

GOVERNMENT OF MEGHALAYA



**DEPARTMENT OF SOIL & WATER CONSERVATION(T)DIVISION
DETAILED PROJECT REPORT
OF
WAJATA MICRO WATERSHED
UNDER
INTEGRATED WATERSHED MANAGEMENT PROGRAMME
WGH IWMP – VIII
2010 – 2011**



TURA SOIL & WATER CONSERVATION(T)DIVISION

WEST GARO HILLS, MEGHALAYA

SELSELA C&RD BLOCK

SUMMARY

Name of the Sate	:	Meghalaya
Name of the District	:	West Garo Hills
Name of the C&RD Block	:	Selsella
Name of the Villages	:	Wajatagiri
Name of the Project	:	WGH IWMP-VIII
Total Geographical Area	:	750.2 Ha
Total Treatment Area	:	500 Ha
Total Project Cost	:	75 lakhs
Project Duration	:	5 Years
Project Implementing Agency :		Soil & Water Conservation Territorial Division, Tura.

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CHAPTER I

INTRODUCTION AND BACKGROUND

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INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Wajata (IWMP - VIII) Project is located in Selsela C&RD Block, West Garo Hills District of Meghalaya. Consisting of a single micro-watershed, the project area is drained by the Wajata River and its tributaries flowing in a South to North direction. The total area is 750.2 Ha. with 500 ha to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 10 km from Dadeng Civil Sub-Division and about 61 km from Tura the District Headquarter. There is only 1(one) village under the Project Area. i.e. Wajatagiri.

1.2 Micro-watershed Information:

The micro-watershed code is as codified by the North East Space Application Centre (NESAC). The total area of the micro-watershed is 750.2 Ha., with 500 hectares to be treated under the Integrated Watershed Management Programme (IWMP).

1.3 Need and Scope for Watershed Development:

The micro-watershed Wajata IWMP-VIII falls under the High Priority category as per the prioritization of watersheds by the North East Space Application Centre (NESAC). The farmers are all marginal. Jhum cultivation is 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:- NRGES.

CHAPTER II

BASIC INFORMATION OF THE PROJECT AREA

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BASIC INFORMATION OF THE PROJECT AREA

2.1 Location:

The project area is located in West Garo Hills District of Meghalaya. It lies between 25°42'34.2583 N to 25°39'34.6576" North Longitude and 90°04'59.1056" to 90°02'59.3718" East Latitude respectively. It falls under the Jurisdiction of Dadeng Sub-Division at a distance of 52 km from Tura the district Headquarter of West Garo Hills . There is only one village within the Project Area. i.e. Wajatgiri

2.2 Physiography:

The physiography of the micro-watershed is highly undulating. The altitude ranges from a minimum of 40.m to a high of 144 m above mean sea level. In the lower reaches (valley lands) the slope ranges from 1-5% , however, in the middle 5-15% and upper reaches 15-25% it is greater than 50.%..

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
40 – 144	1 – 50%	2 nd Order Micro W/S	Wajata stream, Chiore stream, Anguri stream, Rongro stream, Milsa stream, Chiseri stream, Tangjan stream, Gopram stream, Parang Stream.	Flat and Gentle slope.

2.2 Drainage :

The major stream draining the micro-watershed is the Wajata Stream which is 2nd order stream flowing in a north-south direction. The slopes of the micro-watershed are dissected by numerous small tributaries flowing to the Wajata Stream and drains into Jinjiram River.

2.3 Soil :-

Soil in general is moderately deep with clay to loamy clay in surface structure. They are moderately acidic in nature. The soil depth is deep to moderately deep. Due to uniform slopes and presence of many water courses , no drainage problem exist. The watershed area does not have a major erosion problem but of moderate erosion.

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	West Garo Hills	West Garo Hills – IWMP VIII	Water erosion:				
				a	Sheet			
				b	Rill	500	NA	NA
				c	Gully			
				Sub total		500		
				Wind erosion		nil	nil	Nil

2.4 Climate :-

The Watershed lies under Central Hyper-thermic Agro-climatic plateau. The average annual rainfall is about 3600mm. Monsoon normally starts in the middle of May and last till middle of October. About 80% of the total annual rainfall is received from June to September. May and June are the hottest month recording average maximum temperature of 32°C. December and January accounts for lowest of 10°C to 12°C.

Table 2.4: 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	Name s 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	Central Hyperthermic Agro-climatic	500	West Garo Hills.	W.G. H. IWM P VIII	Clayey	238.1	3600	Paddy	80
									Maize	14
									Millet	25
									Jinger	30
						Arecanut	125			
						Banana	15			
						Total	750.2			

2.5 Agriculture :-

Agriculture is the primary occupation of the people of the area. The people mostly practice jhum. The jhum plots vary from 0.5 to 1.0 Ha, and are cultivated for 3-4 years. The principal agricultural crops grown of the jhum fields are paddy, potato, sweet potato, millet, maize, yam and vegetables etc. Fruit crops are well suited in the lower reaches which include, Elaeagnus latifolia, orange, pineapple, jackfruit, litchi. The slopes of the Rimjong are also very suitable for betel nut, betel leaf, black pepper, broomstick, cashewnut 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.)
Paddy	80	15	1200
Maize	14	20	280
Millet	25	8	200
Ginger	30	35	1050
Arecanut	125	8	1000
Tapioca	8	30	240

2.1 Natural Vegetation :

The tree species common to the watershed area includes – *Albizia spp*, *Schima wallichii*, *Embllica officianalis*, *Bombax cieba*, and *bamboo spp*. However, due to Jhum cultivation and stone quarry, the forest cover of the area has reduced considerably.

2.2 Socio-Economic Profile :

Economically, the area is perhaps the most backward in the district. The main reason is due to the absence of road communication, primitive way of agricultural practices like jhumming and the difficult terrain of the area .The entire population depends upon agriculture and horticulture, daily labour in the stone quarry for sustenance.

Demographic Status : The total households in the watershed project is nos. with a total population of 165 nos, of which 86 nos. are male and 79 nos are female. The detail of the household in each of the villages in the watershed project is as follows:

1.

Table 2.5: Infrastructure Status.

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 kutchra road connected either to the main PWD Road.

2.1.2 **School:** There are only 2 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.

2.1.1 **Health** : : One Community Health Centre at the projet area.

2.1.2 **Water Supply** : There is no drinking water facilities by the P.H.E. Department. However, during lean season the entire population have to depend on springs available in the area as the supply is not sufficient to meet the daily requirement.

2.1.3 **Market** : There is a weekly market held once in a week a Kalchengpara .However, the main market where the people sell their produce is at Selsella.

Table 2.5: Infrastructure Status.

1	2	3		4			
Name of District	Name of Project	Parameters:		Status			
West Garo Hills	West Garo Hills – IWMP VIII	(i)	No. of villages connected to the main road by an all-weather road.	All villages are at 1 hr to 3 hrs walking from the motorable junction			
		(ii)	No. of village provided with electricity	1			
		(iii)	No. of households without access to drinking water	40 nos.			
		(iv)	No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI)	(P)	(S)	(HS)	(VI)
				2Nos.	-	-	-
		(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	Nil			
		(xiv)	Any other facilities with no. of villages (please specify)	Nil			

2.3 Livestock :

There are only 3 kinds of livestock farming being farmed in the area viz. Piggery, Poultry, cattle and goatry.

Table 2.6: Existing livestock population

Type of Animal	Population
Piggery	57
Poultry	314
Cattle	57
Goatry	52
Total	480

2.4 Land ownership:

The proposed project is under the “A’king land tenure system.”prevailing in Garo Hills District of Meghalaya in which a land is held a particular class {Mahari) under the custody of the Head of the Clan or a Village Chief called “Nokma” recognized as such by the Garo Hills District Councils.

Table 2.7: Land Holding:

Name of District	Name of the Project	Types of Farmer	No. of household	No. of BPL households	Land holding (ha)		
					Irrigated	Rainfed	Total
WG H	WGH IWMP VIII	(i) Large	-	-	-	-	
		(ii) Small	29	-	-	20	20
		(iii) Marginal	40	-	-	40	40
		(iv) Landless	-	-	-	-	-
		Sub - Total	69	-	-	60	60

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)
West Garo Hills	West Garo Hills IWP VIII	(i) Wasteland/ degraded land	-	-	-	49.85	-	-	-	328
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Private Agriculture land	60	-	-	328.47	62	-	-	-
		(iv) Village woodlot	-	-	-	-	-	-	-	-
		(v) Forest	-	-	-	112.26	20	-	-	-
		(vi) Village Ponds/ Tanks	-	-	-	-	-	-	-	-
		(vii) Community Buildings	-	-	-	-	-	-	-	-
		(viii) Weekly Markets	-	-	-	-	-	-	-	-
		(ix) Permanent Markets	-	-	-	-	-	-	-	-
		(x) Temples/ Places of worship	-	-	-	-	-	-	-	-
		(xi) Others (Pl. specify) Horticulture Land	67	-	-	94.33	-	-	-	90
		Total	127	-	-	535.06	82	-	-	418

2.4 Land use and land cover :

As per the land use land cover map in the Watershed area has been broadly classified into the following land uses.

- a) Built-up Area = 38.29 Ha
- b) Agricultural land-crop land-kharif crop = 187.97 Ha
- c) Horticulture Plantation = 161.33 Ha
- d) Wasteland open-scrub = 49.85 Ha.
- e) Forest – open = 112.26 Ha
- f) Agri-two Cropped Area = 200.50 Ha

Total = 750.2Ha

2.5 Problems of the Area :

The primary problems of the area is jhumming. Majority of the population depends on Jhum Cultivation for their livelihood. Vast tracks of abandoned Jhum areas are converted to Stone Quarry areas which has further degraded the capability of the land. 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 is conducted in all the villages within the Watershed.

Further the major problems in the project area are :-

- (i) Unsustainable exploitation of forest vegetation.
- (ii) Absence of soil and water conservation measures.
- (iii) Lack of technical knowledge on crop management and water management.
- (iv) Poor socio economic set up.
- (v) Fire hazards

CHAPTER III

PROJECT PLANNING & INSTITUTION BUILDING

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	YES
	Whether technical back-stopping for the project has been arranged? If yes, mention the name of the Institute.	Yes NESAC,Nongsdiar
	Baseline survey	YES
	Hydro-geological survey	NO
	Contour mapping	NO
	Participatory Net Planning (PNP)	NO

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	NO
	4. Bio-fertilizer	YES
	5. Water saving devices	YES
	6. Mechanized tools/ implements	NO
	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 Territorial Division, Tura West Garo 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.

	2	3	
Names of Districts	Names of projects	Details of PIA	
West Garo Hills	W.G.H. IWMP-VIII	(i) Type of organization#	Government
		(ii) Name of organization	Soil & Water Conservation (T) Division,
		(iii) Designation & Address	Divisional Officer, Tura Soil & Water Cons.(T) Division, W.G.H, Tura Meghalaya.
		(iv) Telephone	03651-222354
		(v) Fax	03651-222354
		(vi) E-mail	turadivsoil@gmail.com

3.3 Institution Building

i) Watershed Committee (WC)

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

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- | | | | |
|----|--|----|--|
| 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). |

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.

[illegible]

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
W.G.H	W.G.H. IWMP VIII					(i) Landless									
						(ii) SF									
						(iii) MF									
						(iv) LF									
Total					NIL				NIL			NIL			NIL

CHAPTER IV

PROJECT ACTIVITIES

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	W.G.H	W.G.H IWMP VIII	3.00 Lakh	Construction of Spring Chamber/ Ringwell	3.00 Lakh	3.00 Lakh	-	N.A	Increase in water efficiency.

i) 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)
W.G.H	W.G.H IWMP VIII	a) Rapport Building b) Community meeting c) Formation of Watershed committee	a) Project concept/roles and responsibility of W.C b) Concept/roles and responsibility of SHG and UG c) Concept/roles and responsibility of WDT members d) Off-campus exposure trip to research Institutes/Established farms etc.	a) Pamphlets b) Banners c) Posters	a) Participatory Rural Appraisals b) Socio Economic Survey	a) GPS survey b) Engineering Survey	a) NIRD b) SIRD c) ICAR d) NEHU	a) NOC with village headman for under-taking developmental works b) Agreement for convergence of NREGS scheme with IWMP with VEC.	a) Resource inventory works. b) Geo-refering. c) Printing & publishing work.	Done	-	1.5

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											
S l. N o	Nam e of State s	Name of Distri cts	Name of Projects	Type of structures	Pre Project			Proposed Project											
					N o	Are a irrig ated (ha)	Stor age capa city	Augmentation/ repair of existing structures				Construction of new structures				Total target			
								No	Area to be treate d (ha)	Storag e capacit y	Estima ted cost (in lakhs)	No	Area to be treate d (ha)	Storage capacit y (per unit)	Estimat ed cost (in lakhs)	No	Area to be treate d (ha)	Storag e capaci ty (m ³)	Estima ted cost
1	Meg hala ya	W.G. H	W.G.H IWMP VIII	Check Dam Cum irrigation dam	-	-	-	-	-	-	-	4 Nos	75 Ha	1012	10.0	4 Nos	90 Ha	1012	10.0
				Water harvesting farm pond	-	-	-	-	-	-	-	4 Nos	152 Ha	2250	10.00	4 Nos	152 Ha	2250	10.00
				Earthen Irri channel	-	-	-	-	-	-	-	673 rmt	40 Ha	-	0.337	673 rmt	40 Ha	-	0.337
				Earthen embankment	-	-	-	-	-	-	-	160. 5 rmt	25 Ha	-	1.12	160. 5 rmt	25 Ha	-	1.12
			Total		-	-	-	-	-	-	-	-	292ha	3262m ³	21.457	-	292ha	3262m ³	21.457

[illegible]

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)			
W.G.H	W.G.H IWMP-VIII	1.	C.C Check Dam cum irrigation Dam	4 Nos	75 Ha	2	10.00	.5
		2	Stone Masonry Protection wall	4 Nos	60 Ha	2	2.00	.10
		3	Water Harvesting Farm Pond	4 Nos	152Ha	1	10.00	.5
		4	Earthen Irrigation Channel	673 rmt	40 Ha	1	0.3365	.1682
		5	Dug out Pond	13Nos	25 Ha	2	6.5	.325
		6	Earthen embankment	160.5	25Ha	1	1.1235	.05617
		TOTAL					29.96	1.64937

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	

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
West Garo Hills	W.G.H IWMP-VIII	Piggery	3	.70
		Poultry	3	.70
		Fishery cum piggery	3	.45
		Supply of fingerlings	3	.40
		Group rubber budded poly bag	6	.80
	Total	-	18	3.05

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		
		N	I	L							

4.2.7 Other activities of watershed works phase:

1	2	3		4		5		6		7		9		10		11		12		13
District	Names of projects	Ridge area treatment		Drainage line treatment		Nursery raising		Land development		Horticulture Development		Veterinary services		Fishery development		Non-conventional energy		Any other (please specify)		Total cost incurred (Rs. In lakhs)
		(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b)	(a)	(b)	
WG H	W.G.H IWMP-VIII	20	0.72	367	26.46	-	5.5	12	2.4	90	7.92	Pigger y	1.5	Suppl y of finger lings	0.30	-	-	Kitch en garde n	4.0	
												Poultr y	1.2					Rice Mill	0.5	
																		Dug out pond	3.5	
																		Fishe ry cum pigge ry	0.75	
	Total	-	0.72		26.46		5.5		2.4		7.92		2.7	-	0.3	-	-		8.75	54.75

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) Private	(ii) Community	(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 completion	Actual month & year of completion (mm/yyyy)
											M	W	O	T			M	W	O	T		
W.G.H	W.G.H IWMP VIII																					
		Dug out Pond	-	D	-	P		-	UG/WC	13	-	6.5	-	6.5	3 yrs.							
		Check Dam cum irrigation Dam	-	D	-	-	C	-	UG/WC	4	6	4	-	10.0	3 yrs.							
		Wet Terrace	-		L	P		-	UG/WC	12ha	-	2.4	-	2.4	3 yrs.							
		Stone masonry Protection Wall	-	D	-	-	C	-	UG/WC	4	1.2	.8	-	2.00	3 yrs.							
		Earthen irrigation Channel	-	D	-	-	C	-	UG/WC	673	-	.337		.337	3 yrs.							
		Water Harvesting farm pond.	-	D	-	-	C	-	UG/WC	4	6.0	4	-	10.00	3 yrs.							
		Earthen embankment	-	D	-	-	-	-	UG/WC	160.5 rmt	-	1.1235		1.1235	3 yrs.							
		Total										13.2	19.1605	-	32.3605							

4.2.9 Details of engineering structures in watershed works.

[illegible]

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

1	2	3	4			5			6	7				8			
Distr ict	Projec t	Name of structure/ work	Type of treatment			Type of land			Executing agency	Target				Achievement			
			(i) Ridge area (R)	(ii) Draina ge line (D)	(iii) Land dev. (L)	(i) Priv ate	(ii) Com munit y	(iii) Other s (pl. specif y)	(i) UG (ii)SHG (iii) Others (pl. specify)	Area (ha)	No. of plants	Estimate d cost (Rs. in lakh)	Expected month & year of completion (mm/ yyyy)	Area (ha)	No. of plants	Expendi- ture incurred (Rs. in lakh)	Actual month & year of completion (mm/ yyyy)
WG H	WGH IWMP - VIII	Improvement of degraded forest.	R	-			C		UG/SHG	12		2.4	3 yrs				
		Rubber Plantation	-	-	C		C		UG/SHG	50		4.4	3 yrs				
		Arecanut plantation	-	-	C	P			UG/SHG	40		3.52	3 yrs				
TOTAL												10.32					

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.

[illegible][illegible]

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)
West Garo Hills	W.G.H IWMP-VIII	Kitchen garden	P		-	Individual	4.00	3 Yrs.		
		Fishery cum-piggery		C	-	SHG	6.50	3 Yrs.		
		Piggery		C	-	SHG	1.5	3 Yrs.		
		Poultry		C	-	SHG	1.2	3 Yrs.		
		Supply Of Fingerlings	P	C	-	Individual/SHG	.30	3 Yrs.		
		Group Rubber Poly Bag nursery		C	-	UG/SHG	5.5	3 Yrs.		
Total						19				

(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 column 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:

[illegible]

4.3 Consolidation and withdrawal phase

Details of activities in the CPRs in the project areas:

[illegible]

CHAPTER V
PROJECT PHASING & BUDGETING

CHAPTER V

PROJECT PHASING & BUDGETING

ACTION PLAN OF WAJATA WATERSHED UNDER IWMP TERRITORIAL DIVISION: TURA

Name of District :- West Garo Hills

No. of Village: 1 no

Project Area : 500

Name of C&RD Block:- Selsella

Ha

[illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14
C	Institution & Capacity Building : - 5%	1%		2%		1%		1%					
i	Awareness Campaign & Capacity building of farmer	1	0.20	1	0.20	1	0.20					3	0.60
ii	Exposure visits - Off Campus	1	0.35	1	0.30	1	0.35					3	1.00
iii	Capacity building of SHG's/UG's.	1	0.20	3	0.60	1	0.20	1	0.20			6	1.35
iv	Capacity building of WC Members.			1	0.20			1	0.35			2	0.40
v	Capacity building of WDT/WV			1	0.20			1	0.20			2	0.40
	Total of C:		0.75		1.50		0.75		0.75				3.75
D	Detailed Project Report: 1%		1%										
i	Cost of Resources Inventories works		0.25										0.25
ii	Cost of PRA Exercises		0.10										0.10
iii	Cost of Land use Survey works		0.25										0.25
iv	Cost of formulating		0.15										0.15
	Total of D:		0.75										0.75
E	Monitoring & Evaluatio: 2%												
i	Cost of Monitoring			0.2%	0.15	0.5%	0.375	0.3%	0.225			1%	0.75
ii	Cost of Evaluation			0.3%	0.225	0.5%	0.375	0.2%	0.15			1%	0.75
	Total of E:				0.375		0.75		0.375				1.50
	TOTAL OF I (A - E)		4.50		3.375		5.25		3.375				16.50
II	PROJECT COST WATERSHED WORKS PHASE: 50%			7.5%		35%		7.5%					
A	Arable Land Treatment:												
i	Wet terrace@20000/ 12 ha			6	1.2	6	1.2					12	2.4
ii	Rubber plantation pre-works @5900/ha-50 ha					50	2.95					50	2.95
	1st yr. planting @Rs.2900/ha							50	1.45			50	1.45
iii	Arecanut plantation pre-works @Rs.5900/ha-40 ha					40	2.36					40	2.36
	1st yr. planting@2900/ha							40	1.16			40	1.16
	TOTAL OF - A				1.2		6.51		2.61				10.32
B	Non-Arable Land treatment:												
i	Improvement of degraded forest @3600/ha-20 ha												
	Preliminary Works@700/-Ha			20	0.14							20	0.14
ii	1 st Year Planting @ 1900/- Ha				.38								.38
iii	2 nd Year Planting @ 1000/-Ha				.20								.20
	Total of B:				0.72								0.72
1	2	3	4	5	6	7	8	9	10	11	12	13	14

C	Drainage Line Treatment:												
i	C.C.Check-Cum-Irrigation dam @2,50,000/ each - 75 Ha					4	10.00					4	10.00
ii	Stone masonry protection wal l @50,000/each - 60ha			3	1.5	1	.50					4	2.00
iii	Dug-out pond @50,000/-each -15 ha			4	2.00	1	0.50	1	.5			6	3
iv	Water harvesting farm pond @2,50,000/- each -152ha					3	7.50	1	2.50			4	10
v	Earthen irrigation channel @Rs. 50 /- Rm. -40 ha			410	0.205	233	.1165	30	0.015			673	0.3365
vi	Earthen embankment @Rs. 700 /- Rm. 25 ha					160.5	1.1235					160.5	1.1235
	TOTAL OF C				3.705		19.74		3.015				26.46
	TOTAL OF A+B+C			7.5%	5.625	35%	26.25	7.5%	5.625			50%	37.50
D	Livelihood Activities for landless person: 10%												
i	Kitchen garden @2,500/unit			30	0.75	50	1.25	80	2.00			160	4.00
ii	Dug-out pond @50,000/-each -10 ha					2	1.00	5	2.5			7	3.50
	Total of D:			1%	0.75	3%	2.25	6%	4.50			10%	7.50
E	Production system and Micro Enterprises (SHG's) - 13%												
i	Piggery unit @Rs.30,000 /- per unit			1	0.30	1	0.30	3	0.9			5	1.5
ii	Poultry unit @Rs.30,000 /- per unit							4	1.2			4	1.2
iii	Fishery cum piggery unit @ Rs.25000/- unit			1	0.25			2	0.5			3	0.75
iv	Supply of fingerlings @10000/- per unit			2	0.2			1	0.1			3	0.30
v	Group Rubber budded poly bag nursery @25000/- per 1000 plant					13,800	3.45	8200	2.05			22000	5.5
	Total of E:			1%	0.75	5%	3.75	7%	5.25			13%	9.75

1	2	3	4	5	6	7	8	9	10	11	12	13	14
F	Consolidation & Exit Phase:												
i	Repairing maintainance of CPR's										1.75		1.75
ii	Improveing the sustainability of various intervention										1.00		1.00
iii	Documentation of successful experience and preparation of complation report										1.00		1.00
	Total of F:										3.75		3.75
	Total of II (A+B+C+D+E+F)				7.125		32.25		15.375		3.75		58.50
	Grand Total (I+II)	6%	4.50	14%	10.50	50%	37.50	25%	18.75	5%	3.75	100%	75.00

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

1	2	3	4	5	6		7	8	9	10				11				
S L N o	Name of State	Name of Distri cts	Names of Project s	Year of sanc tion	Project duration (dd/mm/ yyyy)		Area of the project s	Projec t 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												
										Cultiv ated rainfe d area	Cultiv ated irrigat ed area	Uncultivated wasteland		Agri. Land	Forest land	Comm unity land	Others (pl. specify) Horticul ture	Total area (ha)
												a) Tempor ary fallow	b) Per manent					
1	Meghalaya	West Garo Hills	W.G.H IWMP- VIII		2010	2015	500	75	Wajata		480	20	-	72	20	308	100	500

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 confidentially)	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 confidentially)	Account type (Savings/ current others)	Name & Designation of authorized persons who operate the account.
1	Meghalaya	W.G.H	W.G.H IWMP-VIII	Tura Axis Bank	911020014491886	Current	Chairman W.C Secretary W.C Project Leader/W DT	Wajata	AXIS Bank Hawakhana, Tura.	911020014491886	Current	Chairman W.C Secretary W.C Project Leader/WD T

Public-Private Partnership 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

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 . N o	Sta te	Name of the Train ing Insti tute	Full Address with contact no., website & e- mail	Name & Designati on of the Head of Institute	Type of Institute #	Area(s) of specialization ^{\$}	Accre- ditatio n details	Performance				
								Refe r- ence Yea r	No. of traini ngs assign ed	No. of train ees to be train ed	No. of trainin gs condu cted	No. of trainee s trained
1	Meghalaya	NIR D (NER)	Guwaha ti	Director	Central Govt.	Remote Sensing, Rural Devt.	NA					
2		SIRD	Nongsd er	Director	State Govt.	Capacity Building	NA					
3		RRT C	Umran	Director	Don- Bosco	Agri-Horti, Animal Husbandry, Entrepreneurshi p	NA					
4		ICAR	Umiam	Director	Central Govt.	Do	NA					
5		VTC	Kyrdem Kulai	Director	State Govt.	Animal Husbandry	NA					
6		Fruit Gard en	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 31/03/2010 (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)
PIAs	10	NIL	10	NIL	3.75	NIL	.75	NIL
WDTs	4	NIL	4	NIL				
Ugs	40	NIL	40	NIL				
SHGs	50	NIL	50	NIL				
WCs	10	NIL	10	NIL				
GPs	NIL	NIL	NIL	NIL				
Community	218	NIL	109	NIL				
Others Pl. specify)								
TOTAL	232	0	223	0	3.75	0	.75	0

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

	1	2	3	4	5
	Activity	Executing agency	Estimated expenditure (Rs.)	Expenditure incurred (Rs.)	Outcome (may quantity, wherever possible)
1.	Awareness	S&WC (T) Division	0.40		a) Better understanding of Project Concept. b) Preview of Project achievement.
3.	Exposure Visits	S&WC (T) Division	0.95		
4.	Capacity Building	S&WC (T) Division	0.20		
			1.55		

CHAPTER VII
EXPECTED OUTCOME

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.	Wajatagiri	-	11466	-	7644	19110	-	70	-	30	100	-	-	-	-	-

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 from 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		Total (Rs. in lakh)
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)	
7644	7.84	70	1.5	20	3.00	12.54

* 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	
Meghalaya	W.G.H IWMP-VIII	Wajatagiri	Reserved forest	FW/MFP/T	Unpurified					NIL
			Spring Chamber	Wd	Unpurified					NIL
			Check dam	Wi	Unpurified					NIL
			Nallah Bund	Wi	Unpurified					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
West Garo Hills	W.G.H IWMP-VIII	Open Well					
		Bore Well	NA	NA	NA	NA	NA
		Other (specific) Spring	NA	NA	NA	NA	NA

* 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	
West Garo Hills	WGH IWMP-VIII	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
W.G.H	WGH IWMP-VIII	Paddy	NA	NA	NA	
		Maize	NA	NA	NA	

* 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 Karif 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.
W.G.H	WGH IWMP-VIII	Paddy	-	142.97	-	12	-	1715.64	-	62.1	-	15	-	931.5	167.07	38	16	15	2673.12	570
		Maize	-	40	-	26	-	1040	-	33	-	24	-	792		33		24	-	792
		Vegetable	-	5	-	30	-	150	-	5	-	30	-	150	6	4	36	30	216	150
		Total	-	187.97	-	68	-	2905.64	-	100.1	-	69	-	1873.5	173.07	75	52	69	2889.12	1512

* 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:

1	2	3	4	5	6						7						8					
Sl N o.	Names of States	Names of the Districts	Name of Projec ts	Name of crops	Pre-project						Mid-term						Post-project					
					Area (ha)		Average Yield (Qtl) per ha.		Total Producti on (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.
	Meghalaya	West Garo Hills	WGH IWMP VIII	Paddy	-	-	-	-	-	-	-	136. 6	-	15	-	204 9	197	-	15	-	2955	-
				Vegetable	-	-	-	-	-	-	-	6	-	36	-	216	6	-	36	-	216	-
				Total	-		-				-	142. 6	-	51	-	226 5	203	-	51	-	3171	-

* 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.
	Meghalaya	West Garo Hills	WGH IWMP VIII		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* 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		
District	Name of project	Duration of Project	Existing area under fodder (ha)			Achievement (ha)		
			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
W.G.H	W.G.H IWMP-VIII	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		
District	Name of project	Duration of Project	Existing area tree cover (ha)			Achievement (ha)		
			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
W.G.H	W.G.H IWMP-VIII	5 yrs	-	-	112.26	20 ha	-	132.26

* 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		
District	Name of project	Duration of Project	Existing area under horticulture (ha)			Achievement (ha)		
			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
W.G.H	W.G.H IWMP-VIII	5 yrs	NA	NA	161.33	55	NILL	216.33

* 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		
District	Name of project	Duration of Project	Existing area under fodder (ha)			Achievement (ha)		
			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
W.G.H	W.G.H IWMP-VIII	5 yrs	-	-	-	-	-	-

* 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 Rs.):

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	
West Garo Hills	W.G.H IWMP-VIII											
		Piggery										
		Poultry										
	Total for all projects											
Total												

* 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 to be trained					No. of beneficiaries taking up activity				
				Project Fund	Beneficiary	Others (pl. specify)	Total		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
West Garo Hills	WGH IWM P VIII	Tailoring	.80	.80			.80											
		Kitchen Gardenin g	4.00	4.00	-	-	4.00	-	-	30	-	20	50	-	30	-	20	50
		Dug Out Pond	3.50	3.00			3.00											

(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	
100	150	15000-20000	NJL	NIL	NIL	NIL	NIL

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
West Garo Hills	WGH IWMP VIII	Wet Terrace	2.4	2.4			2.4	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Dugout Pond	3.00	3.00			3.00	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Arecanut Plantation	4.35	3.52			3.52	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Rubber plantation	5.25	4.4			4.4	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Kitchen Gardening	4.00	4.00			4.00									

* 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	
NIL	NIL		NIL	NIL	NIL	NIL	NIL
NIL	NIL		NIL	NIL	NIL	NIL	NIL
NIL	NIL		NIL	NIL	NIL	NIL	NIL

**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.)
West Garo Hills	WGH IWMP VIII	(A) Backward linkages	NIL	NIL	NIL
		(i) Seed certification	NIL	NIL	NIL
		(ii) Seed supply system	NIL	NIL	NIL
		(iii) Fertilizer supply system	NIL	NIL	NIL
		(iv) Pesticide supply system	NIL	NIL	NIL
		(v) Credit institutions	1	2	3
		(vi) Water supply	NIL	3	3
		(vii) Extension services	NIL	NIL	NIL
		(viii) Nurseries	NIL	NIL	NIL
		(ix) Tools/machinery suppliers	NIL	NIL	NIL
		(x) Price Support system	NIL	NIL	NIL
		(xi) Labour	NIL	NIL	NIL
		(xii) Any other (please specify)	NIL	NIL	NIL
		(A) Forward linkages			
		(i) Harvesting/threshing machinery	NIL	NIL	NIL
		(ii) Storage (including cold storage)	NIL	NIL	NIL
		(iii) Road network	1	1	1
		(iv) Transport facilities	NIL	NIL	NIL
		(v) Markets / Mandis	NIL	NIL	NIL
		(vi) Agro and other Industries	NIL	NIL	NIL
		(vii) Milk and other collection centres	NIL	NIL	NIL
		(viii) Labour	NIL	5	5
		(ix) Any other (please specify)	NIL	NIL	NIL

* 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 Sl. No.	2 State	3 Item	4 Unit	5 Pre-project Status	6 Post-project Status	7 Remarks
	Meghalaya	Status of water table		Lack of management	Improved	
		Ground water structures repaired/ rejuvenated	Nil	nil	nil	
		Quality of drinking water	nos	unsafe	Better quality	
		Availability of drinking water	-	10 months in a year	12 months availability	
		Increase in irrigation potential	nos		94% irrigated	
		Change in cropping/ land use pattern	-	Single cropping	Double Cropping	
		Area under agricultural crop				
		I Area under single crop	Ha	187.97	190.56	
		Ii Area under double crop	Ha		260.90	
		Iii Area under multiple crop	Ha	nil	nil	
		Net increase in crop production area		187.97	207.70	10.5% increase in cropping area
		Increase in area under vegetation		36.50	86.50	137% increase in vegetation cover
		Increase in area under horticulture		161.33	199.45	
		Increase in area under fuel & fodder		36.50	86.50	137% increase in vegetation cover
		Increase in milk production		NA	NA	NA
		No. of SHGs		nil	5	
		Increase in no. of livelihoods	Activities	1.) Agriculture 2) Horticulture	1. Agriculture. 2. Horticulture. 3. vegetable Cultivation. 4. Piggery. 5. Poultry.	
		Increase in income	Rs.	20000-30000	50000-60000	
		Migration	Nos	nil	nil	
		No. of school going children				
		SHG Federations formed	Nos.	nil	1	
		Credit linkage with banks	Nos.	nil	1	
		Resource use agreements	Nos.	None	a.) NOC for development work. b.) Agreements	
		WDF collection & management				
		Summary of lessons learnt				

Table 7.10 Cost effectiveness of structures/ activities*

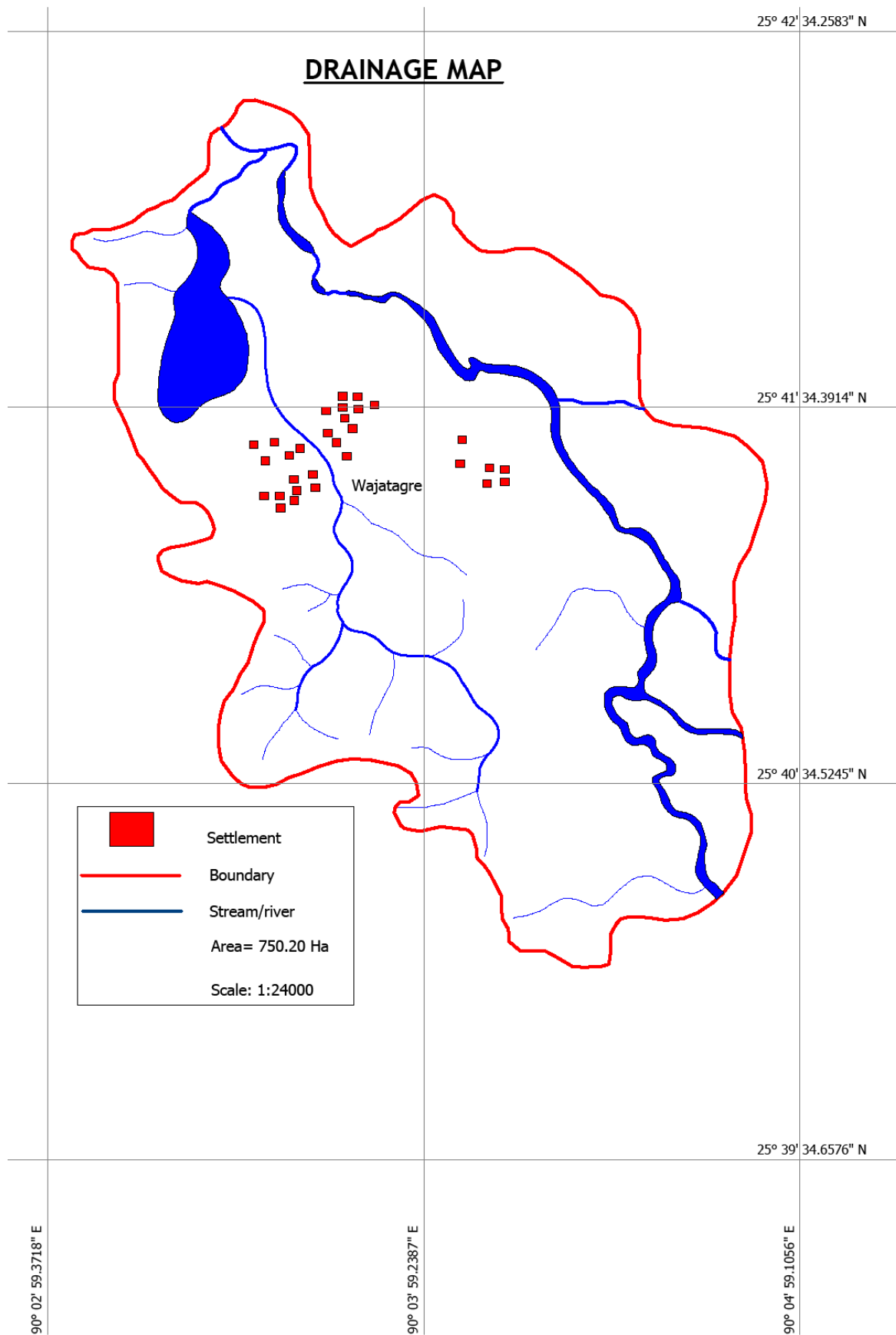
1	2	3	4	5	6	7	8	9	10
District	Name of project	Name of WC	Name of structure/ activity	Estimated cost (Rs.)	Expected quantifiable benefits (Rs.)	Expenditure incurred (Rs.)	Actual quantifiable benefit (Rs.)	Benefit: Cost ratio [#]	IRR
West Garo Hills	WGH IWMP VIII	Wajata	As per work plan	54.75	86.2	-	-	1:1.57	-

* 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.

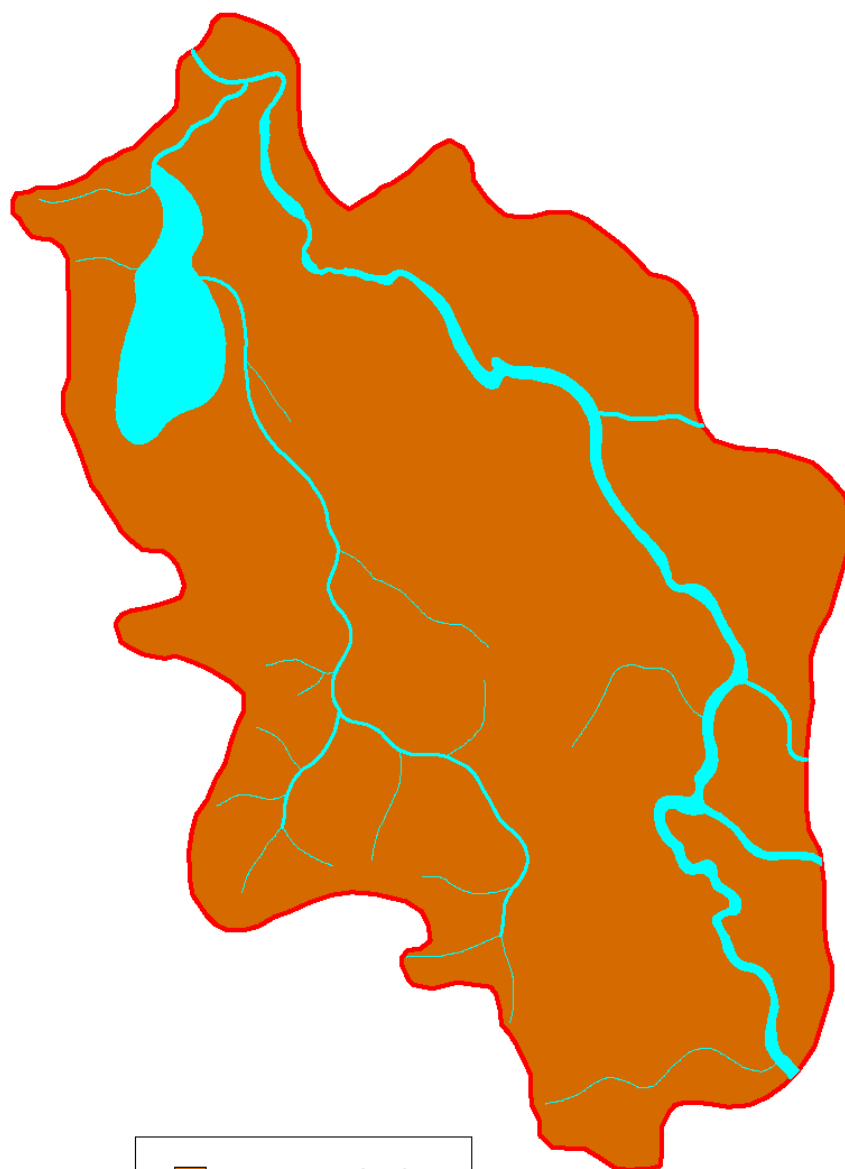
[#] B:C ratio more than 1 – cost effective
less than 1 – Not cost effective

ANNEXURE-I


MAPS



AGROCLIMATIC ZONE MAP

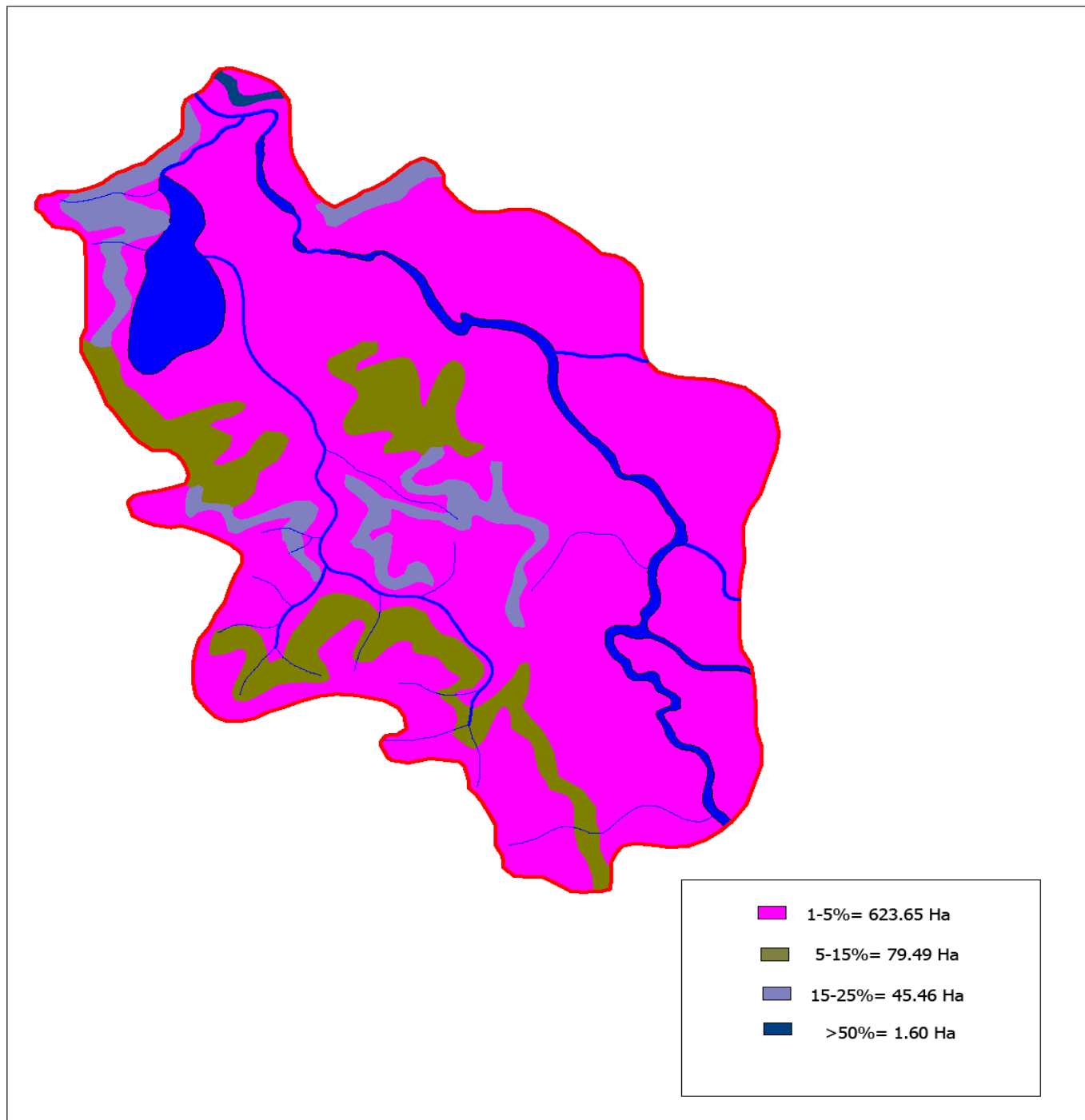


 Hot, moisture (H,M)

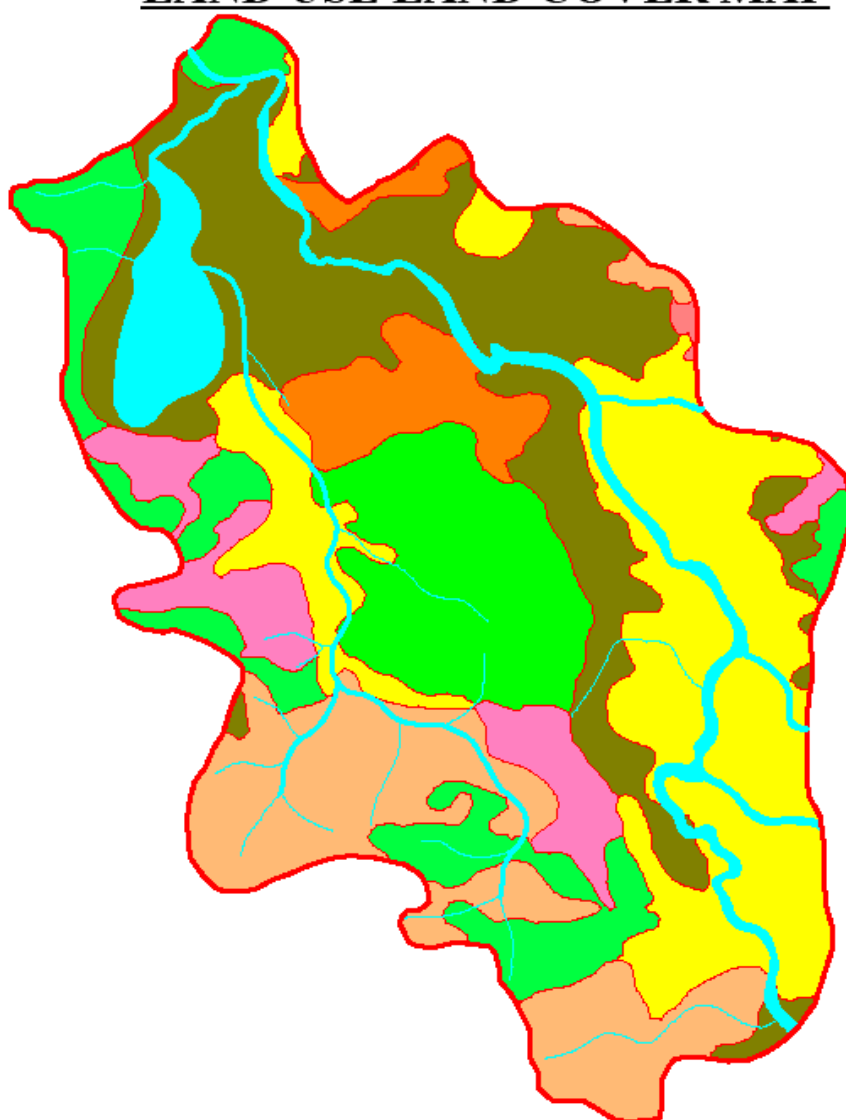
 Drainage

 Boundary

SLOPE MAP

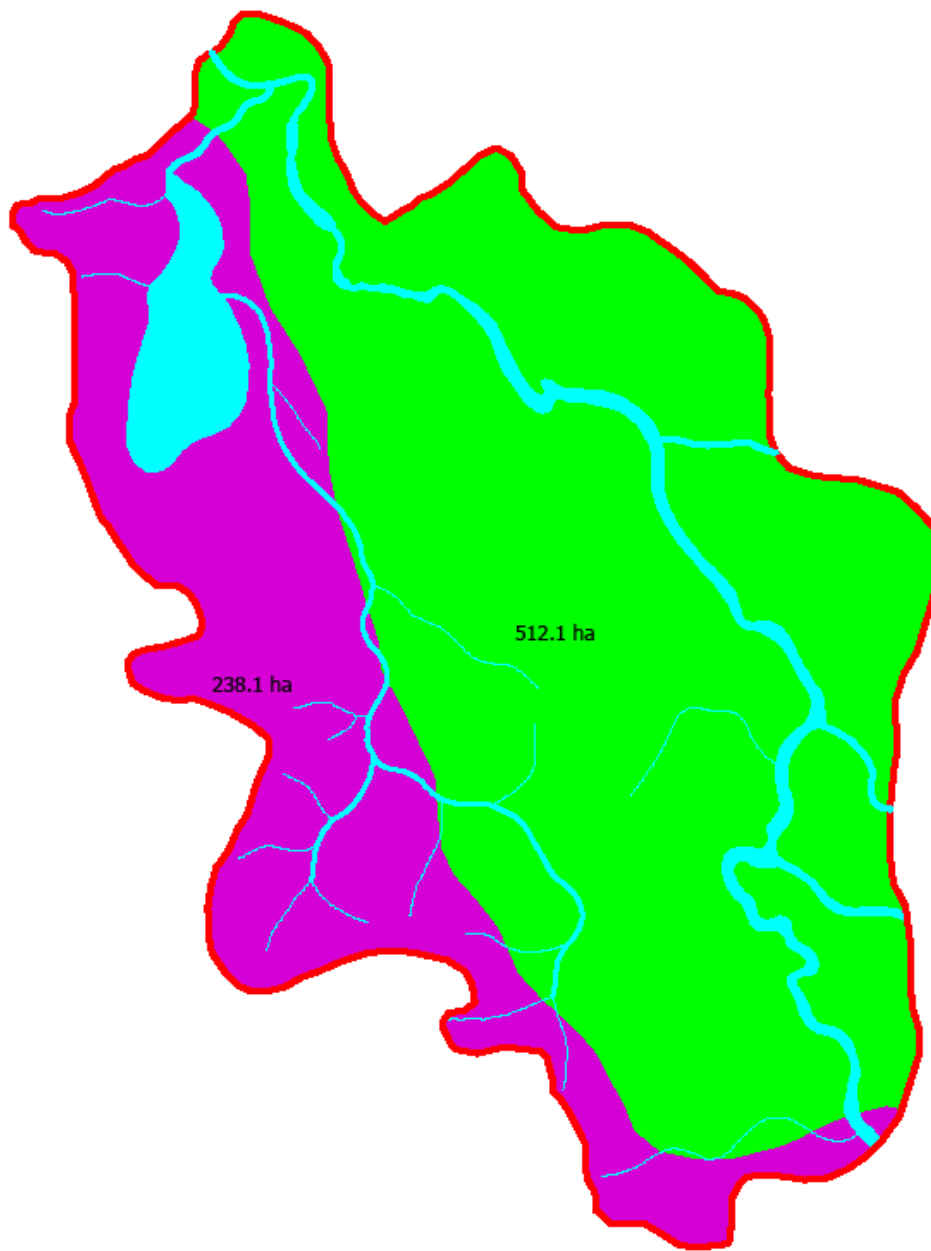




LAND USE LAND COVER MAP



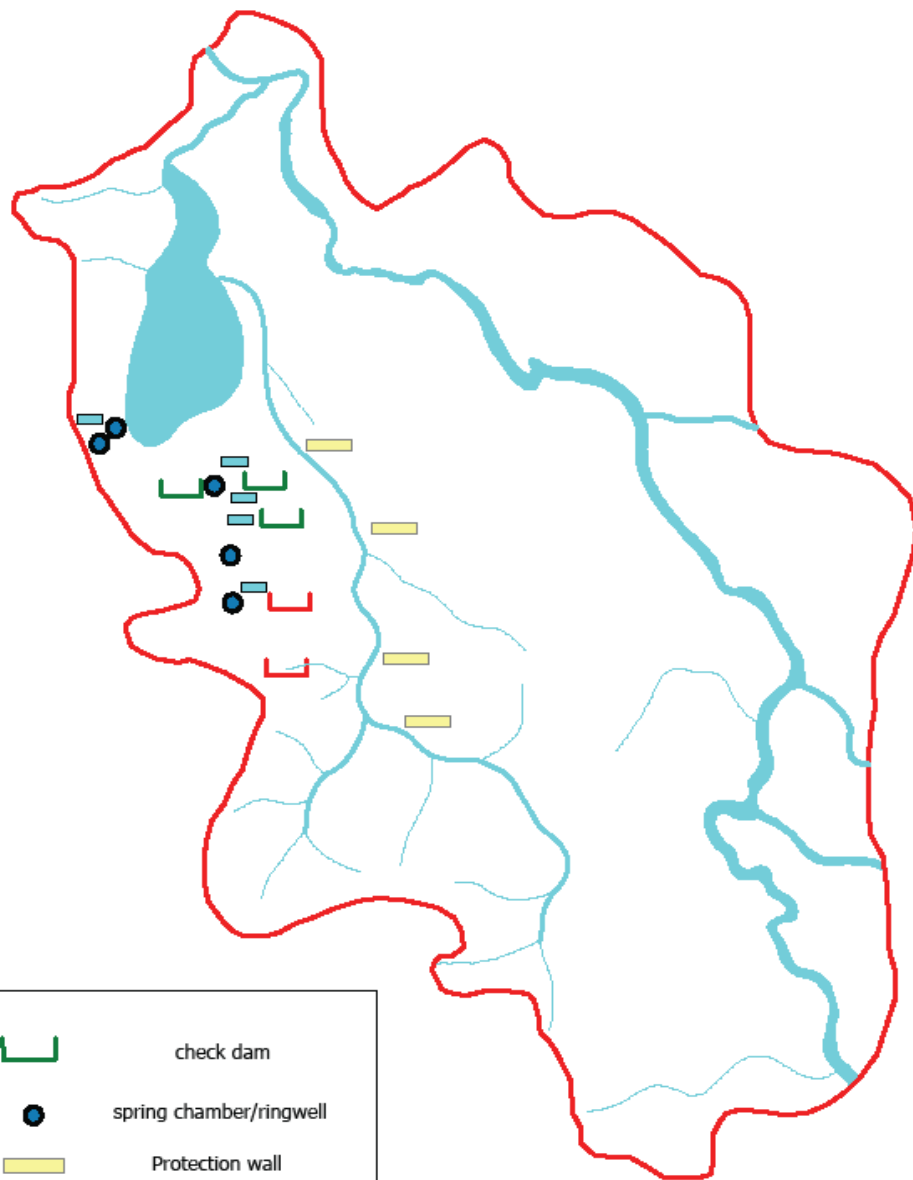
<div></div>	Agri-kharif=187.97 ha
<div></div>	horticulture plantation=161.33 ha
<div></div>	wasteland-open scrub=49.85 ha
<div></div>	forest-open=112.26 ha
<div></div>	buildup area=38.29 ha
<div></div>	agri-two cropped area=200.50 ha






SOIL MAP



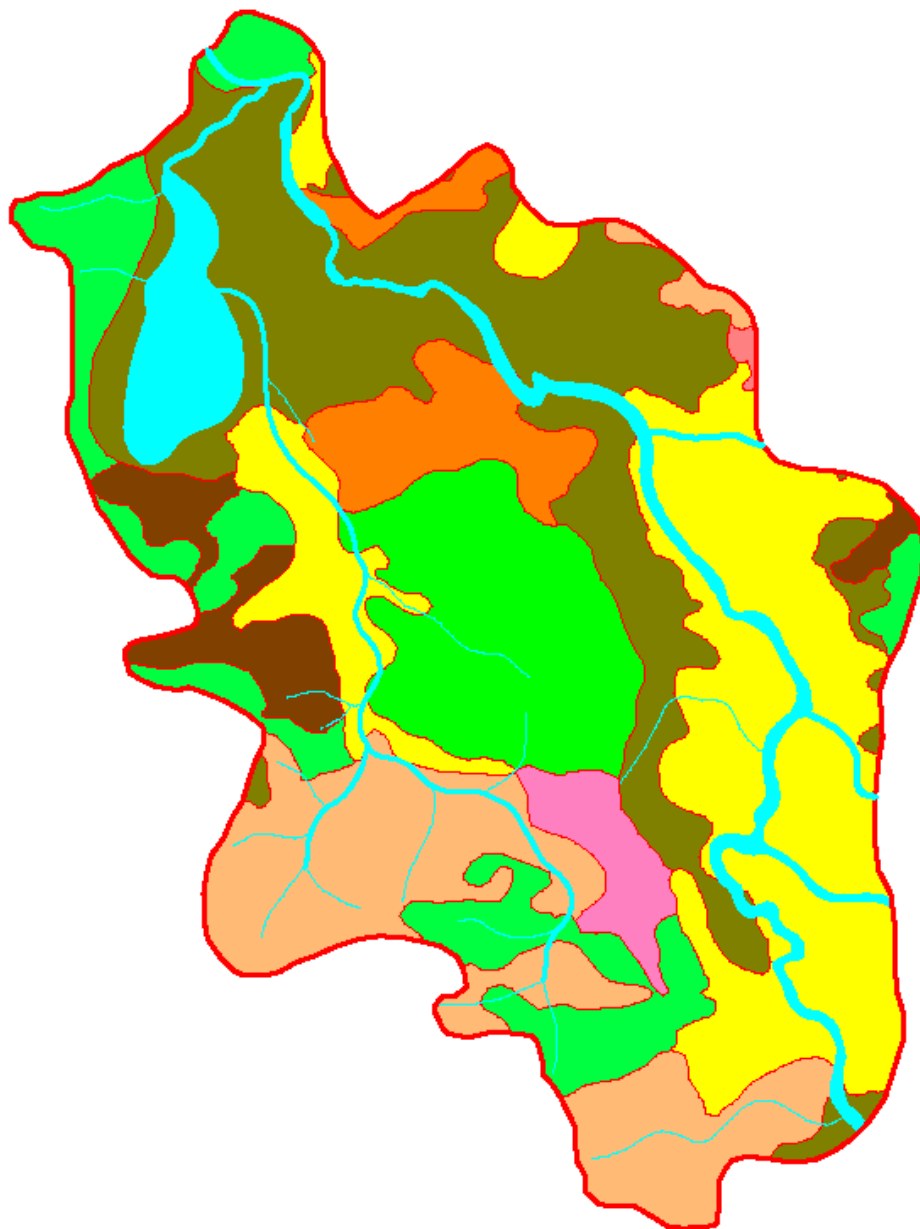
-  Deep, excessively drained fine loamy soils
-  Deep, poorly drained clay fine soil


PROPOSED LAND USE MAP





	check dam
	spring chamber/ringwell
	Protection wall
	Irrigation dam
	dugout pond


PROPOSED LAND USE MAP





 Open forest


 buildup area

 agri-two cropped area

 Arecanut plantation

 Terrace

 Existing horti plantation

 Rubber plantation

ANNEXURE II

Socio-Economic-Survey

ANNEXTURE-III

Cost Estimates

MODEL NORMS PER HACTARE FOR TERRACING (IWMP)

A. Technical Parameters .

i) Average terrace width recommended (m)	15.00
ii) Vertical Interval (VI) = $W \times S/100 - S$	2.5
iii) Terrace Length (m) = $A/W + VI$	767.00
iv) Earthwork = $12.50 \times W \times S \text{ m}^3$	1200.00
v) Shoulder Bund Length	779.00
vi) Shoulder Bund Length x-section (m^2)	0.08
vii) Earthwork for shoulder Bund (m^3)	62.32
viii) Area available for cultivation (Ha.)	0.87

B. Cost estimate .

Amount.

i) Jungle clearance including uprooting of stumps (L/s)	2000.00
ii) Cost of terracing @ Rs. 10/- m^3	15000.00
iii) Cost of shoulder Bund @ Rs. 7/- m^3	850.00
iv) Dressing, shaping and grading of terrace	950.00
v) Water Disposal structure (L/s)	1200.00
G. Total	20000.00

(Rupees twenty thousand) only .

MODEL NORMS PER HA. FOR IMPROVEMENT OF DEGRADED FOREST (IWMP).

(Rate as per PWD SOR for R & B for 2008-09)

A. Preliminary works.

i) site clearance 3 mandays @ Rs. 100/- each	Rs. 300.00
ii) Pit digging (0.30 x 0.30 x 0.30) m 100 nos. @ Rs. 4/- each	<u>Rs. 400.00</u>
sub - total	Rs. 700.00

B. I st year Planting .

i) Cost of planting material 100 nos. @ Rs. 8/- each	Rs. 800.00
ii) Cost of planting 100 nos. @ Rs. 2/- each	Rs. 200.00
iii) Round weeding 4 times - 5 mandays @ Rs. 100/- each	Rs. 500.00
iv) Plant protection measures 4 mandays @ Rs. 100/- each	<u>Rs. 400.00</u>
sub-total	Rs. 1900.00

C. II year Planting .

i) Refilling 10%	Rs. 100.00
ii) Round weeding - 4 times- 5 mandays @ Rs. 100/- each	Rs. 500.00
iii) Plant protection measures - 4 mandays @ Rs. 100/- each	<u>Rs. 400.00</u>
Sub-total	Rs. 1000.00
Grand Total	Rs. 3600.00

(Rupees three thousand six hundred) only.

MODEL NORMS PER HACTARE FOR RUBBER CULTIVATION .

Spacing - (4.75 x 4.75) m

Plant density - 450 nos.

A. Preliminary works

:-

i) Cost of seedling L/s.....	Rs. 800.00	
ii) Box terracing including pit digging (0.45 x 0.45 x 0.45) m ..L/s...		
	<u>Rs. 1350.00</u>	<u>500.00</u>
sub-total	Rs. 9000.00	1300.00

B. I st Year Planting .

i) Cost of Fertilisers (NPK 45:30:45) including transportation	Rs. 2000.00	
ii) Cost of 2 times application (June-July and September - October)		
14 mandays @ Rs. 100/- each	Rs. 1400.00	
iii) 1st year weeding	<u>Rs. 1200.00</u>	
Sub-total	Rs. 4600.00	

C. II nd year maintenance .

i) 2nd year weeding	<u>Rs. 2700.00</u>	
Sub-total	Rs. 2700.00	

Grand Total Rs. 8600.00

**(Rupeeseight thousand six hundred)
only.**

MODEL NORMS PER HACTARE FOR ARECANUT PLANTATION .

Spacing - (4.75 x 4.75) m

Plant density - 450 nos.

A. Preliminary works

i) Cost of seedling L/s.....	Rs. 800.00	
ii) Box terracing including pit digging (0.45 x 0.45 x 0.45) m ..L/s...		
Rs. 1350.00	500.00
sub-total	Rs. 9000.00	1300.00

B. I st Year Planting .

i) Cost of Fertilisers (NPK 45:30:45) including transportation	Rs. 2000.00	
ii) Cost of 2 times application (June-July and September - October)		
14 mandays @ Rs. 100/- each	Rs. 1400.00	
iii) 1st year weeding	Rs. 1200.00	
Sub-total	Rs. 4600.00	

C. II nd year maintenance .

i) 2nd year weeding	Rs. 2700.00	
Sub-total	Rs. 2700.00	

Grand Total Rs. 8600.00

**(Rupeeseight thousand six hundred)
only.**

Estimate for the construction of Ring Well.
(Based as per P.W.D. S.O.R. for roads, bridges and E&D works 2009-2010)

¹/134 Excavation for structures.
 (1) Ordinary Soil.
 A.(ii) 3m. to 6 m. depth.

	1	x	$\pi/4$	x	(1.20)	x	5.25	=	5.93	m ³		
	1	x	$\pi/4$	x	(4.20)	x	0.30	=	4.15	m ³		
Less:	1	x	$\pi/4$	x	(1.20)	x	0.30	=	(-)0.34	m ³		
								=	9.74	m ³		
(i) Upto 3m.depth.												
	@	Rs.		61	/-	m ³			Rs.		594.14	
	1	x	8.00	x	0.50	x	0.45	=	1.80	m ³		
	@	Rs.		47	/-	m ³			Rs.		84.60	

²/69 Providing and paying reinforced c.c.pipe for ring well including fixing collar with cement mortar 1:2 etc.
 (A) 1200mm dia.
 Length = 6.25 metres.

@	Rs.	5621	/-	m		Rs.	35131.25
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³/103 Providing and laying of dry rubble flooring complete.

1	x	π	x	4.20	x	1.50	x	0.25	=	4.95	m ³
1	x	8.00	x	0.20	x	0.10			=	0.16	m ³
										5.11	m ³

@	Rs.	1065	/-	m ³		Rs.	5442.15
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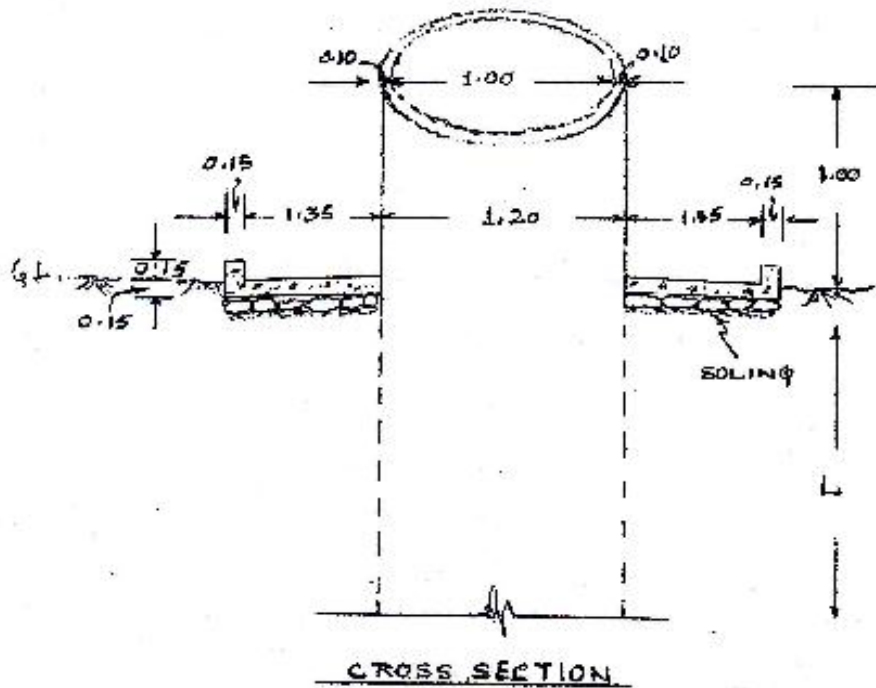
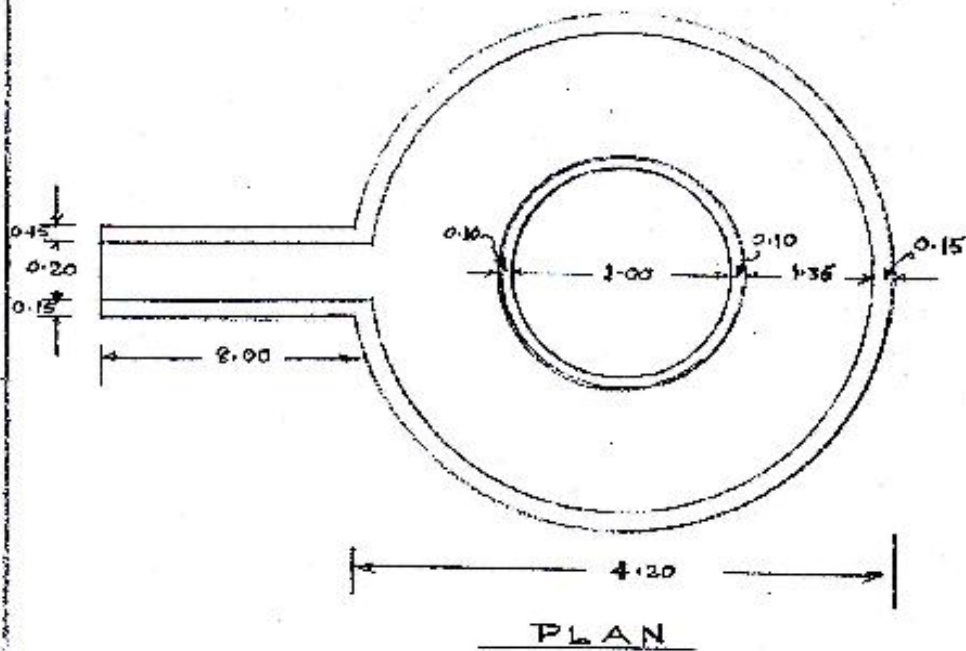
⁴/141 Plain/Reinforced c.c. in open foundation complete.
 (A) PCC G - M
 -15

$$\begin{array}{rclclclcl}
 1 & \times & \pi & \times & 4.20 & \times & 1.50 \times 0.15 & = & 2.97 & \text{m}^3 \\
 1 & \times & \pi & \times & 4.20 & \times & 0.15 \times 0.15 & = & 0.30 & \text{m}^3 \\
 2 & \times & 8.00 & \times & 0.15 & \times & 0.45 & = & 1.08 & \text{m}^3 \\
 1 & \times & 8.00 & \times & 0.20 & \times & 0.15 & = & 0.24 & \text{m}^3 \\
 & & & & & & & & \hline
 & & & & & & & & 4.59 & \text{m}^3
 \end{array}$$

	@	Rs.	4090	/-	m ³	Rs.	18773.10
GRAND TOTAL :						Rs.	60025.24
Say Rs. 60,000/-							
(Rupees Sixty Thousand) only.							

DRAWING OF RING HELL

NOT TO SCALE



ESTIMATE FOR THE CONSTRUCTION OF C.C CHECK DAM.

(Based as per P.W.D., Schedule of rates for roads, bridges and E & D works for the year 2009-2010).

1/134. Excavation for structures.

(I) Ordinary soil.

A. Manual means.

(i) Upto 3.00m depth.

M/dam :	1 x 10.00 x 1.20 x 1.25	=	15.00m ³
G/wall :	2 x 4.60 x 0.50 x 0.80	=	3.68m ³
W/wall :	2 x 4.00 x 0.50 x 0.80	=	3.20m ³
T/wall :	1 x 6.60 x 0.60 x 1.00	=	3.96m ³
Apron :	1 x 4.60 x 6.00 x 0.45	=	12.42m ³

		=	38.26m ³

@ Rs. 47/- m³ Rs. 1798.22

2/137. Providing c.c. work in 1:3:6 foundation etc.

M/dam :	1 x 10.00 x 1.20 x 0.23	=	2.76m ³
---------	-------------------------	---	--------------------

@ Rs. 3571/- m³ Rs. 9855.96

3/141(a). Plain/ reinforcement c.c. in open foundation etc.

M/dam :	1 x 10.00 x 0.90 x 1.00	=	9.00m ³
	1 x 10.00 x $\frac{0.45 + 0.90}{2}$ x 1.80	=	12.15m ³
	2 x 2.00 x 0.45 x 0.75	=	1.35m ³
G/wall :	2 x 4.60 x 0.30 x 0.80	=	2.21m ³
	2 x 5.45 x 0.30 x 2.55	=	8.33m ³
Less :	2 x ½ x 3.20 x 0.30 x 1.35	= (-)	1.30m ³
W/wall :	2 x 4.00 x 0.30 x 3.35	=	8.04m ³
T/wall :	1 x 6.60 x 0.40 x 1.00	=	2.64m ³
Apron :	1 x 6.15 x 6.00 x 0.15	=	5.54m ³

		=	47.96m ³

@ Rs. 4090/- m³ Rs. 196156.40

4/140(b). Stone masonry work in cement mortar 1:3 etc. complete.

$$\begin{array}{lcl} \text{Apron :} & 1 \times 4.60 \times 6.00 \times 0.30 & = 8.28\text{m}^3 \\ & 1 \times \frac{1}{2} \times 1.80 \times 6.00 \times 1.80 & = 9.72\text{m}^3 \end{array}$$

$$\begin{array}{lcl} \text{Less :} & 1 \times \frac{1}{2} \times 0.45 \times 6.00 \times 1.80 & = (-) 2.43\text{m}^3 \\ & & \hline & & = 15.57\text{m}^3 \end{array}$$

$$\begin{array}{lcl} @ \text{ Rs. } 2714/- \text{ m}^3 & \text{.....} & \text{Rs. } 42256.98 \end{array}$$

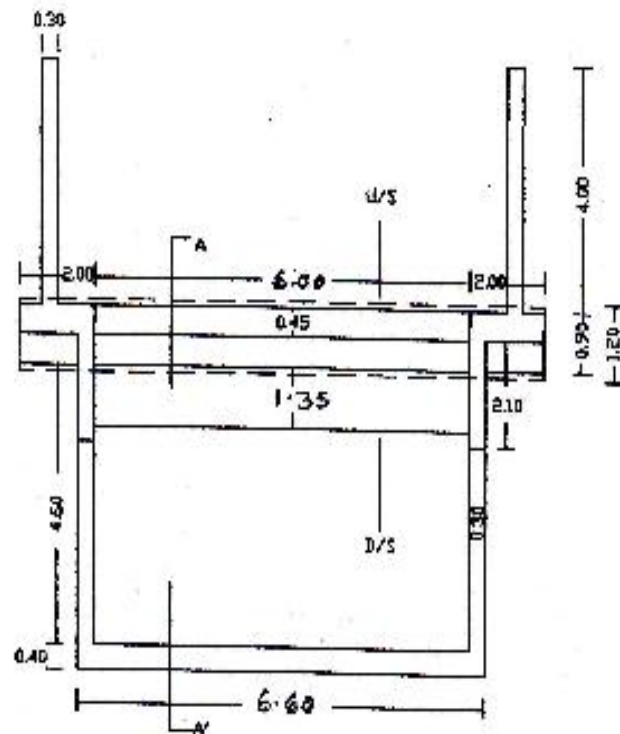
GRAND TOTAL = Rs. 250067.56

Say, Rs. 2,50,000.00

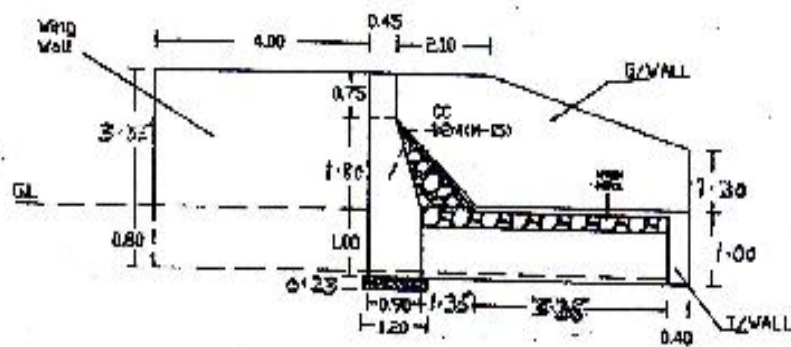
(Rupees Two lakh fifty thousand) only.

C. C. CHECK DAM

Not to Scale



PLAN



C/S At A-A'

ESTIMATE FOR THE CONSTRUCTION OF C.C. CORE WALL WITH EARTH FILLED DAM (EARTHEN EMBANKMENT) FOR WATER HARVESTING STRUCTURES.

(Rates as per P.W.D S.O.R for Roads, Bridges and E & D Works 2009-2010).

1/134.

Excavation for structures.

(I) Ordinary soil.

(A) Manual Means.

(i) Upto 3m depth.

Core wall : 1 x 18.00 x 1.20 x 1.25 = 27.00m³

L/Channel : 1 x 8.00 x 1.40 x 1.10 = 12.32m³

= 39.32m³

@ Rs. 47/- m³ Rs. 1848.04

2/137.

P.C.C 1:3:6 in foundation.....etc.

Core wall : 1 x 18.00 x 1.20 x 0.11 = 2.38m³

@ Rs. 3571/- m³ Rs. 8498.98

3/141.

Plain/reinforced c.c in open foundation complete.

(A) P.C.C M-15.

Core wall : 1 x 18.00 x $\frac{0.40 + 1.00}{2}$ x 3.50 = 44.10m³

L/channel : 2 x 8.00 x 0.20 x 1.15 = 3.68m³

 1 x 8.00 x 1.00 x 0.10 = 0.80m³

= 48.58m³

@ Rs. 4090/- m³ Rs. 198692.20

4/28. Construction of embankment.

Dam :

$1 \times 18.00 \times \frac{2.50 + 8.50}{2} \times 3.00$

= 297.00m³

Less :

$1 \times 18.00 \times \frac{0.40 + 0.80}{2} \times 2.50$

= (-) 27.00m³

= 270.00m³

@ Rs. 71/- m³

.....

Rs. 19170.00

5/100(I). Providing and laying stone/ boulders pitching on slope ...etc.
(I) Stone /boulders.

Dam U/S :

$1 \times 18.00 \times 4.24 \times 0.20$

= 15.26m³

L/Channel :

$1 \times 8.00 \times 1.00 \times 0.20$

= 1.60m³

= 16.86m³

@ Rs. 1086/- m³

.....

Rs. 18309.96

6/37. Turfing with sods.

Dam D/S :

$1 \times 18.00 \times 4.24$

= 76.32m²

@ Rs. 46/- m²

.....

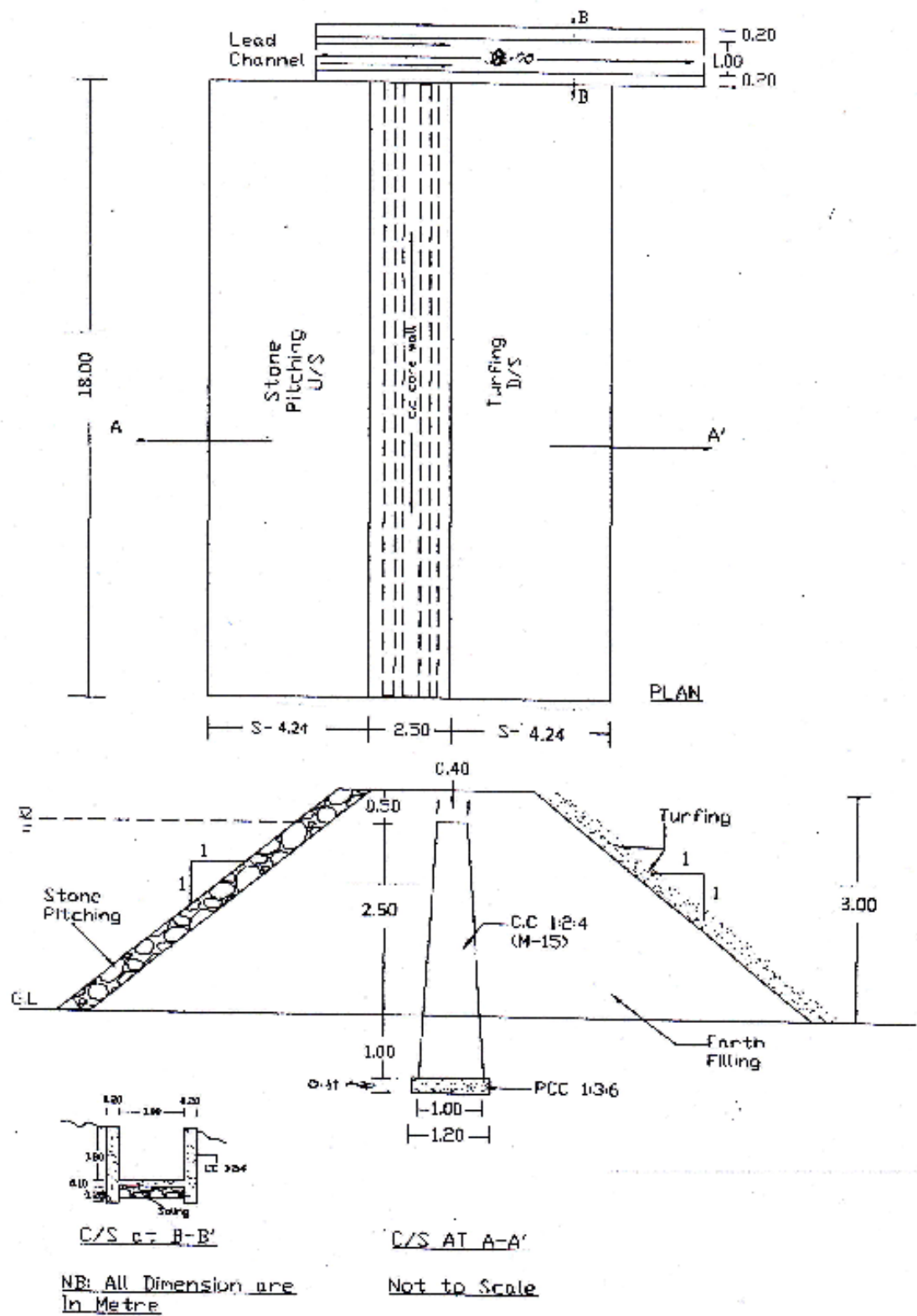
Rs. 3510.72

B GRAND TOTAL = Rs. 250029.90

Say, Rs. 2,50,000.00

(Rupees Two lakh fifty thousand) only.

C.C. Core Wall With Earthen Filled Dam
Embankment For Water Harvesting Structure



ESTIMATE FOR THE CONSTRUCTION OF DUG OUT POND.

(Rates as per P.W.D S.O.R for Roads, Bridges and E & D Works 2009-2010).

1/30(i). Excavation in cutting in soil by manual means.

Dug out Pond :

$$\text{Vol : } \frac{D}{6} (26.00 \times 24.00) + 4 (24.00 \times 22.00) + (22.00 \times 20.00)$$

$$= \frac{2.00}{6} (624.00) + (2112.00) + (440.00)$$

$$= \frac{2.00}{6} (3176.00)$$

$$= 1058.67\text{m}^3$$

$$@ \text{ Rs. } 47/- \text{ m}^3 \text{Rs. } 49757.49$$

2/44(i). Surface drains in soil.
(A) Manual Means.

Length : 10.00 metres.

$$@ \text{ Rs. } 25/- \text{ m}^3 \text{ Rs. } 250.00$$

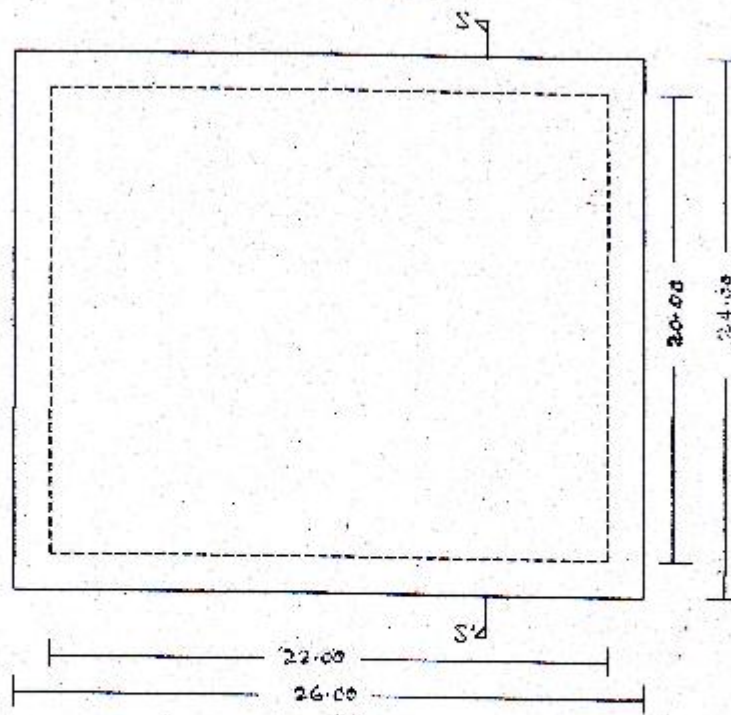
GRAND TOTAL = Rs. 50007.49

Say, Rs. 50,000.00

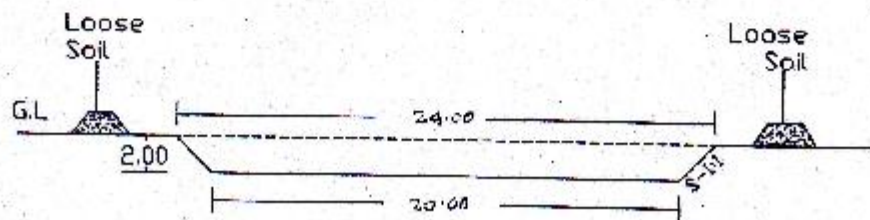
(Rupees Fifty thousand) only

DUG OUT POND

Not to Scale



PLAN



C/S AT S-S'

ESTIMATE FOR THE CONSTRUCTION OF STONE MASONRY PROTECTION WALL.

(Rates as per P.W.D S.O.R for Roads, Bridges and E & D Works 2009-2010).

1/134. Excavation for structures.

(I) Ordinary soil.

(A) Manual Means.

(i) Upto 3m depth.

$$1 \times 10.00 \times 1.35 \times \frac{1}{2} (1.10 + 0.60) = 11.48\text{m}^3$$

$$1 \times 10.00 \times \frac{1}{2} \times 1.35 \times 0.38 = 2.57\text{m}^3$$

$$= 14.05\text{m}^3$$

$$@ \text{Rs. } 47/- \text{ m}^3 \quad \text{.....} \quad \text{Rs. } 660.35$$

2/137. P.C.C 1:3:6 in foundation.....etc.

$$1 \times 10.00 \times 1.35 \times 0.10 = 1.35\text{m}^3$$

$$@ \text{Rs. } 3571/- \text{ m}^3 \quad \text{.....} \quad \text{Rs. } 4820.85$$

3/140(b). Stone masonry works in cement mortar 1:3 etc.

$$1 \times 10.00 \times \frac{0.60 + 1.10}{2} \times 1.75 = 14.88\text{m}^3$$

$$1 \times 10.00 \times \frac{1}{2} \times 1.10 \times 0.28 = 1.54\text{m}^3$$

$$= 16.42\text{m}^3$$

$$@ \text{Rs. } 2714/- \text{ m}^3 \quad \text{.....} \quad \text{Rs. } 44563.88$$

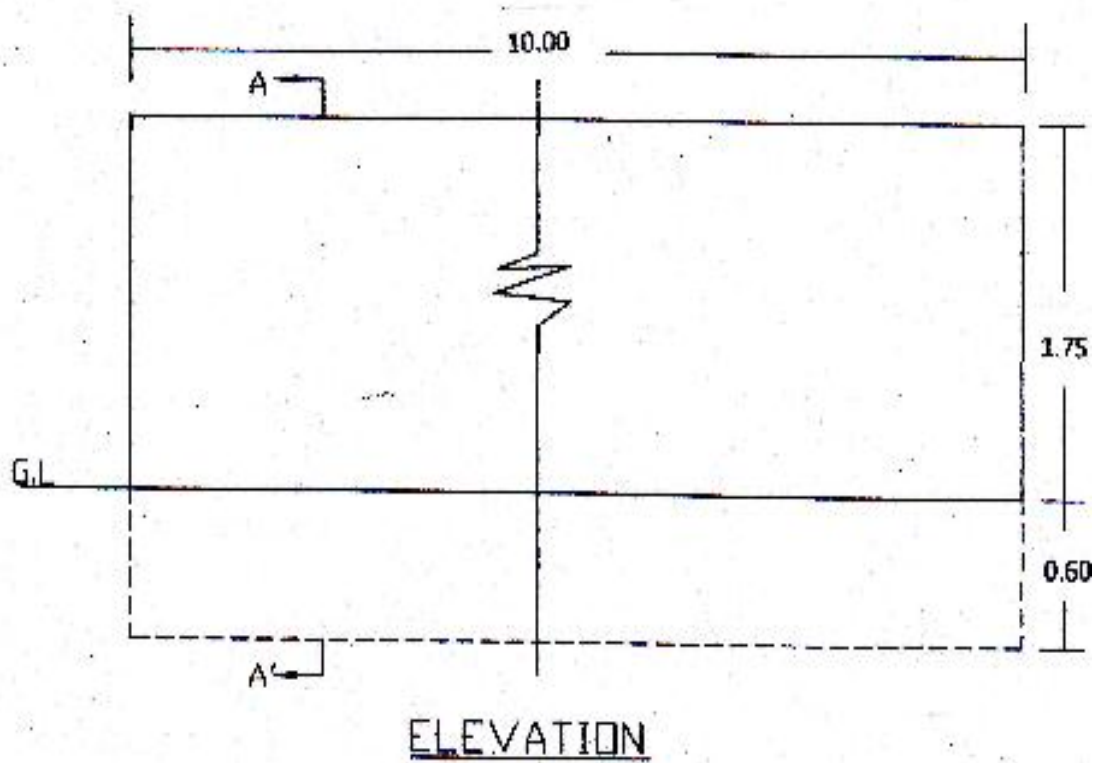
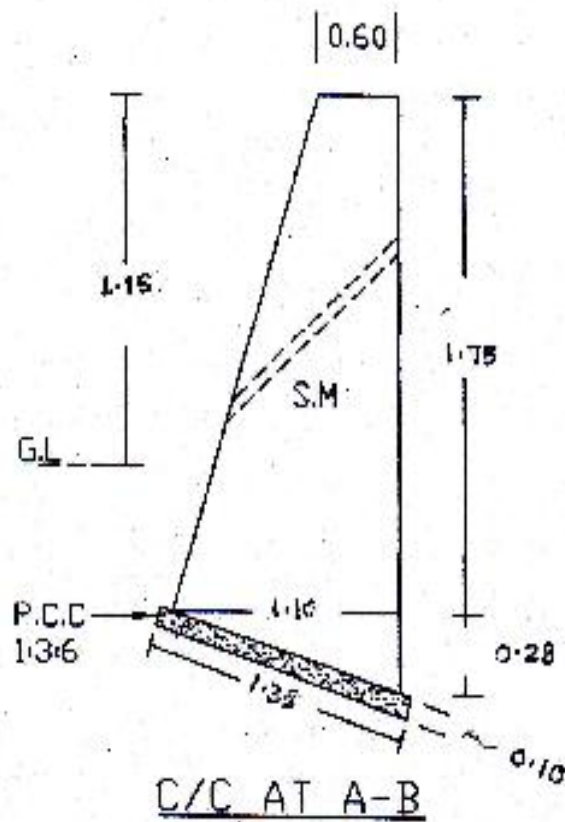
GRAND TOTAL = Rs. 50045.08

Say, Rs. 50,000.00

(Rupees Fifty thousand) only.

STONE MASONRY PROTECTION WALL

Not to Scale



ANNEXURE IV

MoA, Sub Committee Details

SANJAY GOYAL, IAS
DISTRICT MAGISTRATE
WEST GARO HILLS DISTRICT,
TURA, MEGHALAYA- 794001



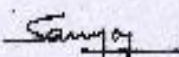
Phone: 03651-223835(O), 223826(R)
Fax: 03651-221179, 222226
e-mail: sanjaygoyal_ias@yahoo.com

TO WHOM IT MAY CONCERN

This is to certify that centrally sponsored schemes like NREGS, BRGF, RKVY, NRHS and Total Sanitation Campaign etc can be convered with Watershed Projects/Programmee within West Garo Hills District.

Dated: Tura
The 14th April, 2011.




(Sanjay Goyal)
Deputy Commissioner,
West Garo Hills Dist, Tura.

Details of Convergence of IWMP with other Schemes:

Name of Villages:

Watagre

	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			Reference no. of activity/ task/ structure in DPR [@]	Level at which decision for convergence was taken ^{\$}
					(a) Structures (b)Livelihoods (C)Any other (pl specify)	Nos/Rmt/Ha	Amount(Rs)		
1	WGH	WGH-IWMP-VIII	NREGS (DRDA, West Garo Hills, Meghalaya)	3273600	a)Dugout pond	11 Nos	550000	Enclosure of Abstract of Perspective Plan for Convergence of NREGs with IWMP in DPR	District Level
					b)Stone masonry protection wall	12 Nos	600000		
					c) Water harvesting farm pond	4 Nos	1000000		
					d) C.C Check cum Irrigation dam	2 Nos	500000		
					e) Earthen irrigation channel	852 Rmt	42600		
					f) Wet terrace	10 Ha	150000		
					g)Rubber Plantation	35	263000		
					h) Arecanut Plantation	35	168000		
				Grand Total			3273600		

Grand Total: Thirty two lakhs seventy three thousand and six hundred only.

ABSTRACT OF PERSPECTIVE PLAN FOR CONVERGENCE OF NREGS WITH IWMP AT WAJATAGRE VILLAGE
UNDER WAJATA MICRO-WATERSHED, WGH-IWMP-VIII

Name of the Village : **WATAGRE**
Total No. of Job Card Holder : 52 Nos

Total Wages Component (@Rs. 117/- per m/days= Rs. 6,08,400/-)
Amount earmarked for Convergence per annum = Rs. 6,08,400/-
(Rupees Six lakhs eight thousand four hundred) only

SL.No	ACTIVITY	UNIT	PROJECT PERIOD												Mandays to be Generated			
			2011-12			2012-13			2013-14			2014-15						
			PHY	FIN		PHY	FIN		PHY	FIN		PHY	FIN					
				Wages	Material		Wages	Material		Wages	Material		Wages	Material				
1	Dug out pond @50,000/- per Number	Nos	5	2,50,000	-	-	-	-	-	6	3,00,000	-	11	5,50,000	-	4701		
2	Stone masonry Protection wall@ 50,000/- per number	Nos	4	1,20,000	80,000	1	30,000	20,000	1	30,000	20,000	6	1,80,000	1,20,000	3,60,000	2,40,000	3077	
3	Water harvesting farm pond@2,50,000/- per number.	Nos	-	-	-	2	3,00,000	2,00,000	2	3,00,000	2,00,000	-	-	-	6,00,000	4,00,000	5128	
4	C.C. check cum irrigation dam@ 2,50,000/- per number	Nos	1	1,50,000	1,00,000	-	-	-	1	1,50,000	1,00,000	-	-	-	3,00,000	2,00,000	2564	
5	Earthen irrigation channel @ 50/- per Rmt.	Rmt	268	13,400	-	28	1,400	-	188	9,400	-	368	18,400	-	852	42,600	-	364
6	Well terrace @ 15,000/- per Ha	Ha	5.00	75,000	-	5	75,000	-	-	-	-	-	-	-	10	1,50,000	-	1282
7	Rubber plantation: i)Planting @18,000/- per Ha	Ha	-	-	-	30	54,000	-	5	9,000	-	-	-	-	35	63,000	-	539
	ii)Weeding@2,000/-per Ha	Ha	-	-	-	30	60,000	-	35	70,000	-	35	70,000	-	35	2,00,000	-	1709
	Areca nut plantation: i)Planting @2,400/- Ha	Ha	-	-	-	20	48,000	-	-	-	-	-	-	-	20	48,000	-	410
8	ii)Weeding@2,000/-per Ha	Ha	-	-	-	20	40,000	-	20	40,000	-	20	40,000	-	20	1,20,000	-	1026
GRAND TOTAL				6,08,400	1,80,000		6,08,400	2,20,000		6,08,400	3,20,000		6,08,400	1,20,000		24,33,600	6,20,000	20,800

Amount allocated for convergence for the period 2011-12 to 2014-15

1 Wages Component:
= Rs. 24,33,600.00

2 Material Components:
= Rs. 8,40,000.00

Grand Total
= Rs. 32,73,600.00

Grand Total (Rupees Thirty two lakhs seventy three thousand and six hundred only)

12-12-2014

Wajadagre VEC
Wajadagre C & R.D Block
West G. Gadgaon Hills, Meghn
Wajadagre VEC
Selsella Block, WGH

Secretary
Wajadagre V.E.C
Wajadagre C & R.D Block
West G. Gadgaon Hills, Meghn
Wajadagre VEC
Selsella Block, WGH

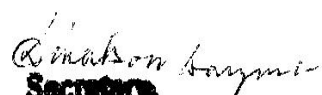
AGREEMENT FOR CONVERGENCE OF SCHEME

The Village Employment Councils (VEC) and the Communities of Wajatagiri Villages, Selsella Blocks, West Garo Hills, Meghalaya have no objection to the Convergence of NREGS with Integrated Management Project (IWMP) at Wajatagiri village under Wajata Micro-Watershed, WGH-IWMP-VIII being implemented by Tura Soil & Water Conservation (T) Division.

We also agreed to allocated and commit Funds for wage as well as material component under NREGS in our Annual Work Plan for various Soil & Water Conservation Works which shall be taken up during the Project Period (2010-11 to 2013-14). The wage and material component under NREGS shall be utilised for following works:

1. Dugout Pond.
2. Wet Terrace.
3. C.C. Check Cum Irrigation Dam.
4. Areca nut Plantation.
5. Stone Masonry Protection Wall.
6. Earthen Irrigation Channel.
7. Water Harvesting Farm Pond.
8. Rubber Plantation.


President
Wajadagre V.E.C.
Selsella C. & R.D. Block
West Garo Hills, Megh
Village Employment Council
Wajatagiri
Selsella Block, W.G.H


Secretary
Wajadagre V.E.C.
Selsella C & R.D. Block
West Garo Hills, Megh
Village Employment Council
Wajatagiri
Selsella Block, W.G.H

**NO OBJECTION CERTIFICATE OF THE A-KING NOKMA FOR WAJATA
MICRO WATERSHED DEVELOPMENT PROJECT TO BE TAKEN UP
UNDER IWMP-VIII
PROJECT BY TURA SOIL & WATER CONSERVATION (T) DIVISION**

The A-king Nokma of Wajatagiri village under Wajata Micro-watershed project, WGH-IWMP-VIII has No Objection to the developmental activities to be undertaken in my A-king land by Soil & Water Conservation Department.

The villagers of Wajatagiri A-king Land are ready to accept the Development Scheme after clear understanding of the objectives and the activities proposed under the project to be implemented in our Watershed area.

There will be No Objection in future from the villagers of the watershed area as they have understood the objectives of the proposed scheme of the Soil & Water Conservation Department.

Name & Signature of A-king Nokma

Pikje A. Sangma
Pikje A. Sangma
Nokma of Wajata
Wajata A-king
West Garo Hills

Countersigned by

[Signature]
Divisional Officer,
Tura Soil & Water Cons(T) Division
West Garo Hills, Meghalaya