GOVERNMENT OF MEGHALAYA

DETAILED PROJECT REPORT
OF

CHENGAL MICROWATERSHED
UNDER
INTEGRATED WATERSHED MANAGEMENT PROGRAMME
WGH-IWMP – II
2009-2010
DADENGGRE BLOCK
WEST GARO HILLS, MEGHALAYA

SUMMARY

Name of the Sate	**:**	Meghalaya
Name of the District	**:**	West Garo Hills
Name of the C&RD Block	**:**	Dadenggre
Name of the Villages	**:**	Chengalgre
Name of the Project	**:**	IWMP-II
Total Geographical Area	**:**	581.70 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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INTRODUCTION AND BACKGROUND

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INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Chengal (IWMP - II) Project is located in Dadenggre C&RD Block, West Garo Hills District of Meghalaya. Consisting of a single micro-watershed, the project area is drained by the Ditti River and its tributaries flowing in a South to North direction. The total area is 581.70 Ha. with 500 ha to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 35 km from Dadeng Civil Sub-Division and about 45 km from Tura the District Headquarter . There is 1(one) village under the Project Area. i.e. Chengalgre.

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 581.70 Ha., with 500 hectares to be treated under the Integrated Watershed Management Programme (IWMP)

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1.3 Need and Scope for Watershed Development:

The micro-watershed Chengal IWMP-II 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:- NREGS.

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 HillsDistrict of Meghalaya.It lies between 25°43′00″ and 25°45′00″ North Longitude and 90°16′00″ 90°19′00″ East Latitude respectively. It falls under the Jurisdiction of Dadeng Sub-Division at a distance of 45 km from Tura the district Headquater of West Garo Hills . There is only one(1) village within the Project Area. i.e. Chengalgre.

2.2 Physiography:

The physiography of the micro-watershed is highly undulating. The altitude ranges from a minimum of 160.m to a high of 440 m above mean sea level. In the lower reaches (valley lands) the slope ranges from 1-5% , 5-15% in the middle and extent upto 50.%. or more in some areas.

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
40 - 100	1 – 50%	3rd Order Micro W/S	Damal stream, Dipo stream, Arakka stream, Tegatchu stream, Dadak stream Marak stream Anil stream Chengal stream	Flat and Gentle slope.

2.2 Drainage :

The major stream draining the micro-watershed is the Chengal Stream which is 3rd order stream flowing in a West-north direction. The slopes of the micro-watershed are dissected by numerous small tributaries flowing to the Chengal Stream and drains into Ditti River.

2.3 Soil :-

Soil in general is moderately deep with 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 II	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	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 II	Loamy clay	500	3600	Paddy	18.90 Ha
									Maize	10.00 Ha
									Arecanut	64.70 Ha
						Total	**500**			

2.5 Agriculture :-

Agriculture is the primary occupation of the people of the area. Jhum cultivation is sparsely practiced. Under settled farming, the principal crops are paddy and maize. Horticulture crops consist mainly of arecanut and cashew and contribute reasonable income to the farmers.

Table 2.4: Crop yield and production

Crops	Area (ha)	Average Yield (Qtl) per ha.	Total Production (Qtl.)
paddy	18.90	15	283.50
Maize	10.00	42	420.00
Arecanut	64.70	8	517.60

2.1 Natural Vegetation :

The tree species common to the watershed area includes – *Albizzia spp, Schima wallichii, Emblica officianalis, Bombax cieba,* and *bamboo spp*. There has been gradual decrease in the vegetative cover due to continuous jhum and expansion of horticulture plantation.

2.2 Socio-Economic Profile :

The Socio-economic condition of the people is poor. The per capita land holding of agricultural land is 1.46 ha. The entire population depends upon agriculture and horticulture for sustenance. There are about 57 small farmers with average agricultural land holding of 1-2 Ha.

2.3 Demographic Status *:* The total households in the watershed project is 57 nos. with a total population of 286 nos, of which 150 nos. are male and 136 nos are female.

Table 2.5: Infrastructure Status.

Infrastructure facilities **:**

2.1.1 ***Roads :*** The project area is about 15 km from the main road and is connected by an all-weather road

2.1.2 ***School:*** There is only 1(one) L.P Schools within the Project Area run by the Government.

2.1.3 ***Electricity :*** The village is yet to be electrified.

2.1.1 *Health :* **:** There is no health centre in the villages1(one) nos of anganwadi centre is located in the project area.

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2.1.2 ***Water Supply :*** The village has water connectivity from P.H.E. department. However, majority of the population still depend on natural springs, streams and open well to meet their water requirements.

2.1.3 ***Market :*** There is a weekly market held once in a week at *Damal Asim* .However, the main market where the people sell their produce is at *Dadenggre* which is about 15km away.

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Table 2.5: Infrastructure Status.

1	2	3		4			
Name of District	Name of Project	Parameters:		Status			
West Garo Hills	West Garo Hills – IWMP II	(i)	No. of villages connected to the main road by an all-weather road.	All villages are connected to the main road			
		(ii)	No. of village provided with electricity	nil			
		(iii)	No. of households without access to drinking water	20 nos.			
		(iv)	No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI)	(P)	(S)	(HS)	(VI)
				1 Nos.	-	-	-
		(v)	No. of village with access to Primary Health Centre	Nil			
		(vi)	No. of village with access Veterinary Dispensary	Nil			
		(vii)	No. of village with access Post Office	Nil			
		(viii)	No. of village with access Banks	Nil			
		(ix)	No. of village with access Markets/ mandis	Nil			
		(x)	No. of village with access Agro-Industries	Nil			
		(xi)	Total quantity of surplus milk	Nil			
		(xii)	No. of milk collection centres (e.g. Union (U)/ Society (S)/ Private agency (PA)/ Others (O))	(U)	(S)	(PA)	(O)
				Nil	Nil	Nil	Nil
		(xiii)	No. of villages with access to Aganwadi Centres	1			
		(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 .

Table 2.6: Existing livestock population

Type of Animal	Population
Piggery	22
Poultry	142
Cattle	85
Total	**249**

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 Hils 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
WGH	WGH IWMP II	(i) Large	-	-	-	-	
		(ii) Small	57	-		83.60	83.60
		(iii) Marginal	-	-	-		
		(iv) Landless	-	-	-	-	
		Sub - Total	57	-	-	83.60	83.60

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 IWMP II	(i) Wasteland/ degraded land	-	-	-	25.20	-	-	-	25.20
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Private Agriculture land	18.90	-	-		18.90	-	-	-
		(iv) Village woodlot	-	-	-	-	-	-	-	-
		(v) Forest	-	-	-	314.00	-	-	-	232.40
		(vi) Village Ponds/ Tanks	-	-	-	-	-	-	-	-
		(vii) Community Buildings	-	-	-	-	-	-	-	-
		(viii) Weekly Markets	-	-	-	-	-	-	-	-
		(ix) Permanent Markets	-	-	-	-	-	-	-	-
		(x) Temples/ Places of worship	-	-	-	-	-	-	-	-
		(xi) Others (Pl. specify) Jhum cultivation Horticulture Plantation	 58.80 64.70	-	-	 100 -	 58.80 64.70	- -	- -	 100 -
		Total	**142.40**	**-**	**-**	**439.20**	**142.40**	-	-	**357.60**

2.4 Land use and land cover :

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

a)	Agricultural land-crop land-kharif crop	=	18.90 Ha
b)	Horticulture Plantation	=	64.70 Ha
c)	Wasteland open-scrub	=	25.20 Ha.
d)	Forest – open	=	314.00 Ha
e)	Shifting cultivation-current	=	158.80 Ha
	Total	=	581.60 Ha

2.5. Problems of the Area : About 53.98 % of the project area is under degraded forest. Jhum cultivation is extensively practiced and is one of the major reason for reduction in vegetative cover. As a result about 31.63% of the forest area has been turned into open scrub or jhum fallow. To mitigate these 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

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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.	
	Baseline survey	YES
	Hydro-geological survey	NO
	Contour mapping	YES
	Participatory Net Planning (PNP)	YES

1	2	2
	Remote sensing data-especially soil/ crop/ run-off cover	YES
	Ridge to Valley treatment	YES
	Online IT connectivity between	
	(1) Project and DRDA cell/ZP	YES
	(2) DRDA and SLNA	YES
	(3) SLNA and DoLR	YES
	Availability of GIS layers	
	1. Cadastral map	NO
	2. Village boundaries	NO
	3. Drainage	YES
	4. Soil (Soil nutrient status)	YES
	5. Land use	YES
	6. Ground water status	NO
	7. Watershed boundaries	YES
	8. Activity	YES
	Crop simulation models#	NO
	Integrated coupled analyzer/ near infrared visible spectroscopy/ medium spectroscopy for high speed soil nutrient analysis	NO
	Normalized difference vegetation index (NDVI)#	YES
	Weather Stations	NO
B.	**Inputs**	
	1. Bio-pesticides	NO
	2. Organic manures	YES
	3. Vermi-compost	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 HillsDistrict 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-II	(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 Chengal Watershed IWMP-II was constituted with the active involvement of the villagers with strong support of the Traditional Institutions (Village Durbar/Council). The Chimeseng Watershed Committee has been registered under the Society Registration Act 1983.

Table 3.2: Details of Watershed Committees (WC):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Names of the Districts	Names of projects	Names of WCs	Date of Registration as a Society (dd/mm/ yyyy)	Designa tion	M/F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educa-tional ualify-cation	Function/s assigned#
W.G.H	W.G.H- IWMP II	Chengal	2010	President	M		ST									IV	A to I
				Secretary	M		ST									HSSLC	A to I
				Member	5 M		ST									V to X	A to I
				Member	3 F		ST										A to I
				Member													

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

ii) Self Help Group

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

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

1	2	3				4				5			6		
Names of the Districts	Names of projects	Total no. of registered SHGs				No. of members				No. of SC/ST in each category			No. of BPL in each category		
		With only Men	With only Women	With both	Total	Categories	M	F	Total	M	F	Total	M	F	Total
W.G.H	W.G.H IWMP II		1		1	(i) Landless									
						(ii) SF		10	10		10	10	-	-	-
						(iii) MF									
						(iv) LF									

iii) User Group

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

Table 3.4: User Group Details

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

CHAPTER IV

PROJECT ACTIVITIES

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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 II	3.00 Lakh	a) Spring chamber b) Ringwell c) Link roads	3.00 Lakh	3.00 Lakh	-	N.A	a) Improvement in drinking water facilities b) better road connectivity

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 II	a) Rapport Building b) Community meeting c)Formation of Watershed committee m	a) Project concept/roles and responsibility of W.C b) Concept/roles and responsibility of SHG and UG c) Concept/roles and responsibility of of WDT members d) Off-campus exposure trip to research Institutes/Established farms etc.	a)Pamplets b)Banners c)Posters	a)Participatory Rural Appraisals b)Socio Economic Survey	a)GPS survey b)Engi-neering Survey	a) NIRD b)SIRD c)ICAR d)NEHU	a) NOC with village headman for under-taking develop-mental works b) Agreement for es-tablishing /maintaing forest reserves. c) Agreement for convergence of NREGS scheme with IWMP with VEC.	a)Resource inventory works. b) Geo-refering. c) Printing & publishing work.	Done	Entry Point Activity	4.50

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											
Sl. No	Name of States	Name of Districts	Name of Projects	Type of structures	Pre Project			Proposed Project											
								Augmentation/ repair of existing structures				Construction of new structures				Total target			
					No	Area irrigated (ha)	Storage capacity	No	Area to be treated (ha)	Storage capacity	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (per unit)	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (m^3)	Estimated cost
1	Meghalaya	W.G.H	W.G.H IWMP II	Check Dam-Cum irrigation dam	-	-	-	-	-	-	-	4 Nos	44 Ha	370	4.00	4 Nos	44 Ha	1480	4.00
				Water harvesting farm pond	-	-	-	-	-	-	-	5 Nos	123 Ha	1125	6.00	5Nos	123 Ha	3375	6.00
				Earthern Irri channel	-	-	-	-	-	-	-	1572 rmt	24 Ha	0.10	0.786	1572 rmt	24 Ha	157.2	0.786
			Total		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**191**	**1495.1**	**10.786**		**191**	**1495.1**	**10.786**

8											9	10
Achievement due to project												
Augmentation/ repair of existing structures				Construction of new structures				Total achievement			Change in storage capacity (col 8-6)	Change in irrigated area (ha) Col. (8-6)
No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	Area irrigated (ha)	Storage capacity (m^3)	Estimated incurred		
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-

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

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

4.2.3 Activities executed by User Groups in the Project Areas.

	2	3						
Names of Districts	Names of Projects	Major activities of the UGs –Targets						
		Structure/ activity proposed				No. of UGs involved	Estimated Cost	Amount of WDF to be collected (Rs.)
		Sl. No.	Type	No.#	Treatment (ha)			
W.G.H	W.G.H IWMP-II	1.	C.C Check Dam cum irrigation Dam	4 Nos	44 Ha	2	4.00	0.20
		2	Stone Masonry Protection wall	3 Nos	75 Ha	2	1.50	0.075
		3	Water Harvesting Farm Pond	5 Nos	123 Ha	2	6.00	0.30
		4	Earthen Irrigation Channel	1572 rmt	24 Ha	1	0.786	0.039
		5	Dug out Pond	22 Nos	22 Ha	4	8.80	0.44
					288 Ha	`11	21.086	1.054

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	**WGH-IWMP-II**	Power tiller	1	15000-20000
		Poultry	3	20000-25000
		Piggery	4	30000-40000

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		8		9		10		11		12		13
District	Names of projects	Ridge area treatment		Drainage line treatment		Nursery raising		Land development		Horticulture Development		Pasture 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)	(a)	(b) (Rs)	(a)	(b) (Rs)	(a)	(b)	(a)	(b)	
W G H	W.G.H IWMP-II	159 Ha	13.704	288 Ha	21.086	-	-	25 Ha	3.75	30 Ha	4.56	-	-	Piggery Poultry	1.60 1.05	Finger-lings	0.10	-	-	Kitchen garden Tailoring Carpentry Power tiller	6.00 0.80 0.70 1.40	
	Total	**-**	**13.704**		**21.086**				**3.75**		**4.56**	**-**	**-**		**2.65**	**-**	**0.10**	**-**	**-**		**8.90**	**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													
District	Project	Name of structures	(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land Dev. (L)	(i) Pri-vate	(ii) Com-munity	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	No. of units (No./ cum./ rmt)	Estimated cost (Rs. in lakh)				Expected month & year of completion (mm/yyyy)	No. of Units (No./ cu.m./ rmt)	Expenditure incurred (Rs. in lakh)				Status of comple-tion	Actual month & year of completion (mm/yyyy)
											M	W	O	T			M	W	O	T		
W.G.H	W.G.H IWMP III																						
		Dug out Pond	-	**D**	-	**P**		-	UG/WC	22 nos		8.80		8.80	4 yrs.								
		Check Dam cum irrigation Dam	-	**D**	-	-	**C**	-	UG/WC	4 nos	1.60	2.40		4.00	4 yrs.								
		Wet Terrace	-		**L**	**P**		-	UG/WC	25 Ha		3.75		3.75	4 yrs.								
		Stone masonry Protection Wall	-	**D**	-	-	**C**	-	UG/WC	3 nos	0.60	0.90		1.50	4 yrs.								
		Earthen irrigation Channel	-	**D**	-	-	**C**	-	UG/WC	1572 rmt		0.786		0.786	4 yrs.								
		Water Harvesting farm pond.	-	**D**	-	-	**C**	-	UG/WC	5 nos	2.40	3.60		6.00	4yrs.								
		Total									**4.60**	**20.236**		**24.836**									

4.2.9 Details of engineering structures in watershed works.

9																			
Outcomes																			
Reduction in run off (cu.m)	Area treated# (ha)	Water level (m)		Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries						
		Pre-project	Post project	Pre-project	Post project	Pre-project	Post project	SC	ST	Others (Men)	Women	Total	SC	ST	Others	Women	Total		
NA	-	NA	-	NA	-	NA	-	-	14165		6071	20236		141		60	201		

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

1	2	3	4			5			6	7				8			
			Type of treatment			Type of land			Executing agency	Target				Achievement			
District	Project	Name of structure/ work	(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land dev. (L)	(i) Private	(ii) Community	iii) Others (pl. specify	(i) UG (ii)SHG (iii) Others (pl. specify)	Area (ha)	No. of plants	Estimated cost (Rs. in lakh)	Expected month & year of comple-tion (mm/ yyyy)	Area (ha)	No. of plants	Expendi-ture incurred (Rs. in lakh)	Actual month & year of comple-tion (mm/ yyyy)
West Garo Hills	WGH-IWMP-II	Afforestation	R	-			C		UG/SHG	89	8900	3.204	4 yrs				
		Rubber Plantation	-	-	C		C		UG/SHG	70	31500	8.80	3 yrs				
		Arecanut	-	-	C	P			UG/SHG	30	36000	4.56	4 yrs				
Total										189	76400	16.564					

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

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

9															
Outcomes															
Reduction in run off (cu.m)	Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries				
					SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
	Pre-project	Post project	Pre-project	Post project										
NA	0	-			-	1345		577	1922		134		57	191
NA	0	350	0	5250000	-	3696		1584	5280		369		158	527
NA	512	752	409600	601600	-	1915		821	2736		191		82	273
Total	**512**	**1102**	**409600**	**5851600**	**-**	**6956**		**2982**	**9938**		**694**		**297**	**991**

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	WGH-IWMP-II	Kitchen garden	P			Individual	6.00	4th year		
		Piggery		C		SHG	1.60	4th year		
		Poultry		C		SHG	1.05	4th year		
		Supply of fingerlings	P			Individual	0.10	4th year		

		Tailoring	P			Individual	0.80	4th year		
		Carpentry	P			Individual	0.70	4th year		
		Power Tiller		C		SHG	1.40	3rd year		
		Total					**11.65**			

(Contd.)

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

@The activities given in this column are merely indicative and States are free to choose any other activity suited to the project area. **4.2.13 Details of allied / other activities:**

8											
Outcomes											
Income (Rs.)		Mandays generated					No. of beneficiaries				
Pre-project	Post project	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
-	15000-20000		2520		1080	3600		28		12	40
-	20000-25000				960	960				40	40
-	20000-25000				630	630				30	30
-	15000-20000	-	-	-	-	-		10			10
	20000-25000	-	-	-	-	-		7		3	10
	20000-25000	-	-	-	-	-		14		-	14
	15000-20000	-	-	-	-	-		5		5	10
Total			**2520**		**2670**	**5190**		**64**		**90**	**154**

4.3 Consolidation and withdrawal phase

Details of activities in the CPRs in the project areas:

1	2	3	4	5	6				7						
Names of the Districts	Names of projects	Name(s) of the villages	CPR particulars	Activity proposed	Target				Achievement						
					Target area under the activity (ha)	Estimated expenditure (Rs.)	Expected no. of beneficia-ries	Estimated contri-bution to WDF (Rs.)	Area treated under the activity (ha)	Expenditure incurred (Rs.)	Actual no. of benefici-aries	No. of mandays			WDF collected (Rs.)
												SC	ST	F	
West Garo Hills	W.G.H IWMP II	Chengalgre	Waste land	Improvement of degraded forest	5 Ha	0.165	57	0.008	-	-	-	-	-	-	-
			Streams	C.C.Check Dam cum irrigation Dam	44 Ha	0.30	40	0.015	-	-	-	-	-	-	-
			Agri-land	1. Stone masonary Protection Wall 2. Earthen irrigation Channel.	99 Ha	0.385	50	0.19	-	-	-	-	-	-	-
			Spring	Spring chamber	-	0.30	30	0.015	-	-	-	-	-	-	-
			Water Conservation	Water harvesting farm pond	123 Ha	0.60	57	0.03	-	-	-	-	-	-	-

CHAPTER V

PROJECT PHASING & BUDGETING

CHAPTER V
PROJECT PHASING & BUDGETING
ACTION PLAN OF CHENGAL WATERSHED UNDER IWMP TERRITORIAL DIVISION: TURA

Name of District :- West Garo Hills — No. of Villages: 1 nos

Name of C&RD Block:- Dadenggre — 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				**2.880**
ii	*Honourarium of Watershed Committee Chairman @500/ month*				0.01		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		0.6		0.2				**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*				0.1		0.6		0.2				**0.90**
viii	*Office expenses*				0.174		1.044		0.528				**1.746**
	TOTAL OF A:	**-**	**0.00**		**1.50**		**3.75**		**2.25**				**7.50**
	PREPARATORY PHASE: 4%												
B	**Entry Point Activities:**	**4%**										**4%**	
i	*Construction of Spring Chamber @Rs60,000/- each*	2 Nos.	1.20									**2 Nos.**	**1.20**
	Construction of ringwell @Rs.60000/- each	2 Nos.	1.20									**2 Nos.**	**1.20**
	Link road @ Rs.130000/- per km	0.46 km	0.60									**0.46 km**	**0.60**
	TOTAL OF B:		**3.00**		**0**		**0**		**0**		**0**		**3.00**

C	**Training: - 5%**	**1%**		**2%**		**1%**		**1%**				**5%**	
i	*Awareness Campaign & Capacity building of farmer*	1 nos	0.2	1 nos	0.20	1 nos	0.20	1 nos	0.20			**4 nos**	**0.80**
ii	*Exposure visits - Off Campus*			1 nos	0.30			1 nos	0.35			**2 nos**	**0.65**
iii	*Capacity building of SHG's/UG's.*	1 nos	0.2	3 nos	0.60	1 nos	0.20	1 nos	0.20			**6 nos**	**1.20**
iv	*Capacity building of WC Members.*	1 nos	0.35	1 nos	0.20	1 nos	0.35					**3 nos**	**0.90**
v	*Capacity building of WDT/WV*			1 nos	0.20							**1 nos**	**0.20**
	Total of C:	**3 nos**	**0.75**	**7 nos**	**1.50**	**3 nos**	**0.75**	**3**	**0.75**				**3.75**
D	**Detailed Project Report: 1%**	**1%**										**1%**	
i	*Cost of Resources Inventories works*		0.25										**0.25**
ii	*Cost of PRA Exercises*		0.1										**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 & Evaluation: 2%**	**-**		**0.50%**		**1%**		**0.50%**				**2%**	
i	*Monitoring*			**0.20%**	0.15	**0.50%**	0.375	**0.30%**	0.225				**0.75**
ii	*Evaluation*			**0.30%**	0.225	**0.50%**	0.375	**0.20%**	0.15				**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**		**0.00**		**16.50**
II	PROJECT COST WATERSHED WORKS PHASE: 50%			**7.50%**		**35%**		**7.50%**				**50%**	
A	**Arable Land Treatment:**												
i	*Wet terrace@15000/ ha -25 Ha*			7.34	1.101	12.66	1.899	5	0.75			**25**	**3.750**
ii	*Rubber plantation -70 Ha*												
	(a) Pre-works @Rs.6000/ ha				0	50	3.00	20	1.20			**70**	**4.200**
	(b) 1st yr. planting @Rs.9000/ha				0		4.50		1.8				**6.300**
iii	*Arecanut plantation - 30 Ha*												
	(a) Pre-works @Rs.4200/ ha				0	40	1.68		0			**40**	**1.680**
	(b) 1st yr. planting @Rs.7200/ha				0		2.88		0.00				**2.88**
	TOTAL OF - A				**1.10**		**13.959**		**3.75**				**18.810**

B	**Non-Arable Land treatment:**												
i	*Improvement of degraded forest@3600/ ha- 89 Ha*			9.00	0.324	60	2.16	20	0.72			**89**	**3.204**
	Total of B:				**0.324**		**2.16**		**0.72**				**3.204**
C	**Drainage Line Treatment:**												
i	*C.C.Check-Cum-Irrigation dam @100,000/ each - 44 Ha*			**1**	1.00	2	2.00	1	1.00			**4**	**4.00**
ii	*Stone masonery protection wall @50,000/each - 75 ha*				0.00	3	1.5		0			**3**	**1.50**
iii	*Dug-out pond @40,000/-each -20 ha*			3	1.2	5	2		0			**8**	**3.20**
iv	*Water harvesting farm pond -123 ha*			1	2.00	4	4.00		0			**5**	**6.00**
vi	*Earthern irrigation channel @Rs. 50 /- Rm. -24 ha*				0.000	1262	0.63	310	0.155			**1572**	**0.786**
	TOTAL-C				**4.20**		**10.13**		**1.155**				**15.486**
	TOTAL OF A+B+C				**5.625**		**26.25**		**5.625**				**37.50**
D	**Livelihood Activities for landless person: 10%**			**1%**		**3%**		**6%**				**10%**	
i	*Kitchen garden @15000/ unit*			2	0.3	11	1.65	27	4.05			**40**	**6.000**
	Tailoring @Rs.8000/- per unit			5	0.4	5	0.4		0			**10**	**0.800**
	Carpentry @Rs.5000/- per unit			1	0.05	4	0.2	9	0.45			**14**	**0.700**
	Total of D:				**0.75**		**2.25**		**4.5**				**7.50**
E	**Production system and Micro Enterprises (SHG's) - 13%**			**1%**		**5%**		**7%**				**13%**	
i	*Piggery unit @Rs.40,000 /- per unit*			1	0.4	1	0.4	2	0.8			**4**	**1.60**
ii	*Power tiller*					1	1.4					**1**	**1.40**
iii	*Poultry unit @Rs.35,000 /- per unit*			1	0.35	1	0.35	1	0.35			**3**	**1.05**
iv	*Dugout pond @Rs. 40000/- each*				0	4	1.6	10	4			**14**	**5.60**
v	Supply of fingerlings @Rs.1000/- per unit				0		0	10	0.1			**10**	**0.10**
	Total of E:				**0.75**		**3.75**		**5.25**				**9.75**

F	**Consolidation & Exit Phase:**									**5%**		**5%**	
i	*Repairing maintanance 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)		**0**		**7.125**		**32.25**		**15.375**		**3.75**		**58.500**
	Grand Total (I+II)	**6%**	**4.50**	**14%**	**10.50**	**50%**	**37.50**	**25%**	**18.75**	**5%**	**3.75**	**100%**	**75.000**

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

1	2	3	4	5	6		7	8	9	10				11				
SL No	Name of State	Name of Districts	Names of Projects	Year of sanction	Project duration (dd/mm/yyyy)		Area of the projects	Project cost (Rs. In lakh)	Names of Micro watersheds & Code nos. (as per DoLR's unique codification)	Area (ha) of the projects				Area details (ha) (falling within the projects)				
					From	To				Cultivated rainfed area	Cultivated irrigated area	Uncultivated wasteland		Agri. Land	Forest land	Comm unity land	Others (pl. specify) Horticulture & Build up Area	Total area (ha)
												Temporary fallow	Permanent					
1	Meghalaya	West Garo Hills	W.G.H IWMP-II	2009-10	2009	2014	500	75.00	Chengal	83.60	-	391.20	25.20	142.4	232.4	125.2		500

Fund provision for the IWMP projects from all sources:

1	2	3		4										5
District	Name of Projects	IWMP Fund		Funds from other sources in addition to IWMP funds										Total
				Convergence funds		PPP		Community		Institutional finance		Others (Pl. specify)		
		Central Share	State Share	Name of Scheme	Amount (Lakhs)	Name of private sector	Financial contri-bution	Name	Financial contri-bution	Name	Financia l contri-bution	Name	Financial contri-bution	
Meghalaya	W.G.H IWMP-II	67.5	7.5	NREGS	19.16	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	**94.16**

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

1	2	3	4	5				6				
				Distt. Agency's Project Account details				Watershed Committee (WC) account details:				
Sl. No.	Names of States	Name of Districts	Names of Projects	Name of the Bank and Branch where project account has been opened	Account Number (to be obtained confiden-tially)	Account type (Savings/ Current/ Others)	Name & Designation of authorized persons who operate the account.	Name of Watershed Committee	Name of the Bank and Branch where project account has been opened	Account number (to be obtained confiden-tially	Account type (Savings/ current others)	Name & Designation of authorized persons who operate the account.
1	Meghalaya	W.G.H	W.G.H IWMP-II	SBI Tura		Savings	Chairman DWDC Secretary DWDC	Chengal	SBI New Tura	31080257906	Savings	Chairman W.C Secretary W.C Project Leader/WDT

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				
West Garo Hills	WGH-IWMP-II	nil	nil			nil	nil	nil	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 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. No	State	Name of the Training Institute	Full Address with contact no., website & e-mail	Name & Designation of the Head of Institute	Type of Institute#	Area(s) of specialization$	Accre-ditation details	Performance				
								Refer-ence Year	No. of trainings assigned	No. of trainees to be trained	No. of trainings conducted	No. of trainees trained
1	Meghalaya	NIRD (NER)	Guwahati	Director	Central Govt.	Remote Sensing, Rural Devt.	NA					
2		SIRD	Nongsder	Director	State Govt.	Capacity Building	NA					
3		RRTC	Umran	Director	Don-Bosco	Agri-Horti, Animal Husbandry, Entrepreneurship	NA					
4		ICAR	Umiam	Director	Central Govt.	Do	NA					
5		KVK	Tura	Director	Central Govt	Agriculture						
		MRDS	Shillong	Director	State Govt	Rural development						

- 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	10	10	NIL	3.75	NIL	NIL	NIL
WDTs	4	4	4	NIL				
Ugs	30	-	30	NIL				
SHGs	60	20	50	NIL				
WCs	10	10	10	NIL				
GPs	NIL	-	NIL	NIL				
Community	285	60	120	NIL				
Others Pl. specify)								
TOTAL	**399**	**104**	**224**	**0**	**3.75**	**0**	**0**	**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	0.80		a) Better understanding of Project Concept. b) Preview of Project achievement.
2.	Publish of Pamplets/booklets	S&WC (T) Division	0.10		
3.	Exposure Visits	S&WC (T) Division	0.65		
4.	Capacity Building	S&WC (T) Division	2.30		

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.	Chengalgre	-	19817		21199	41016		835		447	1282	-	-	-	-	-

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
West Garo Hills	WGH-IWMP-II	Chengalgre		N	I	L				

* From column no. 2, total number of States; from column no. 3, total no. of Districts; from column no. 4, total no. of projects; from column no. 5, total no. of villages; from column no. 6, total no. of persons migrating; from column no. 7, average no. of days for annual migration; from column no. 9, average

distance of migration from the village and form column no. 11, average income from occupation during migration, for the entire country may be given at the end of the Table.

Table 7.3 Economic benefits accrued to women:

1		2		3		4
Wages		**Training**		**Livelihoods**		
Woman days	**Amount (Rs. in lakh)**	**No. of women participants**	**Amount (Rs. in lakh)**	**No. of women beneficiaries**	**Value of assistance provided (Rs. in lakh)**	**Total (Rs. in lakh)**
21199	21.199	60	1.2	447	4.05	26.449

* 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**	
West Garo Hills	W.G.H IWMP-II	Chengalgre	Reserved forest	FW/MFP/T	unspecified		57		57	NIL
			Spring Chamber	Wd	Unspecified		40		40	NIL
			Check dam	Wi	Unspecified		30		30	NIL
			Water conservation	Wi	unspecified		57		57	NIL
			Total				184		184	

* 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-II	Open Well	1.80	1.60	1.55	0.25	Increase
		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 monyhs 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-II	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-II	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.
		Paddy		18.9		12	0	226.8	35.9	0	15	15	538.5	0	43.9	0	15	15	658.5	0
		Maize		10		24		240		10		24	0	240		10		24	0	240
		Vegetables		5		30		150	10	5	36	30	360	150	15	5	36	30	540	150
Total				**33.9**	**0**	**66**	**0**	**616.8**	**45.9**	**15**	**51**	**69**	**898.5**	**390**	**58.9**	**15**	**51**	**69**	**1198.5**	**390**

* 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					
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.
		Paddy		0	0	0	0	0	35.9	0	15	0	538.5	0	43.9	0	15	0	658.5	0
		Vegetables	0	0	0	0	0	0	6	0	36	0	216	0	6	0	36	0	216	0
Total			**0**	**0**	**0**	**0**	**0**	**0**	**41.9**	**0**	**51**	**0**	**754.5**	**0**	**49.9**	**0**	**51**	**0**	**874.5**	**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 7.6.3 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 II		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

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Table 7.6.4 Increase/ Decrease in area under fodder:

1	2	3	4			5		
			Existing area under fodder (ha)			Achievement (ha)		
District	**Name of project**	**Duration of Project**	**Source/Name of report**	**Year of reference**	**Area already under fodder**	**Area under fodder proposed to be covered through IWMP**	**Area under fodder actually covered through IWMP**	**Change in area under fodder**
W.G.H	W.G.H IWMP-II	5 yrs	NA	NA	NA	NIL	NIL	NIL

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

Table 7.6.5 Increase/ Decrease in Forest/vegetation cover:

1	2	3	4			5		
			Existing area tree cover (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under forest/vegetative cover	Forest/vegetative cover area proposed to be covered under IWMP	Forest/vegetative cover area actually covered under IWMP	Change in forest/vegetative cover area
W.G.H	W.G.H IWMP-II	5 yrs	-	-	314 ha	159 ha	-	-

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

Table 7.6.6 Increase/ Decrease in area under horticulture:

1	2	3	4			5		
			Existing area under horticulture (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under horticulture	Area under horticulture proposed to be covered through IWMP	Area under horticulture actually covered through IWMP	Change in area under horticulture
W.G.H	W.G.H IWMP-II	5 yrs	NA	NA	64.70	30 ha	NILL	-

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

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

1	2	3	4			5		
			Existing area under fodder (ha)			Achievement (ha)		
District	Name of project	Duration of Project	Source/Name of report	Year of reference	Area already under fuel-wood	Area under fuel-wood proposed to be covered under IWMP	Area under fuel-wood actually covered under IWMP	Change in area under fuel-wood
W.G.H	W.G.H IWMP-II	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-II	Cattle	85	153 litre/day	₹.0.03 /day	85	153 litre/day	₹.0.03 /day	85	153 litre/day	₹.0.03 /day	
		Piggery	22	16.80 qtl/annum	₹0.62 lac	82	19.6 qtl/annum	₹.2.35 lac	140	33.6 qtl/annum	₹4.00 lac	
		Poultry	142	3.00 qtl/annum	₹.0.12 lac	265	3.80 qtl/annum	₹.0.38 lac	1000	7.2 qtl/annum	₹0.86 lac	

* 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	Benefi-ciary	Others (pl. specify)	Total		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
West Garo Hills	WGH IWMP II																	
		Kitchen garden	6.00	6.00	-	-	6.00	-	-	30	-	20	50	-	-	-	-	-
		Tailoring	0.80	0.80			0.80			5		5	10					
		Carpentry	0.70	0.70			0.70			14			14					
		Fingerlings	0.10	0.10			0.10			10			10					

(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	
-	-	-	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 II	Wet Terrace	3.75	3.75	NIL	NIL	3.75	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Dugout Pond	8.80	8.80	NIL	NIL	8.80	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Arecanut Plantation	4.56	4.56	NIL	NIL	4.56	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
		Rubber plantation	10.50	10.50	NIL	NIL	10.50	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

* 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 II	**(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	NIL	2	2
		(vi) Water supply	NIL	2	2
		(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	NIL	NIL
		(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	4 nos	unsafe	Better quality	
		Availability of drinking water	-	10 months in a year	12 months availability	
		Increase in irrigation potential	4 nos	-	70% irrigated	
		Change in cropping/ land use pattern	-	Single cropping	Double Cropping	
		Area under agricultural crop				
		i Area under single crop	Ha	18.90	43.90	
		ii Area under double crop	Ha	-	43.90	
		iii Area under multiple crop	Ha	nil	nil	
		Net increase in crop production area		18.90	43.90	132% increase in cropping area
		Increase in area under vegetation		314	384	22% increase in vegetation cover
		Increase in area under horticulture		64.70	94.70	46% increase in area
		Increase in area under fuel & fodder		314	314	
		Increase in milk production		153 litre/day	153 litre/day	
		No. of SHGs		1	8	
		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.	30000-40000	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	₹2.73 lac	
		Summary of lessons learnt	Nil			

Table 7.10 Cost effectiveness of structures/ activities*

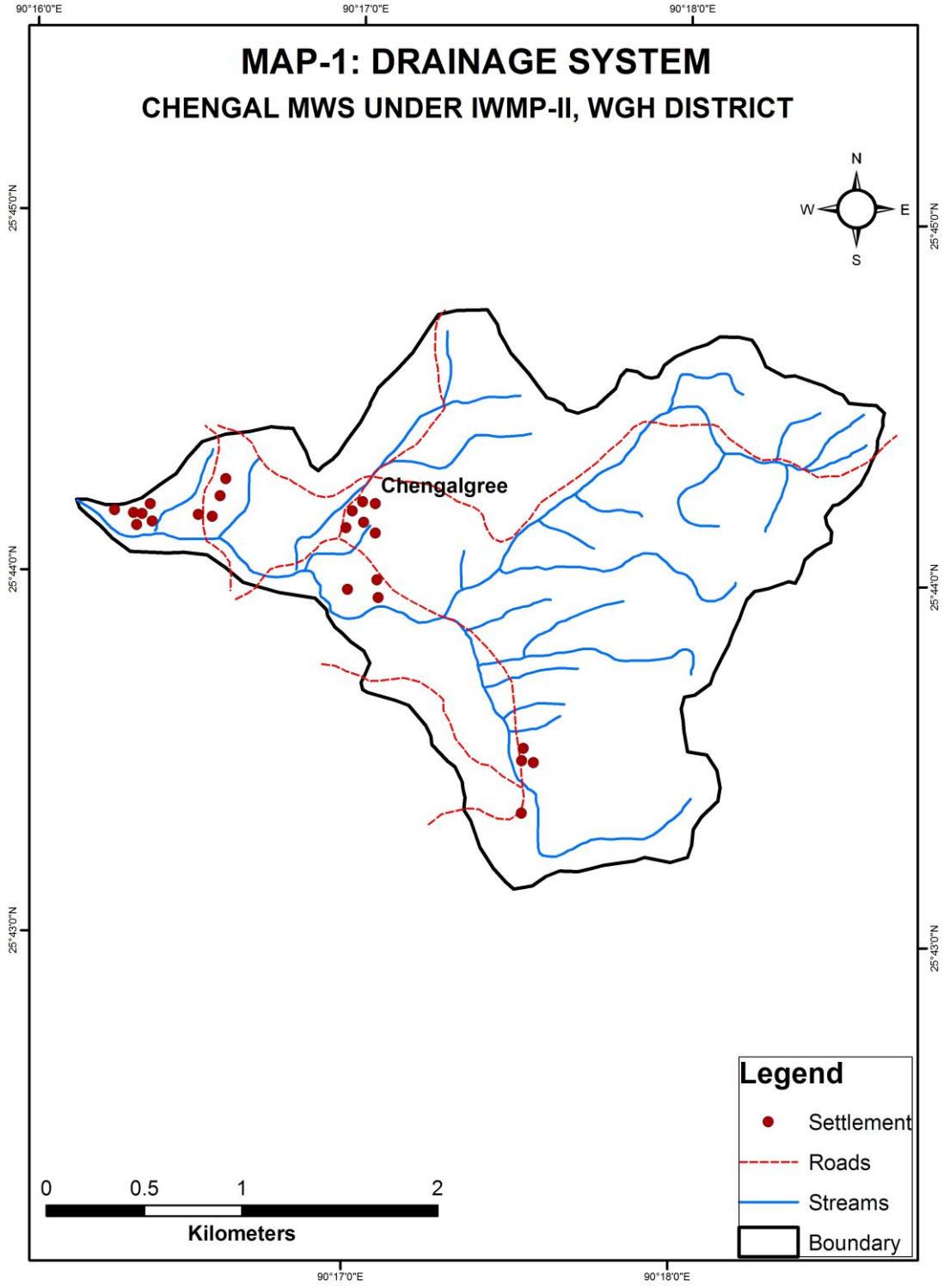
1	2	3	4	5	6	7	8	9	10
District	**Name of project**	**Name of WC**	**Name of structure/ activity**	**Estimated cost (Rs.)**	**Expected quantifiable benefits (Rs.)**	**Expenditure incurred (Rs.)**	**Actual quantifiable benefit (Rs.)**	**Benefit: Cost ratio#**	**IRR**
West Garo Hills	WGH IWMP II	Chengal	As per work plan	58.50	87.20	58.50		1:1.49	

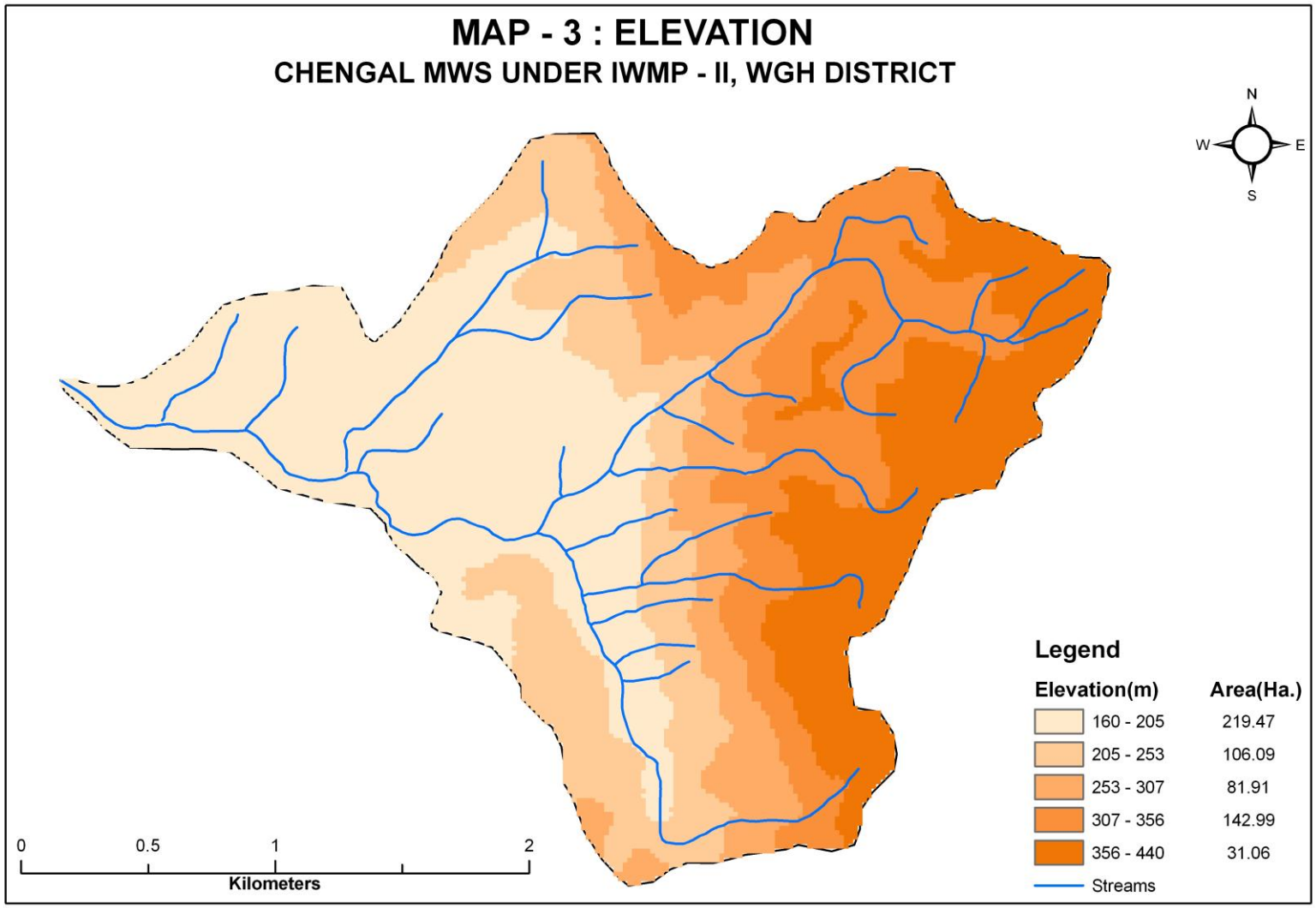
***** from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from Column no. 4, no. of projects, from column no. 5, no. of WCs, from column no. 6, no. of structures/ activities, from column no. 7 to 10, category-wise# totals, may be mentioned at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

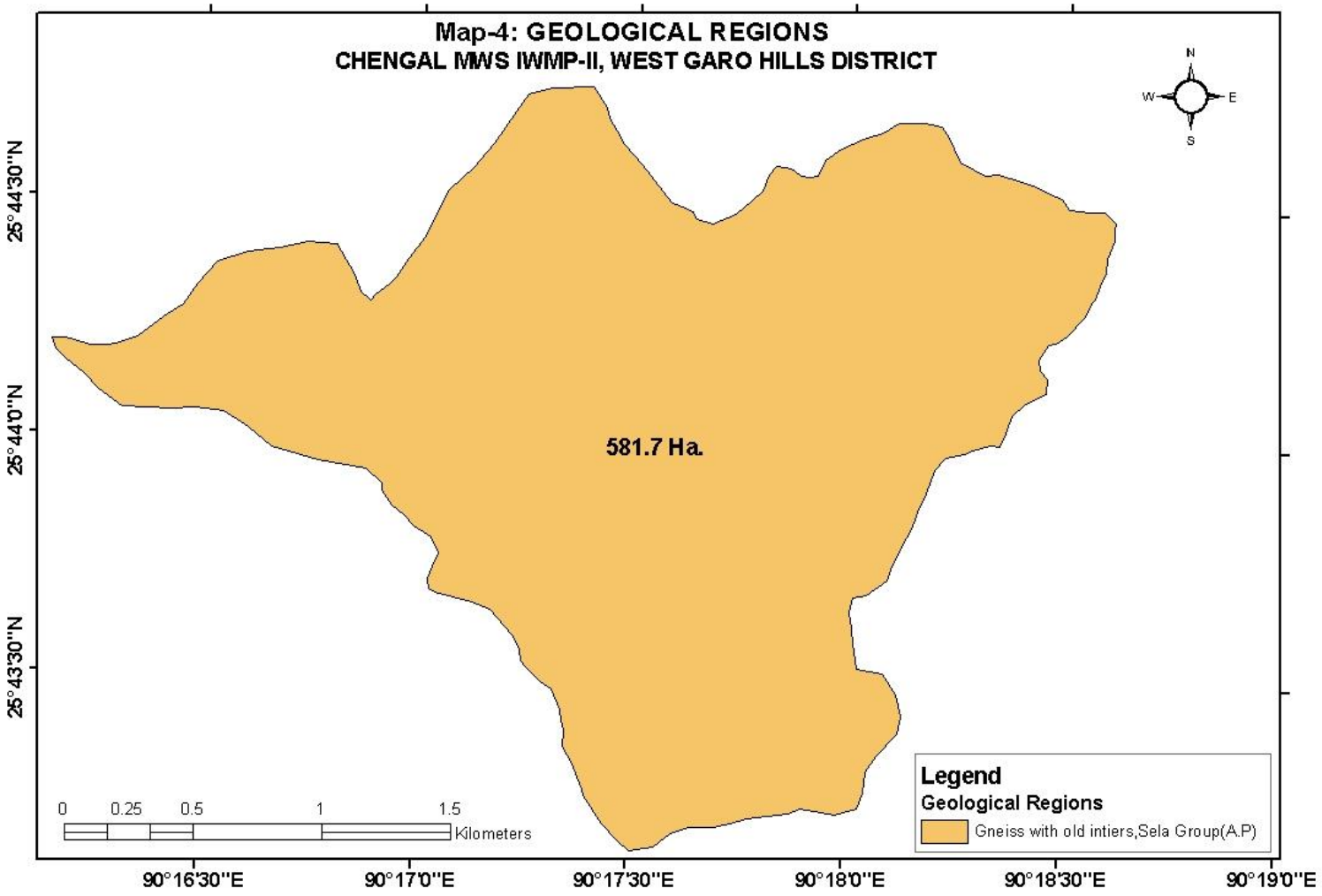
B:C ratio more than 1 – cost effective
less than 1 – Not cost effective

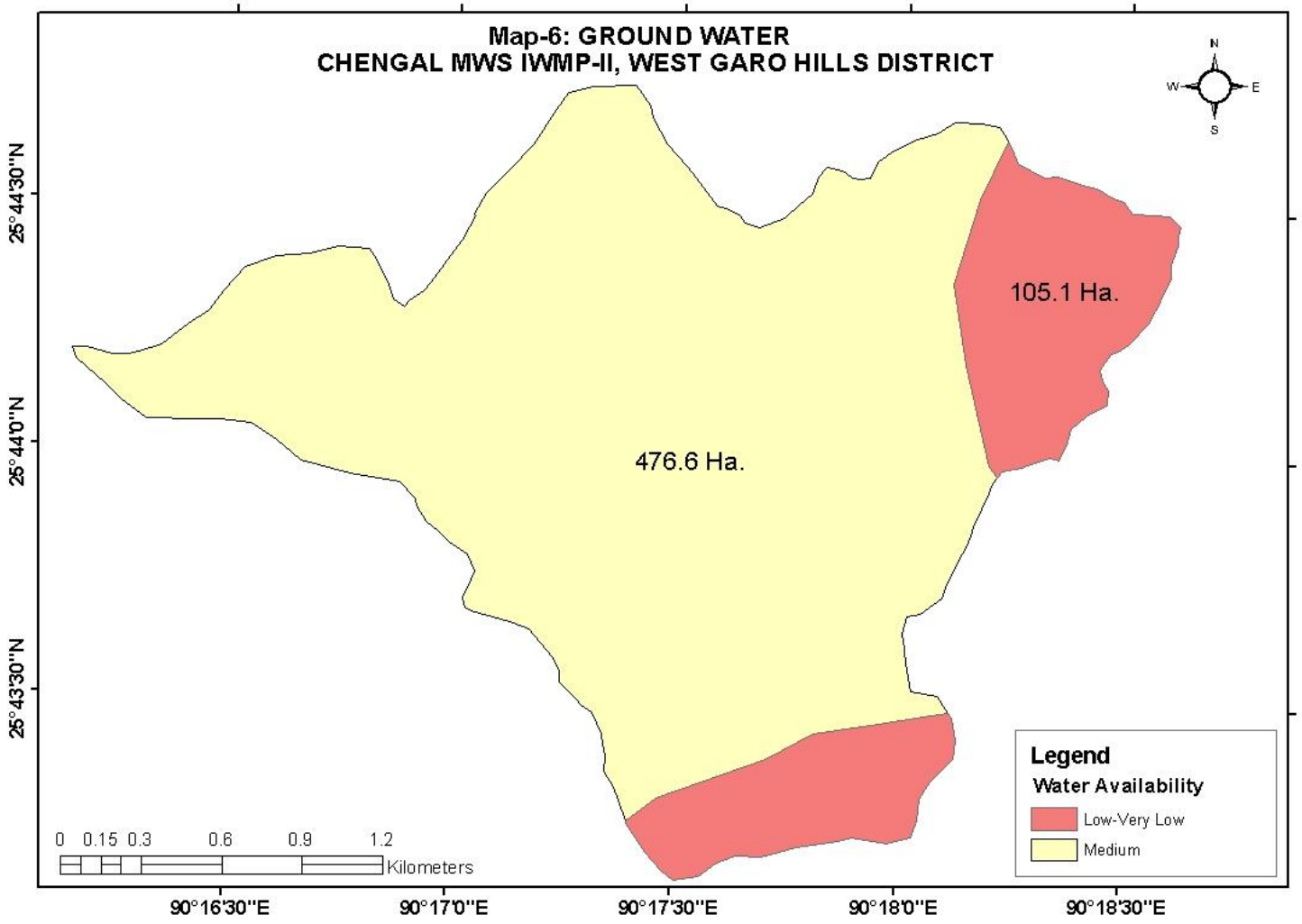
ANNEXURE-I

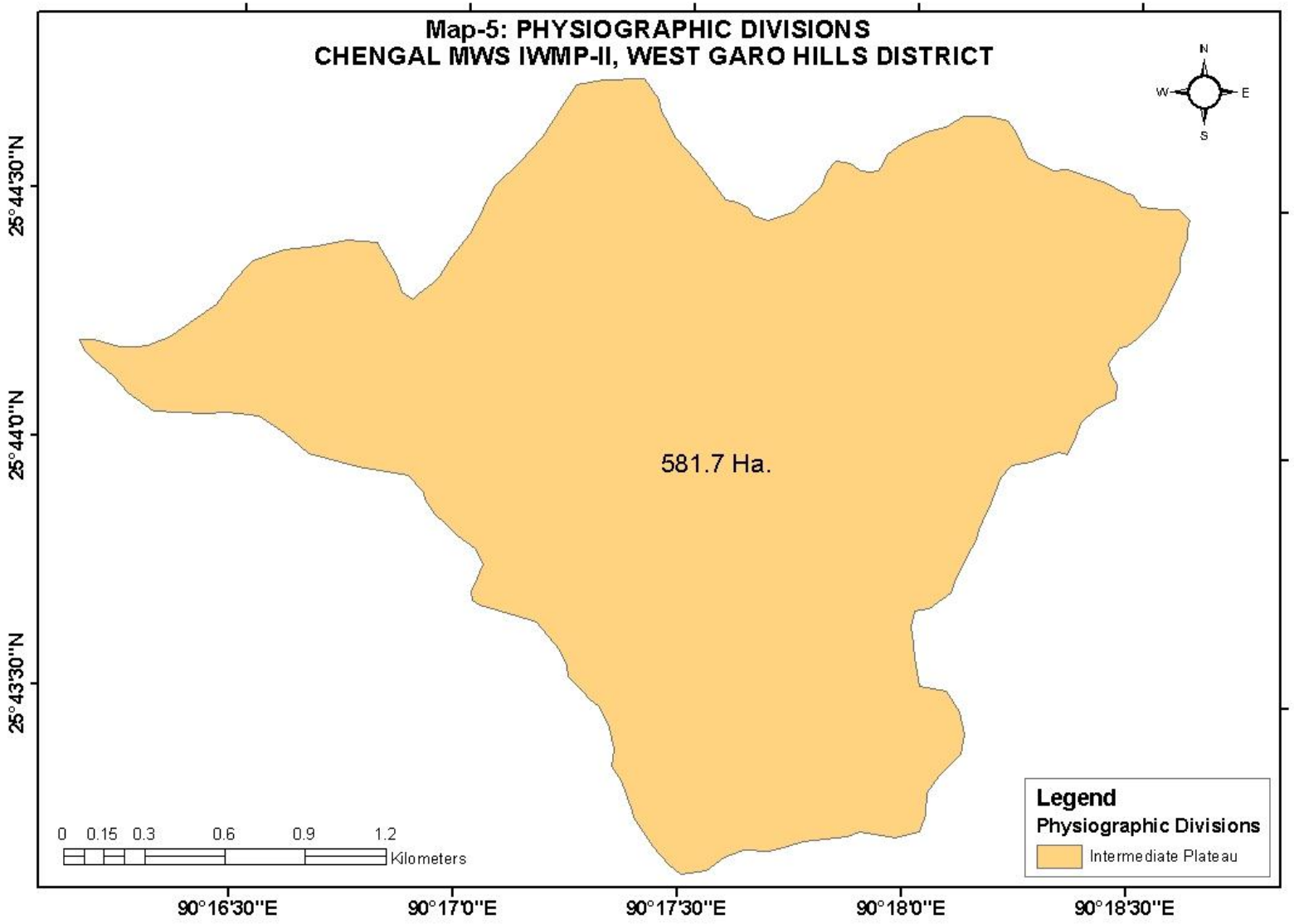
MAPS

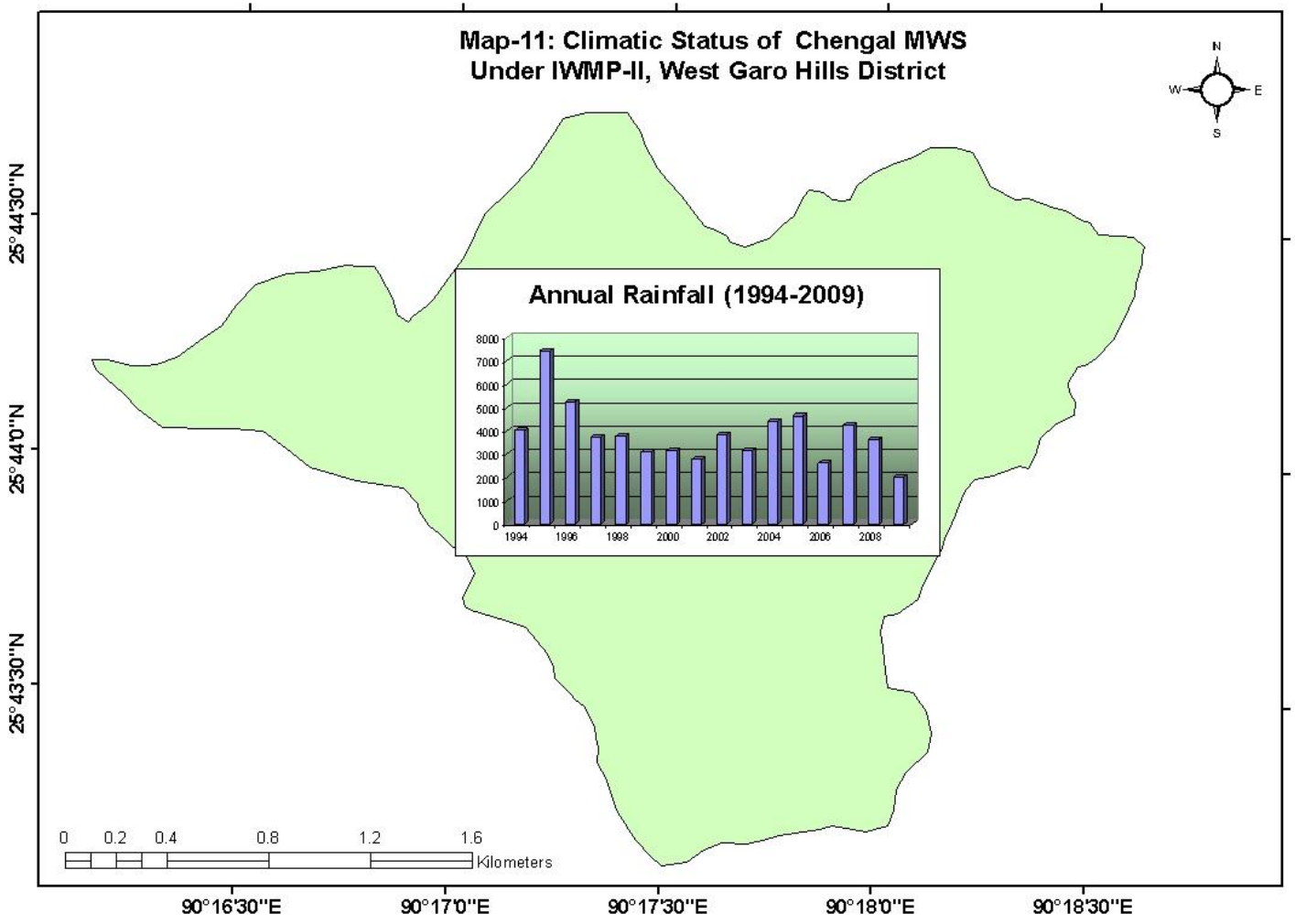

MAP-1: DRAINAGE SYSTEM
CHENGAL MWS UNDER IWMP-II, WGH DISTRICT
90°16'0"E
90°17'0"E
90°18'0"E
25°45'0"N
25°44'0"N
25°43'0"N
N
W
E
S
Chengalgree
0
0.5
1
2
Kilometers
Legend
Settlement
Roads
Streams
Boundary

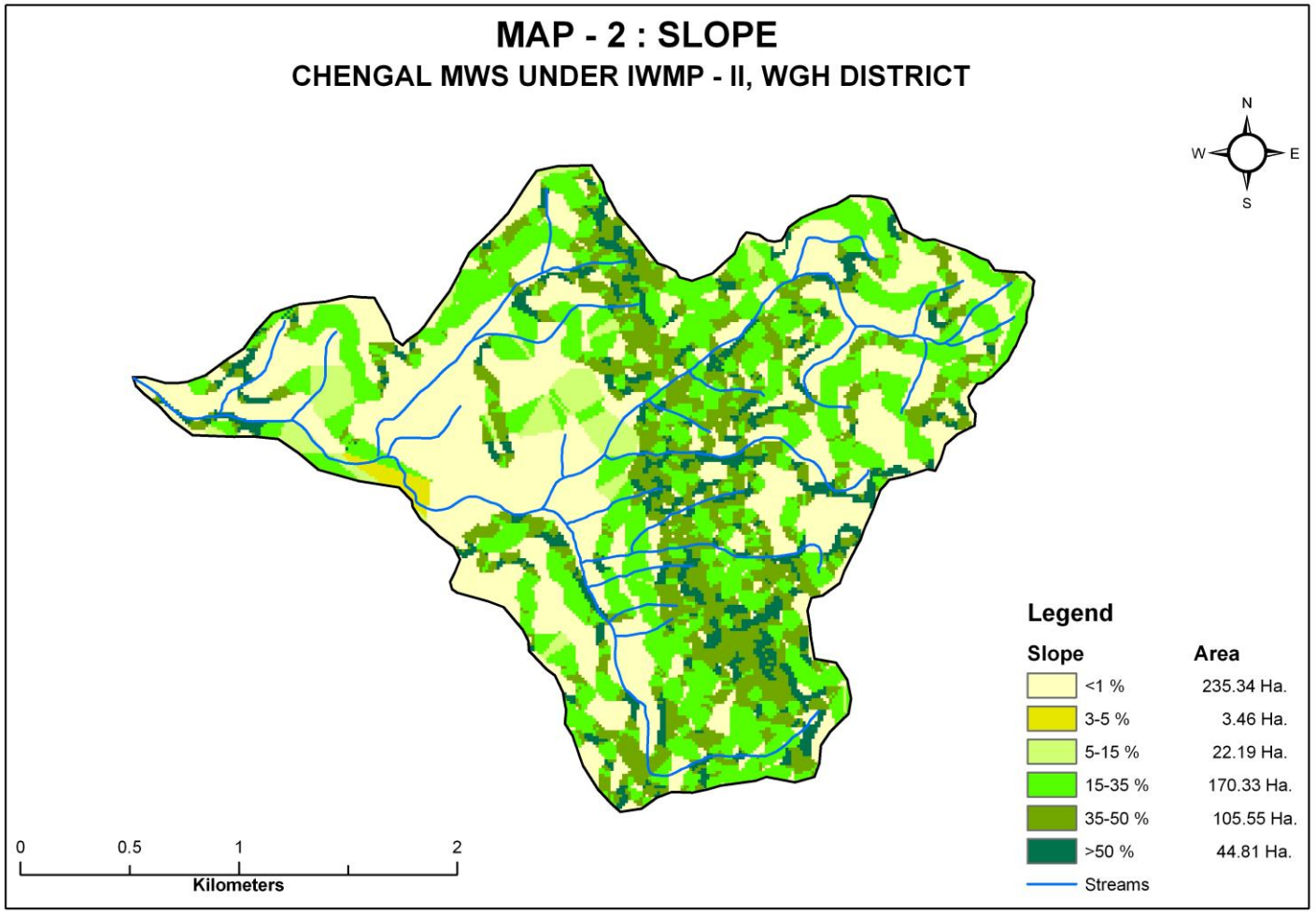

MAP - 3 : ELEVATION
CHENGAL MWS UNDER IWMP - II, WGH DISTRICT
N
W
E
S
Legend
Elevation(m)
Area(Ha.)
160 - 205
219.47
205 - 253
106.09
253 - 307
81.91
307 - 356
142.99
356 - 440
31.06
Streams
0
0.5
1
2
Kilometers

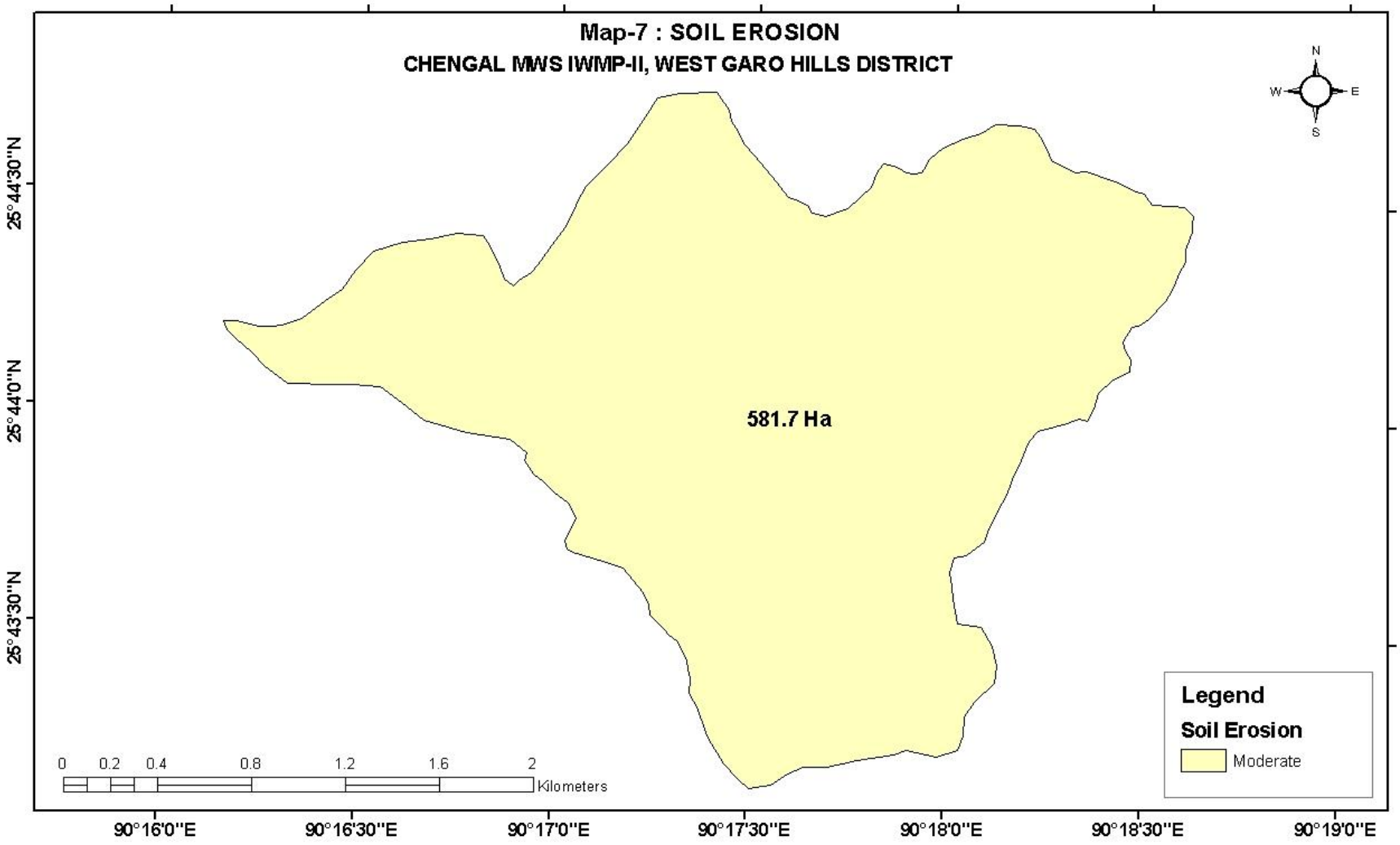

Map-4: GEOLOGICAL REGIONS
CHENGAL MWS IWMP-II, WEST GARO HILLS DISTRICT
N
W
E
S
581.7 Ha.
25°44'30"N
25°44'0"N
25°43'30"N
90°16'30"E
90°17'0"E
90°17'30"E
90°18'0"E
90°18'30"E
90°19'0"E
0 0.25 0.5 1 1.5
Kilometers
Legend
Geological Regions
Gneiss with old intiers,Sela Group(A.P)

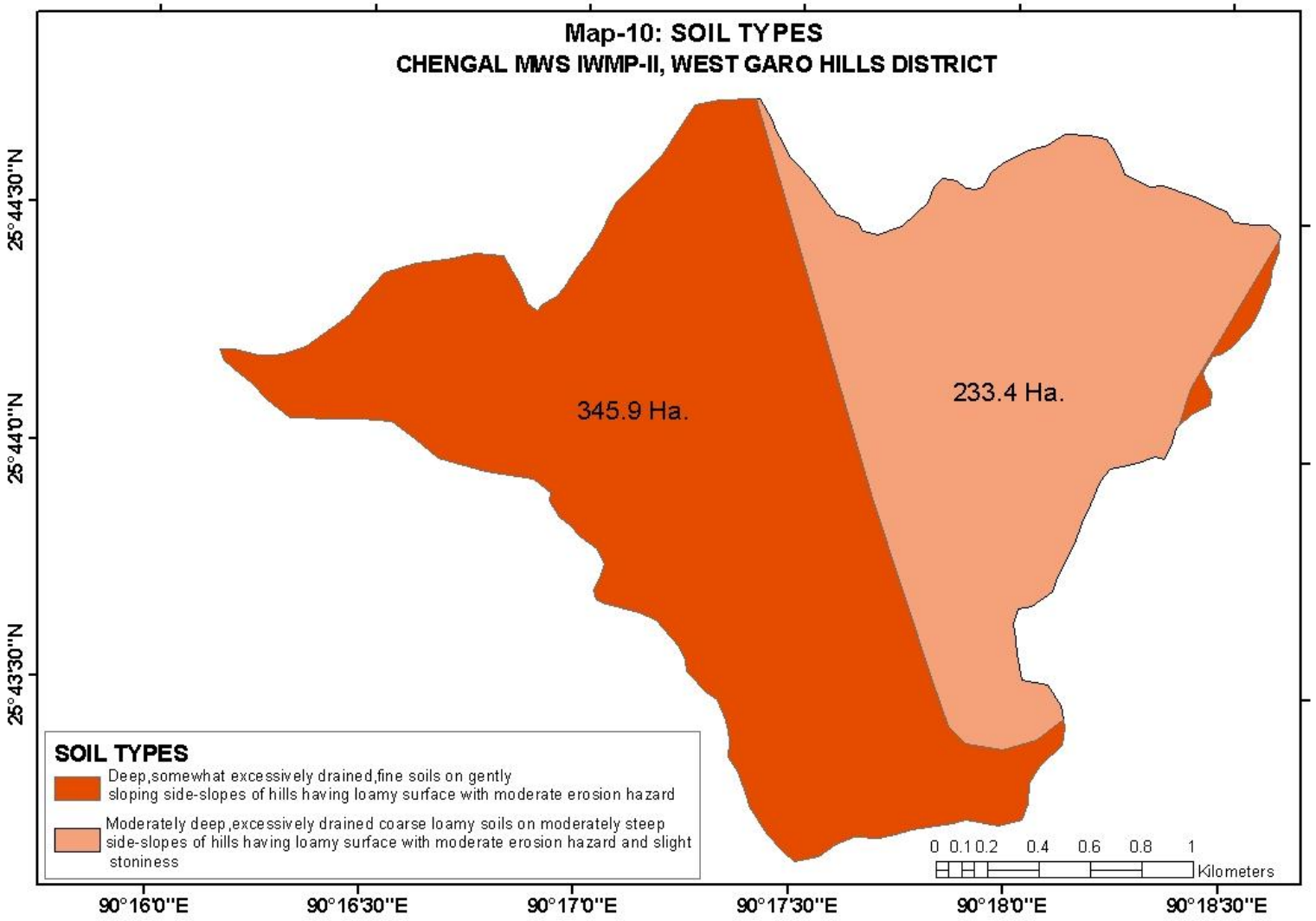

Map-6: GROUND WATER
CHENGAL MWS IWMP-II, WEST GARO HILLS DISTRICT
N
W
E
S
105.1 Ha.
476.6 Ha.
25°44'30"N
25°44'0"N
25°43'30"N
90°16'30"E
90°17'0"E
90°17'30"E
90°18'0"E
90°18'30"E
0 0.15 0.3 0.6 0.9 1.2
Kilometers
Legend
Water Availability
Low-Very Low
Medium

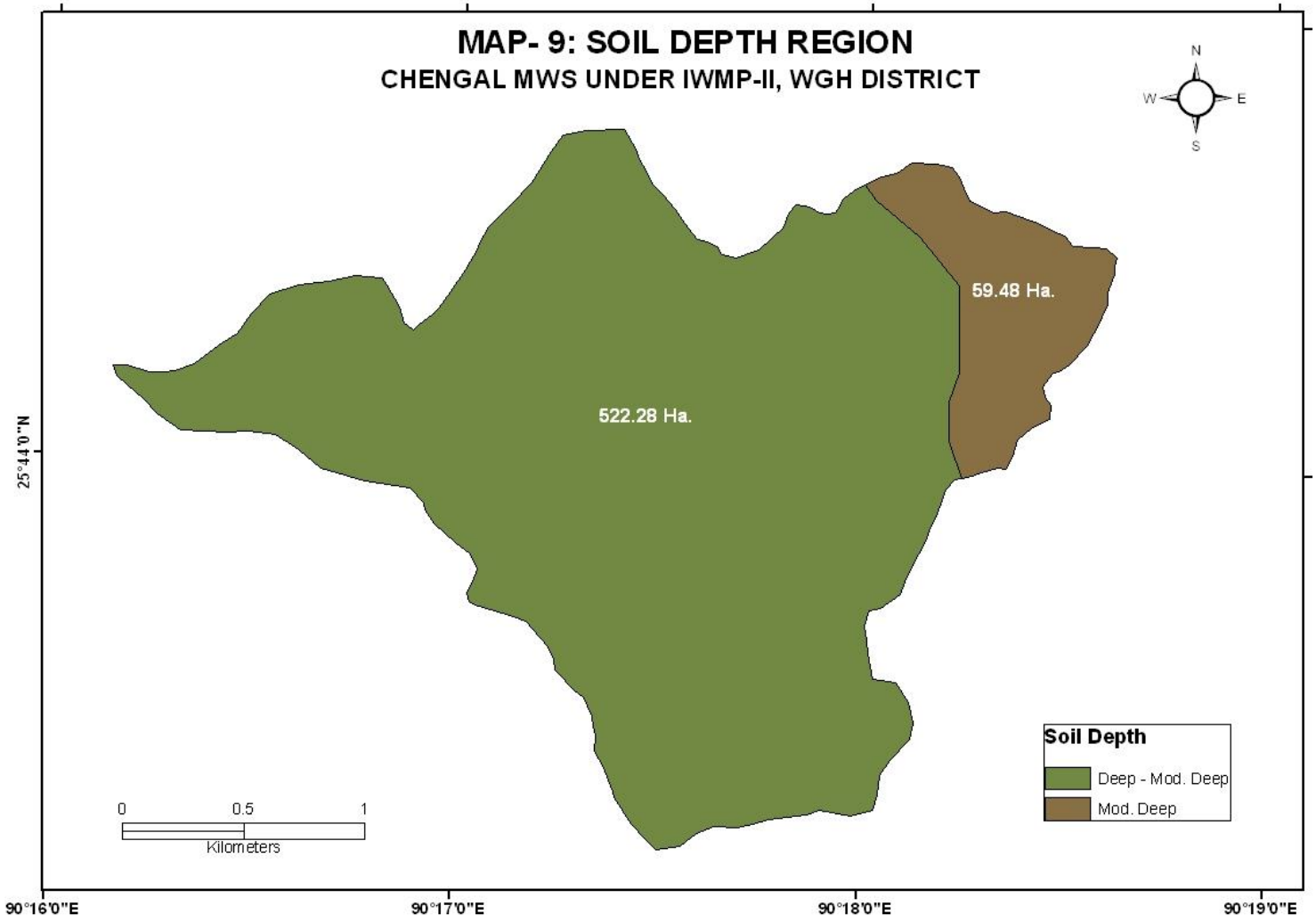

Map-5: PHYSIOGRAPHIC DIVISIONS
CHENGAL MWS IWMP-II, WEST GARO HILLS DISTRICT
N
W
E
S
581.7 Ha.
25°44'30"N
25°44'0"N
25°43'30"N
90°16'30"E
90°17'0"E
90°17'30"E
90°18'0"E
90°18'30"E
0 0.15 0.3 0.6 0.9 1.2
Kilometers
Legend
Physiographic Divisions
Intermediate Plateau

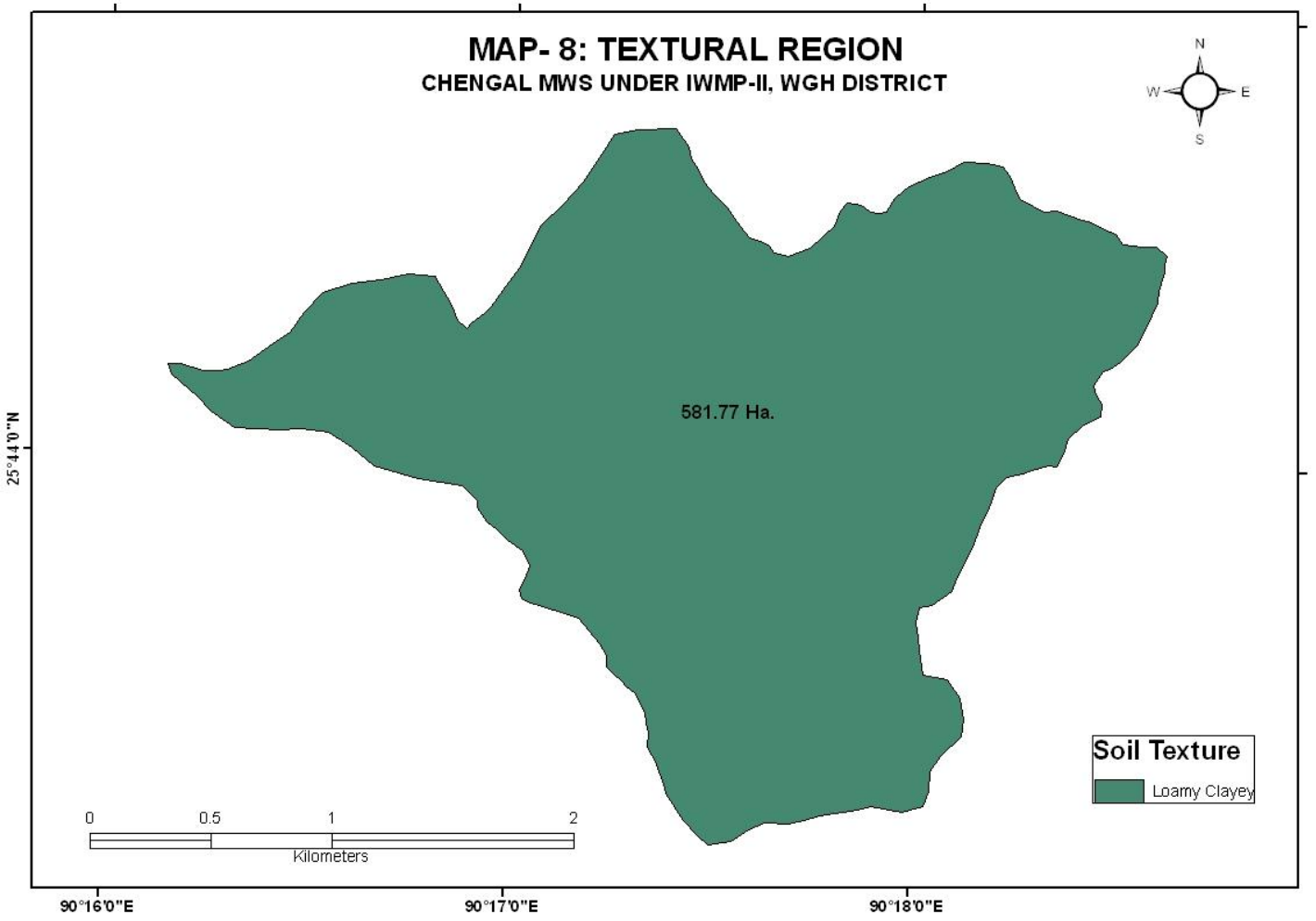

Map-11: Climatic Status of Chengal MWS
Under IWMP-II, West Garo Hills District
N
W
E
S
Annual Rainfall (1994-2009)
8000
7000
6000
5000
4000
3000
2000
1000
0
1994
1996
1998
2000
2002
2004
2006
2008
0 0.2 0.4 0.8 1.2 1.6
Kilometers
25°44'30"N
25°44'0"N
25°43'30"N
90°16'30"E
90°17'0"E
90°17'30"E
90°18'0"E
90°18'30"E

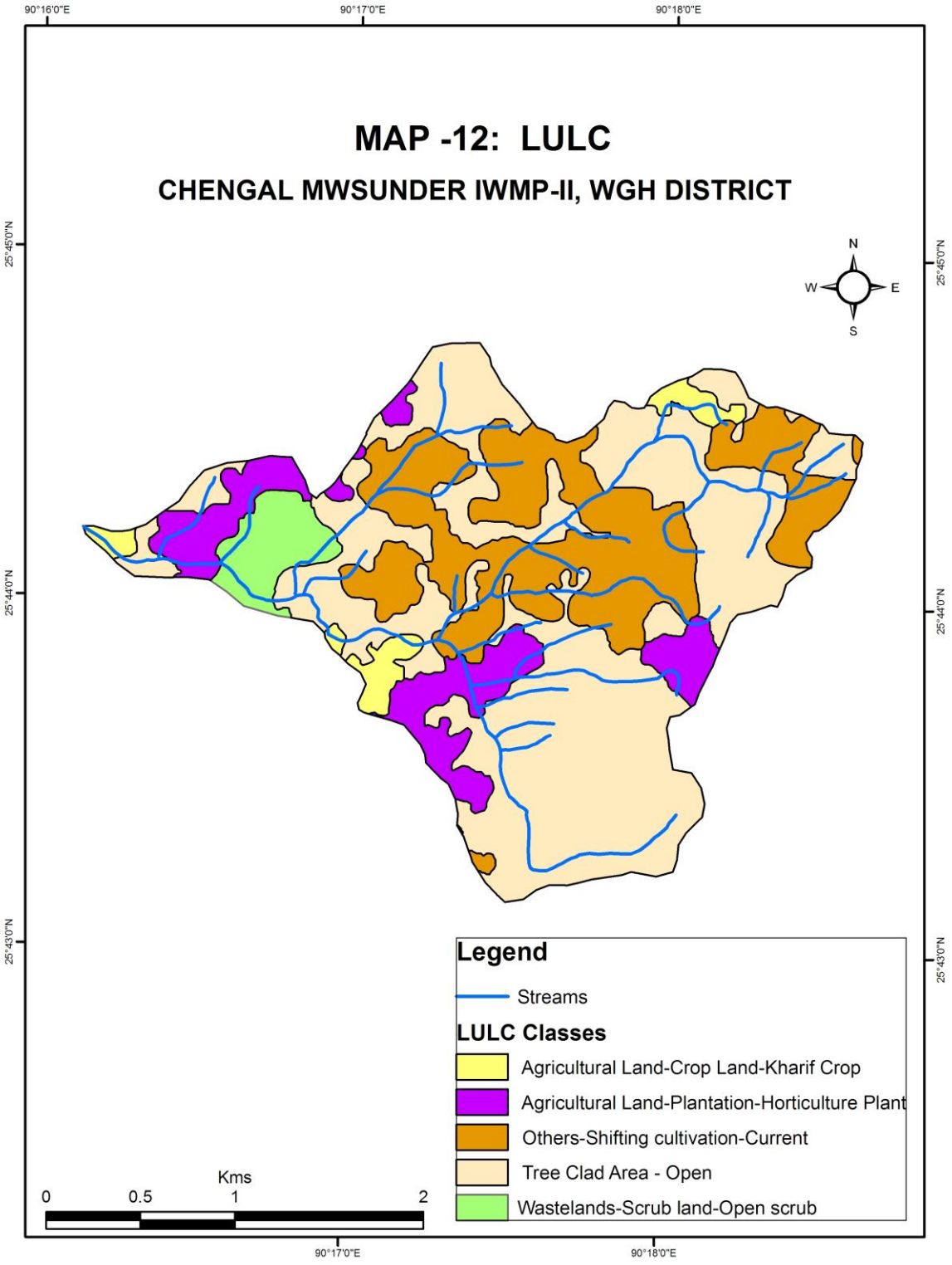

MAP - 2 : SLOPE
CHENGAL MWS UNDER IWMP - II, WGH DISTRICT
N
W
E
S
Legend
Slope
Area
<1 %
235.34 Ha.
3-5 %
3.46 Ha.
5-15 %
22.19 Ha.
15-35 %
170.33 Ha.
35-50 %
105.55 Ha.
>50 %
44.81 Ha.
Streams
0
0.5
1
2
Kilometers


Map-7 : SOIL EROSION
CHENGAL MWS IWMP-II, WEST GARO HILLS DISTRICT
N
W
E
S
581.7 Ha
25°44'30"N
25°44'0"N
25°43'30"N
90°16'0"E
90°16'30"E
90°17'0"E
90°17'30"E
90°18'0"E
90°18'30"E
90°19'0"E
0 0.2 0.4 0.8 1.2 1.6 2
Kilometers
Legend
Soil Erosion
Moderate

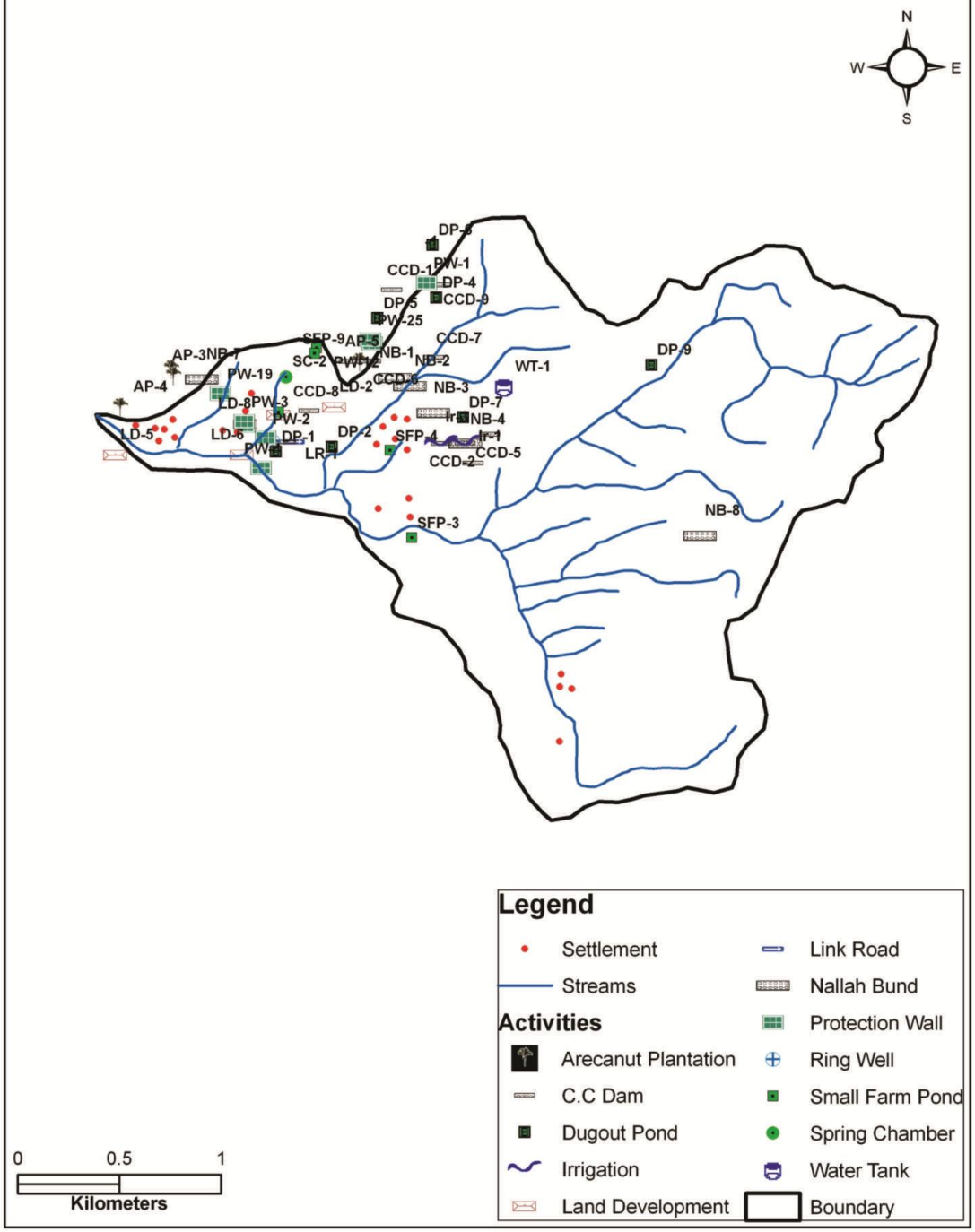

Map-10: SOIL TYPES
CHENGAL MWS IWMP-II, WEST GARO HILLS DISTRICT
345.9 Ha.
233.4 Ha.
SOIL TYPES
Deep,somewhat excessively drained,fine soils on gently sloping side-slopes of hills having loamy surface with moderate erosion hazard
Moderately deep,excessively drained coarse loamy soils on moderately steep side-slopes of hills having loamy surface with moderate erosion hazard and slight stoniness
0 0.1 0.2 0.4 0.6 0.8 1
Kilometers
25°44'30"N
25°44'0"N
25°43'30"N
90°16'0"E
90°16'30"E
90°17'0"E
90°17'30"E
90°18'0"E
90°18'30"E


MAP- 9: SOIL DEPTH REGION
CHENGAL MWS UNDER IWMP-II, WGH DISTRICT
N
W
E
S
59.48 Ha.
522.28 Ha.
Soil Depth
Deep - Mod. Deep
Mod. Deep
0
0.5
1
Kilometers
25°44'0"N
90°16'0"E
90°17'0"E
90°18'0"E
90°19'0"E


MAP- 8: TEXTURAL REGION
CHENGAL MWS UNDER IWMP-II, WGH DISTRICT
N
W
E
S
581.77 Ha.
Soil Texture
Loamy Clayey
0
0.5
1
2
Kilometers
25°44'0"N
90°16'0"E
90°17'0"E
90°18'0"E


MAP -12: LULC
CHENGAL MWSUNDER IWMP-II, WGH DISTRICT
90°16'0"E
90°17'0"E
90°18'0"E
25°45'0"N
25°44'0"N
25°43'0"N
N
W
E
S
Legend
Streams
LULC Classes
Agricultural Land-Crop Land-Kharif Crop
Agricultural Land-Plantation-Horticulture Plant
Others-Shifting cultivation-Current
Tree Clad Area - Open
Wastelands-Scrub land-Open scrub
Kms
0
0.5
1
2

MAP - 13 : LOCATION OF PLANNED ACTIVITIES
CHENGAL MWS UNDER IWMP- II, WEST GARO HILLS DISTRICT



ANNEXURE II
Socio-Economic-Survey

SOCIO-ECONOMIC SURVEY OF CHIMESENG MICRO-WATERSHED (IWMP)

SL NO.	NAME OF THE VILLAGE	NO FO HOUSEHOLD	MALE	FEMALE	TOTAL	LITERATE	ILLITERATE	TOTAL	Occupation	AGRICULTURE			HORTICULTURE (In Ha)	LIVESTOCK				INFRASTRUCTURE
										SETTLED (In Ha)	JHUM AREA (In Ha)	ABONDONED JHUM		CATTLE	POULTRY	PIGGERY	GOATERY	
1	2		3	4	5	6	7	8		9	10	11	12	13	14	15	16	17
	Chengalgre	57	150	136	286	214	72	286	farmers	18.90	58.80	25.20	64.70	85	142	85	-	1- LP school 1-Anganwadi Centre PHE water supply

ANNEXTURE-III

Cost Estimates

MODEL NORMS PER HACTARE FOR TERRACING (IWMP)								
(Rate as per Schedule of NABARD - ANNEXURE - I - A)								
A.	***Technical Parameters .***					***Slope Group (8-10%)***		
	i) Average terrace width recommended (m)						*12.00*	
	ii) Vertical Interval (VI) = W x S/100 - S						*1.04*	
	iii) Terrace Length (m) = A/W + VI						*767.00*	
	iv) Earthwork = 12.50 x W x S 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)						*1364.00*	
	ii) Cost of terracing @ Rs. 10/- m^3						*12000.00*	
	iii) Cost of shoulder Bund @ Rs. 7/- m^3						*436.00*	
	iv) Dressing, shaping and grading of terrace						*350.00*	
	v) Water Disposal structure (L/s)						*850.00*	
						G. Total	***15000.00***	
			(Rupees fifteen thousand) only .					

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 x 10.00 x 1.35 x ½ (1.10 + 0.60) = 11.48m^3

1 x 10.00 x ½ x 1.35 x 0.38 = 2.57m^3

= 14.05m^3

@ Rs. 47/- m^3 ……. Rs. 660.35

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

1 x 10.00 x 1.35 x 0.10 = 1.35m^3

@ Rs. 3571/- m^3 ……. Rs. 4820.85

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

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

1 x 10.00 x ½ x 1.10 x 0.28 = 1.54m^3

= 16.42m^3

@ Rs. 2714/- m^3 ……. Rs. 44563.88

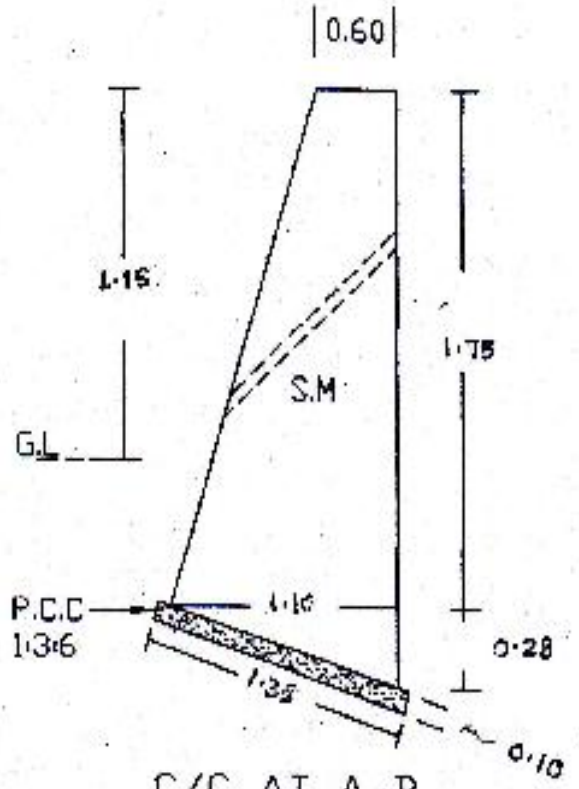
GRAND TOTAL = Rs. 50045.08

Say, Rs. 50,000.00

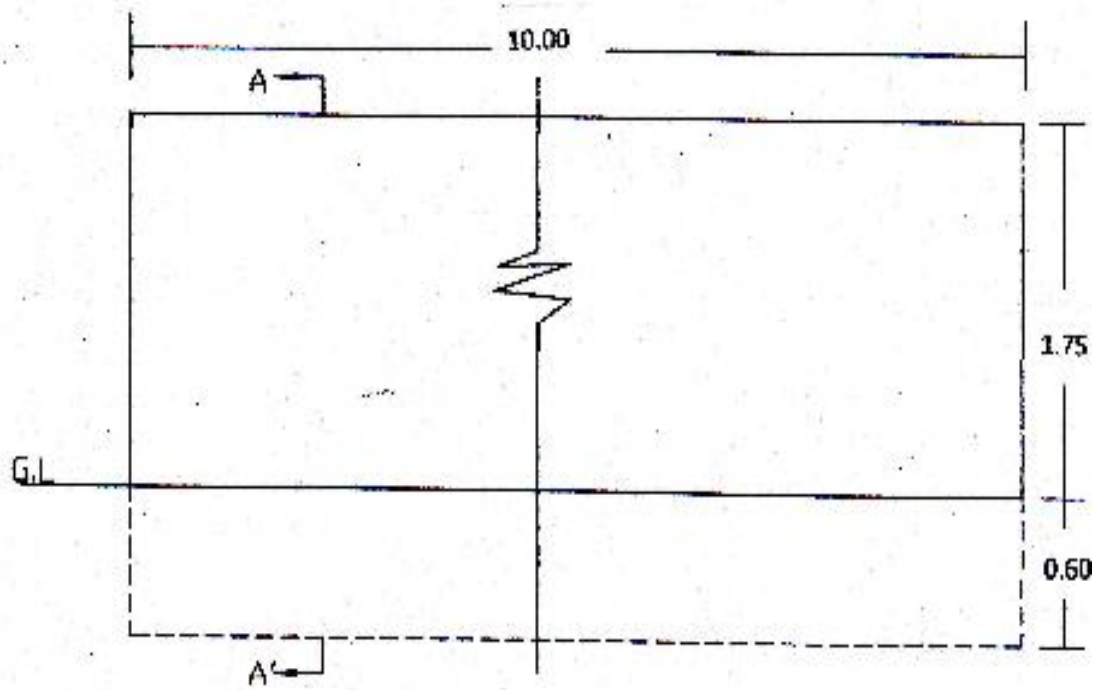
***(Rupees Fifty thousand) only*.**

STONE MASONRY PROTECTION WALL

Not to Scale



C/C AT A-B



ELEVATION

ESTIMATE FOR CONSTRUCTION OF CC CORE WALL WITH EARTH FILLED DAM AND LEAD CHANNEL AS PER SCHEDULE OF RATES FOR ROADS,BRIDGES AND E&D WORKS FOR THE YEAR 2007-2008

1/134. Excavation for structures(earthwork in excavation of the foundation of structures as per drawing and technical specification,including setting out,construction of showing and bracing,removal of stumps and deleterious matters,dressing of sides and bottom and backfilling with appropriate materials)

I.A(i) Ordinary soil

Core wall	1	x	12.30	x	0.90	x	0.80	**8.86**	m³
L/Channel	1	x	5.00	x	1.10	x	1.25	**6.88**	m³
								15.73	m³
.@Rs.34/- cum							Rs.	**534.854**	

2/137 PCC 1:3:6 in foundation(Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40mm nominal size.

Core wall	1	x	12.30	x	0.90	x	0.10	**1.11**	m³
	1	x	12.30	x	0.80	x	0.70	**6.89**	m³
	1	x	12.30	x	0.55	x	1.50	**10.15**	m³
L/ channel	2	x	5.00	x	0.15	x	1.25	**1.88**	m³
	2	x	5.00	x	0.10	x	0.80	**0.80**	m³
								20.82	m³
.@ Rs.3232/- cum							Rs.	**67282.16**	

4/29. Construction of embankment with approved material obtained from borrow pits with a lift upto 1.50 m transporting to site, spreading, grading to required slope and compacting to meet requirement with a lead upto 1000 m as per technical specification.

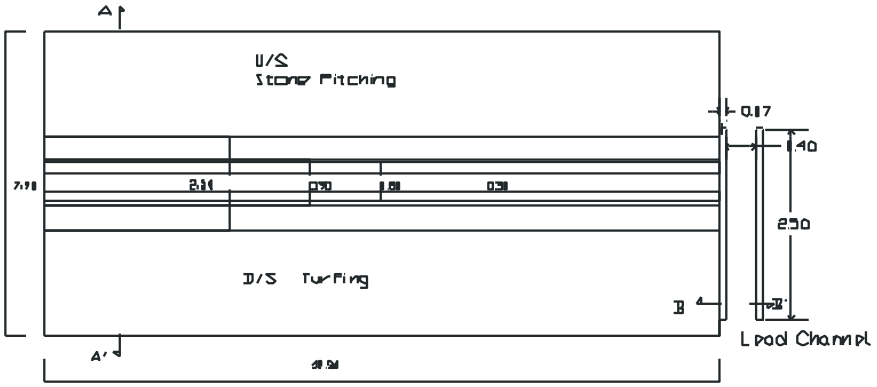
Dam	1	x	12.30	x	5.20	x	1.8	**115.13**	m³
Deduct	1	x	12.30	x	0.55	x	1.50	**10.15**	m³
								104.98	m³
.@Rs.247/- cum							Rs.	**25930.18**	

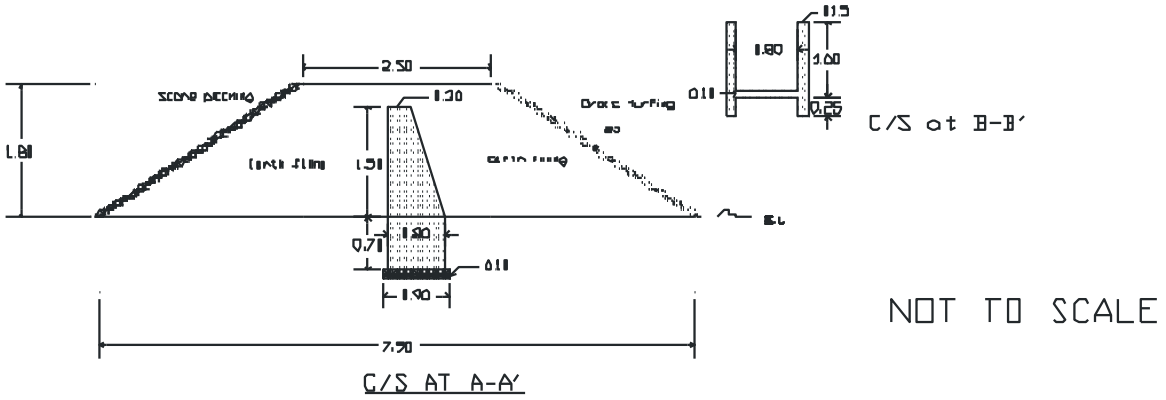
5/78. Plastering with cement mortar (1:4) 15mm thick

L/channel	2	x	5.00	x	0.90			**9.00**	m²
	2	x	5.00	x	0.15			**1.50**	m²
	1	x	5.00	x	0.8			**4.00**	m²
								14.50	m²
.@ Rs.75/- per sq.m							Rs.	**1087.50**	
						C.O.	Rs.	**94834.70**	

							B.F.	Rs.	**94834.70**
6/37.	Furnishing and laying of the live sods of perrennial turf forming grass on embankment slope,verges or other locations shown on the drawing including preparation of ground, fetching of sods and watering as per technical specification								
	Dam	1	x	12.30	x	2.01		24.723	m^2
		1	x	12.30	x	2.5		30.75	m^2
								55.473	m^2
	.@ Rs.41.00/sq.m						Rs.	**2274.393**	
7/100	Providing and laying pitching on slopes laid over prepared filter media as per drawing and technical specification.								
	I. Stone/Boulder								
	Dam	12.30	×	2.01	×	0.15		**3.70845**	m^3
	.@ Rs.	884/- per cum						3278.27	
							Rs.	**100387.36**	
	Grand Total					**Say**	**Rs.**	**1,00,000**	
	(Rupees One lakhs)only.								

PLAN FOR CC CORE WALL WITH EARTHEN DAM





C/S AT A-A'

ESTIMATE FOR THE CONSTRUCTION OF C.C. IRRIGATION DAM WITH DISPOSAL CHANNEL ACROSS _____STREAM AT_____

(Rates as per P.W.D. S.O.R. for roads, bridges and E & D works 2007-2008).

1/134. Excavation for structures (earth work in excavation of the foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deterious matters, dressing of sides and bottom and back filling with approved materials.)
(I) Ordinary soil.
(A) Manual means.
(i) Upto 3 m, depth.

M/Dam :	1 x 8.00 x 1.40 x 1.05	= 11.76m^3
W/wall :	2 x 2.50 x 0.45 x 0.50	= 1.13m^3
G/wall :	2 x 3.00 x 0.30 x 0.50	= 0.90m^3
T/wall :	1 x 6.00 x 0.45 x 0.60	= 1.62m^3
Apron :	1 x 6.00 x 3.00 x 0.35	= 6.30m^3
D/channel :	1 x 5.00 x 1.30 x 0.90	= 5.85m^3
		= 27.56m^3

@ Rs. 34/- m^3 .... Rs. 937.04

2/103. Providing and laying of dry rubble flooring complete as per drawing and technical specifications.

M/Dam :	1 x 8.00 x 1.40 x 0.10	= 1.12m^3
Apron :	1 x 6.00 x 3.00 x 0.25	= 4.50m^3
D/channel :	1 x 5.00 x 1.00 x 0.25	= 1.25m^3
		= 6.87m^3

@ Rs. 852/- m^3 .... Rs. 5853.24

3/137. PCC 1 : 3 : 6 in foundation (plain cement concrete 1:3:6 nominal mix in foundation etc).

M/Dam :	1 x 8.00 x 1.40 x 0.10	= 1.12m^3		
	@ Rs. 3232/- m^3	.....	.....	Rs. 3619.84

4/141 . Plain cement concrete in open foundation complete as per drawing and technical specifications.
A. P.C.C. Grade M15 :

M/Dam :	1 x 8.00 x 1.20 x 0.80	= 7.68m^3		
	1 x 8.00 x $\frac{0.50 + 1.20}{2}$ x 1.05	= 7.14m^3		
	2 x 1.00 x 0.50 x 0.50	= 0.50m^3		
W/wall :	2 x 2.50 x 0.30 x 2.05	= 3.08m^3		
Deduct :	1 x 1.00 x 0.30 x 0.60	= (-)0.18m^3		
G/wall :	2 x 3.00 x 0.25 x 0.95	= 1.43m^3		
T/wall :	1 x 6.00 x 0.30 x 0.70	= 1.26m^3		
Apron :	1 x 6.00 x 3.00 x 0.10	= 1.80m^3		
D/channel :	2 x 5.00 x 0.15 x 0.98	= 1.47m^3		
	1 x 5.00 x 1.00 x 0.10	= 0.50m^3		
		= 24.68m^3		
	@ Rs. 3630/- m^3	.....	.....	Rs. 89588.40

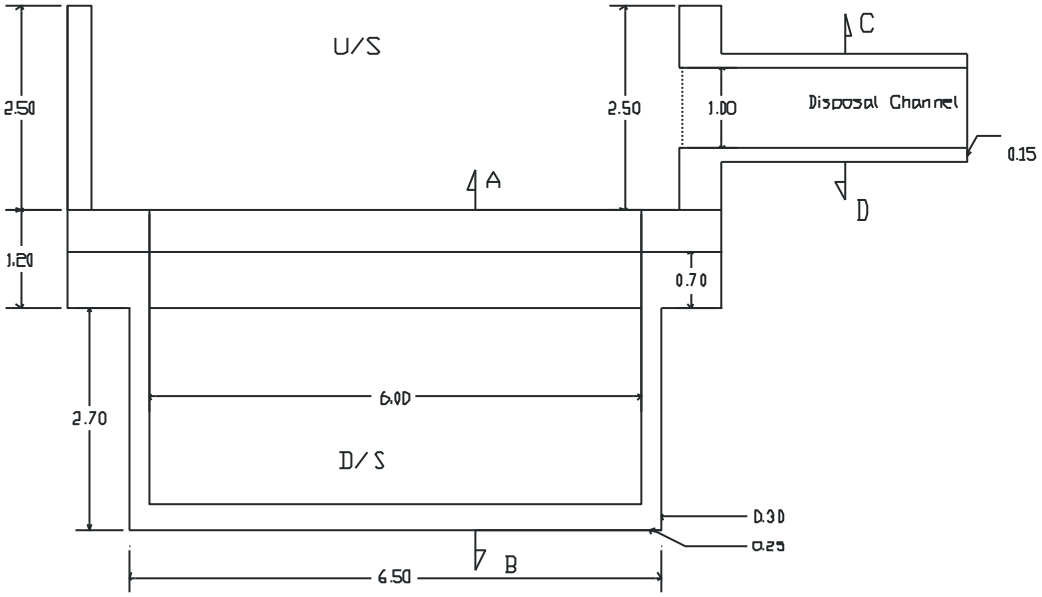
/

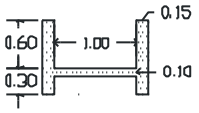
GRAND TOTAL = Rs. 99998.52

Say, Rs. 1,00,000.00

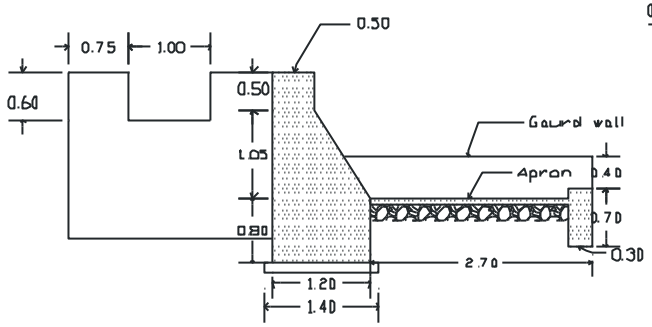
(Rupees One lakh) only.

PLAN FOR CC IRRIGATION DAM WITH DISPOSAL CHANNEL





C/S AT C-D



NOT TO SCALE

C/S AT A-B

ESTIMATE FOR THE CONSTRUCTION OF SPRING CHAMBER WITH WATER RESERVOIR.
UNDER IWMP.
(Rates as per P.W.D Schedule of rates for building works) 2007 – 2008

1/1.1 Earth work in excavation in foundation trenches, including dressing of sides and ramming of the bottom including stacking etc.
d) Soft laminated rock or medium shale.

For Spring Chamber:
1 x 1 x 2.5 x 0.80 x 1.10 = 2.20 m^3
1 x 2 x 2.5 x 0.80 x 0.70 = 2.24 m^3
For Reservoir:
1 x 2 x 2.5 x 0.30 x 0.50 = 0.75 m^3

1 x 2 x 1.5 x 0.30 x 0.50 = 0.45 m^3
For Pipe Pedestals:
10 x 0.40 x 0.40 x 0.60 = 0.96 m^3
6.60 m^3

@ Rs. 85/- m^3 Rs. 561.00

2/4.5 Providing 100 mm thick soling with approved quality of stone etc.

For Spring Chamber:
1 x 1 x 2.50 x 0.80 = 2.00 m^3
1 x 2 x 2.00 x 0.80 = 3.20 m^3

For Reservoir: m^3

1 x 2 x 2.50 x 0.30 = 1.50 m^3
1 x 2 x 1.50 x 0.30 = 0.90 m^3

1 x 1 x 2.50 x 1.50 = 3.75 m^3
For Pipe Pedestal: m^3

10 x 0.40 x 0.40 = 1.60 m^3

= 12.95 m^3

@ Rs. 115/- m^3 Rs. 1,489.25

3/2.1 Providing and laying cement concrete in prop. 1:4:8 etc.

For Spring Chamber:
1 x 1 x 2.50 x 0.80 x 0.10 = 0.20 m^3
1 x 2 x 2.00 x 0.80 x 0.10 = 0.32 m^3
For Reservoir:
1 x 2 x 2.50 x 0.30 x 0.10 = 0.15 m^3
1 x 2 x 1.50 x 0.30 x 0.10 = 0.09 m^3

For Pipe Pedestals:

10 x 0.40 x 0.40 x 0.10 = 0.16 m^3

= 0.92 m^3

@ Rs. 2393/- m^3 Rs. 2,201.56

4/2.2 Providing and laying cement concrete in prop. 1:3:6 etc.

For Spring Chamber:

1 x 1 x 2.50 x 0.60 x 0.70 = 1.05 m^3

1 x 2 x 2.00 x 0.60 x 0.65 = 1.56 m^3

$1 \times 1 \times 2.50 \times \frac{0.26 + 0.55}{2} \times 1.35$ = 1.36 m^3

$1 \times 2 \times 2.00 \times \frac{0.25 + 0.26}{2} \times 0.45$ = 1.80 m^3

$1 \times 2 \times 2.00 \times \frac{0.25 + 0.55}{2} \times 1.80$ = 2.80 m^3

For Reservoir :

1 x 2 x 2.50 x 0.30 x 0.30 = 0.45 m^3

1 x 2 x 1.50 x 0.30 x 0.30 = 0.27 m^3

1 x 1 x 2.50 x 1.50 x 0.20 = 0.75 m^3

For Pipe Pedestals:

10 x 0.30 x 0.30 x 0.40 = 0.36 m^3

= 10.40 m^3

@ Rs. 2719/- m^3 Rs. 28,277.60

5/2.9(a) Providing shuttering including centering for flat surface such as slabs,shelves,chajja and for vertical faces such as column etc.

For spring chamber:

1 x 2 x 2.50 x 0.70 = 3.50 m^2

2 x 2 x 2.00 x 0.65 = 5.20 m^2

1 x 1 x 2.50 x 1.50 = 3.75 m^2

1 x 1 x 2.50 x 1.60 = 4.00 m^2

$1 \times 2 \times \frac{0.25+0.26}{2} \times 0.45$ = 0.225 m^2

2 x 2 x 2.00 x 0.70 = 5.60 m^2

2 x 2 x 0.60 x 0.70 = 1.68 m^2

2 x 1 x 2.00 x 1.50 = 6.00 m^2

2 x 1 x 2.00 x 1.60 = 6.40 m^2

$2 \times 1 \times \frac{0.25+0.55}{2} \times 1.60$ = 1.28 m^2

For Reservoir :

1 x 2 x 2.50 x 0.30 = 1.50 m^2

1 x 2 x 0.30 x 0.30 = 0.18 m^2

1 x 2 x 1.50 x 0.30 = 0.90 m^2

1 x 2 x 2.50 x 1.50 = 7.50 m^2

1 x 2 x 1.50 x 1.50 = 4.50 m^2

1 x 1 x 2.50 x 1.50 = 3.75 m^2

1 x 2 x 2.50 x 0.10 = 0.50 m^2

1 x 2 x 1.50 x 0.10 = 0.30 m^2

For Pipe Pedestals:

10 x 4 x 0.30 x 0.40 = 4.80 m^2
10 x 4 x 0.15 x 0.15 = 0.90 m^2
= 62.46 m^2

@ Rs. 148/- m^2 Rs. 9,244.82

6/2.3 Providing and laying cement concrete in prop 1:2:4…etc.

For Reservoir:

1 x 2 x 2.50 x 0.15x 1.50 = 1.12 m^3
1 x 2 x 1.50 x 0.15x 1.50 = 0.67 m^3
1 x 1 x 2.50 x 1.50x 0.10 = 0.37 m^3

For pipe pedestals:

10 x 0.15 x 0.15 x 1.20 = 0.27 m^3
= 2.43 m^3

@ Rs. 3280/- m^3 Rs. 7,970.04

7/6.2(a) Providing to steel reinforcement in R.C.C.works including cutting, bending, cranking and tying in position…….etc.

10#Tor steel:
For Reservoir:

2 x 12 x 2.30 = 27.60 Rm.
2 x 9 x 2.30 = 41.40Rm.

For pipe pedestals:

10 x 4 x 1.50 = 60.00Rm.
= 128.00 Rm.

@ 0.62kg./Rm. = Rs.79.36 /kgs.

8#Tor steel :

For Reservoir:

2 x 12 x 1.40 = 33.60Rm.
2 x 9 x 2.40 = 43.20Rm.
2 x 10 x 1.40 = 28.00Rm.
2 x 10 x 1.40 = 28.00Rm.
= 132.80 Rm.

@ 0.39kg./Rm. = Rs.51.79/ kgs

For pipe pedestals:

10 x 9 x 0.50 = 45.00Rm.

@ 0.22kg./Rm . = 9.90/ kgs
2.572 Qntls.

@ Rs.5373/- Qtl. Rs. 138.23

8/ Providing and fixing G.I. pipes including necessary Sockets, bends, jamnuts, elbows, tees etc.complete. (Rate as per market rates).

(a) 75mm G.I. Pipes.
Length – 1.30R.M. @ Rs.500/-Rm. Rs. 650.00

(b) 50mm G.I. Pipes.
Length – 27.05 R.M. @ Rs. 350/-Rm. Rs. 9,467.50

GRAND TOTAL : Rs. 60,002.82

Say, Rs. 60,000.00

(Rupees sixty thousand) only.

ESTIMATE FOR CONSTRUCTION OF DUGOUT POND AS PER SCHEDULE OF RATES FOR ROADS,BRIDGES AND E&D WORKS FOR THE YEAR 2007-2008

1/130(i). Excavation in soil for dugout farm pond by manual means with lead upto 50m

Dugout Farm Pond

Volume: D/6 (AT) + 4(AM) +(AB)

= 2.5/6 (30.00 x 15.00) +4(28.00 x 13.00) + (26.00 x 11.00)

= 2.5/6(450+1456+286)

= 913.33 m³

.@.Rs.34/- cum	**Rs.**	**31053.22**

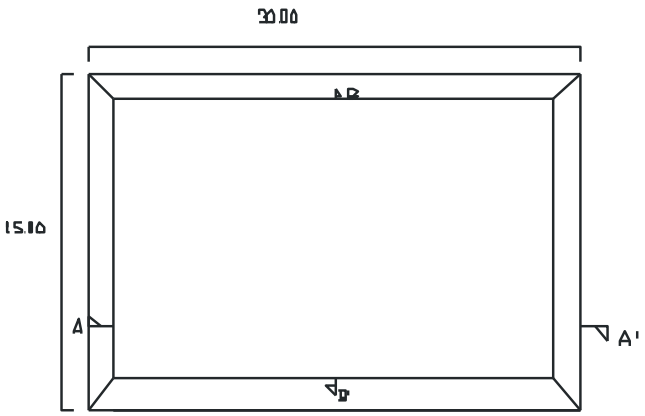
6/37. Furnishing and laying of the live sods of perrennial turf forming grass on embankment slope,verges or other locations shown on the drawing including preparation of ground, fetching of sods and watering as per technical specification

2	x	30	x	2.5	150	m²
2	x	15	x	2.5	75	m²
					225	m²
.@Rs.41.00/sq.m					**9225**	
					40278.22	

Grand Total	**Say**	**Rs.**	**40,000.00**

(Rupees Forty thousand)only.

PLAN FOR CONSTRUCTION OF DUGOUT POND



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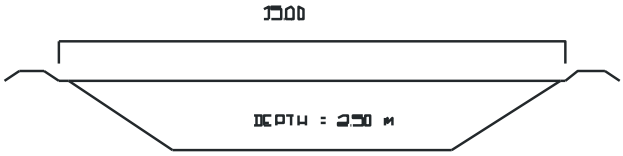
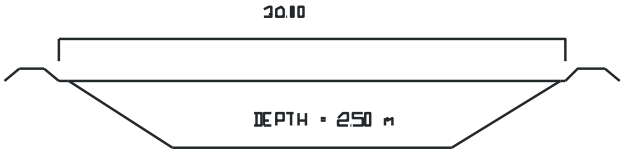


C/S AT A-A'



C/S AT B-B'

ESTIMATE FOR CONSTRUCTION OF EARTHEN DISTRIBUTION CHANNEL
AS PER SCHEDULE OF RATES FOR
ROADS, BRIDGES AND E&D WORKS FOR THE YEAR 2007-2008

1/134. Excavation for structures(earthwork in excavation of the foundation of structures as per drawing and technical specification,including setting out,construction of showing and
bracing,removal of stumps and deleterious matters,dressing of sides and bottom and backfilling with appropriate materials)

I.A(i) Ordinary soil								
Earthen Channel	1	x	1.00	x	1.10	x	1.35	**1.49** m^3
.@Rs.34/- cum							Rs.	**50.49**
							Rs.	**50.49**
Grand Total					**Say**		**Rs.**	**50.00**

Cost per Running metre=(Rupees Fifty)only.

MODEL NORM PER HECTARE FOR AGRO-HORTICULTURE WITH RUBBER PLANTATION (INTEGRATED WATERSHED MANAGEMENT PROGRAMME)

Spacing 6.06 m x 3.65 m
Plant density 450 nos

A	Preliminary Works		
I.	Site clearance 15 mandays @Rs. 100/- per manday		1500
II.	Pit digging (pit size 0.75mx0.75mx0.75m) 450 nos @Rs. 10/- each		4500
		Total:	6000
B	First year Planting		
I.	Cost of planting materials 450 nos @Rs. 20/- each		9000
II.	Cost of planting 450 nos @Rs. 3/- each = Rs. 1350.00 (Contribution from the beneficiaries)		
III.	Weeding two times 20 mandays @Rs. 100/- per manday = Rs. 2000/- (Contribution from the beneficiaries)	Total:	9000
	Grand Total: **(Rupees Fifteen thousand) only.**		**15000**

MODEL NORM PER HECTARE FOR AGRO-HORTICULTURE WITH ARECANUT PLANTATION (INTEGRATED WATERSHED MANAGEMENT PROGRAMME)

Spacing 3.5 m x 2.35 m
Plant density 1200 nos

A	Preliminary Works		
I.	Site clearance 6 mandays @Rs. 100/- per manday		600
II.	Pit digging (pit size 0.45mx0.45mx0.45m) 1200 nos @Rs. 3/- each		3600
		Total:	4200
B	First year Planting		
I.	Cost of arecanuts 1200 nos @Rs. 1/- each		7200
II.	Cost of planting 1200 nos @Rs. 2/- each = Rs. 2400.00 (Contribution from the beneficiaries)		
III.	Weeding two times 10 mandays @Rs. 100/- per manday = Rs. 2000 (Contribution from the beneficiaries)	Total:	7200
			11400

(Rupees Eleven Thousand Four 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	π/4	x	(1.20)	x	5.25	=	5.93	m^3	
	1	x	π/4	x	(4.20)	x	0.30	=	4.15	m^3	
Less:	1	x	π/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**

[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**

[4]/141 Plain/Reinforced c.c. in open foundation complete.
(A) PCC G - M

1	x	π	x	4.20	x	1.50 x 0.15	=	2.97	m^3
1	x	π	x	4.20	x	0.15 x 0.15	=	0.30	m^3
2	x	8.00	x	0.15	x	0.45	=	1.08	m^3
1	x	8.00	x	0.20	x	0.15	=	0.24	m^3
								4.59	m^3

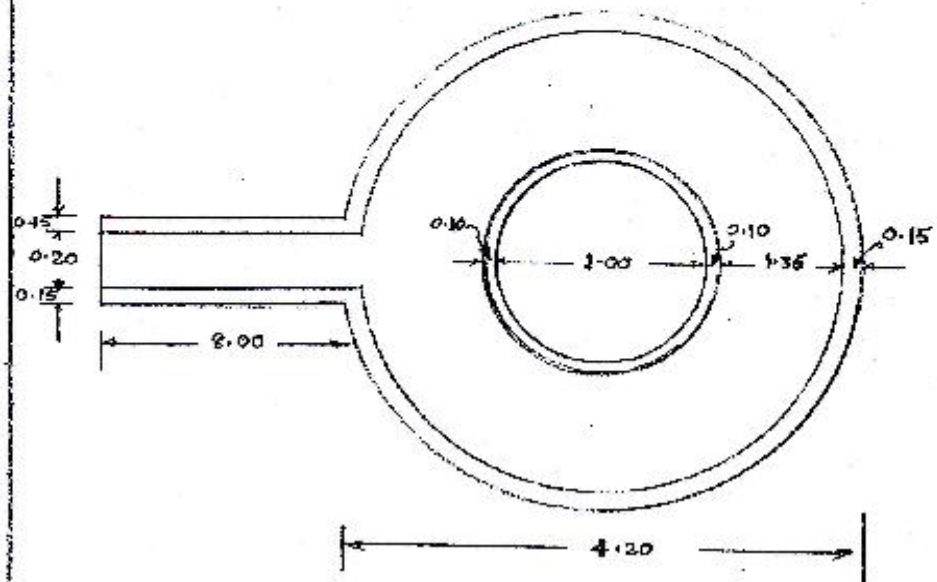
	@	Rs.	4090	/- m^3	Rs.	**18773.10**
GRAND TOTAL :					**Rs.**	**60025.24**

Say Rs. 60,000/-

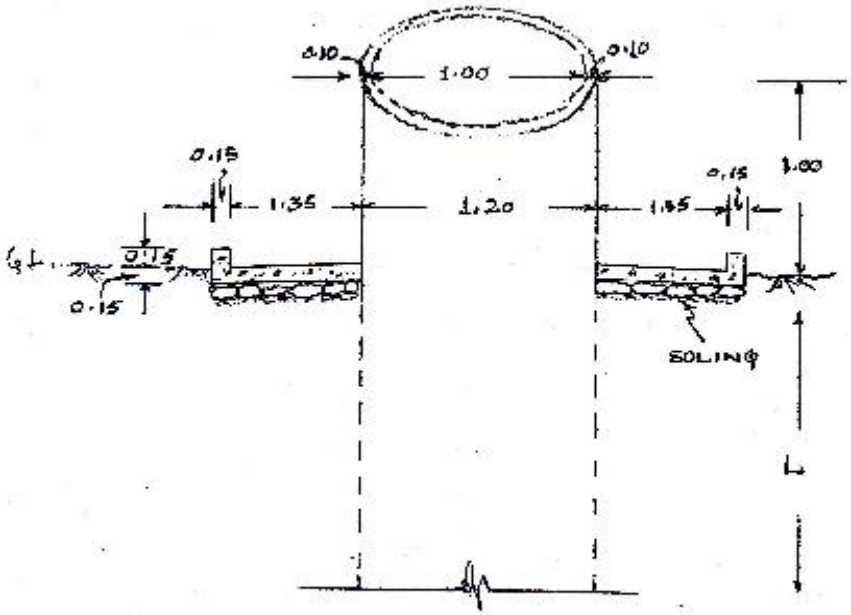
(Rupees Sixty Thousand) only.

DRAWING OF RING WELL

NOT TO SCALE



PLAN



CROSS SECTION

ANNEXURE IV

MoA, Sub Committee Details

Table 52 : Details of Convergence of IWMP with other Schemes:

Name of Village: Chengalgre

1	2	3	4	5			6	7
District	Names of projects	Names of Departments with Schemes converging with IWMP	Fund made available to IWMP due to convergence (Rs. in lakh)	Name of activity/task/structure undertaken with converged funds (a) Structures (b) livelihoods (c) Any other (pl. specify)	Nos/Rmt/Ha	Amount (Rs)	Reference no. of activity/ task/ structure in DPR[@]	Level at which decision for convergence was taken[$]
West Garo Hills	WGH-IWMP-II	NREGS (DRDA, West Garo Hills, Meghalaya)	1916000	a) Dugout Pond	8 nos	320000		District Level
				b) Bench Terrace	7 Ha	105000		
				c) Embankment	190 Rmt	133000		
				c) Water harvesting	4 nos	600000		
				d) CC Irrigation dam	1 nos	150000		
				e) Earthen Irri channel	400 Rmt	20000		
				g) Rubber Plantation	60 Ha	588000		
Grand Total						**1916000**		

Grand Total: Rupees Nineteen Lakh Sixteen Thousand only

AGREEMENT FOR CONVERGENCE OF SCHEME

The village Employment Council of (VEC) and the communities of Chengalgre village, Dadenggre Block, West Garo Hills, Meghalaya has no objection to the convergence og NREGS with Integrated Management Project(IWMP) at Chengalgre village under Chengal Microwatershed, WGH-IWMP-II being implemented by Tura Soil & Water Conservation(T)Division.

We also agreed to allocate 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(2009-10 to 2013-14). The wage and material component under NREGS shall be utilized for following works:

a) Dugout Pond

b) Bench Terrace

c) Water harvesting farm pond

d) CC Irrigation dam

e) Earthen Irri channel

f) Spring chamber

g) Arecanut Plantation

h) Rubber Plantation

Sd/-
(President)
Village employment Council
Chengalgre
Dadenggre Block, WGH

Sd/-
(Secretary)
Village Employment Coucil
Chengalgre
Dadenggre Block, WGH

NO OBJECTION CERTIFICATE OF THE AKING NOKMA FOR CHENGAL MICROWATERSHED DEVELOPMENT PROJECT TO BE TAKEN UP UNDER IWMP-III BY TURA SOIL&WATER CONSERVATION(T) DIVISION

The Aking Nokma of Chengalgre village under Chengal Microwatershed Project, WGH-IWMP-II has No Objection to the developmental activities to be undertaken in my aking land by soil & water conservation Department.

The villagers of Chengalgre Aking 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.

Sd/-
Aking Nokma
Chengalgre
West Garo Hills, Meghalaya