DETAILED PROJECT REPORT

DIMA HASAO WDC-I/2021-22

(UPPER JATINGA)WDC-PMKSY 2.0

Submitted by

Project Manager
WCDC, Dima Hasao

Prepared by

Project Implementing Agency
&
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Haflong Soil Conservation Division

DETAILED PROJECT REPORT

OF

DIMA HASAO WDC-I/2021-22 (UPPER JATINGA)

SUBMITTED TO

STATE LEVEL NODAL AGENCY, ASSAM
WDC - PMKSY 2.0

SUBMITTED BY

PROJECT MANAGER
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PREFACE

The detailed project report for Dima Hasao-WDC-I/2021-22(Upper Jatinga), WDC/PMKSY 2.0 has been prepared with an objective to optimally harness the natural resources available in order to achieve sustainable development in the region.

Emphasis has been laid on environmental management practices(EMPs) and potential tools for successful watershed management keeping in view the vulnerability of the natural elements subjectedtomajorchanges.Traditionalnaturalresourcesmanagementpractices amalgamated with the understanding of soil science andhydro-meteorologyhavebeenappliedinordertoachievetheobjectivesofintegratedwatershed management programme.

The planning process has been participatory in nature. The active participation of the rural inhabitants within the project area and proper guidance of the PIA has been reflected in the DPRs.

The staff of our soil conservation department with their profound experience in executing development projects of similar nature has been the guiding force in the entire process of DPR preparation.

TheProjectManager,WCDC,WDC-PMKSY2.0,Dima Hasao acknowledges the efforts of the PIA, WDT Leader, Staff of Haflong Soil Conservation Division etc., for successful completion of the Detailed Project Report.

DETAILED PROJECT REPORT

OF

DIMA HASAO WDC-I/2021-22 (UPPER JATINGA)

WDC-PMKSY 2.0

(2021-22)

Micro Watershed : Choto Muolkoi ,Rekho, Boro Muolkoi, Mailongdisa (Rly Station) , Mongon, Miyungkro, Retzol, Jatinga(Khasia).

Micro Watershed Code No : **1.**3C2A2ti**2.**3C2A2tii**3.**3C2A2tiii**4.**3C2A2tiv**5.**3C2A2tv **6.**3C2A2tvi**7.**3C2A2tvii**8.**3C2A2tviii

WDC-PMKSY 2.0 project : Dima Hasao-WDC-1/2021-22(Upper Jatinga)

Block : Harangajao ITD Block, Harangajao

District : Dima Hasao

Name of the PIA : Divisional Officer, Haflong Soil ConservationDivision, Haflong.

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EXECUTIVE SUMMARY

- **Brief about area**

The Upper Jatinga WDC-PMKSY 2.0, Dima Hasao - lies in the State of Assam which is located in Haflong, Harangajao ITD Block, Harangajao Dima Hasao District. The project area is located in between 25^0 8'30" – 25^0 4'0'' North Latitude and $92^0$52'0" – $93^0$2'00" East Longitude. The Watershed area covered 10 nos. of revenue villages. This project is a cluster of 8 micro watersheds with codes **1.**3C2A2ti **2.**3C2A2tii **3.**3C2A2tiii **4.**3C2A2tiv **5.**3C2A2tv **6.**3C2A2tvi **7.** 3C2A2tvii **8.**3C2A2tviii

. The total project area of the watershed is 6238.00 Ha. out of which 4500.0 Ha. area has been undertaken as treatable area under Dima Hasao WDC-1/2021-22/Upper Jatinga

Dima Hasao WDC-1/2021-22/Upper Jatinga under WDC-PMKSY 2.0 watershed project area has a total of 681 House-holds with a population of 3787 nos. (as per base line survey) out of which 1914 nos. are male and 1873 nos. are female. The sex ratio is 993 female to 1000 male. There are 540 BPL families. The average family size is 5. The literacy rate is 79% Male literacy is 80 % and female literacy is 78 %. The major castes in the village are ST Hills i.e., Dimasa, Hmar, Khasi etc. The means of livelihood for most of the population comes from Jhum Cultivation.

- **Institutional arrangements**

The Divisional Officer, Haflong Soil Conservation Division is the PIA of Dima Hasao-WDC-1/2021-22(Upper Jatinga)WDC-PMKSY 2.0, watershed project. The PIA is responsible for supervising, planning, implementing, documenting and promoting watershed development projects in the area as per guidelines. Having dedicated experienced staff and a multi-disciplinary team enables the PIA to execute the watershed programme. The experienced staff and multi-disciplinary teams under the PIA comprise of experts in the field of soil conservation, animal husbandry, social science etc. as WDT members.

- **Salient Project Activities :**

People's participation and collective action are essential elements for successful implementation of any watershed project. This has been emphasized in the project and the project activities has been designed keeping in mind sustainability, equity and participation of both the organization as well as the villagers. Water harvesting structure like Percolation Tank, Farm Pond and Excavated Pond, Boulder Spurs, Boulder Revetment, Water Distribution Channel are some of the activities which have been decided to be executed in the

watershed project areas. Various demonstrations would be practiced upon in order to improve agriculture practice and training programmes for capacity building to improve livelihood has been planned to be executed in the village. The development activities will be carried out by the watershed committees under joint supervision of President of Watershed Committee and PIA. Further it will be evaluated by the villagers in the Gaon Sabha who too are stake holders. The WDT Members and PIA will be providing supervisory guidance in the context of technical support and capacity building programmes etc.

- **Physical Target and Financial Outlays :**

Sl. No	Component	Implementation Phase								Consolidation/exit Phase		Total
		1 year		2nd year		3rd year		4th year		5th year		
		Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	
1	Entry Point Activities (2%)	2%	25.20									25.20
2	DPR Preparation by PIA (1%)	1%	12.60									12.60
3	Institution & Capacity Building (3%) SLNA-0.3% DWDU-0.9% PIA-2.8%	1.5 %	18.90	0.5 %	6.30	0.5 %	6.30	0.25 %	3.15	0.25 %	3.15	37.80
4	ProductivityEnhancement (15%)	1%	12.60	3%	37.80	6%	75.60	4.25%	53.55	0.75%	9.45	189.00
5	Livelihoods for Assetless (15%)	1%	12.60	2.5%	31.50	6%	75.60	4.5%	56.70	1%	12.60	189.00
6	Natural Resource Management (47 %)	16%	201.60	16%	201.60	9.5%	119.70	3%	37.80	2.5%	31.50	592.20
7	Natural Resource Management & Governance (2%)	0.5%	6.30	0.5%	6.30	0.5%	6.30	0.5%	6.30	0	0.00	25.20
8	Monitoring & Evaluation (2%)	0	0	0.5%	6.30	0.5%	6.30	0.5%	6.30	0.5%	6.30	25.20
9	Consolidation Phase (3%)									3%	37.80	37.80
10	Administration (10 %)	2%	25.20	2%	25.20	2%	25.20	2%	25.20	2%	25.20	126.00
	Total											**1260.00**

Over-all view of Project area.

Proposed land for Arecanut Plantation at Village Sarbagram

Proposed land for Water Harvesting Pond at Village, Sarbagram

ProposedSite for Construction of RCC Water Harvesting Structure at Village Kapurchera

Proposed Site for Water Harvesting Structure at Village Sarbagram

PREPARATORYPHASE::ENTRYPOINTACTIVITIES:

The Entry Point Activities (E.P.A.) is perceived as the focal point of all micro-watershed region which aims to promotesustainable growth and development. It also forms the focal point in promoting awareness to technology, informationandbetterenvironmentmorespecificallytoemergingtrendsinland-watermanagement.Theactivitiesareconsideredonalong-termeconomicsustainabilitythroughrevenuegeneration.TheEntryPointActivitieswasselected in Gram Sabha through Participatory Rural Appraisal (PRA) and it is implemented by Project ImplementingAgency(PIA). The ActionPlanof E.P.A.havebeenalreadypreparedand mentioned asfollowingbelow:

Sl. No	Name ofWork	MWS	Location	GPSPOINT	Target		FamilyBenefittedin Nos.
					Physical(inNo./Ha.)	Financial (Rs.InLakh)	
1	2	3	4	5	6	7	8
1	Village Foot Path	Boro Muolkoi	Boro Muolkoi	N-25.108126 E- 92.900171	1 No.	2.52	25
2	Village Foot Path	Retzol	Retzol	N-25.1086516 E- 92.979436	1 No.	2.72	Community
3	Village Foot Path	Rekho	Rekho	N-25.110626 E-92.878265	1 No.	2.74	Community
4	Village Foot Path	Choto Muolkoi	Choto Muolkoi	N-25.099589 E-92.883105	1 No.	2.58	8
5	CommunityField Development	Miyungkro	Sarbagram (Jatinga Lampu)	N-25.116266 E-92.961225	1 No.	2.52	Community
6	Water Harvesting Pond	Mongon	Mong-on	N-25.121393 E-92.920515	1 No.	2.52	4
7	Water Harvesting Pond	Jatinga	Jatinga (Khasia)	N-25.124686 E-93.0277816	1 No.	2.40	4
8	Water Harvesting Pond	Miyungkro	Miyungkro	N- 25.114929 E-92.941749	1 No	2.40	6
9	Water Harvesting Pond	Mailongdisa	Kapurchera	N- 25.110746 E-92.9135249	1 No	2.40	7
10	Water Harvesting Pond	Mailangdisa	Mailangdisa (Rly Station)	N 25.111404 E 92.928793	1 No.	2.40	6
Total					**10 Nos**	**25.20**	

Source of Data: Field Survey

CHAPTER 1

INTRODUCTION AND BACKGROUND

INTRODUCTION

- Name of the State : Assam
- Name of the District : Dima Hasao
- Names of the Blocks :Harangajao ITD Block, Harangajao
- Name of the project :Dima Hasao-WDC-1/2021-22(Upper Jatinga)WDC- PMKSY
- Financial Year of sanction : 2021-22
- Project duration : From…2021-22…….. to…2025-26
- Map of the project area showing village boundaries, contours and drainage.

II). PROFILE OF THE WATERSHED PROJECT:

TABLE NO.1.1 PROJECT AT A GLANCE

1	Name of the State	Assam
2	Name of the project	Dima Hasao-WDC-1/2021-22(Upper Jatinga)WDC- PMKSY
3	Name of the District	Dima Hasao
4	Names of the Blocks	Harangajao ITD Block, Harangajao
5	Names of Gram Panchayats	NIL (6th Schedule Area under Autonomous Council)
6	Names & Census Code of Villages covered	1. Jatinga Khasia 2984156. Choto Moulkoi 298539 2. Retzol 2984167. Boro Moulkoi 298417 3. Jatinga Lampu 2984498. Rekho 298441 4. Miyungkro 2984219. Mailangdisa (Rly Station)298447 5. Kapurchera 29842210. Mong-on 298543

7	Four major reasons for selection of watershed	1) Poverty is above 80% 2) ST Population is more than 100% 3) Marginal Farmer is more than 80% 4) Degraded Land is above 60%
8	Name, Address, Phone No andReg.No.. of the PIA(s)	Soil Conservation Department, Haflong.
9	Date of approval of Watershed Development Plan by the DPC	19-01-2022
10	Area of the Project (ha.)	6238 Ha.
11	Area proposed to be treated (ha.)	4500 Ha.
12	Financial Year of sanction	2021-22
13	Project duration	From 2021-22 to2025-26
14	Project Cost (Rs. In Lakhs)	1260.00 Lakhs
15	Date of Sanction by State authority	23-03-2022
16	Date of Release of 1st Installment of Central Assistance (To be filled by DoLR)	
17	Any other, please specify	N/A

1.2 NEED AND SCOPE FOR WATERSHED DEVELOPMENT:

Watershed Development programme is prioritized on the basis of 13 parameters mainly poverty index, percentage of SC/ST, actual wages, percentage of small and marginal farmers, ground water status, moisture index, area under rain-fed agriculture, drinking water situation in the area, percentage of the degraded land, productivity potential of the land, continuity of another watershed that have already developed /treated, cluster approach for plain or for hilly terrain. With above criteria, weightage for selection of watershed as per DoLR guideline is listed in next page. Based on these 13 parameters for selection criteria and based on findings of the PRA activity including house-hold survey conducted in the project villages, a composite ranking was given to Dima Hasao-WDC-1/2021-22(Upper Jatinga) under WDC-PMKSY 2.0 as given in Table No.1.2.

Being totally agrarian in nature with very low score of agricultural output, poverty is predominant in the project area. Most of the people are with very small land holdings. About 100% of the total population of project area is ST community. Since the area is completely rural without any industrial and abundance of laborers, they have to work in very nominal wages for others. Out of 1240 households, 356 households falls under big, 719 nos. of households under small,156 households falls under marginal category and 9 households under landless category. Though the ground water table is a bit high along the existing water bodies, the hilly part experiences critical level of ground water. Cultivation is done depending totally on the natural precipitation where irrigation facility is not significant. Most of the rural poor collect

drinking water from natural streams and springs where ground water table is within reach only. The quality of water is also not so entirely good due to iron content.

Due to predominance of *jhum* practice, the natural forest gets degraded gradually. Here the level of abandoned *jhum* area including cultivable waste land, fallow land, etc. is at high. Since the quality of the soil is still good, with certain effort of holistic developmental activities the productivity of the land could definitely be improved.

Table No. 1.2 Need and Scope for Watershed Development:

Project Name	Project Type	Weightage												
		i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii
Dima Haso-WDC-1/2021-22 (Upper Jatinga) WDC-PMKSY 2.0	Jatinga (Khasi)	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Retzol	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Sarbagram (Jating Lampu)	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Miyungkro	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Kapurchera	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Choto Moulkoi	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Boro Moulkoi	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Rekho	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Mailangdisa (Rly Station)	10	10	5	10	3	0	5	7.5	15	10	5	0	15
	Mong-on	10	10	5	10	3	0	5	7.5	15	10	5	0	15

As Per PPR.

Parameters for Selection Criteria of Dima Hasao- WDC-1/2021-22/ Upper Jatinga Watershed Development Project:

Sl.No.	Criteria	Max Score	Ranges and Scores			
i	Poverty index(%of poor to population)	10	Above 80% (10)	80 to 50 % (7.5)	50 to 20 % (5)	Below 20% (2.5)
ii	% of SC/ST population	10	More than 40% (10)	20 to 40 % (5)	Less than 20% (3)	
iii	Actual wages	5	Actual wages are significantly lower than minimum wages (5)	Actual wages are equal to or higher than minimum wages (0)		
iv	% of small and marginal farmers	10	More than 80% (10)	50 to 80% (5)	Less than 50 (3)	
v	Ground water status	15	Over exploited (15)	Critical (10)	Sub critical (5)	Safe (0)
vi	Moisture index/ DPAP/DDP Block	10	-66.7 & below (10) DDP Block	-33.3 to -66.6 (5) DPAP Block	0 to -33.2 (0) Non DPAP/DDP Block	
vii	Area under assured irrigation	15	Less than 10% (15)	10 to 20% (10)	20 to 30% (5)	Above 30% (Reject)
viii	Drinking water	10	No source (10)	Problematic village (7.5)	Partially covered (5)	Fully covered (0)
ix	Degraded land	15	High – above 20% (15)	Medium – 10 to 20 % (10)	Low – less than 10 % of TGA (5)	
x	Productivity potential of the land	10	Lands with low production & where productivity can be significantly enhanced with reasonable efforts (10)	Land with moderate production & where productivity can be enhanced with reasonable efforts (5)	Lands with high production & where productivity can be marginally enhanced with reasonable efforts (0)	
xi	Contiguity to another watershed that has already been developed/treated	10	Contiguous to previously treated watershed & contiguity within the micro watersheds in the project (10)	Contiguity with in the micro watersheds in the project but non contiguous to previously treated watershed (5)	Neither contiguous to previously treated watershed nor contiguity within the micro watersheds in the project (0)	
xii	Cluster approach in the plains (more than one contiguous micro-watersheds in the project)	15	Above 6 micro-watersheds in cluster (15)	4 to 6 micro watersheds in cluster (10)	2 to 4 micro watersheds in cluster (5)	
xiii	Cluster approach in the hills (More than one contiguous micro- watersheds in the project)	15	Above 5 micro-watersheds in cluster (15)	3 to 5 micro watersheds in cluster (10)	2 to 3 micro watersheds in cluster (5)	
	Total	**150**	**150**	**90**	**41**	**2.5**

TABLE NO.1.3: WATERSHED INFORMATION

OUT OF THE TOTAL GEOGRAPHICAL AREA 6238.00 HA OF THE DIMA HASAO-WDC-1/2021-22 (UPPER JATINGA) AN AREA OF 4500.00 HA. IS PROPOSED FOR TREATMENT.

Sl No	Name of Project	Watershed Code	Villages to be Treated	Geographical Area(Ha)	Treatable Area(Ha)	Approval Year
1	Dima Hasao- WDC-1/2021-22 (Upper Jatinga)	3C2A2ti	Choto Muolkoi	968	698	2021-22
2		3C2A2tii	Rekho	625	451	2021-22
3		3C2A2tiii	Boro Muolkoi	583	421	2021-22
4		3C2A2tiv	Mailongdisa (Rly Station)	506	365	2021-22
5			Kapurchera	353	255	2021-22
6		3C2A2tv	Mongon	410	296	2021-22
7		3C2A2tvi	Miyungkro	501	360	2021-22
8			Sarbagram (Jatinga Lampu)	962	694	2021-22
9		3C2A2tvii	Retzol	291	210	2021-22
10		3C2A2tviii	Jatinga(Khasia)	1039	750	2021-22
Total				**6238**	**4500**	

Source of Data: GIS Data, Field Survey

TABLE NO.1.4: STATUS OF OTHER DEVELOPMENT PROJECT IN THE AREA

Sl.No.	Name of the Programme/Scheme	Sponsoring Agency	Objectives of the Programme/Scheme	Year of Commencement	Villages Covered	Estimated Number of Beneficiaries
N/A						

TABLE NO. 1.5: STATUS OF PREVIOUS WATERSHED PROGRAMME-

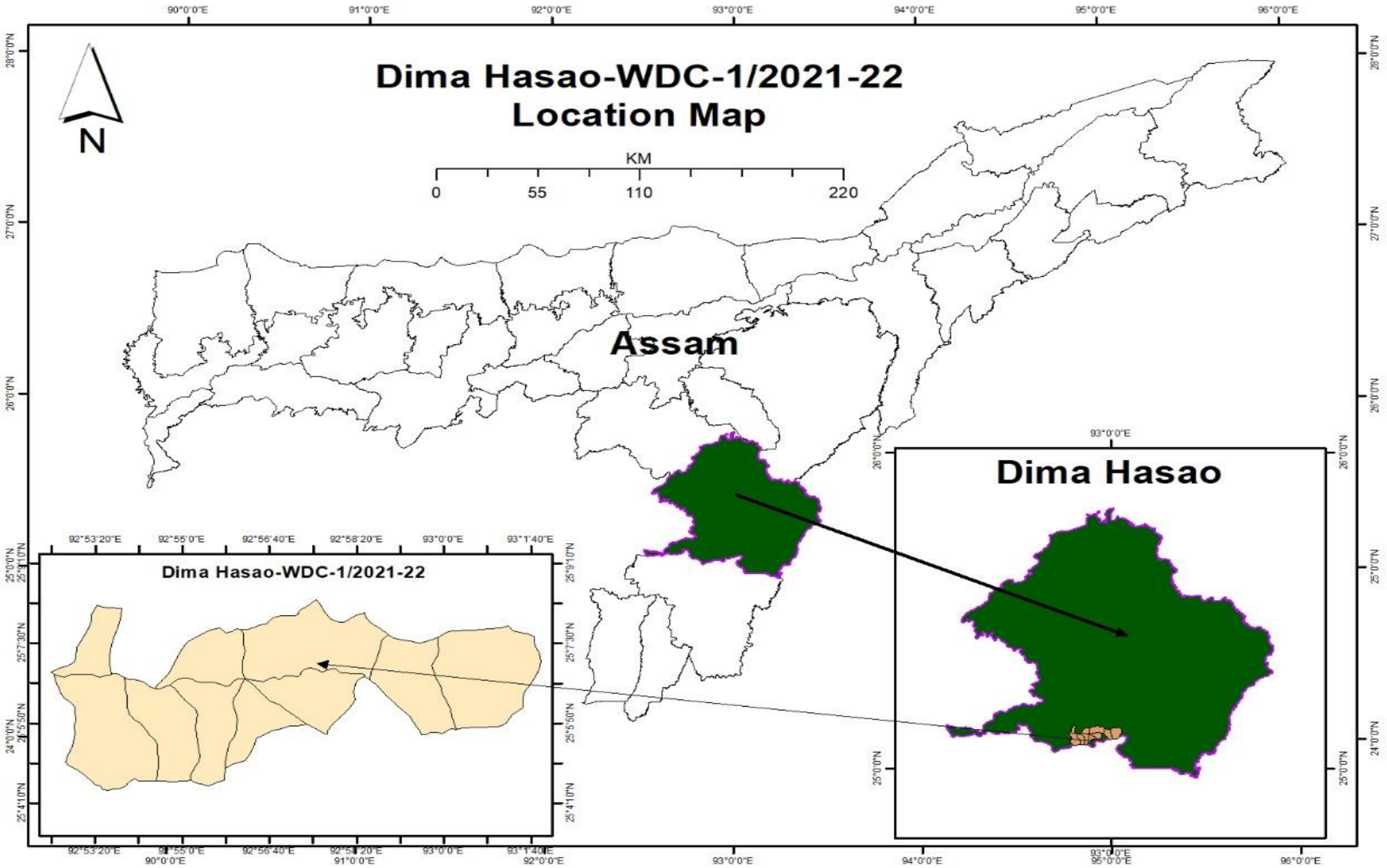
Sl. No	Project name	Year started	Name of villages	No. Of micro watershed	Watershed codes	Area under treatment	Funding source	Nodal agency	PIA	Total cost	Expenditure incurred up to start of IWMP	% financial completion	% physical completion
No Previous Watershed Programme													

CHAPTER 2

GENERAL DESCRIPTION OF PROJECT AREA

TABLE 2.1: LOCATION :

Longitude	$92^0$52’0’’ to $93^0$2’00’’ E
Latitude	$25^0$8’30’’ to $25^0$4’0’’ N
State	Assam
District	Dima Hasao
Subdivision	Haflong
Block	Harangajao ITD Block, Harangajao
Panchayat	NIL
Villages	Choto Muolkoi
	Rekho
	Boro Muolkoi
	Mailongdisa (Rly Station)
	Kapurchera
	Mongon
	Miyungkro
	Sarbagram (Jatinga Lampu)
	Retzol
	Jatinga(Khasia)
Approach Road	Yes


Dima Hasao-WDC-1/2021-22
Location Map
N
KM
0
55
110
220
Assam
Dima Hasao
Dima Hasao-WDC-1/2021-22

DETAILS OF THE TYPES OF AREAS COVERED UNDER THE PROJECT :

Area under Major Land Uses(Area in Ha.)

TABLENO: 2.2LAND DETAILS :

Sl. No.	Names of villages	Geographical Area of the village (ha)	Forest Area (ha)	Land under Agricultural use (ha)	Rain-fed area (ha)	Irrigated Area	Permanent Pastures (ha)	Wasteland	
								Cultivable (ha)	Non-cultivable (ha)
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
1	Choto Muolkoi	291	429.438	67.76	67.76	0	29.04	212.96	129.32
2	Rekho	410	245.00	56.25	56.25	0	18.75	168.75	126.92
3	Boro Muolkoi	962	245.97	29.15	29.15	0	17.49	139.92	126.62
4	Mailongdisa (Rly Station)	625	203.6	96.14	96.14	0	15.18	96.14	126.08
5	Kapurchera	1039	145.562	60.01	60.01	0	10.59	77.89	125.01
6	Mongon	501	161.90	36.9	36.9	0	12.3	118.90	125.41
7	Miyungkro	353	190.54	65.13	65.13	0	15.03	105.21	126.05
8	Sarbagram (Jainga Lampu)	506	379.38	86.58	86.58	0	28.86	375.18	129.27
9	Retzol	583	70.05	23.28	23.28	0	8.73	98.94	124.58
10	Jatinga (Khasia)	968	535.74	41.56	41.56	0	31.17	218.19	129.81
Total		**6238**	**2607.18**	**562.76**	**562.76**	**0**	**187.14**	**1612.08**	**1269.07**

SOURCE OF DATA: FIELD SURVEY DATA, CENSUS DATA 2011, HANDBOOK TREATABLE AREA= D(PART)+F+I=2325.16+562.76+1612.08=4500HA.

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TABLE NO. 2.3: DETAILS OF THE TYPES OF AREAS COVERED UNDER THE PROJECT

1	2	3				
Sl. No.	Name of village	No. of Beneficiaries covered				
		MF	SF	LF	Landless	Total
1	Choto Muolkoi	10	6	1	9	26
2	Rekho	25	10	4	15	54
3	Boro Muolkoi	55	25	8	34	122
4	Mailongdisa (Rly Station)	8	4	1	5	18
5	Kapurchera	18	10	5	12	45
6	Mongon	12	6	1	8	27
7	Miyungkro	22	8	6	17	53
8	Sarbagram(Jatinga Lampu)	8	6	0	6	20
9	Retzol	12	4	1	9	26
10	Jatinga(Khasia)	160	32	10	65	267
Total		330	111	37	180	658

DATA SOURCE : FROM FIELD SURVEY

TABLE NO. 2.4:DETAILS OF AGRO-CLIMATIC CONDITION:

1	2	3	4	5	6		7	
Sl. No.	Name of the Project	Name of the Agro-climatic zone covers project area	Area in ha	Names of the villages	Major soil types		Major crops	
					a)Type	b) Area in ha	a) Name	b) Area in ha
	Dima Haso-1/2021-22 (Upper Jatinga) WDC-PMKSY 2.0	Sub-Tropical to Humid/ Hill Zone AES-I	6238	Choto Muolkoi	Typic Dystrochrepts	280	Paddy	131
				Rekho	Typic Dystrochrepts	222	Paddy	119
				Boro Muolkoi	Typic Dystrochrepts	169	Paddy	92
				Mailongdisa (Rly Station	Typic Dystrochrepts	192	Paddy	159
				Kapurchera	Typic Dystrochrepts	137	Paddy	124
				Mongon	Typic Dystrochrepts	131	Paddy	98
				Miyungkro	Typic Dystrochrepts	170	Paddy	128
				Sarbagram(Jatinga Lampu)	Typic Dystrochrepts	461	Paddy	150
				Retzol	Typic Dystrochrepts	120	Paddy	85
				Jatinga(Khasia)	Typic Dystrochrepts	251	Paddy	106

DATA SOURCE : FROM FIELD SURVEY

TABLE NO. 2.5 DETAILS OF FLOOD AND DROUGHT IN THE PROJECT AREA:

1	2	3	4		5
Sl. No.	Particulars	Villages	Periodicity		Not affected
			Annual	Any other (please specify)	
1	Flood	No. of villages	5		5
		Name(s) of villages	Boro Moulkoi		Choto Moulkoi
			Kapurchera		Rekho
			Miyungkro (Rly Station)		Mailangdisa (Rly Station
			Sarbagram(Jatinga Lampu)		Mong-on
			Retzol		Jatinga(Khasia)
2	Drought	No. of villages	5		5
		Name(s) of villages	Choto Moulkoi		Boro Moulkoi
			Rekho		Kapurchera
			Mailangdisa (Rly Station)		Miyungkro
			Mongon		Sarbagram(Jatinga Lampu)
			Jatinga(Khasia)		Retzol

DATA SOURCE : FROM FIELD SURVEY

TABLE NO. 2.6: DETAILS OF SOIL EROSION IN THE PROJECT AREA:

1	2	3	4	5
Cause	Type of erosion	Area affected (ha)	Run off (mm/ year)	Average soil loss (Tonnes/ ha/ year)
Water erosion				
a	Sheet	2400	1225	2.5 MT/HA/YR
b	Rill	4900		
c	Gully	402		
Sub-Total		7702	1225	2.5 MT/HA/YR
Wind erosion		0	NA	0
Total		7702	1225	2.5 MT/HA/YR

Data Source : Hand Book of NC Hills

TABLE NO. 2.7DETAILS OF THE SOIL P^{H}

Name of the Villages	Sample no	Soil Ph	Soil Type
Choto Muolkoi	NA	6.8	Typic Dystrochrepts
Rekho	NA	5.7	Typic Dystrochrepts
Boro Muolkoi	NA	5.8	Typic Dystrochrepts
Mailongdisa (Rly Station)	NA	6.1	Typic Dystrochrepts
Kapurchera	NA	5.9	Typic Dystrochrepts
Mongon	NA	6.8	Typic Dystrochrepts
Miyungkro	NA	6.4	Typic Dystrochrepts
Sarbagram(Jatinga Lampu)	NA	5.6	Typic Dystrochrepts
Retzol	NA	5.2	Typic Dystrochrepts
Jatinga(Khasia)	NA	5.3	Typic Dystrochrepts

DATA SOURCE : PHE HAFLONG.

TABLE NO.2.7.1 CLIMATIC CONDITION

Sl No	Year	Average Monthly Rain fall(in mm)	Average Annual rainfall(in mm)preceding 5 years	Temp(^{0}C)		Wind Velocity	Open pan evaporation (mm per day)	Relative Humidity(RH)	Average Annual run-off(mm/year)
				Max	Min				
1	2020	132.425	1589.1	33.5	10.1	40		74	23
2	2019	130.275	1563.3	32.6	11.9	35		78	25
3	2018	99.95	1199.4	31.8	11.5	38		77	26
4	2017	201.875	2422.5	33.4	10.8	42		69	24
5	2016	654	2177.7	32.3	10.4	45		72	27

Source : *Customized Rainfall Information System (CRIS), Hydromet Division, India Meteorological Department, Ministry of Earth Sciences, New Delhi*

Table No.-2.8 Physiographic Features

Name of the Village	Elevation(MSL)	Slope Range(%)	Order of Watershed	Major Stream	Toposequence (Soil series)	Average annual soil loss(Ton / hectare/year)
Choto Muolkoi	910m	0-38%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.8
Rekho	850m	0-20%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.5
Boro Muolkoi	870m	0-25%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.4
Mailongdisa (Rly Station)	600m	0-24%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.2
Kapurchera	570m	0-14%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.1
Mongon	1300m	0-30%	Order 4	Jatinga River	Sandy Loam, Clay Loam	3.0
Miyungkro	840m	0-17%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.6
Sarbagram(Jatinga Lampu)	550m	0-18%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.4
Retzol	860m	0-22%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.6
Jatinga(Khasia)	1110m	0-28%	Order 4	Jatinga River	Sandy Loam, Clay Loam	2.5

DATA SOURCE : FROM FIELD SURVEY

TABLE NO. 2.9 WATERSHED CHARACTERISTICS

Shape index of the watershed	Length of main stream	Drainage density	Average slope	Watershed relief	Perimeter of the watershed
Irregular	17 Km	0.0043	14-38%	75 M	50 KM

DATA SOURCE **: (I)** OPEN SOURCE ORNL. DAAC
(ii) Indian Geo-Platform of ISRO
(iii) Google Earth Pro

CHAPTER – 3

BASE LINE INFORMATION OF WATERSHED

To access the impact of any watershed development programme a detailed baseline survey has to be conducted. This acts as a benchmark for any intervention during and post implementation of any development programme.

PRA activities were made for the purpose including undertaking detailed baseline survey, which involved household census survey, Bio-physical survey and Village level data collection for the Upper Jatinga WDC-PMKSY comprising of 10 villages. Household census survey includes a detailed questionnaire which has been filled by visiting each and every household in the villages, which gives us the details of the demographic profile of the villages, the literacy percentages, SC/ST population, number of BPL households, cattle population, average milk production of the cattle and various schemes running and their benefits.

Bio-physical survey was undertaken to identify various natural resources available in the villages. It includes the soil typology, well in the area, crop taken in the field, cropping pattern, sources of irrigation (if any) in the field.

The findings of such Base Line Surveys are presented in subsequent tables.

TABLE NO. 3.1: DEMOGRAPHIC FEATURES:

1	2	3	4	5
Sl.No	Feature	Male	Female	Total
1	Population	1894	1880	3794
	SC			
	ST	1894	1880	3794
	BC			
	Others			
2	Children(0-14 years)	154	156	310
3	Sex Ratio	1000:993		
4	Literacy %	79%		
	Literates	1515	1466	2981
	Illiterates	379	414	793

5	Work Force	1326	940	2266
	Agriculture	1609	1676	3285
	Industrial/Business	42	28	70
	Service	79	20	99
6	Birth Rate	1.3%	1.2%	2.5%
7	Death Rate	0.05%	0.05%	1%

DATA SOURCE : FIELD SURVEY, CENSUS DATA 2011, DISTRICT HANDBOOK

TABLE NO. 3.2: LIVESTOCK DETAILS:

1	**2**	**3**
Sl.No	**Feature**	**No./ quantity)**
1	**Milch Animals**	
	Cows	2
	Buffaloes	143
	Goat, Sheep	233
2	**Draught Animals**	
	Ox	Nil
	He Buffalo	38
3	**Others**	
	Poultry	1555
	Piggery	569
4	**Total Milk production** from milch animals (ltrs/day)	150 Ltrs / Day
5	**Fodder Availability**	
	Dry (Abundant/Sufficient/ Scarce)	Sufficient
	Green (Abundant/Sufficient/ Scarce)	Sufficient
6	**Fuel wood Availability** (Abundant/Sufficient/Scarce)	Sufficient

Data source : From field survey

Table No 3.3 Socio-economic Status

1	2	3	4	5						6			
Sl. No	Type	Total HHs	No. of BPL HHs	Land Holding (Ha)						Annual Gross Income (Rs.)			
				Rain fed			Irrigated			SC	ST	Others	Total
				SC	ST	Others	SC	ST	Others				
1	Marginal	330	330		130						36000		-
2	Small Farmers	111	30		80						40000		-
3	Big farmers	37			70.74						55000		
4	Landless	180	180										
	Total	658	540		280.74								

Data source : Field survey

TABLE NO. 3.4: MIGRATION DETAILS:

1	2			3	4	5	6	7
Sl. No.	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.)
	M	F	Total					
1	102	35	137	100-250	Livelihood option	20-30Km	Casual Labours	Rs. 300/ per day

Data source : From field survey

TABLE NO. 3.5: DETAILS OF COMMUNITY BASED ORGANIZATIONS EXISTING IN THE WATERSHED VILLAGE:

1	2	3				4				5			6			7			8			9	
Sl. No.	Type of Group	Total no. of CBOs				No. of members				No. of ST in each category			No. of SC in each category			No. of Others in each category			No. of BPL in each category			Bank linkage	
		With only Men	With only Women	With both	Total		M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	No. of SHGs	Bank Loan Amount (Rs.)
1	SHG					(i) Landless	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Nil
						(ii) MF	7	4	11	0	0	0	0	0	0	0	0	0	0	0	0	0	Nil
						(iii) SF	11	8	19	0	0	0	0	0	0	0	0	0	0	0	0	0	Nil
						(iv) LF	6	4	10	0	0	0	0	0	0	0	0	0	0	0	0	0	Nil

	Tota						24	16	40	0	0	0	0	0	0	0	0	0	0	0	0	Nil
2	**UGs**					(i) Landless	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Nil
						(ii) MF	7	4	11	0	0	0	0	0	0	0	0	0	0	0	0	Nil
						(iii) SF	11	8	19	0	0	0	0	0	0	0	0	0	0	0	0	Nil
						(iv) LF	6	4	10	0	0	0	0	0	0	0	0	0	0	0	0	Nil
	Tota						24	16	40	0	0	0	0	0	0	0	0	0	0	0	0	Nil

VSS: Van Suraksha Samiti, FG: Farmer's Group/ Farmer's Club, WUA: Water User Association, F-SHG: Federation of SHGs (C: at Cluster, B: at Block), PG: Producer's Group, PC: Producer's Cooperative.

TABLE NO. 3.6: INFRASTRUCTURE FACILITIES:

1	2	3	4	5
Sl.No	Infrastructure Type	No./Quantity	Distance (km)	Status (description)
1	Educational Institutions			
	Anganwadi	3	With in village	Functional
	Primary School	13	-do-	Functional
	Secondary school	2	With in village	Functional
	Govt. College	0		
	Vocational Institutions	0		
2	Service Institutions			
	Bank	0		
	Post office	1	With in village	Functional
	Primary Health Care Center	3		
	Veterinary Center	0		
	Markets/ Village Haat	0		
3	No. of bore wells/pump sets (Functional)			
4	No. of Milk collection centres (Union/ Society/ Pvt. Agency/Others)	-	-	-
	Total Quantity of surplus milk	-	-	-
5	Road Connectivity (to main road by an all-weather road) (Yes/No)	Yes	-	-
6	Bus facility (Yes/No)	Yes	-	-
7	No. of HHs provided electricity	1872	-	-
8	No. of HHs with access to drinking water	1265	-	-
9	Access to Agro Industries (Yes/No)	No	-	-
10	Any other facilities (specify----------)	-	-	-

DATA SOURCE : FROM FIELD SURVEY

TABLE NO.3.7 LAND USE PATTERN (IN HECTARES)

1	2	3	4	5	6	7	8	9		10		11	12	13
Sl. No	Village	Geographical Area#	Forest Area	Community Land	Land under Non Agriculture Use	Permanent Pastures	Land Under miscellaneous use	Uncultivated Private land		Cultivated area		Net Sown Area	Net Area sown more than once	Gross Cropped Area
								Temporary fallow	Permanent Fallow	Cultivated Rainfed	Cultivated Irrigated			
1	Choto Muolkoi	291	429.438	NA	NA	8.73	NA	NA	NA	67.76	NA	43.56	NA	43.56
2	Rekho	410	245.00	NA	NA	12.3	NA	NA	NA	56.25	NA	28.13	NA	28.13
3	Boro Muolkoi	962	245.97	NA	NA	28.86	NA	NA	NA	29.15	NA	26.24	NA	26.24
4	Mailongdisa (Rly Station	625	203.6	NA	NA	18.75	NA	NA	NA	96.14	NA	22.77	NA	22.77
5	Kapurchera	1039	145.562	NA	NA	31.17	NA	NA	NA	60.01	NA	15.89	NA	15.89
6	Mongon	501	161.90	NA	NA	15.03	NA	NA	NA	36.9	NA	18.45	NA	18.45
7	Miyungkro	353	190.54	NA	NA	10.59	NA	NA	NA	65.13	NA	22.55	NA	22.55
8	Sarbagram(Jatinga Lampu)	506	379.38	NA	NA	15.18	NA	NA	NA	86.58	NA	43.29	NA	43.29
9	Retzol	583	70.05	NA	NA	17.49	NA	NA	NA	23.28	NA	13.10	NA	13.10
10	Jatinga(Khasia)	968	535.74	NA	NA	29.04	NA	NA	NA	41.56	NA	46.76	NA	46.76
Total		6238	2607.18			187.14				562.76		280.74		280.74

DATA SOURCE :- FIELD SURVEY AND CENSUS DATA

TABLE NO. 3.8: DETAILS OF COMMON PROPERTY RESOURCES:

1	2	3				4			
Sl.No	CPR Particulars	Total Area (ha) Area owned/ In possession of				Area available for treatment (ha)			
		Pvt. persons	Govt. (specify dept.)	PRI	Any other (Pl. Specify)	Pvt. persons	Govt. (specify deptt.)	PRI	Any other (Pl. Specify)
1	Wasteland/ degraded land	14.2	0	0	0	0	0	0	0
2	Pastures	187.14	0	0	0	0	0	0	0
3	Orchards	0	0	0	0	0	0	0	0
4	Village Forest	0	17.2	0	0	0	0	0	0
5	Forest	0	0	0	0	0	0	0	0
6	Village Ponds/ Tanks	2.0	1.7	0	0	0	0	0	0
7	Community Buildings	1.0	0	0	0	0	0	0	0
8	Weekly Markets	0	0	0	0	0	0	0	0
9	Permanent markets	0	0	0	0	0	0	0	0
10	Temples/ Places of worship	2.0	0	0	0	0	0	0	0
11	Others (Pl. specify)	0	0	0	0	0	0	0	0
Total		**206.34**	**18.90**	**0**	**0**	**0**	**0**	**0**	**0**

DATA SOURCE : FROM FIELD SURVEY

TABLE NO. 3.9: AGRICULTURE IMPLEMENTS:

1	2	3
S. No	**Implements**	**Nos.**
1	Tractor	3
2	Sprayers-manual/ power	15
3	Cultivators/Harrows	2
4	Seed drill	0

Data Source : From Field survey

TABLE NO. 3.10: CROP CLASSIFICATION

1	2	3
S. No	**Crop classification**	**Area (Ac)**
1	Single crop	1025
2	Double crop	0
3	Multiple crop	0

Data Source : From Field survey

TABLE NO. 3.11: **CROPS & CROPPING PATTERN:**

1	2	3	4				5				6			
Sl. No	Season	Crop sown	Rain fed				Irrigated				Total			
			Area (ha)	Production (Ton/yr)	Productivity (Kgs/ha)	Cost of cultivation (Rs. /ha)	Area (ha)	Production(Ton/yr)	Productivity (Kgs/ha)	Cost of cultivation (Rs. /ha)	Area (ha)	Production (Ton/yr)	Productivity (Kgs/ha)	Cost of cultivation (Rs. /ha)
1	Kharif	Paddy	758	1364.4	1800						758	1364.4	1800	
		Maize	5	9	1800						5	9	1800	
2	Rabi	Mustard	2	1.8	900						2	1.8	900	
		Cash Crops	60	73.92	1232						60	73.92	1232	
3	Summer													
	Total		825											

Data Source : From Field survey

Table No. 3.12:LAND CAPABILITY CLASSIFICATION

1	2	3	4	5					6				7				8
S.No	Land type	Total Area(ha)	Soil Texture*	Based on Depth (cms)- (mention area in ha)					Based on Slope (%) (mention area in ha)				Erosion (mention area in ha)				Land class
				V. Shallow (0.75)	Shallow (7.5-22.5)	Moderate deep (22.5-45.00)	Deep (45.0 - 90.0)	Very. Deep (>90)	Nearly Level (0-2)	Moderate slope (2-6)	Strong slope (6-15)	Steep (>15)	Water			Wind	
													Shee	Ril	Gull		
1	Silty Loam	7702	Sandy Clay	286.4	1217.2	859.2	572.8	644.4	644.4	1181.4	1002.4	751.8	240	490	402	NA	

* Soil texture (sandy-clay, clayey, loamy-clay, gravel)

TABLE NO.3.13: IRRIGATION FACILITIES:

1	2	3	4
Sl.No	**Type of the Source**	**Nos.**	**Command area (in ha)**
1	Ponds	12	12
2	Open wells	20	1
3	Bore wells	0	0.14
4	Canal irrigation	0	
5	Natural spring head	8	2

SOURCE OF DATA: FROM FIELD SURVEY

TABLE NO. 3.14: STATUS OF WATER TABLE:

1	2	3	4	5	6	7	8
S.No	**Source (open well)****	**Plot No of the source**	**Name of the Owner***	**Date of recording**	**Depth of water table from ground level (in mts)**	**Source located at (ridge/middle/valley)**	**Remarks**
1	Retzol	Retzol		**14-02-22**	**12**	**Valley**	
2	Jatinga(Khasia)	Jatinga(Khasia)		**15-02-22**	**14**	**Middle**	
3	Miyungkro	Miyungkro		**14-02-22**	**11**	**Valley**	
4	Mailangdisa (Rly Station)	Malangdisa (Rlyi Station)		**17-02-222**	**6**	**Ridge**	
5	Kapurchera	Kapurchera		**15-02-22**	**5**	**Valley**	

** Identify at least five representative open wells in the ridge/middle/valley portion. Collect the data at the time of DPR and maintain a register every Quarter

TABLE NO. 3.15: ASSESSMENT OF DRINKING WATER FACILITY*:

1	2	3	4	5
Sl.No	**Item**	**Units**	**Quantity**	**Source**
1	Drinking water requirement	Ltrs/day	451950	Pond, River,
2	Present availability of drinking water	Ltrs/day	180780	-do-
3	No. of drinking water sources available	Nos	46	-do-
a)	Functional	Nos	36	-do-
b)	Need Repairing	Nos	10	-do-
c)	Defunct	Nos	5	-do-
4	Short fall if any	Ltrs/day	271170	-
5	No. of families getting drinking water from out side the Micro watershed area	Nos	Nil	-
6	Requirement of new drinking water sources (if any)	Nos.	Pond-21	-

Data Source based on the observation from the field Survey

TABLE NO. 3.16: SURFACE WATER RESOURCES

1	2	3	4	5
S.No	**Type of water resource**	**Nos**	**Area irrigated (Ha)**	**Storage capacity (Cu.m)**
1	Tank	**8**	**2**	**56**
2	Pond	**12**	**12**	**2142**
3	Lake	**0**	**0**	**0**
4	Check dam	**0**	**0**	**0**
5	Percolation tank	**10**	**2**	**144**
6	Channel/Canal	**0**	**0**	**0**
7	Any others (specify----------			

Data Source : From Field survey

TABLE NO. 3.17 GROUND WATER STRUCTURES TO BE REPAIRED.					
Sl.No	**Type of structure**	**No. available**			
		No. to be Repaired	**No. to be rejuvenated**	**No. with no interventions required**	**Total**
1	**Pond**	6	4	8	18
2	**Open well**	0	0	0	0
3	**Tank**	4	6	6	16
Total		**10**	**10**	**14**	**34**

TABLE NO. 3.18: EXISTING WATER SAVING PRACTICES:

Name of the Major Crop	Area (Ha)				
	Under water saving devices[$]	Under water conserving agronomic practices#	Any other (Pl. Specify)	Total	Current water Saving status as against flood irrigation. (Cu.m)
Kharif	Nil	Not in practice	Under rain-fed condition	Nil	NA
Rice			Under rain-fed condition		NA
Maize			Under rain-fed condition		NA
Mustard			Under rain-fed condition		NA
Cash Crop			Under rain-fed condition		NA

$: Sprinklers, Drip, PVC Pipe, etc.,
#: Vermi compost, organic manuring, check basin, alternate furrow, Ridges and furrow & specific practices

TABLE NO. 3.19: DETAILS OF EXISTING LIVELIHOODS:

1	2	3					4
S. No.	Name of activity	No. of beneficiaries					Pre-project average income per HH (Rs.)
		SC	ST	Others	Total	Women	
1	Piggery	-	569	-	569	56	12000
2	Goatery	-	233	-	233	150	10000
3	Poultry	-	1555	-	1555	600	5000
4	Weaving	-	82	-	82	82	5000

Data Source : From Field survey

TABLE NO. 3.20: EXISTING FUNCTIONAL ASSETS (WORKS ALREADY COMPLETED UNDER DIFFERENT SCHEMES INCLUDING WORKS UNDERTAKEN BY FARMERS INDEPENDENTLY)

1	2	3	4	5	6
S.l No	**Name of the work**	**Plot No.**	**Quantity (No./RMTs)**	**Amount spent (Rs.)**	**Programme**
			No significant works		

Table No.3.21 PROBLEM TYPOLOGY OF THE WATERSHED

1	2	3	4
S.No	**Problem area**	**Problem analysis**	**Proposed interventions to overcome problems**
1	**Soil Conservation:** (slope, erosion, soil loss, rainfall, productivity, etc)	1. Soil Erosion, Siltation & high soil loss in upland area. 2. Sheet erosion is combatively high in many places. 3. Erratic Rainfall	1. Creation of Bench Terraces, Staggered Trenching, Afforestation, Plantation etc., to protect the soil erosion and siltation problem
2	Water Conservation (Water Budget, Ground Water Norms, Productivity)	1. Degradation of Natural Resource like congestion of natural drainage 2. Lack of water storage facility causes scarcity of water during winter. 3. Run-off originated from seasonal rain attains high velocity due to medium to steep slopes in the watershed areas and thereby causes all types of soil erosion hazards. 4. Lack of irrigation facilities resulting in mono cropping.	1. Restoration of drainage channel be excavation and reclamation. 2. Reclamation of natural water bodies (beels by excavating and constructing periphery bund etc., and construction of farm pond for water harvesting/storage along-withwater distribution channel for irrigation thereby increasing water storage capacity. 3. Creation of Bench Terraces, Staggered Trenches, afforestation andplantation in the ridge areas and slopes to reduce the velocity of run-off, 4. Construction of RCC Check Dam for water harvesting and distributed through earthen channel, brick canal etc.
3	Crop coverage – {80% of w/s area should be with canopy}	1. Rabi crop area is very low because of lack of irrigation facilities. 2. Mono Cropping 3. Low vegetative cover	1. Construction of RCC Check Dam and farm pond for water harvesting/storage along-with water distribution channel for irrigation distributed through earthen channel, brick canal etc. 2. Taking up Horticulture crops, ginger, turmeric & banana plantation. 3. Agro-forestry, fuel wood plantation etc.
4	**Agriculture productivity** (crop wise compare with dist.	1. Lack of irrigation facility, erratic and uncertain rainfall, low cropping	1. Brick canal and water storage farm pond for irrigation for both Rabi & Kharif crop.

	average)	intensity, lack of location-specific technologies to match the high ecological diversity of rainfed area etc.	2. Incorporating scientific methods and recommended package of practices for Hill Zone.
5	**Livestock productivity**(Milk Yield, Meat yield, Eggs, Wool Yield, Kidding etc.)	1. Absence of large scale farms and awareness and sensitization about the profitability of livestock rearing. 2. Lack of financial support for opening a commercial production farm. 3. Diseases which reduce the production potential of livestock.	1. Promotion of marketing facilities through SHG. 2. Promotion of Piggery, goatery, duckery and poultry farming activities.
6	**Existing Livelihood activities for Asset less persons**	1. Less income generating activities. 2. Their present occupation is daily labour, Jhum Cultivation etc.	1. Promotion of Piggery, Goatery, Duckery and poultry farming activities. 2. Promotion of weaving activities for asset-less woman.
7	**Community Based Organizations & Social capital base**	1. Most of the SHG are not functional	1. Formation of SHG, User group for promotion of various income generation activities.
8	**Capacity Building** (participation, training,awareness of watershed community	1. In many villages it is observed that the participation in Gram Sabha is very low due to lack of awareness towards watershed development activities.	1. Conducting Awareness programmes among the villagers. 2. Providing training with respect to each activityproposed for watershed development as well as livelihood generation. 3. Exposure visit of farmers and other PIA official and conducting exhibition, seminar etc.
9	**Others (specify)**	1. Lack of marketing Facilities	1. Providing Market Promotion Centres along with loss cost do-down for storage of various products

CHAPTER – 4

INSTITUTIONAL BUILDING AND PROJECT MANAGEMENT

4. OBJECTIVE OF THE WATERSHED DEVELOPMENT PROJECT:

Land is a critically important natural resource in which all human activity is based. Its efficient management is vital for economic growth and development of rural areas to harness the full potential of the available and land resource and prevent its further degradation, development of rain fed area. Its management is complex and multi-dimensional and its development requires scientific, holistic and innovative approach. Unprecedented population and cattle, pressure and demands of society on scarce land, water and biological resources and the ever-increasing degradation of these resources is affecting the stability and resilience of our eco system and the environment as a whole. The expansion of the human settlement and infrastructure, intensification of agriculture, expansion of agriculture into marginal areas and fragile eco system emphasizes the need for integrated planning and management of resources.

With ever increasing population, the needs of the people is also ever increasing. The population of Dima Hasao has grown by 18.99 % over the last decade which results in increasing demand for commodities and lack of work for both the urban and rural population. Most of the rural population depends on shifting cultivation for their livelihood. Shifting cultivation is practiced by cleanings forest areas. The previous year's *Jhum* land is kept fallow for 5-6 years depending on the area available for cultivation for each village.

Shifting cultivation results in burning of large areas of forest including those that are not required for cultivation, thereby destroying forest cover, Due to less cover on top soil surface runoff increases to maximum, thereby decreasing the percolation / infiltration to deeper layer of soil, resulting in lowering of ground water resources and loss of top fertile soil. If the situation prevails like this, natural streams may be dried up during winter periods and in some cases even permanently.

The thinning of forest cover to earth decreases the moisture content of the soil making it unsuitable for plantation of trees and crops. Because of less forest, temperature of the area also increases considerably. If the situation continues like this for long term, the once fertile land may convert to desert like places.

In order to arrest such degradation of land, and to increase the livelihood of the common people there, this Integrated Watershed management programme has been taken up. The main objective of the project shall be as listed below.

- Developing agricultural land degraded land *and* abandoned *jhum* land on watershed basis, in accordance with the capability of land, local condition and needs.
- Promoting overall economic development and improving Socio-economic condition of the poor and disadvantaged section inhabiting the project area.
- Restoring ecological balance by restoring and conserving the natural resources, i.e., land, water and vegetative cover.
- Educating and encouraging the inhabitants of the project for sustainable community action for operation and maintenance of assets created under this project and further development of the natural resource potential in the project area.
- Employment generation, poverty alleviation, community empowerment and development of human and other economic resources of the project area villages.

Watershed Development works shall be taken up in multi-tier approaches as described below:

4.1 FIRST TIER : CANOPY / RIDGE AREA TREATMENT :

A) **Re-juvenating abandoned Shifting Cultivation Area**: Under WDC-PMKSY, farmers shall be encouraged to practice permanent farming in compact areas. All the areas degraded earlier by means of *jhum* cultivation shall have to be developed either for natural vegetation growth or shall have to be converted to permanent cultivation field.

B) **Afforestation**: Besides the natural forest areas, afforestation activities needs to be carried out in more areas. This will result in minimizing the surface runoff and increasing infiltration besides increasing vegetative cover.

C) **Prevention of Soil erosion/ loss** : Considerable amount of top fertile soils are being washed out every year due to excessive surface runoff due to absence of vegetative cover there, which makes the soil un-suitable for further cultivation. To prevent further soil erosion, construction of terraces, afforestation and other means are to be taken up.

4.2 SECOND TIER : HORTICULTURE CROP AREA TREATMENT :

A) **Construction of water harvesting structure and optimal use of water resources**: Agriculture being the backbone of the economy and which depends mainly on rainfed proper water harvesting structure, water resource shall be enough for every household. The harvested water can be used for human consumption as well as for irrigation purpose.

B) **Land Development**: The areas shall have to be planned and developed in such a way that the productivity will increase. The areas proposed for afforestation shall be developed by making terraces, which will result in increased infiltration & reduced runoff. Based on the topography of the treatment area where permanent cultivation shall be practiced, terracing, bench terracing and staggered trenches shall be created. Cultivation of commercial crops will be practiced in such areas and if needed irrigation facility shall be provided.

C) **Gestation period treatment**: The permanent horticulture crops planted in the 2nd. Tier area shall be mostly orange, pineapple, lemon, mango etc. and other cash crops. These crops will be harvested only after three to four years after plantation. During this gestation period, the cultivators shall be encouraged and facilitate to introduce annual cash crops to meet their daily needs.

4.3 THIRD TIER : AGRICULTURE CROP AREA TREATMENT :

A) **Wet Rice cultivation and mixed farming**: In places of permanent cultivation, the land will be prepared in such a way that crop rotation can be done for 2 to 3 crops in a year. This is not possible with the natural fertility of the soil and external fertilizer shall have to be added. Instead of artificial / organic manure, organic manure is always desirable. Therefore, provisions shall be made so that the farmers / cultivators can raise their domestic animal, and can use the animal excreta as manure.

B) **Multiple cropping**: on having good amount of irrigation facility and organic manure, the farmers shall be encouraged for taking up different varieties of crop depending on the season; even during winter/dry season cultivation can be done.

4.4 MIGRATION :

Due to lack of employment avenues in rural area, for earning livelihood and for various other reasons, people are migrating from rural area to urban areas. Due to large influx, urban areas are also having deficit work load, resulted in increasing poverty and creation of problem for rehabilitating such migrated people in rural areas. On completion of the watershed development, it is expected that such rural to urban migration shall be reduced to great extent as every person of the project villages shall have assured income.

4.5 WOMEN EMPOWERMENT :

For an overall development of any community active participation of women is essential. Being a patriarchal family system, the participation of the women in development process has to be ensured through tangible measures at various levels which shall result in empowering women in the real sense. Time spent by the woman folk in collecting drinking water, fire-wood etc. shall be reduced and thereby giving a positive impact on the quality of life and health of the family, specially of the children.

4.6 PROVISION OF LIVELIHOOD FOR ASSET-LESS FAMILIES :

The asset-less families shall be provided with micro entrepreneurship by imparting training and assisting them to take up those activities identified in the project. Livestock farming, handicraft etc., shall be encouraged for this asset less fraction of the community. Necessary financial and technical support shall be provided from the project fund.

4.7 CREATION OF ASSETS:

As a downstream benefit from this project, plans are made to provide durable assets to the rural population, which shall be handed over to the public after completion of the project and these shall last long even after completion of this project. After the project is completed, it shall be the responsibility of the beneficiary for its management, repair, renovation & augmentation of such property. A nominal charge shall be collected for these created assets, which along with the WDF shall be used for maintaining the same without any Government help.

4.8 CONVERGENCE WITH OTHER PROGRAMMES:

Provision for convergence with other programmes of both Central & State Govt. shall be kept open for the project area as well as for the beneficiaries and end-users. Such programs shall be those, which needs large capital investment as well as more time for implementation and are not convenient for taking up from WDC-PMKSY fund. Beneficiaries shall be encouraged to utilize such fund received by them from other sources for enhancing their activity in the project area. However, parallel funding for same activity in the project area shall be accounted separately to avoid duplicity in utilizing the fund.

4.9 CONNECTIVITY OF THE PROJECT AREA:

Connectivity with easy transportation facility is one of the basic needs for development of any area. Firstly, a good transportation system enhances work done per person per day as the travel time from residence to work site gets reduced. Secondly, for marketing and export of the product of the project area become convenient with good connectivity of the area with other places. Connectivity also ensures better monitoring, supervision and implementation of works. Provision of connectivity should be done under the existing MG-NREGA or other Govt. Schemes.

Table No. 4.1 Details of SHGs & UGs newly formed under WDC-PMKSY 2.0:

1	2	3				4				5			6			7			8				9	
Sl. No.	Type of Group	Total no. of CBOs				No. of members				No. of ST in each category			No. of SC in each category			No. of Others in each category			No. of BPL in each category				Bank linkage	
		With only Men	With only Women	With both	Total		M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total		No. of SHGs	Amount (Rs)
1	SHG					(i) Landless	8	10	18	8	10	18											18	
						(ii) MF	15	18	33	15	18	33	-	-	-	-	-	-	-	-	-		33	
						(iii) SF	5	6	11	5	6	11	-	-	-	-	-	-	-	-	-		11	
						(iv) LF							-	-	-	-	-	-	-	-	-		-	-
	Total						28	34	62	28	34	62	-	-	-	-	-	-	-	-	-		62	
2	UGs					(i) Landless							-	-	-	-	-	-	-	-	-		-	-
						(ii) MF	55	23	78	55	23	78	-	-	-	-	-	-	-	-	-		78	
						(iii) SF	30	20	50	30	20	50	-	-	-	-	-	-	-	-	-		50	
						(iv) LF	18	6	20	18	6	20	-	-	-	-	-	-	-	-	-		20	
	Total						103	49	148	103	49	148											148	

*Account no. of Watershed Committee, PIA.

4.2: DETAILS OF WATERSHED COMMITTEES (WC)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Name of WCs	Date of Registration as a Society (dd/mm/ yyyy)	No. of members in WC	Designation	Name	M/F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educl qualifi-cation	Function /s assigned#
						Write **"Yes"** if applicable											
Jatinga WC		10 (Ten)	Chairman	Diyon Massa	M		yes										B.C.D.E.F.G,H
			Vice Chairman	Smti Steffy Massa	F		Yes						Y				B.C.D.E.F.G,H
			Secretary	Jeriwell Tron	M		Yes					Y					B,E & G
			Member	Smt. Dapdiangmi Syad	F		Yes						Y				B,E & G
			Member	Pyarson War	M		Yes										B,E & G
			Member	Mrs. Thehnon Syad	F		Yes						Y				B,E & G
			Member	Lurstep Bian	M		Yes										B,E & G
			Member	Teinam Thabah	M		Yes					Y					B,E & G
			Member	Kyrshan Pachoun	M		Yes					Y					B,E & G
			Member	Ewanrities Huwa	M		Yes										B,E & G
Retzol WC		10 (Ten)	Chairman	Lalremruot Thiek	M		Yes					Y					B.C.D.E.F.G,H
			Vice Chairman	Smti Ely Thiek	F		Yes						Y				B.C.D.E.F.G,H
			Secretary	Vanlallawm Bapui	M		Yes						Y				B,E & G
			Member	Lalhnemthang	M		Yes					Y					B,E & G
			Member	Alfred Lalringum	M		Yes										B,E & G
			Member	Lalramsing Bapui	M		Yes										B,E & G
			Member	Paul Rozarlien	M		Yes										B,E & G
			Member	Lalchawllawm	M		Yes										B,E & G
			Member	Smt. Lalpeklawm	F		Yes					Y					B,E & G
			Member	Smt. Hlimpui	F		Yes						Y				B,E & G

Miyungkro WC		13 (Thirteen)	Chairman	Anilsing Hojai	M		Yes						Y				B.C.D.E.F.G,H
			Vice Chairman	Smti Sabitri Langthasa	F		Yes						Y				B.C.D.E.F.G,H
			Secretary	Nonjoy Langthasa	M		Yes										B,E & G
			Member	Robi Langthasa	M		Yes										B,E & G
			Member	Babul Langthasa	M		Yes						Y				B,E & G
			Member	Pijish Hojai	M		Yes										B,E & G
			Member	Satyendro Langthasa	M		Yes										B,E & G
			Member	Smt. Lalbino Hojai	F		Yes						Y				B,E & G
			Member	Smt. Jushna Langthasa	F		Yes										B,E & G
			Member	Smt. Rumita Hojai	F		Yes										B,E & G
			Member	Smt. Marmi Langthasa	F		Yes										B,E & G
			Member	Abinath Hojai	M		Yes										B,E & G
			Member	Diponjoy Langthasa	M		Yes						Y				B,E & G
Choto Muolkoi WC		11 (Eleven)	Chairman	Kyrchain Tariang	M		Yes										B.C.D.E.F.G,H
			Vice Chairman	Smti Wansalan Papeng	F		Yes						Y				B.C.D.E.F.G,H
			Secretary	Charles Sutenga	M		Yes										B,E & G
			Member	Eribon Papeng	M		Yes						Y				B,E & G
			Member	Simoris Sutenga	M		Yes										B,E & G
			Member	Wildis Sutenga	M		Yes						Y				B,E & G
			Member	Smt. Srida Barmon	F		Yes						Y				B,E & G
			Member	Idiwanbiang Sutenga	M		Yes										B,E & G
			Member	Smt. Mekiar Sutenga	F		Yes						Y				B,E & G
			Member	Ibris Sutenga	M		Yes						Y				B,E & G
			Member	Smt. Ribha papeng	F		Yes										B,E & G
Boro Muolkoi WC		11 (Eleven)	Chairman	Tholien Parate	M		Yes										B.C.D.E.F.G,H
			Vice Chairman	Smti Lalthehnil Thiek	F		Yes						Y				B.C.D.E.F.G,H
			Secretary	Gideon Khawbung	M		Yes										B,E & G
			Member	Smt. Lalthaawi Parate	F		Yes						Y				B,E & G
			Member	Lalhuoplien Parate	M		Yes										B,E & G
			Member	Laltluongthang Parate	M		Yes						Y				B,E & G

			Member	Thanghninglo Parate	M		Yes										B,E & G
			Member	Zawlthangsiem	M		Yes										B,E & G
			Member	Smt. Lalthannil Thiek	F		Yes						Y				B,E & G
			Member	Lalsiemthar Parate	M		Yes						Y				B,E & G
			Member	Darkhimlien Bapui	M		Yes						Y				B,E & G
Rekho WC		11 (Eleven)	Chairman	Lechunsiak Hrangkhol	M		Yes						Y				B.C.D.E.F.G,H
			Vice Chairman	Smti Lallomkim Hrangkhol	F		Yes						Y				B.C.D.E.F.G,H
			Secretary	Suonneiher Hrangkhol	M		Yes										B,E & G
			Member	Smt. Roselyn Hmar	F		Yes										B,E & G
			Member	Lalsuonbul Hrangkhol	M		Yes										B,E & G
			Member	Lalsuonthang Hrangkhol	M		Yes						Y				B,E & G
			Member	Aloysius Ajoy Hrangkhol	M		Yes						Y				B,E & G
			Member	Suontangngul Hrangkol	M		Yes						Y				B,E & G
			Member	Akhup hrangkhol	M		Yes										B,E & G
			Member	Loku Chetri	M												B,E & G
			Member	Smt. Jeneth Lalsongpui Hmar	F		Yes						Y				B,E & G
Mailangdisa WC		11 (Eleven)	Chairman	Nirmal Hakmaosa	M		Yes										B.C.D.E.F.G,H
			Vice Chairman	Smti Parbita Langthasa	M		Yes						Y				B.C.D.E.F.G,H
			Secretary	Ajoy Naiding	M		Yes										B,E & G
			Member	Smt. Helo Phonglo	F		Yes										B,E & G
			Member	Smt. Firut Naiding	F		Yes						Y				B,E & G
			Member	Smti. Mojesh Maibonsa	F		Yes										B,E & G
			Member	Smt. Monjita Maibangsa	F		Yes										B,E & G
			Member	Monen Haflongbar	M		Yes						Y				B,E & G
			Member	Shajon Mibongsa	M		Yes										B,E & G
			Member	Humjoy Mibongsa	M		Yes										B,E & G
			Member	Smt. Rubita Langthasa	F		Yes						Y				B,E & G
			Chairman	Lamkhongul Lhouvum	M		Yes										B.C.D.E.F.G,H
			Vice Chairman	Smti Themvah Lhouvum	F		Yes						Y				B.C.D.E.F.G,H

Mongaon WC		10 (Ten)	Secretary	Lienhao Lhouvum	M		Yes										B,E & G
			Member	Smt. Zenefer Lamneitheng	F		Yes						Y				B,E & G
			Member	Smt. Phalneilhing Doungel	F		Yes						Y				B,E & G
			Member	Lalmang Lhoujen	M		Yes										B,E & G
			Member	Sehlun Lhouvum	M		Yes						Y				B,E & G
			Member	Kaiminlal Lhouvum	M		Yes										B,E & G
			Member	Donglun Chongloi	M		Yes										B,E & G
			Member	Kaithong Lhouvum	M		Yes						Y				B,E & G

(NOTE- Member wise details of SHGs, UGs & Watershed Committee has to be enclosed as annexures. The details includes the Name, Husband name and Caste)
In column 18 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 I. Social Audit J. Any other (please specify).
C. Maintenance of Accounts D. Signing of cheques and making payments
E. Supervision of construction activities F. Cost Estimation G. Verification & MeasurementH. Record of labour employed

TABLE NO 4.3: WDT PARTICULARS:

1	2	3	4	5	6	7
S.No	Names of WDT members	M/F#	Age	Qualification / Experience	Description of professional training	Role/ Function*
1	Sri. Sonjoy Hojai	M		H.S.L.C./ 28 Year of Service as SCD (Jr.)/ SCD/Sr.)/ i/c Range Officer.	One Year Soil Conservation Training from North East Institute, Byrnihat, Meghalaya.	A,B,C,D, E,F,G,H,I
2	Mr. Obeth Darngawn, Fishery Dev. Officer, Haflong, Dist. Fishery Office, Dima Hasao, Haflong	M		M.F. Sc		B & E
3	Mr. Jevin D. Changsan, SDAO(Horticulture), Agriculture, Dist. Agriculture Office, Dima Hasao, Haflong	M		M.Sc. Agri		B & E
4	Dr. Amit Phonglo, Regional A.I. Officer & O/C ICDP, Animal Husbandry & Vet. Dept., Umrangso, Dima Hasao	M		M.V. Sc.		B & E
5	Smt. Rasmita Saikia, Sr. Scientist &Head (i/c), Krishi Vigyan Kendra Dima Hasao	F		M.Sc. (Agriculture Extension)		B & E
6	Sri Jindaraj Jidung, JE, Haflong Soil ConservationDivision, Haflong	M		Diploma In Civil Engg.		B &E

*In column 7 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
H. Record of labour employed
I. Social Audit
J. Any other (please specify).

TABLE NO. 4.4: PIA PARTICULARS

1	2	3
S.No	**Particulars**	**Details of PIA**
1.	Type of organization	Govt. Department
2.	Name of organization	Soil Conservation Department.
3.	Designation & Address	Divisional Officer, Haflong Soil Conservation Division, Haflong, Dima Hasao.
4.	Telephone	8638330624
5.	Fax	----
6.	E-mail	piahaflong@gmail.com

In column no. 8.1.6 (1), only the letter assigned to each type, as given below, needs to be typed.

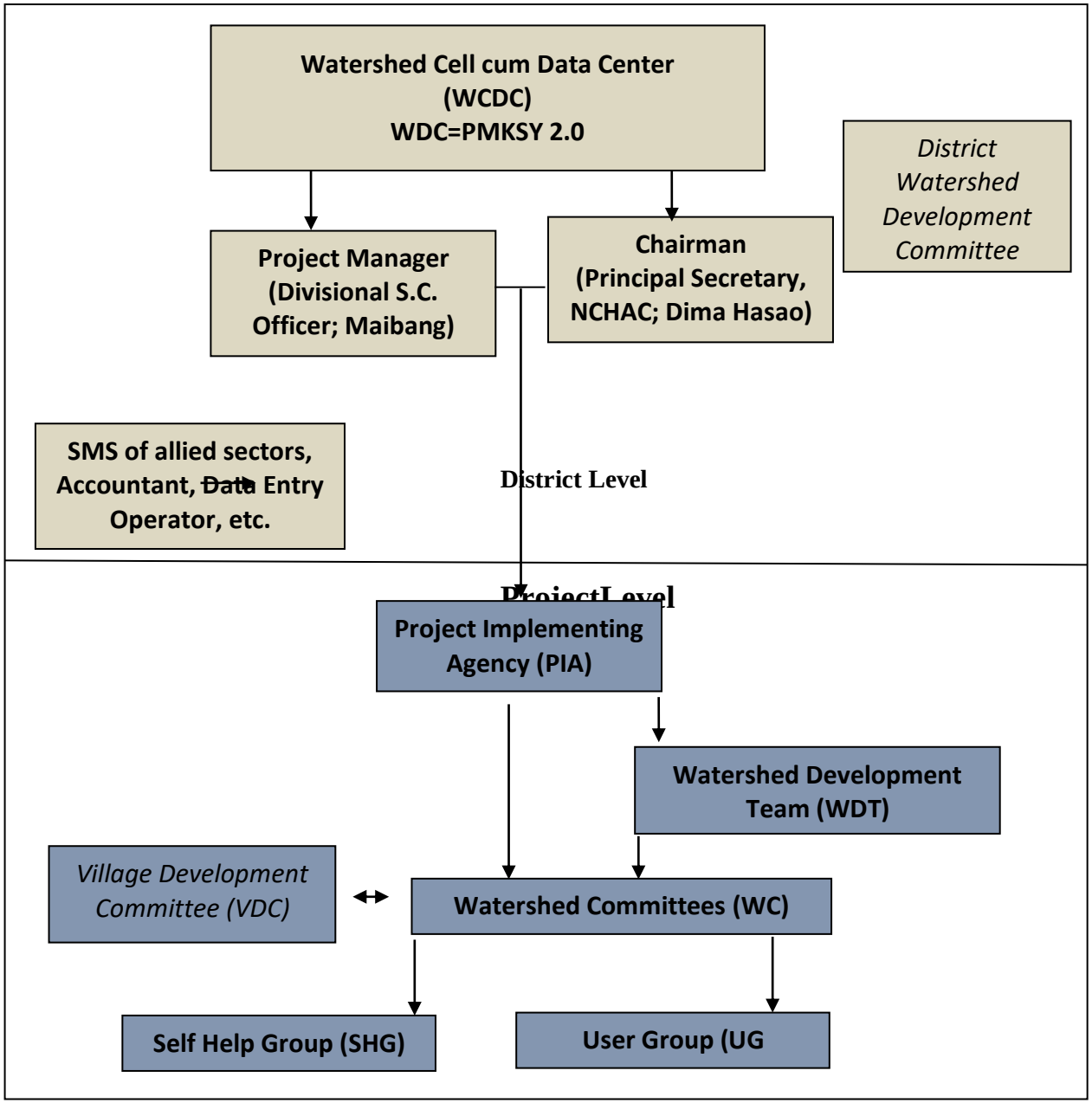
A	Line Dept.	B	Autonomous organization
C	Govt. Institute	D	Research Bodies
E	Zila Parishad	F	Intermediate Panchayat
G	Voluntary Organisations	H	Any other (please specify).

TABLE NO. 4.5 BANK ACCOUNT DETAILS

Name of WC/PIA	Name of the Bank/Place	Account No.	Name of the Signatory	Address
Divisional officer, Haflong Soil Conservation Division	**SBI, Haflong TOWN**	**40754231227**	**Divisional officer, Haflong Soil Conservation Division.**	**Divisional Officer, Haflong, Dima Hasao.**
DIM-I CHOTO MUOLKOI	**SBI, Haflong TOWN**	**40969361139**	**Team Leader & Chairman**	
DIM-I REKHO MWC	**SBI, Haflong TOWN**	**40969361106**	**Team Leader & Chairman**	
DIM-I BORO MUOLKOI MWC	**SBI, Haflong TOWN**	**40969361071**	**Team Leader & Chairman**	
DIM-I MAILANGDISA MWC	**SBI, Haflong TOWN**	**40969361140**	**Team Leader & Chairman**	
DIM-I MONG-ON MWC	**SBI, Haflong TOWN**	**40969361162**	**Team Leader & Chairman**	
DIM-I MIYUNGKRO MWC	**SBI, Haflong TOWN**	**40969361219**	**Team Leader & Chairman**	
DIM-I RETZOL MWC	**SBI, Haflong TOWN**	**40969361093**	**Team Leader & Chairman**	
DIM-I JATINGA MWC	**SBI, Haflong TOWN**	**40969361184**	**Team Leader & Chairman**	

INSTITUTIONAL MECHANISMS:

4.6.1 Flow Chart of Institutional Arrangement from District to Watershed Committee Level :



4.6.1 LIST OF WATERSHED RECORDS TO BE MAINTAINED

A) **AT WATERSHED COMMITTEE LEVEL :**

- Registration Certificate
- Detail Project Report
- Annual Action Plan
- Cash Book
- Watershed Development Fund Passbook
- Ledger Book
- Asset Register
- Vouchers
- Measurement Book
- Audit Report
- Photo Documents
- Project Completion Report
- Common Guidelines
- MoU between Watershed Committee and Project Implementing Agency
- Revenue Records.

B) **AT PROJECT IMPLEMENTING AGENCY LEVEL**

- Cash Book
- Computerized Accounting System
- Vouchers

DOCUMENTS OF AGREEMENTS:

4.7.1) Watershed Committee Registration Certificate - (under Process)

4.7.2.1 MoU – PIA – DWDU, PIA – WC - (under Process)

4.7.2.2 Resolution of *Village Committee*,WC approving action plan# the resolution should be done village wise and needs to beapprovedin Village Committee

#the resolution should be done village wise and needs to be approved in Village Committee meeting..

4.8 Project Implementation

Project Implementation Strategy including co-ordination and monitoring of implementation process,WCDC and other co-ordination mechanism.

Project Implementation Strategy including co-ordination and monitoring implementation Process.

CONVERGENCE WITH OTHER PROGRAMMES: Provision for convergence with other programmes of both Central & State Govt. shall be kept open for the project area as well as for the beneficiaries and end-users. Such programs shall be those, which needs large capital investment as well as more time of implementation and are not convenient for taking up from WDC-PMKSY 2.0 fund. Beneficiaries shall be encouraged to utilize such fund received by them from other sources for enhancing their activity in the project area. However, parallel funding for same activity in the project area shall be accounted separately to avoid duplicity in utilizing the fund.

Table No. 4.8 Convergence plan with WDC-PMKSY 2.0:

1	2	3	4	5	6	7
S. No.	Names of Departments with Schemes converging with WDC-PMKSY 2.0	Name of activity/task/structure proposed under convergence (a) Structures (b) livelihoods (c) Capacity Building (d)Any other (pl. specify)	Period of Support (Years)	Reference no. of activity/ task/ structure in DPR	Estimated Fund Proposed Under Convergence (in Rs.)	Level of decision taken for convergence Block/district
1	Agriculture	Arecanut	5	-	-	-
2	Agriculture	Turmeric Cultivation	5	-	-	-
3	Agriculture	Ginger Cultivation	5	-	-	-
4	Fishery	Water Harvesting Pond	5	-	-	-
	Total					

CHAPTER – 5

MANAGEMENT/ACTION PLAN

DESCRIPTION ON METHODOLOGY OF PLAN ADOPTED

a) AWARENESS GENERATION INTERVENTIONS

Awareness campaign through Gram Sabha in all villages of watershed area is essential. Awareness generation programme will be conducted for all project stakeholders at watershed level with the fundamental purpose of educating them and creating more interest in regard to various aspects of the WDC-PMKSY 2.0 project.

Awareness campaign through Seminars, Workshops, Trainings, Exposure visits,Wall painting, door to door campaign, posters, pamphlets,village meeting etc.

b) **Initial Orientation program**:

For successful completion of the project, orientation of both project personnel and watershed communities according to the changing perspective is vital and it will enhance skill and competency of project staff to work with the villagers. Various training, awareness programme, meeting and seminar shall be conducted to build necessary ability and competency among the project officials, PRls, especially GPs and other Communities Based Organizations (CBOs) about planning, implementation and management of various project activities.

c) Formation process UGs & Watershed Committee The User Group and Watershed Committee are formed through Gram Sabha and awareness programme.

d) DPR preparation process:

1. **Data Collection –**Secondary Data Collection, SE Survey, PRA tools (Social map, matrix ranking wealth ranking,seasonality of labour,migration,crop,disease,Resource map, Transect walk) , sample collection & testing
2. **Planning Process – PNP, FGDs, IB and CB plans** (by utilizing the PNP formats and input data sheets)
3. **Mapping**
4. **Hydro-geological Survey**
5. **Public-Private partnership**
6. **Consolidation & preparation of DPR document**
7. **Approval by Village Committee :-** After the preparation of draft DPR, it has been shared at the village level and approval has been taken from the Village Committee by passing a resolution. Further, the overall plan of the project has been approved by the WC.

5.2 DETAILS OF NATURAL RESOURCE MANAGEMENT ACTIVITIES

TABLE NO. 5.2.1 SOIL AND MOISTURE CONSERVATION STRUCTURES

1	2	3	4	5	6	7	8	9	10	11	
Sl. No.	**Name of the Activities (Structures)**	**Name of the Hamlet / Village**	**Plot Numbers (including Name of the local Patch)**	**Name of Beneficiaries**	**Area (in Ha)/ Dimension (in M/ Sq. M / CuM) of Structure**	**Unit Cost**	**Total Cost (in Rs.)**	**Contribution**	**Total Grant Amount (in Rs)**	**GPS Points**	
										Latitude	**Longitude**
1	Bench Terracing	Retzol	Retzol	User Group	1.99 Ha	1.66696	3.33	0.1665	3.4965	25.105798	92.97829
		Mong-on	Mong-on	User Group	3.00 Ha		5.00476	0.250238	5.254998	25.124491	92.916700
		Sarbagram (Jatinga Lampu)	Sarbagram (Jatinga Lampu	User Group	5.00 Ha		8.33484	0.416742	8.751582	25.116786	92.959959
		Rekho	Rekho	User Group	0.00 Ha		0	0	0		
		Jatinga (Khasia)	Jatinga (Khasia)	User Group	5.00 Ha		8.33792	0.416896	8.754816	25.124371	93.020903
		Miyungkro	Miyungkro	User Group	2.00 Ha		3.33084	0.166542	3.497382	25.115719	92.944094
		Kapurchera	Kapurchera	User Group	2.00 Ha		3.33392	0.166696	3.500616	25.108396	92.912525
		Mailangdisa(Rly Station)	Mailangdisa (Rly Station)	User Group	5.00 Ha		8.33528	0.416764	8.752.44	25.116626	92.922671
		Boro Moulkoi	Boro Moulkoi	User Group	8.93 Ha		14.8926	0.74463	15.63723	25.106273	92.890109
		Choto Moulkoi	Choto Moulkoi	User Group	7.00 Ha		11.66872	0.583436	12.252156	25.091870	92.883182
Sub Total					**39.92 Ha**		**66.56888**	**3.328444**	**69.897324**		
2	BoulderCheck Damp	Sarbagram (Jatinga Lampu)	Sarbagram	User Group	385.5 Cum	0.03331	12.84131	0.6420655	13.4833755		
		Miyungkro	Miyungkro	User Group	291.40 Cum		9.70678	0.485339	10.192119		
Sub Total					**676.90 Cum**		**22.54809**	**1.127405**	**23.675495**		
3	Staggered Trenching	Retzol	Retzol	User Group	1.65 Ha.	4.10690	6.779	0.33895	7.11795		
		Jatinga (Khasia)	Jatinga (Khasia)	User Group	2.063 Ha.		8.47246	0.423623	8.896083		
		Choto Muolkoi	Choto Muolkoi	User Group	0.79 Ha		3.22788	0.161394	3.389274		
		Boro Muolkoi	Boro Muolkoi	User Group	1.87 Ha		7.6970	0.38485	8.08185		
Sub Total					**6.373 Ha.**		**26.17634**	**1.308817**	**27.485157**		

TABLE NO. 5.2.2 WATER HARVESTING STRUCTURES:

1	2	3	4	5	6	7	8	9	10	11	
Sl. No.	**Name of the Activities (Structures)**	**Name of the Hamlet / Village**	**Plot Numbers (including Name of the local Patch)**	**Name of Beneficiaries**	**Area (in Ha)/ Dimension (in M/ Sq. M / CuM) of Structure**	**Unit Cost**	**Total Cost (in Rs.)**	**Contribution**	**Total Grant Amount (in Rs)**	**GPS Points**	
										Latitude	**Longitude**
1	R.C.C. Water Harvesting Structure	Retzol	Retzol	User Group	1 No.	8.39300	8.393	0.41965	8.81265	25.106153	92.978521
		Mong-on	Mong-on	User Group	0		0	0	0		
		Sarbagram (Jatinga	Sarbagram (Jatinga	User Group	1 No.		8.393	0.41965	8.81265	25.115756	92.959781
		Rekho	Rekho	User Group	2 No.		18.393	0.91965	19.31265	25.113804	92.880946
		Jatinga (Khasia)	Jatinga(Khasia)	User Group	2 No.		20.656	1.0328	21.6888	25.126792	93.021476
		Miyungkro	Miyungkro	User Group	1 No.		8.393	0.41965	8.81265	25.113379	92.945632
		Kapurchera	Kapurchera	User Group	1 No.		8.393	0.41965	8.81265	25.110599	92.913391
		Mailangdisa	Mailangdisa (Rly	User Group	2 No.		18.393	0.91965	19.31265	25.114845	92.918450
		Boro Moulkoi	Boro Moulkoi	User Group	2 No.		18.393	0.91965	19.31265	25.111681	92.892725
		Choto Moulkoi	Choto Moulkoi	User Group	2 No.		17.49012	0.874506	18.364626	25.098788	92.881177
Sub Total					**14 Nos.**		**126.89712**	**6.344856**	**133.241976**		
2	Water Harvesting Pond	Retzol	Retzol	User Group	1 No.	5.293	5.3300	0.26650	5.59650	25.107443	92.978459
		Mong-on	Mong-on	User Group	1 No.		5.3300	0.26650	5.59650	25.123377	92.916399
		Sarbagram (Jatinga Lampu)	Sarbagram (Jatinga) Lampu)	User Group	6 Nos.		29.9800	1.49900	31.4790	25.116028	92.962610
		Rekho	Rekho	User Group	3 No.		14.57838	0.728919	15.307299	25.111019	92.875780
		Jatinga (Khasia)	Jatinga (Khasia)	User Group	1 No.		5.3300	0.26650	5.59650	25.124065	93.031320
		Miyungkro	Miyungkro	User Group	2 No.		10.75882	0.537941	11.296761	25.114064	92.944944
		Kapurchera	Kapurchera	User Group	2 No.		11.3300	0.56650	11.389650	25.109964	92.918956
		Mailangdisa (Rly Station)	Mailangdisa (Rly Station)	User Group	2 Nos.		10.6600	0.53300	11.19300	25.116133	92.919191
		Boro Moulkoi	Boro Moulkoi	User Group	1 No.		5.3300	0.26650	5.59650	25.111153	92.889552
		Choto Moulkoi	Choto Moulkoi	User Group	4 Nos.		16.6600	0.83300	17.4930	25.099026	92.883002
					23 Nos.		**115.2872**	**5.76436**	**121.05156**		
3	Water Harvesting Tank	Rekho	Rekho	User Group	1 No.	7.00	7.0000	0.3500	7.3500		
		Jatinga	Jatinga	User Group	1 No.		7.0000	0.3500	7.3500		
		Boro Muolkoi	Boro Muolkoi	User Group	1 No.		7.0000	0.3500	7.3500		
Sub Total					**3 Nos**		**21.0000**	**1.0500**	**22.0500**		

TABLE NO. 5.2.3 VEGETATIVE COVERS

1	2	3	4	5	6		7	8	9	10	
Sl. No.	**Name of the Activities**	**Name of the Hamlet / Village**	**Plot Numbers (including Name of the local Patch)**	**Name of Beneficiaries**	**Area (in Ha)**	**Unit Cost**	**Total Cost (in Rs.)**	**Contribution**	**Total Grant Amount (in Rs)**	**GPS Points**	
										Latitude	**Longitude**
1	Afforestation	Retzol	Retzol	User Group	5.18 Ha	1.0000	5.18000	0.25900	5.43900	25.109761	92.977769
		Mong-on	Mong-on	User Group	17.89 Ha		17.89000	0.89450	18.78450	25.125853	92.918471
		Sarbagram (Jatinga Lampu)	Sarbagram (Jatinga Lampup)	User Group	11.92 Ha		11.91153	0.59558	12.50711	25.116627	92.963432
		Rekho	Rekho	User Group	2.00 Ha		2.00000	0.10000	2.10000	25.111586	92.880069
		Jatinga(Khasia)	Jatinga(Khasia)	User Group	7.00 Ha		7.00000	0.35000	7.35000	25.127105	93.021197
		Miyungkro	Miyungkro	User Group	2.00 Ha		2.00000	0.10000	2.10000	25.108260	92.949010
		Kapurchera	Kapurchera	User Group	6.77 Ha		6.77000	0.33850	7.10850	25.108943	92.915245
		Mailangdisa (Rly Station)	Mailangdisa (Rly Station)	User Group	7.31 Ha		7.31000	0.36550	7.67550	25.116639	92.921807
		Boro Moulkoi	Boro Moulkoi	User Group	2.00 Ha		2.0000	0.1000	2.1000	25.10744	92.896012
		Choto Moulkoi	Choto Moulkoi	User Group	2.00 Ha		2.00000	0.10000	2.10000	25.096695	92.096693
Sub Total					**64.07 Ha.**		**64.06153**	3.20308	67.26461		
2	Arecanut Plantation	Retzol	Retzol	User Group	8.275 Ha	1.69200	14.0007	0.70004	14.70074	25.109763	92.977771
		Mong-on	Mong-on	User Group	7.81 Ha.		13.21957	0.66098	13.88055	25.120961	92.917291
		Sarbagram(Jatinga Lampu)	Sarbagram(Jatinga Lampu)	User Group	11.74 Ha.		19.85723	0.99286	20.85009	25.111496	92.959910
		Rekho	Rekho	User Group	10.73 Ha.		18.15814	0.90791	19.06605	25.110387	92.875388
		Jatinga(Khasia)	Jatinga(Khasia)	User Group	10.18 Ha.		17.22437	0.86122	18.08559	25.123275	93.023605
		Miyungkro	Miyungkro	User Group	4.64 Ha.		7.84257	0.39213	8.23470	25.114831	92.943008
		Kapurchera	Kapurchera	User Group	2.75 Ha.		4.65052	0.23253	4.88305	25.109573	92.914879
		Mailangdisa	Mailangdisa	User Group	6.04 Ha.		10.21816	0.51091	10.72907	25.117340	92.918849
		Boro Moulkoi	Boro Moulkoi	User Group	10.60 Ha.		17.94163	0.89708	18.83871	25.105099	92.893185
		Choto Moulkoi	Choto Moulkoi	User Group	15.69 Ha.		26.54795	1.32740	27.87535	25.099260	92.880987
Sub Total					**88.45**Ha		**149.66084**	**7.483042**	**157.14388**		

Grand Total						**592.20000**	**29.61000**	**621.81000**	

5.3: STRUCTURE OR ACTIVITY WISE DETAILS OF ENGINEERING STRUCTURE AND VEGETATIVE MEASURES

TABLE NO.5.3.1 : ENGINEERING STRUCTURES FOR SOIL CONSERVATION MEASURES (SMC)

1	2	3	4	5		6					7
Sl. No.	**Name of Structures**	**Area (ha)**	**Farmers**			**Proposed plan**					
				Total units (No./ CuM./ rmt)	**UNIT COST (Rs)**	**Estimated cost* (Rs. in lakh)**				**Farmers contribution (Rs. in lakh)**	**Grant Portion (Rs. in lakh)**
						M	**W**	**O**	**T**		
A	**PRIVATE LAND**										
	Bench Terracing	33.99765	227	33.99765	1.66696	0.00	51.003	5.67416	56.67716	2.83386	59.51102
	Others (Springshed)	50	225	50	4.00	100	80	20.00	200.00	10.00	210.00
	Total of (A)					**100**	**131.003**	**25.6742**	**256.67716**	**12.8339**	**269.511**

(M – Materials, W- wages, O- others, T – Total)

5.3.2: DETAILS OF ENGINEERING STRUCTURES FOR WATER HARVESTING WHS

M – Materials, W- wages, O- others, T – Total

1	2	3		4				
Sl. No.	**Name of structures**			**Proposed plan**				
		Total units (No./ CuM./ Rmt)	**UNIT COST (Rs. In lakhs)**	**Estimated cost* (Rs. in lakh)**				**Farmers contribution (Rs)**
				M	**W**	**O**	**T**	
A	**PRIVATE LAND**							
A1	**Individual structures**							
i.	Farm ponds	7 Nos.	5.328	3.7295	29.8365	3.73	37.2960	1.8648
ii.	Any other (specify-------)	-	-	-	-	-	-	-
A2	**Common structures**							
i.	R.C.C. Water Harvesting Structure	9 Nos.	8.644	38.9	31.12	7.78	77.80	3.89
ii.	Any other (specify-------)	-	-	-	-	-	-	-
	Sub-Total (A)			42.6295	60.96	11.51	115.096	5.7548
B	**COMMON LAND**							
i.	Farm ponds	7 Nos.	5.328	3.7295	29.8365	3.73	37.2960	1.8648
ii.	Any other (specify-------)	-	-	-	-	-	-	-
	Sub-Total (B)			3.7295	29.836	3.7295	37.295	1.8648

	Grand Total (A+B)			**46.359**	**90.793**	**15.24**	**152.3920**	**7.6196**

TABLE NO. 5.3.3: DETAILS OF ACTIVITIES CONNECTED WITH VEGETATIVE COVER IN WATERSHED WORKS*

1	2	3		4			
Sl. No.	**Name of structure/ work**			**Proposed plan**			
		Area (ha)	**No. of plants**	**Unit Cost(Rs)**	**Estimated cost (Rs. in lakh)**	**Farmer Contribution (Rs. in lakh)**	**Grant (Rs. in lakh)**
	Block Plantation / Plantations in CPR						
	Fuel-wood(Afforestation)	33.47 Ha	37185	1.00	33.47	1.6735	35.1435
	Arecanut Plantation	88.45 Ha	141520	1.692	149.66084	7.48304	157.14388
	Sub Total of Plantation				**183.13084**	**9.15654**	**192.3**
Grand Total of NRM					**592.20**		

CHAPTER 6

SPRING-SHED MANAGEMENT

Springs are groundwater discharge points in the mountains where the water-bearing layers (aquifer) intersect with theground surface, and water seeps out of rock pores, fissures, fractures, or depressions. Springs happen to be primary source of drinking water and other domestic uses (supply over 90% water) for hill people.Efficient spring-shed management is vital for sustainable development in the Upper Jatinga Project areas asthe area is known for a fragile geophysical framework, active seismicity and a fabulously rich biological and cultural diversity. Scientific and sustainable land management in the landscape can lead to rejuvenation of water resources and recharge of groundwater.

The hilly and mountainous regions of Upper Jatinga area in Dima Hasao are confronted with two major water-related problems:

(i) Heavy and intense rainfall with increased surface run-off during monsoons leading to soil erosion and siltation of water bodies downstream; catastrophic events, like land sliding; earthquakes, flash floods etc. are adding to the crisis; and

(ii) Drought situation during summer season leading to acute scarcity of water for drinking and agriculture.

Spring-shed managementfocuses on these two extreme eventualities by preventing/arrestingsoil degradation, ensuring supply of drinking water from springs throughout the year,maintaining and enhancing agricultural productivity and augmenting incomes of poor.

During field visit and PRA Exercise in different villages, it is found 8 (Eight) No. of vulnerable Spring shed Head in the Micro Watershed Areas. Considering the feasibility, different development scheme are selected under these Spring shed as shown in Table No. 6.1.

Table No. 6.1 NRM Activities Under Spring-shed Management

Name of Village	Works Component	1st Year		2nd Year		3rd Year		4th Year		5th Year		Total	
		Physical	Fin. (Rs. in Lakhs)	Physical	Fin. (Rs. in Lakhs)	Physical	Fin. (Rs. in Lakhs)	Physical	Fin. (Rs. in Lakhs)	Physical	Fin.(Rs. in Lakhs)	Physical	Fin. (Rs. in Lakhs)
Retzol	Afforestation	3.18	3.17730									3.18	3.17730
	Staggered Trenching			1.65 Ha.	6.77900							1.65 Ha	6.77900
Total			3.1773		6.779								**9.95630**
Mongon	Afforestation	4.47849	4.47805	7.4051	7.40508			4.01	4.0103			15.89	15.89343
Total		4.47849	4.47805	7.4051	7.40508			4.01	4.0103				**15.89343**
Sarbagram (Jatinga Lampu)	Afforestation	3.53	3.53000									3.53	3.53000
	W. H. Pond			1 No.	7.0000	1 No.	3.3109			1 No.	3.6891	3 Nos.	14.00000
	Boulder Check Dam			120.081 Cum	4.0000	192 Cum	6.3955	73.42 Cu	2.44581			385.50	12.84131

Total			3.53		11.00		9.7064		2.44581		3.6891		**30.37131**
Rekho	W.H.Structure	1 No.	10.00000									1 No.	10.00000
	W.H. Tank			1 No.	7.00000							1 No.	7.00000
	W.H. Pond	1 No.	5.00000			1 No.	4.24838					2 Nos.	9.24838
Total			**15.00**		**7.00**		**4.24838**		**0.00**				**26.24838**
Jatinga (Khasia)	W.H.Structure	1 No.	10.00000									1 No.	10.00000
	W.H. Tank			1 No.	7.00000							1 No.	7.00000
	Staggered Trenching					2.035.	8.35944			0.0276	0.11302	2.0626 Ha	8.47246
Total			10..		7.00		8.35944						25.47246
Miyungkro	W.H. Pond	1 No.	5.44681									1 No.	5.44681
	Boulder Check Dam			291.4 Cum	9.70678							291.40 Cum	9.70678
Total			**5.44681**		**9.70678**								**15.15359**
Kapurchera	Afforestation					4.76574	4.76574					4.77	4.76574
	W.H. Pond					1 No.	6.00000					1 No.	6.00000
Total							**10.76574**						**10.76574**
Choto Moulkoi	Staggered Trenching	0.79 Ha.	3.22788									0.79 Ha.	3.22788
	W.H. Structure			1 No.	9.09712							1 No.	9.09712
	W.H. Pond					1 No.	2.26074	1 No.	3.73926			2 Nos.	6.00000
	Bench Terracing							3.94780	6.58083	1.986	3.31090	5.93	9.89173
Total					**9.09712**		**2.26074**		**10.32009**		**3.3109**		**24.98885**
Boro Muolkoi	W.H. Structure	1 No.	10.0000									1 No.	10.00000
	W.H. Tank			1 No.	7.0000							1 No.	7.00000
	Staggered Trenching					0.21 Ha.	0.86018			1.66 Ha	6.83682	1.87 Ha.	7.69700
Total			**10.00**		**7.00**		**0.86018**				**6.83682**		**24.697**
Mailangdisa (Rly Station)	Afforestation	3.22506	3.22506									3.23	3.22506
	W.H.Stricture	1 No.	10.00000									1 No.	10.00000
			13.22506										**13.22506**
Grand Total			**68.08510**		**64.98798**		**36.2009**		**16.7762**		**13.94982**		**200.000**

SELECTED SITE OF SPRINGSHED POINT UNDER BORO MUOLKOI MWS

SELECTED SITE OF SPRINGSHED POINT UNDER CHOTO MUOLKOI MWS

SELECTED SITE OF SPRINGSHED POINT UNDER JATINGA MWS

SELECTED SITE OF SPRINGSHED POINT UNDER JATINGA MWS

SELECTED SITE OF SPRINGSHED POINT UNDER REKHO MWS

SELECTED SITE OF SPRINGSHED POINT UNDER REKHO MWS

SELECTED SITE OF SPRINGSHED POINT UNDER REKHO MWS

SELECTED SITE OF SPRINGSHED POINT UNDER RETZOL MWS

SELECTED SITE OF SPRINGSHED POINT UNDER SARBAGRAM MWS

CHAPTER 7

CAPACITY BUILDING PLAN

7. CAPACITY BUILDING:

Capacity Building is the process of assisting the group or individuals to identify and address issues and gain the insights, knowledge and experience needed to solve problems and implement change. There is a realization in the development sector that there is a need to appraise the success of development interventions by going beyond the conventional development targets and measures of success (e.g. in the form of commodities, goods and services) to take into account improvements to human potential. Capacity building of stakeholders is also increasingly viewed as an important factor in developmental projects that involve participation of stakeholders at all levels for effective implementation of projects. The scope of capacity building, in general, is:

- Alternative Land Use Plan
- Scientific technique of Soil and Moisture conservation
- Improved and Scientific agriculture practices
- Fodder development and Management
- Afforestation
- Meteorological Information
- Income Generation Activities
- Micro entrepreneurship
- Food Processing
- Post-Harvest management practices

` **TABLE NO. 7.1 DETAILS OF CAPACITY BUILDING PLAN :**

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	**Name of the Training & Exposure (Knowledge, Skill, etc. at both *Being and Doing* level)**	**Number of events**	**Number of Participants in an event**	**Total Number of days per event**	**Total Trainee days (= 3x4x5)**	**Cost per Trainee Day (Rs.in lakhs)**	**Total Cost required for the programme (= 6 x7; Rs.in lakhs)**	**Total Grant Amount (Rs.in lakhs)**	**Year of Implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)**	**Monitoring Indicators**
SHG/ UG / WC / PI related										
1	SHG Related	3	15	1	45	555	0.25	0.25	1^{st} Year	By PIA
2	WC Related					25	1.75	1.75	1^{st} Year	By PIA
3	PIA Awareness	2	63	1	126	100	0.126	0.126	1^{st} Year	By PIA
4	UG Related	2	60	1	120	555	0.666	0.666	2^{nd} Year	By PIA
5	PIA Orientation	2	63	1	126	240	0.3024	0.3024	3^{rd} Year	BY PIA
6	SHG Related	3	80	1	240	555	1.332	1.332	5^{th} Year	By PIA
Subtotal		12	265	5	622	2030	4.4264	4.4264		
NRM related										
1	Land Used Practises	2	63	1	126	525	0.6615	0.6615	2^{nd} Year	By PIA
2	Land Used Practises	2	63	1	126	525	0.6615	0.6615	3^{rd} Year	By PIA
3	Land Used Practises	2	63	1	126	525	0.6615	0.6615	4th Year	By PIA
Subtotal		6	189	3	378	1575	1.9845	1.9845		
Production Enhancement related										
1	Training To WC	4	63	1	252	578	1.45656	1.45656	2^{nd} Year	By PIA
2	Training to UGs	4	63	1	252	578	1.45656	1.45656	2^{nd} Year	By PIA
3	Training to SHG	4	63	1	252	578	1.45656	1.45656	2^{nd} Year	By PIA
Subtotal		12	189	3	756	1575	4.3697	4.3697		
Livelihoods / Micro-enterprises related										
1	Training To WC	3	63	1	189	525	0.99225	0.99225	2^{nd} Year	By PIA
2	Training to UGs	3	63	1	189	525	0.99225	0.99225	2^{nd} Year	By PIA

3	Training to SHG	3	63	1	189	525	0.99225	0.99225	2nd Year	By PIA
Subtotal		9	189	3	567	1575	2.97675	2.97675		
Convergence / Rights & entitlement / Well-Being related										
1	Rights & Entitlement	2	29	1	58	500	0.29	0.29	3rd Year	By PIA
2	Convergence Related	1	30	1	30	559	0.1677	0.1677	4th Year	By PIA
Subtotal		3	59	2	88	1059	0.4577	0.4577		
For PIA / WDT staffs level										
1	Institution and Capacity Building	2	30	1	60	649	0.38927	0.38927	2nd Year	By PIA
2	Production Enhancement	3	30	1	90	525	0.4725	0.4725	2nd Year	By PIA
3	Outside State Visit	1	15	7	105	3000	3.15	3.15	2nd Year	BY PIA
4	NRM Related	4	20	1	80	525	0.42	0.42	2nd Year	By PIA
5	Exposure Visit	6	40	1	222	1185	2.844	2.844	2nd Year	By PIA
6	Exposure Visit	6	40	1	222	1185	2.844	2.844	3rd Year	BY PIA
7	Outside State Visit	1	15	7	105	4500	4.725	4.725	4th Year	By PIA
8	Outside State Visit	1	4	5	20	10071	2.0142	2.0142	2nd Year	By DWDU
9	Exposure Visit	2	10	5	100	1185	1.185	1.185	3rd Year	By DWDU
10	Exposure Visit	2	10	5	100	1185	1.185	1.185	4th Year	By DWDU
Subtotal		26	209	34	1015	22511	19.22897	19.22897		
Others										
	TOT/CRP/CSP/Related									
1	Enterprise Promotion	3	41	1	123	525	0.64575	3	2nd Year	By PIA
2	Social Audit	2	100	1	200	154	0.308	2	2nd Year	By PIA
3	Gender Equity	2	40	1	80	650	0.52	2	3rd Year	By PIA
4	Enterprise Promotion	4	40	1	160	525	0.84	4	5th Year	By PIA
5	GIS Application	4	26	1	104	650	0.676	4	1st Year	By DWDU
6	GIS Application	3	26	1	78	650	0.507	3	5th Year	By DWDU
7	Specialized Training							0.3557	3rd Year	By SLNA
8	Specialized Training							0.3357	4th Year	By SLNA
9	Specialized Training							0.16785	5th Year	By SLNA
Subtotal		18	262	6	712	3154	4.356	4.356		
GRAND TOTAL							**37.80**	**37.80**		

CHAPTER 8
Phasing of Programme and Budgeting

TABLE NO. 8.1: PHASING OF THE ACTION PLAN :

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	**Component**	**Activity**	**Unit**	**Unit Cost**	**Phy (No)**	**Fin (Rs. In Lakhs)**	**Phy (No)**	**Fin (Rs. In Lakhs)**	**Phy (No)**	**Fin (Rs. In Lakhs)**	**Phy (No)**	**Fin (Rs. In Lakhs)**	**Phy (No)**	**Fin (Rs. In Lakhs)**	**Phy (No)**	**Fin (Rs. In Lakhs)**
1	Entry Point Activity	Construction of Village Foot-Path	No		4	10.560	0	0	0	0	0	0	0	0	4	10.56000
		Development of Community Field	No		1	2.5200	0	0	0	0	0	0	0	0	1	2.52000
		Construction of Water Harvesting Pond	No		5	12.120	0	0	0	0	0	0	0	0	5	12.12000
Total of Entry Point Activity					**10**	**25.20**									**10**	**25.2000**
2	Institution & Capacity Building (3%)	**I) Poor HHs in Watersheds to be covered under SHGs**														
		ST	No		3	0.25000	0	0.00000	0	0	0	0	0	1.51252	3	1.76252
		II) Awareness Generation (events) to be conducted	No													
		. Wall writings	No		3	0.126	0	0	0	0	0	0	0	0	3	0.12600
		III) Orientation programmesto GP, WC,UG, SHG,VO, VSS, WUA, Societies,	No		0	0	0	0	10	0.3024	0	0	0	0	10	0.30240
		IV) Formation of UGs	No		10	0.666	0	0	0	0	0	0	0	0	10	0.66600
		V) Formation of Watershed Committee	No		10	0.75	0	0	0	0	0	0	0	0	10	0.75000
		VI) Registration of WC	No		10	1	0	0	0	0	0	0	0	0	10	1.00000
		VI)Self-Monitoring events (planning, review of activities through tool)	No		4	0.676	0	0	0	0	0	0	3	0.75	7	1.42600
		VIII) Convergence meetings with LDs/other institutions	No		0	0	0	0	2	0.29	1	0.25	0	0	3	0.54000
		IX) Social Audit events	No		0	0	2	0.308	0	0	0	0	0	0	2	0.30800
		X) On Institutional Building	No		2	0.38927	0	0	0	0	0	0	0	0	2	0.38927
		Training & Exposures														
		a) On Gender	No		0	0	0	0	2	0.52	0	0	0	0	2	0.52000
		b) On Natural Resource Management	No		0	0	2	0.6615	6	1.1586	3	0.93	0	0	11	2.75010
		c) On Enterprise Promotion	No		12	3.62248	0	0	0	0	0	0	4	0.88748	16	4.50996
		d)On Productivity Enhancement	No		8	2.60025	4	1.4605	0	0	0	0	0	0	12	4.06075
		a) Exposure Visit	No		8	8.82	2	3.87	2	4.029	1	1.97	0	0	13	18.68900
Total of Institution & Capacity Building					**70**	**18.90000**	**10**	**6.30000**	**22**	**6.3000**	**5**	**3.15**	**7**	**3.15**	**114**	**37.80000**

					1st Year		2nd Year		3rd Year		4th Year		5th Year		Total	
1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activity	Unit	Unit Cost	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)
3	**Productivity Enhancement (15%)**	Ginger	No	0.56	10	5.6	34	19.04	0	0	0	0	0	0	44	24.64
		Pineapple	No	0.56	6	3.36	24	13.44	0	0	0	0	0	0	30	16.8
		Turmeric	No	0.56	6.5	3.64	9.5	5.32	0	0	0	0	0	0	16	8.96
		Mushroom Cultivation	No	0.56	0	0	0	0	39	21.84	50	28	0	0	89	49.84
		Mix Plantation	No	0.56	0	0	0	0	53	29.68	45.625	25.55	168.75	9.450	115.5	64.68
		Fisheries	No	0.56	0	0	0	0	43	24.08	0	0	0	0	43	24.08
Total of Production System						**12.60000**		**37.80000**		**75.60000**		**53.55000**		**9.450**		**189.00**
4	**Livelihood Activities for Assetless Poor (15%)**	Piggery	No	0.25	36	9	30	7.5	72	18	92	23.00	8	2	238	59.5
		Horticulture	Ha.	1.692	0	0	7.83	13.25	0	0	1.86	3.15	1.86	3.15	11.55	19.55
		Swing Machine	No	0.25	14	3.60	43	10.75	42	10.6	49	10.2	30	7.45	178	42.6
		Goatery	No	0.25	0	0	0	0	110	27.5	61	15.35	0	0	171	42.85
		Poultry	No	0.25	0	0	0	0	78	19.5	20	5.00	0	0	98	24.5
Total of Livelihood						**12.6**		**31.50**		**75.6**		**56.70**		**12.6**		**189.00**
5	**Natural Resource Management (47%)**	I) **WHS (MI Works)**														
		RCC Water Harvesting Structure ***	Nos.	8.393	6	59.049	6	51.06212	2	16.786	0	0	0	0	14	126.89712
		Water Harvesting Pond ***	Nos.	5.293	5	31.75881	7	38.968	7	37.13202	1	3.73926	1	3.6891	21	115.28719
		Water Harvesting Tank***	Nos.		0	0	3	21	0	0	0	0	0	0	3	21
		Boulder Check Dam ***	CuM		0	0	1084.4	13.70678	505.975	6.39552	193.5	2.44581			1783.875	22.54811
Total of WHS						**90.80781**		**124.7369**		**60.31354**		**6.18507**		**3.6891**		**285.73242**

					1st Year		2nd Year		3rd Year		4th Year		5th Year		Total	
1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activity	Unit	Unit Cost	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)
		B) Soil Moisture Conservation (SMC)														
6	**Natural Resource Management (47%)**	Bench Terracing ***	HA.		10.998	18.33656	11	19.41392	8	12.25884	2	9.91475	2	6.64482	33.9976484	66.56889
		Staggered Trenches ***	Nos.		55	3.22788	116	6.779	157	9.21962	0	0	118	6.94982	446	26.17632
						21.56444	**11**	**26.19292**	**8**	**21.47846**	**2**	**9.91475**	**2**	**13.59464**		**92.74521**
7	**Natural Resource Management (47%)**	**Plantation**														
		Block Plantation (Afforestation) ***			24.46	24.46041	17.415	17.45508	10.9	10.89574	6.62	6.6227	4.8276	4.8276	64.06604	64.06153
		Horticulture (Arecanut Plantation)			38.308	64.81734	25.101	33.2651	15.99424	27.06226	8.94059102	15.12748	5.5488534	9.38866	93.8930378	149.66084
	Total of Plantation					**89.27775**		**50.72018**		**37.958**		**21.75018**		**14.21626**		**213.72237**
	Total of NRM					**201.60**		**201.60**		**119.70**		**37.80**		**31.50**		**592.00**
8	**Natural Resource Management Governance**	Maintenance of natural resources related assets			4	2.30	4	2.30	4	2.30	4	2.30	**0**	0	0	9.20000
		Ground Water Monitoring & Budgeting			4	2.00	4	2.00	4	2.00	4	2.00	0	0	0	8.00000
		Protection and Regulation/Regeneration of Common Lands			4	2.00	4	2.00	4	2.00	4	2.00	0	0	0	8.00000
	Total of NRM Governance				**12**	**6.30**	**12**	**6.30**	**12**	**6.30**	**12**	**6.30**	**0**	**0**	**0**	**25.200**

					1st Year		2nd Year		3rd Year		4th Year		5th Year		Total	
1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activity	Unit	Unit Cost	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)	Phy (No)	Fin (Rs. In Lakhs)
9	**Administration**	Honorarium/WC Secy, WDT & Others	Rs.		13	9.12	13	9.12	13	9.12	13	9.12	13	9.12	52	45.60
		TA/DA – WCDC level & PIA level	Rs			4.00		4.00		4.00		4.00		4.00		20.00
		Office Stationery & miscellaneous	Rs.			12.08		12.08		12.08		12.08		12.08		60.40
		Sub Total Admin				**25.2**		**25.2**		**25.2**		**25.2**		**25.2**		**126.00**
10	Monitoring & Evaluation Cost (1%)	**Monitoring**						3.15		3.15		3.15		3.15		12.60
		Evaluation						3.15		3.15		3.15		3.15		12.60
								6.30		**6.30**		**6.30**		**6.30**		**25.20**
11	DPR (1%)	**DPR Preparation**				12.60										12.60
	Total DPR					**12.60**										**12.60**
12	**Consolidation Phase 3%**													37.80		37.80
13	**Total Exit Phase**													37.80		37.80
	Grand Total of Project					**315.00**		**315.00**		**315.000**		**189.00**		**126.000**		**1260.00**
	Expected WDT Collection					10.08		10.08		5.985		1.89		1.575		29.61

Table No. 8.2. Estimated Benefit Cost Ratio:

Sl.No.	Name of the activity	Total Cost (Rs.in lakhs)	Total Benefit expected * (Rs.in lakhs)	BCR	Remarks
1	EPA	25.20	50.40	1:2	
2	NRM	592.20	2368.80	1:4	
3	Production & Micro-Enterprises	189.00	945.00	1:5	
4	Livelihood for Asset less	189.00	945.00	1:5	
5	Institution and Capacity building	37.80	75.60	1:2	
6	Overall	1033.20	4388.80	5:18	

Chapter 9

Consolidation and Completion of Various Works

TABLE NO. 9.1: CONSOLIDATION OF ACTION PLAN :

Sl. No.	Component	Implementation Phase								Consolidation/exit Phase		Total
		1st Year		2nd Year		3rd Year		4th Year		5th Year		
		Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	
1	Entry Point Activities (2%)	2%	25.20	-	-	-	-	-	-	-	-	25.20
2	DPR Preparation by PIA (1%)	1%	12.60	-	-	-	-	-	-	-	-	12.60
3	Institution & Capacity Building (3%) SLNA-0.3% DWDU-0.9% PIA-3.8%	1.5 %	18.90	0.5	6.30	0.5	6.30	0.25	3.15	0.25	3.15	37.80
4	Productivity Enhancement. (15%)	1%	12.60	3%	37.80	6%	75.60	4.25%	53.55	0.75%	9.45	189.00
5	Livelihoods for Assetless (15%)	1%	12.60	2.5%	31.50	6%	75.60	4.5%	56.70	1%	12.60	189.00
6	Natural Resource Management (47 %)	16%	201.60	16%	201.60	9.5%	119.70	3%	37.80	2.5%	31.50	592.20
7	Natural Resource Management & Governance (2%)	0.5%	6.30	0.5%	6.30	0.5%	6.30	0.5%	6.30	0	0.00	25.20
8	Monitoring & Evaluation (2%)	0	0	0.50%	6.30	0.50%	6.30	0.50%	6.30	0.50%	6.30	25.20
9	Consolidation phase (3%)									3%	37.80	37.80
10	Administration (10 %)	2%	25.20	2%	25.20	2%	25.20	2%	25.20	2%	25.20	126.00
	Total	25%	315.0	25%	315.00	25%	315.00	15%	189.00	10%	126.00	1260.20

ANNEXURE-II				
SDG Format				
DURING IMPLEMENTATION OF PROJECT UNDER WDC-PMKSY 2.0				
TOTAL TARGET AREA TO BE TREATED				
DURING IMPLEMENTATION OF PROJECT UNDER WDC-PMKSY 2.0				
DISTRICT : DIMA HASAO				
PROJECT : UPPER JATINGA WDC-PMKSY 2.0				
		List of activities (As Per 5 Years Plan)		Total Treatable Area to be benefited (Ha)
Sl. No.	Component	Name of Activities	Location	
1	NRM	Afforestation	Retzol	33
2		Staggred Trencing	Retzol	240
3		Afforestation	Mongon	155
4		Afforestation	Sarbagram (Jatinga Lampu)	37
5		Water Harvest Pond	Sarbagram (Jatinga Lampu)	6
6		Boulder Check Dam	Sarbagram (Jatinga Lampu)	23
7		Water Harvesting Structure	Rekho	36.48
8		Water Harvest Tank	Rekho	5
9		Water Harvest Pond	Rekho	5
10		Water Harvesting Structure	Jatinga(Khasia)	36.48
11		Water Harvesting Tank	Jatinga(Khasia)	5
12		Staggred Trencing	Jatinga(Khasia)	263
13		Water Harvest Pond	Miyungkro	20
14		Boulder Check Dam	Miyungkro	17
15		Afforestation	Kapurchera	49
16		Water Harvest Pond	Kapurchera	7
17		Staggred Trencing	Choto Muolkoi	104
18		Water Harvesting Structure	Choto Muolkoi	36.48

19		Water Harvesting Pond	Choto Muolkoi	39
20	NRM	Bench Terracing	Choto Muolkoi	61
21		Water Harvesting Structure	Boro Muolkoi	36.48
22		Water harvesting Tank	Boro Muolkoi	5
23		Staggred Trencing	Boro Muolkoi	240
24		Afforestation	Mailongdisa (Rly Station)	34
25		Water Harvesting Structure	Mailongdisa (Rly Station)	36.48
26		Bench Terracing	Retzol	20.53
27		Bench Terracing	Mongon	30.84
28		Bench Terracing	Sarbagram	51.4
29		Bench Terracing	Jatinga (Khasia)	51.4
30		Bench Terracing	Miyungkro	20.56
31		Bench Terracing	Kapurchera	20.56
31		Bench Terracing	Mailongdisa (Rly Station)	51.4
32		Bench Terracing	Boro Muolkoi	30.84
33		Bench Terracing	Choto Muolkoi	71.86
34		Water Harvesting Structure	Retzol	30
35		Water Harvesting Structure	Sarbagram(Jatinga Lampui	30
36		Water Harvesting Structure	Jatinga(Khasia)	30
37		Water Harvesting Structure	Miyungkro	30
38		Water Harvesting Structure	Kapurchera	30
39		Water Harvesting Structure	Mailongdisa (Rly Station)	30
40		Water Harvesting Structure	Boro Muolkoi	30
41		Water Harvesting Structure	Choto Muolkoi	30
42		Water Harvesting Pond	Retzol	24
43		Water Harvesting Pond	Mongon	24
44		Water Harvesting Pond	Sarbagram(Jatinga Lampui	75
45		Water Harvesting Pond	Rekho	24

46	NRM	Water Harvesting Pond	Jatinga(Khasia)	25
47		Water Harvesting Pond	Miyungkro	25
48		Water Harvesting Pond	Kapurchera	24
49		Water Harvesting Pond	Mailongdisa (Rly Station)	48
50		Water Harvesting Pond	Boro Muolkoi	24
51		Water Harvesting Pond	Choto Muolkoi	49
52		Protective Afforestation	Retzol	20
53		Protective Afforestation	Mongon	21
54		Protective Afforestation	Sarmagram(Jatinga Lmapu)	87
55		Protective Afforestation	Rekho	20
56		Protective Afforestation	Jatinga(Khasia)	73
57		Protective Afforestation	Miyungkro	21
58		Protective Afforestation	Kapurchera	20
59		Protective Afforestation	Mailongdisa (Rly Station)	43
60		Protective Afforestation	Boro Muolkoi	21
61		Protective Afforestation	Choto Muolkoi	20
62		Arecanut Plantation	Retzol	57.92
63		Arecanut Plantation	Mongon	54.69
64		Arecanut Plantation	Sarbagram(Jatinga Lampu)	82.24
65		Arecanut Plantation	Rekho	74.98
66		Arecanut Plantation	Jatinga(Khasia)	71.26
67		Arecanut Plantation	Miyungkro	32.45
68		Arecanut Plantation	Karupchera	19.24
69		Arecanut Plantation	Mailongdisa	42.27
70		Arecanut Plantation	Boro Muolkoi	74.23
71		Arecanut Plantation	Choto Muolkoi	147.93
Total of NRM				**3465**
1		Ginger Cultivation	Retzol	14

2	Production System	Ginger Cultivation	Mongon	14
3		Ginger Cultivation	Sarbagram(Jatinga Lampu)	28
4		Ginger Cultivation	Rekho	14
5		Ginger Cultivation	Jatinga(Khasia)	14
6		Ginger Cultivation	Miyungkro	18
7		Ginger Cultivation	Kapurchera	18
8		Ginger Cultivation	Mailongdisa(Rly Station)	14
9		Ginger Cultivation	Boro Muolkoi	20
10		Ginger Cultivation	Choto Muolkoi	22
11		Turmeric Cultivation	Retzol	10
12		Turmeric Cultivation	Mongon	8
13		Turmeric Cultivation	Sarbagram(Jatinga Lampu)	20
14		Turmeric Cultivation	Rekho	8
15		Turmeric Cultivation	Jatinga(Khasia)	8
16		Turmeric Cultivation	Miyungkro	18
17		Turmeric Cultivation	Kapurchera	18
18		Turmeric Cultivation	Mailongdisa(Rly Station)	8
19		Turmeric Cultivation	Boro Muolkoi	14
20		Turmeric Cultivation	Choto Muolkoi	8
21		Pineapple Cultivation	Retzol	10
22		Pineapple Cultivation	Mongon	8
23		Pineapple Cultivation	Rekho	10
24		Pineapple Cultivation	Jatinga(Khasia)	12
25		Pineapple Cultivation	Boro Muolkoi	8
26		Pineapple Cultivation	Choto Muolkoi	16
27		Mixed Plantation	Retzol	48
28		Mixed Plantation	Mongon	28
29		Mixed Plantation	Sarbagram(Jatinga Lampu)	68

30	Production System	Mixed Plantation	Rekho	48
31		Mixed Plantation	Jatinga(Khasia)	48
32		Mixed Plantation	Miyungkro	28
33		Mixed Plantation	Karupchera	24
34		Mixed Plantation	Mailongdisa(Rly Station)	36
35		Mixed Plantation	Boro Muolkoi	52
36		Mixed Plantation	Choto Muolkoi	80
37		Water Harvesting Pond	Retzol	20
38		Water Harvesting Pond	Mongon	20
39		Water Harvesting Pond	Sarbagram(Jatinga Lampu)	25
40		Water Harvesting Pond	Rekho	25
41		Water Harvesting Pond	Jatinga(Khasia)	20
42		Water Harvesting Pond	Miyungkro	20
43		Water Harvesting Pond	Karupchera	25
44		Water Harvesting Pond	Mailongdisa(Rly Station)	20
45		Water Harvesting Pond	Boro Muolkoi	20
46		Water Harvesting Pond	Choto Muolkoi	20
Total of Production System				1035
Grand Total (NRM=3465 Ha. + Production System=1035 Ha.) = 4500 Ha.				**4500**

CHAPTER – 10

EXPECTED OUTCOMES

10.1. DESCRIBE IN DETAIL THE "EXPECTED OUTCOMES"

TABLE NO. 10.2: SUMMARIZE IN THE TABLE GIVEN BELOW (QUANTIFIABLE INDICATORS)

1	2	3	4	5	6
Sl. No.	Item	Unit of measurement	Pre-project Status	Expected Post-project Status	Remarks
1	Status of water table (Depth to Ground water level)	Meters	9.5m	9.0m	
2	Ground water structures repaired/ rejuvenated	No.	-	-	
3	Quality of drinking water	Description	Poor	Potable	
4	Availability of drinking water	Description	Scare	Sufficient	
5	Increase in irrigation potential	Hectare	-	-	
6	Change in cropping/ land use pattern	Description	Single	Double	
7	Area under agricultural crop	Hectare	562.76	1368.80	
	(i) Area under single crop	Hectare	562.76	965.78	
	(ii) Area under double crop	Hectare	-	403.00	
	(iii) Area under multiple crop	Hectare	-	-	
8	Net increase in crop production area	Hectare	-	1000	

9	Increase in area under Vegetation/Forest	Hectare	-	655	
10	Increase in area under horticulture	Hectare	-	184	
11	Increase in area under fuel	Hectare	-	115	
12	Increase in area under Fodder	Hectare	-	15	
13	Increase in milk production	Litres/day	-	100	
14	Environmental ImpactChange in Soil Loss Perenniality of flow and change in Run-off Recharge of ground water			25MT/Ha/Year	
15	No. of SHGs Promoted	No.	15	62	
16	Increase in no. of livelihoods	No.		696	
17	Increase in income	Rs.	45000	65000	
18	Status of Migration	No.	50	Nil	
19	SHG Federations formed	No.	-	10	
20	Credit linkage with banks	Rs.	-	-	
21	Resource use agreements		-	10	
22	WDF collection & management	Rs.	-	48,51,000.00	
23	Summary of lessons learnt	Description			

TABLE NO.10.3: BACKWARD AND FORWARD LINKAGES:

1	2	3	4
Type of Marketing Facility	Name of the institution	Pre-project (no.)	Expected post project status
(A) Backward linkages			
(i) Seed certification	Assam Seed Corporation / Seed Corporation of India	Nil	150
(ii) Seed supply system	Assam Seed Corporation / Seed Corporation of India	Nil	4
(iii) Fertilizer supply system	Fertilizer Corporation of India	Nil	6
(iv) Pesticide supply system	From Reputed manufacturers through the Department of Agriculture	2	5
(v) Credit institutions	State Bank of India/PNB	Nil	Nil
(vi) Water supply	State Department of Public Health Engineering	6	24
(vii) Extension services	State department of Agriculture & Allied services	Nil	Nil
(viii) Nurseries	Provision for creation of Forestry and Horticulture Nursery is made in the DPR	4	16
(ix) Tools/machinery suppliers	Department of Agriculture, Assam	20	40
(x) Price Support system	State Department of Agriculture	Nil	4
(xi) Labour	State Department of Labour and Employment	100	200
(xii) Any other (please specify)			
(B) Forward linkages			
(i) Harvesting/threshing machinery	State Department of Agriculture	Nil	4
(ii) Storage (including cold storage)	State Department of Agriculture	Nil	Nil
(iii) Road network	State PWD Department	1	3
(iv) Transport facilities	State Department of Transport	1	3

(v) Markets / Mandis	VCDC, Local Bodies	Nil	Nil
(vi) Agro and other Industries	Agro Industries Development Corporation, Assam, State Industries Development Corporation, State Department of Industries and commerce	Nil	Nil
(vii) Milk and other collection centres	Local Committee, Cooperative	Nil	4
(viii) Labour	Department of Labour and Employment	Nil	150
(ix) Any other (please specify)			

ANNEXURE–A

5 Years Action Plan for NaturalResourceManagementvillagewise

Name of Village	Spring-shed											Total	
	Works	1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical Target	Fin. (Rs. In Lakhs)	Physical Target	Fin. (Rs. In Lakhs)	Physical Target	Fin. (Rs. In Lakhs)	Physical Target	Fin. (Rs. In Lakhs)	Physical Target	Fin. (Rs. In Lakhs)	Physical Target	Fin. (Rs. In Lakhs)
Retzol	Afforestation	3.18Ha	3.17730									3.18 Ha.	3.17730
	Staggered Trenching			1.65 Ha	6.77900							1.65 Ha	6.7790
Mongon	Afforestation	4.48Ha	4.47805	10.50 Ha.	7.40508			4.01 Ha	4.0103			14.98 Ha	15.89343
Sarbagram(Jatinga Lampu)	Afforestation	3.53Ha	3.53000									3.53 Ha.	3.530
	W. H. Pond			1	7.0000	1	3.3109			1	3.6891	3 Nos.	14.00
	Boulder Check Dam			120.081Cum	4.0000	192 CuM	6.3955	73.42 CuM	2.44581			385.5 Cum	12.84131
Rekho	W.H.Structure	1 No.	10.00000									1 No	10.000
	W.H. Tank			1 No.	7.00000							1 No.	7.000
	W.H. Pond	1 No.	5.00000			1 No.	4.24838					2 Nos.	9.24838
Jatinga(Khasia)	W.H.Structure	1 No.	10.00000									1 No.	10.000
	W.H. Tank			1 No.	7.00000							1 No.	7.000
	Staggered Trenching					2.035 Ha.	8.35944			0.276 Ha	0.11302	2.0626 Ha	8.47246
Miyungkro	W.H. Pond	1 No	5.44681									1 No.	5.44681
	Boulder Check Dam			291.4CuM	9.70678							291.40CuM	9.70678
Kapurchera	Afforestation	0	0.00000			4.76 Ha	4.76574					4.765 Ha.	4.76574
	W.H. Pond					1 No.	6.00000					1 No.	6.000
Choto Moulkoi	Staggered Trenching	0.79 Ha	3.22788									0.79 Ha	3.22788
	W.H. Structure			1 No.	9.09712							1 No.	9.09712
	W.H. Pond					1 No.	2.26074	1 No.	3.73926			2 Nos.	6.000
	Bench Terracing							3.95 Ha	6.58083	1.986 Ha	3.31090	4.924 Ha	9.89173
Boro Muolkoi	WH Structure	1 No.	10.0000									1 No.	10.000
	W.H. Tank			1 No.	7.0000							1 No.	7.000
	Staggered Trenching					0.21 Ha.	0.86018			1.66 Ha	6.83682	1.87 Ha	7.69700
Mailangdisa(Rly Station)	Afforestation	3.22506Ha.	3.22506									3.2251 Ha	3.22506
	W.H.Structure	1 No	10.00000									1 No.	10.000
Grand Total			**68.08510**		**64.98798**		**36.20090**		**16.77620**		**13.94982**		**200.000**

Name of Village	**Bench Terracing**										Total	
	Physical. In Ha	Fin. (Rs. In Lakhs)	Physical. (in Ha)	Fin. (Rs. In Lakhs)	Physical. (in Ha)	Fin. (Rs. In Lakhs)	Physical. In Ha	Fin. (Rs. In Lakhs)	Physical. In Ha	Fin. (Rs. In Lakhs)	Physical. In Ha	Fin. (Rs. In Lakhs)
	1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	1.9976484	3.33000	0	0	0	0	0	0	0	0	1.99765	3.33000
Mong-on	2	3.33784	1	1.66692	0	0	0	0	0	0	3.00000	5.00476
Sarbagram (Jatinga Lampu)	0	0.00000	2	3.33392	1	1.667	2	3.33392			5.00000	8.33484
Rekho	0	0.00000	0	0	0	0	0	0	0	0	0.00000	0.00000
Jatinga(Khasia)	0	0.00000	2	3.33392	2	3.33704	0	0	1	1.66696	5.00000	8.33792
Miyungkro	0	0.00000	1	1.66388	1	1.66696	0	0	0	0	2.00000	3.33084
Kapurchera	2	3.33392	0	0	0	0	0	0	0	0	2.00000	3.33392
Mailangdisa(Rly Station)	2	3.33392	1.65	2.74744	2	2.25392	0	0	0	0	5.00000	8.33528
Boro Moulkoi	3	5.00088	0	0	0	0	0	0	0	0	3.00000	5.00088
Choto Moulkoi	0	0.00000	4	6.66784	2	3.33392	0	0	1	1.66696	7.00000	11.66872
Total of BT	**10.997648**	**18.33656**	**11.000**	**19.414**	**8.000**	**12.259**	**2.00000**	**3.33392**	**2.00000**	**3.33392**	**33.99765**	**56.67716**

Name of Village	RCC Water Harvesting Structure										Total	
	Physical. (in SqM)	Fin. (Rs. In Lakhs)	Physical. (in SqM)	Fin. (Rs. In Lakhs)	Physical. (in SqM)	Fin. (Rs. In Lakhs)	Physical. (in SqM)	Fin. (Rs. In Lakhs)	Physical. (in SqM)	Fin. (Rs. In Lakhs)	Physical (in SqM)	Fin. (Rs. In Lakhs)
	1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0	0	1	8.393	0	0	0	0	0	0	1	8.393
Mongon	0	0	0	0	0	0	0	0	0	0	0	0
Sarbagram (Jatinga Lampu)	0	0	1	8.393	0	0	0	0	0	0	1	8.393
Rekho	0	0	0	0	1	8.393	0	0	0	0	1	8.393
Jatinga(Khasia)	1	10.656	0	0	0	0	0	0	0	0	1	10.656
Miyungkro	1	8.393			0	0	0	0	0	0	1	8.393
Kapurchera	0	0	1	8.393	0	0	0	0	0	0	1	8.393
Mailangdisa(Rly Station)	0	0	1	8.393	0	0	0	0	0	0	1	8.393
Boro Moulkoi	0	0	1	8.393	0	0	0	0	0	0	1	8.393
Choto Moulkoi	0	0	0	0	1	8.393	0	0	0	0	1	8.393
Total of RCC WHS	**2**	**19.049**	**5**	**41.965**	**2**	**16.786**	**0**	**0**	0	0	**9**	**77.80**

Name of Village	**Water Harvesting Pond**										Total	
	Physical (in CuM)	Fin. (Rs. In Lakhs)	Physical (in CuM)	Fin. (Rs. In Lakhs)	Physical (in CuM)	Fin. (Rs. In Lakhs)	Physical (in CuM)	Fin. (Rs. In Lakhs)	Physical (in CuM)	Fin. (Rs. In Lakhs)	Physical (in CuM)	Fin. (Rs. In Lakhs)
	1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0	0	0	0	1 No.	5.328	0	0	0	0	1 No.	5.328
Mongon	0	0	1 No.	5.328	0	0	0	0	0	0	1 No.	5.328
Sarbagram (Jatinga Lampu)	3 Nos.	15.984	0	0	0	0	0	0	0	0	3 Nos.	15.984
Rekho	0	0	1 No.	5.328	0	0	0	0	0	0	1 No.	5.328
Jatinga(Khasia)	0	0	1 No.	5.328	0	0	0	0	0	0	1 No.	5.328
Miyungkro	0	0	0	0	1 No.	5.328	0	0	0	0	1 No.	5.328
Kapurchera	0	0	0	0	1 No.	5.328	0	0	0	0	1 No.	5.328
Mailangdisa(Rly Station)	0	0	1 No.	5.328	1 No.	5.328	0	0	0	0	2 Nos.	10.656
Boro Moulkoi	0	0	1 No.	5.328	0	0	0	0	0	0	1 No.	5.328
Choto Moulkoi	1 No.	5.328	1 No.	5.328	0	0	0	0	0	0	2 Nos.	10.656
Total of WHP	**4 Nos.**	**21.312**	**6 Nos.**	**31.968**	**4 Nos.**	**21.312**	**0**	**0**	**0**	**0**	**14 Nos.**	**74.592**

Name of Village	**Protective Afforestation**										Total	
	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)
	1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0	0	1	1	1	1	0	0	0	0	2.00000	2.0000
Mongon	1	1	1	1	0	0	0	0	0	0	2.00000	2.0000
Sarbagram (Jatinga Lampu)	1	1	1	1	3	3	1	1	2.39	2.39	8.39000	8.3900
Rekho	1	1	1	1	0	0	0	0	0	0	2.00000	2.0000
Jatinga(Khasia)	1	1	1	1	1	1	1.5624	1.5624	2.4376	2.4376	7.00000	7.0000
Miyungkro	1	1	1	1	0	0	0	0	0	0	2.00000	2.0000
Kapurchera	1	1	1	1	0	0	0	0	0	0	2.00000	2.0000
Mailangdisa(Rly Station)	1	1	2	2	1.08	1.08	0	0	0	0	4.08000	4.0800
Boro Moulkoi	2	2	0	0	0	0	0	0	0	0	2.00000	2.0000
Choto Moulkoi	1	1	1	1	0	0	0	0	0	0	2.00000	2.0000
Total of Aff.	**10**	**10**	**10**	**10**	**6.08**	**6.08**	**2.5624**	**2.5624**	**4.8276**	**4.8276**	**33.47000**	**33.4700**

Name of Village	Arecanut Plantation										Total	
	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)	Physical (in Ha)	Fin. (Rs. In Lakhs)
	1		2		3		4		5		6	7
Retzol	3.98387	6.7407	2.26950	3.84	1.15248	1.95000	0.00000	0.00000	0.86879	1.47	8.27465	14.00070
Mongon	3.62676	6.13647	0.46536	0.78739	2.00000	3.384	0.49628	0.83971	1.22459	2.072	7.81298	13.21957
Sarbagram (Jatinga Lampu)	2.13177	3.60696	4.64778	7.86404	4.46744	7.55891	0.00000		0.48896	0.82732	11.73595	19.85723
Rekho	7.31747	12.38116	1.54845	2.61998	0.00000	0	0.00000	0.00000	1.86584	3.157	10.73176	18.15814
Jatinga(Khasia)	2.40217	4.06448	3.58071	6.05856	2.65448	4.49138	1.54252	2.60995	0.00000	0	10.17989	17.22437
Miyungkro	0.76134	1.28819	1.58943	2.68931	0.00000	0	1.18365	2.00273	1.10067	1.86234	4.63509	7.84257
Kapurchera	1.91012	3.23192	0.00000	0	0.00000	0	0.83842	1.41860	0.00000	0	2.74853	4.65052
Mailangdisa(Rly Station)	3.83902	6.49562	1.00000	1.692	0.00000	0	1.20008	2.03054	0.00000	0	6.03910	10.21816
Boro Moulkoi	3.83580	6.49018	0.00000	0	5.38332	9.10857	1.38468	2.34288	0.00000	0	10.60380	17.94163
Choto Moulkoi	8.49980	14.38166	10.00000	7.71382	0.33652	0.5694	2.29496	3.88307	0.00000	0	21.13128	26.54795
Total of Arecanut	**38.30812**	**64.81734**	**25.10123**	**33.26510**	**15.99424**	**27.06226**	**8.94059**	**15.12748**	**5.54885**	**9.38866**	**93.8930**	**149.66084**
Grand Total of NRM		**201.6000**		**201.6000**		**119.7000**		**37.8000**		**31.5000**		**592.2000**

ANNEXURE-B

5 Years Action Plan for Production System

Name of Village	Cost (Rs. In Lakhs Per Unit)	Ginger Cultivation										Total	
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
Retzol	0.56	1	0.56	2.5	1.40	0	0	0	0	0	0	3.5	1.960
Mongon	0.56	1	0.56	2.5	1.40	0	0	0	0	0	0	3.5	1.960
Sarbagram (Jatinga Lampu)	0.56	1	0.56	6	3.36	0	0	0	0	0	0	7	3.920
Rekho	0.56	1	0.56	2.5	1.40	0	0	0	0	0	0	3.5	1.960
Jatinga(Khasia)	0.56	1	0.56	2.5	1.40	0	0	0	0	0	0	3.5	1.960
Miyungkro	0.56	1	0.56	3.5	1.96	0	0	0	0	0	0	4.5	2.520
Kapurchera	0.56	1	0.56	3.5	1.96	0	0	0	0	0	0	4.5	2.520
Mailangdisa(Rly Station)	0.56	1	0.56	2.5	1.40	0	0	0	0	0	0	3.5	1.960
Boro Moulkoi	0.56	1	0.56	4	2.24	0	0	0	0	0	0	5	2.800
Choto Moulkoi	0.56	1	0.56	4.5	2.52	0	0	0	0	0	0	5.5	3.080
Total of Ginger		**10**	**5.6**	**34**	**19.04**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**24.64**

Name of Village	Cost (Rs. In Lakhs Per Unit)	Turmeric Cultivation										Total	
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. inLakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0.56	0	0	2.5	1.4	0	0	0	0	0	0	2.5	1.40
Mongon	0.56	0	0	2	1.12	0	0	0	0	0	0	2	1.12
Sarbagram (Jatinga Lampu)	0.56	1.5	0.84	3.5	1.96	0	0	0	0	0	0	5	2.80
Rekho	0.56	0	0	2	1.12	0	0	0	0	0	0	2	1.12
Jatinga(Khasia)	0.56	0	0	2	1.12	0	0	0	0	0	0	2	1.12
Miyungkro	0.56	1.5	0.84	3	1.68	0	0	0	0	0	0	4.5	2.52
Kapurchera	0.56	1.5	0.84	3	1.68	0	0	0	0	0	0	4.5	2.52
Mailangdisa(Rly Station)	0.56	0	0	2	1.12	0	0	0	0	0	0	2	1.12
Boro Moulkoi	0.56	1.5	0.84	2	1.12	0	0	0	0	0	0	3.5	1.96
Choto Moulkoi	0.56	0	0	2	1.12	0	0	0	0	0	0	2	1.12
Total of Turmeric		**6**	**3.36**	**24**	**13.44**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**16.80**

Name of Village	Cost (Rs. in lakhs per unit)	Pineapple Cultivation										Total	
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0.56	1	0.56	1.5	0.84	0	0	0	0	0	0	2.5	1.4
Mongon	0.56	1	0.56	1	0.56	0	0	0	0	0	0	2	1.12
Sarbagram (Jatinga Lampu)	0.56	0	0	0	0	0	0	0	0	0	0	0	0
Rekho	0.56	1	0.56	1.5	0.84	0	0	0	0	0	0	2.5	1.4
Jatinga(Khasia)	0.56	1	0.56	2	1.12	0	0	0	0	0	0	3	1.68
Miyungkro	0.56	0	0	0	0	0	0	0	0	0	0	0	0
Kapurchera	0.56	0	0	0	0	0	0	0	0	0	0	0	0

Mailangdisa(Rly Station)	0.56	0	0	0	0	0	0	0	0	0	0	0	0
Boro Moulkoi	0.56	1	0.56	1	0.56	0	0	0	0	0	0	2	1.12
Choto Moulkoi	0.56	1.5	0.84	2.5	1.4	0	0	0	0	0	0	4	2.24
Total of Pineapple		**6.5**	**3.64**	**9.5**	**5.32**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**8.96**

Name of Village	Cost (Rs. in lakhs per unit)	**Mushroom Cultivation**										Total	
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0.56	0	0	0	0	6.00	3.36	5.00	2.80	0.00	0.00000	11	6.16
Mongon	0.56	0	0	0	0	3.00	1.68	4.00	2.24	0.00	0.00000	7	3.92
Sarbagram (Jatinga Lampu)	0.56	0	0	0	0	7.00	3.92	8.00	4.48	0.00	0.00000	15	8.40
Rekho	0.56	0	0	0	0	5.00	2.80	6.00	3.36	0.00	0.00000	11	6.16
Jatinga(Khasia)	0.56	0	0	0	0	4.00	2.24	2.00	1.12	0.00	0.00000	6	3.36
Miyungkro	0.56	0	0	0	0	3.00	1.68	5.00	2.80	0.00	0.00000	8	4.48
Kapurchera	0.56	0	0	0	0	1.00	0.56	3.00	1.68	0.00	0.00000	4	2.24
Mailangdisa(Rly Station)	0.56	0	0	0	0	2.00	1.12	4.00	2.24	0.00	0.00000	6	3.36
Boro Moulkoi	0.56	0	0	0	0	2.00	1.12	5.00	2.80	0.00	0.00000	7	3.92
Choto Moulkoi	0.56	0	0	0	0	6.00	3.36	8.00	4.48	0.00	0.00000	14	7.84
Total of Mushroom		**0**	**0**	**0**	**0**	**39.00**	**21.84**	**50.00**	**28.00**	**0.00**	**0.00000**	**89**	**49.84**

Name of Village	Cost (Rs. in lakhs per unit)	**Mixed Plantation**										Total	
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0.56	0	0	0	0	7	3.92	4	2.24	1	0.56	12	6.72
Mongon	0.56	0	0	0	0	3	1.68	3	1.68	1	0.56	7	3.92
Sarbagram (Jatinga Lampu)	0.56	0	0	0	0	8	4.48	7	3.92	2	1.12	17	9.52
Rekho	0.56	0	0	0	0	5	2.8	4.625	2.59	2.875	1.61	12.5	7
Jatinga(Khasia)	0.56	0	0	0	0	5	2.8	4	2.24	3	1.68	12	6.72

Miyungkro	0.56	0	0	0	0	3	1.68	3	1.68	1	0.56	7	3.92
Kapurchera	0.56	0	0	0	0	2	1.12	3	1.68	1	0.56	6	3.36
Mailangdisa(Rly Station)	0.56	0	0	0	0	4	2.24	4	2.24	1	0.56	9	5.04
Boro Moulkoi	0.56	0	0	0	0	6	3.36	5	2.8	2	1.12	13	7.28
Choto Moulkoi	0.56	0	0	0	0	10	5.6	8	4.48	2	1.12	20	11.2
Total of Mixed Plantation		**0**	**0**	**0**	**0**	**53**	**29.68**	**45.625**	**25.55**	**16.875**	**9.45**	**115.5**	**64.68**

Name of Village	Cost (Rs. in lakhs per unit)	**Fisheries**										**Total**	
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
Retzol	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Mongon	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Sarbagram (Jatinga Lampu)	0.56	0	0	0	0	5	2.8	0	0	0	0	5	2.8
Rekho	0.56	0	0	0	0	5	2.8	0	0	0	0	5	2.8
Jatinga(Khasia)	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Miyungkro	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Kapurchera	0.56	0	0	0	0	5	2.8	0	0	0	0	5	2.8
Mailangdisa(Rly Station)	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Boro Moulkoi	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Choto Moulkoi	0.56	0	0	0	0	4	2.24	0	0	0	0	4	2.24
Total of Fisheries		**0**	**0**	**0**	**0**	**43**	**24.08**	**0**	**0**	**0**	**0**	**43**	**24.08**
Grand Total Production System			**12.6**		**37.8**		**75.6**		**53.55**		**9.45**		**189.000**

ANNEXURE-C

FIVE YEAR PLAN OF LIVELIHOOD FOR ASSETLESS POOR

Name of Village	Piggery											Total	
	Cost (Rs.in lakhs per unit)	1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
Retzol	0.25	04	1.00	04	1.00	04	1.00	08	2.00	0.00	0.00	20	5.00
Mongon	0.25	04	1.00	04	1.00	04	1.00	08	2.00	0.00	0.00	20	5.00
Sarbagram (Jatinga Lampu)	0.25	04	1.00	04	1.00	16	4.00	16	4.00	0.00	0.00	40	10.00
Rekho	0.25	04	1.00	04	1.00	08	2.00	12	3.00	0.00	0.00	28	7.00
Jatinga(Khasia)	0.25	04	1.00	04	1.00	08	2.00	12	3.00	0.00	0.00	28	7.00
Miyungkro	0.25	04	1.00	04	1.00	04	1.00	08	2.00	0.00	0.00	20	5.00
Kapurchera	0.25	00	0.00	04	1.00	04	1.00	04	1.00	0.00	0.00	12	3.00
Mailangdisa(Rly Station)	0.25	04	1.00	04	1.00	04	1.00	08	2.00	0.00	0.00	20	5.00
Boro Moulkoi	0.25	04	1.00	04	1.00	04	1.00	04	1.00	04	1.00	20	5.00
Choto Moulkoi	0.25	04	1.00	04	1.00	16	4.00	12	3.00	04	1.00	40	10.00
Total of Piggery		**36**	**9.00**	**40**	**10.00**	**72**	**18.00**	**92**	**23.00**	**08**	**2.00**	**248**	**62.00**

Name of Village	Cost (Rs.in lakhs per	Sewing Machine										Total	
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical	Fin. (Rs.	Physical (in	Fin. (Rs.	Physical	Fin. (Rs.	Physical	Fin. (Rs.	Physical (in	Fin. (Rs.	Physical	Fin. (Rs. in
Retzol	0.20	01	0.2	05	1.00	04	1.00	04	1.00	03	0.75	17	3.95
Mongon	0.20	02	0.40	05	1.00	04	1.00	04	1.00	03	0.75	18	4.15
Sarbagram (Jatinga Lampu)	0.20	02	0.40	06	1.20	04	1.00	04	1.00	03	0.75	19	4.35
Rekho	0.20	02	0.40	05	1.00	04	1.00	04	1.00	05	1.25	20	4.65
Jatinga(Khasia)	0.20	02	0.40	05	1.00	04	1.00	4.8	1.20	04	1.00	19.8	4.60
Miyungkro	0.20	02	0.40	05	1.00	04	1.00	04	1.00	3.4	0.85	18.4	4.25
Kapurchera	0.20	01	0.20	02	0.40	04	1.00	04	1.00	02	0.50	13	3.10
Mailangdisa(Rly Station)	0.20	02	0.40	05	1.00	04	1.00	04	1.00	02	0.50	17	3.90
Boro Moulkoi	0.20	02	0.40	04	0.80	03	0.75	04	1.00	02	0.50	15	3.45
Choto Moulkoi	0.20	02	0.40	06	1.20	7.4	1.85	04	1.00	03	0.75	22.4	5.20
Total of Sewing Machine		**18**	**3.60**	**48**	**9.6**	**42.4**	**10.6**	**40.8**	**10.2**	**30.4**	**7.6**	**179.6**	**41.60**

Name of Village	Cost (Rs.in lakhs per Ha.)	Horticulture										Total	
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical (in Ha)	Fin. (Rs. in Lakhs)	Physical (in Ha)	Fin. (Rs. in Lakhs)	Physical (in Ha)	Fin. (Rs. in Lakhs)	Physical (in Ha)	Fin. (Rs. in Lakhs)	Physical (in Ha)	Fin. (Rs. in Lakhs)	Physical (in Ha)	Fin. (Rs. in Lakhs)
Retzol	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Mongon	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Sarbagram (Jatinga Lampu)	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Rekho	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Jatinga(Khasia)	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Miyungkro	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Kapurchera	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Mailangdisa(Rly Station)	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Boro Moulkoi	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Choto Moulkoi	1.75	00	0.00	0.68	1.19	00	0.00	0.00	00	00	0.00	0.68	1.19000
Total of Horticulture		**00**	**0.00**	**6.80**	**11.900**	**00**	**0.00**	**0.00**	**00**	**00**	**0.00**	**6.80**	**11.900**

Name of Village	Cost (Rs.in lakhs	Goatery										Total	
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical	Fin. (Rs.	Physical (in	Fin. (Rs.	Physical	Fin. (Rs.	Physical	Fin. (Rs.	Physical (in	Fin. (Rs.	Physical	Fin. (Rs. in
Retzol	0.25	00	0.00	00	0.00	08	2.00	06	1.50	00	0.00	14.00	3.50
Mongon	0.25	00	0.00	00	0.00	08	2.00	5	1.25	00	0.00	13.00	3.25
Sarbagram	0.25	00	0.00	00	0.00	15	3.75	10	2.5	05	1.25	30.00	7.50
Rekho	0.25	00	0.00	00	0.00	10	2.50	07	1.75	00	0.00	17.00	4.25
Jatinga(Khasia)	0.25	00	0.00	00	0.00	15	3.75	10	2.50	05	1.25	30.00	7.50
Miyungkro	0.25	00	0.00	00	0.00	09	2.25	06	1.50	00	0.00	15.00	3.75
Kapurchera	0.25	00	0.00	00	0.00	07	1.75	04	1.00	00	0.00	11.00	2.75
Mailangdisa(Rly	0.25	00	0.00	00	0.00	09	2.25	06	1.50	01	0.25	16.00	4.00
Boro Moulkoi	0.25	00	0.00	00	0.00	14	3.50	10	2.50	00	0.00	24.00	6.00
Choto Moulkoi	0.25	00	0.00	00	0.00	15	3.75	10	2.50	01	0.25	26.00	6.50
Total of Goatery		**00**	**0.00**	**00**	**0.00**	**110**	**27.5**	**74**	**18.50**	**12**	**3.00**	**196.00**	**49.00**

Name of Village	Cost (Rs.in lakhs per unit)	Poultry										Total	
		1st Year		2nd Year		3rd Year		4th Year		5th Year			
		Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)	Physical (in per Unit)	Fin. (Rs. in Lakhs)
Retzol	0.25	00	0.00	00	0.00	04	1.00	02	0.50	00	0.00	6.00	1.50
Mongon	0.25	00	0.00	00	0.00	04	1.00	02	0.50	00	0.00	6.00	1.50
Sarbagram (Jatinga Lampu)	0.25	00	0.00	00	0.00	11	2.75	02	0.50	00	0.00	13.00	3.25
Rekho	0.25	00	0.00	00	0.00	08	2.00	02	0.50	00	0.00	10.00	2.50
Jatinga(Khasia)	0.25	00	0.00	00	0.00	15	3.75	02	0.50	00	0.00	17.00	4.25
Miyungkro	0.25	00	0.00	00	0.00	07	1.75	02	0.50	00	0.00	9.00	2.25
Kapurchera	0.25	00	0.00	00	0.00	04	1.00	02	0.50	00	0.00	6.00	1.50
Mailangdisa(Rly Station)	0.25	00	0.00	00	0.00	08	2.00	02	0.50	00	0.00	10.00	2.50
Boro Moulkoi	0.25	00	0.00	00	0.00	08	2.00	02	0.50	00	0.00	10.00	2.50
Choto Moulkoi	0.25	00	0.00	00	0.00	09	2.25	02	0.50	00	0.00	11.00	2.750
Total of Poultry		**00**	**0.00**	**00**	**0.00**	**78**	**19.500**	**20**	**5.00**	**00**	**0.00**	**98.00**	**24.50**
Total of Livelihood			**12.60**		**31.50**		**75.60**		**56.70**		**12.60**		**189.00**

LIST OF MAPS TO BE ENCLOSED ALONG WITH DPR.

1 Location –District, Mandal, village, watershed location map

2 watershed Map for WDC/PMKSY 2.0 Project (Watershed Boundary demarcation in cadastral & Topo-Sheet)

3 Social Map (along with photos & paper drawing)-with Existing Structure

4 Resource Map (along with photos & paper drawing)and Land Type

5 Drainage Map (with numbering)

6 Map showing existing structures

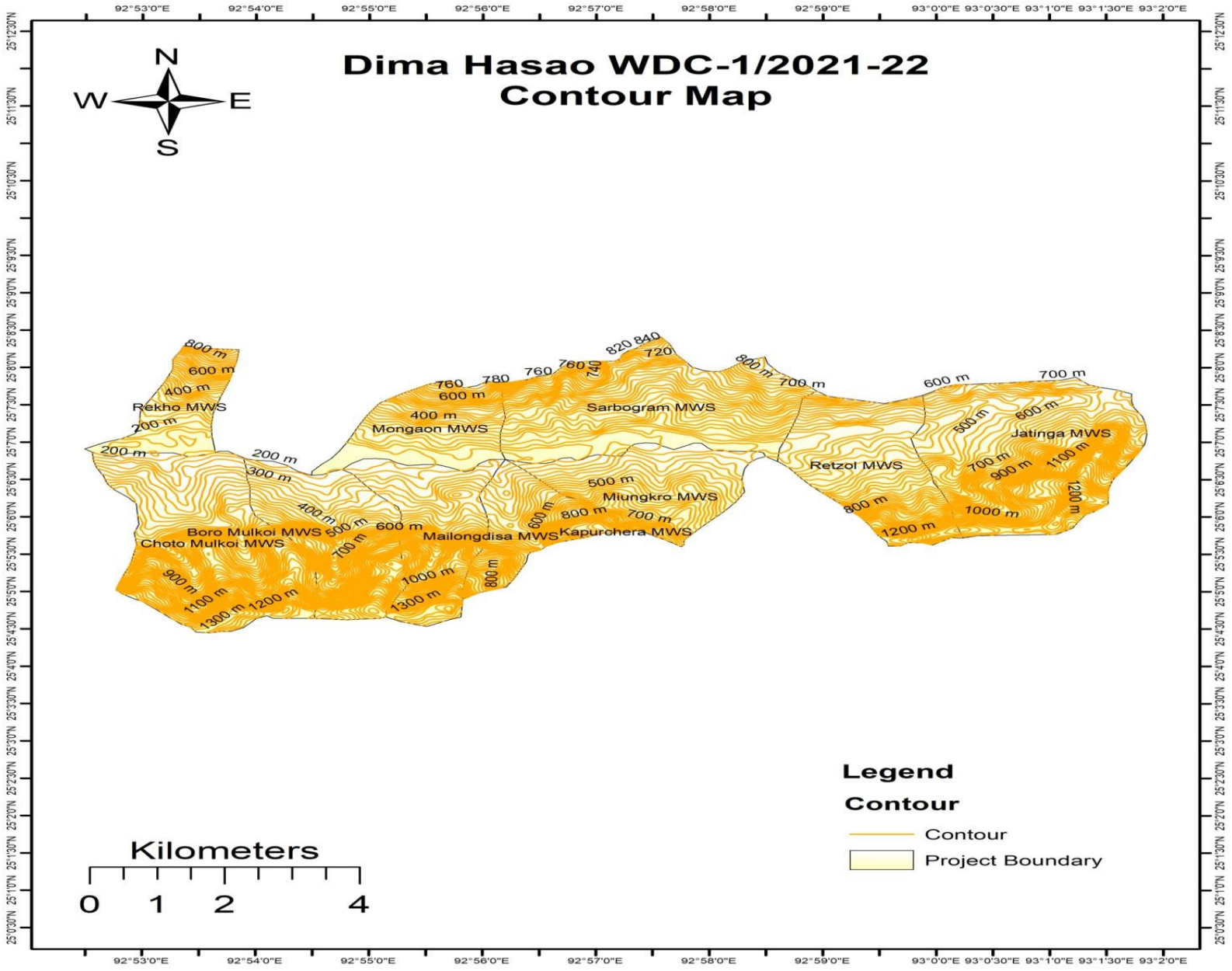
   a. Proposed Action Plan map

   b. Land Use/Land Cover map

   c. Slope map

   d. Soil and Land Capability Class maps

   e. GIS maps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Rekho MWS
Mongaon MWS
Sarbogram MWS
Retzol MWS
Jatinga MWS
Miungkro MWS
Boro Mulkoi MWS
Choto Mulkoi MWS
Mailongdisa MWS
Kapurchera MWS
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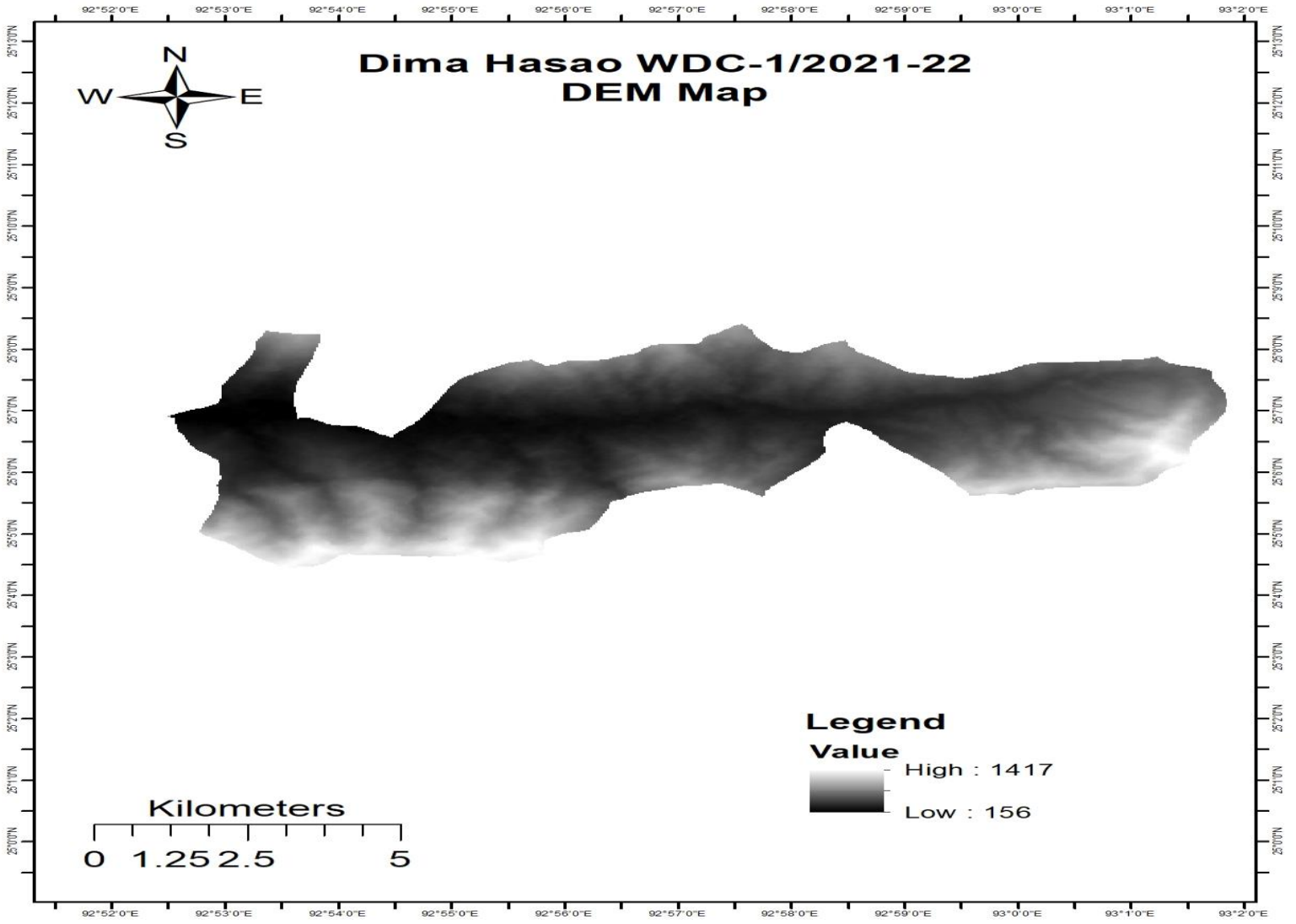
Project Boundary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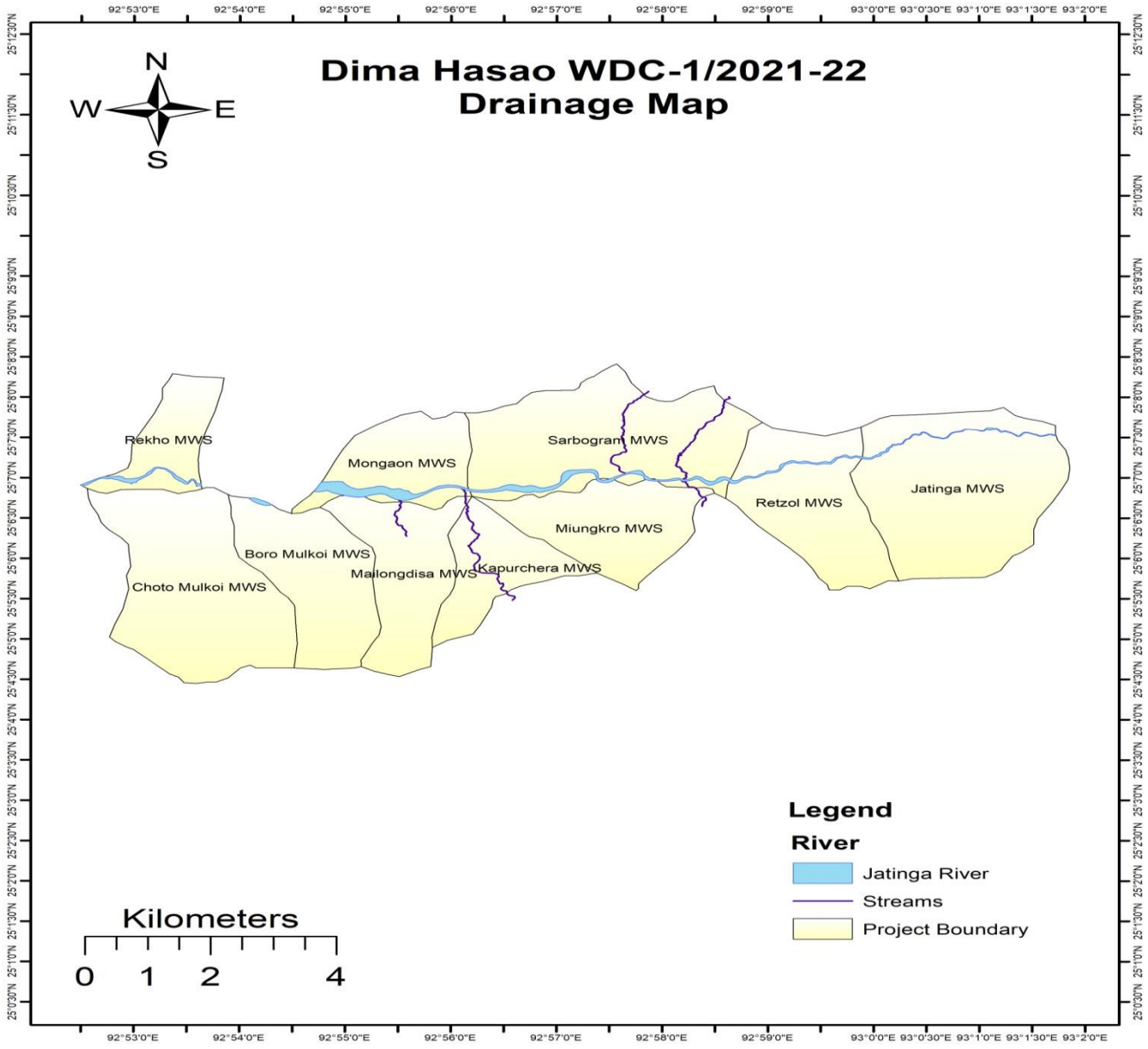
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Drainage Map
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Rekho MWS
Mongaon MWS
Sarbogram MWS
Retzol MWS
Jatinga MWS
Miungkro MWS
Boro Mulkoi MWS
Mailongdisa MWS
Kapurchera MWS
Choto Mulkoi MWS
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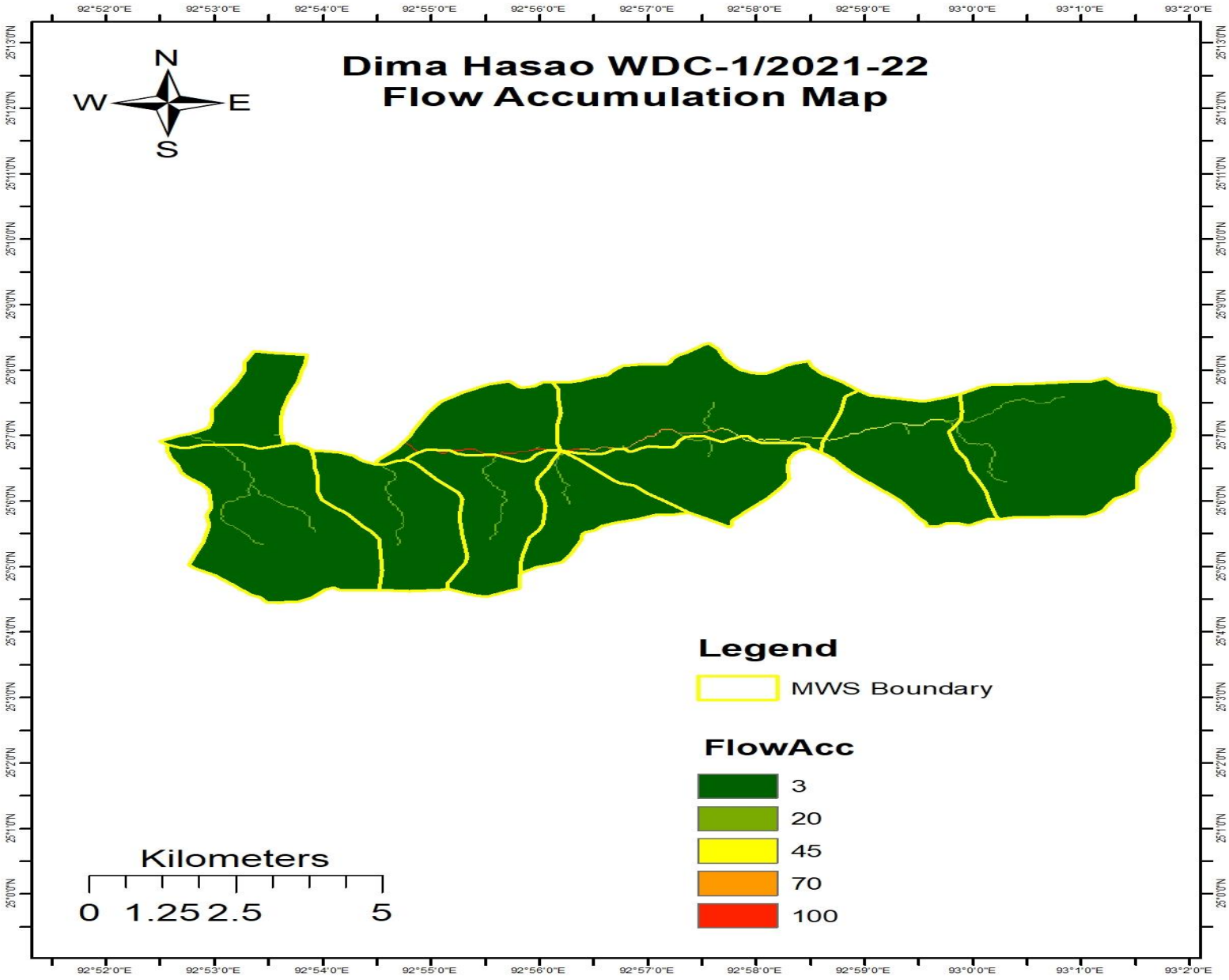
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Flow Accumulation Map
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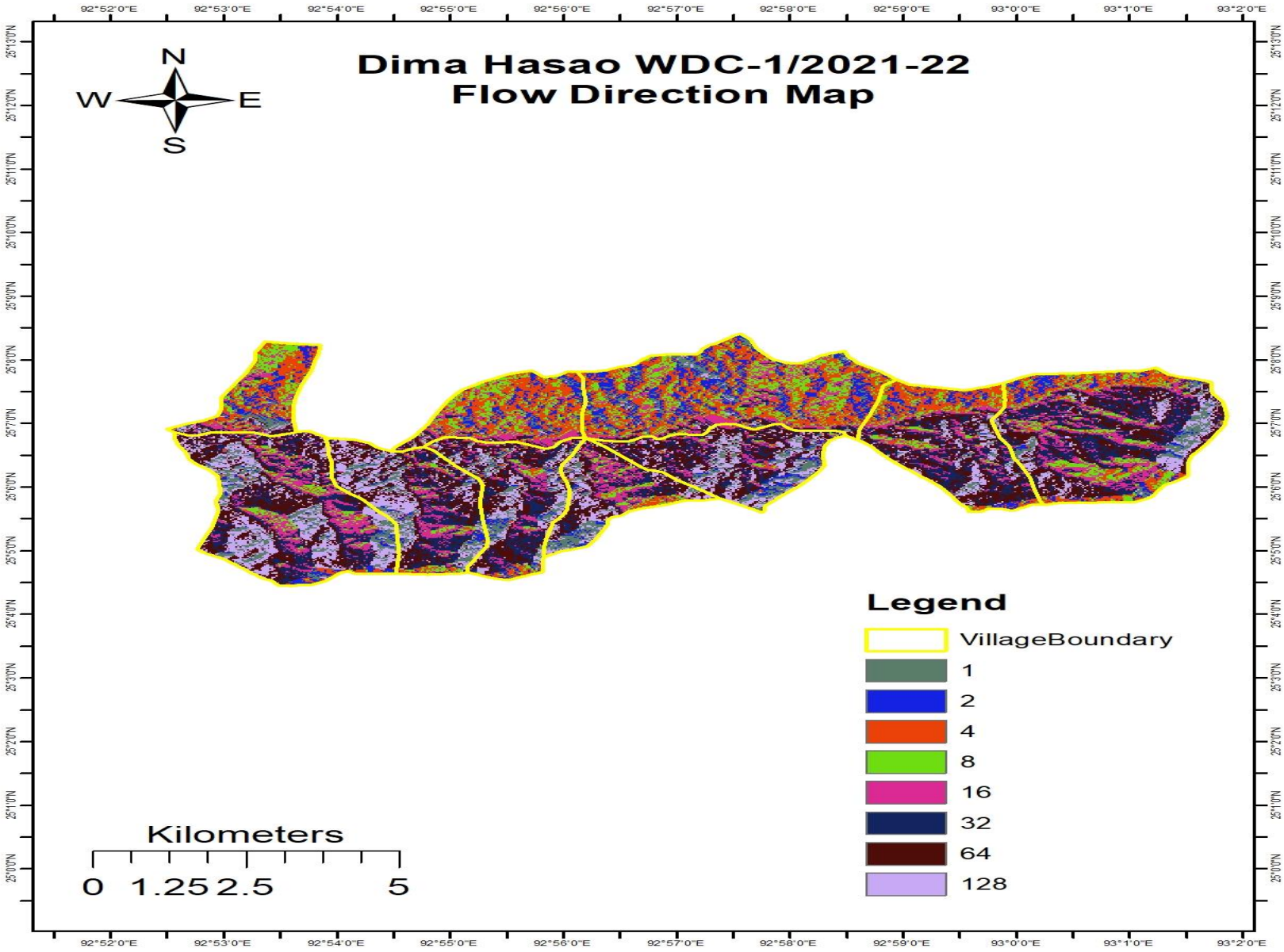
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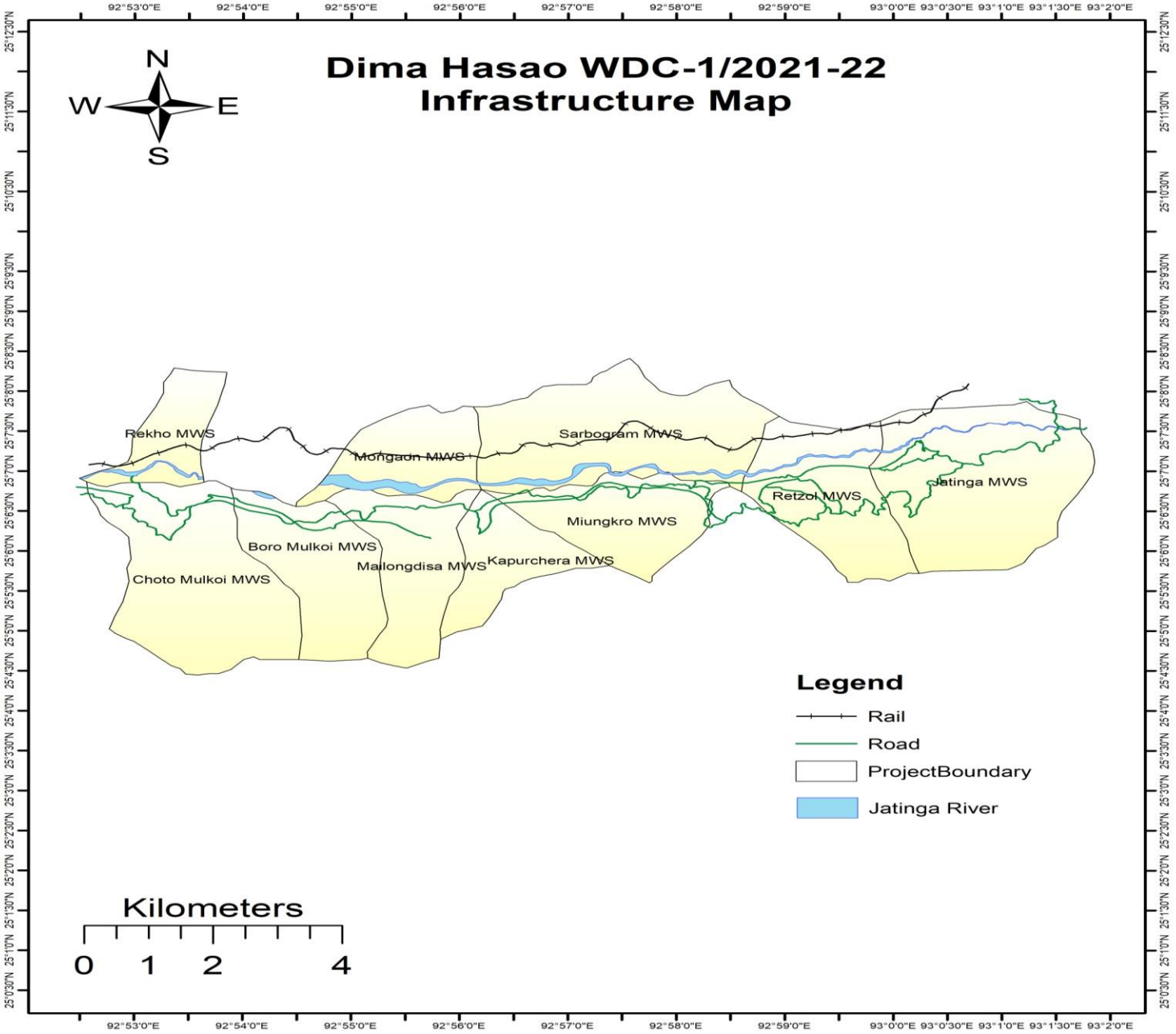
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Infrastructure Map
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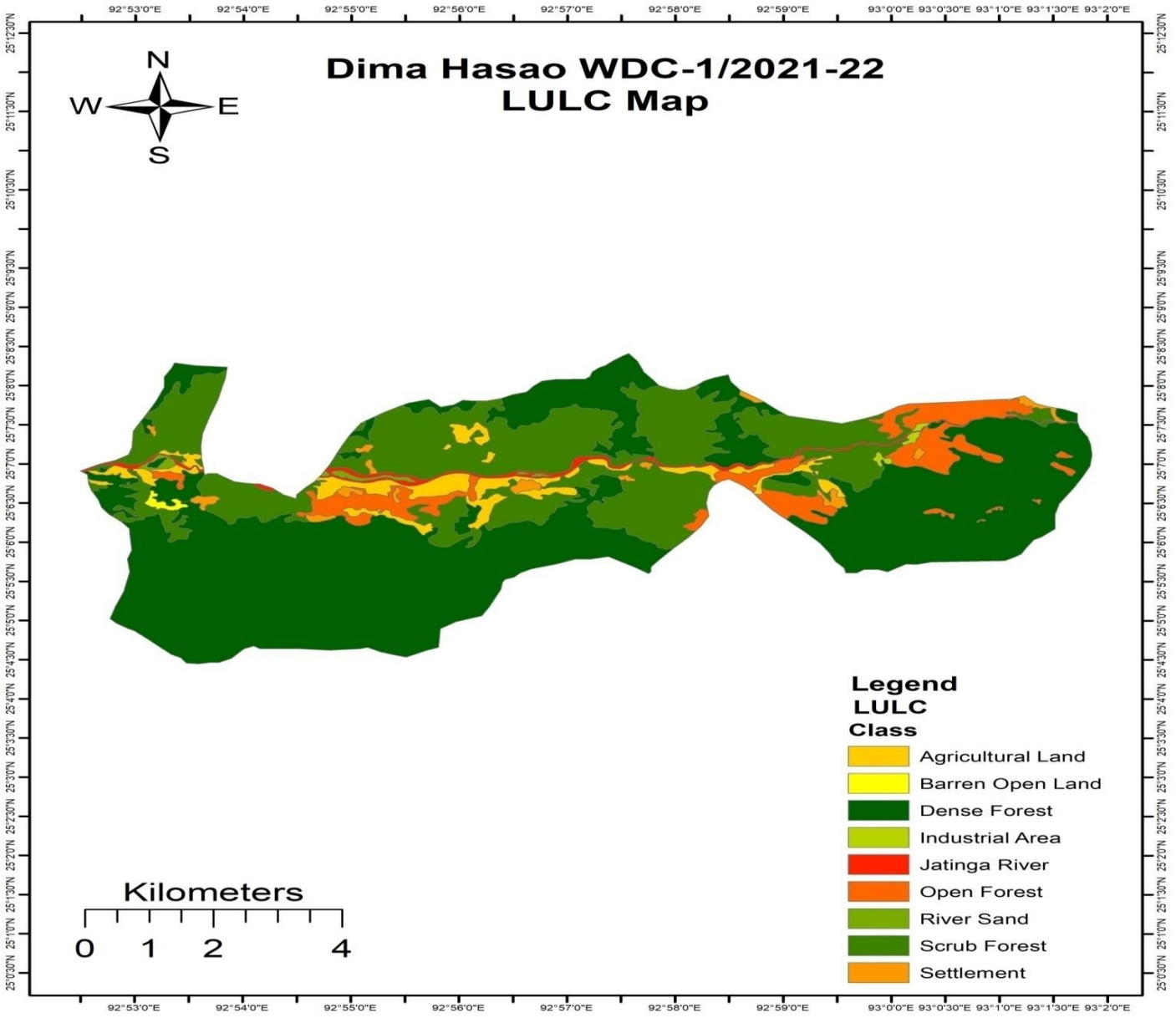
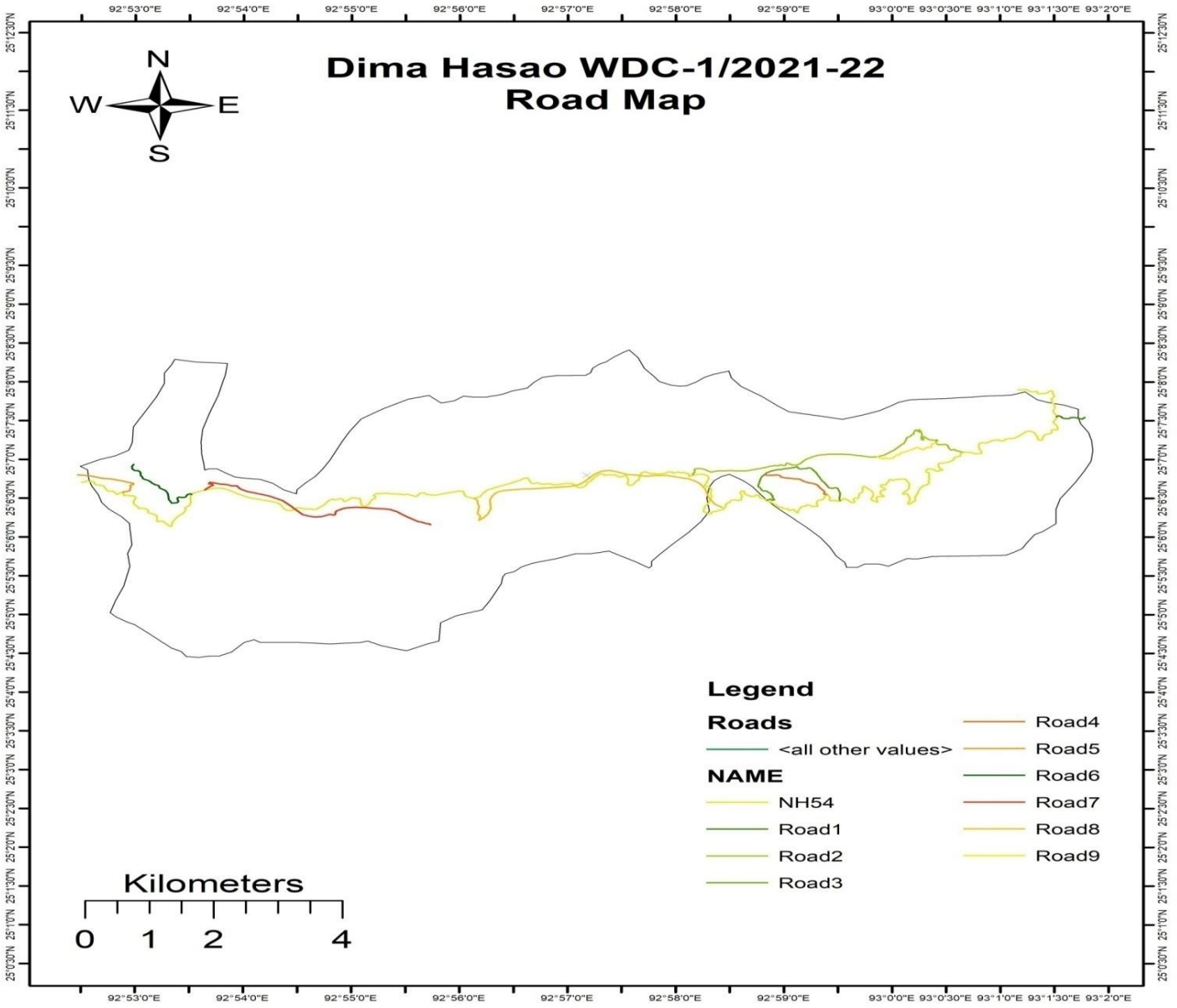
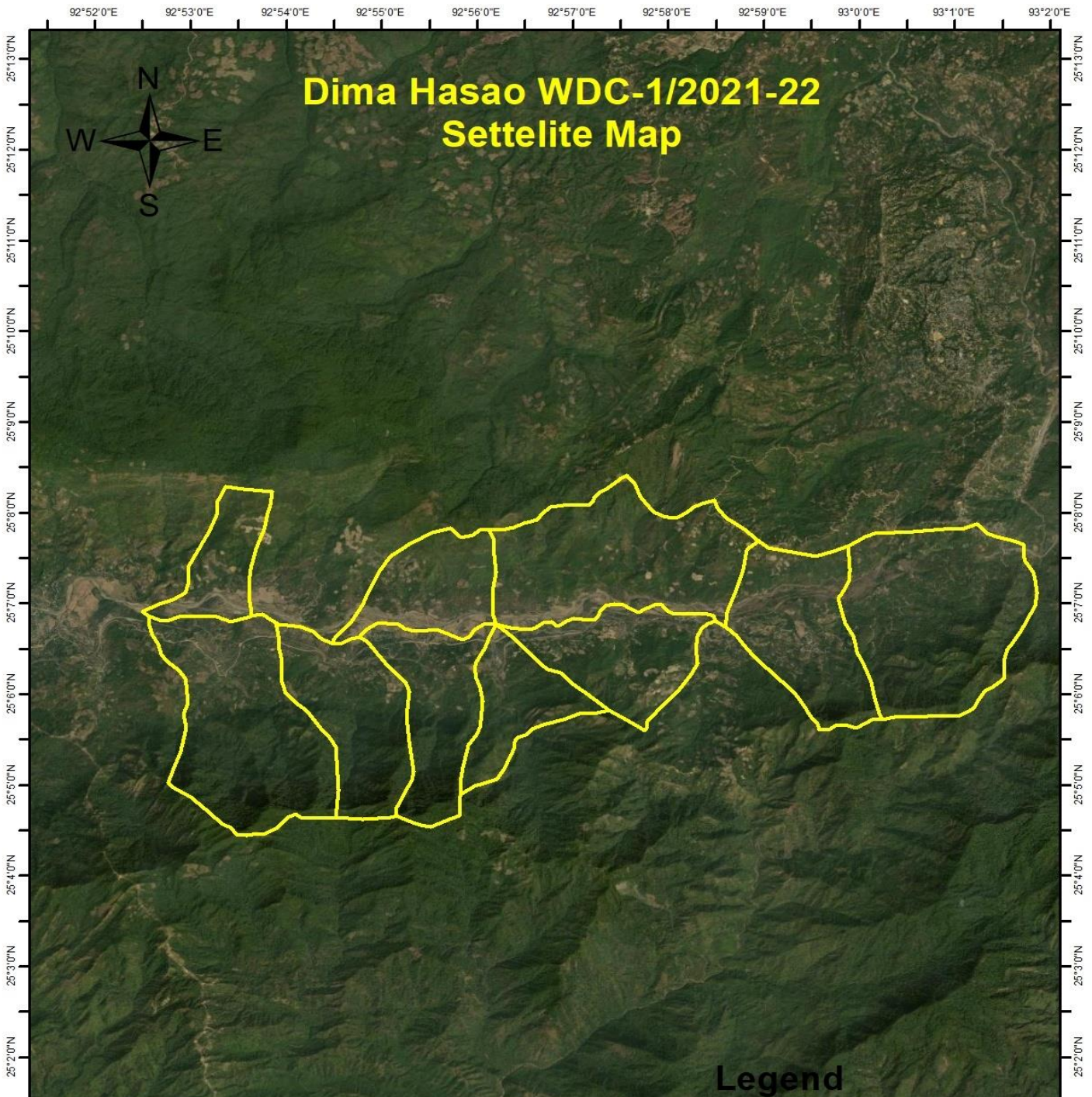
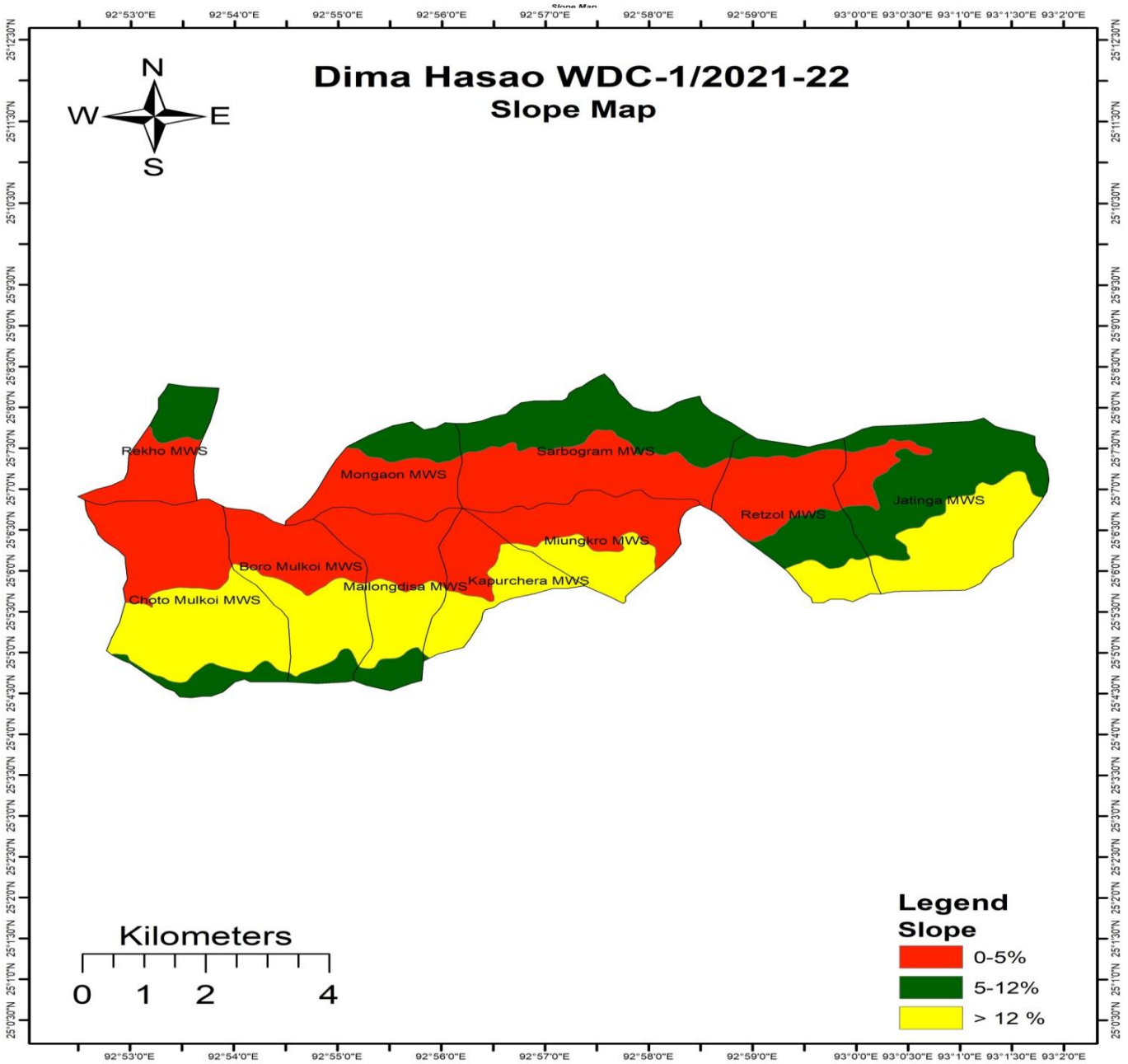
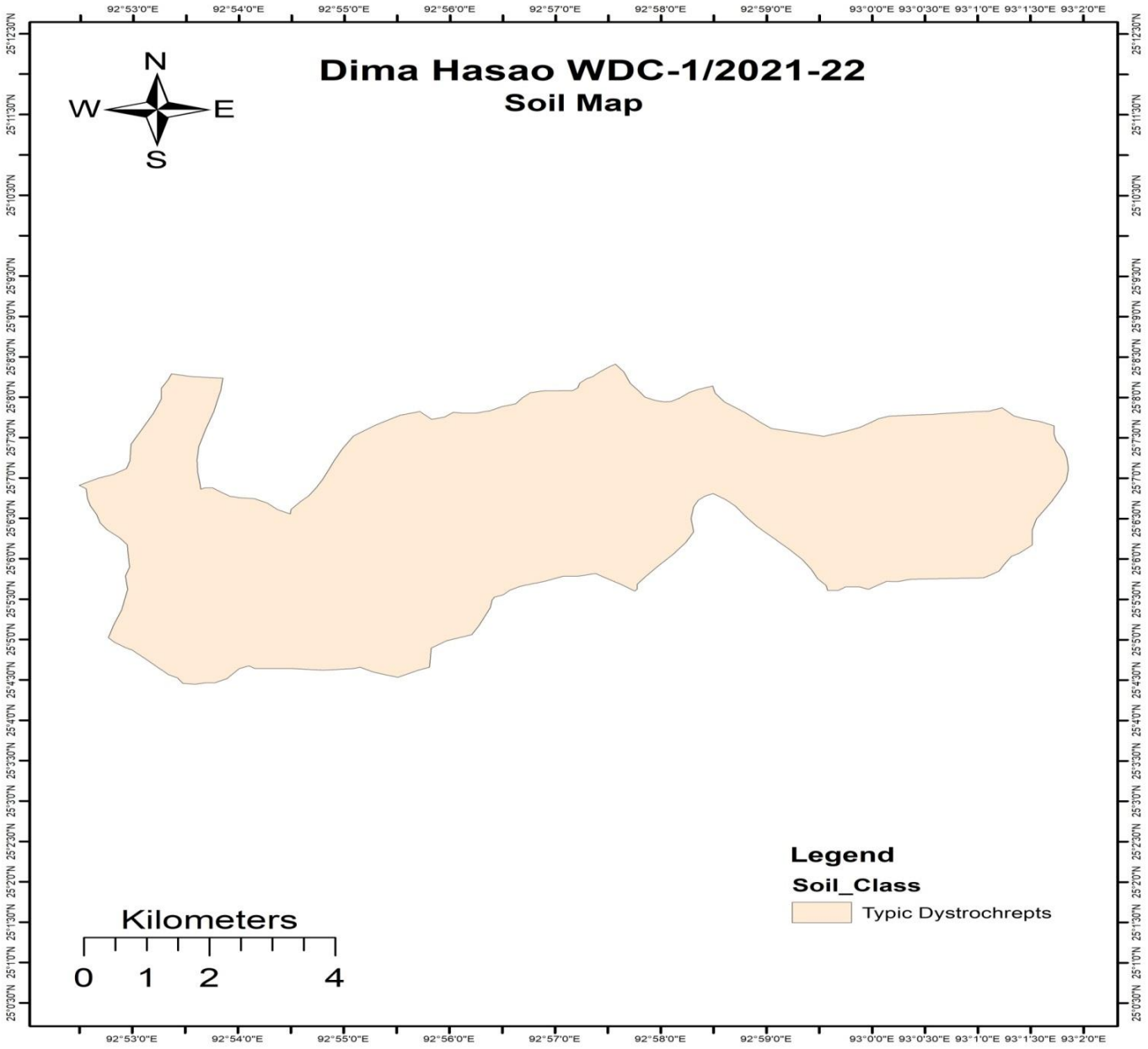
92°58'0"E
92°59'0"E
93°0'0"E
93°0'30"E
93°1'0"E
93°1'30"E
93°2'0"E
25°12'30"N
25°11'30"N
25°10'30"N
25°9'30"N
25°8'30"N
25°7'30"N
25°6'30"N
25°5'30"N
25°4'30"N
25°3'30"N
25°2'30"N
25°1'30"N
25°0'30"N
Rekho MWS
Mongadn MWS
Sarbogram MWS
Retzol MWS
Jatinga MWS
Miungkro MWS
Boro Mulkoi MWS
Mailongdisa MWS
Kapurchera MWS
Choto Mulkoi MWS
Legend
Rail
Road
ProjectBoundary
Jatinga River
Kilometers
0 1 2 4

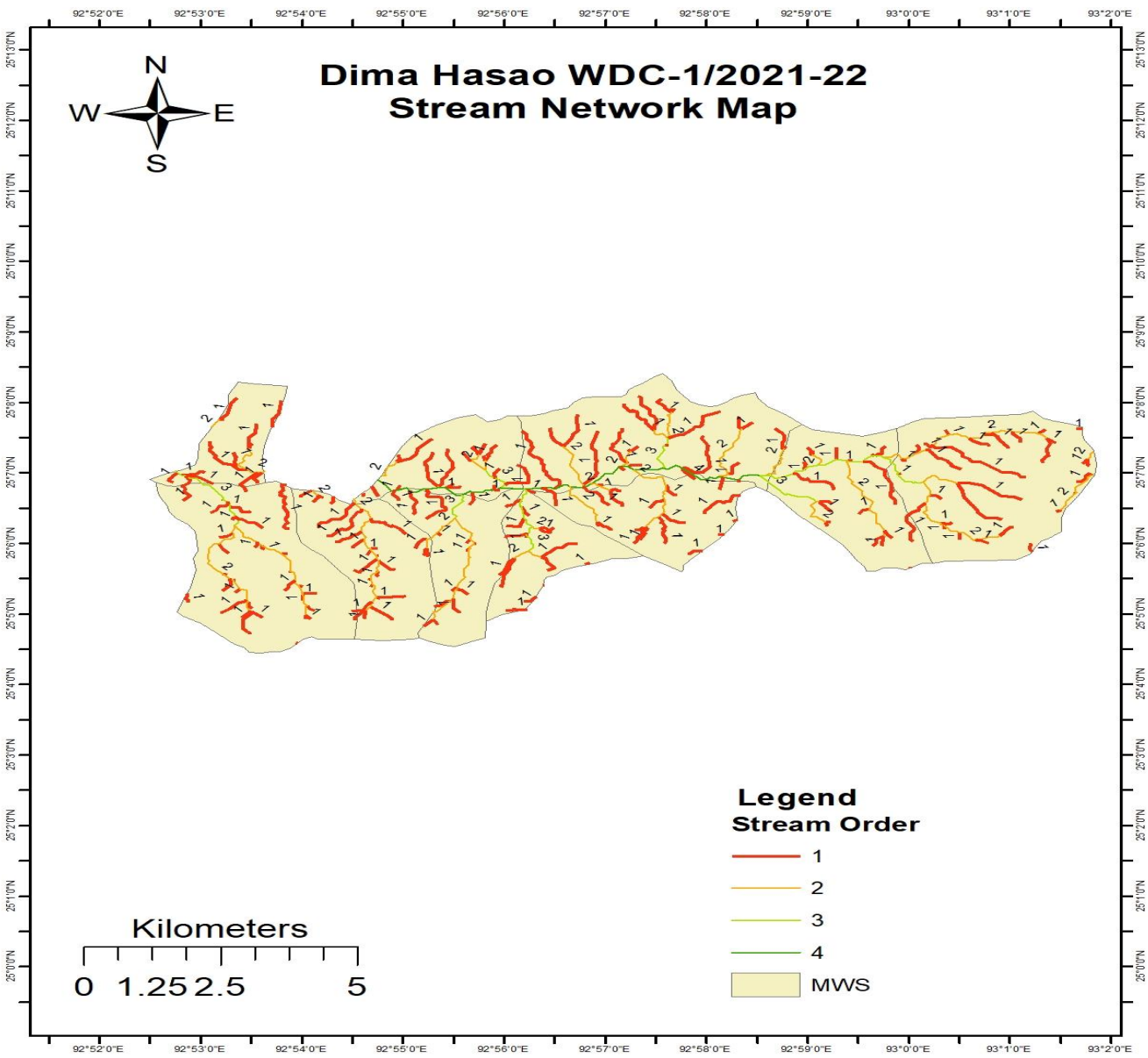

Dima Hasao WDC-1/2021-22
LULC Map
N
W
E
S
92°53'0"E
92°54'0"E
92°55'0"E
92°56'0"E
92°57'0"E
92°58'0"E
92°59'0"E
93°0'0"E
93°0'30"E
93°1'0"E
93°1'30"E
93°2'0"E
25°12'30"N
25°11'30"N
25°10'30"N
25°9'30"N
25°8'30"N
25°7'30"N
25°6'30"N
25°5'30"N
25°4'30"N
25°3'30"N
25°2'30"N
25°1'30"N
25°0'30"N
Legend
LULC
Class
Agricultural Land
Barren Open Land
Dense Forest
Industrial Area
Jatinga River
Open Forest
River Sand
Scrub Forest
Settlement
Kilometers
0 1 2 4

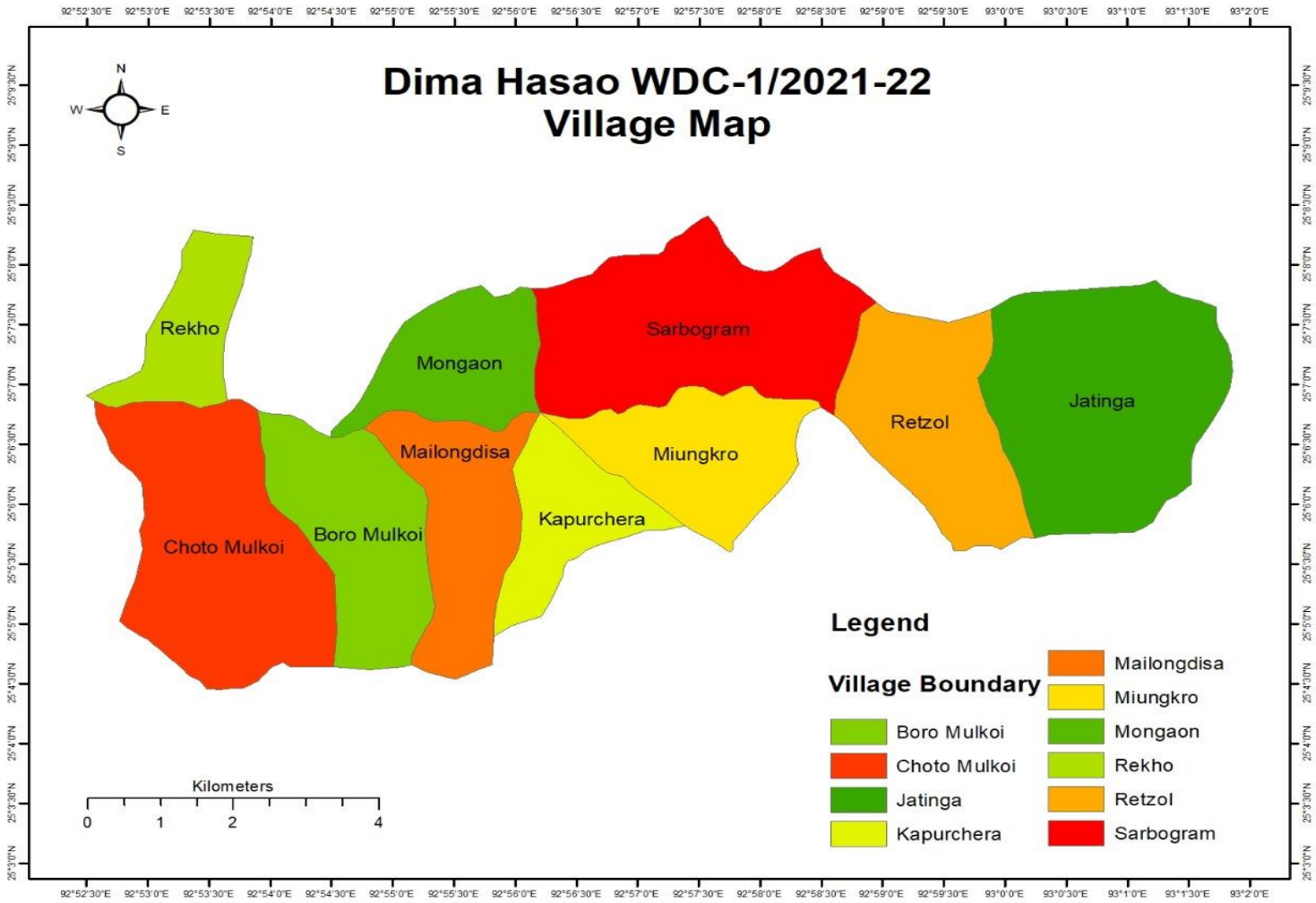

Dima Hasao WDC-1/2021-22
Road Map
N
W
E
S
92°53'0"E
92°54'0"E
92°55'0"E
92°56'0"E
92°57'0"E
92°58'0"E
92°59'0"E
93°0'0"E
93°0'30"E
93°1'0"E
93°1'30"E
93°2'0"E
25°12'30"N
25°11'30"N
25°10'30"N
25°9'30"N
25°8'30"N
25°7'30"N
25°6'30"N
25°5'30"N
25°4'30"N
25°3'30"N
25°2'30"N
25°1'30"N
25°0'30"N
Legend
Roads
<all other values>
NAME
NH54
Road1
Road2
Road3
Road4
Road5
Road6
Road7
Road8
Road9
Kilometers
0 1 2 4

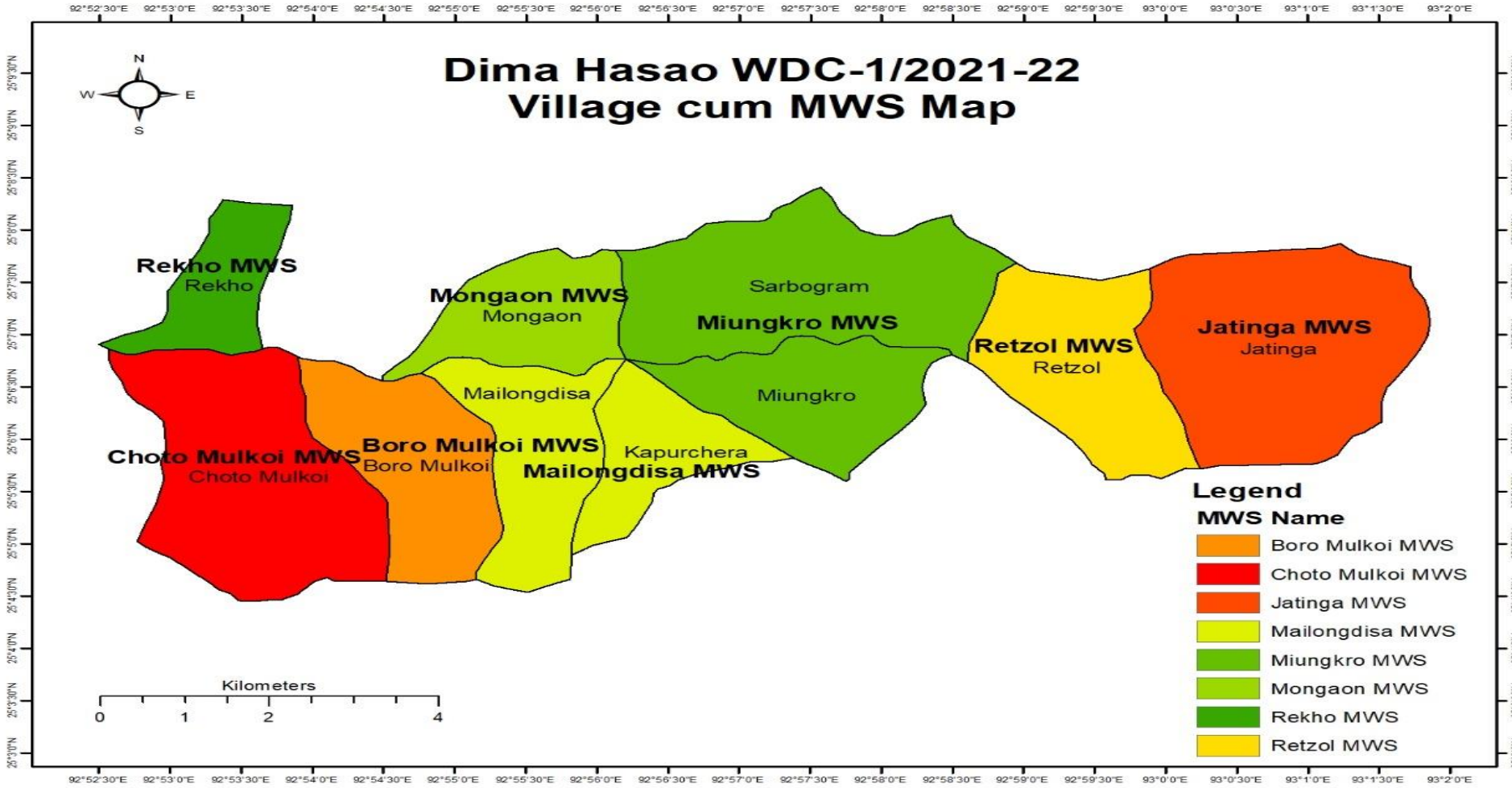

Dima Hasao WDC-1/2021-22
Settelite Map
N
W
E
S
92°52'0"E
92°53'0"E
92°54'0"E
92°55'0"E
92°56'0"E
92°57'0"E
92°58'0"E
92°59'0"E
93°0'0"E
93°1'0"E
93°2'0"E
25°13'0"N
25°12'0"N
25°11'0"N
25°10'0"N
25°9'0"N
25°8'0"N
25°7'0"N
25°6'0"N
25°5'0"N
25°4'0"N
25°3'0"N
25°2'0"N
Legend

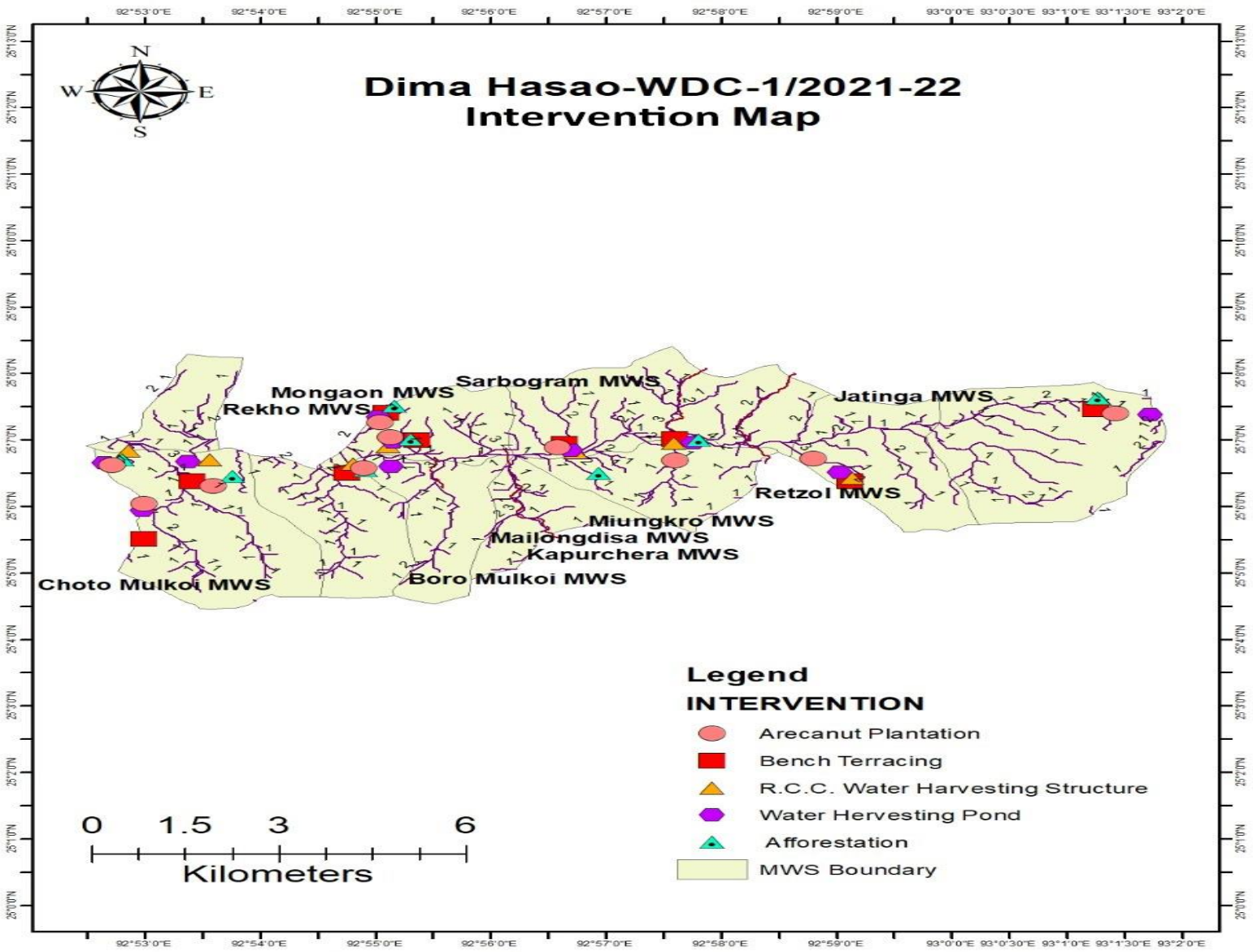

Dima Hasao WDC-1/2021-22
Slope Map
N
W
E
S
Rekho MWS
Mongaon MWS
Sarbogram MWS
Retzol MWS
Jatinga MWS
Miungkro MWS
Boro Mulkoi MWS
Mailongdisa MWS
Kapurchera MWS
Choto Mulkoi MWS
Kilometers
0 1 2 4
Legend
Slope
0-5%
5-12%
> 12 %


Dima Hasao WDC-1/2021-22
Soil Map
N
W
E
S
92°53'0"E
92°54'0"E
92°55'0"E
92°56'0"E
92°57'0"E
92°58'0"E
92°59'0"E
93°0'0"E
93°0'30"E
93°1'0"E
93°1'30"E
93°2'0"E
25°12'30"N
25°11'30"N
25°10'30"N
25°9'30"N
25°8'30"N
25°7'30"N
25°6'30"N
25°5'30"N
25°4'30"N
25°3'30"N
25°2'30"N
25°1'30"N
25°0'30"N
Legend
Soil_Class
Typic Dystrochrepts
Kilometers
0 1 2 4


Dima Hasao WDC-1/2021-22
Stream Network Map
N
W
E
S
92°52'0"E
92°53'0"E
92°54'0"E
92°55'0"E
92°56'0"E
92°57'0"E
92°58'0"E
92°59'0"E
93°0'0"E
93°1'0"E
93°2'0"E
25°13'0"N
25°12'0"N
25°11'0"N
25°10'0"N
25°9'0"N
25°8'0"N
25°7'0"N
25°6'0"N
25°5'0"N
25°4'0"N
25°3'0"N
25°2'0"N
25°1'0"N
25°0'0"N
Kilometers
0 1.25 2.5 5
Legend
Stream Order
1
2
3
4
MWS


Dima Hasao WDC-1/2021-22
Village Map
N
W
E
S
Rekho
Mongaon
Sarbogram
Retzol
Jatinga
Mailongdisa
Miungkro
Kapurchera
Choto Mulkoi
Boro Mulkoi
Kilometers
0
1
2
4
Legend
Village Boundary
Boro Mulkoi
Choto Mulkoi
Jatinga
Kapurchera
Mailongdisa
Miungkro
Mongaon
Rekho
Retzol
Sarbogram


Dima Hasao WDC-1/2021-22
Village cum MWS Map
N
W
E
S
Rekho MWS
Rekho
Mongaon MWS
Mongaon
Sarbogram
Miungkro MWS
Retzol MWS
Retzol
Jatinga MWS
Jatinga
Mailongdisa
Miungkro
Choto Mulkoi MWS
Choto Mulkoi
Boro Mulkoi MWS
Boro Mulkoi
Kapurchera
Mailongdisa MWS
Kilometers
0
1
2
4
Legend
MWS Name
Boro Mulkoi MWS
Choto Mulkoi MWS
Jatinga MWS
Mailongdisa MWS
Miungkro MWS
Mongaon MWS
Rekho MWS
Retzol MWS


Dima Hasao-WDC-1/2021-22
Intervention Map
N
S
E
W
Mongaon MWS
Rekho MWS
Sarbogram MWS
Jatinga MWS
Retzol MWS
Miungkro MWS
Mailongdisa MWS
Kapurchera MWS
Boro Mulkoi MWS
Choto Mulkoi MWS
Legend
INTERVENTION
Arecanut Plantation
Bench Terracing
R.C.C. Water Harvesting Structure
Water Hervesting Pond
Afforestation
MWS Boundary
0 1.5 3 6
Kilometers

PRA EXERCISE PHOTOGRAPH OF SARBAGRAM VILLAGE FOR JATINGA WDC-PMKSY 2.0

PRA EXERCISE PHOTGRAPH OF VILLAGE RETZOL FOR UPPER JATINGA WDC-PMKSY 2.0

PRA Exercise Photgraph of Retzol village for Upper Jatinga WDC-PMKSY 2.0

PRA EXERCISE PHOTGRAPH OF VILLAGE BORO MOULKOI FOR UPPER JATINGA WDC-PMKSY 2.0

PRA Exercise Photograph of Boro Moulkoi Village for Upper Jatinga WDC-PMKSY 2.0

PRA EXERCISE PHOTGRAPH OF VILLAGE MONGON FOR UPPER JATINGA WDC-PMKSY 2.0

PRA Exercise Photograph of Mongon village for Upper Jatinga WDC-PMKSY 2.0

PRA EXERCISE PHOTGRAPH OF VILLAGE REKHO FOR UPPER JATINGA WDC-PMKSY 2.0

PRA Exercise Photograph of Rekho village for Upper Jatinga WDC-PMKSY 2.0