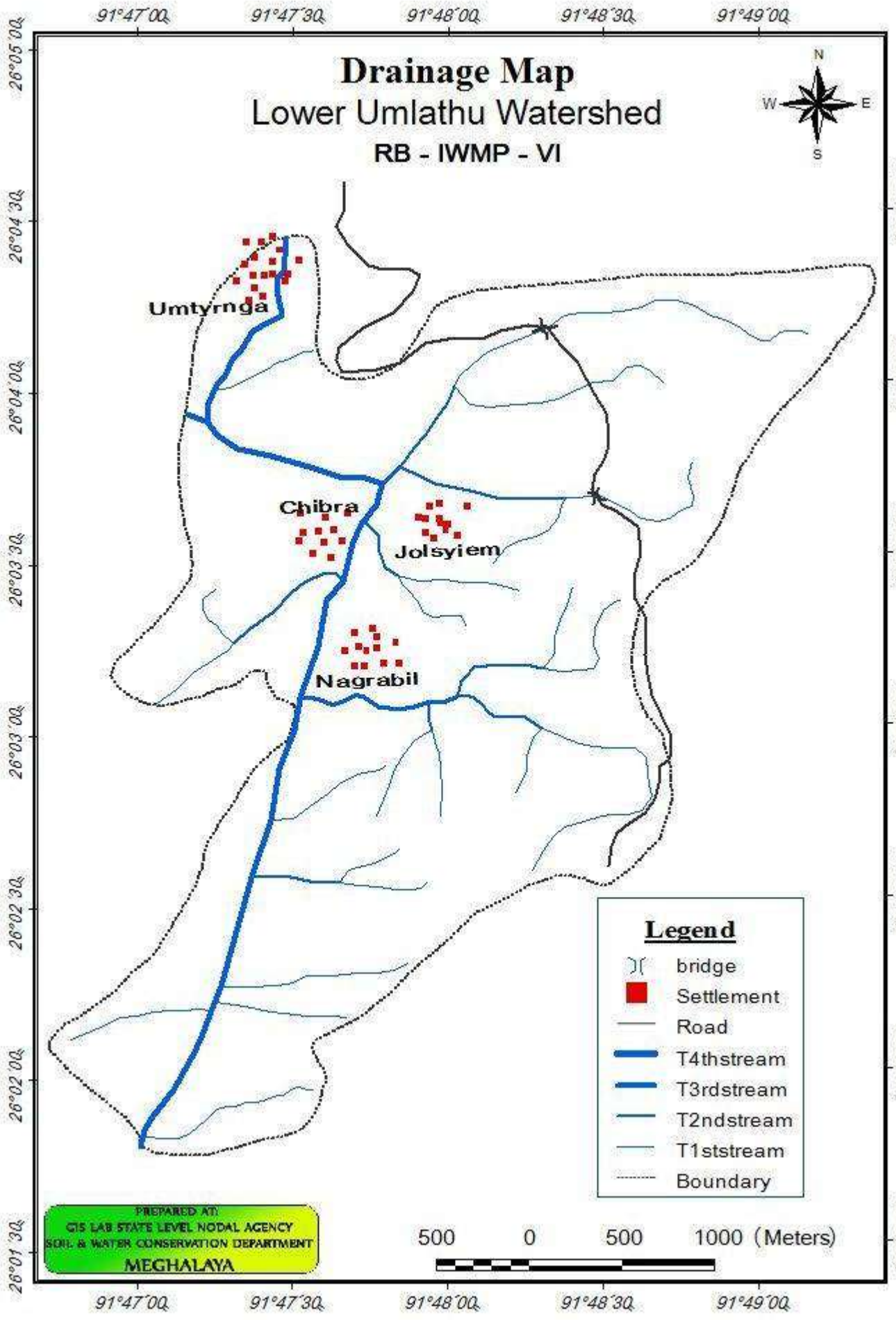
***** from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from Column no. 4, no. of projects, from column no. 5, no. of WCs, from column no. 6, no. of structures/ activities, from column no. 7 to 10, category-wise# totals, may be mentioned at the end of the table for the entire country.

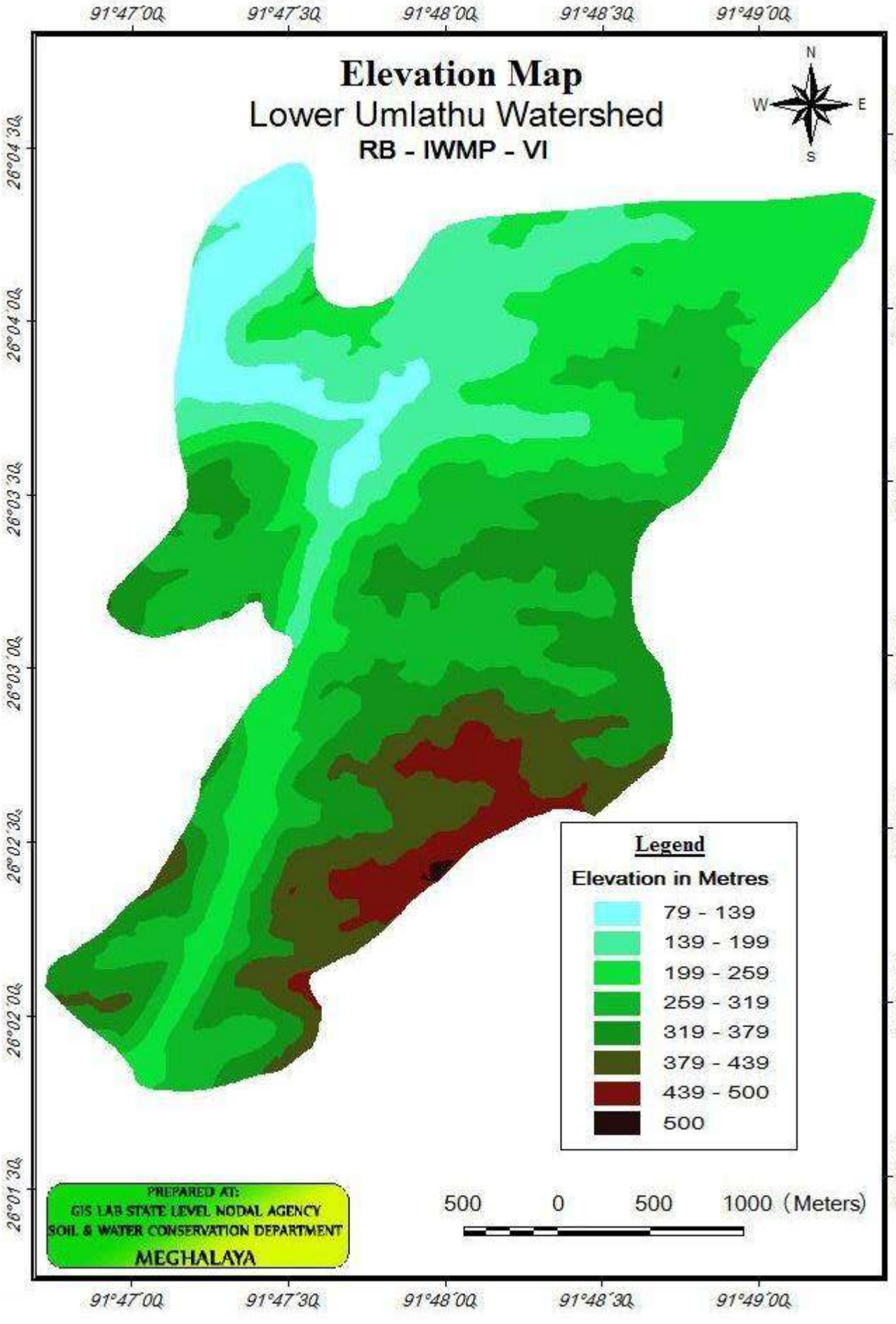
B:C ratio more than 1 – cost effective
less than 1 – Not cost effective

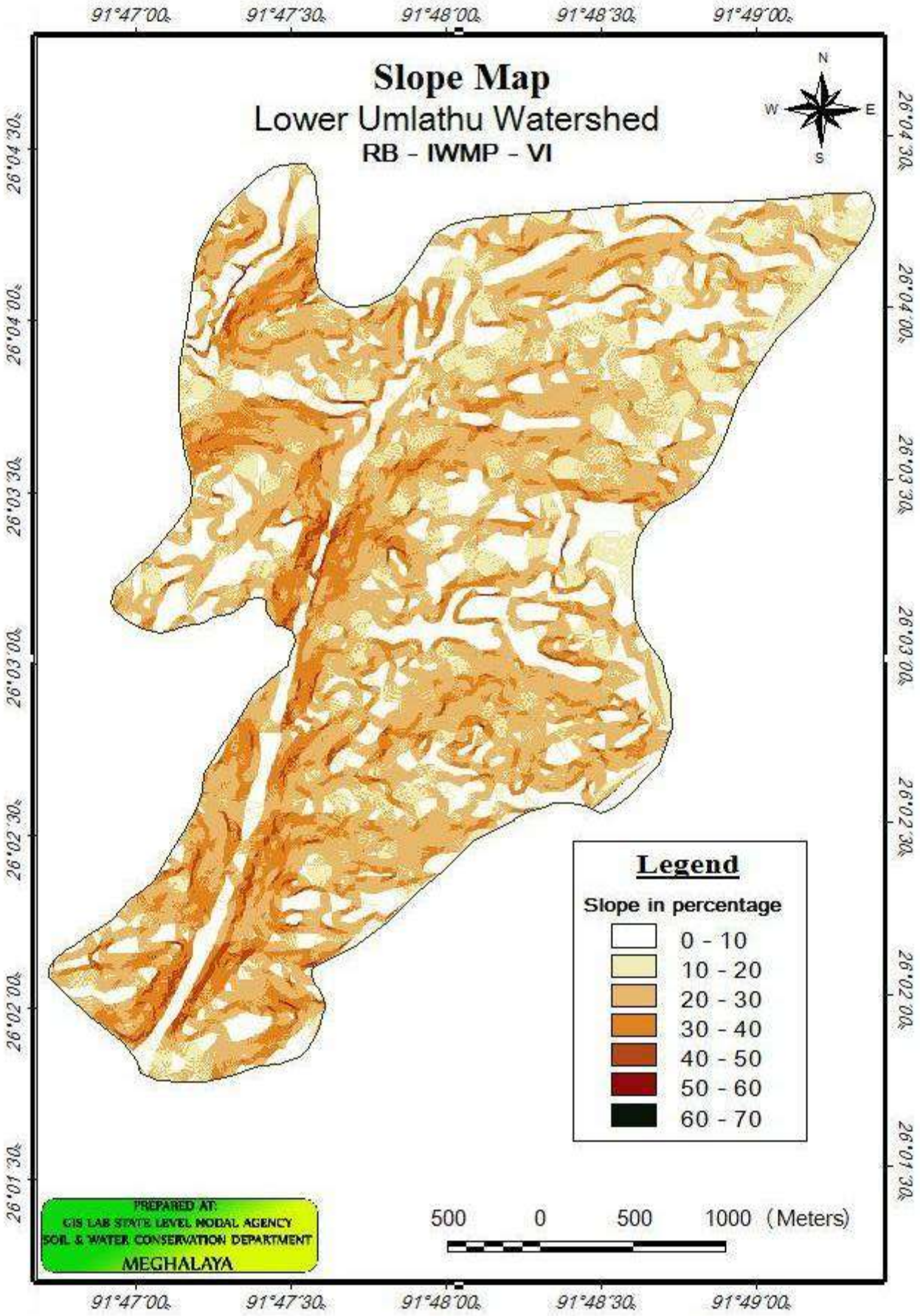
ANNEXURE I

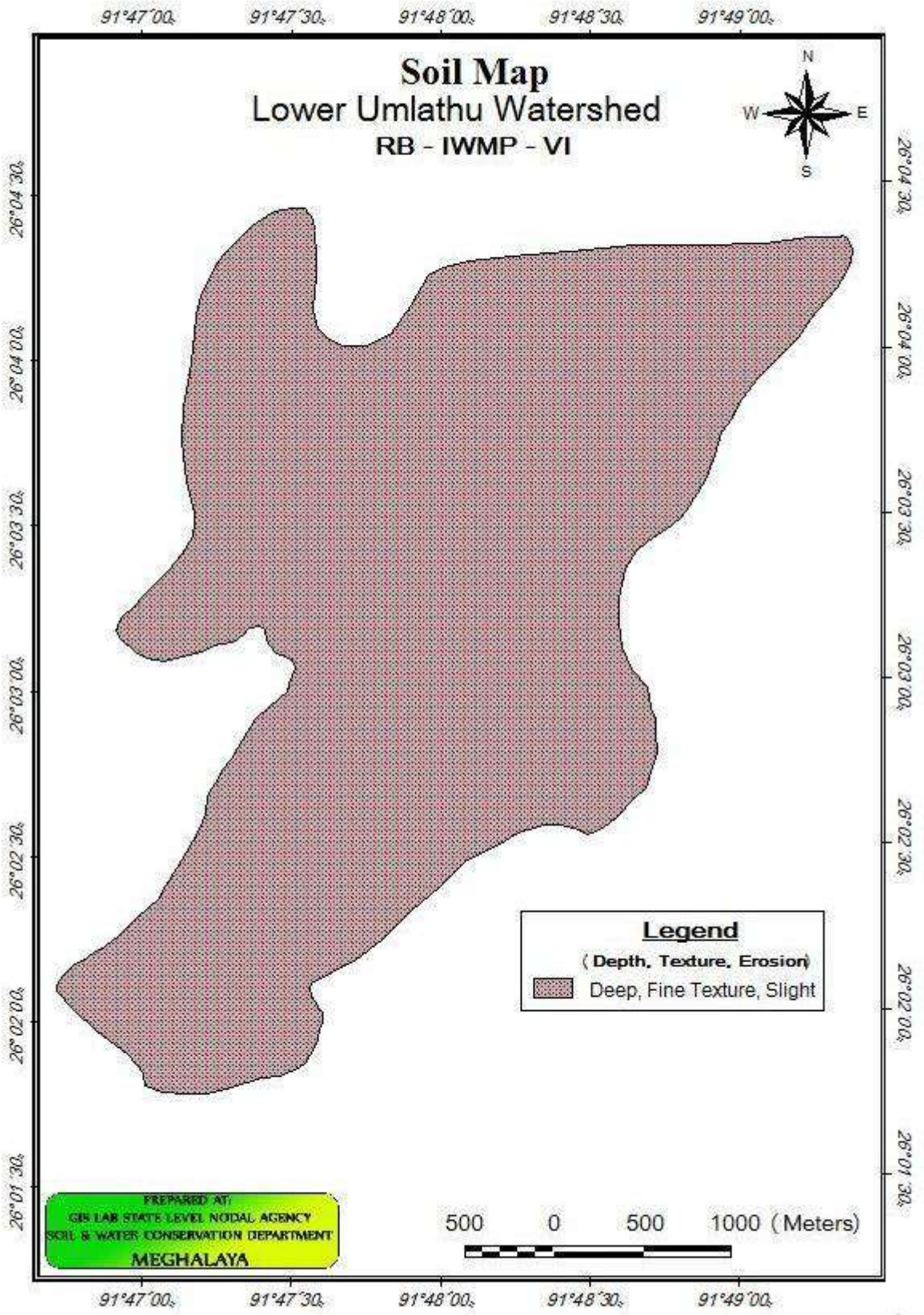
MAPS

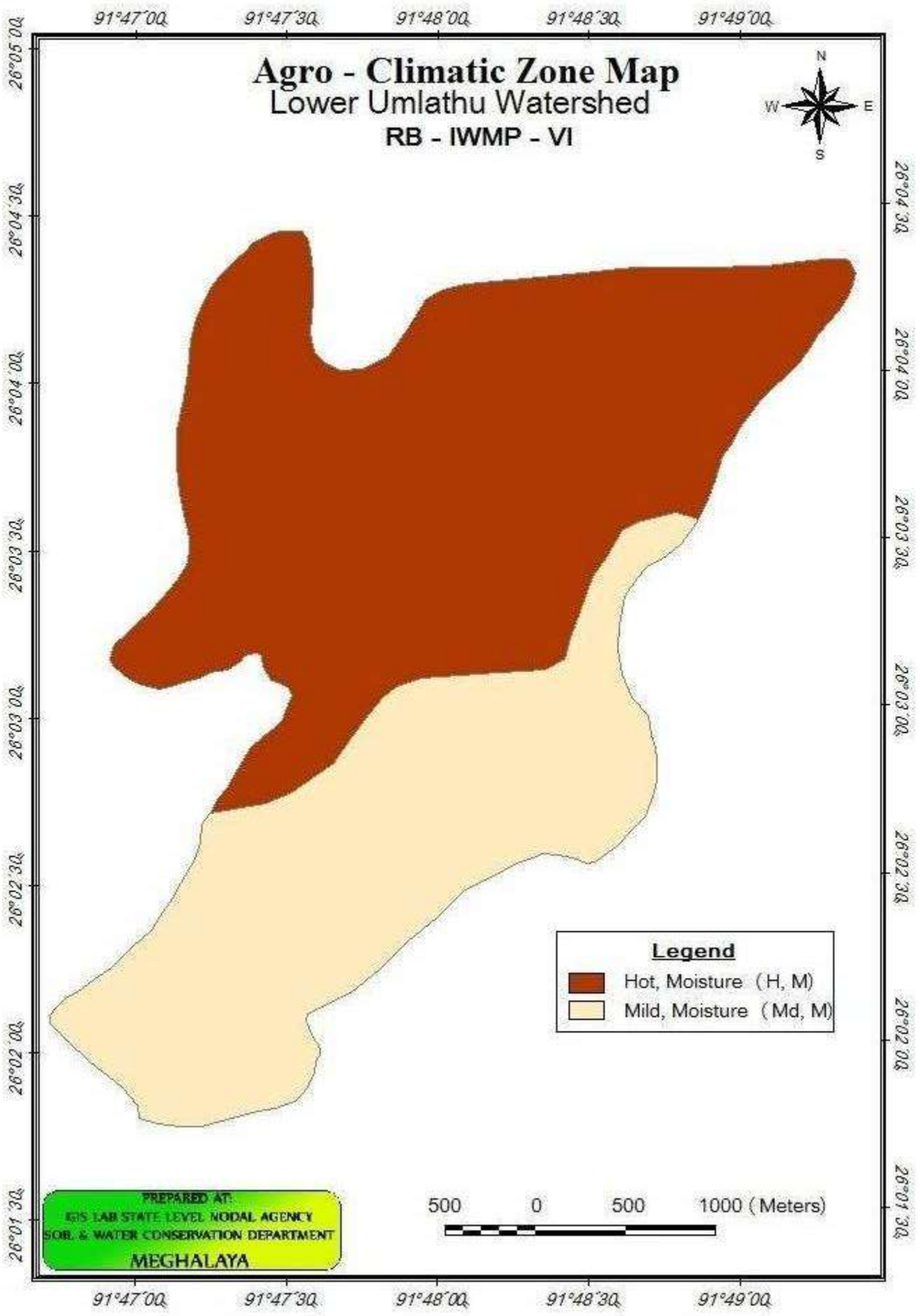

Landuse Landcover Map
Lower Umlathu Watershed
RB - IWMP - VI
N
W
E
S
91°47'00"
91°47'30"
91°48'00"
91°48'30"
91°49'00"
26°04'30"
26°04'00"
26°03'30"
26°03'00"
26°02'30"
26°02'00"
26°01'30"
Legend
Agriculture - 3 Ha.
Builtup/mixed - 44 Ha.
Tree Clad Close - 470 Ha.
Tree Clad open - 195 Ha.
wasteland / dense scrub - 131 Ha.
Wasteland / openscrub - 230 Ha.
Area : 1073 Ha.
500 0 500 1000 (Meters)
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA

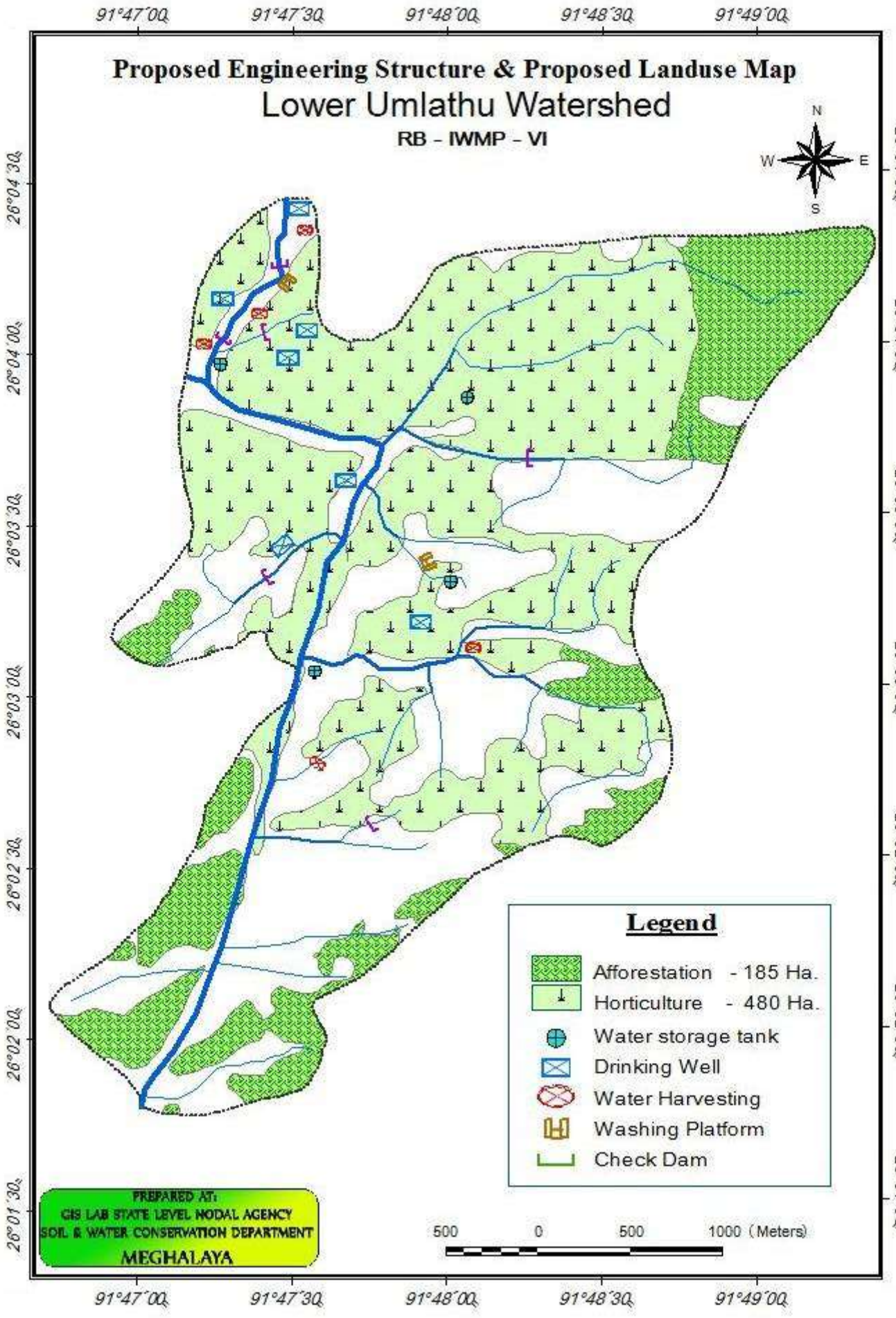

Drainage Map
Lower Umlathu Watershed
RB - IWMP - VI
N
S
E
W
91°47'0Q
91°47'30
91°48'0Q
91°48'30
91°49'0Q
26°05'0Q
26°04'30
26°04'0Q
26°03'30
26°03'0Q
26°02'30
26°02'0Q
26°01'30
Umtyrnga
Chibra
Jolsyiem
Nagrabil
Legend
bridge
Settlement
Road
T4thstream
T3rdstream
T2ndstream
T1ststream
Boundary
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA
500 0 500 1000 (Meters)


Elevation Map
Lower Umlathu Watershed
RB - IWMP - VI
N
W
E
S
91°47´0Q
91°47´3Q
91°48´0Q
91°48´3Q
91°49´0Q
26°04´3Q
26°04´0Q
26°03´3Q
26°03´0Q
26°02´3Q
26°02´0Q
26°01´3Q
Legend
Elevation in Metres
79 - 139
139 - 199
199 - 259
259 - 319
319 - 379
379 - 439
439 - 500
500
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA
500 0 500 1000 (Meters)


Slope Map
Lower Umlathu Watershed
RB - IWMP - VI
N
W
E
S
91°47'00"
91°47'30"
91°48'00"
91°48'30"
91°49'00"
26°04'30"
26°04'00"
26°03'30"
26°03'00"
26°02'30"
26°02'00"
26°01'30"
Legend
Slope in percentage
0 - 10
10 - 20
20 - 30
30 - 40
40 - 50
50 - 60
60 - 70
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA
500 0 500 1000 (Meters)


Soil Map
Lower Umlathu Watershed
RB - IWMP - VI
N
W
E
S
91°47´00"
91°47´30"
91°48´00"
91°48´30"
91°49´00"
26°04´30"
26°04´00"
26°03´30"
26°03´00"
26°02´30"
26°02´00"
26°01´30"
Legend
(Depth, Texture, Erosion)
Deep, Fine Texture, Slight
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA
500 0 500 1000 (Meters)


Agro - Climatic Zone Map
Lower Umlathu Watershed
RB - IWMP - VI
N
W
E
S
91°47´00
91°47´30
91°48´00
91°48´30
91°49´00
26°05´00
26°04´30
26°04´00
26°03´30
26°03´00
26°02´30
26°02´00
26°01´30
Legend
Hot, Moisture (H, M)
Mild, Moisture (Md, M)
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA
500 0 500 1000 (Meters)


Proposed Engineering Structure & Proposed Landuse Map
Lower Umlathu Watershed
RB - IWMP - VI
N
W
E
S
91°47´00
91°47´30
91°48´00
91°48´30
91°49´00
26°04´30
26°04´00
26°03´30
26°03´00
26°02´30
26°02´00
26°01´30
Legend
Afforestation - 185 Ha.
Horticulture - 480 Ha.
Water storage tank
Drinking Well
Water Harvesting
Washing Platform
Check Dam
500 0 500 1000 (Meters)
PREPARED AT:
GIS LAB STATE LEVEL NODAL AGENCY
SOIL & WATER CONSERVATION DEPARTMENT
MEGHALAYA

ANNEXURE II

SOCIO-ECONOMIC SURVEY DETAILS

SOCIO ECONOMIC SURVEY OF UMTYRNGA VILLAGE

Sl. No	Name of the head family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.	Santimaia Khongjoh	3	3	6	4	2	6	1	1	2	No	No	No	4	4	Betel leaf Cultivation	**Rs.30,000/-**
2.	Donsuk Khoongjoh	4	1	6	3	3	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/**
3.	Bril Tangsang	5	1	6	4	2	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/**
4.	Sijen Lynshing	6	2	8	6	2	8	No	2	2	No	No	No	No	4	Betel leaf Cultivation	**Rs.35,000/-**
5.	Iai Lyngshing	1	1	2	No	2	2	No	No	No	No	No	No	4	No	Betel leaf Cultivation	**Rs.25,000/-**
6.	Muhon Daloi	4	2	6	4	2	6	No	No	No	No	2	No	5	7	Betel leaf Cultivation	**Rs.30,000/-**
7.	Midon Suting	2	3	5	2	3	5	No	No	No	No	2	No	6	8	Betel leaf Cultivation	**Rs.25,000/-**
8.	Syai Suting	2	1	3	1	2	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.50,000/-**
9.	Bithi Patar	3	1	4	2	2	4	No	No	No	No	3	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
10	Kale Rongjon	2	1	3	1	2	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
11.	Subon Khongmalai	3	3	6	4	2	6	No	No	No	No	No	No	6	6	Betel leaf Cultivation	**Rs.20,000/-**
12.	Pho Khongjoh	2	2	4	1	3	4	No	No	No	No	No	No	8	8	Betel leaf Cultivation	**Rs.40,000/-**
13.	Drim Khriam	2	4	6	4	2	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
14.	Philson Pyngrope	4	4	8	6	2	8	No	1	1	1	No	No	No	No	Betel leaf Cultivation	**Rs.50,000/-**
15.	Tharim Khongjoh	5	1	6	5	1	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
16.	Khusimon Khongjoh	2	1	3	1	2	3	No	No	No	No	No	No	No	No	Betel nut Cultivation	**Rs.30,000/-**
17.	Kynton Khongjoh	1	2	3	1	2	3	No	No	No	No	No	No	No	No	Betel Cultivation	**Rs.25,000/-**
18.	Palei Kshiar	1	No	1	No	1	1	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
19.	Hot Pyngrope	1	No	1	No	1	1	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
20.	Syndon Daloi	1	3	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
21.	Dising Khongtani	1	4	5	3	2	5	No	No	No	No	No	No	8	8	NIL	**Rs.25,000/-**
22.	Maya Nongrum	5	3	8	6	2	8	No	No	No	No	No	No	5	5	NIL	**Rs.35,000/-**
23.	Kistarshon Rynjah	2	2	4	2	2	4	No	No	No	No	No	No	No	No	Broom Cultivation	**Rs.25,000/-**
24.	Keren Khongjoh	3	3	6	4	2	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
25.	Heren Suting	2	3	5	3	2	5	1	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.50,000/-**
26.	Muti Pator	2	1	3	No	3	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
27.	Moren Suting	5	2	7	4	3	7	2	1	1	3	2	No	7	9	Betel leaf Cultivation	**Rs.35,000/-**
28.	Kalwin Pala	3	3	6	4	2	6	1	No	No	1	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
29.	Jedra Tangsang	2	3	5	3	2	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
30.	Saibimen Umsong	4	3	7	4	3	7	No	1	1	1	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
31.	Proboth Nath	2	4	6	4	2	6	2	2	2	4	No	No	No	No	NIL	**Rs.35,000/-**
32.	Binita Teron	1	2	3	1	2	3	1	No	No	1	No	No	No	No	NIL	**Rs.25,000/-**

Sl. No	Name of the head family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
33.	Mokesh Teron	1	1	2	No	2	2	1	No	No	No	No	No	4	4	NIL	**Rs.20,000/-**
34.	Rimon Khongtani	1	2	3	2	1	3	No	No	No	No	2	No	3	5	Betel leaf Cultivation	**Rs15,000/**
35.	L.G Suting	2	2	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/**
36.	Saily Suting	1	1	3	No	2	2	1	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
37.	Miksing Suting	1	2	2	1	2	3	1	No	1	No	No	No	No	No	NIL	**Rs.15,000/-**
38.	Dwen Tangsang	2	2	4	2	2	4	No	1	1	No	2	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
39.	David Suting	1	3	4	2	2	4	No	No	1	No	2	No	No	No	Betel leaf Cultivation	**Rs.6000/-**
40.	Kristina Khongjoh	No	3	3	2	1	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
41.	Pisynroi Pyngrope	3	2	5	3	2	5	No	1	No	No	3	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
42.	Ebren Khongjoh	6	3	9	7	2	9	No	2	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
43.	Markus Mawlong	6	2	8	6	2	8	4	No	2	No	No	No	6	6	Betel leaf Cultivation	**Rs.25,000/-**
44.	Mukut	3	2	5	3	2	5	1	No	4	No	No	No	8	8	Betel leaf Cultivation	**Rs.10,000/-**
45.	Loket Tangsang	2	4	6	3	3	6	No	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
46.	Robat Marak	4	1	5	3	2	5	No	No	No	No	No	No	No	No	NIL	**Rs.15,000/-**
47.	Sopaul Musmo	2	2	4	2	2	4	1	Nil	No	No	No	No	No	No	NIL	**Rs.20,000/-**
48.	Len Jakwa	1	3	4	2	2	4	No	No	1	1	No	No	No	No	NIL	**Rs.60,000/-**
49.	Phar Phulorabha	4	2	6	4	2	6	No	No	No	2	No	5	7	14	NIL	**Rs.35,000/-**
50.	Beda Pyngrope	2	3	5	3	2	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
51.	Muhon Rynjah	1	3	4	2	2	4	No	No	No	No	No	No	No	No	Broom Cultivation	**Rs.10,000/-**
52.	Saila Pradhan	5	1	6	4	2	6	No	No	No	No	No	No	4	4	Betel leaf Cultivation	**Rs.15,000/-**
53.	Bhai Pradhan	2	1	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
54.	Buno Pradhan	1	2	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.15,000/-**
55.	Shute Pradhan	1	2	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.30,000/-**
56.	Robi Karmakar	4	2	6	4	2	6	No	No	No	No	No	No	No	No	NIL	**Rs.15,000/-**
57.	Donbok Kharshandi	4	7	11	9	2	11	1	No	No	No	No	No	No	No	NIL	**Rs.60,000/-**
58.	Santosh Suba	3	3	6	4	2	6	No	No	No	No	No	No	No	No	NIL	**Rs.45,000/-**
59	Kanru Suba	2	1	3	1	2	3	2	1	1	No	2	No	7	No	NIL	**Rs.30,000/-**
60.	Punian Pator	3	2	5	3	2	5	1	No	No	2	1	No	3	6	Betel leaf Cultivation	**Rs.40,000/-**
61.	Bigrom Rabha	3	1	4	2	2	4	No	No	No	No	No	No	6	8	NIL	**Rs.30,000/-**
62.	Bipul Rabha	3	1	4	2	2	4	No	1	1	1	No	5	12	18	NIL	**Rs50,000/-**
63.	Bimol Rabha	1	1	2	No	2	2	2	2	2	No	No	No	No	No	NIL	**Rs.25,000/-**
64.	Minde Suba	2	1	3	1	2	3	1	No	No	No	No	6	12	18	NIL	**Rs.35,000/-**

Sl.		House Hold Member						Literacy			Livestock					Agriculture	Annual
No	Name of the head family	Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		Income
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
65	Tele Jalrwa	1	1	2	No	2	2	1	No	No	No	No	No	4	4	NIL	**Rs.20,000/-**
66	Tulsi Major	1	2	3	2	1	3	No	No	No	No	2	No	3	5	Betel leaf Cultivation	**Rs15,000/**
67	Jwep Lyngshing	2	2	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/**
68	Tiling Pyngrope	1	1	3	No	2	2	1	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
69	Dim Suting	1	2	2	1	2	3	1	No	1	No	No	No	No	No	NIL	**Rs.15,000/-**
70	Bring Sungoh	2	2	4	2	2	4	No	1	1	No	2	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
71	Meghalaya Pyngrope	1	3	4	2	2	4	No	No	1	No	2	No	No	No	Betel leaf Cultivation	**Rs.6000/-**
72	Rani Kurbah	No	3	3	2	1	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
73	Duh Kurbah	3	2	5	3	2	5	No	1	No	No	3	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
74	Bahrit Kurbah	6	3	9	7	2	9	No	2	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
75	Swer Marbaniang	6	2	8	6	2	8	4	No	2	No	No	No	6	6	Betel leaf Cultivation	**Rs.25,000/-**
76	Parbeda Rynjah	3	2	5	3	2	5	1	No	4	No	No	No	8	8	Betel leaf Cultivation	**Rs.10,000/-**
77	Rit Khongjoh	2	4	6	3	3	6	No	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
78	Shai Khongjoh	4	1	5	3	2	5	No	No	No	No	No	No	No	No	NIL	**Rs.15,000/-**
79	Burmon Khongjoh	2	2	4	2	2	4	1	Nil	No	No	No	No	No	No	NIL	**Rs.20,000/-**
80	Kben Khongjoh	1	3	4	2	2	4	No	No	1	1	No	No	No	No	NIL	**Rs.60,000/-**
81	Adren Sungoh	4	2	6	4	2	6	No	No	No	2	No	5	7	14	NIL	**Rs.35,000/-**
82	Bunsen Pyngrope	2	3	5	3	2	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
83	Albarin Suting	1	3	4	2	2	4	No	No	No	No	No	No	No	No	Broom Cultivation	**Rs.10,000/-**
84	Teishwa Suting	5	1	6	4	2	6	No	No	No	No	No	No	4	4	Betel leaf Cultivation	**Rs.15,000/-**
85	Mistina Suting	2	1	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
86	Samson Suting	1	2	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.15,000/-**
87	Marshal Kshiar	1	2	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.30,000/-**
88	Biston Khriam	4	2	6	4	2	6	No	No	No	No	No	No	No	No	NIL	**Rs.15,000/-**
89	Pramus Pala	4	7	11	9	2	11	1	No	No	No	No	No	No	No	NIL	**Rs.60,000/-**
90	Pali Suting	3	3	6	4	2	6	No	No	No	No	No	No	No	No	NIL	**Rs.45,000/-**
91	Phlon bet Khongtani	2	1	3	1	2	3	2	1	1	No	2	No	7	No	NIL	**Rs.30,000/-**
92	Tison Suting	3	2	5	3	2	5	1	No	No	2	1	No	3	6	Betel leaf Cultivation	**Rs.40,000/-**
93	Kistalin Suting	3	1	4	2	2	4	No	No	No	No	No	No	6	8	NIL	**Rs.30,000/-**
94	Snolin Khongjee	3	1	4	2	2	4	No	1	1	1	No	5	12	18	NIL	**Rs50,000/-**
95	Ren Muiong	1	1	2	No	2	2	2	2	2	No	No	No	No	No	NIL	**Rs.25,000/-**
96	Phlat Tangsang	2	1	3	1	2	3	1	No	No	No	No	6	12	18	NIL	**Rs.35,000/-**

No	Name of the head family																Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
97	Jenesis Tangsang	No	5	5	4	5	5	No	2	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.15,000/-**
98	Meril Tangsang	2	3	5	3	2	5	2	3	5	No	No	No	No	No	NIL	**Rs20,000/**
99	Khrek Suting	5	3	8	6	2	8	2	No	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/**
100	Tapon Buio	2	2	4	2	2	4	No	No	No	No	1	No	No	1	NIL	**Rs.30,000/-**
101	Bukul Buio	2	2	4	2	2	4	No	No	No	No	2	No	No	2	NIL	**Rs.15,000/-**
102	Maduli Sohpdong	3	2	5	1	4	5	No	1	No	No	1	No	No	1	NIL	**Rs.15,000/-**
103	Makseng Baro	3	2	5	3	2	5	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
104	Mudon Daloi	1	2	3	1	2	3	No	No	No	No	3	No	No	3	NIL	**Rs.31,000/-**
105	Joyanto Boro	2	2	4	3	1	4	No	1	No	No	No	No	No	No	NIL	**Rs.20,000/-**
106	Bily Sohpdang	2	2	4	2	2	4	No	2	No	No	No	No	No	No	NIL	**Rs.20,000/-**
107	Mudon Boro	2	2	4	3	1	4	No	No	No	No	2	No	No	2	NIL	**Rs.20,000/-**
108	Wel Khongjoh	4	2	6	4	2	6	1	No	No	No	No	No	7	7	Betel leaf Cultivation	**Rs.15,000/-**
109	Trosting Tangsang	2	2	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
110	Master Kshiar	1	No	1	No	1	1	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.5,000/-**
111	Phoret Nialang	1	3	4	2	2	4	1	Nil	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
112	Embok Dkhar	3	1	4	2	2	4	No	No	No	No	No	No	5	5	Betel leaf Cultivation	**Rs.5000/-**
113	Dit Tangsang	1	1	2	1	1	2	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.6000/-**
114	Arun Rani	4	1	5	3	2	5	1	1	2	No	No	No	No	No	NIL	**Rs.15,000/-**
115	Pelas Khongkiang	1	2	3	1	2	3	No	No	No	No	2	No	No	2	Betel leaf Cultivation	**Rs.20,000/-**
116	Lomi Suting	4	3	7	5	2	7	1	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.15,000/-**
117	Kabriel Tangsang	1	2	3	1	2	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.9000/-**
118	Daniel Nongrum	1		4	3	2	4	1	No	1	No	No	No	No	No	Ginger Cultivation	**Rs.40,000/-**
119	Helin Lyngdoh	1	4	5	3	2	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
120	Tharina Tangsang	1	2	3	1	2	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
121	Libina Tangsang	2	1	3	1	2	3	1	No	No	No	No	No	No	No	NIL	**Rs.10,000/-**
122	Iada Suting	2	1	3	1	2	3	No	1	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.10,000/-**
123	Krasting Pyngrope	2	1	3	1	2	3	2	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
124	Wanbun Tangsang	1	3	4	2	2	4	1	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
125	Bombe Suting	4	2	6	4	2	6	No	1	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
126	Isjen Kshiar	1	3	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs30,000/-**
127	Koman Dkhar	1	3	4	2	2	4	2	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.15,000/-**
128	Kjem Dkhar	No	2	2	1	1	2	1	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
129	Mawshan Dkhar	1	2	3	1	2	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
130	Wansi Khongjoh	5	2	7	5	2	7	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs35,000/**
131	Saibin Suting	3	5	8	6	2	8	No	2	2	No	No	No	5	5	Betel leaf Cultivation	**Rs.35,000/**
132	Klan Suting	2	1	3	1	2	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
133	Bon Suting	No	1	1	No	1	1	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
134	Boni Khongmalai	1	1	2	No	2	2	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
135	Jermon Suting	1	2	3	1	2	3	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
136	Minot Mutiong	2	2	4	1	3	4	1	1	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
137	Projen Tangsang	3	3	6	4	2	6	No	No	No	No	No	No	25	25	Betel leaf Cultivation	**Rs.20,000/-**
138	Kyrsoi Suting	4	3	7	4	3	7	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
139	Dole Chatri	1	1	2	No	2	2	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
140	Iston Kshiar	3	2	5	3	3	5	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
141	Syop Suting	1	1	2		2	2	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
142	Sohnam Suting	3	2	5	4	5	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
143	Pishot Lapasam	3	2	5	3	5	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
144	Jinus Pala	1	2	3	1	3	3	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.3000/-**
145	Kompher Lapasam	3	2	5	3	5	5	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.3500/-**
146	Jelsi Suting	6	1	7	5	7	7	No	No	No	No	No	No	No	No	NIL	**Rs.35,000/-**
147	Joit Khongkiang	3	3	6	3	6	6	No	No	No	No	No	No	5	5	Betel leaf Cultivation	**Rs.25,000/-**
148	Bianlymery Lapasam	2	2	4	1	4	4	1	1	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.40,000/-**
149	Jermy Lapasam	1	No	1	No	1	1	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,00/-**
150	Ho Khongjoh	3	3	6	4	6	6	No	No	No	No	No	No	No	No	Ginger Cultivation	**Rs.20,000/-**
151	Ribhalang Suting	2	2	4	2	4	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
152	Morning Sungoh	3	2	5	3	5	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
153	EG Pyngrope	4	1	5	3	5	5	No	No	No	No	No	No	No	No	NIL	**Rs.40,000/-**
154	MB Pala	3	4	7	5	7	7	1	1	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
155	Hill Shylla	4	2	6	4	6	6	1	No	1	No	No	No	4	4	Betel leaf Cultivation	**Rs.30,000/-**
156	Phaisilin Mukhim	2	2	4	2	4	4	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
157	Jam Lapasam	4	3	7	5	7	7	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
158	Pilling Sungoh	3	4	7	5	7	7	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs25,000/-**
159	Dakerlang	1	2	3	3	3	3	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
160	Willson Suting	3	2	5	3	5	5	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**

161	Khren Tangsang	1	5	6	4	2	6	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
162	Bijoy Suting	1	3	4	2	2	4	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs25,000/**
163	Saran Lyngdoh	4	1	5	3	2	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/**
164	Jemen Suting	3	2	5	1	4	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
165	Phet Tangsang	1	No	1		1	1	No	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
166	Khardud Pradhan	1	No	1	11	1	1	No	No	No	No	No	No	6	6	NIL	**Rs.20,000/-**
167	Shrek Suting	7	3	1	8	2	10	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
168	Klemen Pala	4	4	8	5	3	8	No	No	No	No	2	No	No	2	Betel leaf Cultivation	**Rs.20,000/-**
169	Jwan Suting	No	2	2		2	2	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
170	John Rani	4	1	5	3	2	5	1	1	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
171	Wingson Suting	1	1	2		2	2	1	No	No	No	2	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
172	Lyngkria Khongjoh	2	2	4	3	1	4	No	No	No	No	No	No	No	No	NIL	**Rs.40,000/-**
173	Triang Kshiar	2	6	8	6	2	8	No	2	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.40,000/-**
174	Kmoin Kshiar	5	5	10	6	4	10	1	4	5	No	No	No	No	No	Betel leaf Cultivation	**Rs.55,000/-**
175	Aibor Kshiar	6	5	11	8	3	11	3	2	5	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
176	Sngewbha Suting	3	2	5	3	2	5	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
177	Adjuret Sangma	2	5	7	5	2	7	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,00/-**
178	Sorshon Kshiar	2	2	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,,000/-**
179	Kjep Suting	1	1	2		2	2	1	No	No	No	1	No	No	1	Betel leaf Cultivation	**Rs.25,000/-**
180	Kshe Suting	2	2	4	3	1	4	2	1	2	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
181	Romel Kharthangmaw	5	2	7	5	2	7	1	No	1	No	2	No	No	2	Paddy Cultivation	**Rs.35,00/-**
182	Dwin Bhoi	2	3	4	2	2	4	No	No	No	No	No	No	No	No	NIL	**Rs.35,000/-**
183	Busco Nongrum	1	1	2		2	2	1	1	2	No	No	No	No	No	Paddy Cultivation	**Rs.30,000/-**
184	Thomas Pala	2	3	5	3	2	5	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
185	Aisha Takwa	1	2	3	1	2	3	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
186	Ritaul Lyngshing	3	3	6	4	2	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
187	Krit	2	2	4	2	2	4	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
188	Lyun Tangsang	2	4	6	4	2	6	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.35,000/-**
189	Siolin Tangsang	1	1	2	1	1	2	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
190	Bakordor Dkhar	2	2	4	2	2	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs30,000/-**
191	Dngon Tangsang	2	1	3	1	2	3	1	No	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.20,000/-**
192	Wankyrmen Khriam	1	2	3	1	2	3	No	1	1	No	No	No	No	No	Betel leaf Cultivation	**Rs.25,000/-**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**

193	Kwen Pyngrope	1	3	4	2	2	4	No	No	No	No	No	No	No	NIL	Betel leaf Cultivation	**Rs.25,000/-**
194	Engineer Khongjoh	1	No	1	No	1	1	No	No	No	No	No	No	No	NIL	Nil	**Rs20,000/**
195	Bad Shylla	1	No	1	No	1	1	No	No	No	No	No	No	No	NIL	Betel leaf Cultivation	**Rs.30,000/**
196	Krein Suting	1	1	1	No	1	1	No	No	No	No	No	No	No	NIL	Betel leaf Cultivation	**Rs.30,000/-**
197	Olondo Jakwa	3	No	4	2	2	4	No	No	No	No	No	No	No	NIL	Betel leaf Cultivation	**Rs.25,000/-**
198	Laimon Mylliemngap	1	No	1	No	1	1	1	No	No	No	No	No	No	NIL	Betel leaf Cultivation	**Rs.20,000/-**
199	Plojain Suting	1	1	2	No	2	2	1	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs.30,000/-**
200	Rajuni Raska	1	2	3	1	2	3	1	No	No	No	No	No	No	No	NIL	**Rs.25,000/-**
201	Bubu Chetri	1	2	4	2	2	4	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
202	Ram Shari Boro	1	3	4	1	3	4	No	No	No	No	No	2	No	2	NIL	**Rs.25,000/-**
203	Jiten Boro	2	2	4	2	2	4	No	No	No	No	No	No	No	No	NIL	**Rs.20,000/-**
204	Komal Boro	2	1	3	1	2	3	1	No	No	No	No	No	No	No	NIL	**Rs30,000/-**
205	Bekla Boro	3	2	5	3	2	5	No	No	No	No	3	No	No	3	NIL	**Rs30,000/-**
206	Robin Boro	2	1	3	1	2	3	No	No	No	No	1	No	No	1	NIL	**Rs.35,000/-**
207	Dakson Suting	3	2	4	2	2	4	No	No	1	No	No	No	15	15	NIL	**Rs.25,000/-**
208	Nojen Boro	2	2	4	2	2	4	No	No	No	No	No	No	No	NIL	NIL	**Rs.70,000/-**
209	Rohim D. Sangma	2	3	5	3	2	5	No	No	No	No	2	No	No	2	NIL	**Rs.35,000/-**
210	Disi Kshiar	1	2	3	1	2	3	1	1	1	No	No	No	No	NIL	NIL	**Rs.35,000/-**
211	Leder Pyngrope	1	1	2	No	2	2	No	1	1	No	No	No	No	NIL	Betel leaf Cultivation	**Rs30,000/-**

SOCIO ECONOMIC SURVEY OF NAGRABILL VILLAGE

Sl. No	Name of the Head Family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	S.M Arengh	6	4	10	4	6	10					2		10	12		60,000
2	P.G Momin	3	2	5	2	3	5					1		5	6		40,000
3	H.K Sangma	3	1	4	2	2	4					2		6	8		40,000
4	B.T. Sangma	4	4	8	4	4	8					1		8	11		35,000
5	L.R. marak	3	2	5	3	2	5					2	2	10	12		45,000
6	K.J Sangma	5	2	7	2	5	7					2		6	8		35,000
7	K.R Marak	1	1	2	0	2	2					1		5	6		60,000
8	S.K Sangma	3	2	5	1	4	5					2		3	5		56,000
9	T.B Sangma	2	2	4	1	3	4					2		10	15		30,000
10	A.T Sangma	2	2	4	1	3	4				3	1	3	12	18		40,000
11	L.R Marak	1	1	2	0	2	2				1	2	2	6	9		36,000
12	J.N Arengh	3	2	5	3	2	5				1	1		9	11		30,000
13	H.R Marak	4	2	6	4	2	6					1		8	9		40,000
14	M.D Sangma	3	3	6	2	4	6				2	2		12	16		30,000
15	M.K Sangma	2	2	4	1	3	4				2	1		6	9		36,000
16	D.M Arengh	3	2	5	2	3	5							5	5		30,000
17	B.M Sangma	5	2	7	4	3	7				5	2		16	23		40,000
18	Chondro Sangma	2	1	3	0	3	3							10	10		24,000
19	E.D Momin	2	2	4	1	3	4				2	1		5	8		30,000
20	Bimol Sangma	2	3	5	2	3	5							5	5		38,000
21	Aiith Boro	2	3	5	2	3	5					1		6	7		24,000
22	H.R. Marak	5	3	8	2	6	8				2	1		10	13		36,000
23	S.D Sangma	5	3	8	4	4	8				2	2		8	12		40,000
24	Jona J.Marak	2	3	5	2	3	5					1		6	7		36,000
25	L.R. Marak	1	1	2	0	2	2					2		14	16		40,000
26	H.K Sangma	4	2	6	3	3	6					1		6	7		36,000
27	Raju Rabha	3	1	4	2	2	4						1	12	13		30,000
28	N.G Momin	2	4	6	3	3	6				6			10	16		28,000
29	Juma C.Sangma	4	3	7	4	3	7				2			4	6		40,000
30	N.R Sangma	2	1	3	1	2	3							6	6		28,000
31	W.G Momin	4	2	6	4	2	6				5	1	4	12	22		32,000
32	N.K.Marak	6	4	10	5	5	10				8			6	14		40,000

Sl. No	Name of the Head Family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
33	D.R. Marak	3	2	5	3	2	5					1		5	6		36,000
34	R.R. Sangma	5	5	10	4	6	10					2		10	15		30,000
35	Dolendro Marak	4	4	8	4	4	8				3	2		6	8		45,000
36	Sollen Marak	2	2	4	1	3	4					2		9	11		24,000
37	K.D Sangma	2	2	4	2	2	4				1	1		5	7		24,000
38	S.K Sangma	1	2	3	1	2	3							10	10		36,000
39	Obhim C.Marak	2	3	5	3	2	5							6	6		24,000
40	R.G Momin	5	3	8	4	4	8				6	2		10	18		40,000
40	S.A Marak	3	2	5	2	3	5							10	10		32,000
42	M.M Arengh	2	2	4	2	2	4							6	7		60,000
43	Julia Arengh	3	2	5	2	3	5					1		14	14		20,000
44	P.D Sangma	2	2	4	2	2	4					2		6	6		24,000
45	M.D Sangma	3	3	6	3	3	6					1		10	13		30,000
46	N.D. Sangma	4	4	8	5	3	8					1		10	18		30,000
47	G.K Arengh	2	2	4	2	2	4				2	1		6	7		30,000
48	H.N Arengh	3	1	4	2	2	4				2	1		5	6		24,000
49	J.G. Monin	2	2	4	1	3	4				4	1		6	8		30,000
50	E.N Arengh	1	3	4	2	2	4				1			8	11		30,000
51	S.K. Marak	4	1	5	1	4	5							10	15		24,000
52	S.G. Momin	1	2	3	1	2	3							5	6		30,000
53	T.G.:Momin	2	1	3	1	2	3							4	4		24,000
54	P.T. Sangma	3	1	4	2	2	4							10	10		24,000
55	Samuel Rema	2	3	5	2	3	5				2	2		6	6		20,000
56	T.N Arengh	2	1	3	1	2	3							4	4		36,000
57	J.J. Sangma	3	3	6	2	4	6							10	14		30,000
58	H.G.Momin	3	1	4	1	3	4				2	1		6	6		30,000
59	P.D. Sangma	1	1	2	0	2	2							6	6		24,000
60	R.M.Arengh	3	2	5	0	5	5							10	13		24,000
					127	**179**	**306**										

SOCIO ECONOMIC SURVEY OF CHIBRA VILLAGE

Sl. No	Name of the head family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
1.	Winderson Marak	4	3	7	3	4	7	2	2	4	3	0	0	0	3	Garden	**Rs.1,70,000/-**
2.	Chobin Sangma	2	4	6	4	2	6	2	2	4	0	0	0	0	0	Garden	**Rs.39,000/-**
3.	Elbish Sangma	2	3	5	1	4	5	2	2	4	1	2	0	5	7	Garden	**Rs.40,000/-**
4.	Meju Sangma	3	4	7	3	4	7	2	2	4	3	2	15	5	25	Garden	**Rs.1,70,000/-**
5.	Sepina Marak	2	4	6	2	4	6	2	3	5	0	2	0	10	15	Garden	**Rs.1,80,000/-**
6.	Franchis Sangma	3	4	7	3	4	6	2	3	5	3	2	0	6	11	Garden	**Rs.1,00000/-**
7.	Solindro Sangma	2	3	5	1	4	5	0	0	0	0	0	0	0	0	Garden	**Rs.9000/-**
8.	Robi Sangma	2	3	5	2	3	5	0	1	1	0	1	0	3	4	Garden	**Rs.1,80,000/-**
9.	Sanu Marak	3	2	5	2	3	5	1	1	2	0	2	0	0	2	Garden	**Rs.10,000/-**
10	Jengson Marak	3	4	7	4	3	7	3	4	7	0	2	0	7	9	Garden	**Rs.70,000/-**
11.	Subin Sangma	1	1	2	0	2	2	1	1	2	0	0	0	12	12	Garden	**Rs.10,000/-**
12.	Chohtil Marak	1	4	5	3	2	5	1	2	3	0	0	0	3	3	Garden	**Rs.9000/-**
13.	Bijendro Sangma	1	2	3	0	3	3	1	2	3	0	3	0	5	8	Garden	**Rs.1,80,000/-**
14.	Olin Sangma	4	3	7	4	3	7	4	0	4	0	0	3	0	3	Garden	**Rs.19,000/-**
15.	Bitish Sangma	2	4	6	3	3	6	1	1	2	0	0	0	0	0	Garden	**Rs.12,000/-**
16.	Babujan Sangma	2	2	4	0	4	4	2	1	3	0	1	0	2	3	Garden	**Rs.40,000/-**
17.	Ahep Marak	1	1	2	0	2	2	1	1	2	0	0	0	2	2	Garden	**Rs.80,000/-**
18.	Jamal Sangma	4	2	6	3	3	6	3	1	4	0	0	0	0	0	Garden	**Rs.10,000/-**
19.	Jindal Marak	2	1	3	1	2	3	1	0	1	0	0	0	0	0	Garden	**Rs.10,000/-**
20.	Ali Sangma	2	2	4	1	3	3	0	1	2	3	0	6	10	16	Garden	**Rs.1,50,000/-**
21.	Hansing Marak	2	1	3	0	3	3	2	0	2	0	0	0	0	0	Garden	**Rs.10,000/-**
22.	Jonsing Momin	3	2	5	3	2	5	1	1	2	0	1	0	0	1	Garden	**Rs.30,000/-**
23.	Slostin Marak	3	2	5	1	4	5	1	1	2	0	0	0	0	0	Garden	**Rs.1,70,000/-**
24.	Jottin Sangma	2	1	3	1	2	5	0	0	0	0	1	0	0	1	Garden	**Rs.1,70,000/-**
25.	Gomal Marak	5	2	7	3	4	7	2	1	3	0	1	0	4	5	Garden	**Rs.9000/-**
26.	Repil Marak	1	2	3	1	2	3	1	0	1	0	1	0	0	1	Garden	**Rs.12000/-**
27.	Rosidu Sangma	1	2	3	1	2	3	0	1	1	0	0	0	2	2	Garden	**Rs.10000/-**
28.	Rajen Marak	2	2	4	2	2	4	1	0	1	0	2	0	3	5	Garden	**Rs.10000/-**
29.	Jakaresh Sangma	2	0	2	0	2	2	2	0	2	0	0	0	10	10	Garden	**Rs.18000/-**
30.	Amosh Sangma	3	4	7	4	3	7	3	2	5	0	1	0	20	24	Garden	**Rs.20000/-**
31.	Goget Sangma	2	1	3	1	2	3	1	1	2	1	1	0	5	7	Garden	**Rs.10,000/-**
32.	Chinson Sangma	2	3	5	1	4	5	2	2	4	2	2	0	10	14	Garden	**Rs.10000/-**

Sl. No.	Name of the head family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
33.	Kala Sangma	4	3	7	3	4	7	4	3	7	2	0	0	10	12	Garden	**Rs.1,20,000**
34.	Jottish Sangma	4	4	8	4	4	8	1	3	4	0	1	0	0	1	Garden	**Rs.1,30,000**
35.	Prodip Marak	5	2	7	3	4	7	2	1	3	0	0	0	0	0	Garden	**Rs.1,40,000**
36	Robath Sangma	1	1	2	0	2	2	1	0	1	0	0	0	0	0	Garden	**Rs.10,000/-**
37.	Sikarson Sangma	1	2	3	1	2	3	0	0	2	0	0	0	0	0	Garden	**Rs.10,000/**
38.	Biswajit Sangma	2	4	6	4	2	6	2	2	4	0	2	0	20	22	Garden	**Rs.10,000/**
39.	Rolling Sangma	2	1	3	1	2	3	1	1	2	0	0	0	0	0	Garden	**Rs.20,000/-**
40.	Suresh Sangma	4	3	7	3	4	7	1	0	1	0	2	0	10	12	Garden	**Rs.1,50,000**
41.	Dondi Sangma	3	1	4	1	3	4	0	0	0	0	0	0	3	3	Garden	**Rs.20,000/-**
42.	Jitten Marak	1	5	6	3	3	6	0	3	3	0	2	0	10	12	Garden	**Rs.20,000/-**
43.	Bablu Marak	1	2	3	1	2	3	0	1	1	0	2	0	5	7	Garden	**Rs.10,000/-**
44.	Mittun Marak	2	3	5	3	2	5	0	0	0	0	0	0	0	0	Garden	**Rs.12,000/-**
45.	Hejani Marak	3	2	5	3	2	5	1	1	2	0	0	0	10	10	Garden	**Rs.10,000/-**
46.	Soito Sangma	1	2	3	1	2	3	0	0	0	0	0	0	13	13	Garden	**Rs.10,000/-**
47.	Binot Marak	3	2	5	3	2	5	0	0	0	0	0	0	0	0	Garden	**Rs.1,70,000**
48.	Satin Sangma	1	3	4	2	2	4	1	0	1	0	0	0	10	12	Garden	**Rs.20,000/-**
49.	Bharat Marak	2	3	5	2	3	5	1	2	3	0	0	0	10	10	Garden	**Rs.2,0,0000**
50.	Solace Marak	1	1	2	0	2	2	1	0	1	0	0	0	0	0	Garden	**Rs.10,000/-**
51.	James Marak	2	3	5	3	2	5	2	1	3	0	0	0	0	0	Garden	**Rs.10,000/-**

SOCIO ECONOMIC SURVEY OF JOL SYIEM VILLAGE

Sl. No	Name of the head family	House Hold Member						Literacy			Livestock					Agriculture	Annual Income
		Male	Female	Total	Minor	Adult	Total	Male	Female	Total	Cow	Pig	Goat	Poultry	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Marthias Marak	3	2	5	1	2	5	No	No	No	No	1	No	No	1	Betel leaf Cultivation	**Rs10,000/-**
2	Menoren Sangma	4	4	8	No	2	8	No	No	No	No	No	No	No	No	NIL	**Rs6000/-**
3	Pulmoni Marak	5	3	8	1	No	8	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs10,000/-**
4	Bitchon Sangma	3	3	6	1	No	6	No	No	No	3	1	No	No	4	Betel leaf Cultivation	**Rs8000/-**
5	Luktan Momin	2	3	5	1	No	5	No	1	1	No	2	No	No	2	Betel leaf Cultivation	**Rs50,000/-**
6	Perison Marak	3	4	4	1	1	7	No	No	No	3	1	No	No	4	NIL	**Rs5000/-**
7	Uttom Sangma	2	4	6	No	No	6	No	No	No	No	1	No	No	No	NIL	**Rs10,000/-**
8	Maujen Marak	1	1	2	No	No	2	No	No	No	No	No	No	No	No	NIL	**Rs5000/-**
9	Promuth Sangma	4	2	6	2	No	6	No	No	No	No	No	No	No	No	NIL	**Rs7000/-**
10	Bokdol Marak	3	1	4	1	No	4	No	No	No	No	1	No	No	1	Betel leaf Cultivation	**Rs12,000/-**
11	Sumauson Suting	5	2	7	1	No	7	No	No	No	3	No	No	No	3	Betel leaf Cultivation	**Rs15,000/-**
12	Uttul Marak	1	2	3	No	No	3	No	No	No	No	2	No	No	2	Betel leaf Cultivation	**Rs20,000/-**
13	Hebi Momin	2	3	5	No	2	5	No	No	No	No	No	No	No	No	NIL	**Rs10,000/-**
14	Lebing Sangma	3	4	7	1	1	7	No	No	No	2	1	No	No	3	NIL	**Rs10,000/-**
15	Selpa Momin	6	1	7	1	No	7	No	No	1	No	2	No	No	7	NIL	**Rs42,000/-**
16	Wellison Sangma	2	3	5	1	No	5	No	No	No	No	No	No	No	No	NIL	**Rs15,000/-**
17	Somnith Marak	1	1	2		No	2	No	No	No	No	1	No	No	1	NIL	**Rs10,000/-**
18	Mellen Sangma	3	2	5	2	No	5	1	No	1	No	No	No	No	No	NIL	**Rs10,000/-**
19	Jonna Sangma	2	2	4	No	No	4	2	No	2	No	1	No	No	1	Betel leaf Cultivation	**Rs10,000/-**
20	Minot Sangma	1	1	2	No	No	2	No	No	No	No	No	No	No	No	NIL	**Rs6000/-**
21	Topon Marak	2	1	3	1	No	3	No	No	No	No	No	No	No	No	NIL	**Rs6000/-**
22	Dilip Sangma	4	1	5	2	No	5	No	No	No	No	1	No	No	1	NIL	**Rs10,000/-**
23	Nowel Marak	2	2	4		No	4	No	No	No	No	1	No	No	1	NIL	**Rs10,000/-**
24	Chirson Sangma	2	3	5	No	No	5	2	No	2	2	2	No	No	4	NIL	**Rs12,000/-**
25	Chitto Sangma	2	2	4	No	No	4	No	No	No	No	No	No	No	No	Betel leaf Cultivation	**Rs50,000/-**
26	Dominik Marak	2	4	6	No	No	6	No	No	No	No	No	No	No	No	NIL	**Rs15,.000/-**

ANNEXURE III

COST ESTIMATES

ACTIVITIES FOR CONVERGENCE OF IWMP WITH NREGA SCHEMES UNDER UMTYRNGA, UMLING BLOCK.

Sl. No	Name of Activities	Name of Beneficiaries	Materials Estimate	Labour Estimate 60 %	Total Target	
					Physical Implication	Financial Implication
1	**2**	**3**		**5**	**6**	
1	Development of Water Bodies	Shri. Moren Suring	-	3,25,570	1 No	3,25,570
2	- *do* -	Smti. Tngen Lynshing	-	3,25,570	1 No	3,25,570
3	- *do* -	Community	-	5,31,737	1 No	5,31,737
Total of A				**11,82,877**		**11,82,877**
1	Water Harvesting structure	Community	1,83,064	2,74,596	1 No	4,57,660
2	- *do* -	- *do* -	1,43,272	2,14,908	1 No	3,58,180
3	- *do* -	- *do* -	1,24,240	1,86,360	1 No	3,10,600
4	- *do* -	- *do* -	1,15,060	1,72,590	1 No	2,87,650
Total of B			**5,65,636**	**8,48,454**		**14,14,090**
1	Minor Irrigation works	Community	55,208	82,812	1 No	1,38,020
2	- *do* -	- *do* -	55,208	82,812	1 No	1,38,020
3	- *do* -	- *do* -	55,208	82,812	1 No	1,38,020
Total of C			**1,65,624**	**2,48,436**	**10 Nos**	**4,14,060**
Grant Total			**12,04,411**	**18,06,616**		**30,11,027**

Rupees (Thirty Lakhs Eleven Thousand and Twenty seven) only.

ACTIVITIES FOR CONVERGENCE OF IWMP WITH NREGA SCHEMES UNDER NAGRABIL, UMLING BLOCK

Sl. No	Name of Activities	Name of Beneficiaries	Materials Estimate	Labour Estimate	Total Target	
					Physical Implication	Financial Implication
1	**2**	**3**	**4**	**5**	**6**	
1	Water Harvesting structure	Community	52,834	79,250	1 No.	1,32,084
2	- *do* -	- *do* -	52,834	79,250	1 No..	1,32,084
Total			**1,05,668**	**1,58,500**	**2 Nos**	**2,64,168**

Rupees (Two Lakhs Sixty four Thousand One hundred sixty eight) only

ACTIVITIES OF CONVERGENCE OF IWMP NREGA SCHEMES UNDER CHIBRA, UMLING BLOCK

Sl. No	Name of Activities	Name of Beneficiaries	Materials Estimate	Labour Estimate	Total Target	
					Physical Implication	Financial Implication
1	**2**	**3**	**4**	**5**	**6**	
1	Water Harvesting structure	Community	52,834	79,250	1 No.	1,32,084
2	- *do* -	- *do* -	1,15,060	1,72,590	1 No..	2,87,650
Total			**1,67,894**	**2,51,840**	**2 Nos**	**4,19,734**

Rupees (Four Lakhs Nineteen Thousand Seven Hundred and Thirty four) only.

MODEL NORMS PER HECTARE FOR AGRO – HORTICULTURE WITH CITRUS FRUIT
(INTEGRATED WATERSHED MANAGEMENT PROGRAMME)
(Rate as per PWD, SOR for R&B 2008 – 2009)

Spacing - 8m x 6.3m

Plant Density - 200 Nos.

A.	Preliminary works		
I.	Site clearance		
	3 mandays @ Rs.100/- per manday	-	Rs. 300.00
II.	Pit digging (pit size 0.45m x 0.45m x 0.45m)		
	200 Nos. @ Rs.5/- each	-	Rs.1000.00
	Total	-	Rs.1300.00
B.	First year Planting		
I.	Cost of planting materials		
	200 Nos. @ Rs.10/- each	-	Rs.2000.00
II.	Cost of planting 200 Nos. @ Rs. 3/- each	-	Rs. 600.00
III.	Weeding two times		
	20 mandays @ Rs.100/- per manday	-	Rs.2000.00
	Total	-	Rs.4600.00
C.	Second year Planting		
I.	Refilling vacancy (10%)	-	Rs. 360.00
II.	Weeding two times		
	20 mandays @ Rs.100/- per manday	-	Rs.2000.00
III	Plant protection measures including		
	cost of chemical	-	Rs. 340.00
	Total	-	Rs.2700.00
Grand Total A+B+C = Rs.1300.00 + Rs.4600.00 + Rs.2700.00		=	Rs.8600.00

(Rupees Eight thousand six hundred) only.

MODEL NORMS PER HECTARE FOR AFFORESTATION WITH PINE/ NON-PINE (INTEGRATED WATERSHED MANAGEMENT PROGRAMME)
(Rate as per PWD, SOR for R&B 2008 – 2009)

Spacing 6m x 5.5m

Plant Density – 300 Nos.

B.	Preliminary works		
J.	Jungle clearance etc. 5 mandays @ Rs.100/- per manday	-	Rs. 500.00
II.	Pit digging (pit size 0.30m x 0.30m x 0.30m) 300 Nos. @ Rs.4/- each	-	Rs. 1200.00
	Total	-	Rs. 1700.00
B.	First year Planting		
I.	Cost of planting materials 300 Nos. @ Rs.8/- each	-	Rs. 2400.00
II.	Cost of planting 300 Nos. @ Rs. 2/- each	-	Rs. 600.00
III.	Weeding two times 20 mandays @ Rs.100/- per manday	-	Rs. 2000.00
IV.	Fire protection measures 5 mandays @ Rs.100/- per manday	-	Rs. 500.00
	Total	-	Rs. 5500.00
C.	Second year Planting		
I.	Vacancy refilling (10%)	-	Rs. 400.00
II.	Weeding two times 20 mandays @ Rs.100/- per manday	-	Rs. 2000.00

III. Fire protection measures

5 mandays @ Rs.100/- per manday	-	Rs. 500.00
Total	-	Rs. 2900.00

Grand Total A+B+C = Rs.1700.00 + Rs.5500.00 + Rs.2900.00 = Rs.10100.00

(Rupees Ten thousand one hundred) only.

ESTIMATE FOR CONSTRUCTION OF CONSERVATION POND
(The rate based as per P.W.D. Schedule of rates for Roads, Bridges and E & D works 2008 – 2009).

1/3 (d) Earthwork in excavation to the proper grade including light dressing, providing cambering and superlative as directed and removal of spoils up to 30m lead and all lift.
Soft or laminated rock or medium shale.

$$(150.00 \times 25.00) + 4\,(148.80 \times 23.80) + (147.6.00 \times 22.60) \times \frac{1.20}{6} = 4250m^3$$

@ Rs. 63.00/m^3 Rs.2,67,768.39

2/3 (i) Extra in excavation in through cutting over 150cm height at the lowest point.

Item No. 1/3 (d) = 4250m^3

@ Rs. 13.00/ m^3 Rs. 55,250

3/14 (ii) Cutting roadside drain including dressing, grading and removal of spoils up to 15.0m complete as directed.
In ordinary soil, comprising of black cotton soil, green vegetation soil, red soil, loamy soil, clay, soft shale and loose moorum etc.

1 x 88 = 88 Rm

@ Rs. 29.00/ m^3 Rs. 2552

Total Rs. 3,25,570.39/-
Say Rs. 3,25,570 /-

(Rupees three lakh twenty five thousand five hundred and seventy) only

ESTIMATE FOR CONSTRUCTION OF CONSERVATION POND
(The rate based as per P.W.D. Schedule of rates for Roads, Bridges and E & D works 2008 – 2009).

1/3 (d) Earthwork in excavation to the proper grade including light dressing, providing cambering and superlative as directed and removal of spoils up to 30m lead and all lift.
Soft or laminated rock or medium shale.

$(100.00 \times 60.00) + 4 (98.80 \times 58.80) + (97.60 \times 57.60) \times \frac{1.20}{6}$ = 6971m^3

@ Rs. 63.00/m^3 Rs.4,39,229.95

2/3 (i) Extra in excavation in through cutting over 150cm height at the lowest point.

Item No. 1/3 (d) = 6971m^3

@ Rs. 13.00/ m^3 Rs. 90,623

3/14 (ii) Cutting roadside drain including dressing, grading and removal of spoils up to 15.0m complete as directed.
In ordinary soil, comprising of black cotton soil, green vegetation soil, red soil, loamy soil, clay, soft shale and loose moorum etc.

1 x 65 = 65 Rm @ Rs. 29.00/ m^3 Rs. 1.885

Total Rs. 5,31,737.95/-
Say Rs. 5,31,737/-

(Rupees five lakh sixty thirty one thousand seven hundred and thirty seven) only

ESTIMATE FOR CONSTRUCTION OF DRINKING WELL WITH WASHING PLACE AND FOOTPATH UNDER IWMP & MNREGA (CONVERGENCE OF SCHEMES)

(The rate as per M.P.W.D Schedule for rates for Roads, Bridges and E & D Works 2008-2009)

1/5 Earth work in excavation for foundation for abutment and wing walls of bridges and culverts up to the founding level including dewatering, bailing out of water in order to keep the foundation by adequate sharing scaffolding. The foundation is leveled both longitudinally and transversely as directed.

D/well	1 x 3.00 x 2.50 x 1.50 =	11.25m^3	
	2 x 3.00 x 0.45 x 0.50 =	1.35m^3	
	2 x 1.60 x 0.45 x 0.50 =	0.72m^3	
		13.32m^3	
		@ Rs. 121.00/m^3	Rs. 1611.72

2/6(a) Earth work in excavation for foundation of Hume Pipe Culvert, Slab drain, retaining wall face wall up to the desired founding level including dewatering bailing out of water in order to keep the foundation by adequate shoring scaffolding. The foundation is leveled both longitudinally and transversely as directed.

W/P-	1 x 2.20 x 3.50 0.30 =	2.31 m^3	
F/P-	2 x 120.00 x 2.00 0.15 =	36.00m^3	
		@ Rs. 93.00/m^3	Rs. 3562.83

3/20 Providing regular stone masonry work in returning walls breast walls and wing walls with hammer dressed or blunt chisel dressed stones of heavy section (size not less than 25cm x 25cm x 30 cm), with proper key stones each not less than 25 cm x 25cm x 75 cm, in cement mortar 1:6 including carriage of stone within 200m and filling in trenches and providing weep holes at 1.2 to 1.5m apart (staggered), complete as directed.

D/well-	1 x 3.00 x 0.45 x 2.40 =	3.240m^3	
	2 x 1.60 x 0.45 x (2.40 + 3.00 / 2 =	3.888m^3	
	1 x 3.00 x 0.45 3.00 =	4.050 m^3	
		11.178m^3	
		@ Rs. 1060.00 /m^3	Rs. 11848.68

4/24 Providing stone pitching with one man size boulders not less than 25cm x 25cm 30 cm, including filling the interstices with spoils and carriage of stones within a distance of 200m complete as directed.

W/P - 1 x 2.20 x 3.50 x 0.30 = 2.31m^3
F/P - 2 x 1.20.00 x 1.00 x 0.30 = 2.00 m^3
74.31m^3
@ Rs. 512.00/m^3 Rs. 38046.72

5/41 Providing shuttering with dressed planks not less than 25 mm thick properly joined including battens, props to the proper level and removing of same after the concrete hardened complete as directed.

D/wall - 1 x 2.45 x 2.10 = 5.145m^2
2 x 3.20 x 0.10 = 0.640m^2
2 x 2.70 x 0.10 = 0.540m^2
W/P- 2 x 2.20 x 0.10 = 0.440m^2
2 x 3.50 x 0.10 = 0.700m^2
F/P 2 x 120.00 x 0.20 = 48.00m^2
2 x 1.00 x 0.20 = 55.865m^2
55.865m^2
@ Rs. 295.00/m^2 Rs.16480.17

6/42 (ba) Supplying, fitting fixing including bending cranking and placing in position as per approved designed and drawings.

D/wall - 1 x 17 x 3.00 x 0.39 = 19..890 kgs
Slab - 1 x 21 x 2.50 x 0.39 = 20.475 kgs
40.365 kgs or 0.4036 Qtls
@ Rs.5174.00/Qtls, Rs. 2088.22

7/28 Providing cement concrete work in proportion 1:3:6 with hard broken stone aggregates 40mm downgraded, including necessary carriage of stone and sand within a distance of 200m and curing, complete as directed. (excluding shuttering).

D/well Slab - 1 x 3 .20 x 2.70 x 0.10 = 0.864m^3
W/Place - 1 x 2.20 3.50 x 0.075 = 0.577m^3
F/P - 2 x 120.00 x 1.00 x 0.075 = 18.00m^3
19.441m^3
@ Rs. 2344.00/m^3 Rs. 45569.70

8/26 Providing 12mm thick cement plastering including cleaning surface, curing carriage of sand within 200m complete (No. Plastering is to be done in Abutments, well piers Retaining walls and wing walls).

Proportion 1:3

D/well Slab	-	1 x 3.00 x 1.00	= 3.00m^2
Extension Wall	-	1 x 3.00 x 0.40	= 1.20m^2
		2 x 2.50 x (1 x 3.00 x 0.40)	= 3.50m^2
Int.Wall	-	1 x 2.10 x 1.20	= 2.52m^2
		1 x 1.60 x (1.40 + 1.95)/2	= 5.36m^2
Slab	-	1 x 2.45 x 2.10	= 5.14m^2
		1 x 3.20 x 2.70	= 8.64m^2
		2 x 3.20 x 0.10	= 0.64m^2
		2 x 2.70 x 0.10	= 0.54m^2
W/Place	-	1 x 2.20 x 3.50	= 7.70m^2
		2 x 2.20 x 0.10	= 0.44m^2
		2 x 3.50 x 0.10	= 0.70m^2
F/P	-	4 x 120.00 x 0.20	= 96.00m^2
		4 x 1.00 x 0.20	= 0.80m^2
			139.96m^2
			@ Rs. 92.00/m^2
			TOTAL Rs.1,28,76.32
			Rs.1,32,084.36
			Say Rs. 1,32,084.00

(Rupees One lakh two thousand & eighty) only.

ESTIMATE FOR CONSTRUCTION OF WATER HARVESTING STRUCTURE CUM FOOTBRIDGE UNDER IWMP & MNREGA (CONVERGENCE OF SCHEMES)

(The rate based as per P.W.D Schedule of rates for Roads, Bridges and E & D Works 2008 – 2009 and PHE Schedule of rates)

1/4 (b)	Earthwork in excavation for foundation of bridges and culverts, up to the founding level including making of cofferdam, dewatering, bailing and diversion of water. In order to keep the foundation trenches free of water. The sides of the foundation to be protected by adequate shoring, scaffolding after leveling the foundation both longitudinally and transversely as directed.		
	Dam 1 x 30.00 x 1.90 x 0.65 = 37.05 m^3		
	@ Rs.152.00/m^3		Rs. 5631.60
2/6	Earthwork in excavation for foundation of Hume Pipe Culvert, Slab drain, Retaining wall face well up to the desired founding level including dewatering bailing out of water in order to keep the foundation by adequate shoring scaffolding. The foundation is leveled both longitudinally and transversely as directed.		
	2 x 3.00 x 0.90 x 0.65 = 3.51 m^3		
	W/wall		
	Apron 1 x 17.90 x 0.30 x 0.20 = 1.07 m^3		
	4.58 m^3		
	@ Rs.93.00/m^3		Rs. 425.94
3/26	Providing cement concrete work in proportion 1:4:8 with hard broken stone aggregates 40mm down graded, including necessary carriage of stone and sand within a distance of 200m and curing, complete as directed.		
	Dam 1 x 30.00 x 1.90 x 0.10 = 5.70 m^3		
	W/walls 2 x 3.00 x 0.90 x 0.10 = 0.54 m^3		
	6.24 m^3		
	@ Rs.2136.00/m^3		Rs. 13328.64

4/42 (b) Supplying, fitting, fixing including bending cranking and placing in position as per approved design and drawings including supplying of tying wire 20 gauge complete as directed.
Tor steel

1 x 86 x	2.65 x 0.89	=	202.83 kgs
1 x 86 x	2.60 x 0.89	=	199.00 kgs
2 x 23 x	0.90 x 0.89	=	36.85 kgs
2 x 23 x	0.85 x 0.89	=	34.80 kgs
1 x 16 x	26.80 x 0.62	=	265.85 kgs
1 x 16 x	12.50 x 0.62	=	124.00 kgs
2 x 6 x	10.80 x 0.62	=	80.35 kgs
1 x 7 x	14.35 x 0.62	=	62.30 kgs
1 x 94 x	1.00 x 0.39	=	36.66 kgs
2 x 16x 4 x	1.50 x 0.62	=	119.04 kgs
2 x 8 x	3.20 x 0.62	=	31.74 kgs
2 x 12 x	2.75 x 0.62	=	40.92 kgs
			1234.34 kgs or 12.3434 Qtls
			@ Rs.5174.00/Qtl Rs. 63864.75

(a) Mild Steel
2 x 16x 10 x 0.50 x 0.22 = 35.20 kgs or 0.352 Qtls.
@ Rs.4974.00/Qtl Rs. 1750.84

5/41 (a) Providing shuttering with dressed planks not less than 25mm thick properly joined including battens, props to the proper level and removing the same after the concrete hardened.

Dam	1 x 30.00 x 2.35	=	70.50 m^2
F/board	2 x 8.00 x 0.80	=	12.80 m^2
G/wall	4 x (2.00+2.70)/2 x 0.50	=	4.70 m^2
	2 x 0.50 x 0.30	=	0.30 m^2
Colm	2 x 16.00 x 0.60 x 1.30	=	24.96 m^2
Slab	1 x 1.00 x 14.00	=	14.00 m^2
	2 x 14.00 x 0.10	=	2.80 m^2
			130.06 m^2
			@ Rs.295.00/m^2 Rs. 38367.70

6/29 Providing cement concrete work in proportion 1:2:4 corresponding to M150 with hard broken stone aggregates 20mm down graded, including necessary carriage of stone

and sand within a distance of 200m and curing.

	1 x 30.00 x 1.90 x 0.20	=	11.40 m^3
Dam			
	1 x 30.00 x 2.35 x 0.30	=	21.15 m^3
	2 x 8.00 x 0.80 x 0.30	=	3.84 m^3
G/wall	2 x (2.00+2.70)/2 x 0.50 x 0.30	=	0.71 m^3
Slab	1 x 14.00 x 1.00 x 0.10	=	1.40 m^3
Colm	2 x 16 x 1.30 x 0.15 x 0.15	=	0.94 m^3
			39.44 m^3
		@ Rs.2880.00/m^3	Rs. 113587.20

7/20 Providing regular stone masonry work in returning walls, breast walls and wing walls with hammer dressed or blunt chisel dressed stones of heavy section with proper key stones each not less than 25cm X 25cm X 75cm, in cement mortar 1:6 including carriage of stone within 200m

Dam	1 x 30.00 x 1.40 x 0.35	=	14.70 m^3
	1 x 30.00 x (0.70+1.40)/2 x 2.00	=	63.00 m^3
	2 x 8.00 x 0.70 x 0.80	=	8.96 m^3
Apron	1 x 17.90 x 0.30 x 0.45	=	2.42 m^3
W/walls	2 x 3.00 x 0.90 x 0.55	=	2.97 m^3
	2 x 3.00 x (0.50+0.90)/2 x 2.30	=	9.66m^3
			101.71 m^3

@ Rs.1060.00/m^3 Rs. 107812.60

8/28 Providing C.C. work in prop 1:3:6 with hard broken stone aggregates 40mm down graded in abutment curing and return walls, including necessary carriage of stone and sand within a distance of 200m etc.

Apron 1 x 14.00 x 1.70 x 0.10 = 2.38 m^3

@ Rs.2344.00/m^3 Rs. 5578.72

9/25 Providing boulder or stone filling with unsized stone of one man size of 60cm with behind the apartment wing retaining walls etc.

Apron 1 x 14.00 x 1.70 x 0.25 = 5.95 m^3

@ Rs.322.00/m^3 Rs. 1915.90

10/1.1 PHE Schedule 50mm

Supplying including carriage within 8 km and laying in trenches including fitting, fixing G.I pipe complete with G.I fillings such as socket bend, Elbow cross, union socket, threaded nipple, reducing socket, reducing tees including cutting, treading etc. with all jointing materials complete as directed excluding trenching and refilling of earth which will be paid extra as applicable as per current schedule of rate. The fillings will be paid extra except sockets joints.

2 x 30.00 x 4 = 240.00 Rm

@ Rs.326.27.00/m^3 Rs. 78304.80

11/27 Providing 12mm thick cement plastering including cleaning

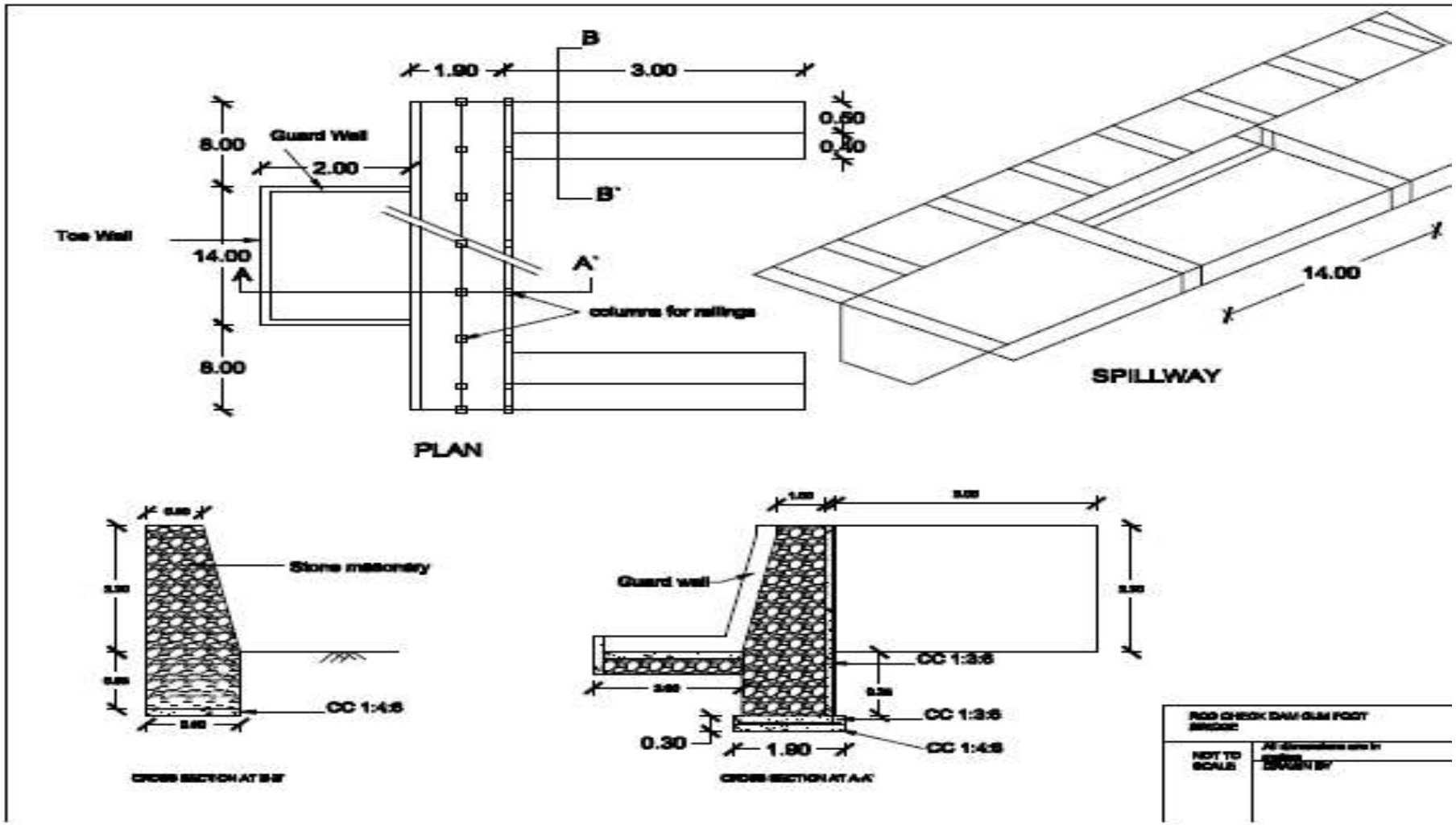
(b) surface, curing and carriage of sand within 200m complete.

Dam	1 x 30.00 x 2.00	=	60.00 m^2
	1 x 30.00 x 2.12	=	63.60 m^2
S/way	2 x 14.00 x 1.00	=	28.00 m^2
F/board	4 x 8.00 x 0.80	=	25.60 m^2
	2 x 1.00 x 0.80	=	1.60 m^2
	1 x 30.00 x 1.00	=	30.00 m^2
	2 x 31.00 x 0.10	=	6.20 m^2
G/wall	4 x (2.00+2.70)/2 x 0.50	=	4.70 m^2
	2 x 0.50 x 0.30	=	0.30 m^2
Colm	2 x 16 x 0.60 x 1.30	=	24.96 m^2
	2 x 16 x 0.15 x 0.15	=	0.72 m^2
Apron	1 x 14.60 x 2.00	=	29.20 m^2
	1 x 18.60 x 0.15	=	2.79 m^2
W/wall	2 x 3.00 x 2.80	=	16.80 m^2
			294.47 m^2
		@ Rs.92.00/m^2	Rs. 27091.24
		TOTAL:	Rs.457659.93

Say Rs.4,57,660.00

(Rupees Four lakhs fifty seven thousand six hundred sixty) only.

Submitted:-


B
1.90
3.00
0.60
0.40
8.00
Guard Wall
2.00
B`
Toe Wall
14.00
A
A`
columns for railings
8.00
PLAN
14.00
SPILLWAY
Stone masonary
CC 1:4:8
Guard wall
CC 1:3:6
CC 1:3:6
0.30
1.90
CC 1:4:8
NOT TO SCALE

ESTIMATE FOR CONSTRUCTION OF WATER HARVESTING STRUCTURE WITH WING WALL TYPE 'A' UNDER UNDER IWMP & MNREGA (CONVERGENCE OF SCHEMES)

(The Rate based from PWD Schedule of Rates for Roads, Bridges and E&D Works 2008 – 2009)

1/4 Earthwork in excavation for foundation of bridges and culvert upto the founding level including making of coffer dam, dewatering and bailing out and diverting of water, in order to keep the foundation trenches free of water and protecting the sides of foundation by adequate shoring, scaffolding, and including leveling the foundation longitudinally and transversely as directed.

Dam 1 x 32.00 x 1.50 x 0.90 = 43.20 m^3

@ Rs. 152.00/m^3 Rs. 6,566.40

2/6 Earthwork in excavation for foundation of Hume Pipe culvert, slab drain, retaining wall, face wall up to the desired founding level, including dewatering and bailing out of water in order to keep the foundation dry, protecting the sides of foundation by adequate shoring scaffolding. The foundation is leveled both longitudinally and transversely as directed.

W/Wall 2 x 3.80 x 0.90 x 0.80 = 5.472 m^3

Apron 1 x 14.60 x 0.30 x 0.20 = 0.876 m^3

= 6.348 m^3

@ Rs. 93.00/m^3 Rs. 590.36

3/26 Providing cement concrete work in proportion 1:4:8 with hard broken aggregates 40mm down graded including necessary carriage of stone and sand within a distance 200mm and curing complete.

Dam 1 x 32.00 x 1.50 x 0.10 = 4.800 m^3

W/Wall 2 x 3.80 x 0.90 x 0.10 = 0.684 m^3

= 5.484 m^3

@ Rs. 2136.00/m^3 Rs. 11,713.82

4/42 (b) Supplying fitting and fixing including bending, cranking and placing in position as per approved designed drawing, including supplying of tying wire 20 gauge complete as directed.

	2 x 74 x 3.35 x 0.89 =	441.26 Kgs
	1 x 67 x 3.35 x 0.89 =	199.76 Kgs
	1 x 20 x 19.00 x 0.62 =	235.60 Kgs
	1 x 20 x 14.00 x 0.62 =	173.60 Kgs
	2 x 3 x 11.00 x 0.62 =	40.92 Kgs
Extra	2 x 9 x 3.15 x 0.62 =	35.15 Kgs
	2 x 13 x 2.90 x 0.62 =	46.75 Kgs
	=	1173.04 Kgs
	or	11.7304 Kgs

@ Rs. 5174.00/Qlt. Rs. 60,693.08

5/41 Providing shuttering with dressed planks not less than 25mm thick properly joined including battens, props to the proper level and removing of same after the concrete hardened complete as directed.

Dam	1 x 32.00 x 2.70 =	86.40 m^2
F/Board	2 x 11.00 x 0.40 =	8.80 m^2
G/Wall	4 x 4.42 x 0.50 =	8.84 m^2
	2 x 0.50 x 0.30 =	0.30 m^2
	=	104.34 m^2

@ Rs. 295.00/m^2 Rs. 30,780.30

6/29 Providing cement concrete work in proportion 1:2:4 corresponding to M150 stone aggregates 20mm down graded including curing and necessary carriage of stone and sand within a distance of 200m complete as directed.

Dam	1 x 32.00 x 1.50 x 0.10 =	4.80 m^3
	1 x 32.00 x 2.70 x 0.30 =	25.92 m^3

F/Board 2 x 11.00 x 0.40 x 0.30 = 2.64 m^3
G/Wall 2 x 4.42 x 0.50 x 0.30 = 1.33 m^3
= 34.69 m^3

@ Rs. 2880.00/m^3 Rs. 99,907.20

7/20 Providing regular stone masonry work in returning walls, breast walls and wing walls with hammer dressed or blunt chisel dressed stones of heavy section (size not less than 25cm x 25cm x 30cm), with proper key stones each not less than 25cm x 25cm x 75cm, in cement mortar 1:6 including carriage of stone within 200m and filling in trenches and providing weep holes at 1.2 to 1.5m apart (staggered), complete as directed.

Dam 1 x 32.00 x 1.00 x 0.70 = 22.40 m^3
1 x 32.00 x $\frac{0.30 + 1.00}{2}$ x 2.00 = 41.60 m^3
F/Board 2 x 11.00 x 0.30 x 0.40 = 2.64 m^3
W/Wall 2 x 3.80 x 0.90 x 0.70 = 4.79 m^3
2 x 3.80 x $\frac{0.50 + 0.90}{2}$ x 2.40 = 12.77 m^3
Apron 1 x 14.60 x 0.30 x 0.45 = 1.97 m^3
= 86.17 m^3

@ Rs. 1060.00/m^3 Rs. 91,340.20

8/25 Providing boulders or stone filling with unsized stone of one man size of 60 cm with behind the abutments, wing walls, retaining walls, etc. within 200m complete.

Apron - 1 x 10.00 x 2.00 x 0.25 = 5.00 m^3

@ Rs. 322.00/m^3 Rs. 1,610.00

9/27 Providing 12mm thick cement plastering including cleaning surface, curing, carriage of sand within 200m complete.

Dam 1 x 32.00 x 2.00 = 64.00 m^2
1 x 32.00 x 2.12 = 67.84 m^2
1 x 32.00 x 0.60 = 19.20 m^2
F/Board 4 x 11.00 x 0.40 = 17.60 m^2

	2 x 0.60 x 0.40 = 0.48 m^2	
G/Wall	4 x 4.42 x 1.30 = 22.98 m^2	
	2 x 0.50 x 0.30 = 0.30 m^2	
Apron	1 x 10.60 x 2.30 = 24.38 m^2	
	1 x 15.20 x 0.20 = 3.04 m^2	
W/Wall	2 x 3.80 x 2.90 = 22.04 m^2	
	= 241.86 m^2	
	@ Rs. 92.00/m^2	Rs. 22,251.12

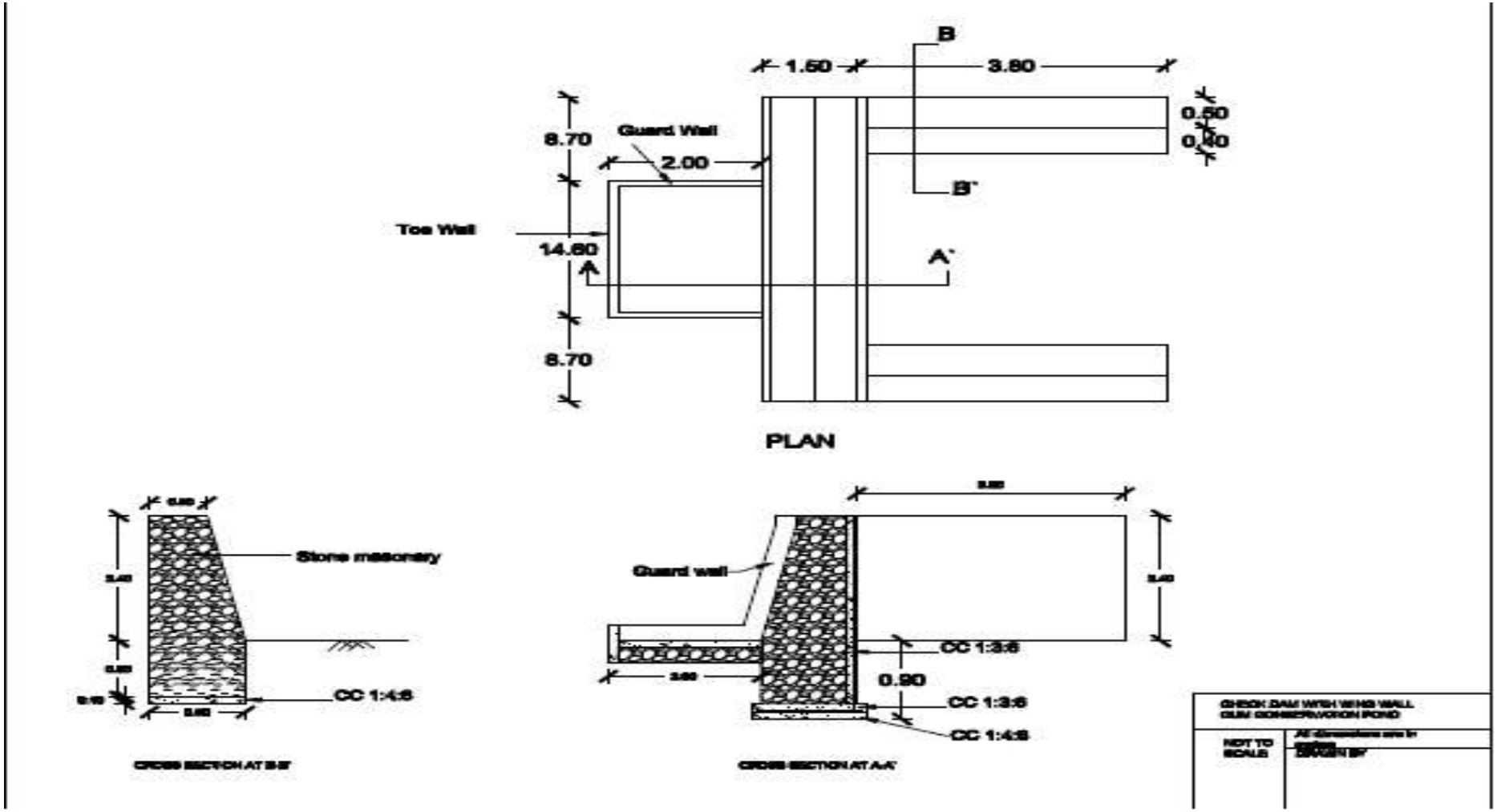
10/14 Cutting roadside drain including dressing, grading and removal of spoils up to 15.00 m completed as directed

	2 x 33.60 = 67.20 Rm	
	@ Rs. 29.00/Rm	Rs. 1,948.80

Total Rs 3,58,181.58

Say Rs.3,58,180.00

(Rupees Three Lakhs Fifty Eight Thousand One Hundred Eighty) only.


B
1.50
3.80
0.50
0.20
8.70
Guard Wall
2.00
B'
Toe Wall
14.60
A'
8.70
PLAN
Stone masonry
CC 1:4:8
Guard wall
CC 1:3:6
0.90
CC 1:3:6
CC 1:4:8
CHECK DAM WITH WING WALL
GUM CONSERVATION POND
NOT TO SCALE

ESTIMATE FOR CONSTRUCTION OF R.C.C. WATER HARVESTING STRUCTURE WITH WING WALL UNDER IWMP & MNREGA (CONVERGENCE OF SCHEMES)

(The Rate based from PWD Schedule of Rates for Roads, Bridges and E&D Works 2008 – 2009)

1/4	Earthwork in excavation for foundation of bridges and culvert upto the founding level including making of coffer dam, dewatering and bailing out and diverting of water, in order to keep the foundation trenches free of water and protecting the sides of foundation by adequate shoring, scaffolding, and including leveling the foundation longitudinally and transversely as directed.		
	Dam 1 x 29.60 x 1.50 x 0.90 = 39.96 m^3		
	@ Rs. 152.00/m^3	Rs.	6,073.92
2/6	Earthwork in excavation for foundation of Hume Pipe culvert, slab drain, retaining wall, face wall up to the desired founding level, including dewatering and bailing out of water in order to keep the foundation dry, protecting the sides of foundation by adequate shoring scaffolding. The foundation is leveled both longitudinally and transversely as directed.		
	W/Wall 2 x 3.50 x 0.90 x 0.80 = 5.04 m^3		
	Apron 2 x 14.60 x 0.30 x 0.20 = 0.88 m^3		
	= 5.92 m^3		
	@ Rs. 93.00/m^3	Rs.	550.56
3/26	Providing cement concrete work in proportion 1:4:8 with hard broken aggregates 40mm down graded including necessary carriage of stone and sand within a distance 200mm and curing complete.		
	Dam 1 x 29.60 x 1.50 x 0.10 = 4.44 m^3		
	W/Wall 2 x 3.50 x 0.90 x 0.10 = 0.63 m^3		
	= 50.70 m^3 @ Rs. 2136.00/m^3	Rs.	10,829.52

4/42 (b) Supplying fitting and fixing including bending, cranking and placing in position as per approved designed drawing, including supplying of tying wire 20 gauge complete as directed.

	2 x 66 x 3.35 x 0.89 =	393.56 Kgs
	1 x 67 x 3.05 x 0.89 =	181.87 Kgs
	1 x 20 x 18.30 x 0.89 =	325.74 Kgs
	1 x 20 x 11.80 x 0.89 =	210.04 Kgs
	2 x 3 x 9.95 x 0.62 =	37.01 Kgs
Extra	2 x 8 x 3.05 x 0.62 =	30.26 Kgs
	2 x 12 x 2.85 x 0.62 =	42.41 Kgs
	=	1220.89 Kgs
	or	12.2089 Kgs
	@ Rs. 5174.00/Qlt.	Rs. 63,168.84

5/41 Providing shuttering with dressed planks not less than 25mm thick properly joined including battens, props to the proper level and removing of same after the concrete hardened complete as directed.

Dam	1 x 29.60 x 2.70 =	79.92 m^2
F/Board	2 x 9.80 x 0.40 =	7.84 m^2
G/Wall	4 x 4.42 x 0.50 =	8.84 m^2
	2 x 0.50 x 0.30 =	0.30 m^2
	=	96.90 m^2
	@ Rs. 295.00/m^2	Rs. 28,585.50

6/29 Providing cement concrete work in proportion 1:2:4 corresponding to M150 stone aggregates 20mm down graded including curing and necessary carriage of stone and sand within a distance of 200m complete as directed.

Dam	1 x 29.60 x 1.50 x 0.10 =	4.440 m^3
	1 x 29.60 x 2.70 x 0.30 =	23.976 m^3
F/Board	2 x 9.80 x 0.40 x 0.30 =	2.352 m^3

G/Wall 2 x 4.42 x 0.50 x 0.30 = 1.326 m^3

= 32.094 m^3

@ Rs. 2880.00/m^3 Rs. 92,430.72

7/20 Providing regular stone masonry work in returning walls, breast walls and wing walls with hammer dressed or blunt chisel dressed stones of heavy section (size not less than 25cm x 25cm x 30cm), with proper key stones each not less than 25cm x 25cm x 75cm, in cement mortar 1:6 including carriage of stone within 200m and filling in trenches and providing weep holes at 1.2 to 1.5m apart (staggered), complete as directed.

Dam 1 x 29.60 x 1.00 x 0.70 = 20.72 m^3

1 x 29.60 x $\frac{0.30 + 1.00}{2}$ x 2.00 = 38.48 m^3

F/Board 2 x 9.80 x 0.30 x 0.40 = 2.35 m^3

W/Wall 2 x 3.50 x 0.90 x 0.70 = 4.41 m^3

2 x 3.50 x $\frac{0.50 + 0.90}{2}$ x 2.40 = 11.76 m^3

Apron 1 x 14.60 x 0.30 x 0.45 = 1.97 m^3

= 79.69 m^3

@ Rs. 1060.00/m^3 Rs. 84,471.40

8/25 Providing boulders or stone filling with unsized stone of one man size of 60 cm with behind the abutments, wing walls, retaining walls, etc. within 200m complete.

Apron - 1 x 10.00 x 2.00 x 0.25 = 5.00 m^3

@ Rs. 322.00/m^3 Rs. 1,610.00

9/27 Providing 12mm thick cement plastering including cleaning surface, curing, carriage of sand within 200m complete.

Dam 1 x 29.60 x 2.00 = 59.20 m^2

1 x 29.60 x 2.12 = 62.75 m^2

1 x 29.60 x 0.60 = 17.76 m^2

F/Board 4 x 9.80 x 0.40 = 15.68 m^2

		2 x 0.60 x 0.40 =	0.48 m^2
	G/Wall	4 x 4.42 x 1.30 =	22.98 m^2
		2 x 0.50 x 0.30 =	0.30 m^2
	Apron	1 x 10.60 x 2.30 =	24.38 m^2
		1 x 15.20 x 0.20 =	3.04 m^2
	W/Wall	2 x 3.50 x 2.90 =	20.30 m^2
			= 226.87 m^2
		@ Rs. 92.00/m^2	Rs. 20,872.04

10/14 Cutting roadside drain including dressing, grading and removal of spoils up to 15.00 m completed as directed

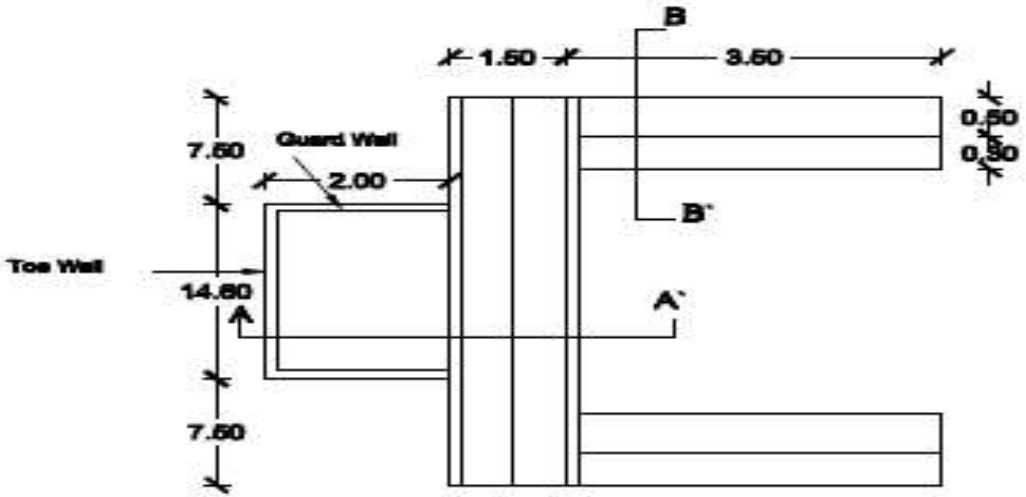
2 x 34.60 = 69.20 Rm

@ Rs. 29.00/Rm Rs. 2,006.80

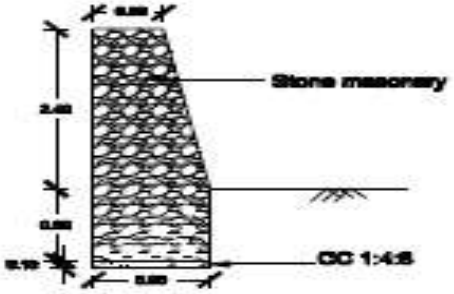
Total Rs 3,10,599.30

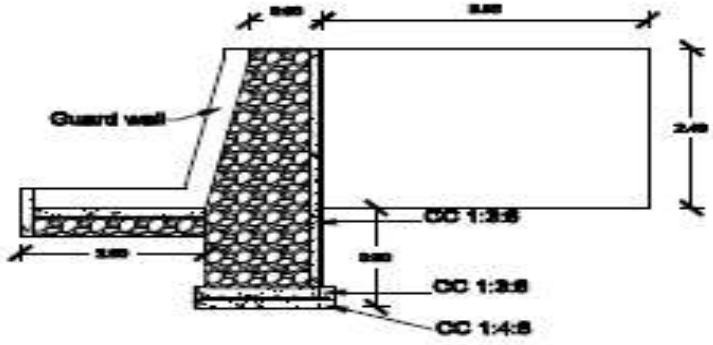
Say Rs. 3,10,600.00

(Rupees Three Lakhs Ten Thousand Six Hundred) only.



PLAN





CHECK DAM WITH WING WALL
CUM CONSERVATION POND

NOT TO SCALE

All dimensions are in metres

DRAWN BY

ESTIMATE FOR CONSTRUCTION OF WATER HARVESTING STRUCTURE WITH WING WALL TYPE 'C' UNDER IWMP & MNREGA (CONVERGENCE OF SCHEMES)

(The Rate based from PWD Schedule of Rates for Roads, Bridges and E&D Works 2008 – 2009)

1/4	Earthwork in excavation for foundation of bridges and culvert upto the founding level including making of coffer dam, dewatering and bailing out and diverting of water, in order to keep the foundation trenches free of water and protecting the sides of foundation by adequate shoring, scaffolding, and including leveling the foundation longitudinally and transversely as directed.		
	Dam 1 x 28.00 x 1.50 x 0.90 = 37.80 m^3		
	@ Rs. 152.00/m^3	Rs.	5,745.60
2/6	Earthwork in excavation for foundation of Hume Pipe culvert, slab drain, retaining wall, face wall up to the desired founding level, including dewatering and bailing out of water in order to keep the foundation dry, protecting the sides of foundation by adequate shoring scaffolding. The foundation is leveled both longitudinally and transversely as directed.		
	W/Wall 2 x 3.50 x 0.90 x 0.80 = 5.04 m^3		
	Apron 1 x 14.60 x 0.30 x 0.20 = 0.88 m^3		
	= 5.92 m^3		
	@ Rs. 93.00/m^3	Rs.	550.56
3/26	Providing cement concrete work in proportion 1:4:8 with hard broken aggregates 40mm down graded including necessary carriage of stone and sand within a distance 200mm and curing complete.		
	Dam 1 x 28.00 x 1.50 x 0.10 = 4.20 m^3		
	W/Wall 2 x 3.50 x 0.90 x 0.10 = 0.63 m^3		
	= 4.83 m^3 @ Rs. 2136.00/m^3	Rs.	10,316.88

4/42 (b) Supplying fitting and fixing including bending, cranking and placing in position as per approved designed drawing, including supplying of tying wire 20 gauge complete as directed.

	2 x 61 x 3.35 x 0.89 =	363.74 Kgs
	1 x 67 x 3.05 x 0.89 =	181.87 Kgs
	1 x 20 x 15.20 x 0.62 =	188.48 Kgs
	1 x 20 x 13.40 x 0.62 =	166.16 Kgs
	2 x 3 x 9.00 x 0.62 =	33.48 Kgs
Extra	2 x 8 x 3.05 x 0.62 =	30.26 Kgs
	2 x 12 x 2.85 x 0.62 =	42.41 Kgs
	=	1006.40 Kgs
	or	10.064 Qlt.
	@ Rs. 5174.00/Qlt.	Rs. 52,071.13

5/41 Providing shuttering with dressed planks not less than 25mm thick properly joined including battens, props to the proper level and removing of same after the concrete hardened complete as directed.

Dam	1 x 28.00 x 2.70 =	75.60 m^2
F/Board	2 x 9.00 x 0.40 =	7.20 m^2
G/Wall	4 x 4.42 x 0.50 =	8.84 m^2
	2 x 0.50 x 0.30 =	0.30 m^2
	=	91.94 m^2
	@ Rs. 295.00/m^2	Rs. 27,122.30

6/29 Providing cement concrete work in proportion 1:2:4 corresponding to M150 stone aggregates 20mm down graded including curing and necessary carriage of stone and sand within a distance of 200m complete as directed.

Dam	1 x 28.00 x 1.50 x 0.10 =	4.20 m^3
	1 x 28.00 x 2.70 x 0.30 =	22.68 m^3
F/Board	2 x 9.00 x 0.40 x 0.30 =	2.16 m^3
G/Wall	2 x 4.42 x 0.50 x 0.30 =	1.33 m^3

= 30.37 m^3

@ Rs. 2880.00/m^3 Rs. 87,465.60

7/20 Providing regular stone masonry work in returning walls, breast walls and wing walls with hammer dressed or blunt chisel dressed stones of heavy section (size not less than 25cm x 25cm x 30cm), with proper key stones each not less than 25cm x 25cm x 75cm, in cement mortar 1:6 including carriage of stone within 200m and filling in trenches and providing weep holes at 1.2 to 1.5m apart (staggered), complete as directed.

Dam	1 x 28.00 x 1.00 x 0.70	= 19.60 m^3
	1 x 28.00 x $\frac{0.30 + 1.00}{2}$ x 2.00	= 36.40 m^3
F/Board	2 x 9.00 x 0.30 x 0.40	= 2.16 m^3
W/Wall	2 x 3.50 x 0.90 x 0.70	= 4.41 m^3
	2 x 3.50 x $\frac{0.50 + 0.90}{2}$ x 2.40	= 11.76 m^3
Apron	1 x 14.60 x 0.30 x 0.45	= 1.97 m^3
		= 76.30 m^3

@ Rs. 1060.00/m^3 Rs. 80,878.00

8/25 Providing boulders or stone filling with unsized stone of one man size of 60 cm with behind the abutments, wing walls, retaining walls, etc. within 200m complete.

Apron - 1 x 10.00 x 2.00 x 0.25 = 5.00 m^3

@ Rs. 322.00/m^3 Rs. 1,610.00

9/27 Providing 12mm thick cement plastering including cleaning surface, curing, carriage of sand within 200m complete.

Dam	1 x 28.00 x 2.00 =	56.00 m^2
	1 x 28.00 x 2.12 =	59.36 m^2
	1 x 28.00 x 0.60 =	16.80 m^2
F/Board	4 x 9.00 x 0.40 =	14.40 m^2
	2 x 0.60 x 0.40 =	0.48 m^2

	G/Wall	4 x 4.42 x 1.30 =	22.98 m^2	
		2 x 0.50 x 0.30 =	0.30 m^2	
	Apron	1 x 10.60 x 2.30 =	24.38 m^2	
		1 x 15.20 x 0.20 =	3.04 m^2	
	W/Wall	2 x 3.50 x 2.90 =	20.30 m^2	
			= 218.04 m^2	
			@ Rs. 92.00/m^2	Rs. 20,059.68

10/14 Cutting roadside drain including dressing, grading and removal of spoils up to 15.00 m completed as directed

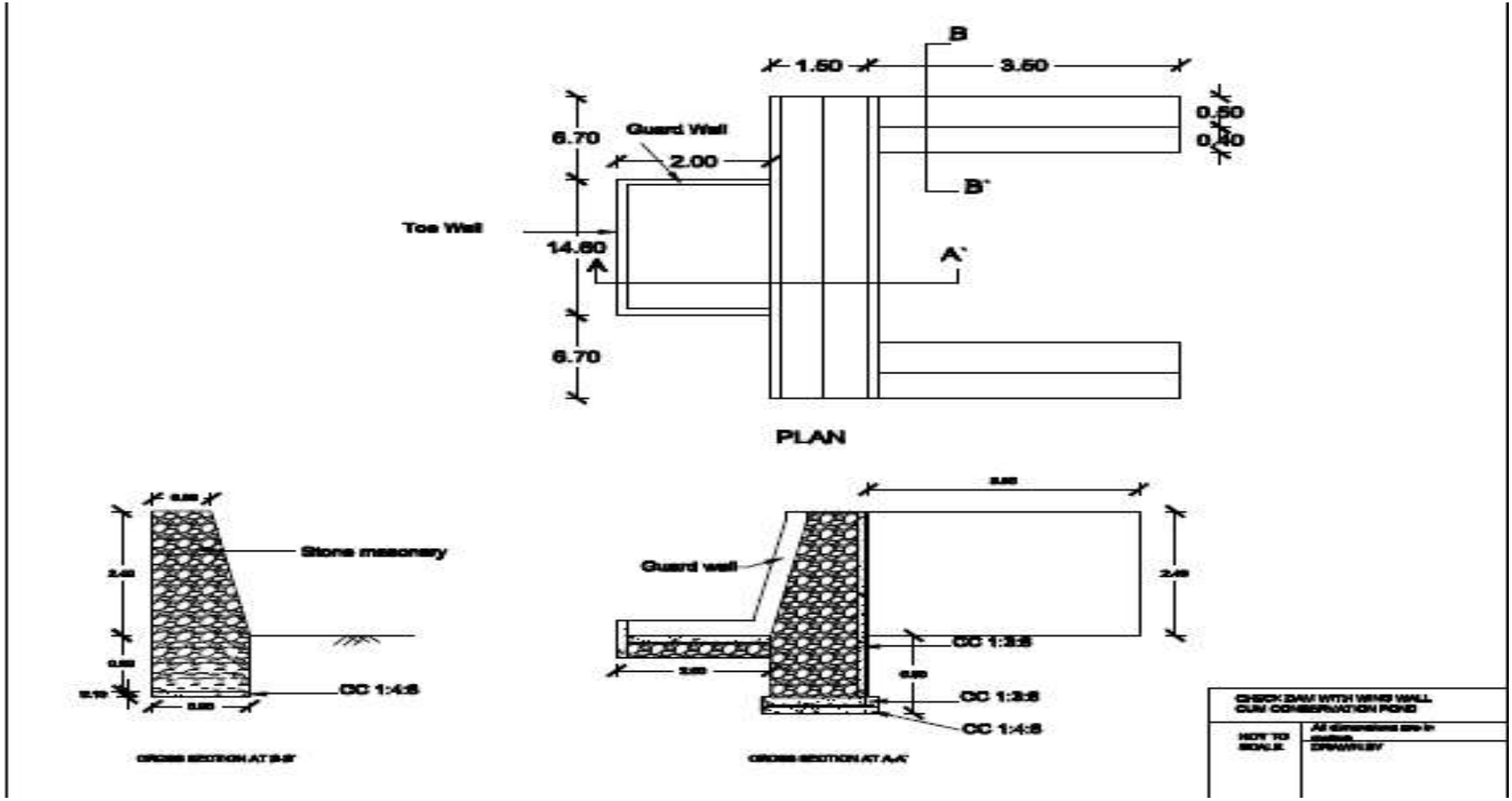
31.50 x 2 = 63.00 Rm

@ Rs. 29.00/Rm Rs. 1,827.00

Total Rs. 2,87,646.75

Say Rs. 2,87,650.00

(Rupees Two Lakhs Eighty Seven Thousand Six Hundred Fifty) only.


B
1.50
3.50
0.50
0.40
6.70
Guard Wall
2.00
B`
Toe Wall
14.60
A`
6.70
PLAN
Stone masonary
CC 1:4:8
Guard wall
CC 1:3:6
CC 1:3:6
CC 1:4:8
CHECK DAM WITH WING WALL
CUM CONSERVATION POND
NOT TO SCALE

ESTIMATE FOR CONSTRUCTION OF DRINKING WELL WITH WASHING PLACE AND FOOTPATH TYPE 'B' UNDER IWMP & MNREGA (CONVERGENCE OF SCHEMES)

(The rate based as per M.P.W.D Schedule of rates for Roads, Bridges and E & D Works 2008 - 2009)

1/5 (b) Earthwork in excavation for foundation for abutment and wing walls of bridges and culverts up to the founding level including dewatering, bailing out of water in order to keep the foundation by adequate sharing scaffolding. The foundation is leveled both longitudinally and transversely as directed.

D/Well – 1 x 3.00 x 2.50 x 1.50 = 11.25m^3
2 x 3.00 x 0.45 x 0.50 = 1.35m^3
2 x 1.60 x 0.45 x 0.50 = 0.72m^3
13.32m^3
@ Rs.121.00/m^3 Rs. 1611.72

2/6 (a) Earthwork in excavation for foundation of Hume Pipe Culvert, Slab drain, Retaining wall face well up to the desired founding level including dewatering bailing out of water in order to keep the foundation by adequate shoring scaffolding. The foundation is leveled both longitudinally and transverly as directed.

W/P - 1 x 2.20 x 3.50 x 0.30 = 2.31m^3
F/P - 2 x 120.00 x 1.00 x 0.15 = 36.00m^3
38.31m^3
@ Rs.93.00/m^3 Rs. 3562.83

3/20 (a) Providing regular stone masonry work in returning walls, breast walls and wing walls with hammer dressed or blunt chisel dressed stones of heavy section (size not less than 25cm X 25cm X 30cm), with proper key stones each not less than 25cm X 25cm X 75cm, in cement mortar 1:6 including carriage of stone within 200m and filling in trenches and providing weep holes at 1.2 to 1.5m apart (staggered), complete as directed.

D/Well – 1 x 3.00 x 0.45 x 2.40 = 3.240m^3
2 x 1.60 x 0.45 x (2.40 + 3.00) / 2 = 3.888m^3
1 x 3.00 x 0.45 x 3.00 = 4.050m^3
11.178m^3
@ Rs.1060.00/m^3 Rs. 11848.68

4/24 Providing stone pitching with one-man size boulders not less than 25cm x 25cm x 30cm, including filling the interstices with spoils and carriage of stone within a distance of 200m complete as directed.

W/P - 1 x 2.20 x 3.50 x 0.30 = 2.31m^3
F/P - 2 x 120.00 x 1.00 x 0.30 = 72.00m^3
74.31m^3
@ Rs.512.00/m^3 Rs. 38046.72

5/41 (a) Providing shuttering with dressed planks not less than 25mm thick properly joined including battens, props to the proper level and removing of same after the concrete hardened complete as directed.

D/Wall - 1 x 2.45 x 2.10 = 5.145m^2
2 x 3.20 x 0.10 = 0.640m^2
2 x 2.70 x 0.10 = 0.540m^2
W/P - 2 x 2.20 x 0.10 = 0.440m^2
2 x 3.50 x 0.10 = 0.700m^2
F/P - 2 x120.00 x 0.20 = 48.00m^2
2 x 1.00 x 0.20 = 0.40m^2
55.865m^2
@ Rs.295.00/m^2 Rs. 16480.17

6/42 (b) Supplying, fitting, fixing including, bending cranking and placing in position as per approved design and drawings.

D/Well - 1 x 17 x 3.00 x 0.39 = 19.890 kgs
Slab - 1 x 21 x 2.50 x 0.39 = 20.475 kgs
40.365 kgs or 0.4036 Qtls.
@ Rs.5174.00/Qtls. Rs. 2088.22

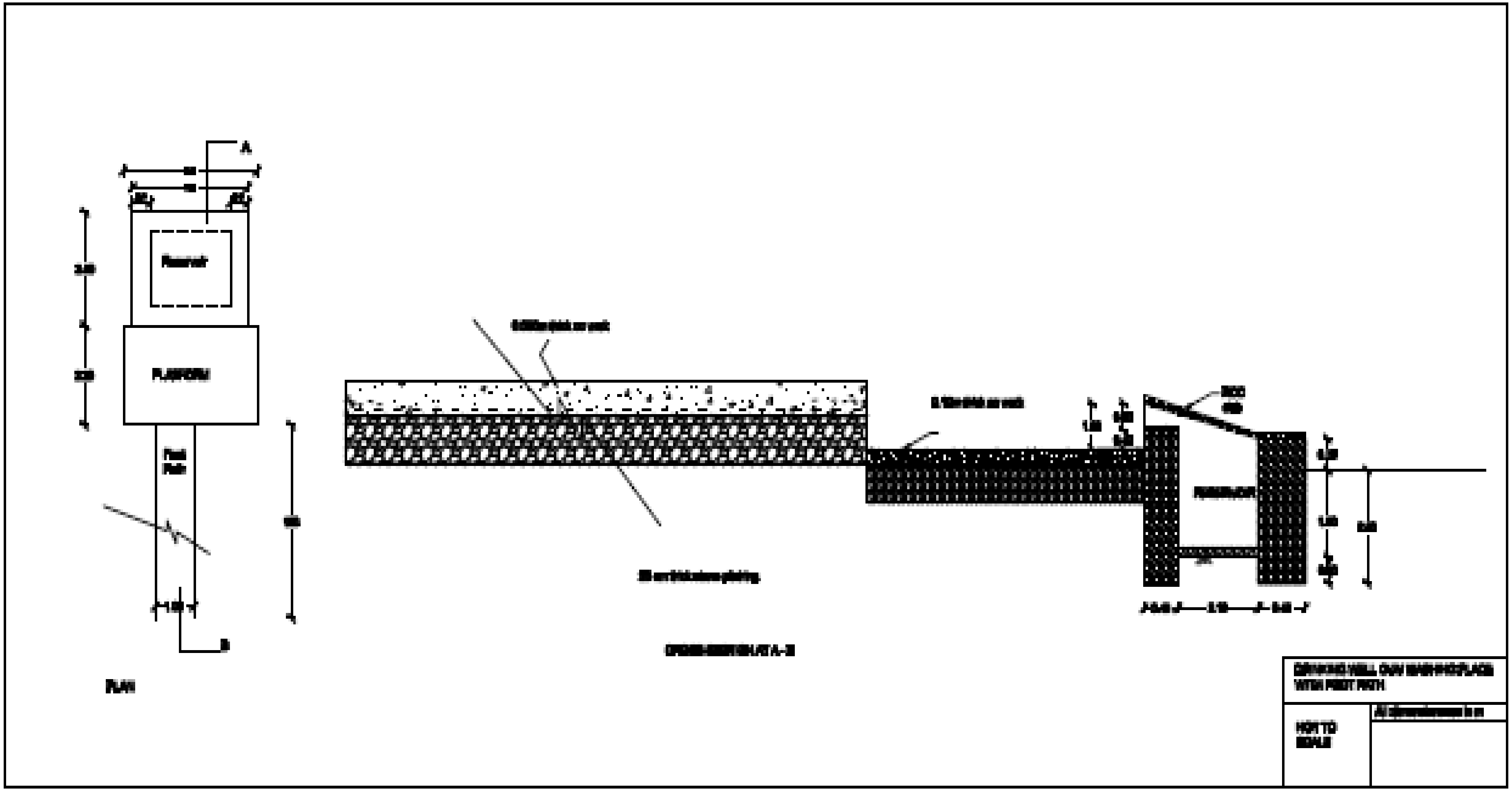
7/28 Providing cement concrete work in proportion 1:3:6 with hard broken stone aggregates 40mm down graded, including necessary carriage of stone and sand within a distance of 200m and curing, complete as directed. (excluding shuttering).

D/Well Slab - 1 x 3.20 x 2.70 x 0.10 = 0.864m^3
W/Place - 1 x 2.20 x 3.50 x 0.075 = 0.577m^3
F/P - 2 x120.00x1.00 x 0.075 = 18.00m^3
19.441m^3
@ Rs.2344.00/m^3 Rs. 45569.70

8/26 (ii) Providing 12mm thick cement plastering including cleaning surface, curing carriage of sand within 200m complete (No. Plastering is to be done in Abutments, well piers, Retaining walls and Wing walls).
Proportion 1:3.

D/Well	-	1 x 3.00 x 1.00 =	3.00m^2
Extn. Wall	-	1 x 3.00 x 0.40 =	1.20m^2
		2 x 2.50 x (1.00 + 0.40) / 2 =	3.50m^2
Int. Wall	-	1 x 2.10 x 1.20 =	2.52m^2
		1 x 2.10 x 1.80 =	3.78m^2
		2 x1.60 x (1.40 + 1.95) / 2 =	5.36m^2
Slab	-	1 x 2.45 x 2.10 =	5.14m^2
		1 x 3.20 x 2.70 =	8.64m^2
		2 x 3.20 x 0.10 =	0.64m^2
		2 x 2.70 x 0.10 =	0.54m^2
W/place	-	1 x 2.20 x 3.50 =	7.70m^2
		2 x 2.20 x 0.10 =	0.44m^2
		2 x 3.50 x 0.10 =	0.70m^2
F/P	-	4x120.00x0.20 =	96.00m^3
		4 x 1.00 x 0.20 =	0.80m^2
			139.96m^2
		@ Rs.92.00/m^2	Rs. 12876.32
		TOTAL:	Rs.138020.36
		Say	Rs.1,38,020.00

(Rupees One lakh thirty eight thousand & twenty) only.


A
B

ESTIMATE FOR CONSTRUCTION OF RURAL GODOWN

(The rate based as per M.P.W.D Schedule of rates for Building 2007 - 2008)

1/1.1 (b) Earthwork in excavation in foundation trenches, including dressing of sides and ramming of the bottom including stacking of serviceable stones, disposal and removal of excavated earth within a lead of 50m and lift of 1.50m complete.

Colm	6 x 1.20 x 1.20 x 1.00	=	8.640 m^3
	3 x 1.00 x 1.00 x 0.85	=	2.550 m^3
Plinth	2 x 4.00 x 0.30 x 0.45	=	1.080 m^3
	2 x 6.00 x 0.30 x 0.45	=	1.620 m^3
	2 x 1.50 x 0.30 x 0.35	=	0.315 m^3
	1 x 6.00 x 0.30 x 0.35	=	0.630 m^3
	1 x 4.00 x 0.30 x 0.25	=	0.300 m^3
			15.135 m^3
		@ Rs.85.00/m	Rs. 1286.47

2/2.1 (b) Providing and laying cement concrete in proportion 1:4:8 (1-cement, 4-sand, 8-stone Aggregate of 63mm and down graded) including necessary curing complete excluding shuttering.

Colm	6 x 1.20 x 1.20 x 0.10	=	0.864 m^3
	3 x 1.00 x 1.00 x 0.10	=	0.300 m^3
			1.164 m^3.
		@ Rs.2351.00/m^3	Rs. 2736.56

3/6.2 (ii) Providing tor steel reinforcement in R.C.C work excluding cutting, bending, cranking and tying in position with binding wire 20 gauge, complete upto floor two level.

Net	6 x 20 x 1.20 x 0.89	=	1.282 Qtls.
	3 x 16 x 1.00 x 0.89	=	0.427 Qtls.
Colm	6 x 4 x 4.75 x 1.58	=	1.801 Qtls.
	3 x 4 x 4.55 x 0.89	=	0.486 Qtls.
T/Beam	2 x 4 x 5.70 x 0.89	=	0.406 Qtls.

	3 x 4 x 6.20 x 0.89	=	0.662 Qtls.	
Lintel	6 x 4 x 1.45 x 0.62	=	0.216 Qtls.	
	2 x 4 x 1.30 x 0.62	=	0.064 Qtls.	
			5.344 Qtls.	
		@ Rs.5373.00/Qtl.		Rs. 28713.31

4/6.1 (ii) Providing mild steel reinforcement for R.C.C work including cutting, bending, cranking and tying in position with binding wire 20 gauge, complete upto floor two level.

Col m	6 x 29 x 0.70 x 0.22	=	0.268 Qtls.	
	3 x 28 x 0.50 x 0.22	=	0.092 Qtls.	
T/Beam	2 x 36 x 0.75 x 0.22	=	0.119 Qtls.	
	3 x 41 x 0.75 x 0.22	=	0.203 Qtls.	
Lintel	6 x 9 x 0.45 x 0.22	=	0.053 Qtls.	
	2 x 8 x 0.45 x 0.22	=	0.016 Qtls.	
			0.751 Qtls.	
		@ Rs.4704.00/Qtls		Rs. 3532.70

5/3.5 (b) Providing coursed random rubble stone masonary in foundation and plinth with unsized stone bonded with cement mortar of proportion 1:6.

2 x 3.80 x 0.30 x 0.45	=	1.026 m^3	
4 x 2.80 x 0.30 x 0.45	=	1.512 m^3	
2 x 2.80 x 0.30 x 0.35	=	0.588 m^3	
2 x 1.30 x 0.30 x 0.35	=	0.273 m^3	
1 x 4.00 x 0.30 x 0.35	=	0.420 m^3	
		3.819 m^3	
	@ Rs.1833.00/m^3		Rs. 7000.22

6/2.9 (a) Providing shuttering including centering for flat surface such as slabs, shelves, chajja and for vertical faces such as columns, walls, ends of beams etc. with dressed plank not less than 25cm thick firmly fixed etc. complete as

directed.

Colm	6 x 4 x 0.25 x 1.05	=	6.30 m^2
	6 x 4 x 0.20 x 3.10	=	14.88 m^2
	3 x 4 x 0.20 x 0.50	=	1.20 m^2
	3 x 4 x 0.15 x 2.90	=	5.22 m^2
P/Beam	2 x 2 x 0.25 x 3.80	=	3.80 m^2
	2 x 2 x 0.20 x 1.30	=	1.04 m^2
	4 x 2 x 0.25 x 2.80	=	5.60 m^2
	2 x 2 x 0.20 x 2.80	=	2.24 m^2
Lintel	6 x 2 x 0.15 x 1.40	=	2.52 m^2
	2 x 2 x 0.15 x 1.20	=	0.72 m^2
			43.52 m^2
		@ Rs.148.00/m^2	Rs. 6440.96

7/2.4 (i) (b) Providing and laying cement concrete in proportion 1:2:4 corresponding to M100 including necessary curing complete excluding shuttering.

F/Colm	6 x 1.20 x 1.20 x 0.40	=	3.456 m^3
	3 x 1.00 x 1.00 x 0.30	=	0.900 m^3
Colm	6 x 0.25 x 0.25 x 1.05	=	0.394 m^3
	6 x 0.20 x 0.20 x 3.10	=	0.744 m^3
	3 x 0.20 x 0.20 x 0.50	=	0.060 m^3
	3 x 0.15 x 0.15 x 2.80	=	0.189 m^3
	6 x 0.15 x 0.10 x 1.40	=	0.126 m^3
	2 x 0.15 x 0.10 x 1.20	=	0.036 m^3
			5.905 m^3
		@ Rs.3247.00/m^3	Rs. 19173.53

8/3.9 (ii) (b) Providing first class brick wall in required thickness in cement mortar 1:6 including curing complete as directed

Wall	2 x 4.00 x 3.10	=	24.80 m^2
	4 x 3.00 x 3.10	=	37.20 m^2
	2 x 1.50 x 1.20	=	3.60 m^2

Less for opening (-)	D	2 x 1.20 x 2.10	=	(-)5.04 m^2	
	W	4 x 1.20 x 1.50	=	(-)7.20 m^2	
		2 x 1.00 x 1.50	=	(-)3.00 m^2	
				50.36 m^2	
			@ Rs.384.00/m^2		Rs. 19338.24

9/7.2 (b) Providing undressed wood work in trusses, purlins, rafters, post plates, wall plates and the like, framed, hoisted and fixed in position with nails, spikes, nuts and bolts etc.

Beam	3 x 6.50 x 0.10 x 0.075	=	0.146 m^3
	2 x 5.90 x 0.10 x 0.075	=	0.088 m^3
King post	8 x 0.65 x 0.10 x 0.10	=	0.052 m^3
Struts	16 x 1.25 x 0.075 x 0.075	=	0.113 m^3
R/rafter	16 x 2.65 x 0.10 x 0.075	=	0.318 m^3
Purlin	13 x 6.30 x 0.10 x 0.075	=	0.614 m^3
			1.331 m^3
		@ Rs.16636.00/m	Rs. 22142.51

10/1.3 Earthwork in filling available excavated earth in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm thick including breaking clods consolidating each layer by ramming and watering etc.

1 x 3.80 x 5.80 x 0.45	=	9.918 m^3	
1 x 5.80 x 1.30 x 0.35	=	2.639 m^3	
		12.557 m^3	
	@ Rs.42.00/m^3		Rs. 527.39

11/4.5 Providing 100mm thick soling with approved quality of stones including ramming consolidating and filling the interstices with stone aggregates complete.

1 x 3.80 x 5.80	=	22.04 m^2	
1 x 5.80 x 1.30	=	7.54 m^2	
		29.58 m^2	
	@ Rs.108.00/m^2		Rs. 3194.64

12/4.7 (ii) Providing cement concrete floor 65mm thick in proportion 1:3:6 (1-cement, 3-sand, 6-stone aggregates) to the proper level and slope including ramming and curing complete as directed.

Qty. vide item No. – 11/4.5 = 29.58 m^2

@ Rs.187.00/m^2 Rs. 5946.60

13/5.9 Providing corrugated galvanized iron sheet roofing fixed with galvanized iron J or L hooks, bolts and nuts, 8mm diameter. With bitumen and GI limpet washers or with GI limpet washers filled with white lead complete excluding the cost of purlins, rafters and trusses.

2 x 6.60 x 2.65	=	34.98 m^2
1 x 6.60 x 1.75	=	11.55 m^2
		46.53 m^2

@ Rs.430.00/m^2 Rs. 20007.90

14/7.1 Providing dressed and rebated wood works in frame of doors and other similar works, framed and fitted in position with nails, spikes, nuts, bolts etc as required and directed complete.

Door	4 x 2.10 x 0.10 x 0.075	=	0.063 m^3
	2 x 1.40 x 0.10 x 0.075	=	0.021 m^3
			0.084 m^3.

@ Rs.16636.00/m^3 Rs. 1397.42

15/6.9 (b) Providing steel casement windows, ventilators and clerestory windows as per IS specification (in ground floor) including fitting and fixing in position with lugs (100mm x 16mm x 3.15mm) embedded in cement concrete blocks 15cm x 10cm x 10cm of mix 1:3:6 including providing and fixing handles, bolting device, locking arrangements etc. as required complete.

4 x 1.20 x 1.50	=	7.20 m^2
1 x 1.00 x 1.50	=	3.00 m^2

10.20 m^2

@ Rs.975.00/m^2 Rs. 9945.00

(d) Qty. vide item No. 15/6.9 = 10.20 m^2

@ Rs.308.00/m^2 Rs. 456.00

16/9.1 (b) Providing and fixing glass panes, ordinary quality, embedded in putty and fixed with nails etc. complete (for wooden doors and windows).

Window	4 x 1.20 x 1.50	=	7.20 m^2
	2 x 1.00 x 1.50	=	8.00 m^2
			10.20 m^2

@ Rs.626.00/m^2 Rs. 6385.20

17/4.1 (b) (ii) Providing 12mm thick cement plaster including cleaning the surface and curing complete as directed.

Walling -			
Vide item No. 8/3.9 = 50.36 x 2		=	100.72 m^2
Flooring	1 x 4.00 x 6.00	=	24.00 m^2
	1 x 1.50 x 6.00	=	9.00 m^2
	1 x 14.00 x 0.60	=	8.40 m^2
	1 x 5.00 x 0.45	=	2.25 m^2
	2 x 4.00 x 0.15	=	1.20 m^2
	1 x 4.00 x 0.30	=	1.20 m^2
			146.77 m^2

@ Rs.95.00/ m^2 Rs. 13943.15

18/5.4 (a) Providing 3mm thick plywood ceiling fixed with 1st class local wood/pine wood beading 50mm x 12mm on wooden frames @ 120cm c/c both ways including supplying of nails etc. plywood ceiling fixed complete.

1 x 6.00 x 4.00 = 24.00 m^2

@ Rs.198.00/m^2 Rs. 4752.00

19/10.22 Applying ready mixed priming coat of approved brand & quality as per specifications complete as directed.

Door	2 x 1.20 x 2.10 x 2.60	=	13.104 m^2	
Ceiling	1 x 6.00 x 4.00	=	24.000 m^2	
			37.104 m^2	
		@ Rs.18.00/m^2		Rs. 667.87
Window	4 x 1.20 x 1.50 x $^2/_3$	=	4.80 m^2	
	2 x 1.00 x 1.50 x $^2/_3$	=	2.00 m^2	
			6.80 m^2	
		@ Rs.17.00/m^2		Rs. 115.60

20/10.12 Painting with best quality synthetic enamel with approved make and brand including smoothening the surface by sand papering etc. & using approved putty on the surface, if necessary, complete as directed.

Door	2 x 1.20 x 2.10 x 2.60	=	13.104 m^2	
Window	4 x 1.20 x 1.50 x $^2/_3$	=	4.800 m^2	
	2 x 1.00 x 1.50 x $^2/_3$	=	2.000 m^2	
Ceiling	1 x 6.00 x 4.00	=	24.000 m^2	
			43.904 m^2	
		@ Rs.77.00/m^2		Rs. 3380.60

21/10.7 Distempering with dry distemper 2 (two) coats of required shade to give an even shade to new works including priming coat etc.

Walling vide item No = 8/3.9 = 50.36 m^2

50.36 x 2 = 100.72 m^2

@ Rs.33.00/ m^2 Rs. 3323.76

22/10.14 (b) Roof painting with red/green paint including brushing with wire brush and cleaning complete as directed.

Qty. vide item No. 13/5.9 = 46.53 x 1½ = 67.795 m^2

@ Rs.67.00/m^2 Rs. 4676.26

23/13.15 Providing drain (open surface) with bed and wall thickness of 100mm finished with cement plaster 1:3 (1)

150mm x 150mm.

1 x 26.15 = 26.15 Rm
1 x 24.40 = 24.40 Rm
50.55 Rm

@ Rs.216.00/Rm Rs. 10918.8
TOTAL : Rs.200002.69

Say Rs.2,00,000.00

(Rupees Two lakhs) only.

Submit:

ESTIMATE FOR CONSTRUCTION OF BETTLENUT PROCESSING UNIT OF SHRI/SMTI. ..... OF ..... WITH A LOCATION AT ..... OF (IWMP) SCHEME UNDER SOIL AND WATER CONSERVATION DIVISION: NONGPOH.

(Estimate has been framed as per the P W.D schedule of Rate for Building for the year 2007-08)

Item no.1/1.1 Earthwork in excavation of foundation upto desire founding level and removal of spoils upto 30 m lead and all lifts.
(c) loose boulder

	1	x	2.00	x	5.00	x	1.50 =	15.00 m3
Foundation	2	x	0.30	x	0.50	x	2.00 =	0.60 m3
	2	x	0.30	x	0.50	x	5.00 =	1.50 m3
R/wall	1	x	0.60	x	0.78	x	9.85 =	4.61 m3
							T =	17.10 m3

@ Rs. 84.00 per m3 .....=Rs. 1436.40

Item no2/3.8 Providing course stone masonry in plinth. .....Complete as directed

	2	x	0.30	x	0.60	x	2.00 =	0.72 m3
	2	x	0.30	x	0.60	x	5.00 =	1.80 m3
R/wall	1	x	0.20	x	0.78	x	9.85 =	0.77 m3
					2			
	1x1.50	x	0.40	+	0.78	x	9.85 =	8.72 m3
					2			
							T =	12.01 m3

@ Rs 1927.00 per m3..... =Rs. 23134.69

Item no3/4.5 Providing 100mm stone soling in floor or plinth above the ground complete as directed

	1	x	5.00	x	2.00 =	10.00 m2		

@ Rs 108.00 per m2 ..... 5.00 1080.00

Item no4/4.7 Providing cement concrete floor 65mm thick in proportion 1:3:6 (1 cement : 3 sand and 6 stone aggregates) to the proper level and slopes including ramming and curing complete

	1	x	5.00	x	2.00 =	10.00 m2		

@ Rs 187.00 per m2..... =Rs 1870.00

Item no 5/3.9 (a)(i) Providing 1st class brick work in required thickness. .....complete as directed

	2	x	2.00	x	0.20	x	1.50 =	1.20 m3
	2	x	5.00	x	0.20	x	1.50 =	3.00 m3
							T =	4.20 m3

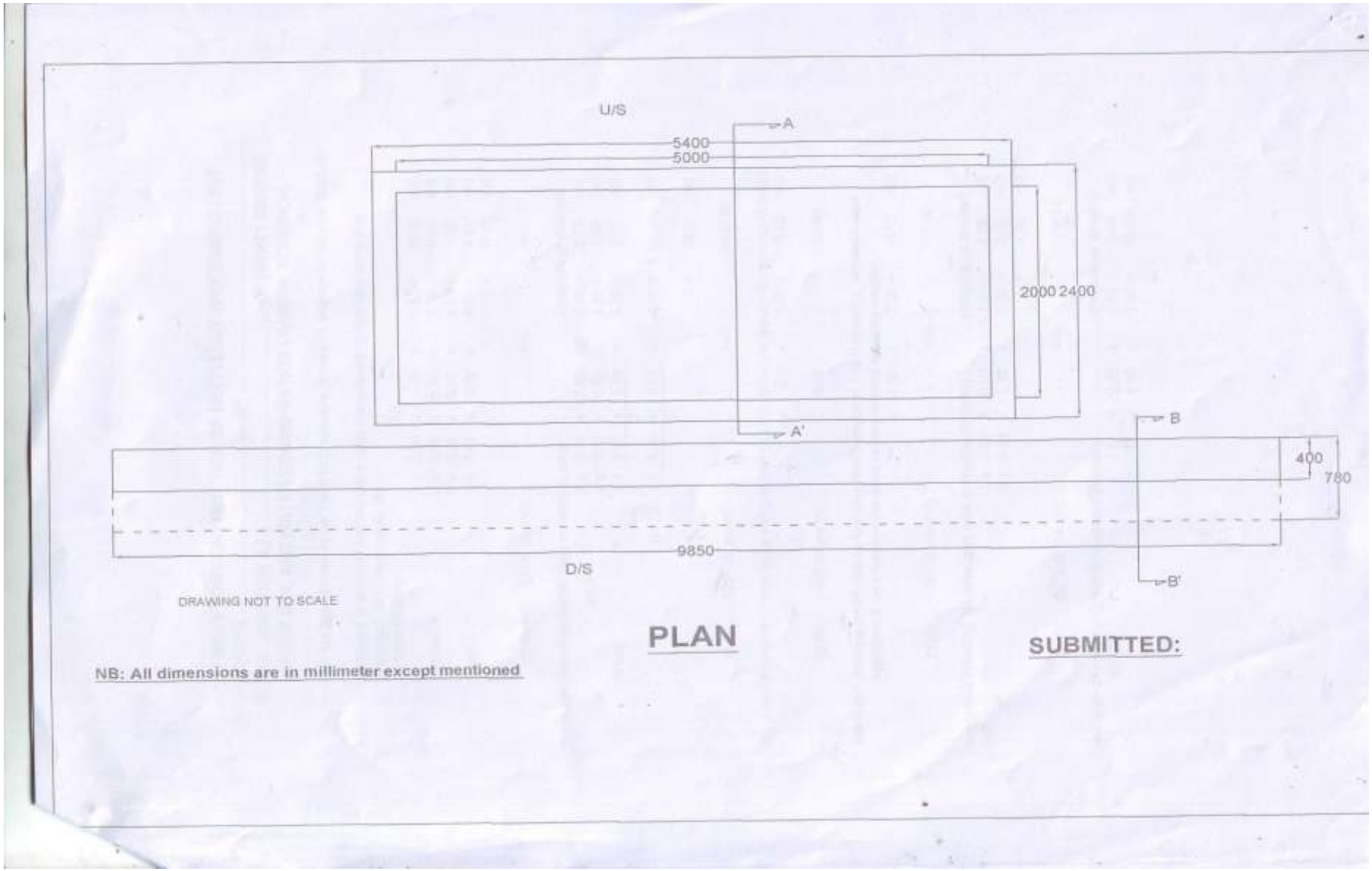
@ Rs 3072.00 per m2..... =Rs. 12902.4

Item no.6/4.1 Providing 12 mm thick cement plastering.....complete as directed.

INSIDE	2	x	2.00	x	1.50 =	6.00 m2		
	2	x	5.00	x	1.50 =	15.00 m2		

	OUT SIDE		1	x	2.25	x	1.65	=	3.71 m2
						T		=	24.71 m2
	@ Rs	107.00 per m2.....					=Rs		2644.24
item no 7/ 4.11(a)	Providing 20mm thick cement plater skirting with cement mortar 1:3 finish with floating coat of neatcement								
			1	x	2.00	x	5.00	=	10.00 m2
			2	x	2.00	x	1.70	=	6.80 m2
			2	x	5.00	x	1.70	=	17.00 m2
								=	33.80 m2
	@ Rs.	206.00 per m2.....					=Rs.		6962.80
							T		**50030.53**
							Say Rs.		**50,000.00**
							(Rupees Fifty thousand) only		

Submitted:



DRAWING NOT TO SCALE

PLAN

SUBMITTED:

NB: All dimensions are in millimeter except mentioned

ANNEXURE IV

MoA, SUB COMMITTEE DETAILS ETC.

Memorandum of Association

of

LOWER UMLATHU ..... Watershed Committee

Covering village Umtyrmga, Chibra, Nagrabil, Talsyiem .....under IWMP(ii)

Umling ....., ... C & RD Block,

Ri-Bhoi ..... District, Meghalaya

1. Name of Association : Lower Umlathu ..... Watershed Committee under ..... IWMP Umling ..... C&RD Block, Ri-Bhoi ..... District, Meghalaya

2. Registration Office of Association: Lower Umlathu ..... Watershed Committee, village Umtyrmga ..... Tiesang ..... C&RD Block, Ri-Bhoi ..... District, Meghalaya P.O. Pathaskhmat ..... PS Nongpoh .....

3. Date of establishment :

4. Objectives :

1. To involve primary stakeholders at the centre of Planning, Budgeting, Implementation and Management of Watershed Projects.
2. To promote facilitation of social mobilization, community organization at the village / watershed level, building the capacities of village / watershed communities in planning and implementation and to ensure equity arrangements.
3. To promote empowerment of the village / watershed community socially, economically, financially, etc. with a sense of ownership / rights to ownership and responsibility and accountability.
4. To build up, associated links closely with village durbar / council for coordinating and convergence of rural development programmes within the watershed projects for holistic and realistic development of watershed community.
5. To perform the duties, roles and responsibilities of the Society through the Governing Body listed in Rule 11 of the Constitution.

The Governing Body of the Society (Watershed Committee)

Sl. No.	Name	Address	Designation
1	Shri Hirenroy Suting	Umtyrnga	Chairman
2	Shri Eberem Khongjoh	Umtyrnga	
3	Shri Markus Lapasan	Umtyrnga	
4	Shri Dombosco Nongrum	Umtyrnga	
5	Shri Dim Suting	Umtyrnga	
6	Shri Rijendra Sangma	Nagrabil	
7	Shri Monu Areng	Nagrabil	
8	Smt Mon Mukhim	Umtyrnga	
9	Smt Jenesis Tongsong	Umtyrnga	
10	Smt Natisha Tongsong	Umtyrnga	
11	Shri Nowel Marak	Jalsyiam	
12	Shri Winderson Marak	Chibra	
13			
14			
15			
16			

18			
19			
20			

6. We, the undersigned are desirous of forming the association in pursuance of the Memorandum of Association (MoA)

Sl. No.	Signature	Occupation & Designation of the Signatory	Name, Address, Occupation & description witness
1			
2			
3			
4			
5	D.M Seeling		
6	R.R Sangma.		
7	Shri Mohan Singh		
8			
9	J. Tangsang		
10	N. Tangsang		
11			
12			

Date:

Photographs of PRA Exercises conducted at Umtyrnga under Lower Umlathu Watershed IWMP-VI


PARTICIPATORY RURAL APPRAISAL
CONDUCTED
UNDER INTEGRATED WASTELAND
MANAGEMENT PROGRAMME
(IWMP)
AT UMTYRNA MICRO WATERSHED
CONDUCTED BY :
WATERSHED DEVELOPMENT TEAM,
DIVISIONAL SOIL AND WATER CONSERVATION,
OFFICE,RI-BHOI DIVISION- NONGPOH