

GOVERNMENT OF MEGHALAYA



SOIL & WATER CONSERVATION DEPARTMENT RI-BHOI DISTRICT

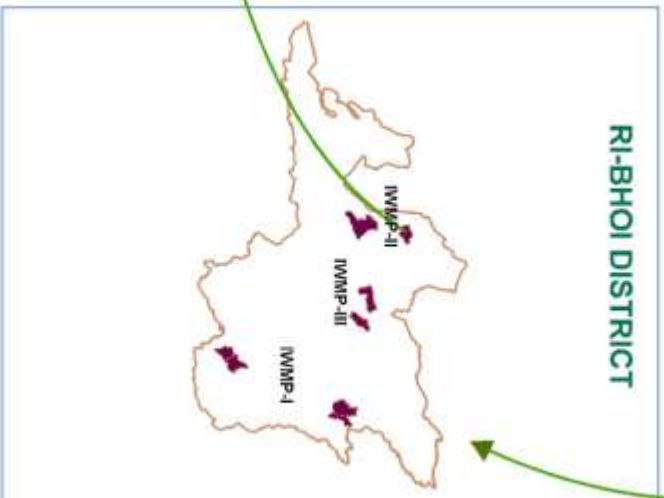
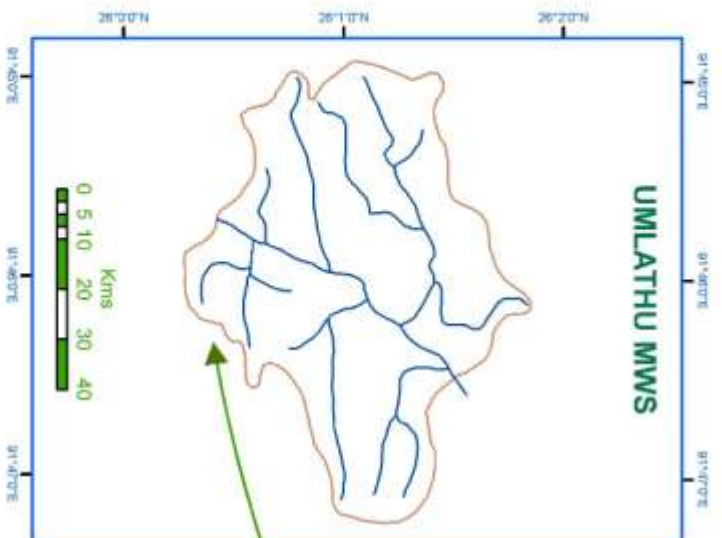
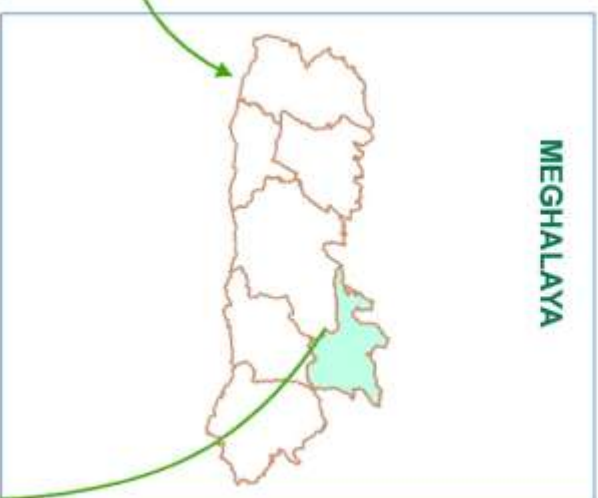
DETAIL PROJECT REPORT OF RB-IWMP-II(UMLATHU & UMSYEI WATERSHED)

INTEGRATED WATERSHED MANAGEMENT PROJECT - II (2009-2010)

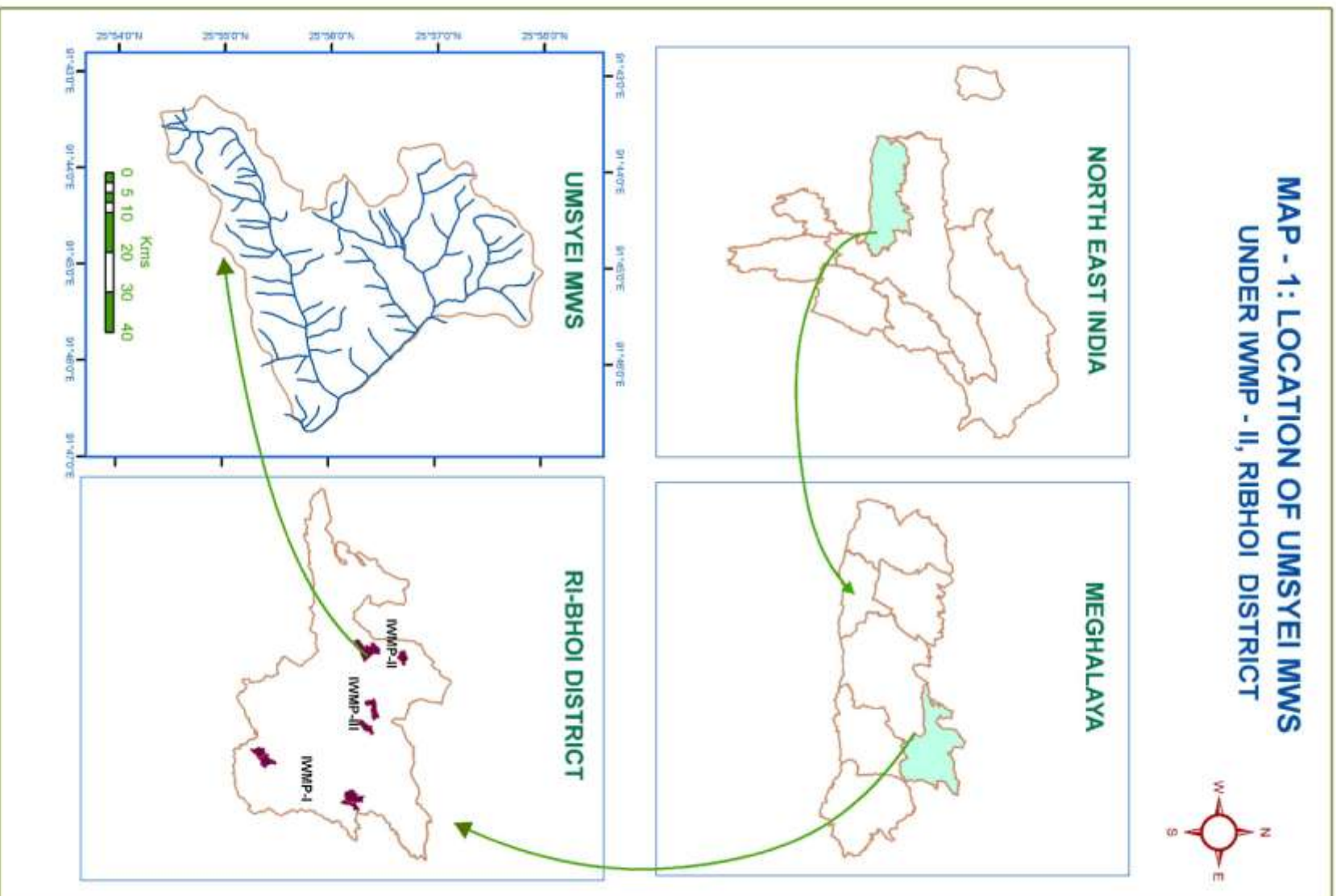
UNDER JIRANG C&RD BLOCK

RI-BHOI DISTRICT

MAP - 1: LOCATION OF UMLATHU MWS UNDER IWMP - II, RIBHOI DISTRICT



**MAP - 1 : LOCATION OF UMSYEI MWS
UNDER IWMP - II, RIBHOI DISTRICT**



SUMMARY

Name of the State	:	Meghalaya
Name of the District	:	Ri Bhoi District
Name of the C&RD Block	:	Umling
Name of the Villages	:	(i) Old Tasku (ii) Lailad rim (iii) Lailad jingkieng (iv)Umlathu (v)Pynker (vi)Pahamjula (vii)Pillingku
Name of the Project	:	Ri Bhoi – IWMP – II
Total Geographical Area	:	2361 Ha
Total Treatment Area	:	1000 Ha
Total Project Cost	:	150 lakhs
Project Duration	:	5 Years
Project Implementing Agency	:	Soil & Water Conservation Ri Bhoi Division, Nongpoh.

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CHAPTER I

INTRODUCTION AND BACKGROUND

1.1 Project Background:

The Umlathu and Umsyei Watershed (IWMP-II) project is located in Jirang C&RD Block, Ri Bhoi District of Meghalaya. Consisting of two micro-watersheds, the Project area is drained by the Umsyei and Umlathu Stream flowing in a south to north direction. The total area is 2361 Ha. with 1000 Ha to be treated under the Integrated Watershed Management Programme (IWMP).

The Project area is located at a distance of about 55 km from Nongpoh the District Head Quarter and about 135 km from Shillong the State Capital. A total of seven villages are covered under the project. These are –

- | | |
|---------------------|--------------|
| 1. Old Tasku | 5. Pahamjula |
| 2. Lailad rim | 6. Pynker |
| 3. Lailad jingkieng | 7. Pillingku |
| 4. Umlathu | |

1.2 Micro-watershed Information:

The Sub-watershed code is 3B2A1a2l for Umsyei and 3B1c7a1f for Umlathu as codified by the North East Space Application Centre (NESAC). The total area of the micro-watershed is 2361 Ha., with 1000 hectares to be treated under the Integrated Watershed Management Programme (IWMP).

1.3 Need and Scope for Watershed Development:

The Sub-watershed 3B2A1a2l and 3B1c7a1f falls under the Medium Priority category as per the prioritization of watersheds by the North East Space Application Centre (NESAC). Located on the Northern aspect sloping towards Assam the 7 villages do have road connectivity. There are 127 nos of households in Umsyei Watershed and 165 nos of households in Umlathu Watershed. Jhum cultivation is still practiced by most of the inhabitants of these villages on the slopes. Even though the area receives ample rainfall during the monsoons, there is acute shortage of water during the dry seasons and the villagers have to travel long distances for fetching water even for domestic use.

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

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

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

CHAPTER II

BASIC INFORMATION OF THE PROJECT AREA

2.1 Location:

The Project area is located within the area of Raid Nongkhlaw Syiemship for Umsyei Watershed and Raid Marwet for Umlathu Watershed under Jirang C&RD Block of Ri Bhoi District. It is situated at a distance of about 55 km from Nongpoh the district Head Quarter and about 110 km from Shillong which is also the State Capital. The geographical location is between 91⁰ 43' to 91⁰ 47'E Longitude and 25⁰ 54' to 25⁰ 58' N Latitude for Umsyei Watershed; 91⁰ 45' to 91⁰ 47' E Longitude and 26⁰ to 26⁰ 2' N Latitude for Umlathu Watershed. There are 7 villages within the Watershed which are as follows –

<u>Umsyei Watershed</u>	<u>Umlathu Watershed</u>	
1. Old Tasku	4. Pahamjula	7. Umlathu
2. Lailad rim	5. Pynker	
3. Lailad jingkieng	6. Pillingku	

Physiography:

The physiography of the micro-watershed is moderately undulating. The altitude ranges from a minimum of 300m to a high of 560m for Umlathu Watershed and 200m to 660m for Umsyei watershed above the mean sea level. In the lower reaches (valley lands) the slope ranges from 0% to 20%, however, in the middle and upper reaches it is greater than 45 %, and can reach up to 70%.

Table 2.1: Physiographic details

Elevation (metres)	Slope Range (%)	Order of watershed Sub/Micro-watershed	Major streams	Topography
300m to 560m	0% to 70 %	Micro Watershed	Umlathu	Moderately Sloping
200m to 660m	0% to 70 %	Micro Watershed	Umsyei	Moderately Sloping

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

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

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

1	2	3	4	5	6	7	8	9	
Sl. No.	Names of State	Names of District	Names of Projects	Cause	Types of erosion	Area affected (ha)	Run-off (mm/ year)	Average soil loss (Tonnes/ ha/ year)	
1	Meghalaya	Ri Bhoi	RB-IWMP-II Jirang (1) Umsyei watershed	Water erosion:					
				a	Sheet	1730	NA	NA	
				b	Rill	NA	NA	NA	
				c	Gully	NA	NA	NA	
				Sub total		1730			
				Wind erosion		Nil	Nil	Nil	
1	Meghalaya	Ri Bhoi	RB-IWMP-II Jirang (1) Umlathu watershed	Water erosion:					
				a	Sheet	320	NA	NA	
				b	Rill	210	NA	NA	
				c	Gully	100	NA	NA	
				Sub total		630			
				Wind erosion		Nil	Nil	Nil	

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

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

1	2	3	4	5	6	7		8	9	
Sl. No.	Name of State	Name of the Agro-climatic zone	Area (in ha)	Names of the districts	Names of the Projects	Major soil types		Average annual rainfall in mm (preceding 5 years' average)	Major crops	
						a) Type	b) Area (ha)		a) Name	b) Area (ha)
1	Meghalaya	Hills of Northern Slopes (300-1200m) Warm Humid Hyperthermic)	1730 Ha	Ri-Bhoi	RB- IWMP –II Jirang	i. Loamy ii. Clayey Loam	1073 Ha	1205 mm Patharkmah	Paddy	85
									Ginger	28
									Pine apple	15
									Tea	60
									Vegetable	10
									Arecanut	45
									Betle leaf	20
Others	02									
2	Meghalaya	Hills of Northern Slopes (300-1200m) Warm Humid Hyperthermic	631.00	Ri-Bhoi	RB-IWMP-II Jirang	i. Loamy ii. Clayey Loam	631	1205mm Patharkmah	Paddy Arecanut Betel leaf Broom sticks	140 60 20 120

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

Table 2.4: Crop yield and production

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

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

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

Demographic Status: The total households in the watershed project is 292 with a total population of 1460, of which 750 are male and 710 are female.

The detail of the household in each of the villages in the watershed project is as follows:

Umlathu Watershed=165 Households

Umsyei Watershed =127 Households

Infrastructure facilities :

- 2.1.1 *Roads:* All the villages within the Project Area are not connected by road. The Project area(Umlathu Watershed) depends entirely on the kutchra road connected to Pahamjula.
- 2.1.2 *School:* There are only 5 L.P Schools within the Project Area run either by the Mission or by the Government.
- 2.1.3 *Electricity :* Connections have been provided but some villages are yet to have electricity.
- 2.1.4 *Health :* No Community Health Centre is available in the Project Area, the local community has to depends on facilities available at Beltola or Guwahati.
- 2.1.5 *Water Supply :* Drinking water supply have been provided by the PHE Deptt.. However, during lean season the entire population have to depend on springs,ringwells available in the area as the supply is not sufficient to meet the daily requirement.
- 2.1.6 *Market :* There is a weekly market held once in a week at Byrnihat and Beltola. However, the main market where the people sell their produce is at Beltola and also at Shillong.

Table 2.5: Details of infrastructure in the project area:

1 Name of District	2 Name of Project	3 Parameters:				4 Status							
						1-UMSYEI				2-UMLATHU			
		Ri Bhoi	RB- IWMP- II	(i)	No. of villages connected to the main road by an all-weather road.			1				NIL	
(ii)	No. of village provided with electricity			2				3					
(iii)	No. of households without access to drinking water			127				NIL					
(iv)	No. of educational institutions: Primary (P)/ Secondary (S)/ Higher Secondary (HS)/ Vocational institution (VI)			(P)	(S)	(HS)	(VI)	(P)	(S)	(HS)	(VI)		
						2	Nil	Nil	Nil	4	NIL	NIL	NIL
(v)	No. of village with access to Primary Health Centre			1				NIL					
(vi)	No. of village with access Veterinary Dispensary			Nil				NIL					
(vii)	No. of village with access Post Office			1				NIL					
(viii)	No. of village with access Banks			Nil				NIL					
(ix)	No. of village with access Markets/ mandis			1				NIL					
(x)	No. of village with access Agro-Industries			Nil				NIL					
(xi)	Total quantity of surplus milk			Nil				NIL					
(xii)	No. of milk collection centres (e.g. Union (U)/ Society (S)/ Private agency (PA)/ Others (O))			(U)	(S)	(PA)	(O)	(U)	(S)	(PA)	(O)		
						Nil	Nil	Nil	Nil	NIL	NIL	NIL	NIL
(xiii)	No. of villages with access to Aganwadi Centres			1				3					
(xiv)	Any other facilities with no. of villages (please specify)			Nil				NIL					

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

Table 2.6: Existing livestock population

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

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

Table 2.7:Details of land holding pattern in the project area:

1 Name of District	2 Name of the Projects	3 Types of Farmer	4 No. of households	5 No. of BPL households	6 Land holding (ha)		
					Irrigated	Rainfed	Total
Ri Bhoi	RB-IWMP-II Jirang (1).Umsyei watershed	(i) Large	14 nos		0	202	202
		(ii) Small	68 nos	8	0	255	255
		(iii) Marginal	37 nos	13	0	43	43
		(iv) Landless	08 nos	8	0	0	0
		Sub - Total	127 nos	29	0	500	500
Ri Bhoi	RB-IWMP-II Jirang (2).Umlathu Watershed	(i) Large	NIL				
		(ii) Small	8				
		(iii) Marginal	126	118			
		(iv) Landless	31	31			
		Sub - Total	165	149	NIL	340	340

Table 2.8:Details of Common property resources of the project areas:

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 (Pl. specify)	Pvt. Person	Govt. (specify deptt.)	PRI	Any other (Pl. specify)
Ri Bhoi	RB-IWMP-II Umsyei watershed	(i) Wasteland/ degraded land	235			40 clan land	235			40
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Orchards	140			-	140			
		(iv) Village woodlot				2 clan land				2
		(v) Forest	40			30 clan land	40			30
		(vi) Village Ponds/ Tanks				1 village durbar				1
		(vii) Community Buildings (Health Dept)		5		1		5		1
		(viii) Weekly Markets				1				1
		(ix) Permanent Markets				Nil				-
		(x) Temples/ Places of worship				2				2
		(xi) Others (Pl. specify)playground				2				2
Ri-bhoi	RB-IWMP-II Umlathu watershed	(i) Wasteland/ degraded land	110		150		110		100	
		(ii) Pastures								
		(iii) Orchards	80				80			
		(iv) Village woodlot	80				80		50	
		(v) Forest	70		40		40		40	
		(vi) Village Ponds/ Tanks								
		(vii) Community Buildings								
		(viii) Weekly Markets								
		(ix) Permanent Markets								
		(x) Temples/ Places of worship								
		(xi) Others (Pl. specify)								
		TOTAL		340		195		310		190

Table 2.8:Details of Common property resources of the project areas:

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 (Pl. specify)	Pvt. Person	Govt. (specify deptt.)	PRI	Any other (Pl. specify)
Ri Bhoi	RB-IWMP-II Umsyei watershed	(i) Wasteland/ degraded land	235			40 clan land	235			40
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Orchards	140			-	140			
		(iv) Village woodlot				2 clan land				2
		(v) Forest	40			30 clan land	40			30
		(vi) Village Ponds/ Tanks				1 village durbar				1
		(vii) Community Buildings (Health Dept)		5		1		5		1
		(viii) Weekly Markets				1				1
		(ix) Permanent Markets				Nil				-
		(x) Temples/ Places of worship				2				2
		(xi) Others (Pl. specify)playground				2				2
Ri-bhoi	RB-IWMP-II Umlathu watershed	(i) Wasteland/ degraded land	110		150		110		100	
		(ii) Pastures								
		(iii) Orchards	80				80			
		(iv) Village woodlot	80				80		50	
		(v) Forest	70		40		40		40	
		(vi) Village Ponds/ Tanks								
		(vii) Community Buildings								
		(viii) Weekly Markets								
		(ix) Permanent Markets								
		(x) Temples/ Places of worship								
		(xi) Others (Pl. specify)								
		TOTAL	340		195		310		190	

2.10 Land Use and Land Cover:As per the Land Use Land Cover Map generated by NESAC,Meghalaya from Sattellite Image taken during 2005-06(LISS-III Image) the Watershed Area has been broadly classified into the following land uses:

	UMSYEI WATERSHED	UMLATHU WATERSHED
Built up Areas	14 Ha	-
Forest Closed	42 Ha	-
Current Shifting Cultivation	4 Ha	-
Tree Clad Open	281 Ha	53.82 Ha
Tree Clad Close	1035 Ha	368.30 Ha
Wastelands-Dense Scrub	292 Ha	209.05 Ha
Wastelands-Open Scrub	15 Ha	-
<u>Water Bodies-River/Sream</u>	<u>39 Ha</u>	-
TOTAL	1722 Ha	631.18 Ha

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

CHAPTER III

PROJECT PLANNING & INSTITUTION BUILDING

3.1 Scientific Planning

- i) Base Line Survey: To establish a benchmark for assessing the impact of any intervention (pre-project & post project) a baseline survey is essential. The baseline survey included household census & socio-economic survey by using structured and semi –structured questionnaires, bio-physical survey to identify and assess the status of natural resources in the project area.
- ii) Participatory Rural Appraisal: To further obtain information on the project area, the people, resources, various PRA techniques like resource mapping, social mapping, seasonal calendars, matrix ranking, Venn diagrams were used.
- iii) GIS & Remote Sensing: To facilitate the process of prioritization and planning Geographic Information System was use. The land use and land cover (LULC) maps were prepared by the North Eastern Space Application Centre (NESAC) using the LISS III images (2006). The activities were located on the field by using GPS and accordingly transferred to the maps on GIS platform.

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

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

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

3.2 Project Implementing Agency:

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

1	2	3	
Names of Districts	Names of projects	Details of PIA	
Ri bhoi	IWMP II	(i) Type of organization#	Government Department
		(ii) Name of organization	Soil and Water Conservation Department, Government of Meghalaya
		(iii) Designation & Address	Divisional Soil and Water Conservation Officer, Ri Bhoi Division, Nongpoh, Meghalaya.
		(iv) Telephone	03638232257
		(v) Fax	03638232257
		(vi) E-mail	Dswco_ribhoi@yahoo.com

3.3 Institution Building

i) Watershed Committee (WC)

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

Table 3.2:Details of Watershed Committees (WC):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
Names of the Districts	Names of projects	Names of WCs	Date of Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educational qualification	Function/s assigned#			
Ri Bhoi	IWMP II	Umsyei WC	April/2011	Chairman	M		yes		yes					yes			A,B,D,E.F.G.H.I			
				Secretary	M		yes											A to I		
				Member	7M		7/yes	2	2			1			2				A,B,E,F,G,H,I	
				Member	2F		2/yes	1	1											A,B,E,F,G,H,I
				Member																A,B,E,F,G,H,I
		Umlathu WC	-do-	Chairman	M		yes									1		X	A,B,D,E.F.G.H.I	
				Secretary	M		yes									1		XII	A To I	
				Member	7M		yes		1			1	2		2			V to X	A,B,E,F,G,H,I	
				Member	1M		yes								1				A,B,E,F,G,H,I	

* From column no.2, the total number of States, from column no.3, the total number of Districts; from column no.4, the total number of projects; from column no.5, the total number of watershed committees; from column no.6, the total number of registered watershed committees; from column no.7, the total number of members, and WCs without a President and/or without a Secretary, may be mentioned for the State as a whole. From column no.8, the total no. of male and female members may be mentioned separately. The totals of columns 9 to 18, for the entire country, may be mentioned at the end of the table.

In column 20 only the letter assigned, as below, needs to be typed, except for 'J', where the type may be specifically mentioned.

- | | |
|---|---|
| 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
 I. Social Audit

H. Record of labour employed
 J. Any other (please specify).

ii) Self Help Group

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

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

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

iii) User Group

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

Table 3.4: User Group Details

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

CHAPTER IV PROJECT ACTIVITIES

4.1 Preparatory Phase:

i) Entry Point Activities (EPA)

(Financial – Rs. in lakh)

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	State	District	Names of Project	Amount earmarked for EPA (Rs/lakhs)	E P A planned (Rs/lakhs)	Estimated cost (Rs/lakhs)	Expenditure incurred (Rs/lakhs)	Balance (Rs/lakhs)	Expected outcome	Actual outcome
1	Meghalaya	Ri Bhoi	RB-IWMP-II Jirang (1).Umsyei watershed	Rs.3.00	Drinking Water-4 nos Footbridge-1 no Water Harvesting pond-1 no	Rs.3.00	Rs.3.00	Nil	Clean drinking water, safe crossing of stream, ground water recharge	Clean drinking water, safe crossing of stream, ground water recharge
2	Meghalaya	Ri-bhoi	RB-IWMP-II Jirang (2).Umlathu Watershed	3.00 lakhs.	Construction Of village Road & Foot Bridge	3.00	3.00	NIL	Infrastructural Developments	

ii) Other activities of Preparatory Phase:

1	2	3	4	5	6	7	8	9	10	11	12	13
District	Name of Projects	Initiation of village level institution	Capacity building	IEC activities	Baseline survey	Hydro-geological survey	Identifying technical support agencies	Resource agreements	Preparation of DPR	Evaluation of DPR	Any other (please specify)	Cost incurred (Rs. In lakh)
Ri Bhoi	RB-IWMP-II Umsyei watershed	Yes	Yes	NO	PRA	Yes	Yes	Yes	Yes	No	No	-
Ri-bhoi	RB-IWMP-II Umlathu watershed	Yes	Yes	NO	PRA	Yes	Yes	Yes	Yes	No	No	-

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			Augmentation/ repair of existing structures				Construction of new structures				Total target			
					No	Area irrigated (ha)	Storage capacity(Ha)	No	Area to be treated (ha)	Storage capacity	Estimated cost	No	Area to be treated (ha)	Storage capacity	Estimated cost(Rs lakhs)	No	Area to be treated (ha)	Storage capacity	Estimated cost
1	Meghalaya	Ribhoi	RB-IWMP-II	(i) Tank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				(ii) Pond	4		0.4	-	-	-	-	62	76.0	6.4	14.60	62	76.0	6.4	14.60
				(iii) Lake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				(iv) Check Dam		-	-	-	-	-	-	30	54.0	-	2.25	30	54.0	-	2.25
				(v) Percolation Tank	-	-	-	-	-	-	-	25	26.0	6.0	8.20	25	26.0	6.0	8.20
				(vi) Channel			-	-	-	-	-	18	30.0	-	2.101	18	30.0	-	2.101
				(vii) Any others	-	-	-	-	-	-	-	18	30.0	-	5.382	18	30.0	-	5.382
				-cc dam								24	38.0		4.88	24	38.0		4.88
				-protection wall															
			Total		4	0	0.4	-	-	-	-	174	254Ha	12.40 Ha	37.413	174	254Ha	12.40 Ha	37.413

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		-
-	-	-	-									
-	-	-	-									
-	-	-	-									
-	-	-	-									

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

1	2	3	4	5	6		7						8						9					
					Pre-project		Proposed target						Achievement due to project											
					No.	Area irrigated (ha)	Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total target		Augmentation/ repair of existing recharging structures			Construction of new recharging structures			Total achievement			
							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)	Expenditure incurred	No.		Area irrigated (ha)	Expenditure incurred	Area irrigated (ha)	Expenditure incurred	
1	Meghalaya	Ri Bhoi	RB-IWMP-II	(i)Open wells	Nil	Nil	Nil	Nil	Nil															
				(ii)Bore wells	Nil	Nil	Nil	Nil	Nil															
				(iii)Any others #Percolation tanks/check dams	Nil	Nil	Nil	Nil	Nil	135	30	30.432	30.0	30.432	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				Total for the project	Nil	Nil	Nil	Nil	Nil	135	30	30.432	30.0	30.432	NA	NA	NA	NA	NA	NA	NA	NA	NA	

4.2.3 Activities executed by User Groups in the Project Areas.

1	2	3						
Names of Districts	Names of Projects	Major activities of the UGs –Targets				No. of UGs involved	Estimated Cost	Amount of WDF to be collected (Rs.)
		Structure/ activity proposed						
		Sl. No.	Type	No.#	Treatment (ha)			
Ri Bhoi	RB-IWMP-II Jirang	NA	NA	NA	NA	NA	NA	NA

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
Ri Bhoi	RB-IWMP-II	NA	NA	NA

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		
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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)			
Ri Bhoi	RB-IWMP-II Umsyei watershed	150 Ha	5.40	120 ha	11.07	-	-	230 ha	21.03	120 nos	3.00	0	0	40 units	4.00	32 units	8.00	-	-	-	2.25	54.75
Ri-bhoi	RB-IWMP-II Umlathu watershed	180 Ha	12.36	134 Ha	13.343			160 ha	13.197	120 nos	3.00	0	0	30 units	3.00	20 units	5.00	-	-	-	4.85	54.75
		330Ha	17.76	254 Ha	24.413			390 ha	34.227	240nos	6.00	0	0	70 units	7.00	52 nos	13.00	-	-	-	7.10	109.50

4.2.8 Details of engineering structures in watershed works:

1	2	3	4			5			6	7				8							
			Type of treatment			Type of land				Executing agency	Target				Achievement						
			(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land dev. (L)	(i) Private	(ii) Community	(iii) Others (pl. specify)			(i) UG (ii) SHG (iii) Others (pl. specify)	No. of units (No./cu.m./rmt)	Estimated cost (Rs. in lakh)				Expected month & year of completion (mm/yyyy)	No. of units (No./cu.m./rmt)	Expendi-ture incurred (Rs. in lakh)		
M	W	O							T	M			W	O	T						
Ri Bhoi	RB-WMP-II	Contour bunding	-	-	-	-	-	-	-	-											
		Graded bunding																			
		Bench terracing																			
		CC checks dams		Yes		Yes			UG	18 nos	5.382			03/2014							
		Masonry stop dams																			
		Gully plug		Yes	-	Yes	Yes		Landowner/r/village durbar	30nos	2.25			03/2014							
		Gabion structures																			
		Staggered trenching	Yes	-	-	Yes	-	-	Land owner	20ha	1.40										
		Field bunds			Yes	Yes			Land owner	90	3.87			03/2014							
		Any others (pl. specify)																			

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	Women	Total	SC	ST	Others	Women	Total
NA	NA	NA	NA	NA	NA	NA	NA			NA	NA	NA	NA	NA	NA	NA	NA

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			
Distri ct	Project	Name of structure/ work	(i) Ridge area (R)	(ii) Drainage line (D)	(iii) Land dev. (L)	(i) Private	(ii) Com muni ty	(iii) Other s (pl. specifi y)	(i) UG (ii)SHG (iii) Others (pl. specify)		Area (ha)	No. of plants	Estimated cost (Rs. in lakh)	Expected month & year of comple-tion (mm/ yyyy)	Area # (ha)	No. of plants	Expendi- ture incurred (Rs. in lakh)	Actual month & year of comple-tion (mm/ yyyy)
Ri Bhoi	RB- IWMP-II (1)Umsye i	Afforestation	Yes		yes	Yes	yes		UG	150	75000	5.40	03/2014					
		Regeneration																
		Agro-forestry																
		Fuel wood																
		Fodder																
		Horticulture			yes	yes				UG	200	60000	11.64	03/2014				
		Pasture dev.																
		Nursery raising	Yes		Yes	Yes	Yes	SHG/UG	For 350 Ha	135000	8.10	03/2014						
		Others (pl. specify)																
Ri- bho i	RB- IWMP-II (2)Uml athu	Afforestation	Yes				Yes			80		8.08	03/2014					
		Regeneration	Yes			Yes				80		2.88	03/2014					
		Agro-forestry																
		Fuel wood																
		Fodder																
		Horticulture				Yes				60		7.60	03/2014					
		Pasture dev.																
		Nursery raising																
		Others (pl. specify)				Yes			20		1.61	03/2014						
		Total																

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

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

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

4.2.12 Details of allied / other activities:

1	2	3	4			5	6		7	
District	Project	Name of activity@	Type of land			Executing agency	Target		Achievement	
			(i) Private	(ii) Community	(iii) Others (pl. specify)	(i) UG (ii)SHG (iii) Others (pl. specify)	Estimated cost (Rs. in lakh)	Expected month & year of completion (mm/yyyy)	Expendi-ture incurred (Rs. in lakh)	Actual month & year of completion (mm/yyyy)
Ri Bhoi	RB- IWMP-II (1)Umsy ei	Crop demonstration								
		Mud bricks.basket making		Yes		SHG	0.75	03/2014		
		Cash crop value addition	Yes			SHG	1.00	03/2014		
		Backyard poultry	Yes			individual	2.00	03/2014		
		Other livestock	Yes			indv	2.00	03/2014		
		Fisheries	Yes	Yes		Indv/vill durbar	8.00	03/2014		
		Tailoring/carpentry/black smithy	yes			indv	0.50	03/2014		
		Non conventional energy saving devices (bio-fuel)								
		Energy conservation measures								
		Others (pl. specify)								
Ri-bhoi	RB- IWMP- II (2)Uml athu	Crop demonstration	Yes			WC	3.00	03/2014		
		Sericulture								
		Bee keeping								
		Backyard poultry	Yes			Individual	1.50	03/2014		
		Small ruminants								
		Other livestock	Yes			Individual	1.50	03/2014		
		Fisheries	Yes				5.00	03/2014		
		Non conventional energy saving devices (bio-fuel)								
		Arecanut/ Soak tanks		Yes		Community	2.00	03/2014		
		Others (mudbricks, basket weaving),etc		Yes		Community	1.50	03/2014		
		Utility shops	Yes			Individual	0.75	03/2014		
		Total					34.50			

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

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

4.2.13 Details of allied / other activities:

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

4.3 Consolidation and withdrawal phase

Details of activities in the CPRs in the project areas:

1	2	3	4	5	6				7							
					Target				Achievement							
					Target area under the activity (ha)	Estimated expenditure (Rs.)	Expected no. of beneficiaries	Estimated contribution to WDF (Rs.)	Area treated under the activity (ha)	Expenditure incurred (Rs.)	Actual no. of beneficiaries	No. of mandays			WDF collected (Rs.)	
SC	ST	F														
Ri bhoi	RB- IWMP-II (1)Umsyei	Lailad Tasku	Community Forest	improvement	150	5,40,000	127 households	27000								
			Drinking water	Collection, Filtering Storing Distribution	6 nos	3,00,000	80 nos	15,000								
			Footbridge	Construction	1 no	50,000	32 nos	2500								
			Weekly market,	Footpath	1 no	50,000	Comm..	2500								
			Village paths	Widening	1 no	50,000	Comm.	2500								
Ri bhoi	RB- IWMP-II (2)Umlathu	Pyngker	Village road	Extension	1 no	1,50,000	Comm.	7500								
		Umlathu	Village road	Extension	1 no	1,12,000	Comm.	5600								
		Pahamjula	Foot bridge	Maitenance	1 no	75,000	Comm.	3750								
		Pilingkuh	Foot bridge	Maitenance	1 no	38,000	Comm.	1900								
		Total					13,65,000		68,250							

CHAPTER V
PROJECT PHASING AND BUDGETING

ACTION PLAN OF UMSYEI & UMLATHU WATERSHED UNDER IWMP – II, RI BHOI DIVISION : NONGPOH

Name of District: Ri Bhoi District

No. of villages – 7 nos.

Name of C&RD Block: Umling Block

Project Area – 1000 Ha.

Sl. No	Activities	I st Year		II nd Year		III rd Year		IV th Year		V th Year		Total	
		Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	3	4	5	6	7	8	9	10	11	12	13	14
I	MANAGEMENT COST:												
A.	Administrative cost:			2 %	3.0	5 %	7.5	3 %	4.5	-	-	10 %	15.0
i.	Honourarium of WDT Members @ Rs. 5000/ month – 1 no.	-	-	-	-	12 months	0.60	12 months	0.60	-	-	2 yrs	1.20
ii.	Hon tm of Watershed Volunteers @ Rs. 2500/- month – 2 nos.	-	-	-	-	12 months	0.60	12 months	0.60	-	-	2 yrs	1.20
iii.	Hon tm WCO's @ Rs. 750/ month.	-	-	12 months	0.09	12 months	0.09	12 months	0.09	-	-	3yrs	0.27
iv.	Hon tm WCM @ Rs. 100/members/ month for 25 nos.	-	-	12 months	0.30	12 months	0.30	12 months	0.30	-	-	3 yrs	0.90
v.	Hon tm Office assistant @ Rs. 3000/- month.	-	-	12 months	0.36	12 months	0.36	12 months	0.36	-	-	3 yrs	1.08
vi.	Hon tm Chartered Accountant	-	-	-	0.15	-	0.15	-	0.15	-	-	3 yrs	0.45
vii.	TA/DA of Field Asstt. @ 5000/ month	-	-	6 months	0.60	6 months	0.30	6 months	0.30	-	-	1.5 yrs	1.20
viii.	Hiring charges of office building @ 1000	-	-	-	-	12 months	0.12	12 months	0.12	-	-	2 yrs	0.24
ix.	Hiring charges of vehicle @ 5000/ month	-	-	12 months	0.60	12 months	0.60	-	-	-	-	2 yrs	1.20
x.	Office expenses, POL, Stationeries, printing of SHG's books, pamphlets, tea, snacks etc, cost of camera.	-	-	-	0.90	-	4.38	-	1.98	-	-	-	7.26
	Total of A:	-	-	2 %	3.0	5 %	7.5	3 %	4.5	-	-	10 %	15.0
	PREPARATORY PHASE :												
B.	Entry Point Activities:	4 %	5.00	-	-	-	-	-	-	-	-	4 %	6.00
i.	Construction of Approach Road	250m	3.0	-	-	-	-	-	-	-	-	1 unit	4.0
ii.	Construction of D/water tank cum washing & bathing place	3 units	1.5	-	-	-	-	-	-	-	-	3 units	2.0
lii	Ring well	2 Units	0.50										
Iv	Water Harvesting	1 unit	0.50										
V	Footbridge	1 Unit	0.50										
	Total of B:	2 %	6.00	-	-	-	-	-	-	-	-	2 %	6.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14
C.	Training:	1 %	1.50	2 %	3.0	1 %	1.5	1%	1.5	-	-	5 %	7.50
i.	Awareness Campaign & Capacity building	1 no	0.50	-	-	-	-	1 no.	0.30	-	-	2 no	0.80
ii.	Exposure visits – off. Campus	1 no	0.30	-	-	-	-	1 no.	0.30	-	-	2 no	0.60
iii.	Capacity building of SHG's/ UG's.	3 nos.	0.20	4 nos.	2.00	4 nos.	2.00	1 no.	0.30	-	-	12 nos.	3.50
iv.	Capacity building of WC Members.	2 nos.	0.25	1no.	0.5	2nos.	0.50	1 no.	0.30	-	-	6 nos.	1.30
v.	Capacity of WDT/WV	2 nos.	0.25	1 no.	0.5	2nos.	0.50	1 no.	0.30	-	-	6 nos.	1.30
	Total of C:	1 %	1.50	2 %	3.0	1 %	1.5	1%	1.5	-	-	5 %	7.50
D.	Detailed Project Report:	1 %	1.50	-	-	-	-	-	-	-	-	1 %	1.50
i.	Cost of Resources Inventories works	-	0.25	-	-	-	-	-	-	-	-	-	0.25
ii.	Cost of PRA Exercises	-	0.50	-	-	-	-	-	-	-	-	-	0.50
iii.	Cost of Land use Survey works	-	0.25	-	-	-	-	-	-	-	-	-	0.25
iv.	Cost of formulating	-	0.50	-	-	-	-	-	-	-	-	-	0.50
	Total of D:	1 %	1.50	-	-	-	-	-	-	-	-	1 %	1.50
E.	Monitoring & Evaluation:	-	-	0.5%	0.75	1%	1.5	0.5%	0.75	-	-	2 %	3.00
i.	Monitoring	-	-	0.2%	0.30	0.5%	0.75	0.3%	0.45	-	-	-	-
ii.	Evaluation	-	-	0.3%	0.45	0.5%	0.75	0.2%	0.30	-	-	-	-
	Total of E:	-	-	0.5%	0.75	1%	1.5	0.5%	0.75	-	-	2 %	3.00
	Total of I (A to E)	6%	9.00	4.5%	6.75	7 %	10.50	4.5 %	6.75	-	-	22 %	33.00
II	PROJECT COST/WATERSHED WORKS PHASE :	-	-	-	-	-	-	-	-	-	-	-	-
A.	Arable Land Treatment:	-	-	-	-	-	-	-	-	-	-	-	-
	Improvement of Existing Paddy Fields @ Rs.4300/Ha	-	-	-	-	90 Ha	3.87	-	-	-	-	90 Ha	3.87
	Agro- horticulture (citrus) @Rs.8600/Ha												
	i Preliminary works and First year planting @ Rs.1300/Ha	-	-	-	-	65 Ha	0.845	0	0	0	0	65 Ha	0.845
	ii First year Maintenance @ Rs.4600/Ha	-	-	-	-	65 Ha	2.99	0	0	0	0	65 Ha	2.99

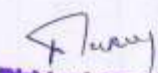
	iii Second year Maintenance @ Rs 2700/Ha	-	-	-	-	0	0	65 Ha	1.755	0	0	65 Ha	1.755
	Agro- horticulture(arecanut) @Rs 12,680/Ha (238pl/Ha)												
	i Preliminary works and First year planting @ Rs.1490/Ha	-	-	104 Ha	1.55	31Ha©	0.4619	-	-	-	-	135 Ha	2.0119
	ii First year Maintenance @ Rs.8664/Ha	-	-	-	-	135 Ha	11.6964	-	-	-	-	135 Ha	11.6964
	iii Second year Maintenance @ Rs 2526/Ha	-	-	-	-	-	-	135 Ha	3.4101	-	-	135 Ha	3.4101
	Agro- horticulture (betel leaf) @Rs 8058/Ha												
	i Preliminary works and First year planting @ Rs.1600/Ha	-	-	-	-	50 Ha	0.80	-	-	-	-	50 Ha	0.80
	ii First year Maintenance @ Rs.4121/Ha	-	-	-	-	50 Ha	2.06	-	-	-	-	50 Ha	2.06
	iii Second year Maintenance @ Rs 2337/Ha	-	-	-	-	-	-	50 Ha	1.169	-	-	50 Ha	1.169
	Agro- horticulture (banana) @Rs 7400/Ha												
	i Preliminary works and First year planting @ Rs.1080/Ha	-	-	-	-	30 Ha	0.324	-	-	-	-	30 Ha	0.324
	ii First year Maintenance @ Rs.4020/Ha	-	-	-	-	30 Ha	1.206	-	-	-	-	30 Ha	1.206
	iii Second year Maintenance @ Rs 2300/Ha	-	-	-	-	-	-	30 Ha	0.69	-	-	30 Ha	0.69
	Contour Trenching	-	-	-	-	20 Ha	1.40					20 Ha	1.40
	Total of A - Arable Land Treatment	-	-	104Ha(c)	1.55	286Ha(c)	25.6533		7.0241			390 Ha	34.227
B.	Non Arable Land Treatment	-	-										
	Improvement of degraded natural forest @ Rs.3600/Ha											230 Ha	8.28
	i. Preliminary Year @ Rs. 700/Ha	-	-	-	-	230 Ha	1.61	-	-	-	-	230 Ha	1.61
	ii First year planting @ Rs. 1900/	-	-	-	-	230 Ha	4.37	-	-	-	-	230 Ha	4.37
	ii Second year Maintenance @ Rs.1000/	-	-	-	-	-	-	230 Ha	1.9059	-	-	230 Ha	1.9059
	Afforestation @ Rs. 10,100/Ha	-	-	-	-	-	-	-	-	-	-	-	-
	i. Preliminary Year @ Rs 1700/-Ha	-	-	-	-	80 Ha	1.36	-	-	-	-	80 Ha	1.36
	ii First year planting @ Rs. 5500/-Ha	-	-	-	-	80 Ha	4.40	-	-	-	-	80 Ha	4.40

	ii Second year Maintenance @ Rs 2900/-/Ha	-	-	-	-	-	-	80 Ha	2.32	-	-	80 Ha	2.32
	Total of B- Non Arable Land Treatment	-	-	-	-	310Ha(c)	11.77	310Ha(M)	4.62	-	-	310Ha (c)	15.966
C.	Drainage line Treatment	-	-	-	-	-	-	-	-	-	-	-	-
	Protection wall / Utility Platform (as per estimate)	-	-	24 nos	4.88	-	-	-	-	-	-	24 nos	4.88
	Loose boulder check dam @ Rs.7500/-	-	-	20 Nos	1.50	10 Nos	0.75	-	-	-	-	30 nos	2.25
	Water Harvesting and Distribution @ Rs. 32,800/-	-	-	8 nos	2.624	17 nos	5.576	-	-	-	-	25 nos	8.20
	CC check Dams @ Rs. 29,900/each	-	-	-	-	18 nos	5.382	-	-	-	-	18 nos	5.382
	Dugout Pond	-	-	2 nos	0.32	8 nos	1.28	-	-	-	-	10 nos	1.60
	Run-off disposal channel @ Rs 26/Rm	-	-	1446 Rm	0.376	8033 Rm	2.0887	-	-	-	-	8080 Rm	2.4647
	Total of C- Drainage line Treatment	-	-	153 Ha	9.70	101 Ha	15.0767	-	-	-	-	254 Ha	24.77
	Total of Watershed Treatment/Development works	-	-	7.5 %	11.25	35 %	52.50	-	-	-	-	50.00%	75.00
D	Livelihood Activities												
A	Kitchen gardening, agri-implements @ Rs.2500/ unit	-	-	60 nos	1.50	100 nos	2.50	80 nos	2.0	-	-	240 nos	6.00
B	Piggery/ Poultry/ @ Rs.10,000/ unit	-	-	-	-	20 nos	2.00	50 nos	5.00	-	-	70 nos	7.00
C	Tailoring, carpentry, black smithy @ Rs. 10,000/unit	-	-	-	-	-	-	20 nos	2.00	-	-		

												20 nos	2.00
	Total of D- Livelihood Activities	-	-	1 %	1.5	3 %	4.50	6%	9.0	-	-	10.00%	15.00
E	Production System & Micro Enterprise	-	-							-	-	22 Ha	
	Mud brick making/ basket making @ Rs. 25,000 / unit	-	-	-	-	2 nos	0.50	8 nos	2.00	-	-	10 nos	2.50
	Utility shop @ Rs. 25,000/ unit	-	-	-	-	4 nos	1.00	-	-	-	-	4 nos	1.00
	Fishery @ Rs.25,000/each	-	-	6 nos	1.50	20 nos	5.00	26 nos	6.50	-	-	52 nos	13.00
	Cash crop value addition @ Rs 50,000/unit - areca nut soak tanks/Rice mill	-	-	-	-	2 nos	1.00	4 nos	2.00	-	-	6 nos	3.00
	Total of E- Production System & Micro Enterprise	-	-	1 %	1.5	5 %	7.5	7 %	10.50	-	-	13.00%	19.50
F.	Consolidation & Withdrawal Phase (PIA)	-	-	-	-	-	-	-	-	5%	7.5	5%	7.5
	Total of Consolidation Phase	-	-	-	-	-	-	-	-	5%	7.5	5%	7.5
	Total of II(A+B+C+D+E+F)	-	-	9.5%	14.25	43%	57.00	20.5%	31.50	5%	7.50	78%	117.00
	GRANT TOTAL (I+II)	6%	9.00	14%	21.00	50%	75.00	25%	37.50	5%	7.50	100%	150.00

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


 Deputy Commissioner
 RI - Bhoi District, Nongpoh


 Divisional Officer
 Soil & Water Conservation
 RI Bhoi Division
 Nongpoh

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

1	2	3	4	5	6		7	8	9	10				11							
					Project duration (dd/mm/yyyy)					Area of the projects (Ha)	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)
Sl. No.	Name of State	Name of Districts	Names of Projects	Year of sanction							a) Temporary fallow	b) Permanent									
1	Meghalaya	Ri Bhoi	RB-IWMP-II Jirang	2009-10			500	75.00	1.Umsyei 3B2A1a2l	230	35	165	70	1340	170	180	40 Village, market, roads, playgrounds, etc	1730			
2	Meghalaya	Ri Bhoi	RB-IWMP-II Jirang	2009-10			500	75.00	2.Umlathu 3B1c7a1f	140	NIL	160	0	440	80	85	26	631			

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	Name of private sector	Financial contribution	Name	Financial contribution	Name	Financial contribution	Name	Financial contribution	
Ri Bhoi	RB-IWMP-II 1.umsyei	67.50	7.50	NREGs	10.00	NIL	NIL	Nil	Nil	Nil	Nil	Nil	Nil	85.00
Ri-bhoi	RB-IWMP-II 2..umlathu	67.50	7.50	NREGs	8.00	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	83.00
		135.00	15.00	NREGs	18.00	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	168.00

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

1	2	3	4	5				6				
Sl. No.	Names of States	Name of Districts	Names of Projects	Distt. Agency's Project Account details				Watershed Committee (WC) account details:				
				Name of the Bank and Branch where project account has been opened	Account Number (to be obtained confidentially)	Account type (Savings/ Current/ Others)	Name & Designation of authorized persons who operate the account.	Name of Watershed Committee	Name of the Bank and Branch where project account has been opened	Account number (to be obtained confidentially)	Account type (Savings/ current others)	Name & Designation of authorized persons who operate the account.
1	Meghalaya	Ri Bhoi	RB- IWMP-II 1.umsyei	Indian Bank, Nongpoh	867300258	Savings	Smti V. Papang DSWCO SWCDept. Ri Bhoi District, Nongpoh	Umsyei W/C	Indian Bank Nongpoh	874611981	Savings	1.Shri P.Nongtri Chairman WCUmsyei 2.Shri L.Shabong ASWCO and Secretary WCUmsyei
2	Meghalaya	Ri-bhoi	RB- IWMP-II 2..umlathu	Indian Bank, Nongpoh	867300258	Savings	Smti V. Papang DSWCO SWCDept. Ri Bhoi District, Nongpoh	Umlathu W/C	Indian Bank Nongpoh	881086359	Savings	1.Shri M. Mayong Chairman 2.Shri L.Shabong Secretary

Details of Convergence of IWMP with other Schemes:

1	2	3	4	5	6	7
District	Names of projects	Names of Departments with Schemes converging with IWMP	Fund made available to IWMP due to convergence (Rs. in lakh)	Name of activity/task/structure undertaken with converged funds	Reference no. of activity/ task/ structure in DPR [@]	Level at which decision for convergence was taken ^{\$}
				(a) Structures (b) livelihoods (c) Any other (pl. specify) [#]		
Ri bhoi	RB-IWMP-II (1)Umsyei	C&RD Dept NREGS	10.00	Water harvesting	III C fisheries	Deputy Commissioner
Ri bhoi	RB-IWMP-II (2)Umlathu	C&RD Dept NREGS	8.00	Construction of Village Road		Deputy Commissioner

Public-Private Partnership in the IWMP projects:

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				
Ri bhoi	Iwmp II	NA	NA			NA	NA	NA	NA	NA	NA

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

CHAPTER VI CAPACITY BUILDING

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

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

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

* From Column no. 2, total no. of States implementing the programme, from Column no. 3, no. of training institutes, from column No. 9, total no. of category-wise trainings and trainees may be given at the end of the table for the entire country

Central govt. Dept./ State govt. Dept./ Autonomous Body/ Research Institutes/ Universities/ Others (pl. specify)

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

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

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

Table 6.2: Capacity Building activities for the year 2009-2010 as on ...31/03/2010... (dd/mm/yyyy)*

1 Project Stakeholders	2 Total no. of persons	3 No. of persons trained so far	4 No. of persons to be trained during current financial year	5 No. of persons trained during current financial year	6 Sources of funding for training		7 Funds utilised	
					a)DoLR	b)Any other (pl. specify)	a)DoLR	b)Any other (pl. specify)
SLNA								
DRDA/ZP cell								
PIAs	54 nos	24nos	30nos	NA	0.50		0.50	
WDTs	12nos	12 nos	12 nos	NA	0.50		0.50	
UGs								
SHGs								
WCs	26 nosx4 times	26 nos	26 nos	NA	1.00		1.00	
GPs								
Community	876 nos	292nos	584nos	NA	1.00		1.00	
Others (Pl. specify)								
Total	968	354	652	NA	3.00		3.00	

Table 6.3:**Information, Education & Communication (IEC) activities for the year 2009-2010 as on 31/03/2010 (dd/mm/yyyy)*-**

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

CHAPTER VII
EXPECTED OUTCOME

Table 7.1 Employment related outcomes:

SI No	Name of Village	1										2				
		Wage employment										Self employment				
		No. of mandays					No. of beneficiaries					No. of beneficiaries				
		SC	ST	Others	Women	Total	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
1.	Old Tasku		100 %										100 %			
2.	Lailad Rim		100 %										100 %			
3.	Lailad Jingkieng		100 %										100 %			
4.	Umlathu		100 %										100 %			
5.	Pahamjula		100 %										100 %			
6.	Pynker		100 %										100 %			
7.	Pillingku		100 %										100 %			

Table 7.2 Migration Details:

Details of seasonal migration from Project areas:

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
Ri-bhoi	RB-IWMP-II Jirang (1)Umsyei	Tasku	NIL	NIL	NIL	NIL	NIL	NIL		
		Lailad	NIL	NIL	NIL	NIL	NIL	NIL		
	RB-IWMP-II Jirang (2) Umlathu	Pyngker	30	60		50	Hired Wages	1.20		
		Umlathu	25	65		50	--Do--	1.10		
		Pilingku	22	45		30	--Do--	0.70		
		Pahamjula	15	45		50	--Do--	0.40		

* 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 villages; from column no. 6, total no. of persons migrating; from column no. 7, average no. of days for annual migration; from column no. 9, average distance of migration from the village and from column no. 11, average income from occupation during migration, for the entire country may be given at the end of the Table.

Table 7.3 Economic benefits accrued to women: NA

1		2		3		4
Wages		Training		Livelihoods		Total (Rs. in lakh)
Woman days	Amount (Rs. in lakh)	No. of women participants	Amount (Rs. in lakh)	No. of women beneficiaries	Value of assistance provided (Rs. in lakh)	

* 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: NA

1	2	3	4	5	6	7				8
Names of the Districts	Names of the projects	Names of the villages	Particular of CPR	Nature of right	Period of right	Beneficiary details (no. of families)				User Charges (Rs.)
						SC	ST	Others	Total	
RI BHOI	RB-IWMP-II									

* 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 of	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
So	for right to	collect soil for nursery and plantation activities and constructions
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 meters)

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
Rib hoi	IWMP II	Open wells	NA				
		Bore wells	NA				
		Others (specify)	NA				

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

Table 7.5.2 Status of Drinking water:

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

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

Table 7.5.3 Water Use efficiency:

1	2	3	4			
District	Name of the project	Name of major crop	Water savings in cu.m.			
			through water saving devices ^{\$}	through water conserving agronomic practices [#]	Any other (pl. specify)	Total
Ri bhoi	IWMP II	NA				

* 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, practice-wise totals may be mentioned at the end of the table for the entire country.

^{\$} Sprinkler, Drip, PVC pipe, etc.

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

Table 7.6: Vegetation/ crop related outcomes:

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

1	2	3	4						5						6					
Names of the Districts	Name of Projects	Name of crops	Pre-project						Mid-term						Post-project					
			Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (qtl)		Total production (qtl)		Area (ha)		Average Yield per ha (qtl)		Total production (qtl)	
			Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.
Ri Bhoi	IWMP II	Paddy		240		15		3600												
		Other food crops		250		18		9000												
		Vegetables		100		20		2000												

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

Irri. – Irrigated Rf. – Rainfed

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

1	2	3	4	5	6						7						8						
					Pre-project						Mid-term						Post-project						
					Area (ha)		Average Yield (Qtl) per ha.		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		Area (ha)		Average Yield per ha (Qtl)		Total Production (Qtl)		
Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.	Irri	Rf.				

* 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.	Irri
1	Meghalaya	Ri Bhoi	IWMP II																				
				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			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:

3	4	5	6			7		
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
Ri bhoi	IWMP II	5 years	Umsyei WC	2009	Nil	Nil		
Ri-bhoi	IWMP-II	5 years	Umlathu WC	2009	160	NIL		

* from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from column no. 4, total no. of projects; from column no. 6 & 7, 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
Ri bhoi	IWMP II	-	NESAC	-	-	-	-	-

* 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
Ri Bhoi	RB-IWMP-II	5 yrs						
Ri Bhoi	RB-IWMP-II	5 yrs						

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

Table 7.6.7 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
Ri Bhoi	RB-IWMP-II	5 yrs						
Ri Bhoi	RB-IWMP-II	5 yrs						

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

Table 7.7 Livelihood related outcomes:

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

1	2	3	4			5			6			7
Names of the Districts	Names of Projects	Type of Animal	Pre-Project			Mid-term			Post-project			Remarks
			No.	Yield	Income	No.	Yield	Income	No.	Yield	Income	
Ri bhoi	IWMP II	Milch-animals	Nil	Nil	Nil							
		Animals for other purpose (Meat)	120nos	8900	4,70,000							
		Total for all projects	120nos	8900	4,70,000							
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						
				Project Fund	Benefi-ciary	Others (pl. specify)	Total		Actual Expenditure incurred on activity (Rs.)	No. of beneficiaries trained					No. of beneficiaries taking up activity					
										SC	ST	Others	Women	Total	SC	ST	Others	Women	Total	
Ri bhoi	IWMP II	Kitchen garden		6.00			6.00													
		Piggery		4.00			4.00													
		Poultry		3.00			3.00													
		Tailoring/ carpentry		2.00			2.00													
		Utility shop		1.00			1.00													
		Mud brick making		2.50			2.50													

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, categorywise 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	
NA	NA	NA	NA	NA	NA		NA

Table 7.7.4 Details of other livelihoods created for farmers:

1	2	3	4	5				6	7				8				
District	Project	Name of activity	Funds required for the activity (Rs.)	Sources of funding (Rs.)				Actual Expenditure incurred on activity (Rs.)	No. of farmers trained				No. of farmers taking up activity				
				Project Fund	Beneficiary	Others (please specify)	Total		SF	MF	LF	Total	SF	MF	LF	Total	
Ri bhoi	IWMP II	Cash crop value addition/ Rice mill		3.00 Lakhs	5%		3 Lakhs										
		Fishery		13.00 Lakhs	5%		13.00 Lakhs										

(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, categorywise 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	
NA	NA	NA	NA	NA	NA		NA

**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.)
		(A) Backward linkages			
		(i) Seed certification	No		
		(ii) Seed supply system	No		
		(iii) Fertilizer supply system	No		
		(iv) Pesticide supply system	No		
		(v) Credit institutions	No		
		(vi) Water supply	Yes		
		(vii) Extension services	No		
		(viii) Nurseries	No		
		(ix) Tools/machinery suppliers	No		
		(x) Price Support system	No		
		(xi) Labour	Yes		
		(xii) Any other (please specify)	No		
		(B) Forward linkages			
		(i) Harvesting/threshing machinery	No		
		(ii) Storage (including cold storage)	No		
		(iii) Road network	Yes		
		(iv) Transport facilities	Yes		
		(v) Markets / Mandis	Yes		
		(vi) Agro and other Industries	No		
		(vii) Milk and other collection centres	No		
		(viii) Labour	Yes		
		(ix) Any other (please specify)	No		

* 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
S. No.	State	Item	Unit	Pre-project Status	Post-project Status	Remarks
		Status of water table		NA		
		Ground water structures repaired/ rejuvenated		NA		
		Quality of drinking water		NA		
		Availability of drinking water		NA		
		Increase in irrigation potential		NA		
		Change in cropping/ land use pattern		NA		
		Area under agricultural crop		NA		
		i Area under single crop		NA		
		ii Area under double crop		NA		
		iii Area under multiple crop		NA		
		Net increase in crop production area		NA		
		Increase in area under vegetation		NA		
		Increase in area under horticulture		NA		
		Increase in area under fuel & fodder		NA		
		Increase in milk production		NA		
		No. of SHGs		NA		
		Increase in no. of livelihoods		NA		
		Increase in income		NA		
		Migration		NA		
		No. of school going children		NA		
		SHG Federations formed		NA		
		Credit linkage with banks		NA		
		Resource use agreements		NA		
		WDF collection & management		NA		
		Summary of lessons learnt	May be attached as a separate file			

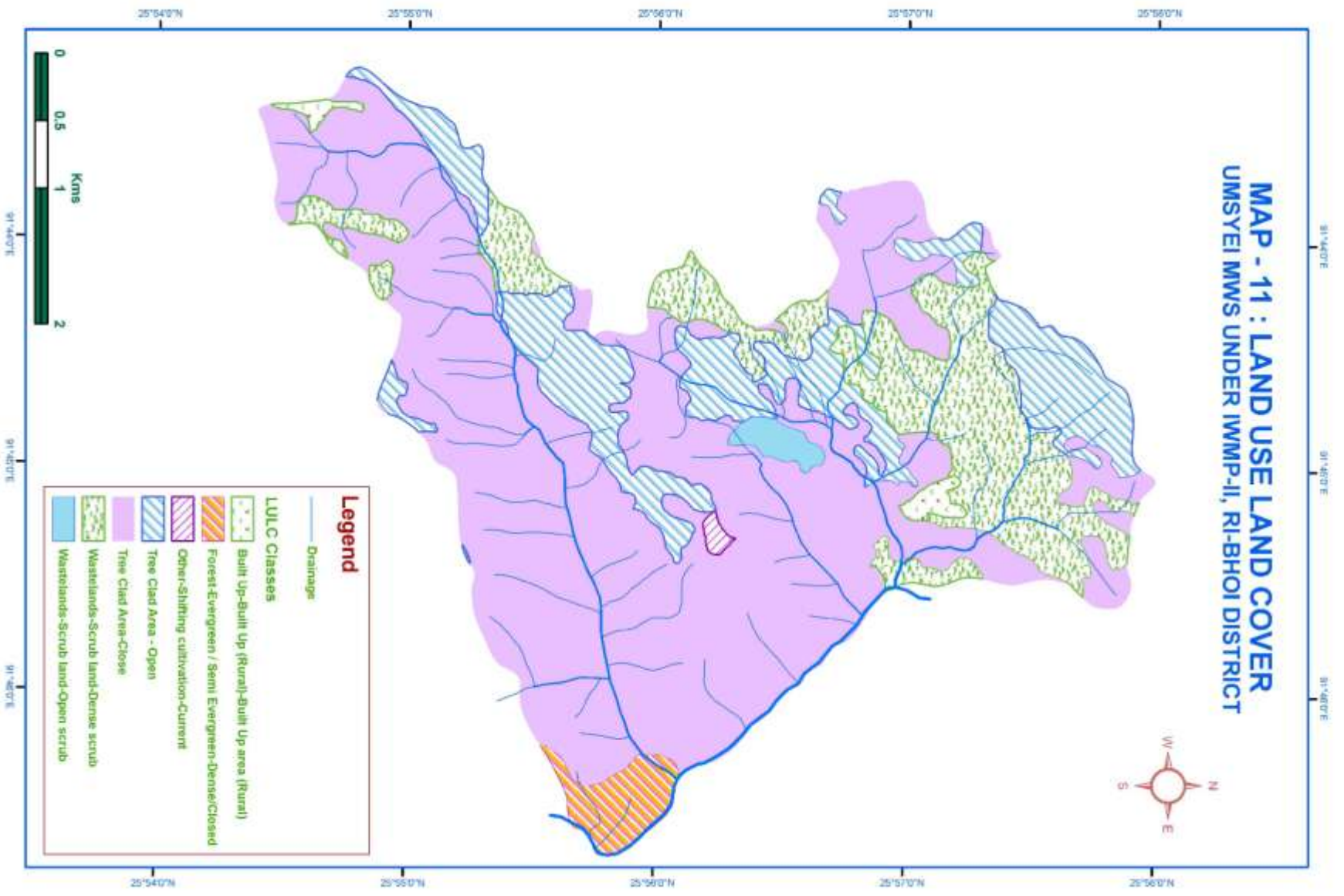
Table 7.10 Cost effectiveness of structures/ activities*

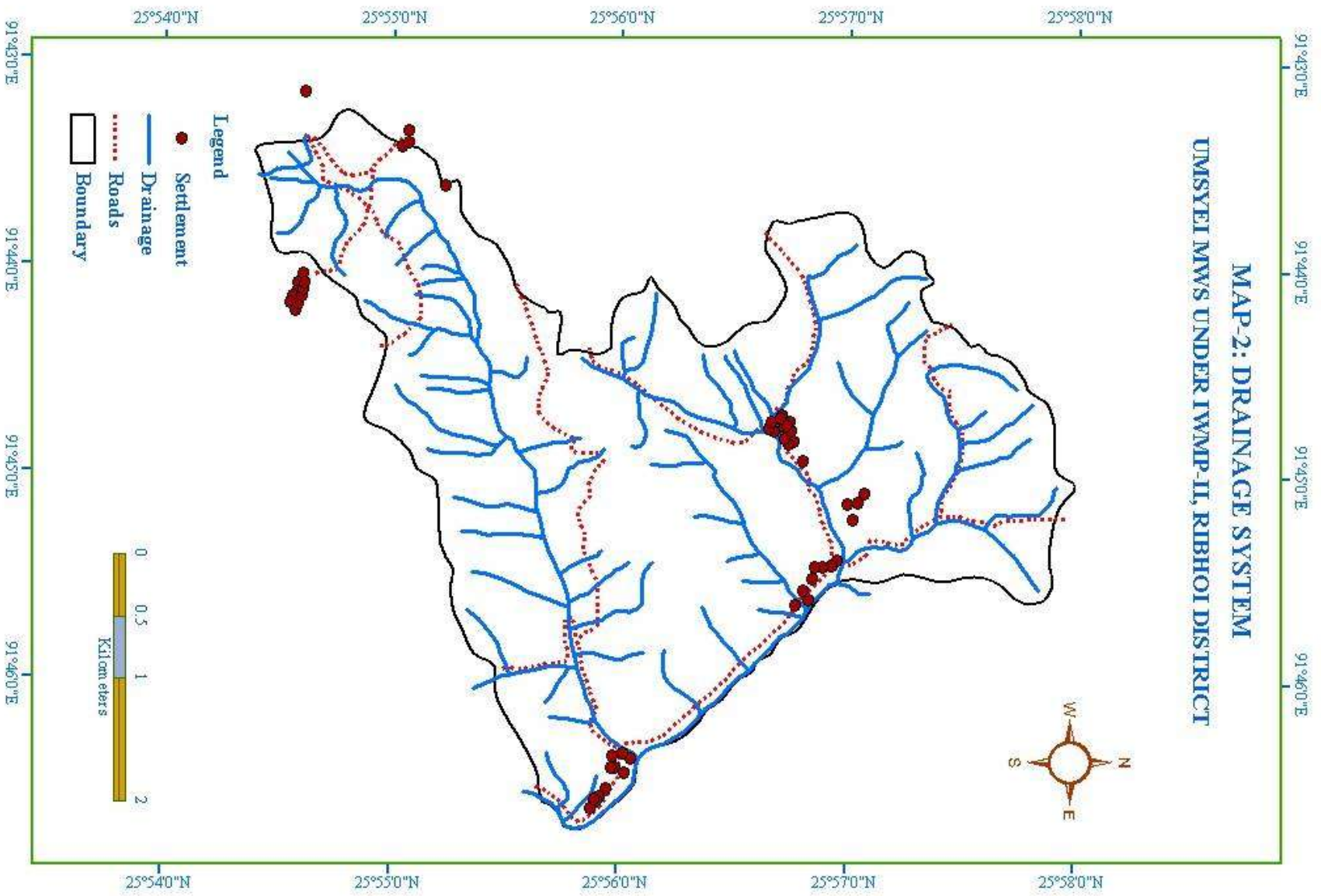
1	2	3	4	5	6	7	8	9	10
District	Name of project	Name of WC	Name of structure/ activity	Estimated cost (Rs.in Lakhs)	Expected quantifiable benefits (Rs.)	Expenditure incurred (Rs.)	Actual quantifiable benefit (Rs.)	Benefit: Cost ratio [#]	IRR
RI BHOI	IWMP II	Umsyei And UmlathuWC	Protection walls	4.88	5.20	NA	NA	1.065	
			Loose boulder check dam	2.25	3.00	NA	NA	1.33	
			Water harvesting and distribution	8.20	10.60	NA	NA	1.29	
			Dugout ponds	1.60	3.20	NA	NA	2.00	
			CC check dam	5.382	6.50	NA	NA	1.20	
			Run-off channel	2.101	2.50	NA	NA	1.19	
			Livelihoods	15.00	20.00	NA	NA	1.33	
			Production systems	19.50	25.00	NA	NA	1.28	
Total				58.913	76.00	NA	NA	1.29	

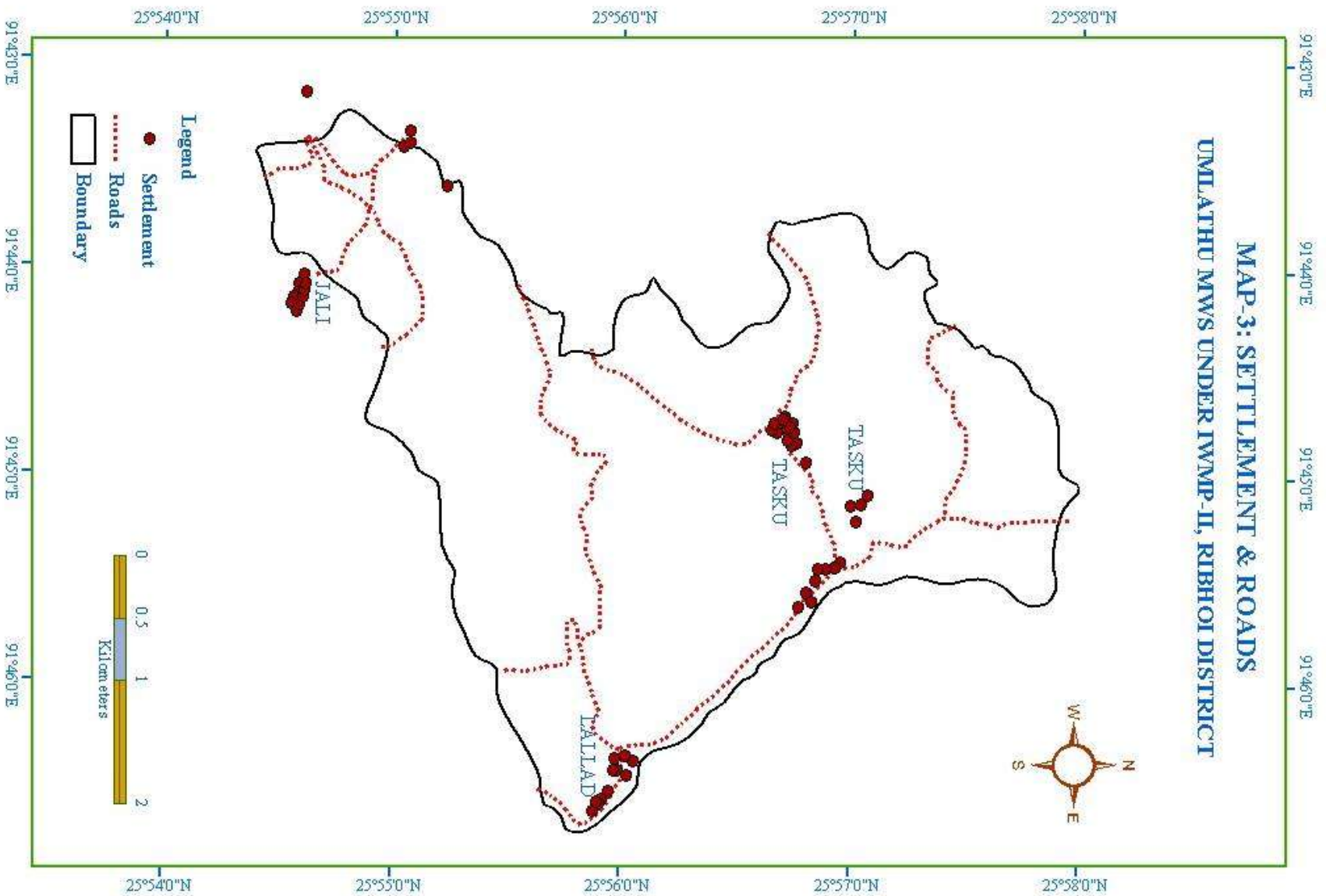
* from column no. 2, total no. of States implementing the programme, from column no. 3, total no. of Districts; from Column no. 4, no. of projects, from column no. 5, no. of WCs, from column no. 6, no. of structures/ activities, from column no. 7 to 10, category-wise# totals, may be mentioned at the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

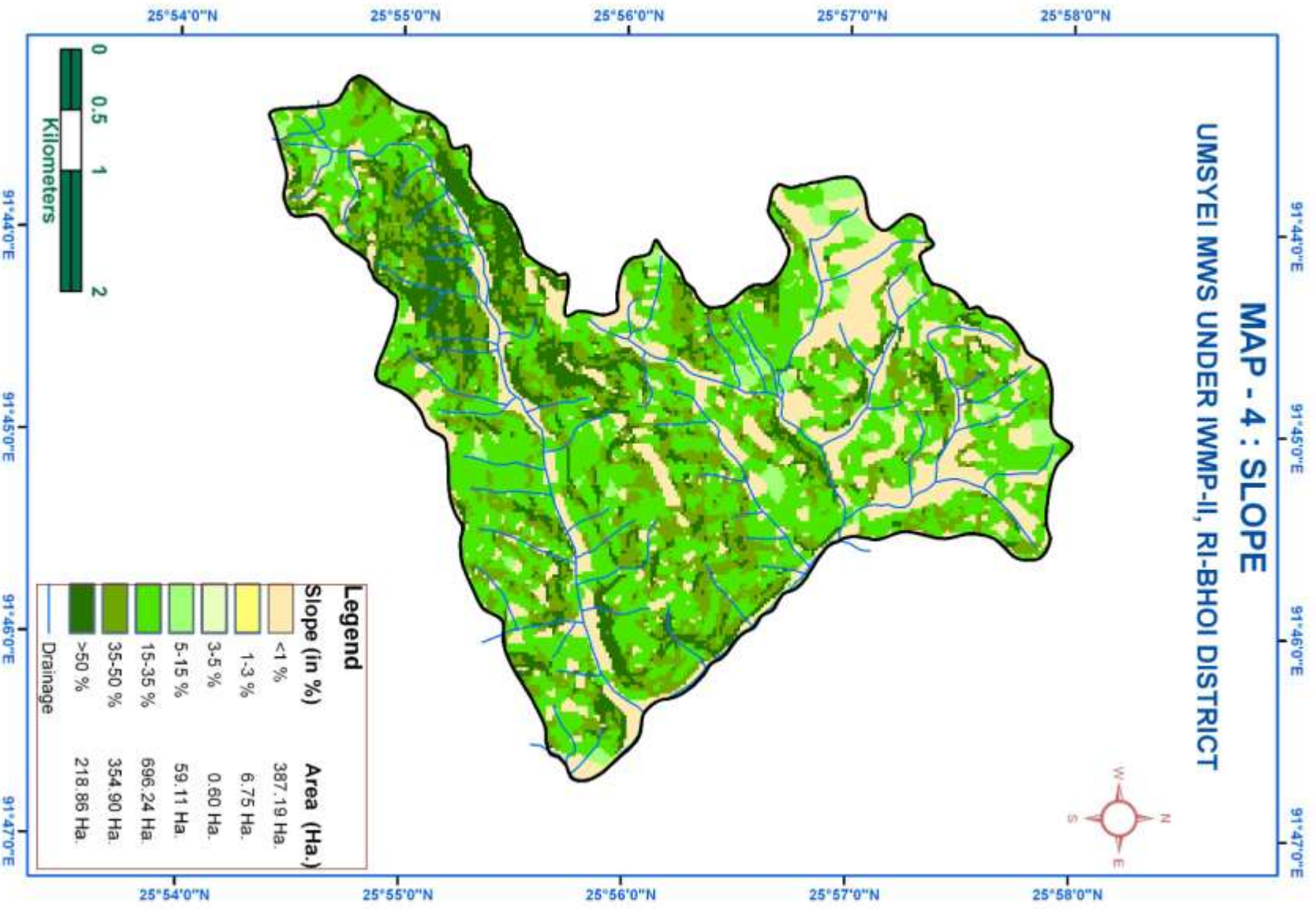
B:C ratio more than 1 –cost effective less than 1 – Not cost effective

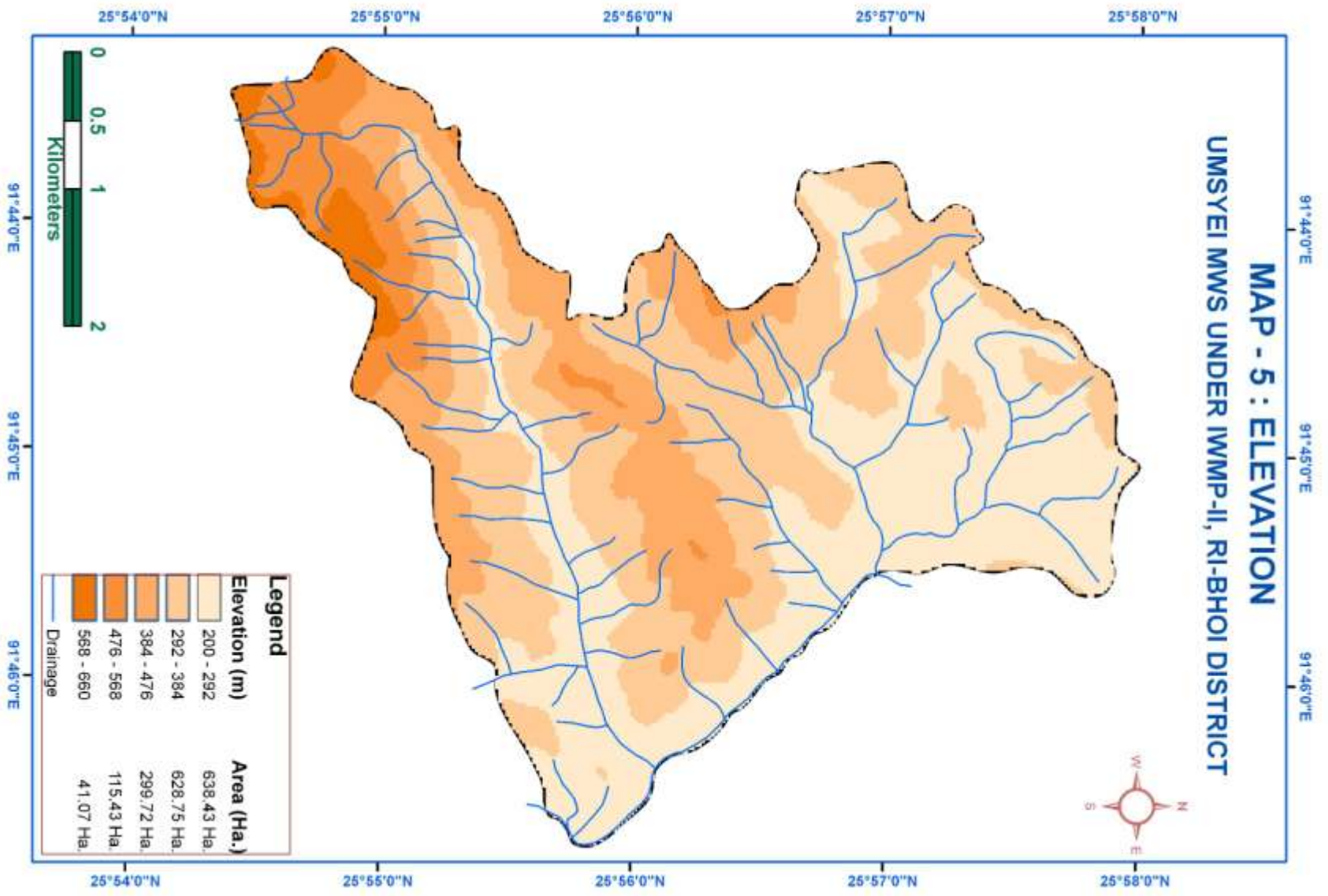
ANNEXURE I
MAPS

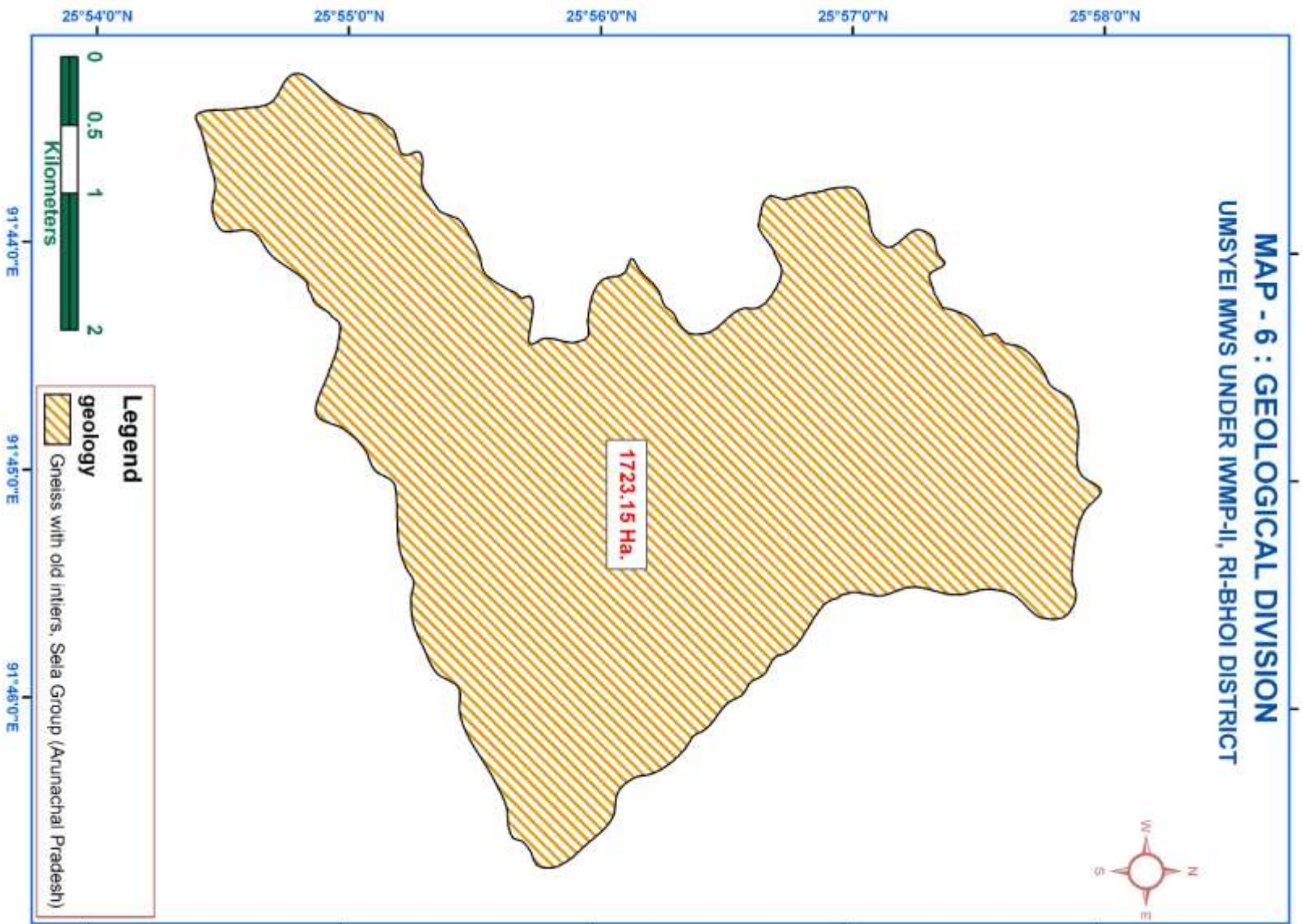


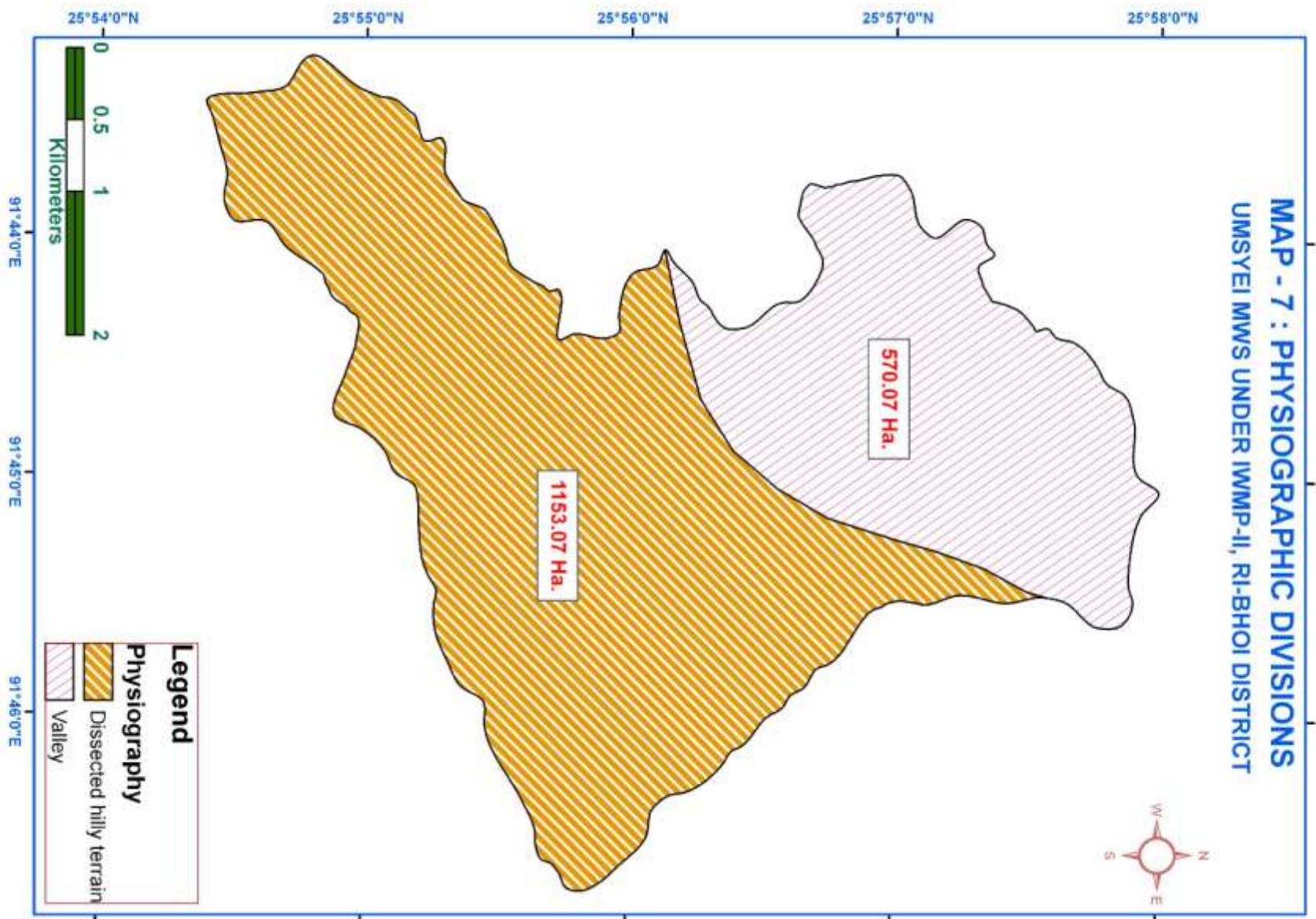


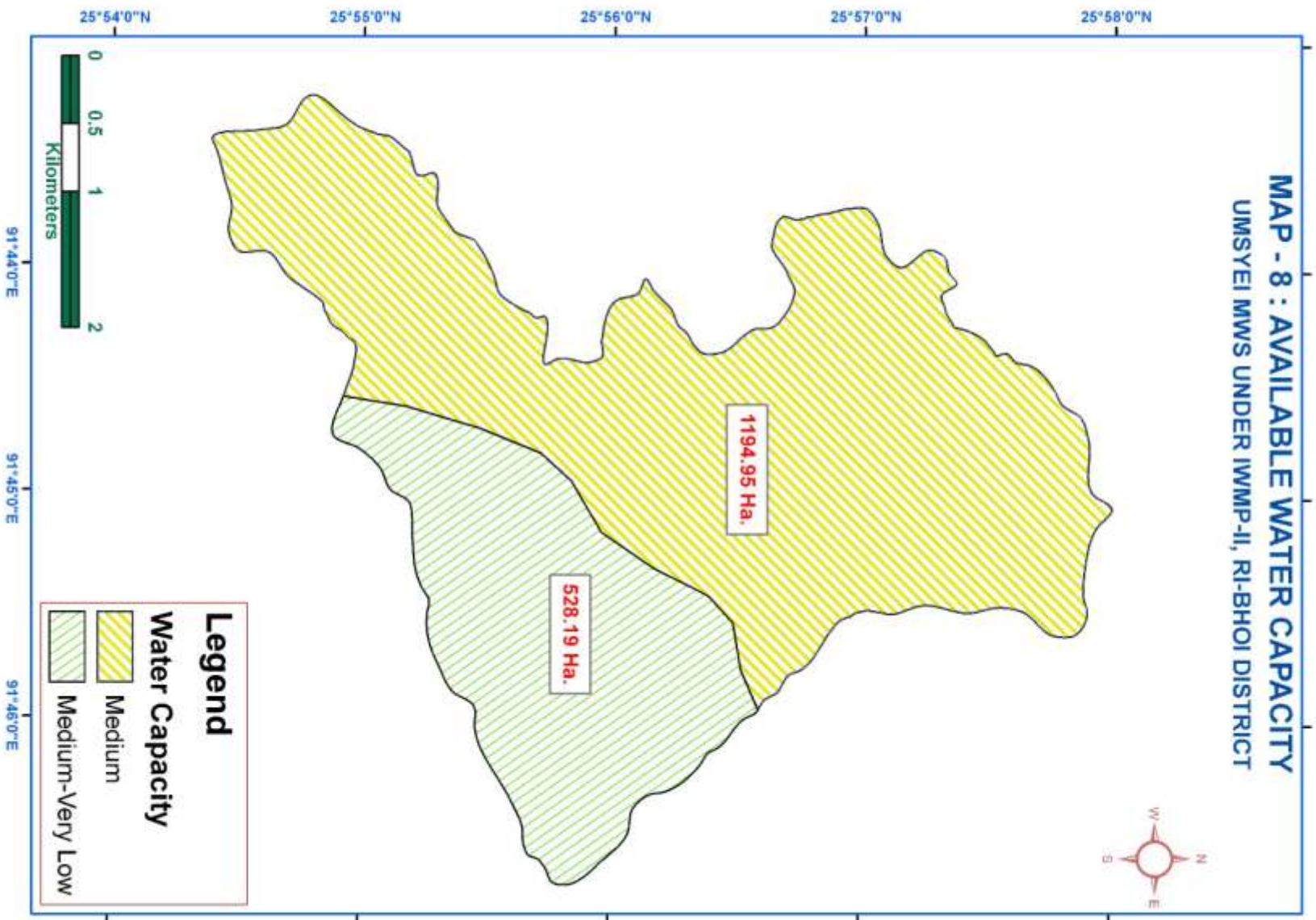








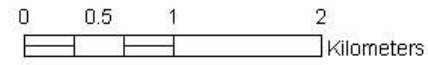




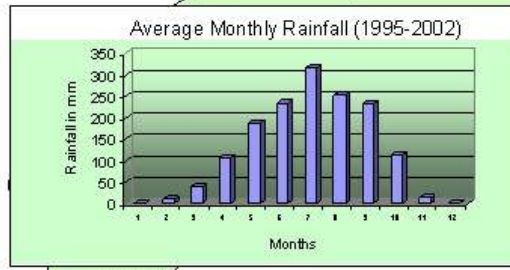
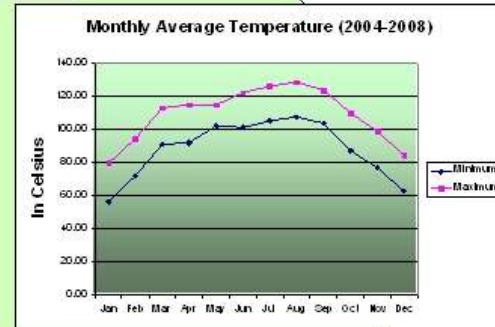
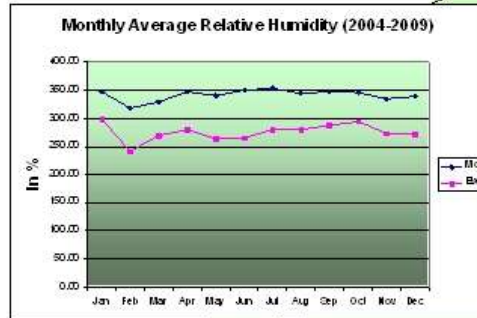
**Map-10: Climatic Status of Umsyei MWS
Under IWMP-II, Ri-Bhoi District**



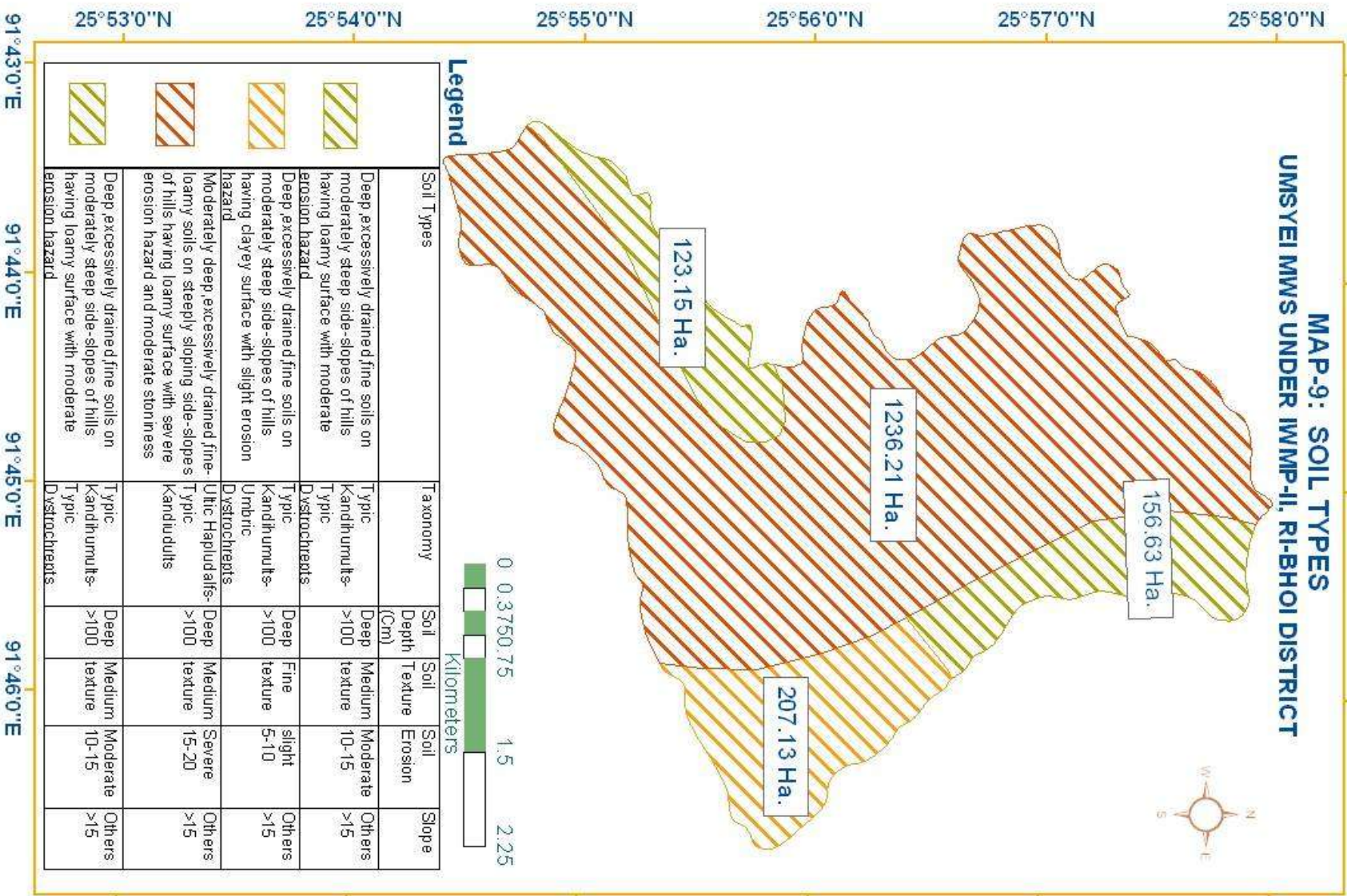
25°58'0"N
25°57'0"N
25°56'0"N
25°55'0"N



91°41'0"E 91°42'0"E 91°43'0"E 91°44'0"E 91°45'0"E 91°46'0"E 91°47'0"E 91°48'0"E



MAP-9: SOIL TYPES
UMSYEI MWS UNDER IWMP-II, RI-BHOI DISTRICT



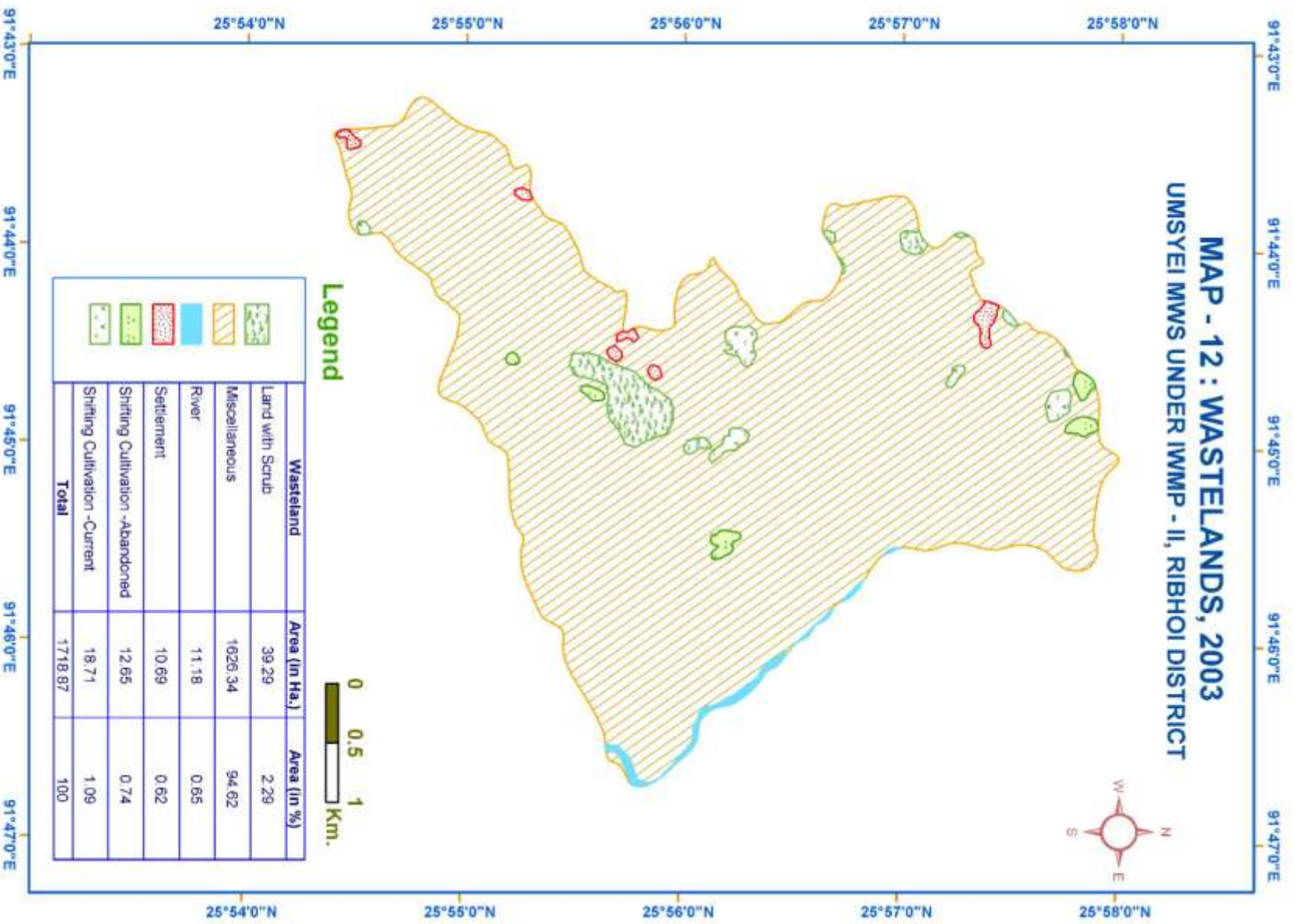
Legend

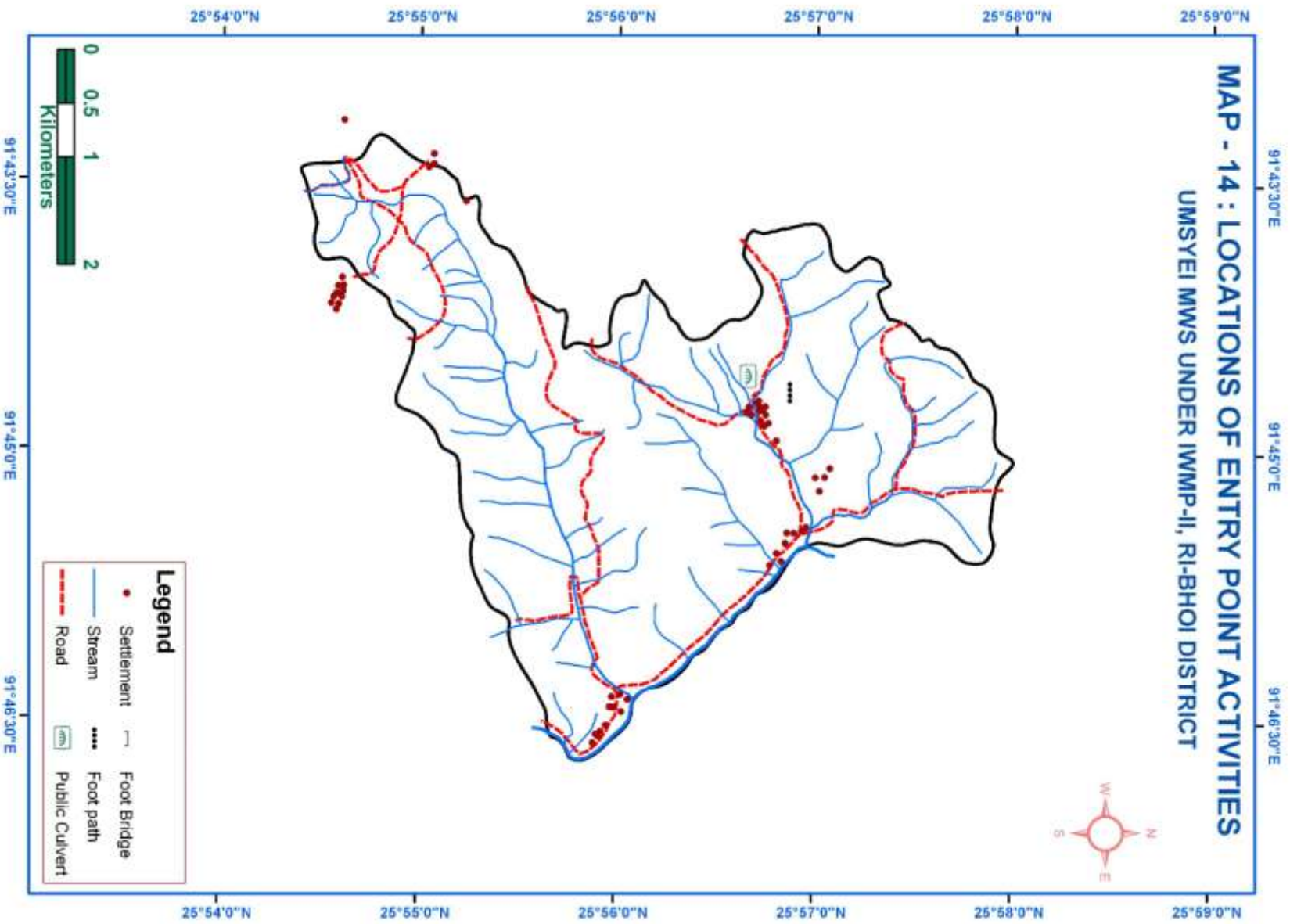
Soil Types	Taxonomy	Soil Depth (Cm)	Soil Texture	Soil Erosion	Slope
Deep, excessively drained fine soils on moderately steep side-slopes of hills having loamy surface with moderate erosion hazard	Typic Kandhurnults-Typic	Deep >100	Medium texture	Moderate 10-15	Others >15
Deep, excessively drained fine soils on moderately steep side-slopes of hills having clayey surface with slight erosion hazard	Dystrochrepts Typic Kandhurnults-Umbritic	Deep >100	Fine texture	slight 5-10	Others >15
Moderately deep, excessively drained fine-loamy soils on steeply sloping side-slopes of hills having loamy surface with severe erosion hazard and moderate stoniness	Ultic Hapludalfs-Typic Kandudults	Deep >100	Medium texture	Severe 15-20	Others >15
Deep, excessively drained fine soils on moderately steep side-slopes of hills having loamy surface with moderate erosion hazard	Typic Kandhurnults-Dystrochrepts	Deep >100	Medium texture	Moderate 10-15	Others >15

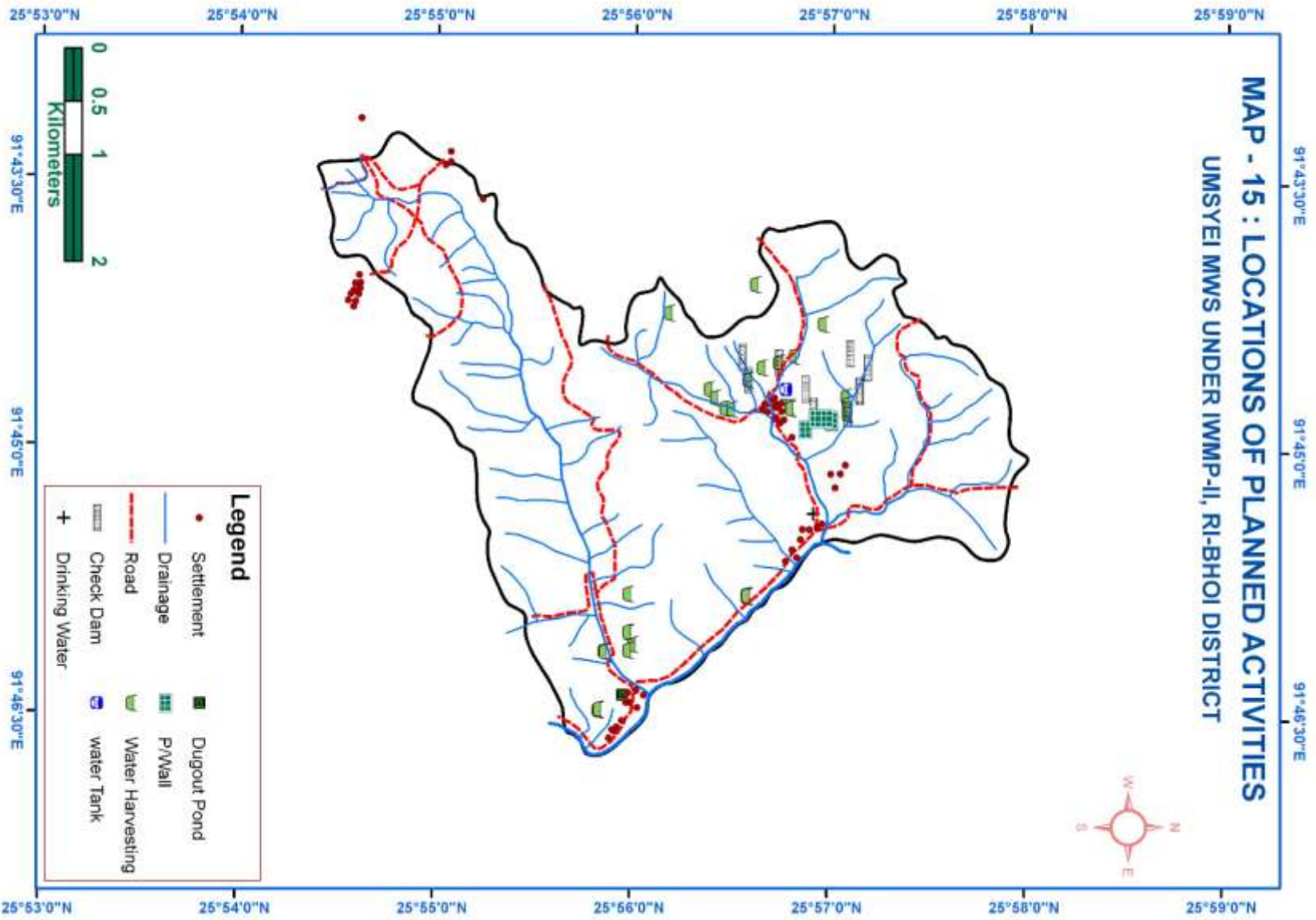


25°53'0''N 25°54'0''N 25°55'0''N 25°56'0''N 25°57'0''N 25°58'0''N

91°43'0''E 91°44'0''E 91°45'0''E 91°46'0''E

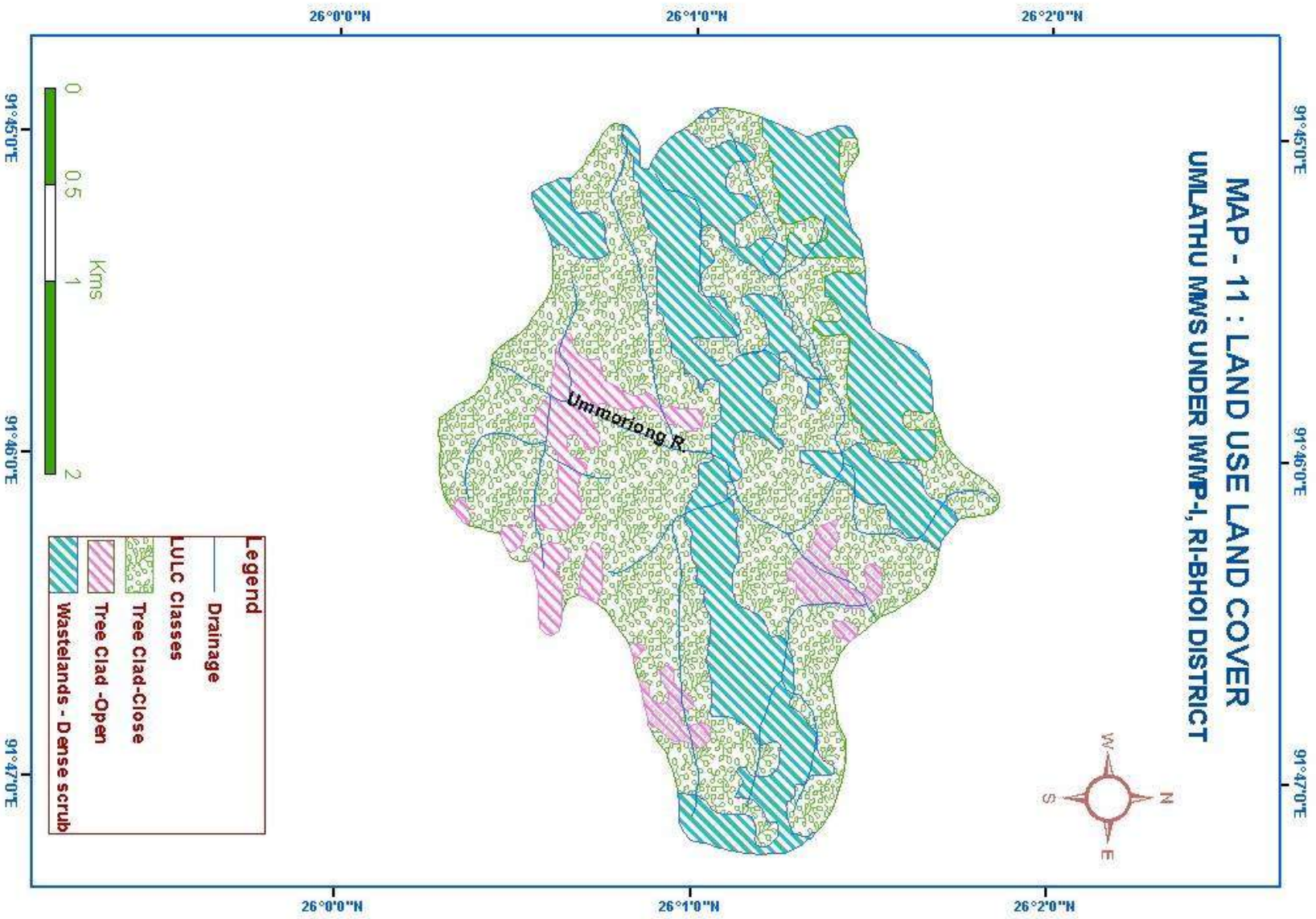


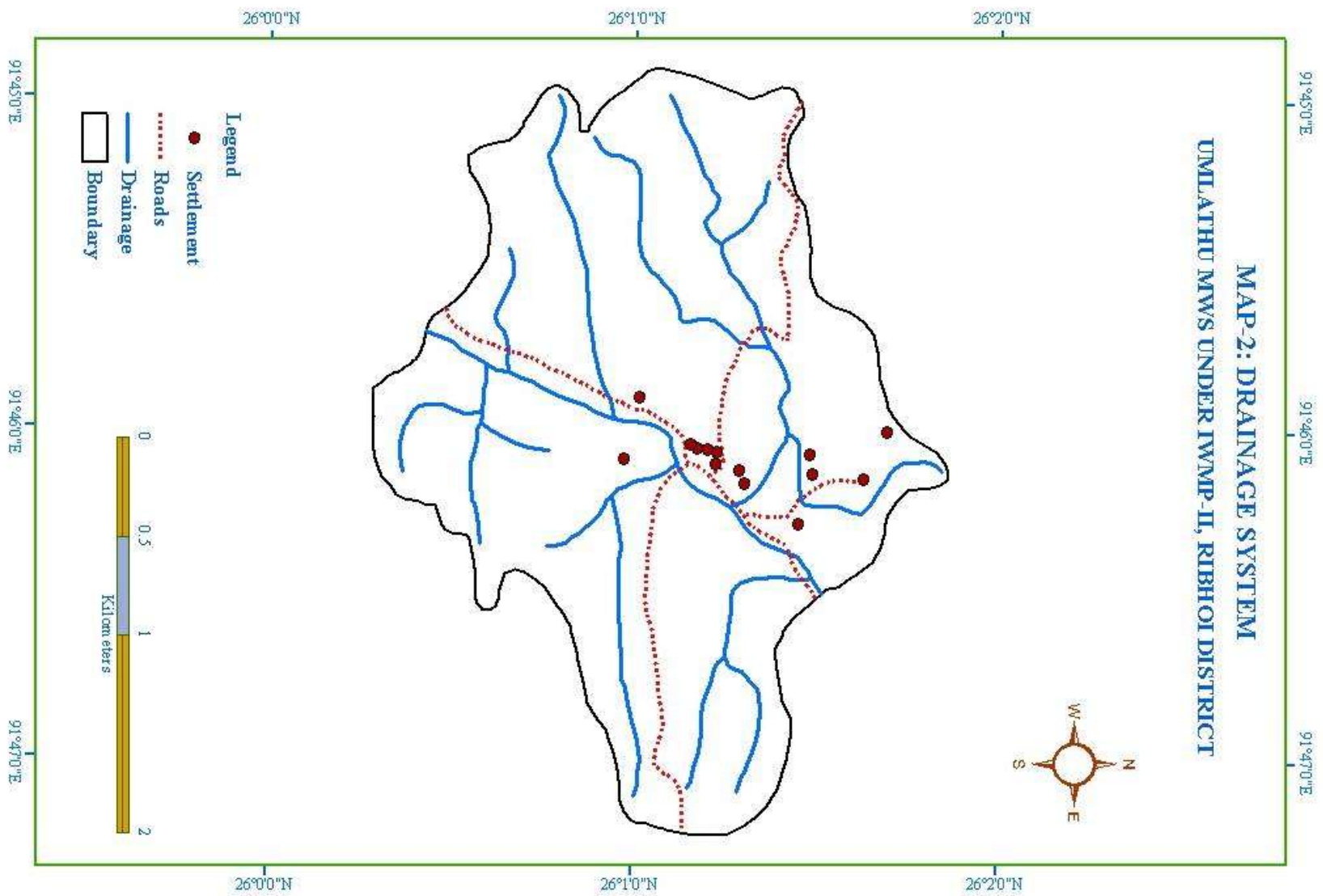


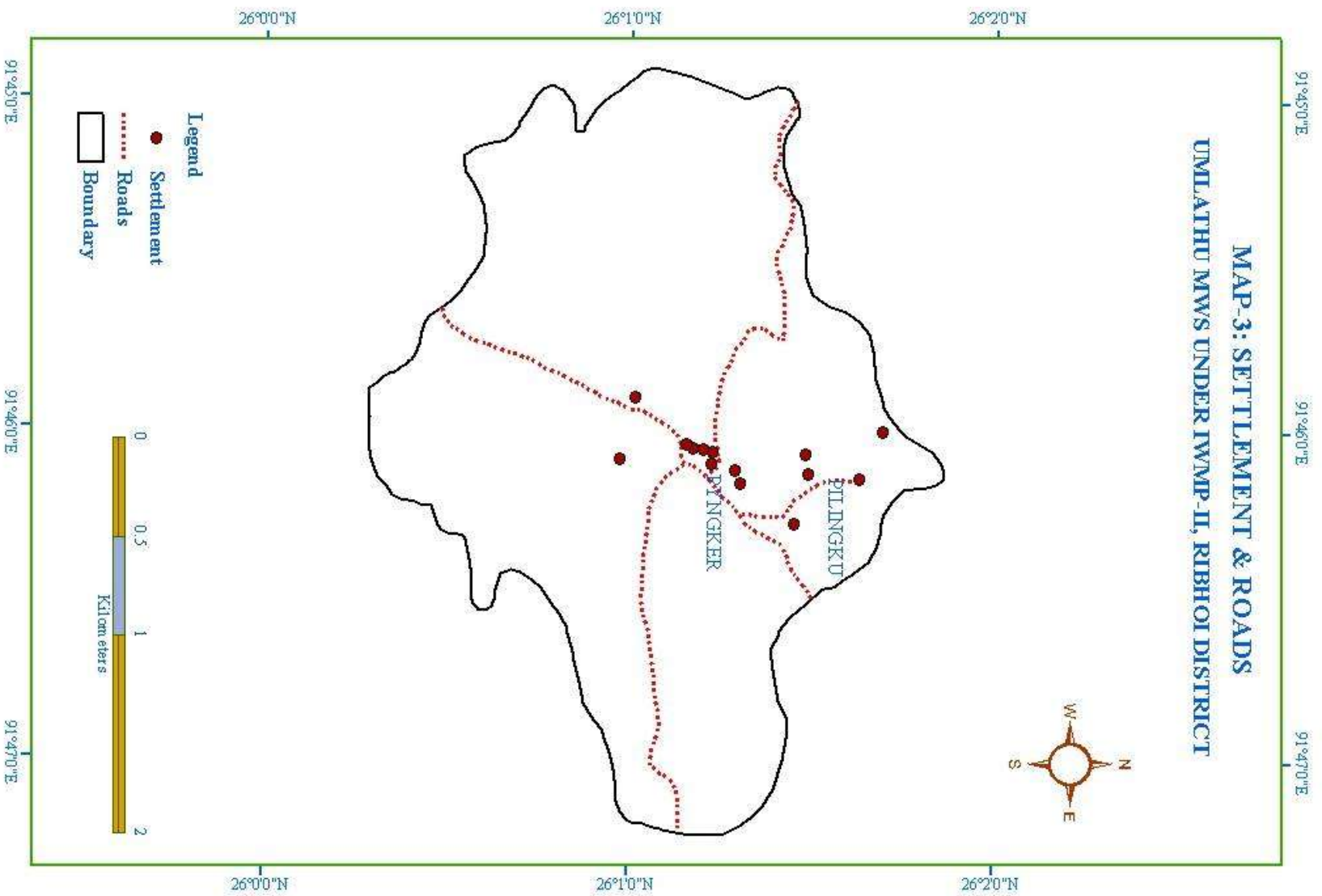


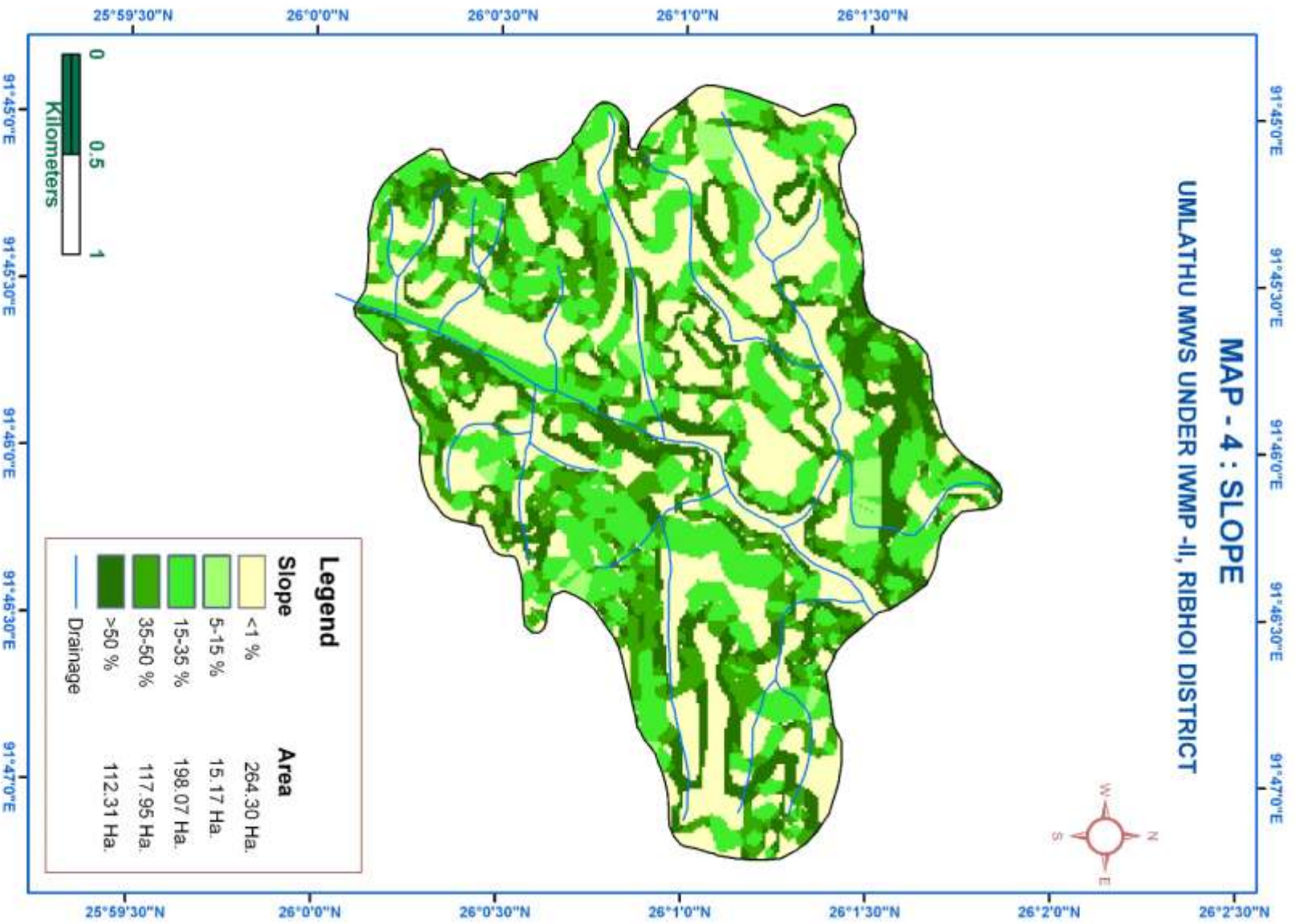
ANNEXURE II

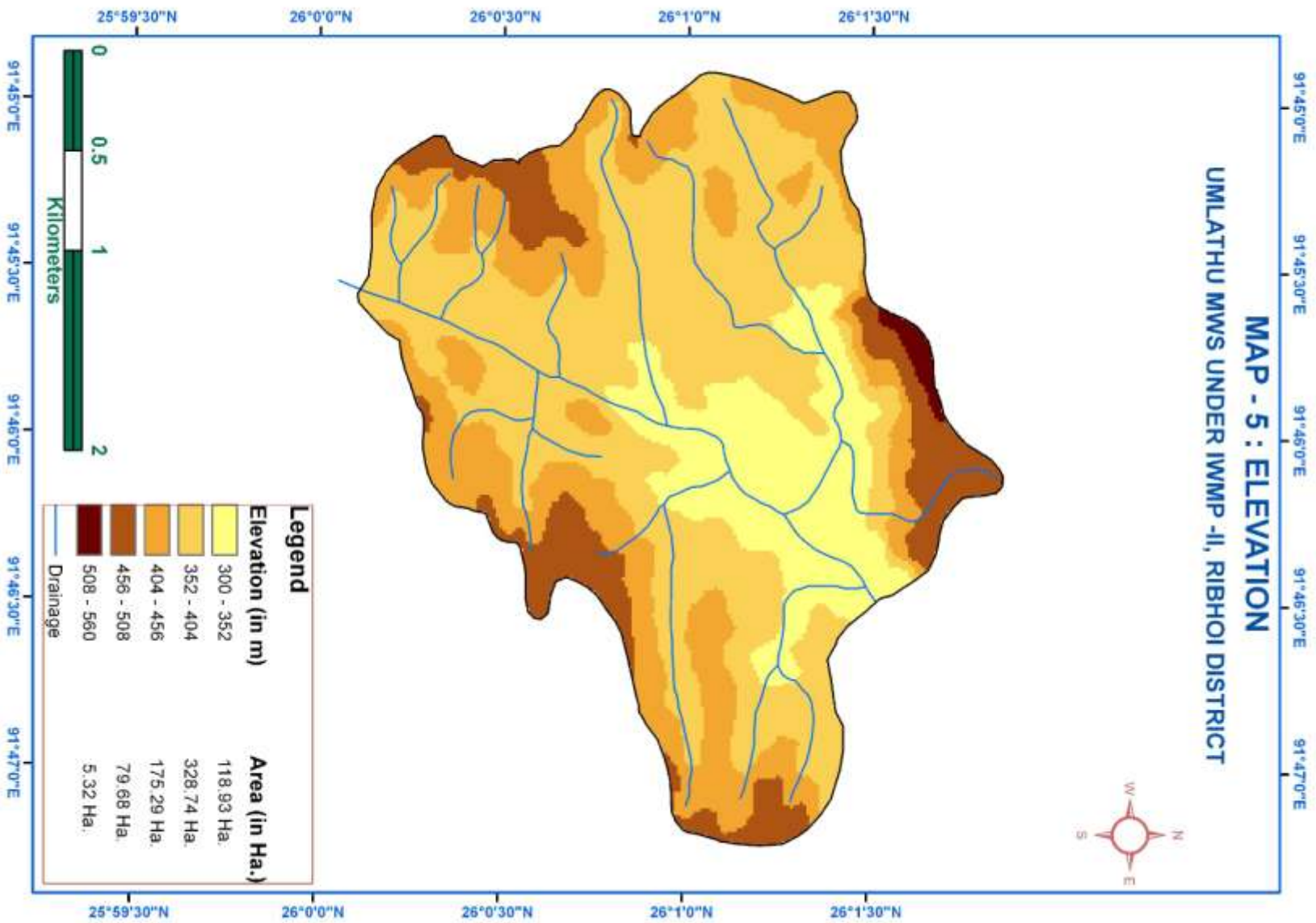
SOCIO-ECONOMIC SURVEY DETAILS-NA

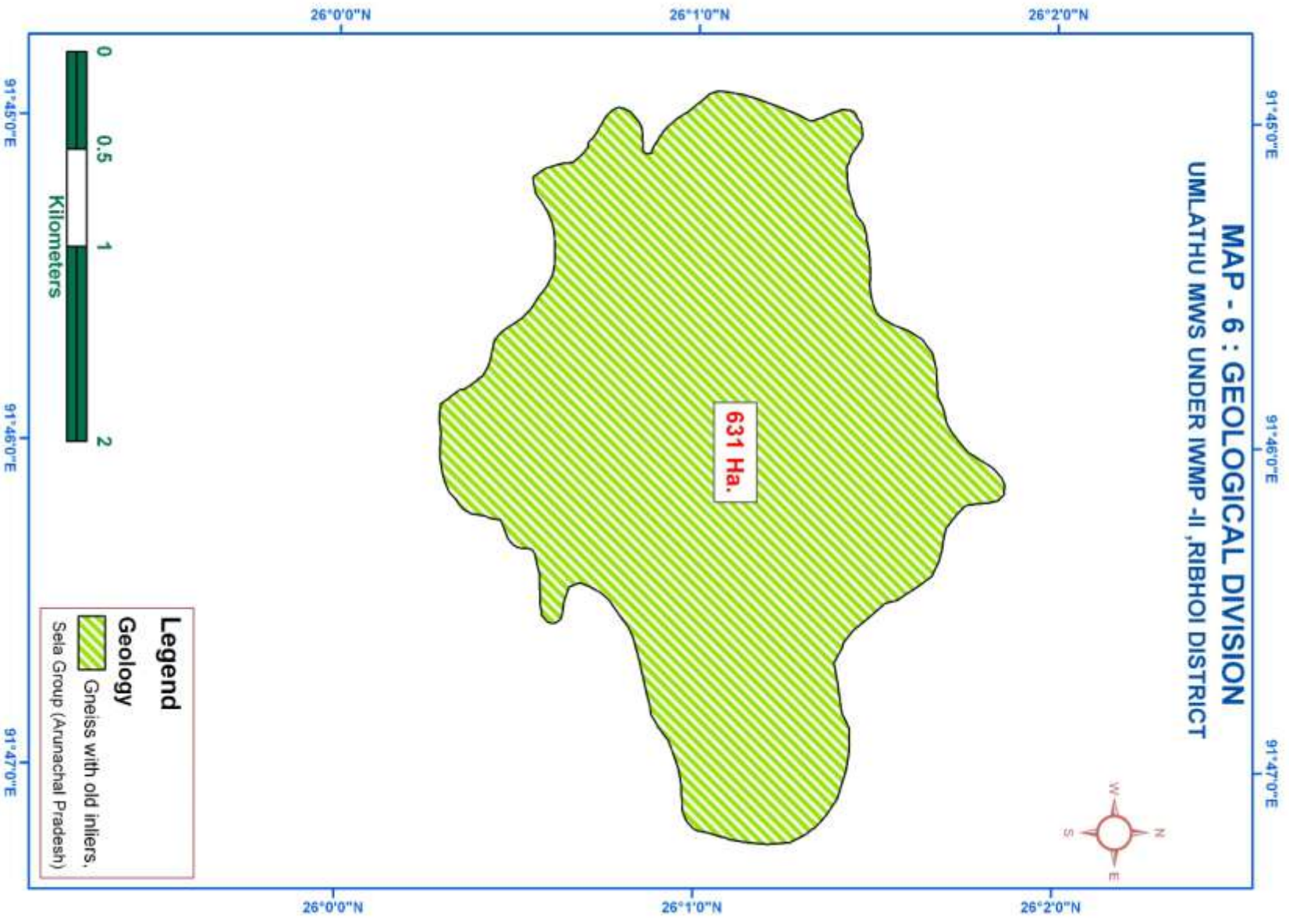


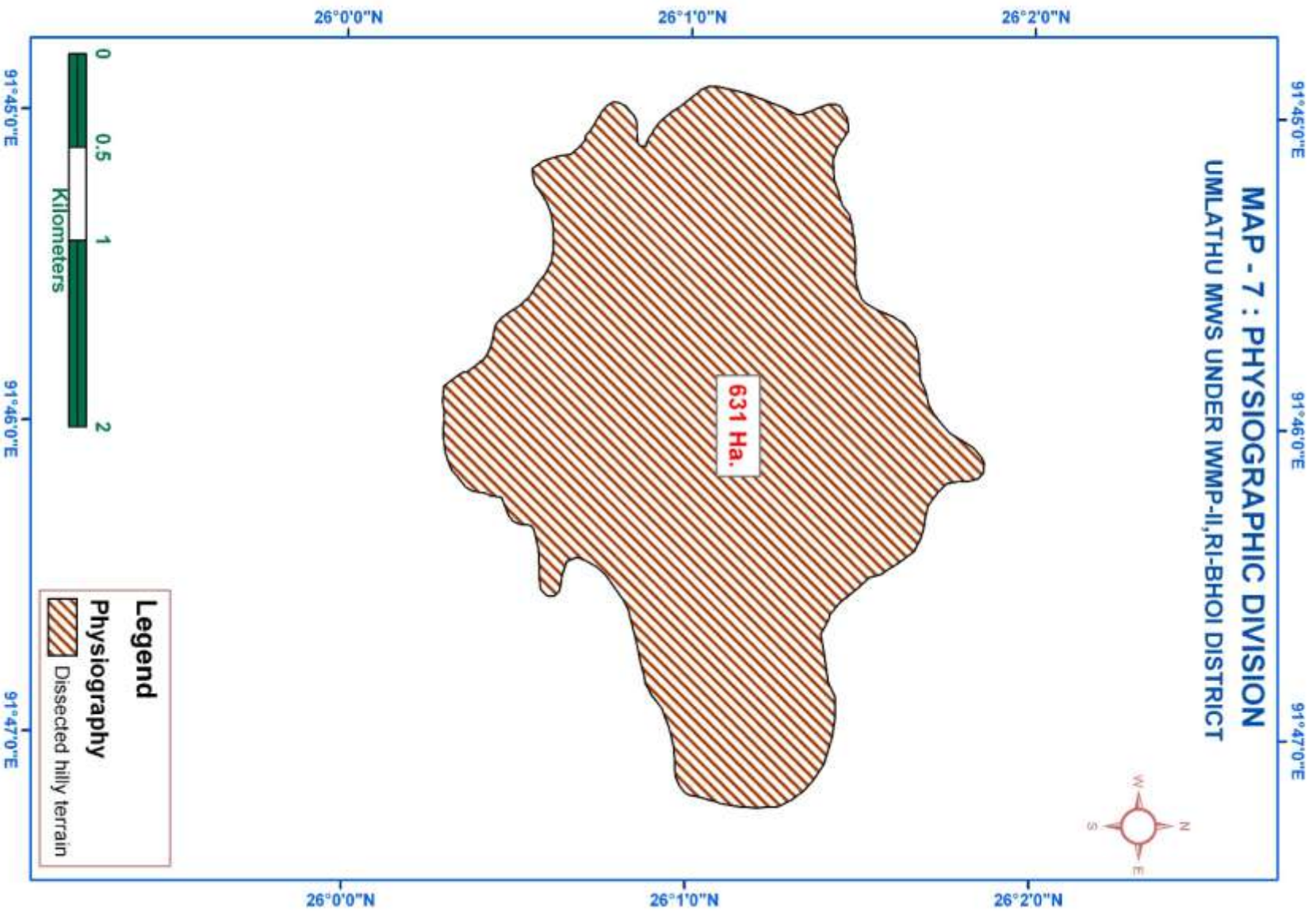


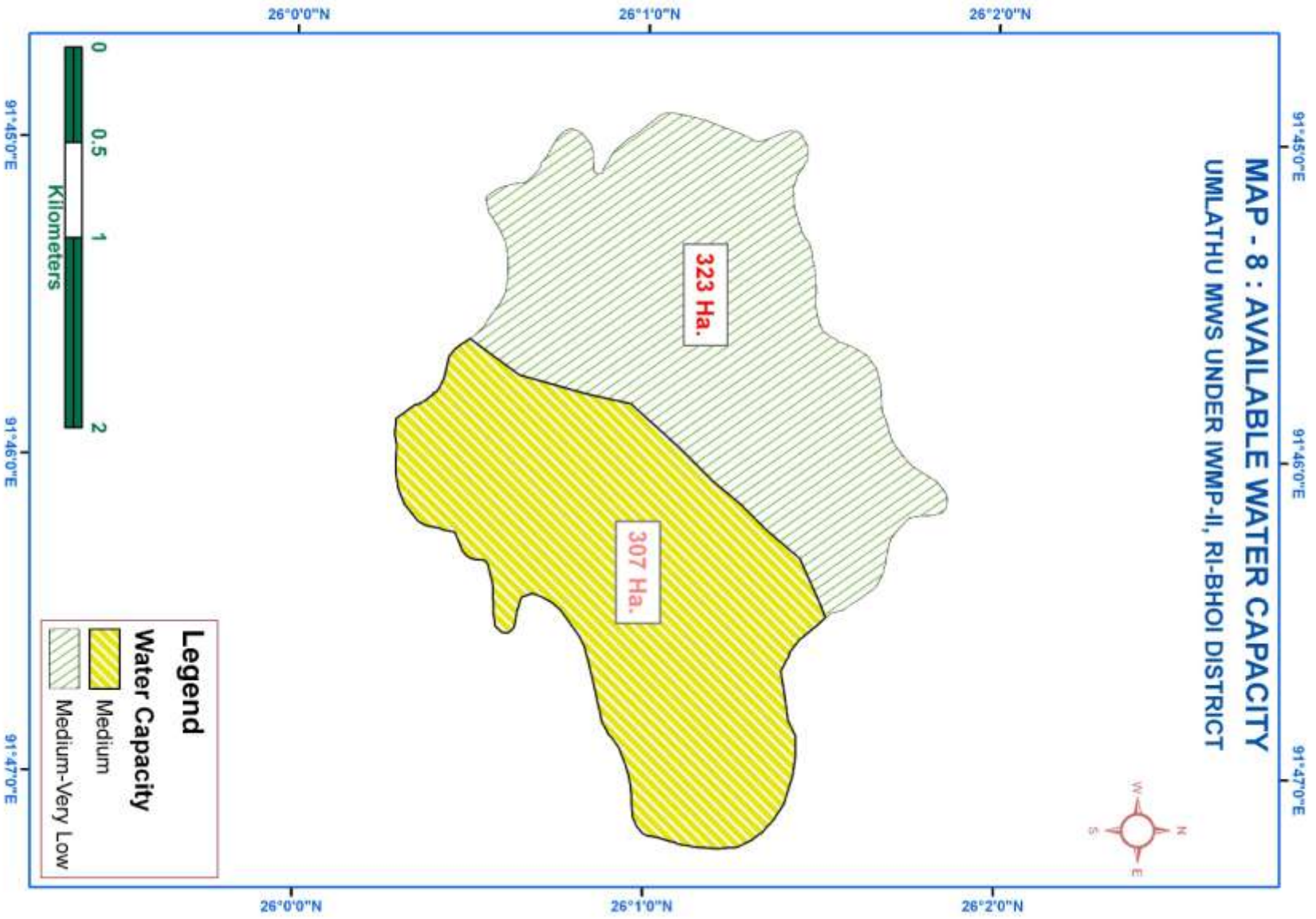








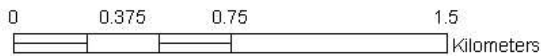
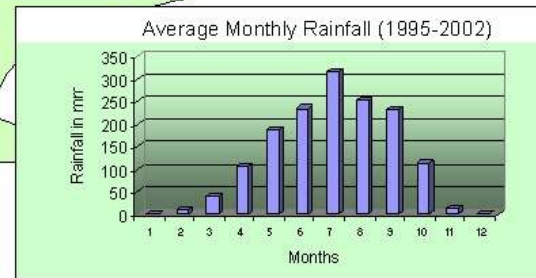
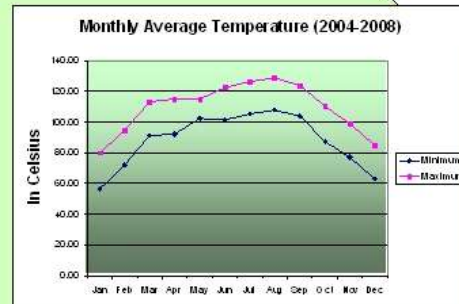
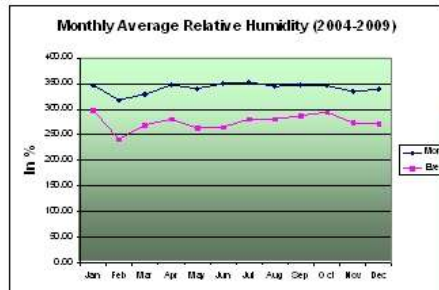
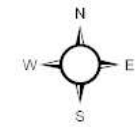




26°2'0"N

26°1'0"N

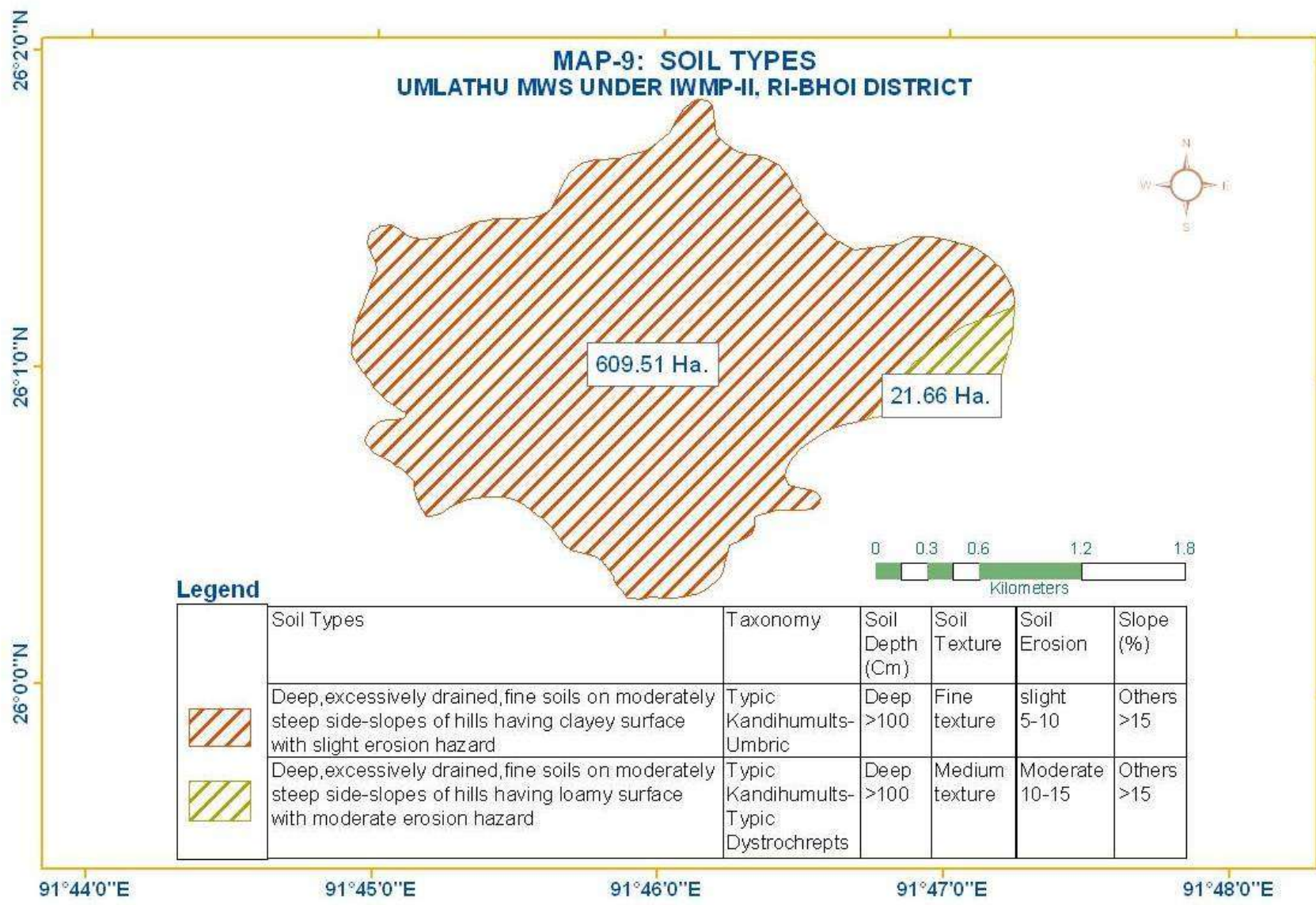
Map-10: Climatic Status of Umlathu MWS Under IWMP-II, Ri-Bhoi District

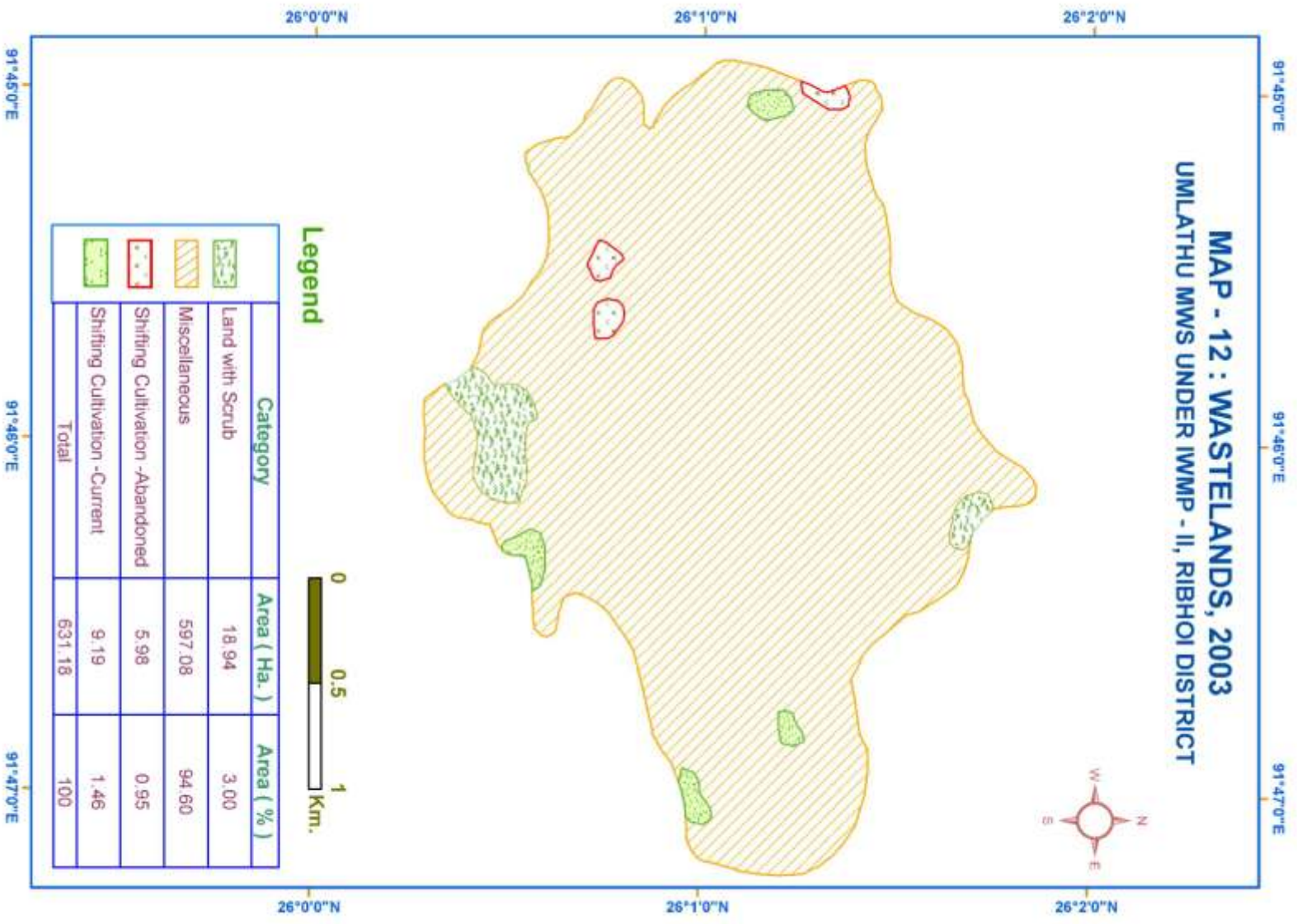


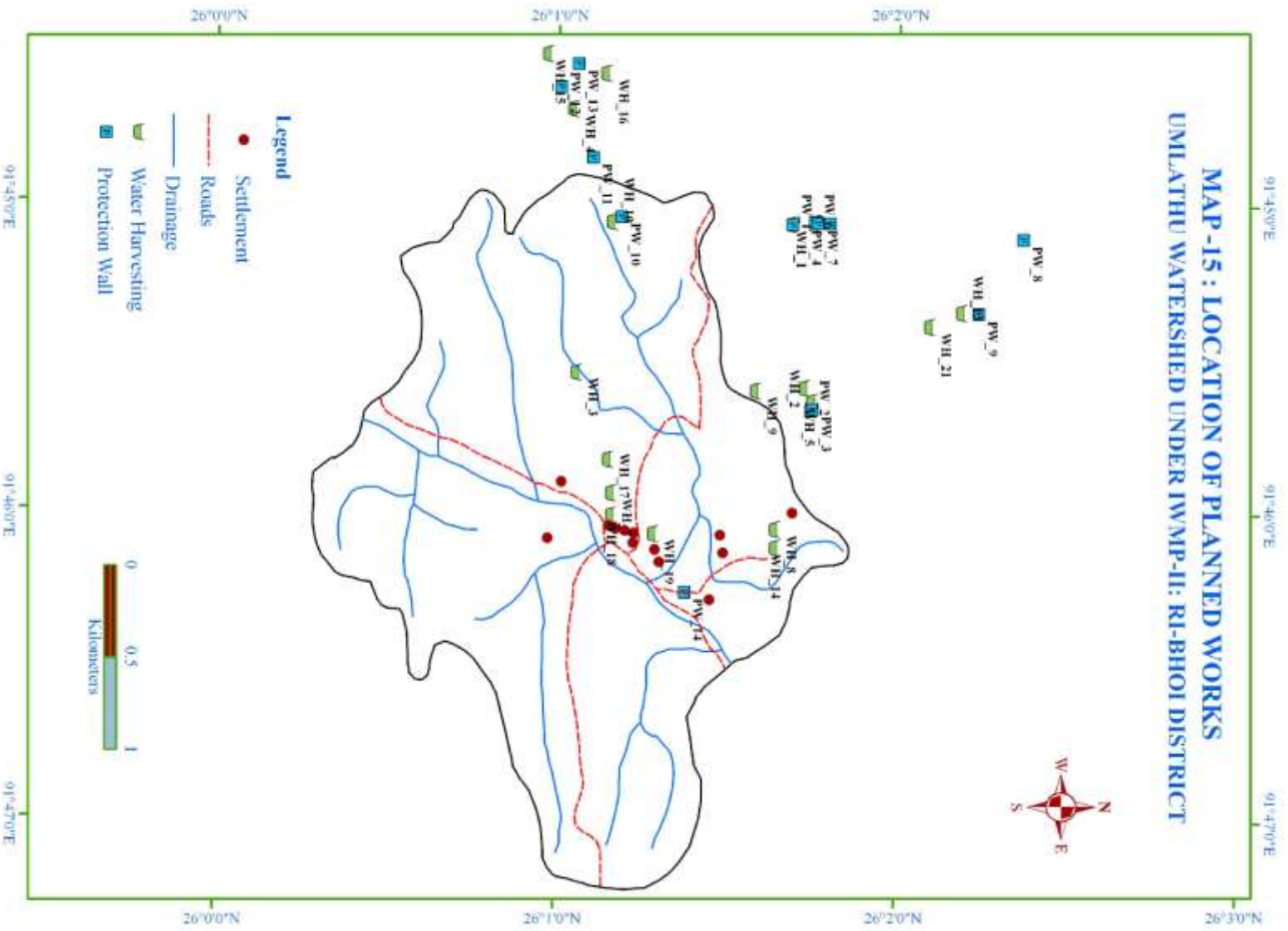
91°45'0"E

91°46'0"E

91°47'0"E







ANNEXURE III
COST ESTIMATES

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

Spacing - 8m x 6.3m

Plant Density - 200 Nos.

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

(Rupees Eight thousand six hundred) only.

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

Spacing 6m x 5.5m Plant Density – 300 Nos.

B. <u>Preliminary works</u>			
J. Jungle clearance etc. 5 mandays @ Rs.100/- per manday	-	Rs. 500.00	
II. Pit digging (pit size 0.30m x 0.30m x 0.30m) 300 Nos. @ Rs.4/- each	-	<u>Rs. 1200.00</u>	
Total	-	Rs. 1700.00	
B. <u>First year Planting</u>			
I. Cost of planting materials 300 Nos. @ Rs.8/- each	-	Rs. 2400.00	
II. Cost of planting 300 Nos. @ Rs. 2/- each	-	Rs. 600.00	
III. Weeding two times 20 mandays @ Rs.100/- per manday	-	Rs. 2000.00	
IV. Fire protection measures 5 mandays @ Rs.100/- per manday	-	<u>Rs. 500.00</u>	
Total	-	Rs. 5500.00	
C. <u>Second year Planting</u>			
I. Vacancy refilling (10%)	-	Rs. 400.00	
II. Weeding two times 20 mandays @ Rs.100/- per manday	-	Rs. 2000.00	
III. Fire protection measures 5 mandays @ Rs.100/- per manday	-	<u>Rs. 500.00</u>	
Total	-	Rs. 2900.00	
Grand Total A+B+C = Rs.1700.00 + Rs.5500.00 + Rs.2900.00 =		Rs.10100.00	

(Rupees Ten thousand one hundred) only.

ANNEXURE IV

MoA, SUB COMMITTEE DETAILS ETC.



**CERTIFICATE OF REGISTRATION OF SOCIETIES
ACT XXI OF 1860**

NO. JR/U.W.C.I.W.M.P.II - 30/2011 of 2011.

I hereby certify that UMSTHEI WATERSHED COMMITTEE

*U.W.M.P.II Address:- OLD TASKU, P.O. NONGPOH, RI BHOI
DISTRICT, MEGHALAYA has this day been registered under the
Meghalaya Societies Registration Act, XII of 1983.*

*Given under my hand at Nongpoh the 21ST
(TWENTYFIRST) Day of 04 (APRIL) 2011 (Two Thousand
Eleven).*

Registration fee of Rs. 250/- (Rupees Two Hundred Fifty) only (Paid).

W
**(Km.A.L.MAWLONG, M.C.S)
JOINT REGISTRAR OF SOCIETIES, MEGHALAYA
RI BHOI DISTRICT, NONGPOH.**

*Registrar of Societies,
Nongpoh*

Memorandum of Association

of
UMSYEI Watershed Committee

Covering village (i) Old Tasku (ii) Laid Pin (iii) Laid Tings under IWMP (ii)

Tiring, C & RD Block,
Ri-Bhoi District, Meghalaya

1. Name of Association : UMSYEI Watershed Committee under
IWMP - II
Block: Ri-Bhoi District, Meghalaya.

2. Registration Office of Association : UMSYEI Watershed
Committee, village OLD TASKU
C&RD Block Tiring, Ri-Bhoi District, Meghalaya
P.O. Nongphoh, PS. Pathakimukh

3. Date of establishment :

4. Objectives :

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

Project Leader
UMSYEI Watershed Committee
IWMP - II



Chairman
UMSYEI Watershed Committee
IWMP - II

Secretary
UMSYEI Watershed Committee
IWMP - II

The Governing Body of the Society (Watershed Committee)

Sl. No.	Name	Address	Designation
1	SRI, PILAN NONGTRI	Old Taske	9263405495 CHAIRMAN
2	" JELIN PATTAM	Lalad Jingking	VICE-CHAIRMAN
3	" KRANLY TRANNGHIEU	Old Taske	SECRETARY
4	" AJTEN RANI	-do-	MEMBER
5	" DAS ROY DKHAR	-do-	-do-
6	" ESLES NONGKUM	-do-	-do-
7	" DEMOS LYNGDOH	-do-	-do-
8	" BRISTON LYNGDOH	-do-	-do-
9	SMTI. BANTEILANG MAUIONG	-do-	-do-
10	" STEP GAYANG	LAILAD RIM	-do-
11	SMTI. KENEDY BUAM	-do-	-do-
12	" MASTAR LYNGSIANG	-do-	-do-
13	" EN DHAR	LAILAD JINGKING	-do-
14			
15			
16			

[Signature]
Project Leader
Watershed Committee
IMWP-II



[Signature]
Chairman
Watershed Committee
IMWP-II

[Signature]
Secretary
Watershed Committee
IMWP-II

18			
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20			

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

Sl. No.	Signature	Occupation & Designation of the Signatory	Name, Address, Occupation & description witness
1	P. Nertin	Cultivator, Chairman	Shri. P. Nertin, etc. etc. Cultivator, Chairman, Measurman
2	T. L. M. P. K. S.	Cultivator, Vice Chairman	Shri. P. L. M. P. K. S. etc. etc. Cultivator, Vice Chairman
3	[Signature]	Cultivator, Secretary	Shri. K. S. P. K. S. etc. etc. Cultivator, Secretary
4	A. S. P. P. S.	Cultivator, Member	Shri. A. S. P. P. S. etc. etc. Cultivator, Member
5	[Signature]	Cultivator, member	Shri. D. S. P. K. S. etc. etc. Cultivator, member
6	[Signature]	Tractor, member	Shri. E. S. P. K. S. etc. etc. Tractor, member
7	T. S. P. D. O. H.	Farmer, member	Shri. D. S. P. D. O. H. etc. etc. Farmer, member
8	[Signature]	Farmer, member	Shri. A. S. P. D. O. H. etc. etc. Farmer, member
9	[Signature]	Cultivator, member	Shri. B. S. P. D. O. H. etc. etc. Cultivator, member
10	[Signature]	Cultivator, member	Shri. C. S. P. D. O. H. etc. etc. Cultivator, member
11	[Signature]	Cultivator, member	Shri. D. S. P. D. O. H. etc. etc. Cultivator, member
12	M. S. T. A. L.	Farmer, member	Shri. E. S. P. D. O. H. etc. etc. Farmer, member

Project Leader
 Member of Committee
 Project Leader
 Member of Committee
 Project Leader
 Member of Committee

UNMPEL WATERBURY COMMISSION
 Date: 3 / 11 / 11
 UNMPEL - II

Memorandum of Association
of

..... UMLATHU Watershed Committee

Covering village *Kumkathu, Pongtho, B. Pongtho, K. Bahom, Jitla* (GUM P II) under IWMP

..... *Simang* C & RD Block,

..... *Ri-Bhoi* District, Meghalaya

1. Name of Association : *Umlathu* Watershed Committee under

..... *Simang* C&RD

Block, *Ri-Bhoi* District, Meghalaya

2. Registration Office of Association: *Umlathu* Watershed

Committee, village

C&RD Block *Simang* *Ri-Bhoi* District, Meghalaya

P.O. *Pongtho* PS. *Khemapara*

3. Date of establishment :

4. Objectives :

1. To involve primary stakeholders at the centre of Planning, Budgeting, Implementation, and Management of Watershed Projects.
2. To promote facilitation of social mobilization, community organization at the village / watershed level, building the capacities of village / watershed communities in planning and implementation and to ensure equity arrangements.
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M. S. J.
Chairman
Umlathu Watershed Committee
IMWP - II

P.
SECRETARY
Umlathu Watershed Committee
IMWP - II

Project Leader
Umlathu Watershed Committee
IMWP - II

Governing Body of the Society (Watershed Committee)

	Name	Address	Designation
1	Shri Manish Mawlong	Umletia	Chairman
2	" Anthony Khastangmeu	Umletia	Secretary
3	" Kone Taro	Pahangpala	Member
4	" Tala Taro	-do-	-do-
5	" Raket Tado	Pyker 'B'	-do-
6	" Dipin Rangpe	-do-	-do-
7	" Khinisa Ingtly	Pyker 'C'	-do-
8	" Ovan Kattor	-do-	-do-
9	" Thomas Marai	Lungkadak	-do-
10	Smt. Kulerhng Taphniau	Umletia	-do-
11	" Rina Rangpe	Pyker 'B'	-do-
12			
13			
14			
15			
16			








Chairman
Umletia Watershed Committee
IWMP - II


Secretary
Umletia Watershed Committee
IWMP - II

Project Leader
Umletia Watershed Committee
IWMP - II

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

Sl. No.	Signature	Occupation & Designation of the Signatory	Name, Address, Occupation & description witness
1	 Mudi	Chairman	Chairman, Headman Umatahu village
2		Secretary	Secretary, Umatahu village
3	Kani A Ro	Member	Headman, Pakamjula village
4	Tala Tama	Member	Member, Pakamjula village
5		Member	Member, Pyngor 'B' village
6	O ranga	Member	Member, Pyngor 'B' village
7	K. IN DEI	Member	Member, Pyngor 'C' village
8	Okomkathara	Member	Member, Pyngor 'C' village
9	 Srinivas	Member	Member, Karkakudi village
	 A. C.	Member	Member, Umatahu village
11	 P. J.	Member	Member, Pyngor 'B' village
12			




Chairman
Umatahu Watershed Committee
Mysore - II


Secretary
Umatahu Watershed Committee
Mysore - II

Support Letter
Umatahu Watershed Committee
Mysore - II

Photographs of PRA Exercises conducted at Pahamjula

under Umlathu Watershed IWMP-II



