GOVERNMENT OF INDIA

DETAILED PROJECT REPORT

ON

PATOLJA MICRO WATERSHED

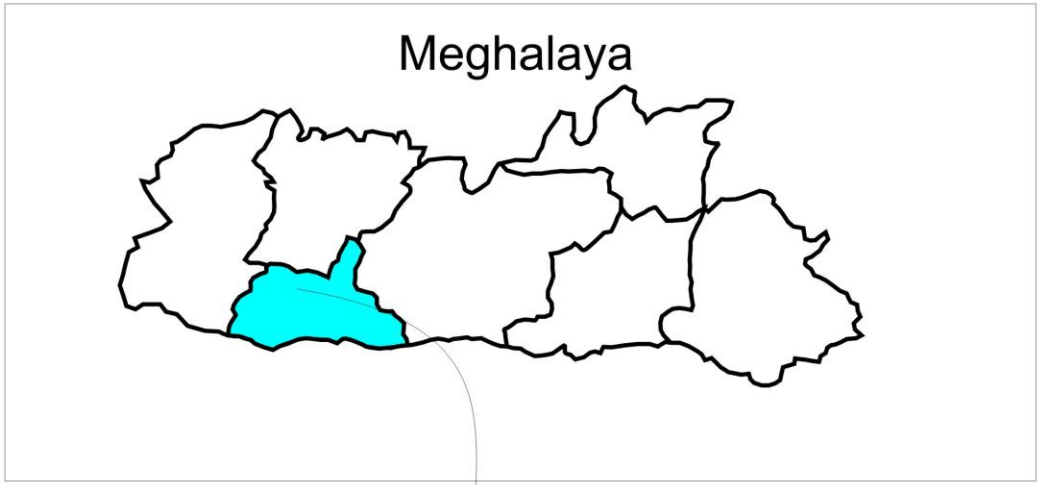
UNDER

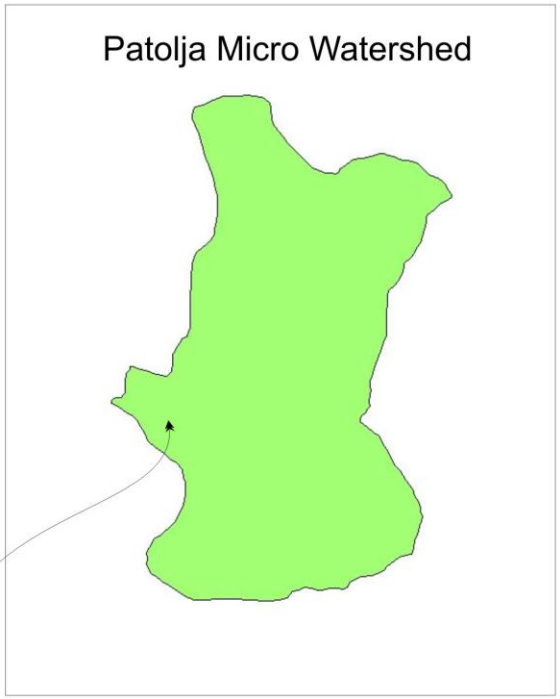
INTEGRATED WATERSHED MANAGEMENT PROGRAMME(IWMP-III)

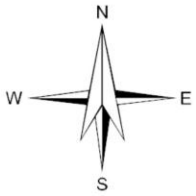
2010-2011

BAGHMARA SOIL & WATER CONSERVATION (CC) DIVISION.
SOUTH GARO HILLS
MEGHALAYA

Index Map of Patolja MWS under IWMP-III
South Garo Hills District







SUMMARY

Name of the Sate	:	Meghalaya
Name of the District	:	South Garo Hills District
Name of the C&RD Block	:	Baghmara
Name of the Villages	:	Asokgre
Name of the Project	:	South Garo Hills – IWMP-III
Total Geographical Area	:	528 Ha
Total Treatment Area	:	500 Ha
Total Project Cost	:	75 lakhs
Project Duration	:	5 Years
Project Implementing Agency	:	Soil & Water Conservation (Cash Crop) Division, Baghmara.

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INTRODUCTION AND BACKGROUND

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INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Patolja (IWMP-III) project is located in Baghmara C&RD Block, South Garo Hills District of Meghalaya. Consisting of a single micro-watershed, the project area is drained by the Patolja River and its tributaries flowing in a north to south direction. The total area is 528 Ha. with 500 to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 14 km from Baghmara C&RD Block. A total of only one village is covered under the project.i.e – Asokgre

1.2 Micro-watershed Information:

The micro-watershed code is yet to be codified by the North East Space Application Centre (NESAC). The total area of the micro-watershed is 528 Ha. with 500 hectares to be treated under the Integrated Watershed Management Programme (IWMP).

1.3 Need and Scope for Watershed Development:

The Patolja Micro-watershed falls under the High Priority category as per the prioritization of watersheds by the North-East Space Application Centre (NESAC). The village do not have pucca or (all weathered road) connectivity. The farmers are all marginal and 45 households are below the poverty line, which is 100% of the total population. Jhum cultivation is practiced by most of the inhabitants of this village 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 depend either on springs and tube well for fetching water even for domestic use.

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

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

(i) MGNREGS
(ii) Swarnjayanti Gram Swarozgar Yojana (SGSY)
(iii) Backward Region Grand Fund (BRGF)

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 within the area of Baghmara under the Baghmara C&RD Block, South Garo Hills District. It is situated at a distance of about 14 km from Baghmara. The geographical location is between 90^0 34' 04''to 91^0 35' 33"E Longitude and 25^0 14'22'' to 25^0 16'36"N Latitude. There is only 1 village within the project area i.e –

Asokgre

At present, this village is still not connected to kuccha road.

2.2 Physiography:

The Topography of the micro-watershed is highly undulating table land tracts with gentle to moderate slopes. The slopes vary from 10% to 15% and 15% to 35%. The lower reaches of the watershed is relatively flat and suitable for Agriculture. The altitude ranges from 28m to 66m above mean sea level.

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
28m to 66 m	10% to 15% and 15% to 35%	Micro Watershed	Patolja	Moderately Sloping

2.3 Drainage: The major stream draining the micro-watershed is the Patolja 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 Patolja.

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

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

<table>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td colspan="2">5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr>
<tr><td>Sl. No.</td><td>Names of State</td><td>Names of District</td><td>Names of Projects</td><td colspan="2">Cause</td><td>Types of erosion</td><td>Area affected (ha)</td><td>Run-off (mm/ year)</td><td>Average soil loss (Tonnes/ ha/ year)</td></tr>
<tr><td rowspan="6">1</td><td rowspan="6">Meghalaya</td><td rowspan="6">South Garo Hills</td><td rowspan="6">South Garo Hills – IWMP III</td><td colspan="3">Water erosion:</td><td></td><td></td><td></td></tr>
<tr><td>a</td><td>Sheet</td><td rowspan="3">500</td><td rowspan="3">2500-4000</td><td rowspan="3">10-15</td></tr>
<tr><td>b</td><td>Rill</td></tr>
<tr><td>c</td><td>Gully</td></tr>
<tr><td colspan="3">Sub total</td><td>500</td><td></td><td></td></tr>
<tr><td colspan="3">Wind erosion</td><td>Nil</td><td>Nil</td><td>Nil</td></tr>
</table>

2.5 Climate: The area in the foothills or low lying areas and mid-slopes are hot in summer and remain cold throughout the winter. The area on the higher reaches is warm during summer and cold during winter. The average annual rainfall is 4000 mm.

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

1	2	3	4	5	6	7		8	9	
Sl. No.	Name of State	Name of the Agro-climatic zone	Area (in ha)	Names of the districts	Names of the Projects	Major soil types		Average annual rainfall in mm (preceding 5 years' average)	Major crops	
						a) Type	b) Area (ha)		a) Name	b) Area (ha)
1	Meghalaya	Southern Slopes and Valley	528 Ha	South Garo Hills	South Garo Hills – IWMP – III	Coarse Loamy with moderately steeply sloping on hill top and have severe erosion hazards	528 Ha	4000 mm	Cashewnut	10
									Arecanut	12
									Brinjal	8
									Colocasia	8
									Tapioca	8
									Maize	8
									Pumpkin	8
									Cow Pea	8
									Turmeric	8
									Cucumber	8
									Rice	28
									Chilli	8
									Ginger	8
								Total		**130**

2.6 Agriculture: Agriculture is the primary occupation of the people of the area. The people of Asokgre mostly practice jhum. The jhum plots vary from 3.0 to 3.5 Ha, and are cultivated for 2-3 years. The principal agricultural crops grown of the jhum fields are Chilli, Ginger, Rice, Brinjal, Colocassia, Tapioca, Maize etc. Among the Fruit crops they grow only Arecanut and Cashewnut in the watershed area. The slopes of the Asokgre are also very suitable for rubber,arecanut, betel leaf, black pepper, 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.)
Maize	8	6	48
Turmeric	8	30	240
Colocasia	8	35	280
Rice	28	15	420
Ginger	8	25	200
Tapioca	8	30	240
Arecanut	12	12	144
Cashewnut	10	8	80
Chilli	8	4	32
Cow pea	8	15	120
Pumpkin	8	50	400
Cucumber	8	35	280
Brinjal	8	20	160
Total	130	285	2644

2.7 Natural Vegetation: The tree species common to the watershed area includes – *Tectona grandis*, *Artocarpus heterophyllus*, *Shorea robusta*, *Bombax cieba* etc. However, due to jhum cultivation 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 pucca road communication, primitive way of agricultural practices like jhumming and the difficult terrain of the area.

Demographic Status: The total household in the watershed project is 45 with a total population of 269, of which 133 are male and 136 are female. The detail of the household in each of the villages in the watershed project is as follows:

Village	No. of Households	No. of Male	No. of Female	Total	Average No. of Family
1.Asokgre	45	133	136	269	5-6
Total:-	45	133	136	269	5-6

Infrastructure facilities **:**

2.1.1 *Roads :* There is no road connectivity from the district head quarter Baghmara. The Project area depends entirely on foot to travel from the project area to the nearest town Baghmara.

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

2.1.3 *Electricity :* Connections have been provided to this village.

2.1.4 *Health :* There is no Community Health Centre in both the villages and the local population have to either depends on facilities available at Baghmara.

2.1.5 *Water Supply :* No drinking water supply system has been provided by the PHE Deptt. However, the entire populations have to depend on springs available in the area to meet the daily requirement.

2.1.6 *Market :* The main market is at Baghmara.

Table 2.5: Infrastructure Status.

1	2	3		4			
Name of District	Name of Project	Parameters:		Status			
South Garo Hills	South Garo Hills- IWMP III	(i)	No. of villages connected to the main road by an all-weather road.	Nil, not even Kuccha Road available			
		(ii)	No. of village provided with electricity	1 (one)			
		(iii)	No. of households without access to drinking water	45			
		(iv)	No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI)	(P)	(S)	(HS)	(VI)
				1		-	-
		(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	Mindikgre			
		(viii)	No. of village with access Banks	Nil			
		(ix)	No. of village with access Markets/ mandis	Nil			
		(x)	No. of village with access Agro-Industries	Nil			
		(xi)	Total quantity of surplus milk	Nil			
		(xii)	No. of milk collection centres (e.g. Union (U)/ Society (S)/ Private agency (PA)/ Others (O))	(U)	(S)	(PA)	(O)
				Nil	Nil	Nil	Nil
		(xiii)	No. of villages with access to Aganwadi Centres	1 No.			
		(xiv)	Any other facilities with no. of villages (please specify)	Nil			

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

Table 2.6: Existing livestock population

Type of Animal	Population
Piggery	36
Poultry	470
Cattle	106
Goatery	5
Total	617

2.10 Land ownership: There are primarily two types of land holding system, namely private lands and community lands.

2.11 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
South Garo Hills	South Garo Hills – IWMP III	(i) Large	-	-	-	-	-
		(ii) Small	-	-	-	-	-
		(iii) Marginal	45	45	-	130	130
		(iv) Landless	-	-	-	-	-
		Sub - Total	45	45	-	130	130

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)
South Garo Hills	South Garo Hills – IWMP III	(i) Wasteland/ degraded land	-	-		195 Ha	-	-	-	195 Ha
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Private Agriculture land	20 Ha	-	-	-	20 Ha			
		(iv) Village woodlot	-	-	-	-				
		(v) Forest	-	-	-	196 Ha				175
		(vi) Village Ponds/ Tanks	-	-	-	-				
		(vii) Community Buildings	-	-	-	-		-		
		(viii) Weekly Markets	-	-	-	Baghmara				
		(ix) Permanent Markets	-	-	-	Baghmara				
		(x) Temples/ Places of worship	-	-	-	Church- 1 no				
		(xi) Others (Pl. specify)		-	-	110 Ha				110
		Total	20 Ha	**-**	**-**	**501 Ha**	**20 Ha**	**-**	**-**	**480 Ha**

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

a)	Built-up Area	=	7 Ha
b)	Agricultural land-crop land-kharif crop	=	20 Ha
c)	Tree clad Area-close	=	123 Ha
d)	Tree clad Area-open	=	73 Ha
e)	Cashewnut Plantation	=	10 Ha
f)	Other shifting cultivation current	=	88 Ha
g)	Other shifting cultivation Abandoned	=	195 Ha
h)	Arecanut plantation	=	12 Ha
	Total	=	528 Ha

2.13 Problems of the Area : The primary problem 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 vegetable and seasonal crops cultivation areas which has further degraded the capability of the land. In other words, unscientific method of cultivation has not only reduced the jhum cycle, low crop yield but had adversely affected the ecological balance within the area. Road communication is another infrastructural problem that the area is facing where large volume crops like arecanut, jackfruits etc. do not find their way into the market which has resulted in poor socio-economic status of the people. However, to control or to overcome the said problems an innovative approach has been formulated and documented in the Action Plan or the Treatment Plan the Detailed Project Report. The method of identification of the problems is through the Participatory Rural Appraisal Exercises conducted in all the villages within the Watershed.

CHAPTER III

PROJECT PLANNING & INSTITUTION BUILDING

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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 and 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, Nongsder
	Baseline survey	Yes
	Hydro-geological survey	No
	Contour mapping	No
	Participatory Net Planning (PNP)	Yes

	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	Yes
	2. Village boundaries	Yes
	3. Drainage	Yes
	4. Soil (Soil nutrient status)	Yes
	5. Land use	Yes
	6. Ground water status	No
	7. Watershed boundaries	Yes
	8. Activity	Yes
	Crop simulation models[#]	No
	Integrated coupled analyzer/ near infrared visible spectroscopy/ medium spectroscopy for high speed soil nutrient analysis	No
	Normalized difference vegetation index (NDVI)#	Yes
	Weather Stations	No
B.	**Inputs**	
	1. Bio-pesticides	No
	2. Organic manures	Yes
	3. Vermi-compost	Yes
	4. Bio-fertilizer	Yes
	5. Water saving devices	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 (C.C) Division, Baghmara District of Meghalaya. The Project Manager will be the Divisional Soil and Water Conservation Officer and will be assisted by an Asst. Soil & Water Conservation Officer along with WDT members in which expertise is drawn from the relevant fields for achieving smooth and successful implementation of the project.

1	2	3	
Names of Districts	Names of projects	Details of PIA	
South Garo Hills	South Garo Hills–IWMP III	(i) Type of organization#	Government
		(ii) Name of organization	Soil & Water Conservation ((C.C) Division, Baghmara
		(iii) Designation & Address	Divisional Soil & Water Conservation Officer,(C.C) Division Baghmara
		(iv) Telephone	03639-2222139
		(v) Fax	03639-2222139
		(vi) E-mail	Baghmarasoil@gmail.com

3.3 Institution Building

i) Watershed Committee (WC)

The Watershed Committee of the Patolja, IWMP-III was constituted with the active involvement of the villagers with strong support of the Traditional Institutions (Village Durbar/Council). The Patolja Watershed Committee is yet to be registered under the Society Registration Act 1860.

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#
South Garo Hills District	South Garo Hills District – IWMP – III	Asokgre WC	Yet to be registered	Chairman	M	-	ST								1	Cl – X	A to I
				Secretary	M	-	ST									B.Sc.Agri	A to I
				Member	4 M	-	ST		4							Cl – VI to X	Do
				Member	3 F	-	ST		3								Do

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
South Garo Hills	SGH. IWMP III	-	-	-	-	(i) Landless									
						(ii) SF									
						(iii) MF	0	0	0	0	0	0	NA	NA	NA
						(iv) LF									

iii) User Group

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

Table 3.4: User Group Details

1	2	3				4				5			6		
Names of Districts	Names of Projects	Total no. of Ugs				No. of members				No. of SC/ST in each category			No. of BPL in each category		
		Men	Women	Both	Total	Categories	M	F	Total	M	F	Total	M	F	Total
South Garo Hills	South Garo Hills-IWMP III					(i)Landless									
						(ii) SF									
						(iii) MF									
						(iv) LF									
Total		Nil	Nil	Nil	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	South Garo Hills	South Garo Hills – IWMP III	3.00	Spring Chamber with storage tank	3.00	3.00	Nil	Safe Drinking Water to the Community	Safe Drinking Water to the Community

ii) Other activities of Preparatory Phase:

1	2	3	4	5	6	7	8	9	10	11	12	13
District	Name of Projects	Initiation of village level institution	Capacity building	IEC activities	Baseline survey	Hydro-geological survey	Identifying technical support agencies	Resource agree-ments	Preparation of DPR	Evaluation of DPR	Any other (please specify)	Cost incurred (Rs. In lakh)
South Garo Hills	South Garo Hills – IWMP III	1 no. W/C and 1 no. of watershed association	3 nos.	2 nos.	Participatory Rural Appraisals	N.A	Done	Done	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										
								Augmentation/ repair of existing structures				Construction of new structures				Total target			
Sl. No	Name of States	Name of Districts	Name of Projects	Type of structures	No	Area irrigated (ha)	Storage capacity	No	Area to be treated (ha)	Storage capacity	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (per unit)	Estimated cost (in lakhs)	No	Area to be treated (ha)	Storage capacity (m^3)	Estimated cost
1	Meghalaya	South Garo Hills	South Garo Hills – IWMP III	(i) Tank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				(ii) Pond	-	-	-	-	-	-	-	8 Nos	40	1038 m^3	6.0	8 nos.	40	8304	6.0
				(iii) Lake	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-
				(iv) Check Dam	-	-	-	-	-	-	-	8 Nos	64	1400 m^3	9.60	8 nos.	64 Ha	10400 m^3	9.60
				(v) Percolation Tank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				(vi) Diversion Channel	-	-	-	-	-	-	-	450 Rm	7.5	-	1.125	450 Rm	7.5	-	1.125
				(vii) Any others (please specify) Protection wall	-	-	-	-	-	-	-	5 Nos	32	-	4.80	6 Nos	32		4.80
				Water Harvesting structure	-	-	-	-	-	-	-	8 Nos	40	1236 m^3	6.0	6 Nos	40	9888m^3	6.0
			Total					-	-	-	-	**29 Nos & 450 Rm**	**183.5 Ha**	**3674 m^3**	**26.525**	**29 nos. & 450 Rm**	**183.5 Ha**	**28592 m^3**	**26.525**

8											9	10
Achievement due to project												
Augmentation/ repair of existing structures				Construction of new structures				Total achievement			Change in storage capacity (col 8-6)	Change in irrigated area (ha) Col. (8-6)
No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	No	Area irrigated (ha)	Storage capacity	Expenditure incurred (in lakhs)	Area irrigated (ha)	Storage capacity	Estimated incurred		-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	8 nos.	40	8304	6.0	-	-	-	-	-
-	-	-	-	-	--	-	-	-	-	-	-	-
-	-	-	-	8 nos.	64 Ha	10400 m^3	9.60	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	450Rm	7.5	-	1.125	-	-	-	-	-
-	-	-	-	6 Nos 6 Nos	32 40	 9888m^3	4.80 6.0	-	-	-	-	-
-	-	-	-	**29 nos.& 450 Rm**	**183.5 Ha**	**28592 m^3**	**26.525**	-	-	-	-	-

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

1	2	3	4	5	6		7								8								9
S. No.	Names of States	Names of Districts	Names of projects	Type of structures	Pre-project		Proposed target								Achievement due to project								Change in irrigated area (Col. 8-6) (ha)
							Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total target		Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total achievement		
					No.	Area irrigated (ha)	No.	Area to be irrigated (ha)	Estimated cost	No.	Area to be irrigated (ha)	Estimated cost	Area to be irrigated (ha)	Estimated cost	No.	Area irrigated (ha)	Expen di-ture incurred	No	Area irri-gated (ha)	Expen di-ture incurred	Area irri-gated (ha)	Expendi -ture incurred	
	Meghlaya	South Garo Hills	South Garo Hills - IWMP-III	(i)Open wells		Nil		Nil			Nil		Nil			Nil			Nil				
				(ii)Bore wells																			
				(iii)Any others 1 Dug Out Pond						8	-	6.0											
				2 Water Harvesting						8	-	6.0											
				Total for the project																			

4.2.3 Activities executed by User Groups in the Project Areas.

	2	3						
Names of Districts	Names of Projects	Major activities of the UGs –Targets				No. of UGs involved	Estimated Cost	Amount of WDF to be collected (Rs.)
		Structure/ activity proposed						
		Sl. No.	Type	No.#	Treatment (ha)			
South Garo Hills	South Garo Hills – IWMP III							

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
South Garo Hills	South Garo Hills – IWMP III	1.Piggery	7	2.10
		2.Poultry	7	2.10
		3.Weaving	6	1.80
		4. Betel nut Processing	4	2.0
		5. Duckery	7	1.75

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

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

4.2.7 Other activities of watershed works phase:

1	2	3		4		5		6		7		8		9		10		11		12		13
District	Names of projects	Ridge area treatment		Drainage line treatment		Nursery raising		Land development		Crop demonstrations		Pasture development		Veterinary services		Fishery development		Non-conventional energy		Any other (please specify)		Total cost incurred (Rs. In lakhs)
		(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	
SGH	SGH IWMP III	75 Ha	6.975 lakh	183.5 Ha	27.525 lakh	47,985 Nos	3.0 lakh	-	-	-	-	-	-	51 units	835	12 Units	-	-	-	76 Units	-	54.75 lakh

4.2.8 Details of engineering structures in watershed works:

1	2	3	4			5			6	7						8						
District	Project	Name of structures	Type of treatment			Type of land			Executing agency	Target						Achievement						
			(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land Dev. (L)	(i) Pri-vate	(ii) Com-munity	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl specify)	No. of units (No./ cum./ rmt)	Estimated cost (Rs. in lakh)				Expected month & year of completion (mm/yyyy)	No. of units (No./ cu.m./ rmt)	Expenditure incurred (Rs. in lakh)				Status of comple-tion	Actual month & year of completion (mm/yyyy)
											M	W	O	T			M	W	O	T		
South Garo Hills	South Garo Hills-IWMP-III	Staggered trenching																				
		Loose boulder Contour bund																				
		Graded bunding																				
		Protection wall			L	P	C		Beneficiary	5	1.92	2.88		4.8	2012-13							
		Earthern checks dams																				
		Masonary stop Dams																				
		Gully plug																				
		Gabion structures																				
		Underground dykes																				
		Field bunds																				
		Any others (pl. specify) 1.CC Check Dam	R	D		P	C		UG Beneficiary	8 No.s	3.84	5.76		9.6	2012-13	8 No.s	3.84	5.76		9.6	2012-13	2012-13
		2.Water Harvesting								8 No.s	2.4	3.6		6.0	2012-13	8 No.s	2.4	3.6		6.0	2012-13	2012-13

Contd.

4.2.9 Details of engineering structures in watershed works.

9																	
Outcomes																	
Reduction in run off (cu.m)	Area treated# (ha)	Water level (m)		Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries				
		Pre-project	Post project	Pre-project	Post project	Pre-project	Post project	SC	ST	Others (Men)	Women	Total	SC	ST	Others (Men)	Women	Total
2000	126	1.5	1.3	420	588	6.3	8.82	-	Yes	8612	5741	14353	-	Yes	133	136	269

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

1	2	3	4			5			6	7				8			
			Type of treatment			Type of land			Executing agency	Target				Achievement			
District	Project	Name of structure/ work	(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land dev. (L)	(i) Private	(ii) Community	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	Area (ha)	No. of plants	Estimated cost (Rs. in lakh)	Expected month & year of comple-tion (mm/ yyyy)	Area (ha)	No. of plants	Expendi-ture incurred (Rs. in lakh)	Actual month & year of comple-tion (mm/ yyyy)
South Garo Hills	South Garo Hills IWMP-III	Afforestation	✓				✓		UG & SHG	35	17,500	62.44	2013-14	-	-	-	-
		Regeneration												-	-	-	-
		Agro-forestry												-	-	-	-
		Fuel wood															
		Fodder															
		Agro-Horticulture												-	-	-	-
		Pasture dev.															
		Nursery raising				✓				35 Ha	47,985	3.0	2013-14				
		Others (Coffee)												-	-	-	-

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 (cum)	Production (quintal)		Income (Rs.)		Mandays generated					No. of beneficiaries				
	Pre-project	Post project	Pre-project	Post project	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total

4.2.12 Details of allied / other activities:

1	2	3	4			5	6		7	
			Type of land			Executing agency	Target		Achievement	
District	Project	Name of activity@	(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)	Expenditure incurred (Rs. in lakh)	Actual month & year of completion (mm/yyyy)
South Garo Hills	South Garo Hills-IWMP III	Carpentry			7 units	Individual	0.35	2013-14		
		Bee keeping(Apiculture)			10 units	Individual	0.80	2013-14		
		Poultry			22 units	Individual	3.3	2013-14		
		Pisciculture			12 units	Individual	1.20	2013-14		
		Piggery Farming			22 units	Individual/SHGs	3.3	2013-14		
		Compos-pit			6 units	Individual	0.15	2013-14		
		Kitchen gardening			18 units	Individual	0.45	2013-14		
		Tailoring			10 units	Individual	0.80	2013-14		
		Agricultural implements			7 units	Individual	0.35	2013-14		
		Weaving			14 units	Individual/SHGs	2.80	2013-14		
		Duckery			7 units	SHGs	1.75	2013-14		
		Betel nut Processing			4 units	SHGs	2.0	2013-14		

(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 (men)	Women	Total
Nil	8.33		yes	2988	1992	4980		yes	133	136	269

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	
South Garo Hills	South Garo Hills-IWMP-III	Asokgre	CPRs	Repairing	-	3.25	100	0.1625							

CHAPTER V

PROJECT PHASING & BUDGETING

CHAPTER V
PROJECT PHASING & BUDGETING

ACTION PLAN OF PATOLJA MICRO WATERSHED UNDER IWMP-III

Name of District:	South Garo Hills
Name of C&RD Block:	Baghmara

Sl No.	Activities	1st Year		2nd Year		3rd Year		4th Year		5th Year		Total	
		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	3	4	5	6	7	8	9	10	11	12	13	14
I	**MANAGEMENT COST** ***10 %***			2 %		5 %		3 %				10 %	
A	Administration Cost												
i	Honourarium of WDT Members @ Rs. 5,000 Month: 1 No.			12 Mnths	0.60	24 Mnths	1.20	12 Mnths	0.60			48 Mnths	2.40
ii	Honourarium of Watershed Volunteers @ Rs 2,000 Month-2 Nos			3 Mnths	0.12	14 Mnths	0.56	7 Mnths	0.28			24 Mnths	0.96
iii	Honourarium WCO's @ Rs. 750 Month			3 Mnths	0.0225	14 Mnths	0.105	7 Mnths	0.0525			24 Mnths	0.18
iv	Honourarium Chartered Accountant				0.15		0.15		0.15				0.45
v	TA/DA of Field Asstt. @ Rs. 5000 Month			3 Mnths	0.15	15 Mnths	0.75	6 Mnths	0.30			24 Mnths	1.20
vi	Hiring charges of office building @ Rs 2000			2 Mnths	0.04	16 Mnths	0.32	6 Mnths	0.12			24 Mnths	0.48
vii	Hiring charges of vehicle @ Rs. 2000			2 Mnths	0.04	6 Mnths	0.12	4 Mnths	0.08			12 Mnths	0.24
viii	Office expenses, PQL, Stationeries, printing of SHG's books, pamphlets, tea, snacks etc.				0.3775		0.545		0.6675				1.59
	Total of A			25 Mnth	1.50	89 Mnth	3.75	42 Mnth	2.25			156 Mnth	7.50
	PREPARATORY PHASE ***4 %***	4 %										4 %	
B	Entry Point Activites:												
i	Construction of Drinking Water System Spring Chamber with Tank @ Rs. 1,00,000	3 Nos	3.00									3 Nos.	3.00
	Total of B	3 Nos	3.00									3 Nos.	3.00
C	**Training** ***5 %***	1 %		2 %		1 %		1 %				5 %	
i	Community Organization	1 No.	0.35	1 No.	0.25							2 Nos.	0.60
ii	Training of WDT at NIRD/ Guwahati			1 No.	0.25	1 No.	0.25	1 No.	0.25			3 Nos.	0.75
iii	Taining for W.C	1 No.	0.40	1 No.	0.25							2 Nos.	0.65
iv	Taining for SHGs			1 No.	0.25	1 No.	0.25		0.25			2 Nos.	0.75
v	Taining for Farmers			1 No.	0.25	1 No.	0.25	1 No.	0.25			3 Nos.	0.75
vi	Training for Ugs			1 No.	0.25							1 Nos.	0.25
	Total of C	2 Nos	0.75	6 Nos	1.50	3 Nos	0.75		0.75			13 Nos.	3.75

D	**Detailed Project Report** ***1 %***	1 %										1 %	
i	1 No. of vehicle hiring charge	30 Days	0.50									30 Days	0.50
ii	Detail Base Line Survey, Identification of Enggineering Structures, PRA Exercise, Making Estimate & Project Report etc.		0.25										0.25
	Total of D	30 Days	0.75									30 Days	0.75
E	**Monitoring & Evaluation** ***2 %***			0.5 %		1 %		0.5 %				2 %	
i	Monitoring			1 No.	0.15	1 No.	0.375	1 No.	0.225			3 Nos	0.75
ii	Evaluation			1 No	0.225	1 No.	0.375	1 No.	0.15			3 Nos	0.75
	Total of E			2 Nos.	0.375	2 Nos	0.75	2 Nos.	0.375			6 Nos	1.50
	Total of I (A to E)	0 Mnths 5 Nos 30 Days	4.50	25 Mnths 8 Nos.	3.375	89 Mnths 5 Nos.	5.25	42 Mnths 2 Nos.	3.375			156 Mnths 20 Nos. 30 Days	16.50
II	**PROJECT COST/ WATERSHED WORKS PHASE**			7.5 %		35 %		7.5 %				50 %	
A.	**Non-Arable Land Treatment** ***50 %***												
i	Nursery Establishment-Arecanut for 35 Ha							35 Ha	3.00			35 Ha	3.00
ii	Afforestation (Non Pine) 35 Ha @ Rs. 10,100/-												
	a) Preliminary Year @ Rs. 1,700 /- per Ha			35 Ha.	0.595							35 Ha.	0.595
	b) 1st Year Planting @ Rs. 5,500 /- per Ha					Mntce	1.925						1.925
	c) 2nd Year Planting @ Rs. 2,900 /- per Ha							Mntce	1.015				1.015
iii	Rubber Plantation 40 Ha. @ Rs. 8,600												
	a) Pre-Work @ Rs. 1,300 /- per Ha.			40 Ha	0.52							40 Ha	0.52
	b) 1st Year Planting including cost of Rubber Stump @ Rs. 4,600 /- per Ha.					Mntce	1.84						1.84
	c) 2nd Year Planting @ Rs. 2,700 /- per Ha.							Mntce	1.08				1.08
	Total of A			75 Ha.	1.115		3.765	35	5.095 Ha			110 Ha.	9.975
B	**Drainage Line Treatment**												
i	Small Dug-Out Pond @ Rs. 75,000			2 Nos.	1.50	6 Nos.	4.50					8 Nos.	6.00
ii	Protect/ Retaining Wall @ Rs. 80,000			1 No.	0.80	5 Nos.	4.00					6 Nos.	4.80
iii	Water Harvesting Structure @ Rs. 75,000			1 No.	0.75	7 Nos.	5.25					8 Nos.	6.00
iv	C.C Check Dam @ Rs. 1,20,000			1 No.	1.20	7 Nos.	8.40					8 Nos.	9.60
v	Run-off Disposal/ Diversion Channel as per Estimate			100 Rm	0.26	150 Rm.	0.335	200 Rm	0.53			450 Rm.	1.125
	Total of B			5 No.	4.51	25 Nos. 150 Rm.	22.485	0 Nos.	0.53			30 Nos 450 Rm.	27.525
	Total of A+ B 50 %			100 Rm 75 Ha. 5 Nos.	5.625	150 Rm. 25 Nos.	26.25	200 Rm 35	5.625 Nos.			450 Rm. 110 Ha. 30	37.50 Nos.

C	**Livelihood Activities**			*10*			1 %		3 %		6 %				10 %	
	for the asset less persons															
i	Tailoring	@ Rs	8,000	/- Unit			2 Units	0.16	3 Units	0.24	5 Units	0.40			10 Units	0.80
ii	Carpentry	@ Rs	5,000	/- Unit			1 Unit	0.05	1 Unit	0.05	5 Units	0.25			7 Units	0.35
iii	Kitchen Gardening	@ Rs	2,500	/- Unit			2 Units	0.05	3 Units	0.08	13 Units	0.325			18 Units	0.45
iv	Weaving	@ Rs	12,500	/- Unit			1 Unit	0.125	4 Units	0.50	3 Units	0.375			8 Units	1.00
v	Piggery	@ Rs	8,000	/- Unit			1 Unit	0.08	5 Units	0.40	9 Units	0.72			15 Units	1.20
vi	Poultry	@ Rs	8,000	/- Unit			1 Unit	0.08	5 Units	0.40	9 Units	0.72			15 Units	1.20
vii	Apiculture	@ Rs	8,000	/- Unit			1 Unit	0.08	2 Units	0.16	7 Units	0.56			10 Units	0.80
viii	Pisciculture	@ Rs	10,000	/- Unit			1 Unit	0.10	3 Units	0.30	8 Units	0.80			12 Units	1.20
ix	Compos Pit	@ Rs	2,500	/- Unit			1 Unit	0.025	3 Units	0.075	2 Units	0.05			6 Units	0.15
x	Agricultural implements	@ Rs	5,000	/- Unit					1 Unit	0.05	6 Units	0.30			7 Units	0.35
							11 Units	0.75	30 Units	2.25	67 Units	4.50			108 Units	7.50
D	**Production System**			13 %			1 %		5 %		7 %				13 %	
i	Piggery	@ Rs	30,000	/- Unit					3 Units	0.90	4 Units	1.20			7 Units	2.10
ii	Poulty	@ Rs	30,000	/- Unit					4 Units	1.20	3 Units	0.90			7 Units	2.10
iii	Weaving	@ Rs	30,000	/- Unit					3 Units	0.90	3 Units	0.90			6 Units	1.80
iv	Betel Nut Processing	@ Rs	50,000	/- Unit			1 Unit	0.50	1 Unit	0.50	2 Units	1.00			4 Units	2.00
v	Duckery	@ Rs	25,000	/- Unit			1 Unit	0.25	1 Unit	0.25	5 Units	1.25			7 Units	1.75
	Total of D						2 Units	0.75	12 Units	3.75	17 Units	5.25			31 Units	9.75
E	**Consolidation & Exit Phase**			**5 %**									5 %		5 %	
i	Repairing of Small Dug-out Pond												5 Nos.	0.50	5 Nos.	0.50
ii	Repairing of Protection/ Retaining Wall												5 Nos.	0.75	5 Nos.	0.75
iii	Repairing of Water Harvesting Structure												5 Nos.	1.00	5 Nos.	1.00
iv	Repairing of C.C Check Dam												5 Nos.	1.00	5 Nos.	1.00
v	Preparation of Project Completion Report												1 No.	0.25	1 No.	0.25
vi	Documentation of the Project												1 No.	0.25	1 No.	0.25
	Total of E												22 Nos.	3.75	22 Nos.	3.75
	Total of II (A+B+C+D+E)							7.125		32.25		15.375		3.75		58.50
	Grand Total					4.50		10.50		37.50		18.75		3.75		75.00
				100 %	6	%	14	%	50	%	25	%	5	%	100	%

L. N. Marak
Divisional Officer
Baghmara, Soil Cons. (C.C.) Division
Baghmara, South Garo Hills.

Deputy Commissioner
South Garo Hills, Baghmara

ABSTRACT OF PERSPECTIVE PLAN FOR CONVERGENCE OF NREGS WITH IWMP 2010-11
AT ASOKGRE VILLAGE UNDER PATOLJA MICRO WATERSHED,SGH - IWMP-III

Name of Village : Asokgre

Total No. of Job Card Holder : 45 Household

Total Wage Component @ Rs 117/- per annum in the 1st year		Rs. 41,280
Total Wage Component @ Rs 117/- per annum in the 2nd year		Rs. 7,02,240
Total Wage Component @ Rs 117/- per annum in the 3rd year		Rs. 41280
Total Wage Component @ Rs 117/- per annum in the 4th year		Rs. 0
Total Wage Component	**=**	**Rs. 7,84,800**

Sl No	Activities	Units	PROJECT PERIOD												Total				Mandays to be Generated
			2011-12			2012-13			2013-14			2014-15							
			Phy	Financial		Phy	Financial		Phy	Financial		Phy	Financial		Phy	Financial			
				Wages	Material		Wages	Material		Wages	Material		Wages	Material		Wages	Material	Total	
1	Small Dug out Pond @ Rs. 75,000	Nos.				3	1,35,000	90,000							**3**	**1,35,000**	**90,000**	**2,25,000**	**1154**
2	Rubber Plantation @ Rs. 8,600 per Ha.	Ha.	8	41,280	27,520	14	72,240	48,160	8	41,280	27,520				**30**	**1,54,800**	**1,03,200**	**258000**	**1323**
3	Protection Wall/Retaining Wall @ Rs. 80,000/-	Nos.				3	1,44,000	96,000							**3**	**1,44,000**	**96000**	**240000**	**1231**
4	Water Harvesting @ Rs. 75,000/-					3	1,35,000	90,000							**3**	**135000**	**90000**	**225000**	**1154**
5	CC Check Dam @ Rs. 1,20,000/-					3	216000	1,44,000							**3**	**216000**	**144000**	**3,60,000**	**1846**
	Total			41,280	27,520	12	7,02,240	4,68,160		41,280	27,520				12	**7,84,800**	**5,23,200**	**13,08,000**	**6708**
			8	Ha		14	Ha		8	Ha.					30	Ha.			

Amount Allocated for Covergence for the period 2011-12 to 2014-15

1. Wage Component	Rs	784800
2. Material Component	Rs.	523200
Grand Total	**Rs.**	**1308000**

Grand Total (Rupees Thirteen lakh eight thousand) only

President
Asokgre VEC
Baghmara C&RD Block
South Garo Hills.

L. N. Marak
Divisional Officer
Baghmara, Soil Cons. (C.C.) Division
Baghmara, South Garo Hills.

Deputy Commissioner
South Garo Hills,
Baghmara.

Deputy Commissioner
South Garo Hills, Baghmara

Secretary
Asokgre VEC
Baghmara C&RD Block
South Garo Hills.

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

1	2	3	4	5	6		7	8	9	10				11				
Sl. No.	Name of State	Name of Districts	Names of Projects	Year of sanction	Project duration (dd/mm/ yyyy)		Area of the projects	Project cost (Rs. In lakh)	Names of Micro watersheds & Code nos. (as per DoLR's unique codification)	Area (ha) of the projects				Area details (ha) (falling within the projects)				
					From	To				Cultivated rainfed area	Cultivated irrigated area	Uncultivated wasteland		Pvt. Agri. Land	Forest land	Community land	Others (pl. specify)	Total area (ha)
												a) Temporary fallow	b) Permanent					
1	Meghalaya	South Garo Hills	South Garo Hills – IWMP III	2010-11	2010-11	2014-15	500 Ha	75 Lakhs	Patolja	130 Ha	Nil	370	-	20	123	-	357 Ha	500 Ha

Fund provision for the IWMP projects from all sources:

1	2	3		4										5
District	Name of Projects	IWMP Fund		Funds from other sources in addition to IWMP funds										Total
				Convergence funds		PPP		Community		Institutional finance		Others (Pl. specify)		
		Central Share	State Share	Name of Scheme	Amount (Lakhs)	Name of private sector	Financial contri-bution	Name	Financial contri-bution	Name	Financial contri-bution	Name	Financial contri-bution	
South Garo Hills	South Garo Hills – IWMP III	67.50 lakhs	7.5 lakhs	NREGS	7.848	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	82.848

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

1	2	3	4	5				6				
Sl. No.	Names of States	Name of Districts	Names of Projects	Distt. Agency's Project Account details				Watershed Committee (WC) account details:				
				Name of the Bank and Branch where project account has been opened	Account Number (to be obtained confiden-tially)	Account type (Savings/ Current/ Others)	Name & Designation of authorized persons who operate the account.	Name of Watershed Committee	Name of the Bank and Branch where project account has been opened	Account number (to be obtained confiden-tially	Account type (Savings/ current others)	Name & Designation of authorized persons who operate the account.
1	Meghalaya	South Garo Hills	South Garo Hills – IWMP III	State Bank of India, Baghmara Branch	-	Saving	L.N Marak, DS&WCO	Patolja, Watershed Committee	SBI, Baghmara	316868883176	Saving	Chairman W.C, Secretary W.C, Project Leader / WDT

Details of Convergence of IWMP with other Schemes:

	1	2	3	4	5	6	7
Sl. No.	District	Names of projects	Names of Departments with Schemes converging with IWMP	Fund made available to IWMP due to convergence (Rs. in lakh)	Name of activity/task/structure undertaken with converged funds (a) Structures (b) livelihoods (c) Any other (pl. specify)[#]	Reference no. of activity/ task/ structure in DPR[@]	Level at which decision for convergence was taken[$]
1	South Garo Hills	South Garo Hills – IWMP III	* Community Rural Development Department NREGS	7.848	(a)Dug-out Pond 3 Nos (b)Rubber Plantation 30 Ha (c)Protection Wall/Retaining Wall 3 Nos (d) C.C Check Dam 3 Nos (e) Water Harvesting 3 Nos	-	Block Level & District Level
2							

Note: Asokgre village

(a)Dug-out pond 3 No.s	Wages-1.35 Lakhs;	Material-0.90 Lakhs;
(b)Rubber Plantation 30 Ha	Wages-1.548 Lakhs;	Material-1.032 Lakhs;
(c)Protection Wall/Retaining Wall 3 nos	Wages-1.44 Lakhs;	Material-0.90 Lakhs;
(d)CC. Check Dam 3 nos	Wages-2.16 Lakhs;	Material-1.44 Lakhs;
(e)Water Harvesting 3 nos	Wages-1.35 Lakhs;	Material- 0.90 Lakhs;

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				
South Garo Hills	South Garo Hills IWMP-III										

***** 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	2011-12 & 2012-13	3	20	-	-
2		SIRD	Nongsder	Director	State Govt.	Capacity Building	NA	2011-12 & 2012-13	3	15	-	-
3		RRTC	Umran	Director	Don-Bosco	Agri-Horti, Animal Husbandry, Entrepreneurship	NA	2011-12 & 2012-13	3	25	-	-
4		ICAR	Umiam	Director	Central Govt.	Do	NA	2011-12 & 2012-13	3	30	-	-
5		NEHU	Tura, Campus	Director	State Govt.	Academic and Research	NA	2011-12 & 2012-13	3	15	-	-
6		CTI	Byrnihat	Jt. Director	State Govt.	Watershed management	NA	2011-12 & 2012-13	3	20	-	-

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

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

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

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

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

1	2	3	4	5	6		7	
Project Stakeholders	**Total no. of persons**	**No. of persons trained so far**	**No. of persons to be trained during current financial year**	**No. of persons trained during current financial year**	**Sources of funding for training**		**Funds utilized (Lakhs)**	
					a) DoLR	**b) Any other (Pl. specify)**	**a) DoLR**	**b) Any other (Pl. specify)**
SLNA					3.75	-	1.5	-
DRDA/ZP cell			25 No.s	-				
PIAs			25 Nos.	-				
WDTs			20 Nos.	-				
UGs			20 Nos.	-				
SHGs			30 Nos.	-				
WCs			20 Nos.	-				
GPs			15 Nos.	-				
Community			250 Nos.	-				
Others Pl. specify)								

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

	1	2	3	4	5
	Activity	**Executing agency**	**Estimated expenditure (Rs.)**	**Expenditure incurred (Rs.)**	**Outcome (may quantity, wherever possible)**
1.	Awareness	S&WC (CC) Division	0.75	0.75	
2.	Capacity Building	S&WC (CC) Division			

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 (Men)	Women	Total	SC	ST	Others (Men)	Women	Total
1.	Asokgre		100 %	11204	7469	18673		100%	133	136	269		100%	133	136	269

Table 7.2 Migration Details:

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

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

Table 7.3 Economic benefits accrued to women:

1		2		3		4
Wages		**Training**		**Livelihoods**		
Woman days	**Amount (Rs. in lakh)**	**No. of women participants**	**Amount (Rs. in lakh)**	**No. of women beneficiaries**	**Value of assistance provided (Rs. in lakh)**	**Total (Rs. in lakh)**
7469	7.469	136	1.875	50 No.s	10.65	19.99

* 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**	
South Garo Hills District	SGH-IWMP-III	Asokgre	Community Forest	Fw	6 months	-	45	-	45	Nil

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

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

F	for right to	fishing [culture, harvest and sale]
Fw	for right to	collect firewood for domestic purposes

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

Table 7.5 Water related outcomes:

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

1	2	3	4	5	6	7	8
Names of Districts	**Names of Projects**	**Sources**	**Pre-Project level**	**Mid-term project level**	**Post-Project level**	**Increase/decrease (Col. 8 – Col. 6)**	**Remarks**
South Garo Hills District	SGH-IWMP III	Open wells	1.5	1.4	1.3	0.2	-
		Bore wells	-	-	-	-	-
		Others (specify) Springs	very poor poor	poor	Good	Increased	-

* 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**	
South Garo Hills District	SGH-IWMP III	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**
South Garo Hills District	SGH-IWMP III					

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

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

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

Table 7.6: Vegetation/ crop related outcomes:

Table 7.6.1 Details of Kharif crop area and yield in the project areas:

1	2	3	4						5						6					
Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
			Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)	
			Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.
South Garo Hills District	SGH-IWMP III	Rice	-	28	-	15	-	43	-	25	-	15		375	-	25		24		600
		Maize	-	8	-	6	-	48	-	6	-	6		36	-	5		8		40
		Ginger	-	8	-	25	-	200	-	6	-	25		150	-	5		29		145
		Turmeric	-	8	-	30	-	240	-	6	-	30		180	-	5		33		165
		Chilli	-	8	-	4	-	32	-	6	-	4		24	-	5		7		35
		Tapioca	-	8	-	30	-	240	-	6	-	30		180	-	5		33		165
		Brinjal	-	8	-	20	-	160	-	6	-	20		120	-	5		23		115
		Cowpea	-	8	-	15	-	120	-	6	-	15		90	-	5		18		90
		Pumpkin	-	8	-	50	-	400	-	6	-	50		300	-	5		54		270
		Colocassia	-	8		35	-	280		6		35		210		5		39		195
		Cucumber	-	8		35	-	280		6		35		210		5		38		190

Note : The Area of Jhum crops decreases in the Mid- term and Post project because of converting it to Permanent Plantation (Rubber & arecanut

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

Irri. – Irrigated Rf – Rainfed

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

1	2	3	4	5	6						7						8					
Sl 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	South Garo Hills District	SGH-IWMP III	Cabbage	-	-	-	-	-	-	3	-	10	-	30	-	5	-	15	-	75	-
				Knol khol	-	-	-	-	-	-	4	-	90	-	360	-	6	-	25	-	570	-
				Mustard	-	-	-	-	-	-	3	-	8	-	24	-	5	-	10	-	50	-
				Raddish	-	-	-	-	-	-	4	-	80	-	320	-	6	-	86	-	516	-
				Cauliflower	-	-	-	-	-	-	5	-	10	-	50	-	7	-	57	-	399	-
			Total for the District																			

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

Irri. – Irrigated Rf – Rainfed

Table 7.6.3 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	South Garo Hills District	SGH-IWMP III	Maize	-	8	-	6	-	48	3	6	8	7	24	42	5	3	9	8	45	24
			Total for the District																			

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

Irri. – Irrigated Rf – Rainfed

Table 7.6.4 Increase/ Decrease in area under fodder:

1	2	3	4			5		
District	**Name of project**	**Duration of Project**	**Existing area under fodder (ha)**			**Achievement (ha)**		
			Source/Name of report	**Year of reference**	**Area already under fodder**	**Area under fodder proposed to be covered through IWMP**	**Area under fodder actually covered through IWMP**	**Change in area under fodder**
South Garo Hills District	SGH-IWMP III	5 yrs	NA	NA	NA	nil	nil	nil

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

Table 7.6.5 Increase/ Decrease in Forest/vegetation cover:

1	2	3	4			5		
District	**Name of project**	**Duration of Project**	**Existing area tree cover (ha)**			**Achievement (ha)**		
			Source/Name of report	**Year of reference**	**Area already under forest/vegetative cover**	**Forest/vegetative cover area proposed to be covered under IWMP**	**Forest/vegetative cover area actually covered under IWMP**	**Change in forest/vegetative cover area**
South Garo Hills District	SGH-IWMP III	5 yrs	LULC Map, NESAC, Umiam	2005-06	196 Ha	35 Ha	35 Ha	35 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		
District	**Name of project**	**Duration of Project**	**Existing area under horticulture (ha)**			**Achievement (ha)**		
			Source/Name of report	**Year of reference**	**Area already under horticulture**	**Area under horticulture proposed to be covered through IWMP**	**Area under horticulture actually covered through IWMP**	**Change in area under horticulture**
South Garo Hills District	SGH-IWMP III	5 yrs			22	75	75	75

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

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

1	2	3	4			5		
District	**Name of project**	**Duration of Project**	**Existing area under fodder (ha)**			**Achievement (ha)**		
			Source/Name of report	**Year of reference**	**Area already under fuel-wood**	**Area under fuel-wood proposed to be covered under IWMP**	**Area under fuel-wood actually covered under IWMP**	**Change in area under fuel-wood**
South Garo Hills District	SGH-IWMP III	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**	
South Garo Hills District	SGH-IWMP III	Cattle	106	5088	7.63	110	5280	7.92	120	5760	8.64	
		Goat	5	100	0.25	6	120	0.3	10	200	0.5	
		Poultry	470	423	0.54	480	432	0.56	510	459	0.59	
		Piggery	36	864	1.38	40	960	1.53	55	1320	2.11	
	Total for all projects											
Total for all Districts												

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

Table 7.7.2 Details of other livelihoods created for landless people:

1	2	3	4	5				6	7					8					
District	Project	Name of activity	Fund required for the activity (Rs.)	Sources of funding (Rs.)				Actual Expenditure incurred on activity (Rs.)	No. of beneficiaries trained					No. of beneficiaries taking up activity				
				Project Fund	Benefi-ciary	Others (pl. specify)	Total		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
South Garo Hills District	SGH-IWMP III	Tailoring																
		Basket - making																
		Stabilized Mud - making																
		Vermi - compos - ting																
		Kitchen - gardening																

(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	

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	Beneficiary	Others (pl. specify)	Total		SF	MF	LF	Total	SF	MF	LF	Total
South Garo Hills District	SGH-IWMP III	1.Pisciculture	1.26	1.20	0.06	-	1.26	1.20	-	120	-	120	-	12	-	12
		2.Tailoring	0.84	0.80	0.04	-	0.84	0.80	-	80	-	80	-	10	-	10
		3.Carpentry	0.3675	0.35	0.0175	-	0.3675	0.35	-	90	-	90	-	7	-	7
		4.Kitchen Gardening	0.4725	0.45	0.0225	-	0.4725	0.45	-	80	-	80	-	70	-	70
		5.Weaving	2.34	2.80	0.14		2.34	2.80	-	80	-	80	-	10	-	10
		6. Piggery	3.465	3.3	0.165		3.465	3.3		100		100		20		20
		7. Poultry	3.465	3.3	0.165		3.465	3.3		100		100		80		80
		8.Compost pit	0.1575	0.15	0.0075		0.1575	0.15		80		80		10		10
		9.Duckery	1.8375	1.75	0.0875		1.8375	1.75		100		100		70		70
		10.Betelnut Processing	2.1	2.0	0.1	-	2.1	2.0		100		100		40		40

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

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

9		10	11				12
No. of persons employed indirectly in the activity		Annual increase in income due to activity (Rs.)	Impact of livelihoods programme				Any other information (pl. Specify)
			Migration (No. of beneficiaries)		Development of backward-forward linkages		
Total	Grand Total (8+9)		Pre-project	Post-project	Pre-project	Post-project	
(i) 10	22	60,000	-	-	-	-	-
(ii) 20	30	50,000	-	-	-	-	-
(iii) 15	22	35,000	-	-	-	-	-
(iv) 40	110	60,000	-	-	-	-	-
(v) 10	20	45,000					
(vi)20	40	55,000					
(vii)40	120	40,000					
(viii)10	20	35,000					
(ix)30	100	40,000					
(x)15	55	35,000					

Table 7.8 Marketing related outcomes:

Backward-Forward linkages *

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

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

Table 7.9 Abstract of outcomes:

1	2	3	4	5	6	7
Sl. No.	**State**	**Item**	**Unit**	**Pre-project Status**	**Post-project Status**	**Remarks**
		Status of water table		Very poor - poor	Good	
		Ground water structures repaired/ rejuvenated		-	10 nos.	
		Quality of drinking water		Moderate potable	Improved	
		Availability of drinking water		Insufficient	Sufficient	
		Increase in irrigation potential		-	-.	
		Change in cropping/ land use pattern		-	-	
		Area under agricultural crop				
		i Area under single crop	Ha.	42	45	
		ii Area under double crop	Ha.	5	15	
		iii Area under multiple crop	Ha.	88	120	
		Net increase in crop production area	Ha.	-	45	
		Increase in area under vegetation	Ha.	196	231	
		Increase in area under horticulture	Ha.	22	97	
		Increase in area under fuel & fodder	Ha.	-	-	
		Increase in milk production		-	-	
		No. of SHGs	Nos.	-	10	
		Increase in no. of livelihoods	Nos.	-	38	
		Increase in income	Rs in lakhs	0.25 – 0.30	0.35 – 0.45	
		Migration		-	-	
		No. of school going children	Nos.	50	104	
		SHG Federations formed		-	-	
		Credit linkage with banks	Nos.	-	5	
		Resource use agreements	Nos.	-	5	
		WDF collection & management		-	1	
		Summary of lessons learnt	May be attached as a separate file			

Table 7.10 Cost effectiveness of structures/ activities*

1	2	3	4	5	6	7	8	9	10
District	**Name of project**	**Name of WC**	**Name of structure/ activity**	**Estimated cost (Rs.)**	**Expected quantifiable benefits (Rs.)**	**Expenditure incurred (Rs.)**	**Actual quantifiable benefit (Rs.)**	**Benefit: Cost ratio#**	**IRR**
South Garo Hills District	SGH-IWMP III	Patolja	As per Treatment Plan	58.5 lakhs	81.9 lakhs	58.5 lakhs	-	1:1.5	

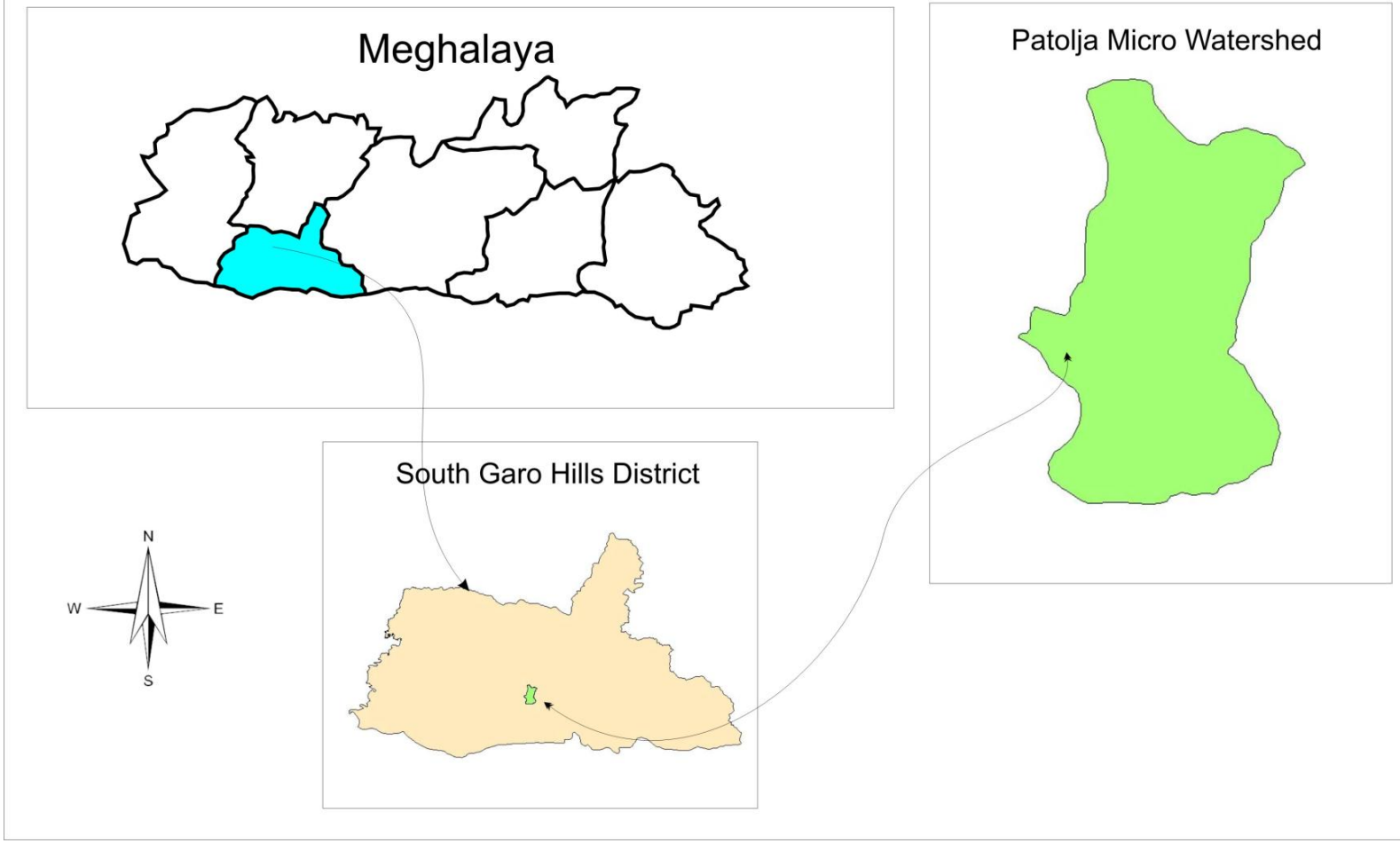
***** from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from Column no. 4, no. of projects, from column no. 5, no. of WCs, from column no. 6, no. of structures/ activities, from column no. 7 to 10, category-wise# totals, may be mentioned at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

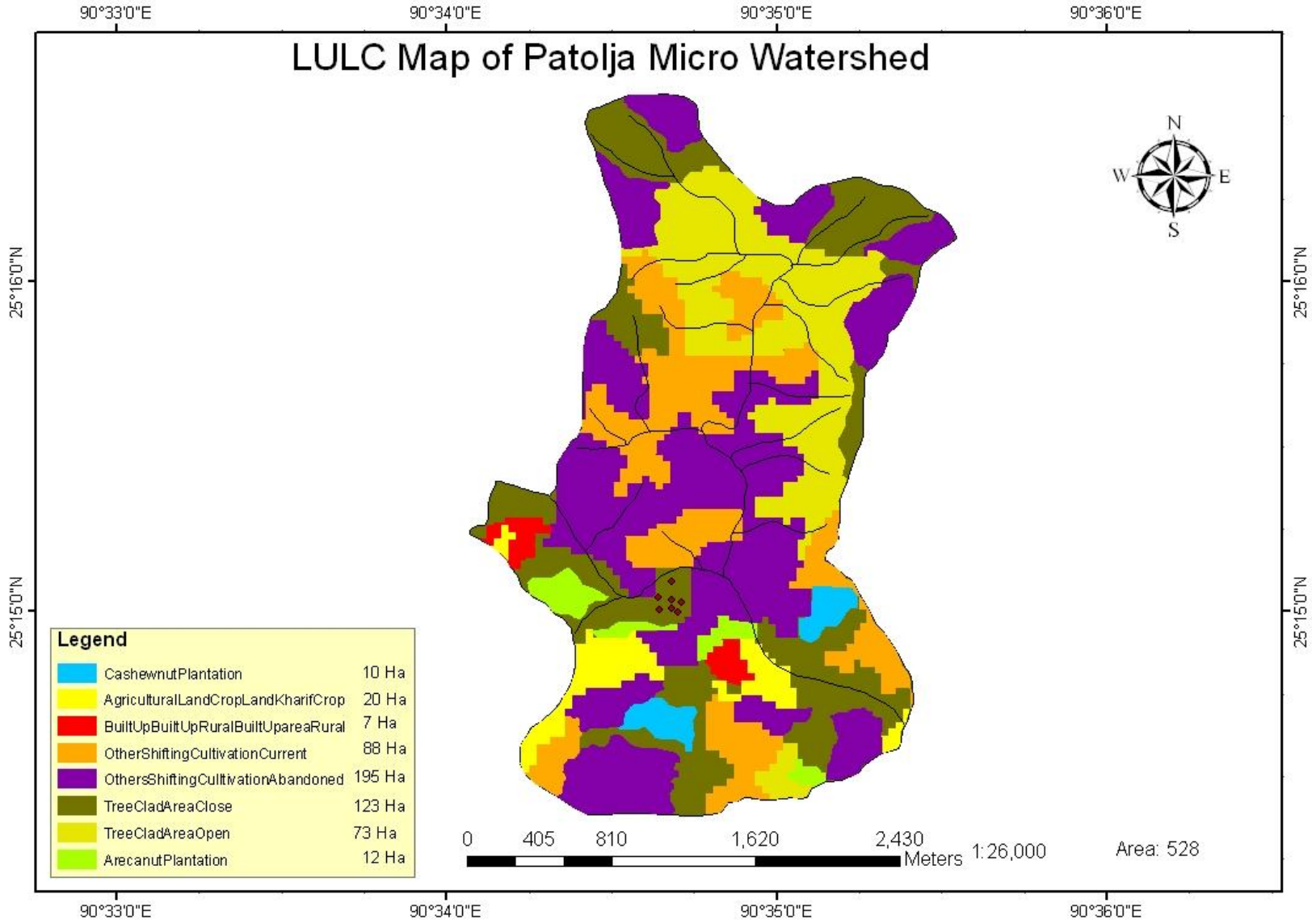
B:C ratio more than 1 – cost effective
less than 1 – Not cost effective

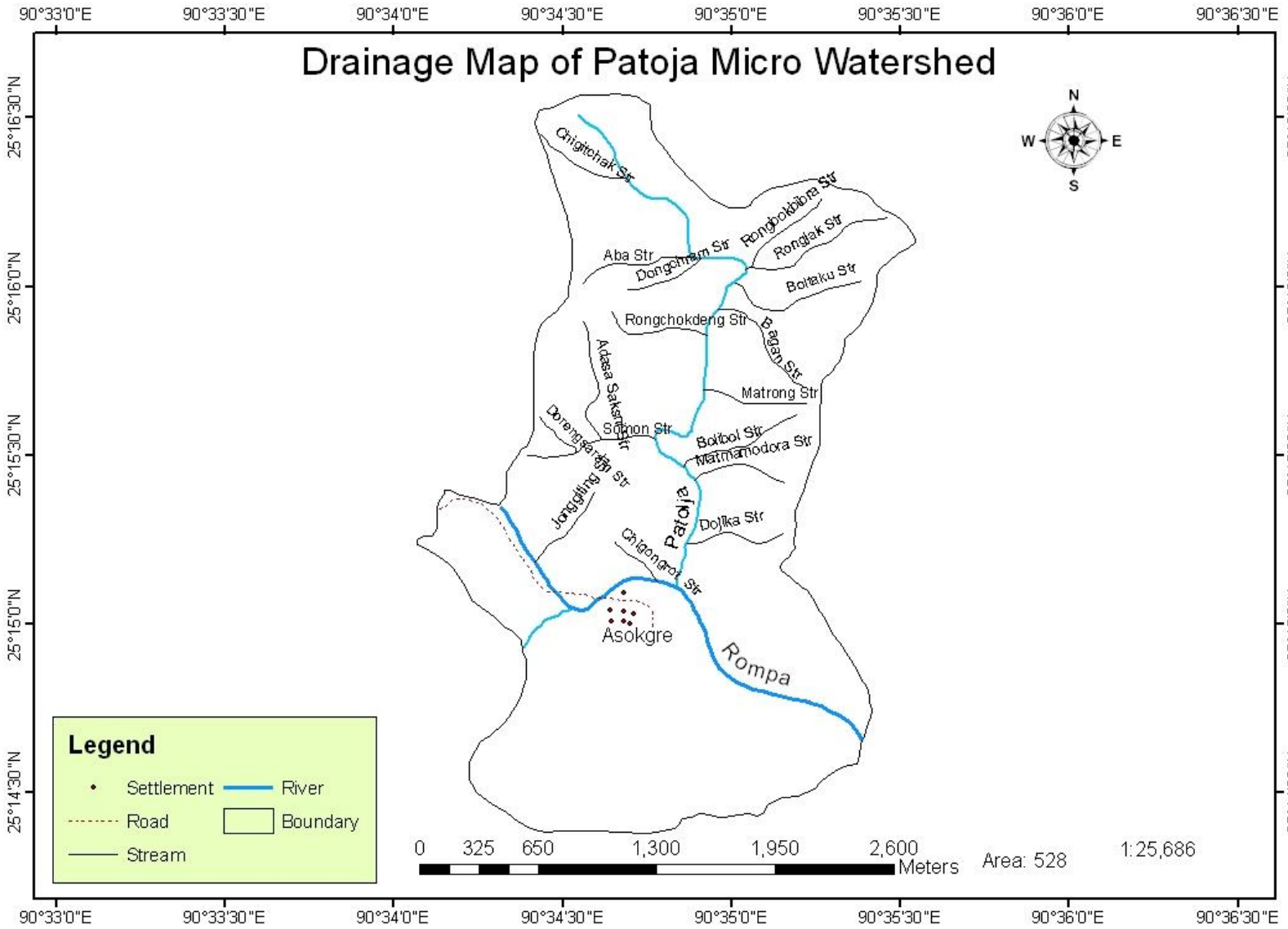
ANNEXURE I

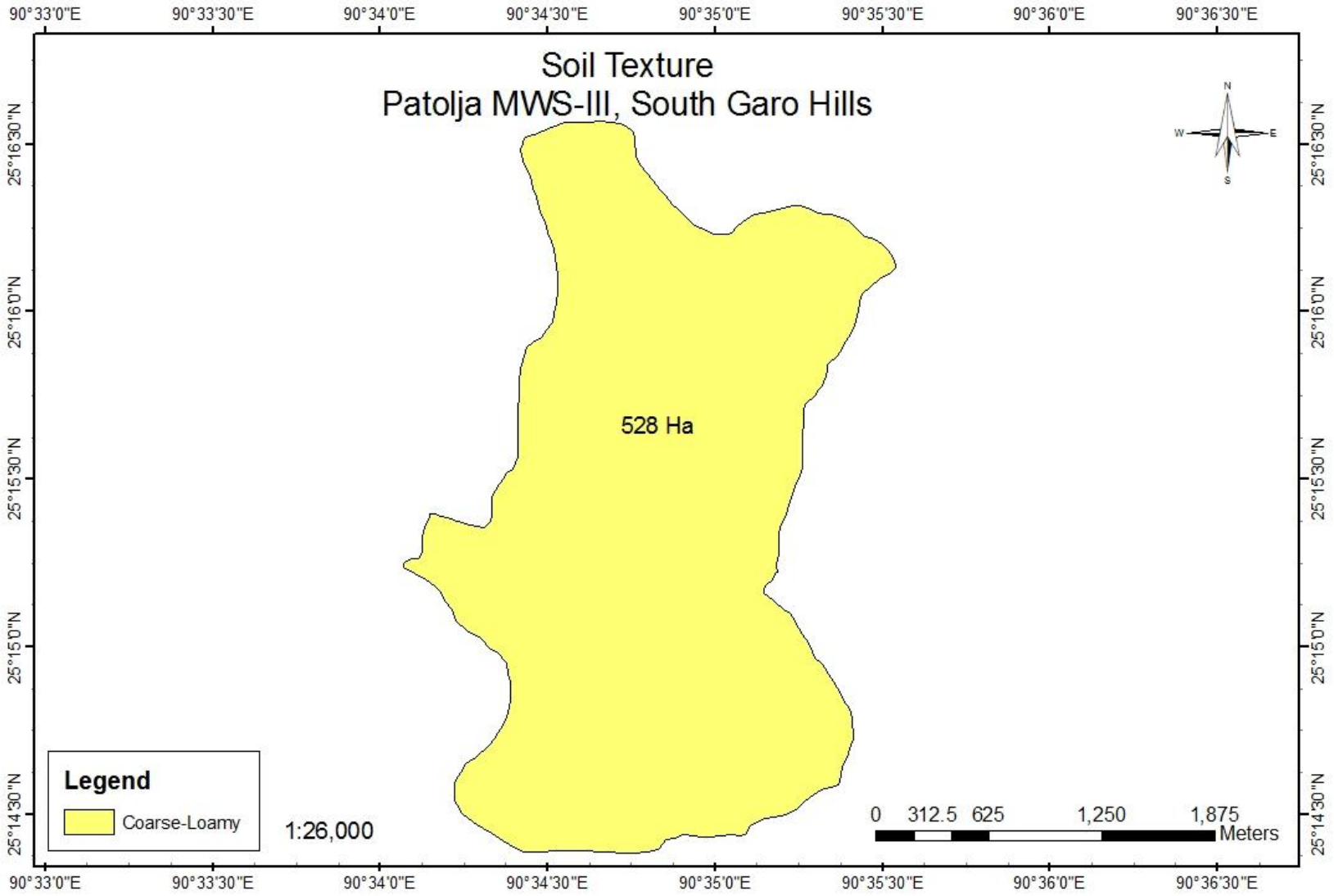
MAPS

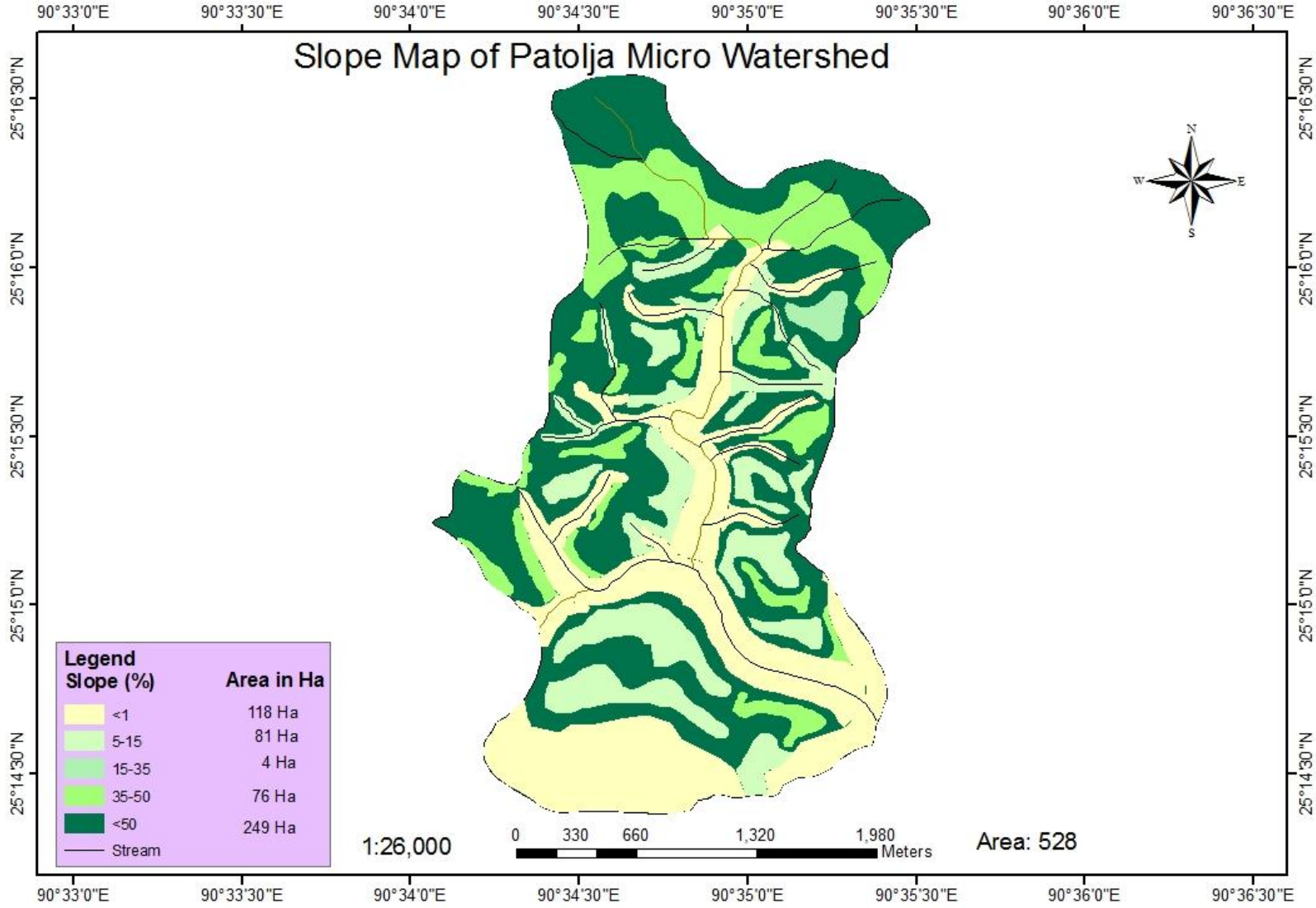
Index Map of Patolja MWS under IWMP-III
South Garo Hills District

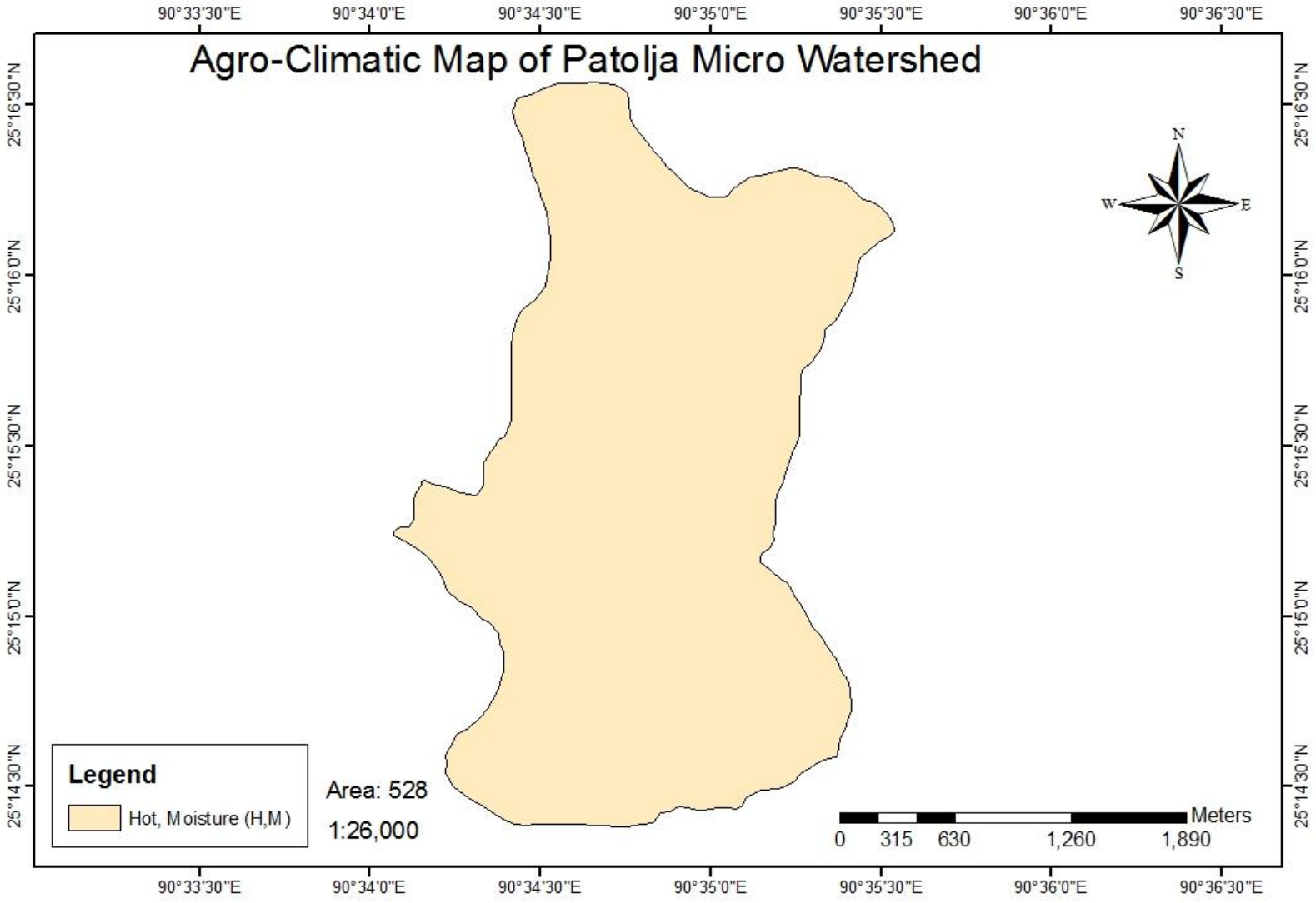


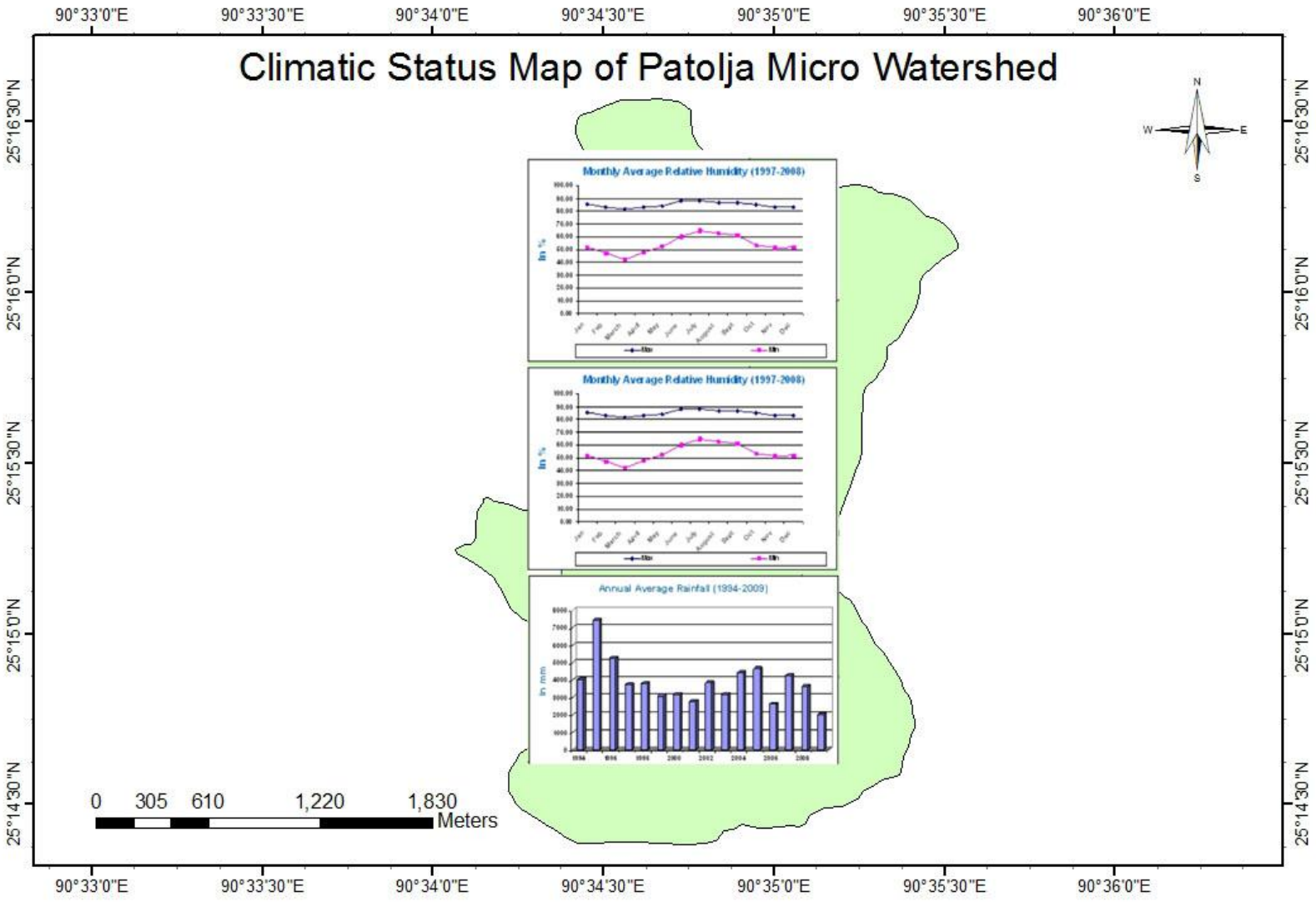

LULC Map of Patolja Micro Watershed
90°33'0"E
90°34'0"E
90°35'0"E
90°36'0"E
25°16'0"N
25°15'0"N
N
W
E
S
Legend
CashewnutPlantation 10 Ha
AgriculturalLandCropLandKharifCrop 20 Ha
BuiltUpBuiltUpRuralBuiltUpareaRural 7 Ha
OtherShiftingCultivationCurrent 88 Ha
OthersShiftingCulltivationAbandoned 195 Ha
TreeCladAreaClose 123 Ha
TreeCladAreaOpen 73 Ha
ArecanutPlantation 12 Ha
0 405 810 1,620 2,430
Meters
1:26,000
Area: 528

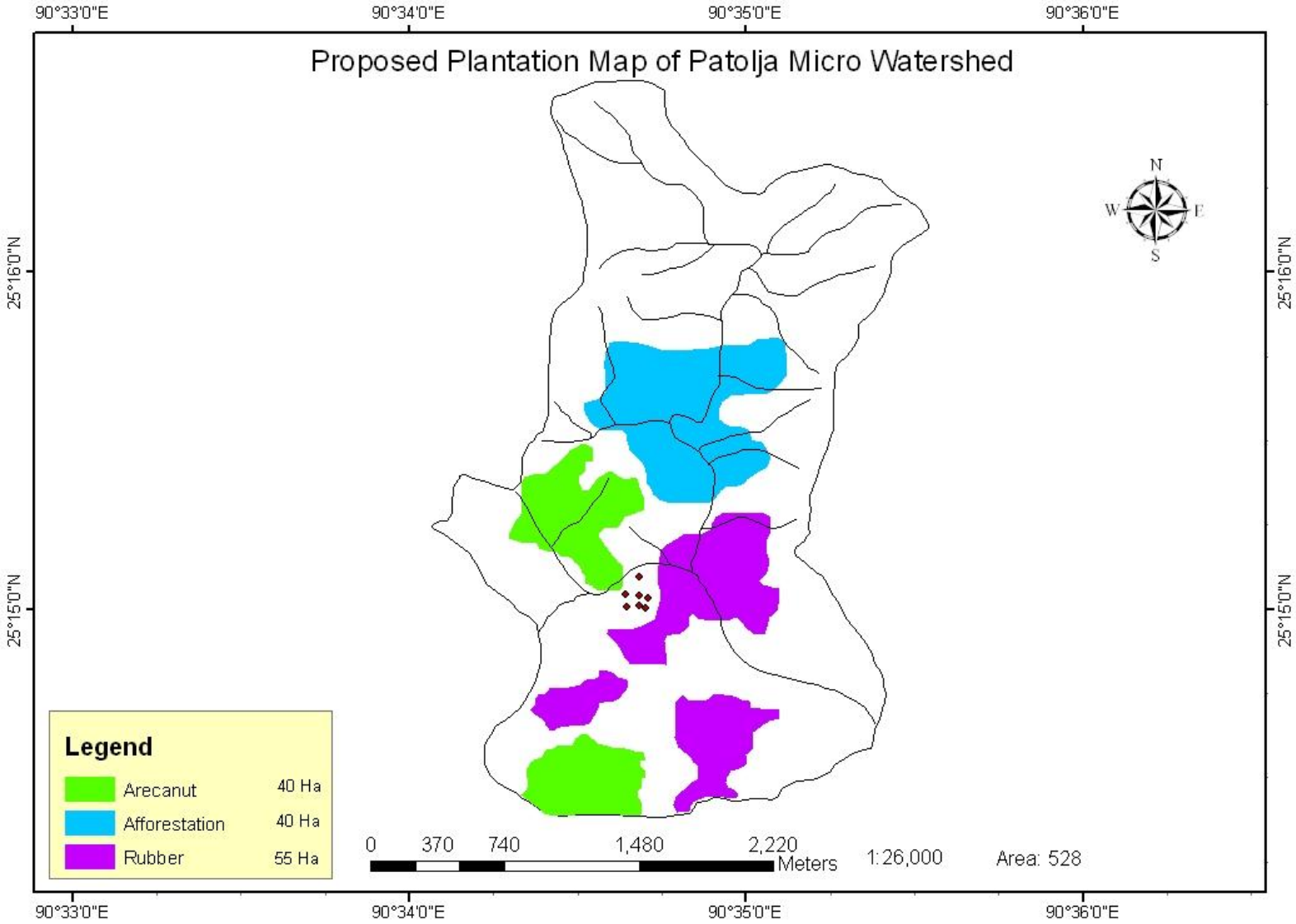

Drainage Map of Patoja Micro Watershed
90°33'0"E
90°33'30"E
90°34'0"E
90°34'30"E
90°35'0"E
90°35'30"E
90°36'0"E
90°36'30"E
25°16'30"N
25°16'0"N
25°15'30"N
25°15'0"N
25°14'30"N
N
W
E
S
Chigitchak Str
Rongbokbibra Str
Ronglak Str
Aba Str
Dongchham Str
Boltaku Str
Rongchokdeng Str
Bagan Str
Adasa Saksan Str
Matrong Str
Dorengsarem Str
Sonnon Str
Boltool Str
Matmamodora Str
Jonggiling Str
Patoja
Doljka Str
Chigongrot Str
Asokgre
Rompa
Legend
Settlement
River
Road
Boundary
Stream
0
325
650
1,300
1,950
2,600
Meters
Area: 528
1:25,686

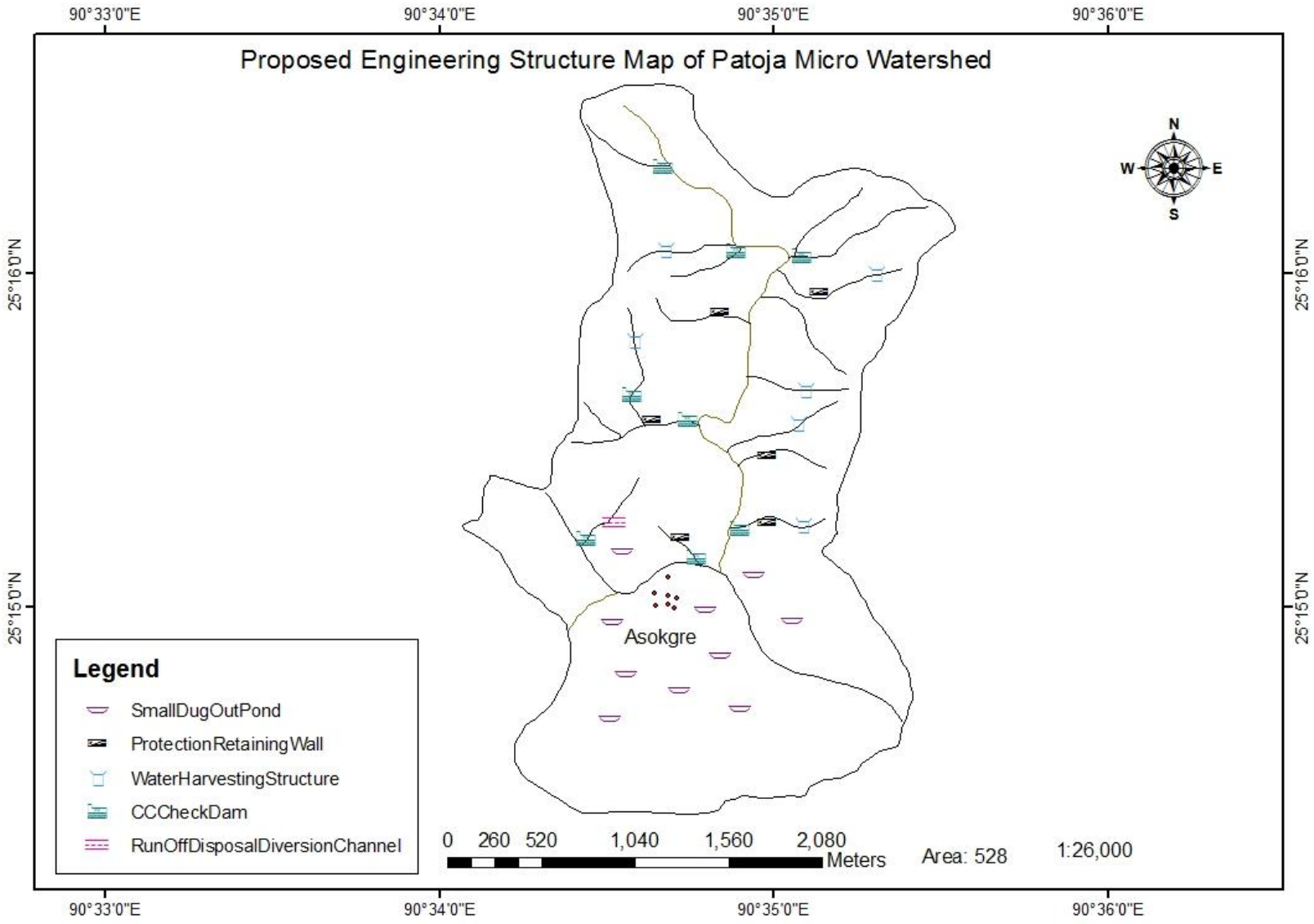

Soil Texture
Patolja MWS-III, South Garo Hills
528 Ha
Legend
Coarse-Loamy
1:26,000
0 312.5 625 1,250 1,875
Meters
N
S
E
W
90°33'0"E
90°33'30"E
90°34'0"E
90°34'30"E
90°35'0"E
90°35'30"E
90°36'0"E
90°36'30"E
25°16'30"N
25°16'0"N
25°15'30"N
25°15'0"N
25°14'30"N


Slope Map of Patolja Micro Watershed
90°33'0"E
90°33'30"E
90°34'0"E
90°34'30"E
90°35'0"E
90°35'30"E
90°36'0"E
90°36'30"E
25°16'30"N
25°16'0"N
25°15'30"N
25°15'0"N
25°14'30"N
N
W
E
S
Legend
Slope (%)
Area in Ha
<1
118 Ha
5-15
81 Ha
15-35
4 Ha
35-50
76 Ha
<50
249 Ha
Stream
1:26,000
0
330
660
1,320
1,980
Meters
Area: 528


Agro-Climatic Map of Patolja Micro Watershed
90°33'30"E
90°34'0"E
90°34'30"E
90°35'0"E
90°35'30"E
90°36'0"E
90°36'30"E
25°16'30"N
25°16'0"N
25°15'30"N
25°15'0"N
25°14'30"N
N
W
E
S
Legend
Hot, Moisture (H,M)
Area: 528
1:26,000
0
315
630
1,260
1,890
Meters


Climatic Status Map of Patolja Micro Watershed
90°33'0"E
90°33'30"E
90°34'0"E
90°34'30"E
90°35'0"E
90°35'30"E
90°36'0"E
25°16'30"N
25°16'0"N
25°15'30"N
25°15'0"N
25°14'30"N
N
W
E
S
Monthly Average Relative Humidity (1997-2008)
In %
Monthly Average Relative Humidity (1997-2008)
In %
Annual Average Rainfall (1994-2009)
In mm
0 305 610 1,220 1,830
Meters


Proposed Plantation Map of Patolja Micro Watershed
90°33'0"E
90°34'0"E
90°35'0"E
90°36'0"E
25°16'0"N
25°15'0"N
N
W
E
S
Legend
Arecanut 40 Ha
Afforestation 40 Ha
Rubber 55 Ha
0 370 740 1,480 2,220
Meters
1:26,000
Area: 528


Proposed Engineering Structure Map of Patoja Micro Watershed
90°33'0"E
90°34'0"E
90°35'0"E
90°36'0"E
25°16'0"N
25°15'0"N
N
W
E
S
Asokgre
Legend
SmallDugOutPond
ProtectionRetainingWall
WaterHarvestingStructure
CCCheckDam
RunOffDisposalDiversionChannel
0 260 520 1,040 1,560 2,080
Meters
Area: 528
1:26,000

ANNEXURE II

SOCIO-ECONOMIC SURVEY DETAILS

SOCIO ECONOMIC SURVEY											
NAME OF THE VILLAGE: - ASOKGRE											
Sl.No	Name of the Head of the Family	Male	Female	Total	Occupation	Land Holding (Area in Ha)	Live Stock				Total Annual Income
							Cattle	Piggery	Goat	Poultry	
1	2	3	4	5	6	7	8	9	10	12	13
1	Shri. Andresh R. Marak	5	5	10	Farmer	1.2	5	1	0	7	34,000.00
2	Shri. Alberth Sangma	4	3	7	Farmer	2	3	0	0	6	30,000.00
3	Shri. Simbirth Sangma	6	3	9	Farmer	0.5	6	2	0	13	28,000.00
4	Shri. Ajil Ch. Marak	3	3	6	Farmer	1.1	2	0	0	6	25,000.00
5	Shri. Clatush M. Sangma	3	1	4	Farmer	1.4	2	1	0	8	23,000.00
6	Shri. Benin M. Sangma	2	4	6	Farmer	1.4	4	0	0	7	21,000.00
7	Shri. Bohil M. Sangma	2	3	5	Farmer	1.3	4	2	0	12	26,000.00
8	Shri. Bablu S. Marak	1	3	4	Farmer	1.2	2	0	0	9	32,000.00
9	Shri. Dajin S. Marak	2	3	5	Farmer	0.4	2	1	0	10	26,000.00
10	Shri. Kasmir N. Sangma	3	1	4	Farmer	0.5	4	1	0	8	23,000.00
11	Shri. Danin G. Momin	6	3	9	Farmer	1.4	4	1	0	14	27,000.00

12	Shri. Pevin N. Sangma	1	1	2	Farmer	1.4	3	0	0	13	25,000.00
13	Shri. Litmerson S. Sangma	3	1	4	Farmer	0.5	0	0	0	19	31,000.00
14	Shri. Sembil K. Marak	2	3	5	Farmer	1.1	4	1	0	10	35,000.00
15	Shri. Samuel K. Marak	4	3	7	Farmer	1.4	5	1	0	12	29,000.00
16	Shri. Gabu R. Marak	3	3	6	Farmer	1.4	3	1	0	8	23,000.00
17	Shri. Lerich N. Sangma	5	5	10	Farmer	1.1	1	0	0	8	27,000.00
18	Shri. Market N. Sangma	2	6	8	Farmer	0.5	5	2	0	6	33,000.00
19	Shri. Peter Marak	3	3	6	Farmer	0.5	4	2	5	10	32,000.00
20	Shri. Krisbin N. Sangma	3	3	6	Farmer	0.5	2	0	0	10	34,000.00
21	Shri. Lubes M. Sangma	3	7	10	Farmer	1.4	7	0	0	12	36,000.00
22	Shri. Ramjani S. Sangma	4	0	4	Farmer	0.5	2	1	0	8	31,000.00
23	Shri. Tarjan S. Sangma	1	1	2	Farmer	0.5	0	2	0	10	27,000.00
24	Shri. Denat M. Sangma	1	2	3	Farmer	0.3	0	1	0	12	24,000.00
25	Shri. Pedison S. Marak	5	3	8	Farmer	1	1	1	0	6	26,000.00
26	Shri. Tangseng S. Marak	1	2	3	Farmer	0.3	0	1	0	8	26,000.00
27	Shri. Diken S. Marak	5	5	10	Farmer	1.3	0	2	0	8	28,000.00
28	Shri. Pitor S. Marak	5	4	9	Farmer	0.5	4	1	0	10	21,000.00

29	Shri. Komil M. Sangma	5	2	7	Farmer	0.5	1	0	0	12	24,000.00
30	Shri. Tebil S. Marak	4	3	7	Farmer	0.5	3	1	0	10	29,000.00
31	Shri. Jenaram R. Marak	2	3	5	Farmer	0.5	1	1	0	12	24,000.00
32	Shri. Gonesh S. Marak	2	4	6	Farmer	1	1	0	0	14	32,000.00
33	Shri. Rajib N. Sangma	1	4	5	Farmer	0.5	0	0	0	10	35,000.00
34	Shri. Sebiston S. Marak	4	7	11	Farmer	1.3	3	0	0	10	32,000.00
35	Shri. Enternath S. Marak	3	3	6	Farmer	0.5	3	1	0	8	38,000.00
36	Shri. Joseph S. Marak	3	3	6	Farmer	0.5	2	2	0	10	36,000.00
37	Shri. Wanesh S. Marak	3	1	4	Farmer	1.3	7	1	0	16	32,000.00
38	Shri. Sengrang M. Sangma	2	1	3	Farmer	1.4	1	0	0	12	36,000.00
39	Shri. Sengkan M. Marak	3	4	7	Farmer	0.5	0	0	0	10	32,000.00
40	Shri. Peneng S. Marak	2	5	7	Farmer	1.2	0	1	0	25	34,000.00
41	Shri. Lerawing Sangma	3	5	8	Farmer	1.2	0	0	0	14	33,000.00
42	Shri.Drowin M. Sangma	1	3	4	Farmer	1.2	0	1	0	10	30,000.00
43	Shri. Pebian M. Sangma	1	1	2	Farmer	1.2	0	1	0	12	31,000.00
44	Smt. Riksilchi S. Marak	1	2	3	Farmer	1.3	2	0	0	0	28,000.00

45	Shri. Mathiash . Marak	5	1	6	Farmer	1	3	2	0	15	32,000.00
	Total	133	136	269		42.2	106	36	5	470	

ANNEXURE III

COST ESTIMATES

ESTIMATE FOR THE CONSTRUCTION OF CEMENT CONCRETE RETAINING WALL
AS PER SCHEDULED OF RATES FOR ROADS AND BRIDGES AND E&D WORKS FOR THE YEAR
2007-2008 IN TURA AND WILLIAMNAGAR CIRCLE

1/134 Excavation of structures (earthwork in excavation of foundation of Structures as per drawing and technical specification including setting out etc

1	x		17	x	0.5	x	1.25	=	10.625	m^3
@	34	$/m^3$						=	Rs	361.25

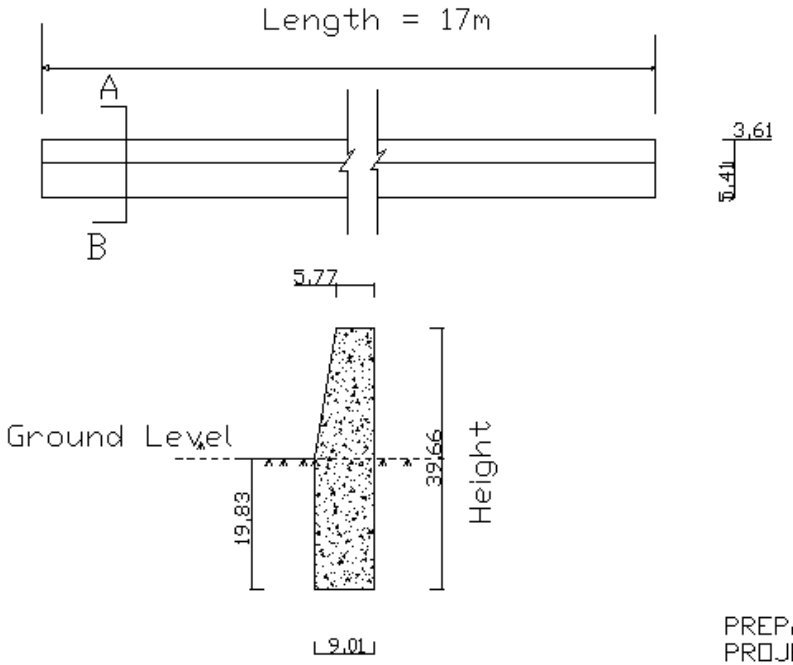
2/137 Plain Cement Concrete 1:3:6 nominal mixed in foundation with crushed stone aggregates 40 mm nominal size mechanically mixed etc including curing for 14 days

1	x		17	x	0.5	x	1.25	=	10.625	m^3
1	x		17	x	.5+.30	x	2.061	=	14.015	m^3
					2		Total	=	24.64	m^3
@	3232	$/m^3$						=	Rs	79,636.48

Grand total	=	Rs	79,997.73
	Say	Rs	80,000

(Rupees Eighty Thousand thousand only)

PLAN & SECTION OF C.C RETAINING WALL



Section on A-B

PREPARED BY
PROJECT FORMULATION CELL SHILLONG
PLAN & SECTION OF C.C RETAINING WALL
SCALE: NOT TO SCALE
DIMENSION IN METRE

ESTIMATE FOR THE CONSTRUCTION OF CEMENT CONCRETE CHECK DAM
AS PER SCHEDULED OF RATES FOR ROADS AND BRIDGES AND E&D WORKS FOR THE YEAR
2007-08 IN TURA AND WILLIAMNAGAR CIRCLE

1/62(i) Earthwork in excavation for structures (construction of retaining walls in cement concrete 1:5 as per drawing and technical specifications).

Dam	7	x	0.9	x	1			=	6.3	m^3		
Curtain Wall	7	x	0.15	x	0.4			=	0.42	m^3		
Apron	7	x	3	x	0.4			=	8.4	m^3		
Wing wall	2	x	3.5	x	0.9	x	1.1	=	6.93	m^3		
									22.05	m^3		
	@	72	/m^3					=	Rs		1587.6	

2/97. Providing and laying of boulder Apron for bed protection with stone boulder of size 15cm size and 6cm wide as per drawing and technical specifications .

Apron	7	x	3	x	0.25			=	5.25	m^3
	@	884	/m^3					=	Rs	4641

3/137 Plain Cement Concrete in proportion 1:3:6 nominal mixed in foundation with crushed stone aggregates 40mm mechanically mixed etc.

Wing Wall	2	x	3.5	x	0.9	x	0.1	=	0.63	m^3	
Dam	1	x	7	x	1.1	x	0.1	=	0.77	m^3	
	1	x	7	x	1.1	x	1	=	7.7	m^3	
	7	x	$\frac{0.4 + 0.9}{2}$	x	1.7			=	7.73	m^3	

		2	x		4	x	0.6	x	0.3	=	1.44	m³
	Apron	7	x		3	x	0.15			=	3.15	m³
	Curtain Wall	7	x		0.15	x	0.55			=	0.5775	m³
	C.C Channel	1	x		8.48	x	0.8	x	0.1	=	0.6784	m³
		2	x		8.48	x	0.8	x	0.1	=	1.3568	m³
											24.0327	m³
		@			3232	m³				=	Rs	77673.6864

4/62(iii) Construction of retaining walls /breast walls in cement mortar 1:5 as per drawing and technical specifications.

	Wing Wall	2	x		3.5	x	0.9	x	1	=	6.3	m³
		2	x	3.5	x	0.4 + 0.9 / 2		x	1.7	=	7.74	m³
											14.04	m³
		@	2263	m³						=	Rs	31772.52

5/176 Plastering with cement mortar 1:3 on brick work in sub structure as per technical specification.

	Dam											
		2	x		7	x	1.7			=	23.8	m³
		7	x		4	x	0.3			=	8.4	m³
		2	x		0.6	x	0.3			=	0.36	m³
		1	x		5	x	0.6			=	3	m³
	C.C Channel	2	x		8.48	x	0.8			=	13.568	m³

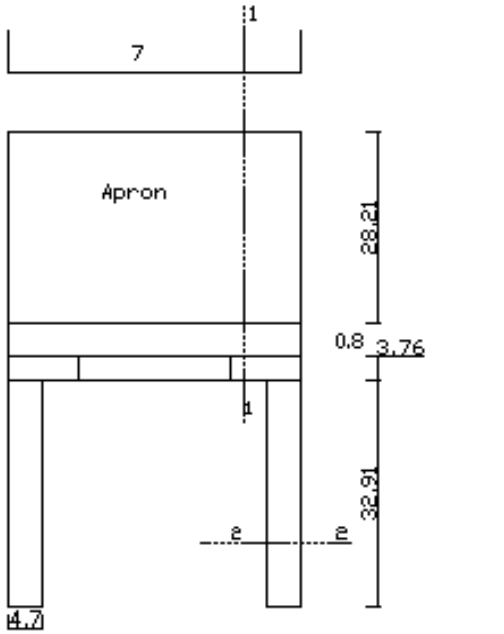
	1	x	8.48	x	0.8	=	6.784	m^3	
							55.912	m^3	
@	74	m^3				=	Rs	4137.488	

6/134 Excavation of structures (earthwork in excavation of foundation of structures as per drawing and technical specification including setting out and construction of shoring etc.

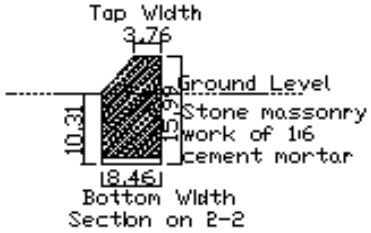
	8.48	x	0.8	x	0.8	=	5.4272	m^3	
@	34	m^3			=	Rs	185		
					Total	=	Rs	1,19,996.82	
					say		Rs	1,20,000	

(Rupees one lakh twenty thousand) only

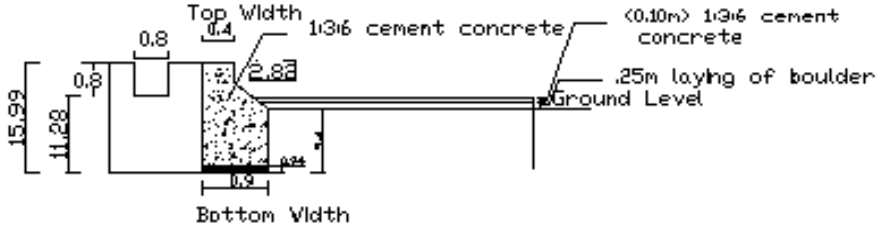
PLAN AND SECTION OF CEMENT CONCRETE CHECK DAM



Plan



Section on 2-2



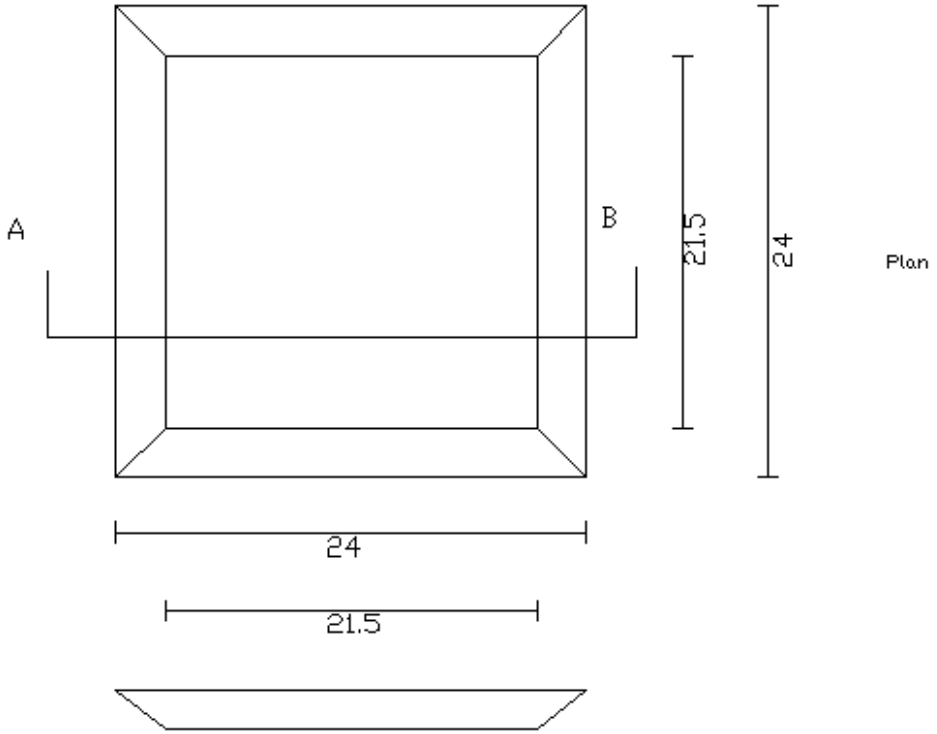
Section on 1-1

PREPARED BY
PROJECT FORMULATION CELL SHILLONG
PLAN & SECTION OF C.C CHECKDAM
SCALE: NOT TO SCALE
DIMENSION IN METRE

ESTIMATE FOR THE CONSTRUCTION OF DUG-OUT POND AS PER SCHEDULED OF RATES FOR ROADS, BRIDGES AND E &D WORKS FOR THE YEAR 2007-2008 IN TURA CIRCLE AND WILLIAMNAGAR CIRCLE

1/3.	Site Clearance Area	=	Rs	0.0625	Ha	
@	**3600** /Ha	=	Rs	225		
2/27.	Earthwork in excavation for dug out pond including dressing removal of spoils and lift complete.					
	1no x $\frac{(24 \times 24)+(21.5 \times 21.5)\times 2}{2}$	=	Rs	1038.5	m^3	
@	Rs 72 /m^3	=	Rs	74772		
			Total	74,997.00		
			Say	Rs	75,000	
	(Rupees seventy five thousand) Only					

PLAN FOR DUG OUT POND



Plan

Section A-B

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DIMENSION IN METRE
SCALE : NOT TO SCALE

ESTIMATE FOR THE CONSTRUCTION OF SPRING CHAMBER WITH WATER RESERVOIR
(Rates as per P.W.D scheduled of rates for building works for the year 2010-2011)

1/1.1 Earthwork on excavation in foundation trenches including dressing of sides and ramming of the bottom including staking etc.
(d) Soft laminated rock or medium shale

For Spring Chamber:

1	x	1	x	2	x	0.8	x	1	=	1.6	m^3
1	x	2	x	2	x	0.8	x	0.8	=	2.56	m^3

For Reservoir:

1	x	2	x	3	x	0.3	x	0.5	=	0.75	m^3
1	x	2	x	2	x	0.3	x	0.5	=	0.45	m^3

For Pipe Pedestals:

15	x	0	x	0	x	0.6			=	1.44	m^3
								Total	=	6.8	m^3

@	122	/m^3	=	Rs	829.6

2/4.5 Providing 100mm thick solling with approved quality of stones etc.

For Spring Chamber:

1	x	1	x	2	x	0.8	=	1.6	m^2
1	x	2	x	2	x	0.8	=	3.2	m^2

For Reservoir:

1	x	2	x	3	x	0.3	=	1.5	m^2

		1	x	2	x	2	x	0.3			=	0.9	m^2
		1	x	1	x	3	x	1.5			=	3.75	m^2
	For Pipe Pedestals:												
		15	x	0	x	0					=	2.4	m^2
										Total	=	13.35	m^2
	@	166	/m^2								=	Rs	2216.1
3/2.1	Providing and laying cement concrete in proportion 1:4:8 etc.												
	For Spring Chamber:												
		1	x	1	x	2	x	0.8	x	0.1	=	0.16	m^3
		1	x	2	x	2	x	0.8	x	0.1	=	0.32	m^3
	For Reservoir:												
		1	x	2	x	3	x	0.3	x	0.1	=	0.168	m^3
		1	x	2	x	2	x	0.3	x	0.1	=	0.09	m^3
	For Pipe Pedestals:												
		15	x	0.4	x	0	x	0.1			=	0.24	m^3
										Total	=	0.978	m^3
	@	3859	/m^3								=	3774.102	
4/2.2	Providing and laying cement concrete in proportion 1:3:6 etc												
	For Spring Chamber:												
		1	x	1	x	2	x	0.6	x	0.9	=	1.08	m^3
		1	x	2	x	2	x	0.6	x	0.75	=	1.8	m^3
		1	x	1	x	2	x	$\frac{0.26+0.55}{2}$	x	1.35	=	1.09	m^3

1	x	2	x	1	x	$\frac{0.25+0.26}{2}$	x	0.45		=	0.23	m^3	
1	x	2	x	2	x	$\frac{0.25+0.55}{2}$	x	1.8		=	2.88	m^3	

For Reservoir:

1	x	2	x	3		x	0.3	x	0.3		=	0.504	m^3
1	x	2	x	2		x	0.3	x	0.3		=	0.27	m^3
1	x	1	x	3		x	1.5	x	0.2		=	0.75	m^3

For Pipe Pedestals:

15	x	0.3	x	0		x	0.4				=	0.54	m^3
										Total	=	9.144	m^3
											=	Rs	38487.1

@ 4209 /m^3

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

For Spring Chamber:

1	x	2	x	2	x	0.9			=	3.6	m^2	
2	x	2	x	2	x	0.75			=	6	m^2	
1	x	1	x	3	x	1.83			=	5.49	m^2	
1	x	1	x	3	x	1.8			=	5.4	m^2	
1	x	2	x	$\frac{0.25+0.26}{2}$	x	0.45			=	0.23	m^2	
2	x	2	x	2	x	0.75			=	6	m^2	
2	x	2	x	0.6	x	0.75			=	1.8	m^2	
2	x	1	x	2	x	1.83			=	7.32	m^2	
2	x	1	x	2	x	1.8			=	7.2	m^2	

		2	x	1	x	$\frac{0.25+0.55}{2}$	x	1.8				1.44		
	For Reservoir:													
		1	x	2	x	2.8	x	0.3			=	1.68	m²	
		1	x	2	x	0.3	x	0.3			=	0.18	m²	
		1	x	2	x	1.5	x	0.3			=	0.9	m²	
		1	x	2	x	2.5	x	1.8			=	9	m²	
		1	x	2	x	1.5	x	1.8			=	5.4	m²	
		1	x	1	x	2.5	x	1.8			=	4.5	m²	
		1	x	2	x	2.5	x	0.1			=	0.5	m²	
		1	x	2	x	1.5	x	0.1			=	0.3	m²	
	For Pipe Pedestals:													
		15	x	4	x	0.3	x	0.4			=	7.2	m²	
		15	x	4	x	0.15	x	0.15			=	1.35	m²	
											=	75.49	m²	
	@	217	/m³								=	Rs	16381.33	
6/2.3	Providing and laying cement concrete in proportion 1:2:4 etc.													
	For Reservoir:													
		1	x	2	x	2.5	x	0.15	x	1.8	=	1.35	m³	
		1	x	2	x	1.5	x	0.15	x	1.8	=	0.81	m³	
		1	x	1	x	2.5	x	1.5	x	0.1	=	0.375	m³	
	For Pipe Pedestals:													
		15	x	0	x	0.15	x	1.2			=	0.405	m³	
											=	2.94	m³	
	@	4738	/m3							=	Rs	13929.72		
7/6.2(a)	Providing to steel reinforcement in R.C.C works including cutting , bending, cranking, and tying in position etc..													

8mmϕ Tor Steel:

For Reservoir:

		2	x	18	x	2.3	=	82.8	Rm
		2	x	11	x	2.3	=	50.6	Rm

For Pipe Pedestals:

		15	x	4	x	1.55	=	93	Rm
							=	226.4	Rm
@	0.39	kg/Rm					=	Rs 88.3	Kgs.

8mmϕ Tor Steel

For Reservoir

		2	x	14	x	1.4	=	39.2	Rm
		2	x	9	x	2.4	=	43.2	Rm
		2	x	10	x	2.4	=	48	Rm
		2	x	10	x	1.4	=	28	Rm
								158.4	Rm
@	0.39	kg/Rm					=	Rs 61.8	

6mmϕ Tor Steel

For Pipe Pedestals:

		15	x	9	x	0.5	=	67.5	Rm
@	0.22	kg/Rm					=	Rs 14.9	

Total	=	164.922			
		1.64	Quintal		
@	5982.36	/qtl	=	Rs	9811.0704

8 Providing and fixing G.I pipes including necessary sockets, bends, jamnuts , elbows , tees complete.
(Rates as per market rates)

(a)75mm G.I Pipes
Length-1.50 Rm @ Rs 500/Rm

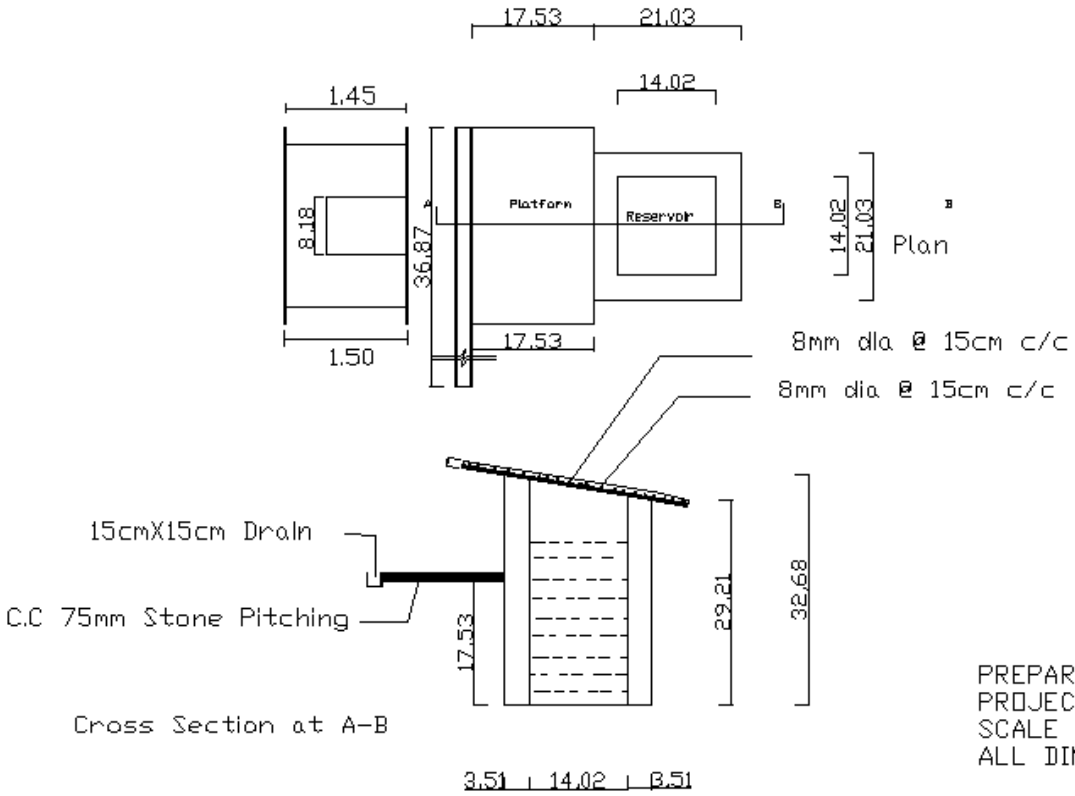
= Rs 750

(b) 50mm G.I pipes
Length 39.5 Rm @ Rs 350/-Rm = Rs 13,825

GRAND TOTAL = Rs 1,00,004
Rs 1,00,000

(Rupees One lakh only)

PLAN AND SECTION OF SPRING CHAMBER WITH WATER RESERVOIR



PREPARED BY
PROJECT FORMULATION CELL SHILLONG
SCALE : NOT TO SCALE
ALL DIMENSIONS ARE IN METRES

ESTIMATE FOR THE CONSTRUCTION OF WATER HARVESTING STRUCTURE
RATES ARE AS PER P.W.D SCHEDULED OF RATES FOR ROADS BRIDGES AND E & D WORKS
FOR THE YEAR 2007-08 FOR TURA AND WILLIAMNAGAR CIRCLE

1/3. Cleaning and removal of rubbish upto a distance of 30 m outside the periphery of the area

Area = 0.0813 Ha

@ 3600 /Ha = Rs 292.68

2/3(a) Eatrhwork in excavation to the proper grade including light, dressing providing cambering and super elevation as directed and removal of spoils upto 30m lead and all lift

1no $\frac{(25 \times 25) \times (20.14 \times 20.14)}{2} \times 2$ = 1030.619 /m³

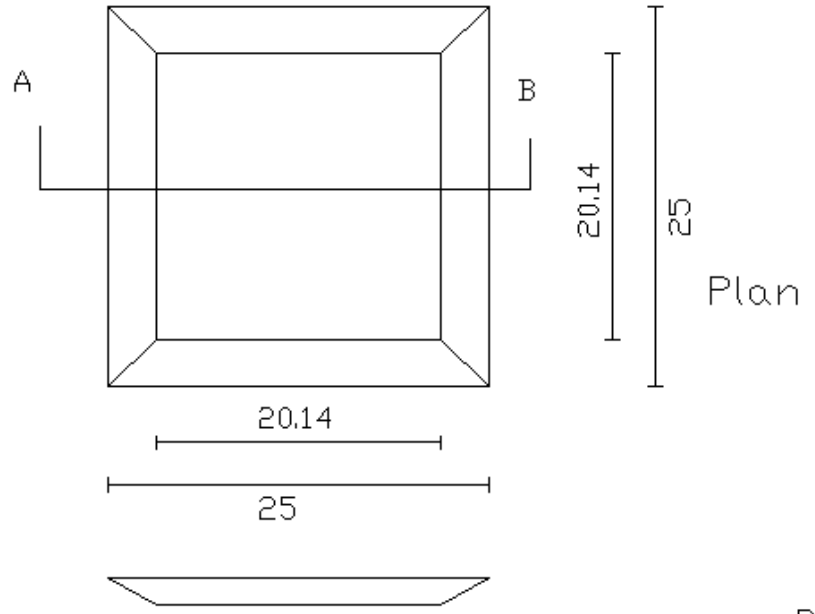
@ 72 /m³ = Rs 74204.57 /m³

Total = Rs 74497.248

Say Rs 75,000/-

(Rupees Seventy five thousand) Only

PLAN AND SECTION FOR WATER HARVESTING STRUCTURE



PREPARED BY
PROJECT FORMULATION CELL SHILLONG
DIMENSION IN METRE
SCALE : NOT TO SCALE

ESTIMATE FOR THE CONSTRUCTION OF CEMENT CONCRETE DIVERSION CHANNEL AS PER SCHEDULED OF RATES FOR ROADS , BRIDGES E & D WORKS FOR THE YEAR 2007-08 IN TURA AND WILLIAMNAGAR CIRCLE

1/134. Excavation for structures (earthwork in excavation of foundation of structures as per drawing and technical specifications, including setting out etc.

1 x 48.02 x $\frac{1.50 \times 1.00}{2}$ x 1.2 = 72.03 m^3

Rs. 34 /m^3 Rs. 2,449.02

2/103. Providing and laying of dry rubble flooring completed as per drawing etc .

1 x 48.02 x 1 = 48.02 m^3

Rs. 852 /m3 Rs. 40,913.04

3/141 Plain /reinforced cement concrete in open foundation as per drawing and technical specifications

Cement procured

1	x	48.02	x	1	x	0.1	=	4.802	m^3	
2	x	48.02	x	1.22	x	0.1	=	11.72	m^3	
								16.52	m^3	

Rs. 3630 /m^3 Rs. 59,963.53

4/2.9(a) Plastering with cement mortar (1:3) on brick work in super structure etc.

2	x	48.02	x	1.22	=	117.2		

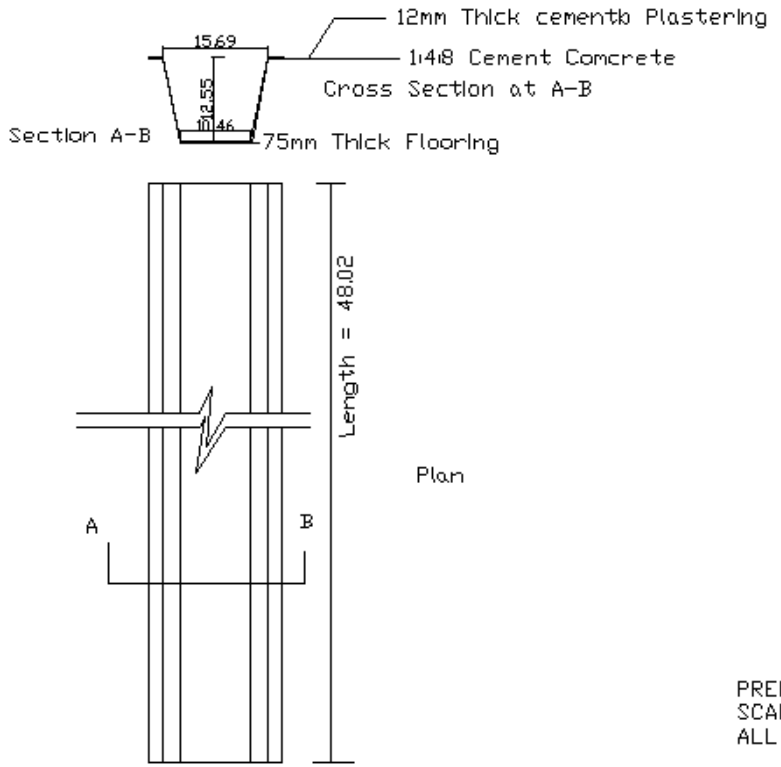
Rs. 74 /m3 Rs. 8,670.49

Total = Rs. 1,11,996.09

Say Rs. 1,12,500.00

(Rupees one lakh twelve thousand five hundred thousand) only.

PLAN AND SECTION OF CEMENT CONCRETE DIVERSION CHANNEL



PREPARED BY PROJECT FORMULATION CELL SHILLONG
SCALE : NOT TO SCALE
ALL DIMENSIONS ARE IN METRES

ANNEXURE IV

MoA, SUB COMMITTEE DETAILS ETC.

FORMATION OF WATERSHED DEVELOPMENT TEAM (WDT)

The P.I.A (Project Implementing Agency) Baghmara Soil & Water Conservation (C.C) Division, South Garo Hills has constituted 3(three) W.D.T Members (Watershed Development Team) for the smooth functioning of the project on 20/12/2010 as per the Common Guidelines for Watershed Development Projects.

Names of Districts	Names of projects	Names of WDT members	M/F#	Age	Qualification / Experience	Description of professional training
South Garo Hills	SGH-IWMP-III	Shri. Kai Raksal M. Sangma	Male	28 yrs	Bachelor of Computer Application	Bachelor of Computer Application(B.C.A)
		Miss Ponobi R. Marak	Female	25 yrs	Bachelor of Science in Forestry	Bachelor of Science in Forestry
		Shri. Bilcheng K. Marak	Male	23 yrs	Diploma in Civil Engineering	Civil Engineering

FORMATION OF WATERSHED COMMITTEE AND THE REGISTRATION UNDER SOCIETY REGISTRATION ACT.

The Patolja Micro Watershed under Integrated Watershed Management Programme (IWMP-III) has constituted Watershed Committee (W.C) for smooth implementation of the Watershed Project with the Technical support of the Watershed Development Team (WDT) in the Village. The Villagers of the Ashokgre Village unanimously selected the Chairman and the Members of the Watershed Committee in the meeting from the village itself and the Secretary from the Department of Soil & Water Conservation , Shri John Oswin S. Momin (Assistant Soil & Water Conservation Officer) Baghmara Soil & Water Conservation (CC) Division . The Watershed Committee of Patolja Micro Watershed comprises of 10 members.

Name of the District	Name of project	Names of Watershed Committee	Date of Registration as a Society (dd/mm/ yyyy)	Designation	M/F	ST	Educational qualification
South Garo Hills	SGH-IWMP-III	1. Shri. Simbath M Sangma		Chairman	M	ST	Class IV
		2. Shri. John Oswin S.Momin		Secretary	M	ST	BSc. Agri
		3. Shri. Kai Raksal Sangma		Member	M	ST	B.C.A
		4. Shri. Damin G. Momin		Member	M	ST	Class IV
		5. Shri. Bahil N. Sangma		Member	M	ST	Matriculate
		6. Shri. Silbi S. Marak		Member	M	ST	Class II
		7. Shri. Tebil S. Marak		Member	M	ST	Class II
		8. Shri. Andresh R. Marak		Member	M	ST	Class I
		9. Shri. Mathiash S. Marak		Member	M	ST	Class VIII
		10. Smti. Ramjane S. Sangma		Member	F	ST	Class VI

Meeting Present

Date. 6.11.2018

NO 1	Shri	Mathias	Marak		
NO 2	Shri	Babul	M.	Sangma	
NO 3	Smti	Seroline	S	Sangma	
NO 5	Shri	Simbath	Sangma		
NO 6	Shri	Litmar	S.	Sangma	
NO 7	Shri,	Babloo	S.	Marak	
NO 8	Shri,	Rajib	N.	Sangma	
NO 9	Shri	Lebit	S	Marak	
NO 10	Smt	Daulin	S	Sangma	
NO 11	Shri	Rael	M.	Sangma	
NO 12	Shri	Kashmir	N.	Sangma	
NO 3	Shri	Daniel	Marak		
NO 14	Sangi	ak	S.	Sangma	
NO 15	Smt	Ranjani	S	Sangma	
NO 16		Dashalin	S	Marak	
NO 17	Shri	Baida	S	Sangma	
NO 18	Shri	Selbi	S.	Marak	
NO 19	Vaidhia	R.	Marak		

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Metting at Asohgre
Potolja Micro Water Shed Association
Biap Asohgre Com mitee Holl
South Garo Hills Bagh mara. (Meghalaya)
Datid Asohgre Th 29. Nov. 2010.

Mettingko alea chengna shang mettingko dilna gitta metting chiar men aro minuel Secratarynа jima siohe ra chengaha. Mettingko dilna gitta metting chiar men a Shri Simu bath M. Sangmako jima siohaha aro minuel Secratarynа Shri Mathiash Marako jima siohe donaha.
Iane jamano mettingni chiar men mettingni pilak mik songani rangko jimana talate on chengaha.
Uni jamano chiar men jol jil mettingko dilangaha.

<u>Ajindha No1</u>:- President aro Secratarуni gimin chanchiani:-
Iane gimin chan chion Presiddilna Shri Donin mamako jima nam nike jak songe siohe donaha. Secratary ni gimin chan chion Secratarynа Shri Mathiash Marako jima nam nike jak songe siohe donaha.

<u>Ajindha No2</u>:- Com mitee Memberangni gimin chanchiani:-
Iane gimin chan chion Committee Memberangna.

No1 Shri Simu bath M. Sang ma
No2 Shri Andresh L. Marak
No3 Shri Gonesh N. Marak
No4 Shri Silbe S. Marak
No5 Shri Darjin S. Sangma
No6 Shri Rajip N. Sangma
No7. Smt. Ramjani S. Sangma
No8. Smt. Lucy N. Sangma
No9 Smt. Delalin S. Marak

Ia com metee mem berangko jima nam nike jak songe siohe donaha.
Mettingko mal cholatna shang sahsani jak che mitelpilani kataranko agane mettingko matleotataha.

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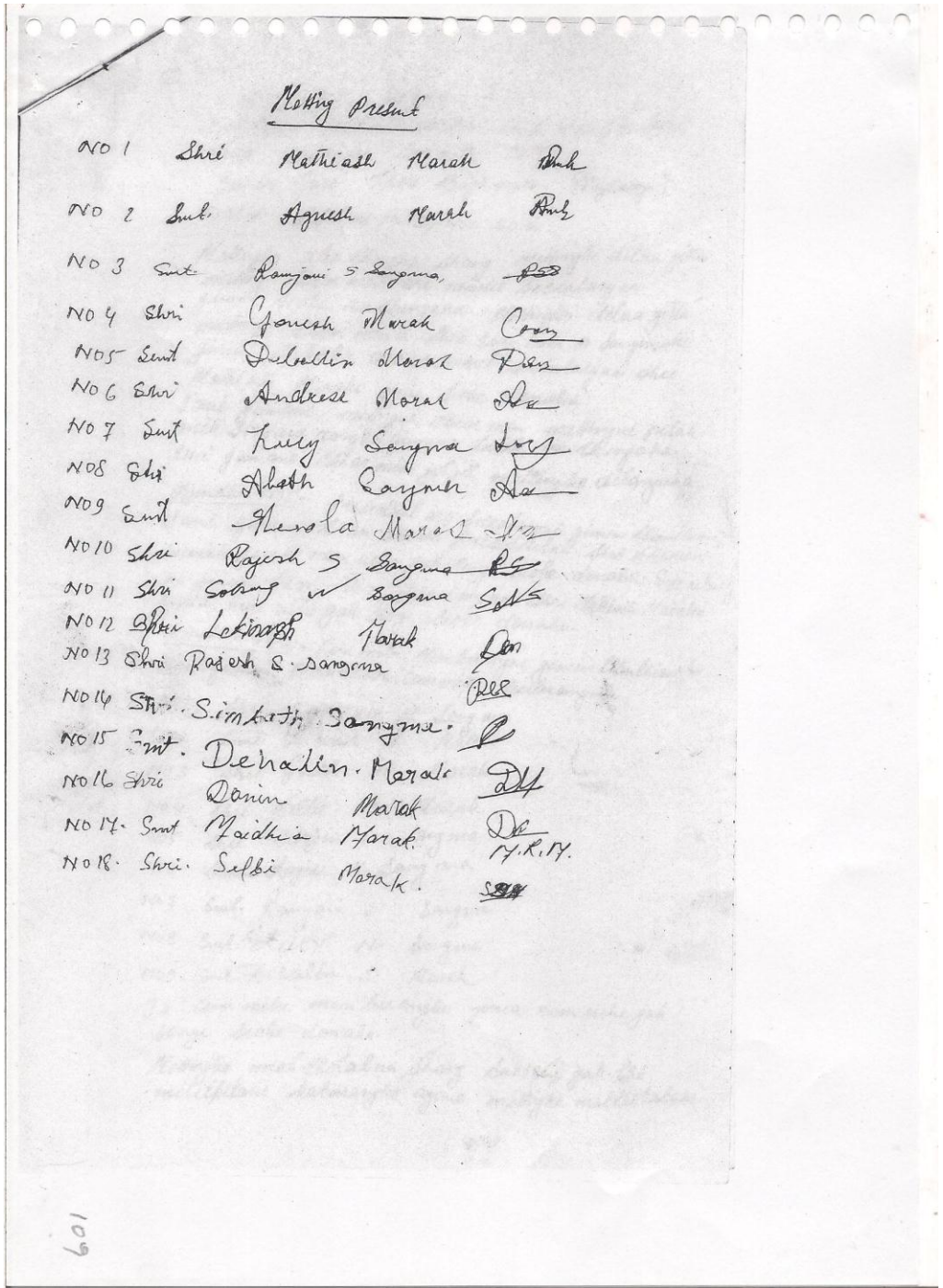

Meeting Present

NO 1 Shri Mathiash Marak

NO 2 Smt. Agnesh Marak

NO 3 Smt Ranjani S Sangma

NO 4 Shri Ganesh Marak

NO 5 Smt Debolina Marak

NO 6 Shri Andrew Marak

NO 7 Smt Rely Sangma

NO 8 Shri Akash Sangma

NO 9 Smt Shenola Marak

NO 10 Shri Rajesh S Sangma

NO 11 Shri Sohang W Sangma

NO 12 Shri Lakhagh Marak

NO 13 Shri Rajesh S. Sangma

NO 14 Shri. S. Simbath Sangma.

NO 15 Smt. Debalin. Marak.

NO 16 Shri Donin Marak

NO 17. Smt Naidhia Marak.

NO 18. Shri. Selbi Marak.

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