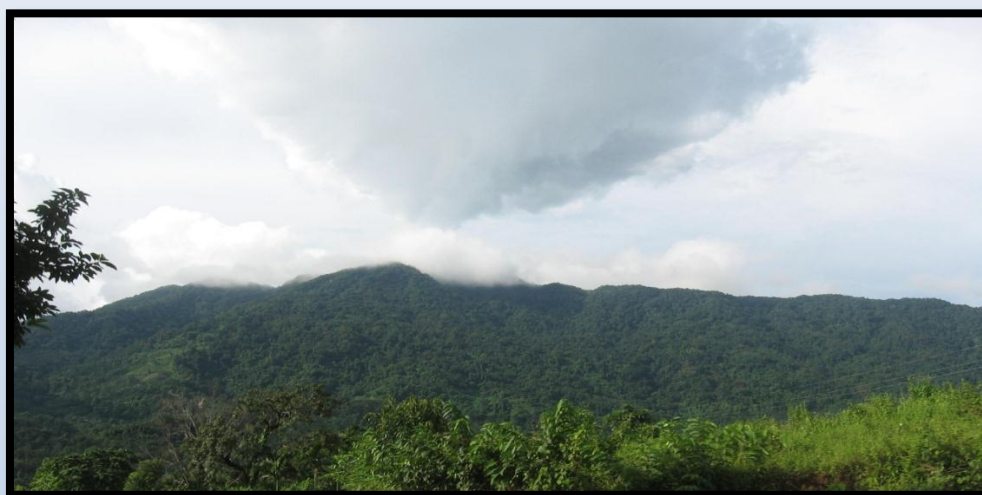


GOVERNMENT OF MEGHALAYA

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



**TURA SOIL & WATER CONSERVATION(T) DIVISION
WEST GARO HILLS, MEGHALAYA.**

DETAILED PROJECT REPORT

RIMJONG MICRO WATERSHED

INTEGRATED WATERSHED MANAGEMENT PROGRAMME

IWMP –VIII

2010 – 2011

SELSELA C&RD BLOCK

WEST GARO HILLS

MEGHALAYA

SUMMARY

Name of the State	:	Meghalaya
Name of the District	:	West Garo Hills District
Name of the C&RD Block	:	Sellsela
Name of the Villages	:	Kilmangittim & Kalamatti
Name of the Project	:	West Garo Hills – IWMP –VIII
Total Geographical Area	:	526.1 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

CHAPTER I

INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Rimjong (IWMP-VIII) project is located at West Garo Hills under Selsella C&RD Block, West Garo Hills District of Meghalaya, consisting of a single micro-watershed, the project area is drained by the Rimjong River and its tributaries flowing in a North to South direction. The total area is 526.10 Ha. with 500 to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 40 km from Dadeng the Civil Sub-Divisional Head Quarter and about 45 km from Tura the District Headquarter . A total of 2(two) villages are covered under the project. These are –

1. Kilmangittim
2. Galamati.

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 526.10 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 Rimjong 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:-

- i. NREGS

CHAPTER II
BASIC INFORMATION OF THE PROJECT AREA

CHAPTER II
BASIC INFORMATION OF THE PROJECT AREA

2.1 Location:

The Project area is located within the area of Damjonggre under Selsella C&RD Block of Dadeng Civil Sub-Division, Weat Garo Hills District. It is situated at a distance of about 40 km from Dadeng the Civil Sub-Divisional Head Quarter and about 45 km from Tura the District Headquarter. The geographical location is between 89°59'53.3828" to 90°01'53.0922" E Longitude and 25°39'15.7712" to 25°37'16.0619" N Latitude. There are 2 villages within the Watershed which are as follows –

1. Kilmangittim
2. Galamati

At present, these 2(two) villages are motorable road but of kutchha type.

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 5-10% in the Lower reaches,, however, in the middle 10- 20% and upper reaches 20-35% and can reach up to more than 50%.

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
40-144m	1% to 50 %	3 rd Micro Watershed	Chamba Stream, Mangro , Kalamati, Rimjong, Chisiri, Gangan, Rongchi, Sona, Rongkabok, Sausi, Gabat, Rongchibipe k, Matalanga.	Gniss with old intiers, sela group (AP)

2.3 Drainage :The major stream draining the micro-watershed is the Rimjong stream which is a 3rd order stream flowing in a north-south direction. The slopes of the micro-watershed are dissected by numerous small tributaries flowing to the Rimjong.

2.4 Soil :

Soil in general is moderately deep, excessively drained fine loamy soils 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	

2.5 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 2.3: 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	Central Hyper-thermic Agro-climatic	500	West Garo Hills.	W.G.H. IWMP VIII	Loamy	526.1	3600	Paddy	80
									Maize	14
									Millet	25
									Ginger	30
									Arecanut	60
									Banana	15

2.6 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	60	8	1000
Tapioca	8	30	240
paddy	80	15	1200

2.7 Natural Vegetation :

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

2.8 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.Kalamati	= 10 Nos.
2. Kilmangitim	= 31 Nos.
Total	= 41 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 kutchra road connected either to PWD main Road.
- 2.1.2 **School** : There are only 1(one) L.P Schools within the Project Area run either by the Community.
- 2.1.3 **Electricity** : At present there is no electricity connection in the Project Area
- 2.1.4 **Health** : One Community Health Centre at Jekabari which is at the distance of 5 km.
- 2.1.5
- 2.1.6 **Water Supply** : There is no drinking water supply by the PHE Deptt.. 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.
- 2.1.7 **Market** : There is a weekly market held once in a week at Jekabari. However, the main market where the people sell their produce is at Garobada and also 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 III	(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	Nil			
		(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)
				1Nos.	-	-	-
		(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					

2.6 Livestock : There are only 4 kinds of livestock farming being farmed in the area viz.Cattle, Piggery, Poultry and Goatry.

Table 2.6: Existing livestock population

Type of Animal	Population
Cattle	97
Piggery	28
Poultry	141
Goatry	59
Total	325

2.7 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:

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	
West Garo Hills	West Garo Hills – IWMP VIII	(i) Large	-	-	-	-	-	
		(ii) Small	6	-	-	26.56	26.56	
		(iii) Marginal	35	-	-	-	38	38
		(iv) Landless	-	-	-	-	-	-
		Sub - Total	41	-	-	-	64.56	64.56

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 – IWMP VIII	(i) Wasteland/ degraded land				87.97				300
		(ii) Pastures								
		(iii) Private Agriculture land	64.56	-	-	-	83			
		(iv) Village woodlot								
		(v) Forest	-	-	-	225.04				15
		(vi) Village Ponds/ Tanks								
		(vii) Community Buildings								
		(viii) Weekly Markets								
		(ix) Permanent Markets								
		(x) Temples/ Places of worship								
		(xi) Others (Pl. specify) Horticulture.		-	-	148.53				102
		Total	64.56	-	-	461.54	83	-	-	417

2.9 Land use and land cover :

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

- a) Built-up Area = 26.85 Ha
- b) Current jhum = 64.56 Ha
- c) Horticulture plantation = 121.68 Ha
- d) Forest open = 225.04 Ha
- e) Wastelands-open shrub = 87.97 Ha

Total = 526.1 Ha

2.10 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,Nongsdia
	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

- | | | | |
|----|--|----|---|
| A. | PNP and PRA | B. | Planning |
| C. | Maintenance of Accounts
payments | 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 - (Nil)

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	
W.G. H	W.G. H IWM P- VIII					(i) Landless										
						(ii) SF										
						(iii) MF										
						(iv) LF										
					NIL											

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	Meghalay a	W.G.H	W.G.H IWMP VIII	3.00 Lakh	Construction of Spring Chamber	3.00 Lakh	3.00 Lakh	-	N.A	Increase in drinking water facilities

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 agreements	Preparation of DPR	Evaluation of DPR	Any other (please specify)	Cost incurred (Rs. In lakh)
W.G.H	W.G.H IWMP VIII	Formation of Watershed Committee	a) Capacity building of watershed Committee b) Capacity building of SHGs and UGS c) Capacity building programme of WDT members d) Training for farmers/ community e) Off-campus exposure trip.	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 e) NESAC	a) NOC with village headman for under-taking developmental works b) Agreement for convergence of NREGS scheme with IWMP with VEC.	Done	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											
					Pre Project			Proposed Project											
					No	Area irrigated (ha)	Storage capacity	Augmentation/ repair of existing structures				Construction of new structures				Total target			
								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	WGH	W.G.H IWMP VIII	Check Dam cum irrigation dam	-	-	-	-	-	-	-	3 Nos	75 Ha	638	7.50	3 Nos	75 Ha	638	7.50
				Water conservation farm pond	-	-	-	-	-	-	4 Nos	185 Ha	1200	10.00	4 Nos	185 Ha	1200	10.00	
				Earthen Irrigation channel	-	-	-	-	-	-	768 rmt	40 Ha	-	0.384	768 rmt	40 Ha	-	0.384	
				Stone masonry protection wall	-	-	-	-	-	-	6	60	1300	3.0	6	60	1300	3.0	
				Total										360 Ha	3138m³	20.884		360 Ha	3138 m³	329

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 cum irrigation Dam	3 Nos	75 Ha	1	7.50	.375
		2	Stone Masonry protection wall	6 Nos	60 Ha	1	3.00	.15
		3	Water Harvesting Farm Pond	4 Nos	185 Ha	1	10.00	.50
		4	Earthen Irrigation Channel	768 rmt	40 Ha	1	0.384	.0192
		5	Dug out Pond	12 Nos	20Ha	1	6.0	.30
			Total		380 Ha	5	26.884	1,34,420

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	5	.75
		Poultry	4	.75
		Fishery cum piggery	3	.50
		Supply of fingerlings	3	.67
		Rubber budded poly-bag	6	.89
		Rice mill	1	.40
			22	3.96

4.2.7 Other activities of watershed works phase:

1	2	3		4		5		6		7		9		10		12		13
District	Names of projects	Ridge area treatment		Drainage line treatment		Nursery raising		Land development		Horticulture Development		Veterinary services		Fishery development		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)			
W G H	W.G.H IWMP- VIII	15 ha	0.54	375	23.3 84	-	5.50	23 ha	4.6	102	8.976	9 units	2.7	3 units	0.30	1. Carpentry 2.Rice-mill 3.Tailoring 4.Kitchen garden 5. Dug out pond 6.Fishery cum piggery	0.25 0.50 0.80 2.95 3.5 0.750	
	Total		0.54		23.3 84		5.50		4.6		8.976		2.7		0.30		8.75	54.75

4.2.8 Details of engineering structures in watershed works:

1	2	3	4			5			6	7				8							
			Type of treatment			Type of land				Executing agency	Target				Achievement						
			(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land Dev. (L)	(i) Pri-ate	(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						
W.G.H	W.G.H IWMP VIII	Dug out Pond	-	D	-	P	-	UG/WC	12 Nos		6		6	3Yrs.							
		C.C. Check Cum Irrigation Dam	-	D	-	-	C	-	UG/WC	3 Nos	4.5	3		7.5	3Yrs.						
		Wet Terrace	-		LD	P		-	UG/WC	23 ha		4.6		4.6	3Yrs.						
		Stone Masonry Protection Wall	-	D	-	-	C	-	UG/WC	6 Nos	1.8	1.2		3	3Yrs.						
		Earthen irrigation chjannel	-	D	-	-	C	-	UG/WC	768 rmt		0.38		0.38	3Yrs.						
		Water Harvesting farm pond	-	D	-	-	C	-	UG/WC	4 Nos	6	4		10	3Yrs.						
		TOTAL										12.3	13.1	-	25.4						
													84		84						

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

1	2	3	4			5			6	7				8			
District	Project	Name of structure/work	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)	Area (ha)	No. of plants	Estimated 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)
WGH	WGH IWMP-VIII	Improvement of degraded forest	R		C		C		UG/SHG/WC	15 Ha		0.54	3 yrs				
		Rubber Plantation	R		C	P			UG/SHG/WC	62Ha		5.456	3 yrs				
		Arecanut Plantation	R		C	P			UG/SHG/WC	40 Ha		3.52	3 yrs				
		Total								117		9.516					

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.

4.2.12 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	-	-	L	Landless	2.95	3 Yrs.		
		Carpentry	-	-	L	Landless	0.250			
		Fishery cum piggery unit.	-	C	-	SHG / UG	0.75	3 Yrs.		
		Rice- mill	-	C	-	SHG	.50			
		Piggery	-	C	-	SHG / UG	1.50	3 Yrs.		
		Poultry	-	C	-	SHG / UG	1.20	3 Yrs.		
		Supply Of Fingerlings	-	-	-	SHG / UG	0.30	3 Yrs.		
		Group Rubber Poly Bag Nursery	-	C	-	SHG / UG	5.50	3 Yrs.		
		Tailoring	-	-	L	SHG	0.8			
		Dug out pond	-	-	L	Landless	3.5	3Yrs		
TOTAL							17.25			

Contd.)

CHAPTER V
PROJECT PHASING & BUDGETING

CHAPTER V
PROJECT PHASING & BUDGETING

ACTION PLAN OF RIMJONG WATERSHED UNDER IWMP TERRITORIAL DIVISION: TURA

Name of District :- West Garo Hills

No. of Villages: 2 nos

Name of C&RD Block:- SELSELLA

Project Area : 500 Ha

Sl. No	Activities	Ist Year(6%)		IInd Year(14%)		IIIrd Year(50%)		IV Year(25%)		V Year(5%)		Total(in lakhs)	
		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
1	MANAGEMENT COST:												
A	Administrative Cost:-10%			2%		5%		3%				10%	
i	Honourarium of WDT Members @ Rs.8000/- month-1 no.				0.96		0.96		0.96				2.88
ii	Honourarium of Watershed Committee Chairman @500/ month				0.02		0.06		0.02				0.09
iii	Honourarium of WCM @ Rs. 200/Members/month for 9 nos.				0.036		0.216		0.072				0.324
iv	Honourarium of Charter Accountant				0.15		0.15		0.15				0.45
v	TA/DA/ of Field Asst. @ 5000/- month				0.05		0.60		0.20				0.85
vi	Hiring charges of office building @ 1000/ month				0.02		0.12		0.12				0.26
vii	Hiring charges of vehicle @ 5000/ month				0.10		0.60		0.20				0.90
viii	Office expenses, POL, Stationeries, Printing of SHG's books, pamphlets, tea, snacks ets, cost of camera.				0.174		1.044		0.528				1.746
	TOTAL OF A:			2%	1.50	5%	3.75	3%	2.25			10%	7.50
	PREPARATORY PHASE: 4%												
B	Entry Point Activities:	4%											
i	Construction of Spring Chamber/Ringwell @Rs60,000/- each	5 Nos.	3.00									5	3.00
	TOTAL OF B:		3.00										3.00
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				0.75				3.75
	Total of C:				1%								
D	Detailed Project Report: 1%				0.25								0.25
i	Cost of Resources Inventories works				0.10								0.10
ii	Cost of PRA Exercises				0.25								0.25
iii	Cost of Land use Survey works				0.15								0.15
iv	Cost of formulating				0.75								0.75
	Total of D:												
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				16.50
II	PROJECT COST WATERSHED WORKS PHASE: 50%												
A	Arable Land Treatment:												
i	Wet terrace@20000/ ha23 ha			2	0.4	20	4	1	0.2			23	4.6
ii	Rubber plantation pre-works @5900/ha-62 ha			10	0.59	52	3.07					62	3.658
	1st yr. planting @Rs.2900/ha					10	0.29	52	1.508				1.798
iii	Arecanut plantation pre-works @Rs5900/ha-40 ha			10	0.59	30	1.77					40	2.360
	1st yr. planting@ 2900/ha					10	0.29	30	0.87				1.16
	TOTAL OF - A				1.58		9.42		2.58				13.576
B	Non-Arable Land treatment:												
i	Improvement of degraded forest@3600/15 ha			11	0.396	4	.144					15	0.54
	Total of B:				0.396		.144						0.54

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			1	2.5	2	5					3	7.50
ii	Stone masonry protection wall @50,000/each - 60 ha			1	.5	5	2.5					6	3.00
iii	Dug-out pond @50,000/-each -15 ha			1	.5	3	1.50	1	.5			5	2.50
iv	Water harvesting farm pond @2,50,000/- each -185 ha					3	7.50	1	2.50			4	10
v	Earthen irrigation channel @Rs. 50 /- Rm. -40 ha			298	0.15	376	0.188	94	0.047			768	0.384
	TOTAL-C				3.649		16.688		3.047				23.384
	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	Tailoring@8000/- unit					5	0.40	5	0.40			10	0.80
ii	Carpentry@ 5000/- unit							5	0.25			5	0.25
iii	Kitchen garden@ 2500/-unit			30	0.75	14	0.35	74	1.85			118	2.95
iv	Dug-out pond @50,000/-each -5 ha					3	1.5	4	2.00			7	3.5
v	Total of D:			1%	0.75	3%	2.25	6%	4.50			10%	7.50
	Production system and Micro Enterprises (SHG's) - 13%												
E	Piggery unit @Rs.30,000 /- per unit												
i	Poultry unit @Rs.30,000 /- per unit							4	1.20			4	1.20
ii	Fishery cum piggery unit @ Rs. 25000/- each			1	0.25			2	.5			3	0.750
iii	Supply of fingerlings @10000 /- per unit			2	0.2			1	0.10			3	0.3
iv	Rubber budded poly bag nursery @25/- per plant					13,800	3.45	8200	2.05			22,000	5.50
v	Rice mill							1	.5				
	Total of E:			1%	0.75	5%	3.75	7%	5.25			13%	9.75
	Total of D:			1%	0.75	3%	2.25	6%	4.50			10%	7.50

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

CHAPTER V

PROJECT PHASING & BUDGETING

VILLAGE WISE ACTION PLAN OF RIMJONG WATERSHED UNDER IWMP – VIII, TERRITORIAL DIVISION : TURA.

Name of District: West Garo Hills
Name of C&RD Block : Selsella

Name of village – Kilmangittim
Project Area – 500 Ha.

Sl. No	Activities												
		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	3	4	5	6	7	8	9	10	11	12	15	16
I	WATERSHED WORKS PHASE											-	-
A.	Arable Land Treatment:											-	-
i.	Wet terrace @ 20000/-11 ha.					10	2	1	0.2			11	2.2
ii.	Rubber plantation pre-works @5900 ha.			10	0.59	20	1.77					30	2.36
iii	Rubber plantation 1 st year plantation2900/- ha					10	0.29						0.29
iv	Arecanut plantation pre-works @ 5900 (25 ha)					30	1.77					30	1.77
v	Arecanut plantation 1 st year plantation @/- ha							30	0.87			30	0.87
B.	Non- Arable Land Treatment:												
i.	Improvement of degraded forest @3600/- (ha -10)			11	0.396							11	0.396
C	Drainage Line Treatment:												
i	C.C.Check cum Irrigation dam @250000/- each					2	5					2	5
ii	Stone masoury protection wall @ 50000/- each			1	.5	5	2.5					6	3

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

1	2	3	4	5	6		7	8	9	10				11				
					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)		
S L N o	Name of State	Name of Districts	Names of Projects	Year of sanction	From	To	Area of the projects	Project cost (Rs. In lakh)	Names of Micro watersheds & Code nos. (as per DoLR's unique codification)	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	West Garo Hills	W.G.H IWMP-VIII		2010	2015	500	75	Rimjong	-	485	15	-	83	15	-	402	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	911020014 148197	Current	Chairman W.C Secretary W.C Project Leader/W DT	Rimjong	Tura Axis Bank	91102001 4148197	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				
			WGH	WGH IWMP VIII	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 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				
								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 Meghalaya	Director	Don-Bosco	Agri-Horti, Animal Husbandry, Entrepreneurship	NA	-	-	-	-	-
4		ICAR	Umiam / Tura Meghalaya.	Director	Central Govt.	Do	NA	-	-	-	-	-
5		MRDS	Shillong	Director	State Govt.	Animal Husbandry	NA	-	-	-	-	-
6		NEHU	Tura / Shillong	Director	Central 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/yyy)*

	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 :-

SI 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.	Kilmangittim		13818	-	7952	21770	-	50	-	32	82	-	-	-	-	-
2.	Kalamati		5922	-	3408	9330	-	30	-	19	49	-	-	-	-	-
TOTAL			19740	-	11360	31100	-	80	-	51	131	-	-	-	-	-

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

* 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
Meghalaya	W.G.H IWMP-VIII	Open Well	NA	NA	NA	NA	NA
		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	
Meghalaya	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 Names of the Districts	2 Name of Projects	3 Name of crops	4 Pre-project						5 Mid-term						6 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:

S I N o	2 Names of States	3 Names of the Districts	4 Name of Projects	5 Name of crops	6						7						8					
					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.	Irri	Rf.			
	Meghalaya	West Garo Hills	WGH IWMP - VIII	Paddy	-	-	-	-	-	-	-	136	-	15	-	204	197	-	15	-	-	-
				Vegetables	-	-	-	-	-	-	-	6	-	36	-	216	6	-	36	-	-	-
				Total			-	-	-	-	-	142	-	51	-	226	203	-	51	-	-	-

* 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 Sl No .	2 Names of States	3 Names of the Districts	4 Name of Project s	5 Name of crops	6						7						8					
					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 Productio n (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Productio n (Qtl)	
Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.			
	Meghalay a	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

* 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 liters, 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 IWM VIII	Milch-animal	97	485	14,550	97	485	14,550	-	-	-	
		Piggery	25		75000	25		75000	40		200000	
		Poultry	141		28,200	141		28,200	201		100500	
		Goatry	21	105	4200	21	105	4200				
	Total for all projects			121950			121950			300500		

* 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	Beneficiary	Others (pl. specify)	Total		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
		Tailoring		0.80			0.80	-	-	-	-	-		-	-	-	-	-
		Carpentry		0.25			0.25	-										
		Kitchen garden		2.95			2.95	-										
		Dug out pond		3.5			3.5	-										
								-	-	-	-	-		-	-	-	-	-

(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 7.8 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	2	3	4	5	6	7	
Sl. No.	State	Item	Unit	Pre-project Status	Post-project Status	Remarks	
	Meghalaya	Status of water table		Lack of management	Improved		
		Ground water structures repaired/ rejuvenated	nil	nil	nil		
		Quality of drinking water	5 nos		unsafe	Better quality	
		Availability of drinking water	-		10 months in a year	12 months availability	
		Increase in irrigation potential	11 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		121.68	224.68	
			Increase in area under fuel & fodder				
			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		None			
		Summary of lessons learnt			Nil		

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 Gro HILLS	WGH IWMP VIII	Rimjong	As per work plan						

* 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.

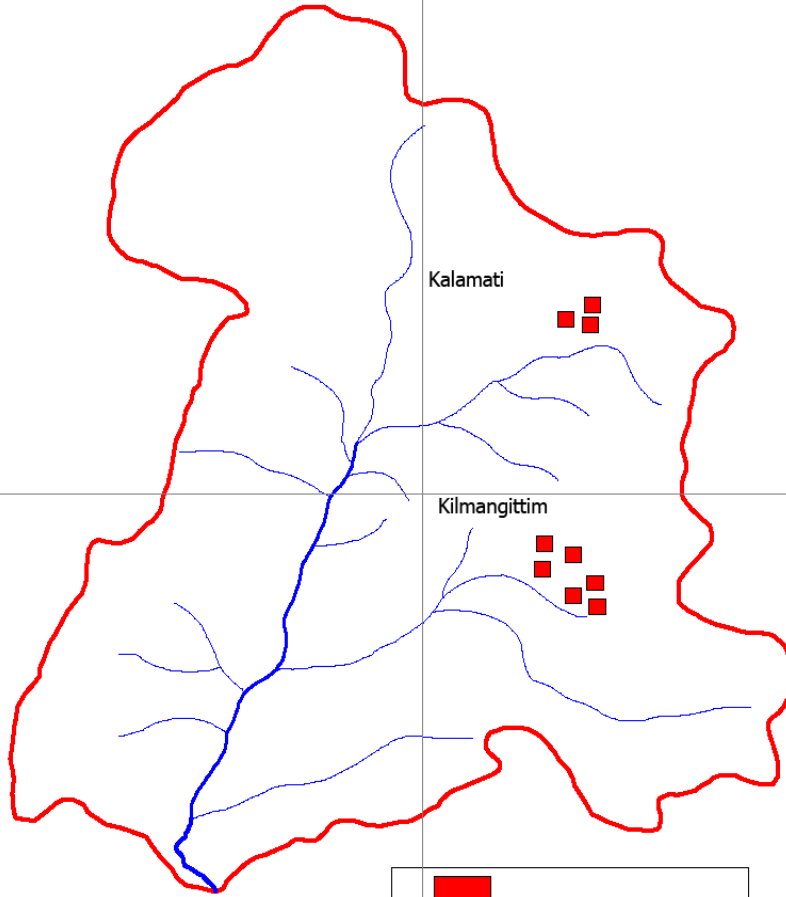
[#] B:C ratio more than 1 – cost effective
less than 1 – Not cost effective

ANNEXTURE-I




MAPS

DRAINAGE MAP

25° 39' 15.7712" N



25° 38' 15.9166" N

	Settlement
	Boundary
	Stream/river
Area= 526.10 Ha	
Scale: 1:24000	

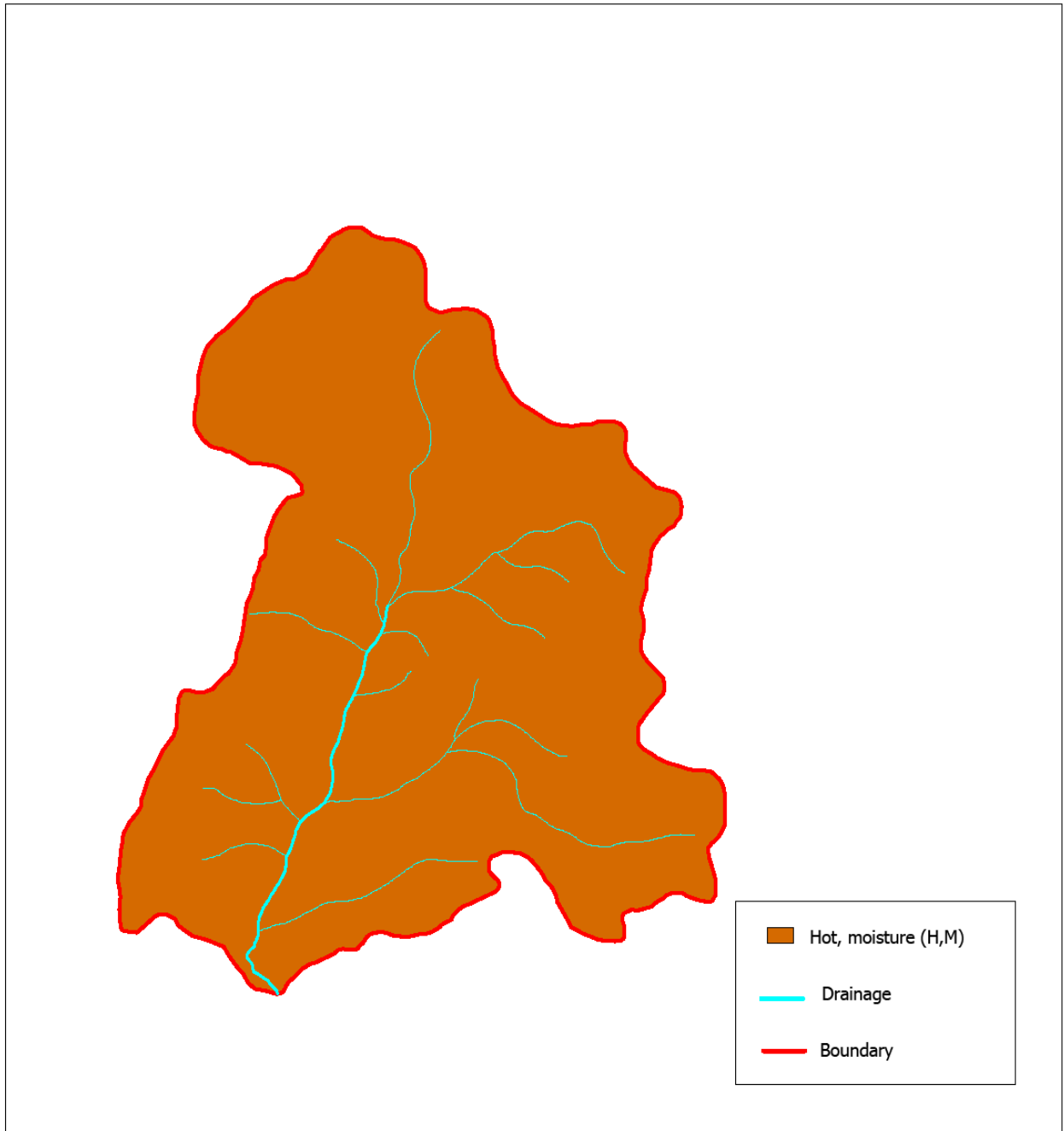
25° 37' 16.0619" N

89° 59' 53.3828" E

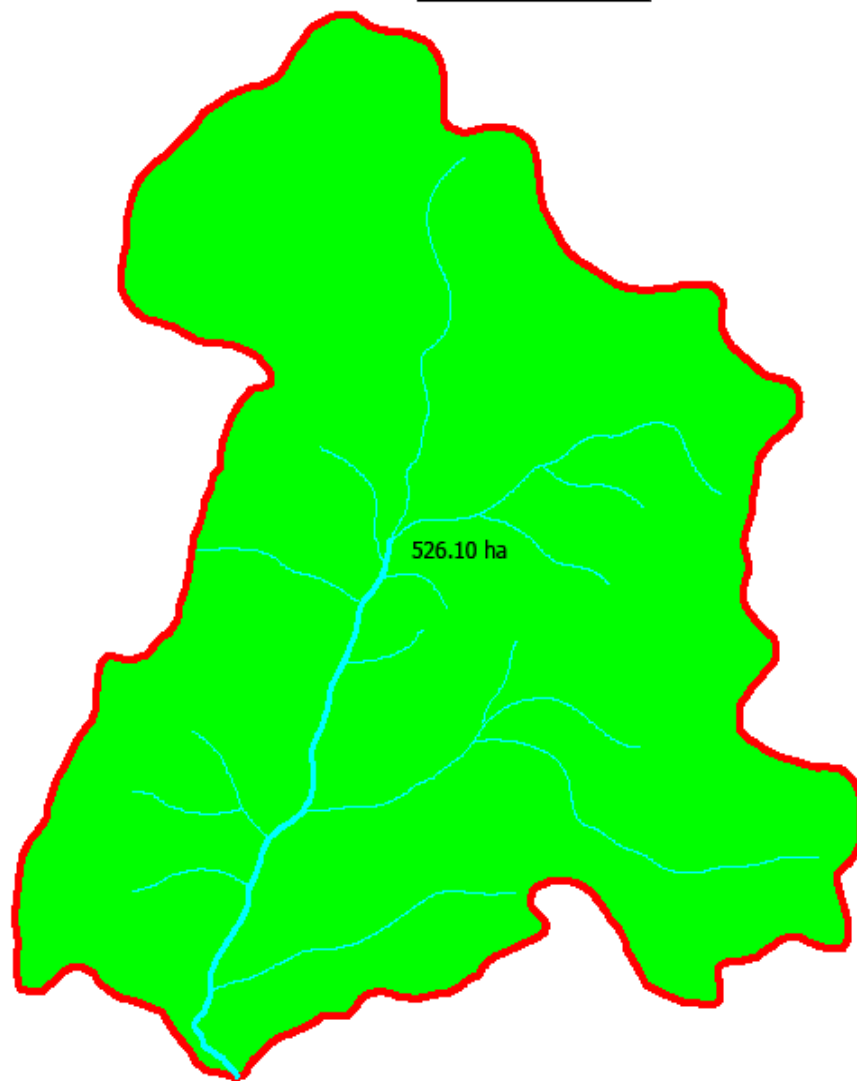
90° 00' 53.2375" E


90° 01' 53.0922" E

AGROCLIMATIC ZONE MAP

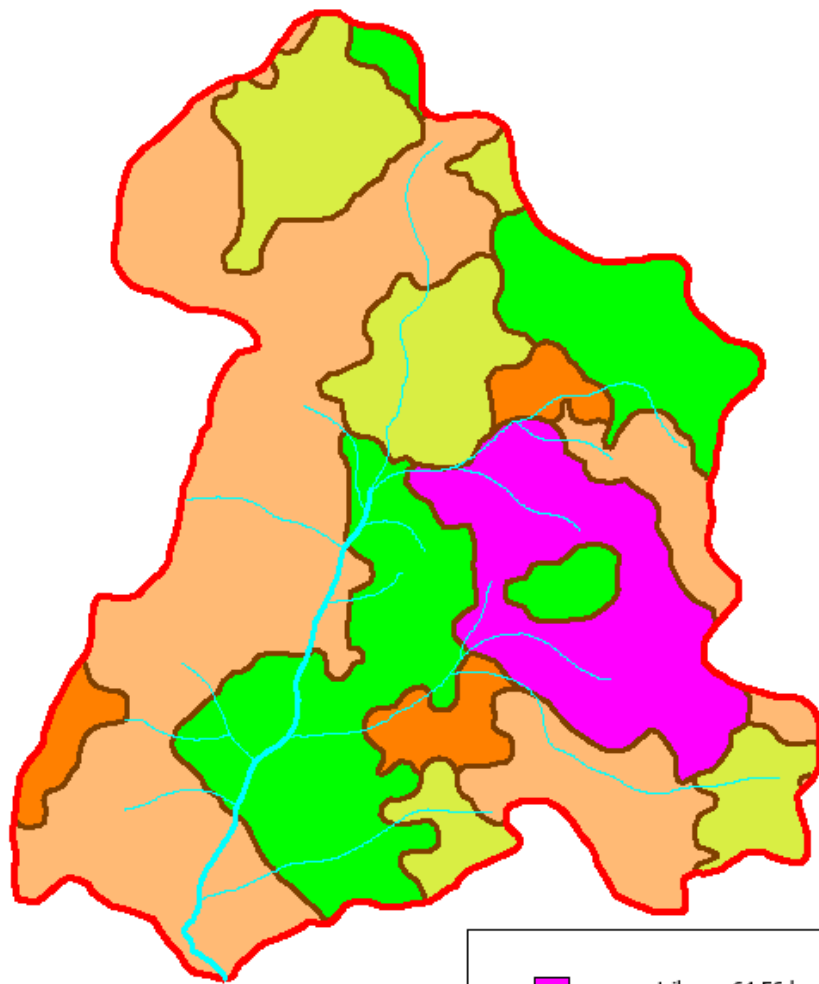







SOIL MAP



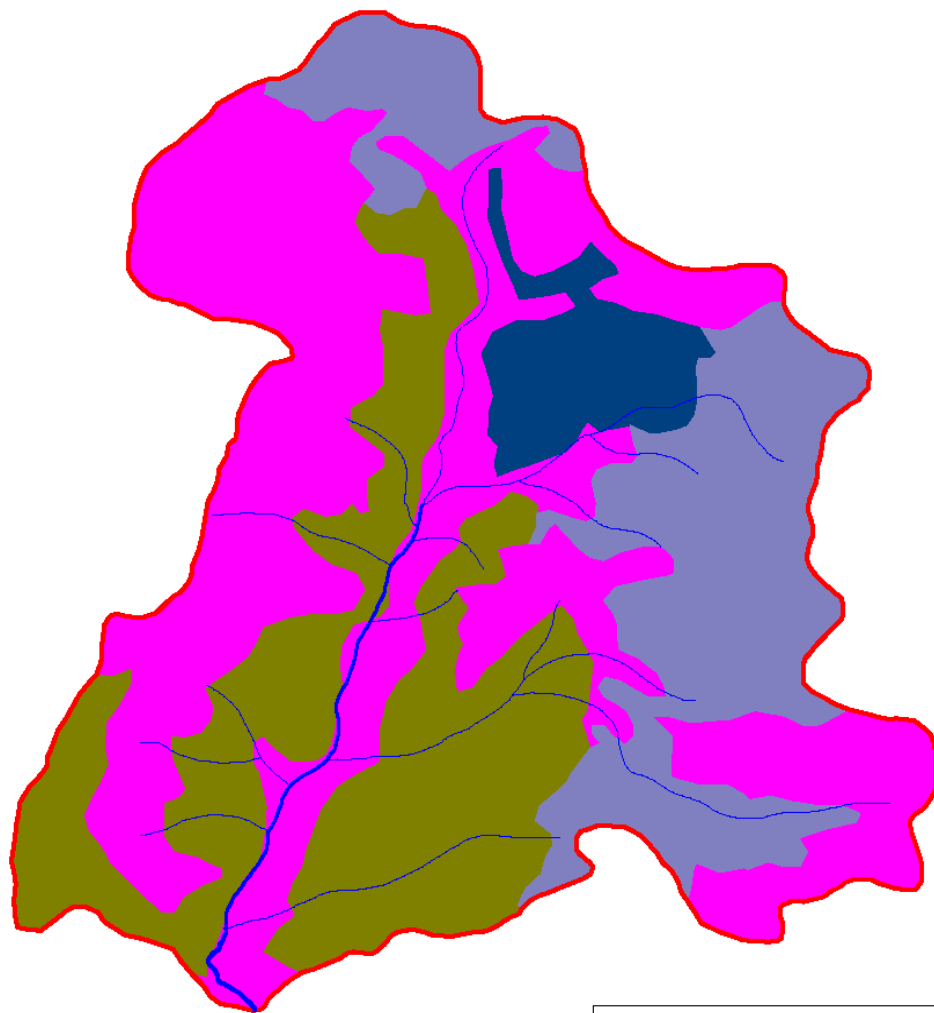
 Deep, excessively drained fine loamy soils





LAND USE LAND COVER MAP



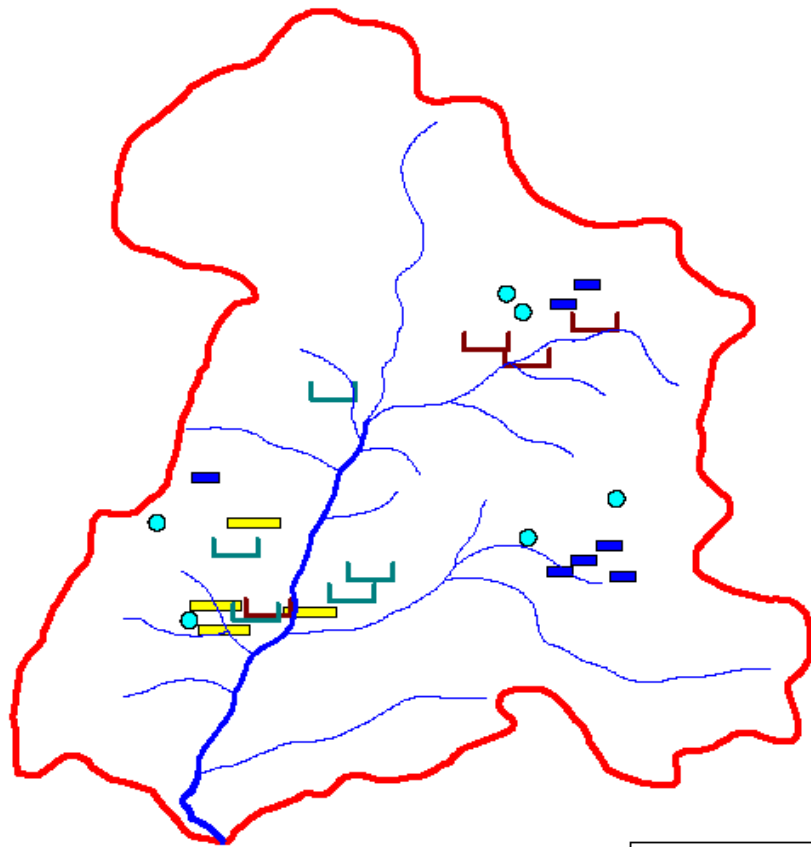
- | | |
|---|-----------------------------------|
|  | current jhum=64.56 ha |
|  | horticulture plantation=121.68 ha |
|  | wasteland-open scrub=87.97 ha |
|  | buildup area=26.85 ha |
|  | forest-open=225.04 ha |






SLOPE MAP



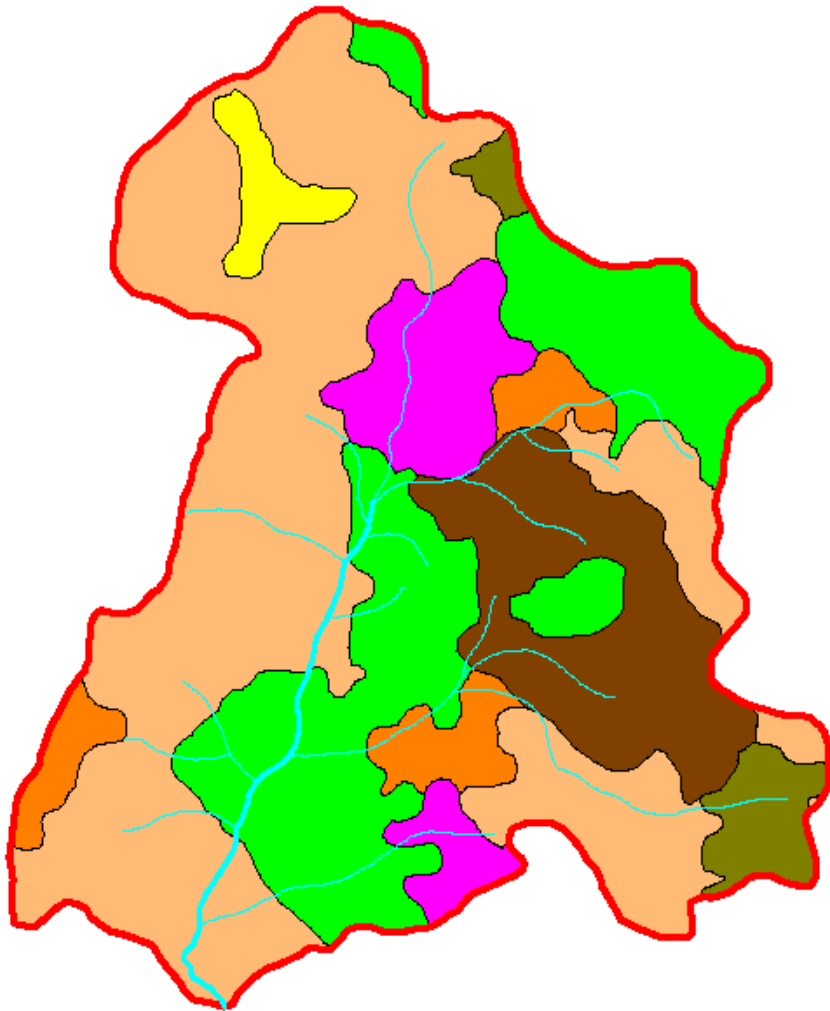
	5-10%= 237.82 Ha
	10-20%= 118.95 Ha
	20-35%= 29.36 Ha
	35-50%= 139.97 Ha








PROPOSED ENGINEERING STRUCTURE



	Dugout pond
	Conservation pond
	Protection wall
	check dam
	spring chamber/ringwell

PROPOSED LAND USE MAP



 Arecanut plantation	 Bench terrace
 Rubber plantation	 Afforestation
 Existing horti plantation	 buildup area
	 forest-open

NNEXTURE –II
COST ESTIMATE

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.

Preliminary works

A.

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

Ist 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	

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.

Preliminary works

A.

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

Ist 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	

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.**

COST ESTIMATE PER UNIT FOR INTEGRATED FARMING SYSTEM (IWMP).

A. Piggery ;		
i) Construction of sty @ Rs. 20000/- each	Rs.	20000.00
ii) Cost of Piglets - 10 nos. @ Rs. 20000/- each	Rs.	20000.00
iii) Cost of feeds for 6 months (L/s)	Rs.	10000.00
B. Construction of Dug out Pond (25.00 x 25.00) m (as per estimate)	Rs.	60000.00
Supply of fingerlings -1500 nos. @ Rs.3000/- per 1000 nos. (L/s)	Rs.	4500.00
D. Kitchen Garden ;		
i) Site preparation including Bunding, shaping etc.	Rs.	3500.00
ii) cost of F.Y.M. including cost of applicaton	Rs.	4000.00
iii) Cost of equipmqnts and tools etc.	Rs.	1500.00
iv) Cost of seeds including sowing etc.	Rs.	1500.00
G. Total	Rs.	125000.00

(Rupees one lakh twenty five thousand) 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.

$$\begin{aligned}
 & 1 \times \frac{\pi}{4} \times (1.20) \times 5.25 = 5.93 \text{ m}^3 \\
 & 1 \times \frac{\pi}{4} \times (4.20) \times 0.30 = 4.15 \text{ m}^3 \\
 \text{Less: } & 1 \times \frac{\pi}{4} \times (1.20) \times 0.30 = \underline{(-)0.34 \text{ m}^3} \\
 & = 9.74 \text{ m}^3
 \end{aligned}$$

(i) Upto 3m.depth.

@ Rs. 61 /- m³ Rs. **594.14**

$$1 \times 8.00 \times 0.50 \times 0.45 = 1.80 \text{ m}^3$$

@ Rs. 47 /- m³ 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**

³/103 Providing and laying of dry rubble flooring complete.

$$1 \times \pi \times 4.20 \times 1.50 \times 0.25 = 4.95 \text{ m}^3$$

$$1 \times 8.00 \times 0.20 \times 0.10 = 0.16 \text{ m}^3$$

$$5.11 \text{ m}^3$$

@ Rs. 1065 /- m³ Rs. **5442.15**

⁴/141 Plain/Reinforced c.c. in open foundation complete.

(A) PCC G - M

-15

$$1 \times \pi \times 4.20 \times 1.50 \times 0.15 = 2.97 \text{ m}^3$$

$$1 \times \pi \times 4.20 \times 0.15 \times 0.15 = 0.30 \text{ m}^3$$

$$2 \times 8.00 \times 0.15 \times 0.45 = 1.08 \text{ m}^3$$

$$1 \times 8.00 \times 0.20 \times 0.15 = 0.24 \text{ m}^3$$

$$4.59 \text{ m}^3$$

@ Rs. 4090 /- m³ Rs. **18773.10**

GRAND TOTAL :

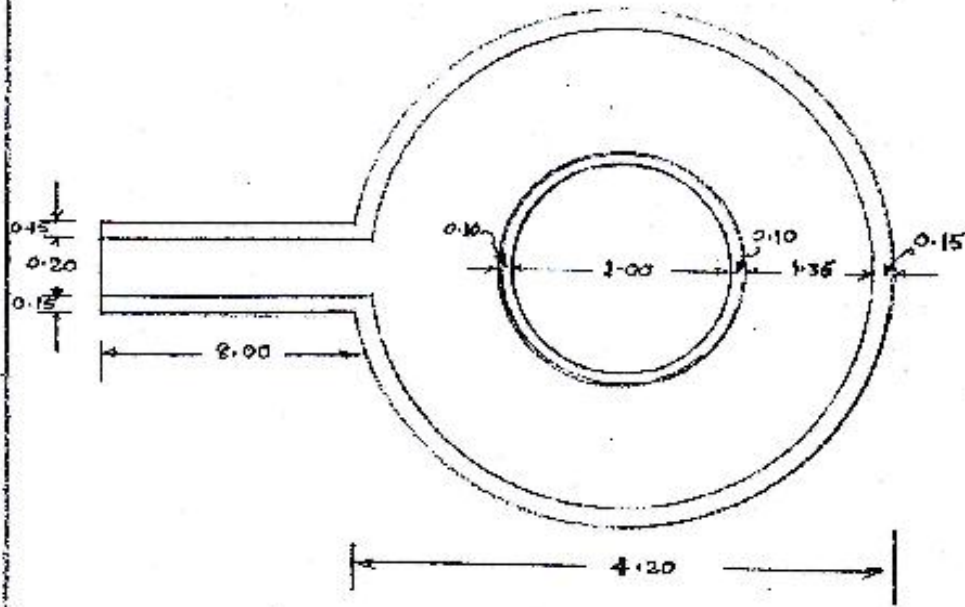
Rs. 60025.24

Say Rs. 60,000/-

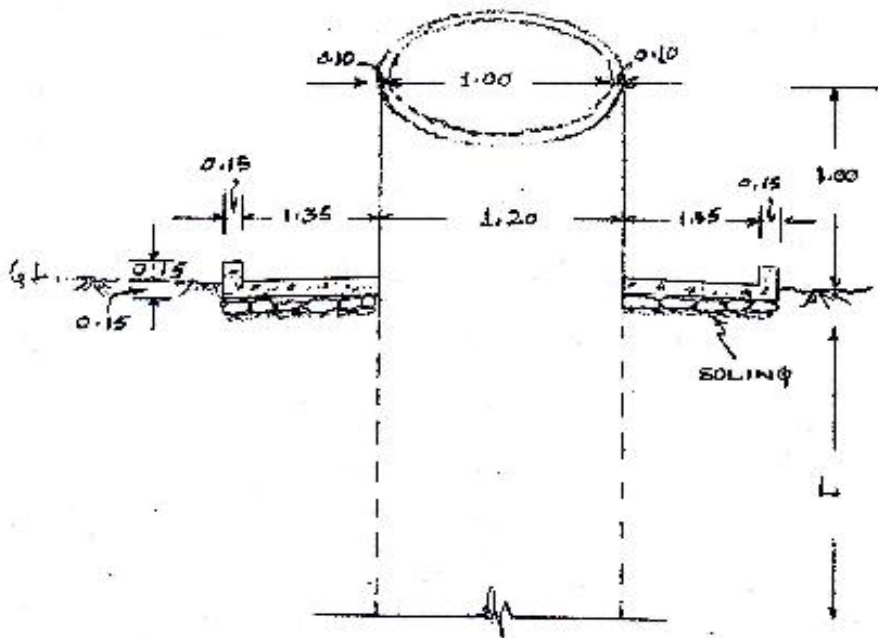
(Rupees Sixty Thousand) only.

DRAWING OF RING WELL

NOT TO SCALE



PLAN



CROSS SECTION

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/- m ³	..... 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/- m ³	..... 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/- m ³	..... Rs. 196156.40

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

Apron :	1 x 4.60 x 6.00 x 0.30	=	8.28m ³
	1 x ½ x 1.80 x 6.00 x 1.80	=	9.72m ³
Less :	1 x ½ x 0.45 x 6.00 x 1.80	= (-)	2.43m ³

		=	15.57m ³

@ Rs. 2714/- m³ Rs. 42256.98

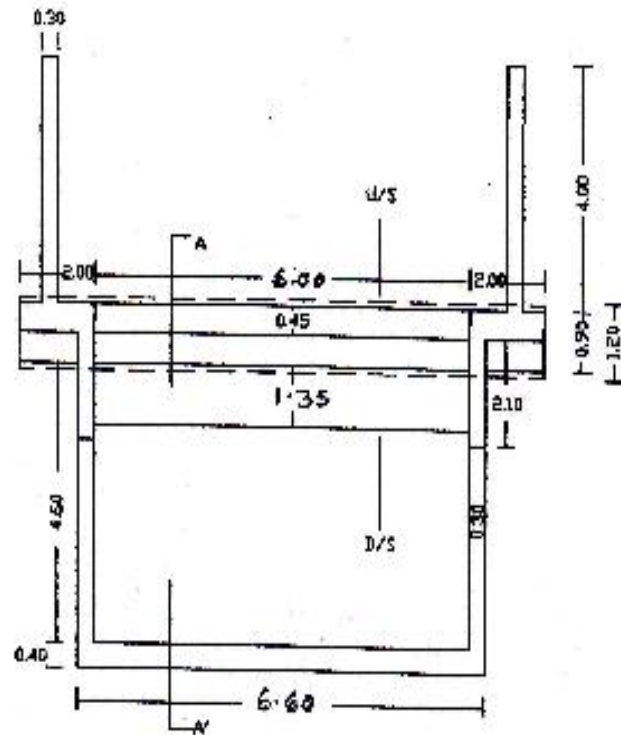
GRAND TOTAL = Rs. 250067.56

Say, Rs. 2,50,000.00

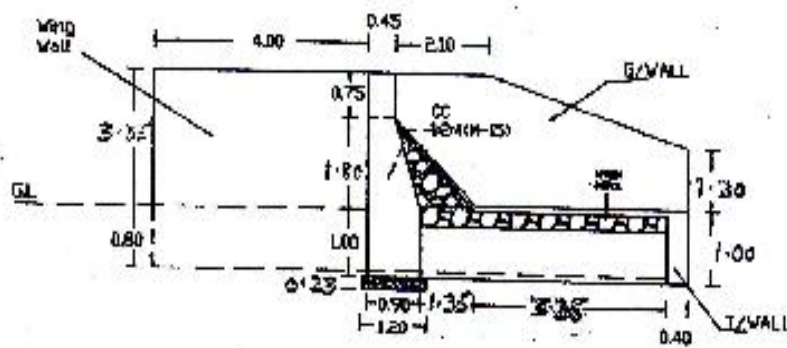
(Rupees Two lakh fifty thousand) only.

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 :	$1 \times 18.00 \times 1.20 \times 1.25$	$= 27.00\text{m}^3$
	L/Channel :	$1 \times 8.00 \times 1.40 \times 1.10$	$= 12.32\text{m}^3$

			$= 39.32\text{m}^3$
	@ Rs. 47/- m^3	.....	Rs. 1848.04
2/137.	P.C.C 1:3:6 in foundation.....etc.		
	Core wall :	$1 \times 18.00 \times 1.20 \times 0.11$	$= 2.38\text{m}^3$
	@ Rs. 3571/- m^3	.....	Rs. 8498.98
3/141.	Plain/reinforced c.c in open foundation complete. (A) P.C.C M-15.		
	Core wall :	$1 \times 18.00 \times \frac{0.40 + 1.00}{2} \times 3.50$	$= 44.10\text{m}^3$
	L/channel :	$2 \times 8.00 \times 0.20 \times 1.15$	$= 3.68\text{m}^3$
		$1 \times 8.00 \times 1.00 \times 0.10$	$= 0.80\text{m}^3$

			$= 48.58\text{m}^3$
	@ Rs. 4090/- m^3	.....	Rs. 198692.20

4/28. Construction of embankment.

Dam :	$1 \times 18.00 \times \frac{2.50 + 8.50}{2} \times 3.00$	= 297.00m ³	
Less :	$1 \times 18.00 \times \frac{0.40 + 0.80}{2} \times 2.50$	= (-) 27.00m ³	

		= 270.00m ³	
	@ Rs. 71/- m ³	.....	Rs. 19170.00

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

(I) Stone /boulders.

Dam U/S :	$1 \times 18.00 \times 4.24 \times 0.20$	= 15.26m ³	
L/Channel :	$1 \times 8.00 \times 1.00 \times 0.20$	= 1.60m ³	

		= 16.86m ³	
	@ Rs. 1086/- m ³	.....	Rs. 18309.96

6/37. Turfing with sods.

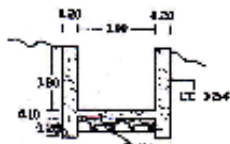
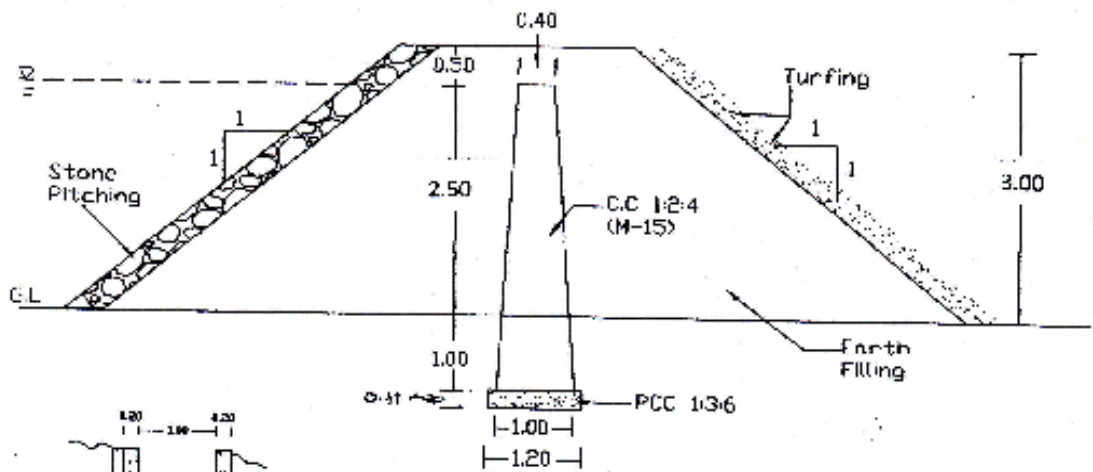
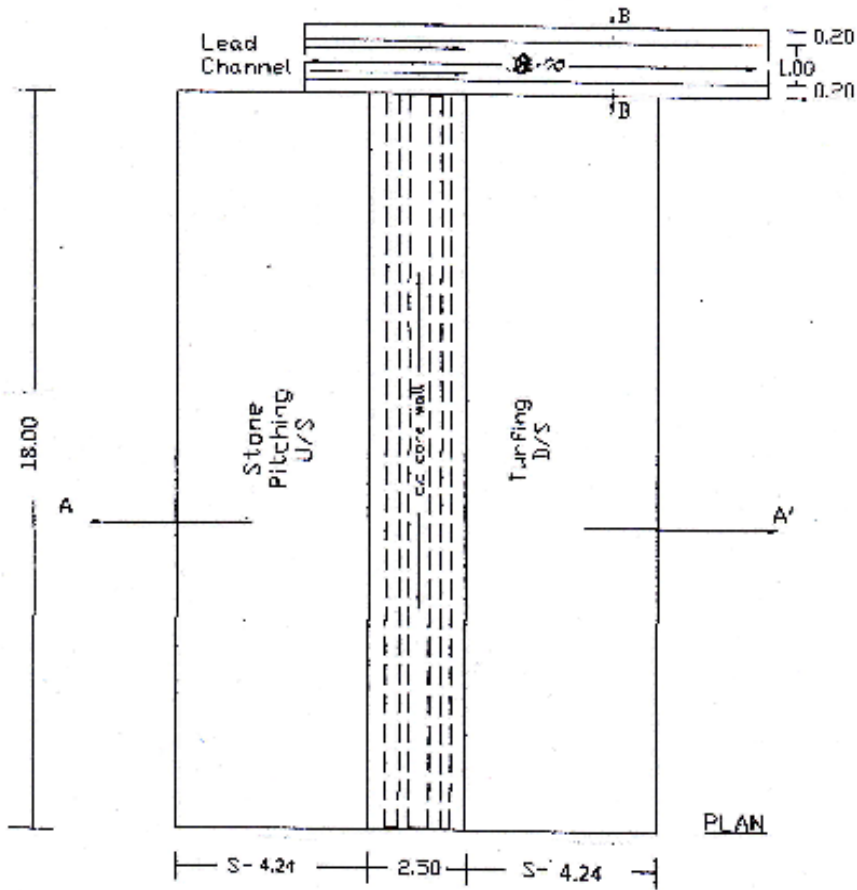
Dam D/S :	$1 \times 18.00 \times 4.24$	= 76.32m ²	
	@ Rs. 46/- m ²	.....	Rs. 3510.72

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



C/S at B-B'

C/S AT A-A'

NB: All Dimension are
In Metre

Not to Scale

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 :

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

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

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

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

@ Rs. 47/- m³

.....

Rs. 49757.49

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

Length : 10.00 metres.

@ Rs. 25/- m³

.....

Rs. 250.00

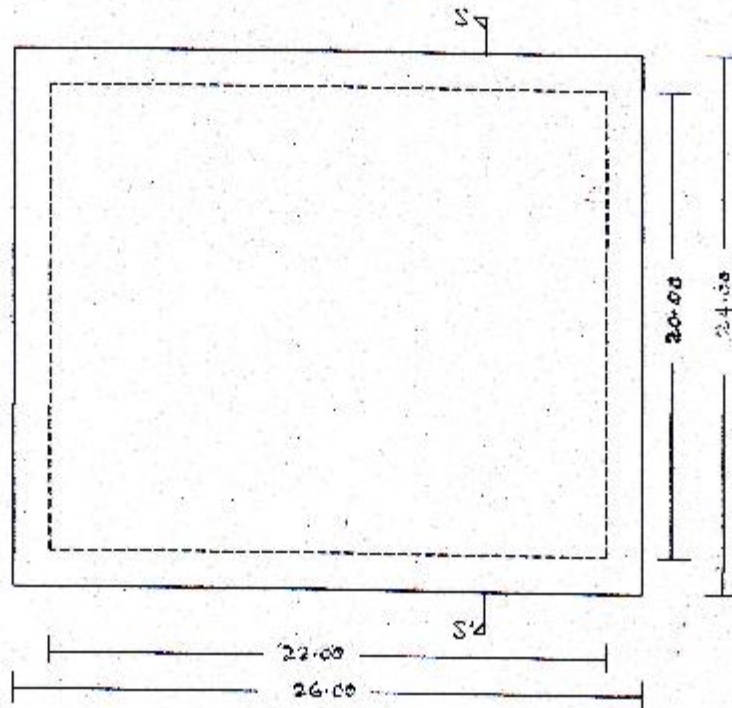
GRAND TOTAL = Rs. 50007.49

Say, Rs. 50,000.00

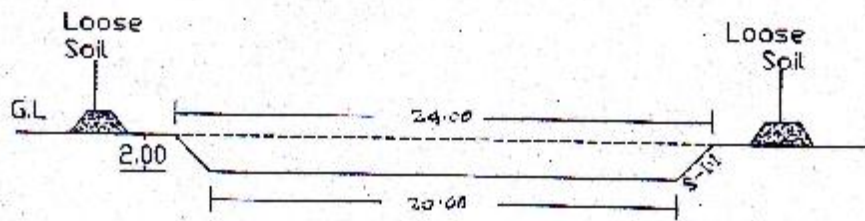
(Rupees Fifty thousand) only

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.			
		$1 \times 10.00 \times 1.35 \times \frac{1}{2} (1.10 + 0.60)$	$= 11.48\text{m}^3$	
		$1 \times 10.00 \times \frac{1}{2} \times 1.35 \times 0.38$	$= 2.57\text{m}^3$	

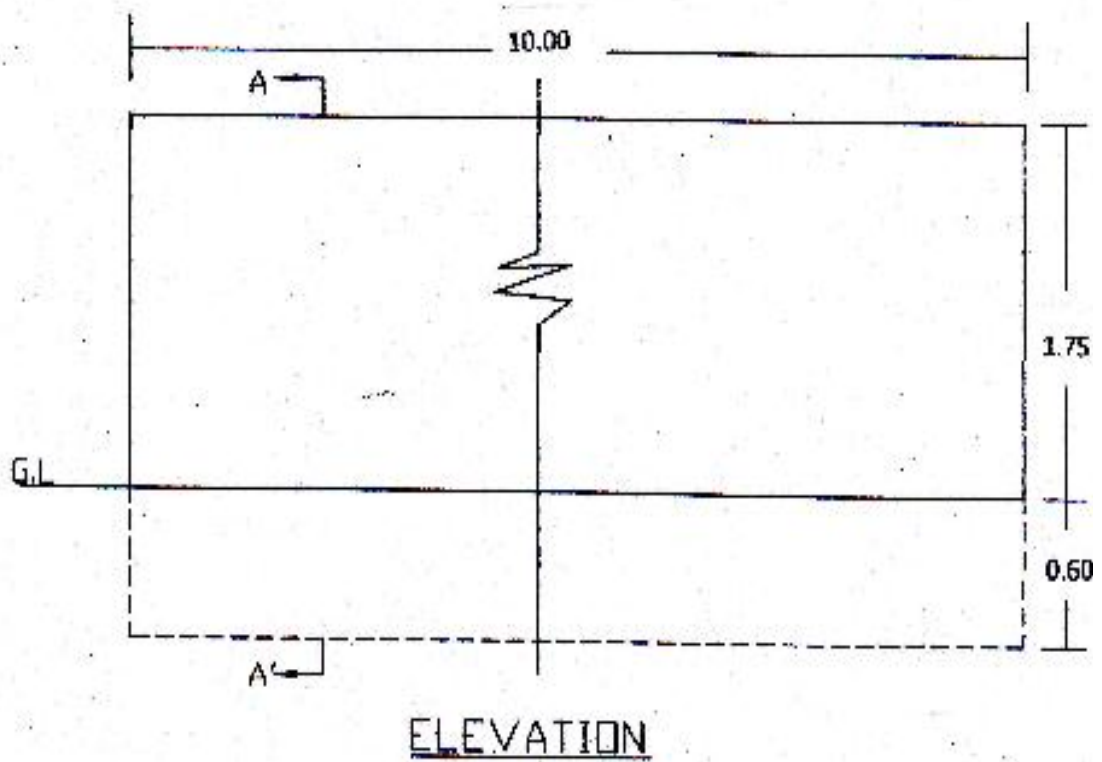
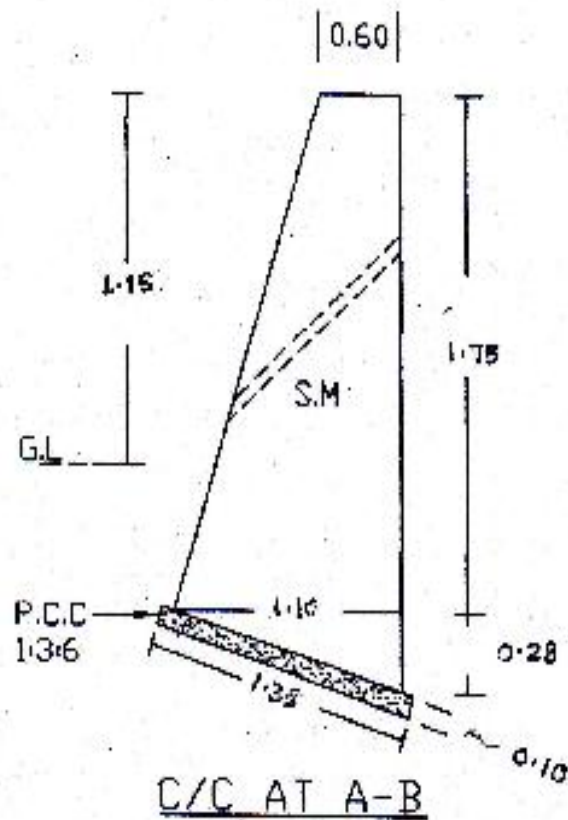
			$= 14.05\text{m}^3$	
		@ Rs. 47/- m^3	.....	Rs. 660.35
2/137.	P.C.C 1:3:6 in foundation.....etc.			
		$1 \times 10.00 \times 1.35 \times 0.10$	$= 1.35\text{m}^3$	
		@ Rs. 3571/- m^3	.....	Rs. 4820.85
3/140(b).	Stone masonry works in cement mortar 1:3 etc.			
		$1 \times 10.00 \times \frac{0.60 + 1.10}{2} \times 1.75$	$= 14.88\text{m}^3$	
		$1 \times 10.00 \times \frac{1}{2} \times 1.10 \times 0.28$	$= 1.54\text{m}^3$	

			$= 16.42\text{m}^3$	
		@ Rs. 2714/- m^3	.....	Rs. 44563.88

		GRAND TOTAL =	Rs. 50045.08	
		Say, Rs. 50,000.00		

(Rupees Fifty thousand) only.

STONE MASONRY PROTECTION WALL
Not to Scale



ANNEXTURE-IV

MoA, SUB COMMITTEE DETAILS

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



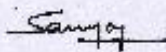
Phone: 03651-223835(O), 223826(R)
Fax: 03651-221179, 222226
e-mail: sanjaygoyal_ias@yahoo.com

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 covered with Watershed Projects/Programme 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: a) Kilmangittim

b) Kalamati

	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 ⁵
					(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)	2280100	a)Dugout pond	10 Nos	500000	Enclosure of Abstract of Perspective Plan for Convergence of NREGs with IWMP in DPR	District Level
					b)Stone masonry protection wall	8 Nos	400000		
					c) Water harvesting farm pond	1 Nos	250000		
					d) C.C Check cum Irrigation dam	1 Nos	250000		
					e) Earthen irrigation channel	1682 Rmt	84100		
					f) Wet terrace	10 Ha	150000		
					g)Rubber Plantation	50 Ha	350000		
					h) Arecanut Plantation	40 Ha	296000		
					Grand Total		2280100		

Grand Total: Twenty two lakhs eighty two thousand and one hundred only.

Enclosed: Abstract of Perspective Plan for Convergence of NREGS with IWMP.

**ABSTRACT OF PERSPECTIVE PLAN FOR CONVERGENCE OF NREGS WITH IWMP AT KALAMATI VILLAGE
UNDER RIMJONG MICRO-WATERSHED, WGH-IWMP-VIII**

Name of the Village : Kalamati
Total No. of Job Card Holder : 11 Nos

Total Wages Component (@Rs. 117/- per m/days= Rs. 1,28,700/-)
Amount earmarked for Convergence per annum = Rs. 1,28,700/-

(Rupees One lakh twentyeight thousand seven hundred only)

SL.No	ACTIVITY	UNIT	PROJECT PERIOD												Mandays to be Generated
			2011-12		2012-13		2013-14		2014-15		Total				
			PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN			
1	Dug out pond @50,000/- per number	Nos	1	50,000	-	-	-	-	-	-	1	50,000	2	1,00,000	856
2	Stone masonry Protection wall @ 50,000/- per number	Nos	-	-	1	30,000	20,000	1	28,700	21,300	-	-	2	58,700	501
3	Earthen irrigation channel @ 50/- per Rmt	Rmt	74	3,700	-	334	16,700	-	-	-	174	8,700	582	29,100	249
4	Well Terrace @ 15,000/- per Ha	Ha	5.00	75,000	-	-	-	-	-	-	-	-	5	75,000	641
5	Rubber plantation: i) Planting @ 18,000/- per Ha ii) Weeding @ 2,000/- per Ha	Ha	-	-	10	18,000	20,000	10	18,000	-	-	-	20	36,000	307
5	Arecanut plantation: i) Planting @ 2,400/- Ha ii) Weeding @ 2,000/- per Ha	Ha	-	-	10	24,000	20,000	5	12,000	-	-	-	20	1,00,000	855
6	GRAND TOTAL	Ha	-	-	10	20,000	20,000	15	30,000	21,300	-	-	15	80,000	684
			-	1,28,700	-	1,28,700	20,000	1,28,700	21,300	1,28,700	-	-	5,14,800	41,300	4,400

L. T. I. of Mrs. Mangayy Narad.



Amount allocated for convergence for the period 2011-12 to 2014-15
Wages Component: = Rs. 5,14,800.00
Material Component: = Rs. 41,300.00
Grand Total = Rs. 5,56,100.00

President
GALAMATI
West Ganga Hills

Kalamati VEC
Saisella Block, WGH

Srinivasan Manick
Secretary
Galamati V.D.C.
West Ganga Hills

Kalamati VEC
Saisella Block, WGH

**ABSTRACT OF PERSPECTIVE PLAN FOR CONVERGENCE OF NREGS WITH IWMP AT KILMANGITTIM VILLAGE
UNDER RIMJONG MICRO-WATERSHED, WGH-IWMP-VIII**

Name of the Village : KILMANGITTIM
Total No. of Job Card Holder : 30 Nos

Total Wages Component (@Rs. 117/- per m/days = Rs. 3,51,000/-)
Amount earmarked for Convergence per annum = Rs. 3,51,000/-
(Rupees three lakh fifty one thousand) only

Sl.No	ACTIVITY	UNIT	PROJECT PERIOD												Mandays to be Generated							
			2011-12			2012-13			2013-14			2014-15				Total						
			PHY	Wages	FIN Material	PHY	Wages	FIN Material	PHY	Wages	FIN Material	PHY	Wages	FIN Material		PHY	Wages	FIN Material				
1	Dug out pond @50,000/- per Number	Nos	3	1,50,000	-	-	-	-	3	1,50,000	-	-	-	2	1,00,000	-	-	8	4,00,000	-	-	3419
2	Stone masonry Protection wall @ 50,000/- per number	Nos	1	30,000	20,000	-	-	1	30,000	20,000	-	-	4	1,20,000	80,000	-	-	6	1,80,000	1,20,000	-	1538
3	Water harvesting farm ponds @ 2,50,000/- per number	Nos	-	-	-	1	1,50,000	1,00,000	-	-	-	-	-	-	-	-	-	1	1,50,000	1,00,000	-	1282
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	-	1282
5	Earthen irrigation channel @ 50/- per Rmt	Rmt	420	21,000	-	120	6,000	-	140	7,000	-	420	21,000	-	1100	55,000	-	470	55,000	-	-	470
6	Well terrace @ 15,000/- per Ha	Ha	-	-	-	5	75,000	-	-	-	-	-	-	-	5	75,000	-	641	75,000	-	-	641
7	Rubber plantation: i) Planting @ 18,000/- per Ha ii) Weeding @ 2,000/- per Ha	Ha	-	-	-	20	36,000	-	10	18,000	-	-	-	30	54,000	-	-	30	54,000	-	-	482
8	Arecanut plantation: i) Planting @ 2,400/- Ha ii) Weeding @ 2,000/- per Ha	Ha	-	-	-	20	40,000	-	30	60,000	-	30	60,000	-	30	1,80,000	-	30	1,80,000	-	-	1387
GRAND TOTAL				3,51,000	1,20,000		3,51,000	1,00,000		3,51,000	1,00,000		3,51,000	50,000		14,04,000			14,04,000	3,20,000		12,000

Amount allocated for convergence for the period 2011-12 to 2014-15
1. Wages Component: = Rs. 14,04,000.00
2. Material Components: = Rs. 3,20,000.00
Grand Total = Rs. 17,24,000.00
Grand Total (Rupees Seventeen lakh twenty four thousand only)

W. S. S. S. S.
President
KILMANGITTIM
President: 11-11-11
Kilmanjittim VEC
Saisela Block, WGH

K. S. S. S. S.
Secretary
Kilmanjittim V.E.C.
Saisela Block, WGH

AGREEMENT FOR CONVERGENCE OF SCHEME

The Village Employment Councils (VEC) and the Communities of Kalamati Villages, Selsella Blocks, West Garo Hills, Meghalaya have no objection to the Convergence of NREGS with Integrated Management Project (IWMP) at Kalamati village under Rimjong 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. Stone Masonry Protection Wall
3. Wet Terrace
4. Areca nut Plantation
5. Earthen Irrigation Channel
6. Rubber Plantation

L. T. I. of Sri Tanjung Marak


President
GALAMATI
President
West Garo Hills (Meh.)
Village Employment Council
Kalamati
Selsella Block, WGH

Singga Marak
Secretary
Galamati V.E.C.
Secretary
Village Employment Council
Kalamati
Selsella Block, WGH

AGREEMENT FOR CONVERGENCE OF SCHEME

The Village Employment Councils (VEC) and the Communities of Kilmangittim Villages, Selsella Blocks, West Garo Hills, Meghalaya have no objection to the Convergence of NREGS with Integrated Management Project (IWMP) at Kilmangittim village under Rimjong 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. Stone Masonry Protection Wall
3. Wet Terrace
4. C.C. Check Cum Irrigation Dam
5. Areca nut Plantation
6. Earthen Irrigation Channel
7. Water Harvesting Farm Pond
8. Rubber Plantation

Muzung Sangon
President
KILMANGITTIM
President
West Garo Hills (M. S. S.)
Village Employment Council
Kilmangittim
Selsella Block, WGH

Rangjung Marak
Secretary
Kilmangittim T.S.C.
West Garo Hills, Megh.
Secretary
Village Employment Council
Kilmangittim
Selsella Block, WGH

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


The A-king Nokma of Kalamati village under Rimjong 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 Kalamati 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

L. T. I. O.
Jungung
Marah.



P. Marah
Nokma III-05 (11)
Kalamati A-King
West Garo Hills

Countersigned by


The Soil & Water Conservation
(T) Division, West Garo Hills.

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

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

The A-king Nokma of Kilmangittim village under Rimjong 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 Kilmangittim 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

Mangang Sangrai

**A. King Nokma
Kilmangittim A-king
WGH-IWMP-VIII**

Countersigned by

[Signature]

**Divisional Officer,
Tura Soil & Water Conservation
(T) Division, West Garo Hills,
Tura Soil & Water Cons(T) Division
West Garo Hills, Meghalaya**