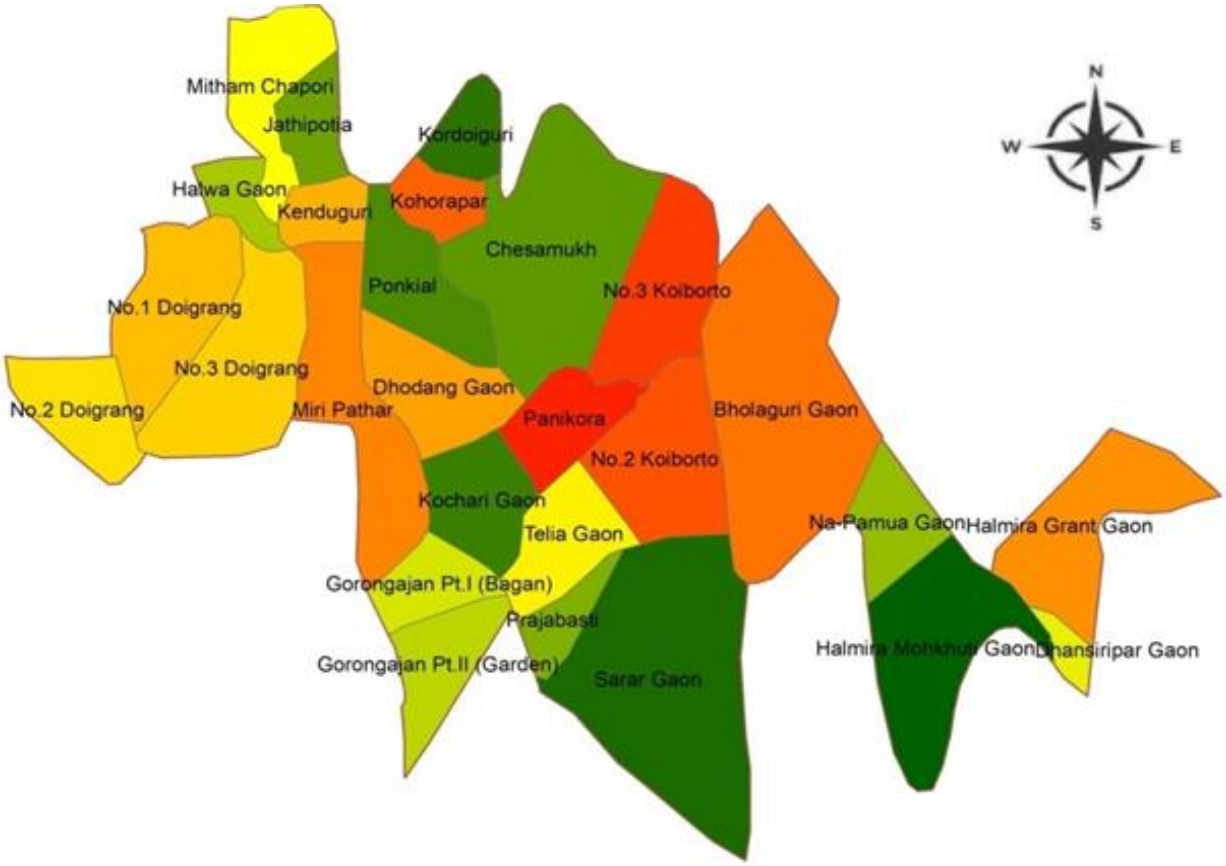
DETAILED PROJECT REPORT

GOLAGHAT – I / 2021-22 (DOIGRUNG)
WDC-PMKSY 2.0



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DETAILED PROJECT REPORT OF WDC-PMKSY 2.0

GOLAGHATI – I / 2021-22 (DOIGRUNG)

Micro Watershed & Micro Watershed Code No.	-	Bholaguri MWS 3B3A3f9i
	-	Doigrung MWS 3B3A3f9ii
	-	Gorangajan MWS 3B3A3f9iii
	-	Ponkial MWS 3B3A3f9iv
WDC-PMKSY Project	-	GOLAGHAT – I / 2021-22 (DOIGRUNG)
Block	-	Morongi, Central Dev. Kothalguri
District	-	Golaghat
Name of PIA	-	Divisional Soil Conservation Officer, Golaghat Soil Conservation Division, Golaghat, Assam

Contents

Executive Summary of DPR of Golaghat-I (Doigrung) WDC-PMKSY 2.0/2021-22 in Golaghat District, Assam

A. Executive Summary:

The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been designed to address two main issues namely- sustainable rural economy and preservation of environmental assets through development and sustainable extraction of their benefits, in a comprehensive and holistic manner. The endeavor ends at proactive people's participation through productive activities generating rural employment and agricultural productivity which ultimately leads to food security and all-round improvement of rural livelihood. The other issue of extreme relevance is the emerging threats of depleting fresh water resources, depleting ground water resources and global climate change which are aimed to be addressed through implementation of the Pradhan Mantri Krishi Sinchayee Yojana a watershed-based project.

1. Brief about area:

The project area is located in Morongi Block, Golaghat District of Assam state. The total project area of the watershed is about 5533.00 Ha, of which 4386.00 Ha has been undertaken to be treated under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) starting year 2021-22. The watershed includes twenty seven no of Villages namely 1.MithamChapori, 2.No.3 Doigrung, 3.Gorongajan Pt.I (Bagan) 4.Jathipotia, 5.MiriPathar, 6.SararGaon, 7.Chesamukh, 8.No.2 Koiborto, 9.Halmira Mohkhuti Gaon, 10.Halwa Gaon, 11.No.2 Doigrang, 12.Prajabasti, 13.Kenduguri 14.Panikora 15.GorongajanPt.II (Garden) 16.No.3 Koiborto 17.KochariGaon 18.Dhansiripar Gaon 19.Ponkial 20.Halmira Grant Gaon 21.Dholagaon 22.Bholaguri Gaon 23.NaPamua Gaon 24.Kohorapar 25.No.1 Doigrang 26.Telia Gaon 27.Kordoiguri are primary inhabitants of the village. The livelihood of these people is primarily based on rainfed agriculture, animal husbandry and wage labour. The Golaghat-I (Doigrung) WDC-PMKSY Project area faces flood and seasonal water logging which frequently inundate vicinity of the watershed area. This has resulted in low Productivity of Agriculture Land in comparison to other villages of nearby block. The Doigrung watershed is endowed with high intensity rainfall, the average rainfall of the five preceding years being 2942 mm. It causes severe flood during rainy season because of heavy rainfall in the catchments, sudden change in gradient from steeper slope to the flat slope, deforestation, higher river bed, inadequate carrying capacity of stream and breach of embankments in the lower portion causing heavy soil erosion and siltation. The Channel capacity of the streams has been adversely affected by the vigorous silting cause by the sediment laden runoff from the agricultural fields.

The agricultural productivity of the area is adversely affected by the flood and the seasonal waterlog. The inhabitants who are mostly dependent on agriculture watershed development works subjected to the mitigation of flood, measures for productivity enhancements and generation of alternative livelihoods will alleviate the poverty that exists in the villages in the Watershed area.

2. Institutional arrangement:

The Department of Soil Conservation, Government of Assam is the Nodal Department for implementing the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) in the State of Assam.

State Level:

At state level there is the State level Nodal Agency (SLNA), a society registered under the Societies Act 1860, constituted as per guidelines and directives prescribed by the Government of India, with the Additional Chief Secretary to the Government of Assam in the Soil Conservation Department as Chairman. The Governing Council is the Apex body. The Joint Secretary of the Department of Soil Conservation is the Chief Executive Officer (CEO) of the SLNA. The SLNA is helped by a multi-disciplinary team of professional experts in the field of Administration, Finance, Technical such as Agricultural, Watershed arrangement, GIS, Information Technology, as well as Data entry operator and other office staff.

District Level:

At District Level the District Watershed Development Unit (DWDU)/ Watershed Cell cum Data Center (WCDC) is constituted with the Deputy Commissioner while the Divisional Soil Conservation Officer, Golaghat Soil Conservation Division, is the Project Manager of the WLDC and all the District heads of different Development Departments are members of the WCDC.

Project Level:

At Project Level the Divisional Soil Conservation Officer, Soil Conservation Golaghat Division has been nominated as the Project Implementing Agency (PIA) to implement the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY). The PIA is assisted by the Watershed Development Team (WDT) constituted as per guidelines prescribed by the Government of India.

Village Level/Micro watershed Level:

At micro watershed level Watershed Committees are formed as per guidelines prescribed by the Government of India comprising members from the representatives of Users Groups, Self Help Groups, Panchayati Raj Institutions (PRI) of the Project area, land less and women communities.

3. Salient Project Activities:

Agricultural growth continues to be viewed as a key to poverty alleviation. The aims and objectives of the interventions proposed in the detailed Project Report are on improving livelihoods of all communities living in the Project area with special focus on the poor people that is small, marginal and land less including women. Both social and technological interventions are proposed to be carried out with full participation of the people.

Entry Point Activities:

The activities under EPA are identified as per common guidelines in the PRA activities and approved in the Gram Sabhas. Activities relating to soil and water conservation are given preference. Infrastructure related activities are avoided as far as practicable.

a) Work Phase:

The salient project activities proposed as identified during PRA exercise and approved by Gram Sabha and as desired by the village communities in the project areas are-The interventions proposed in the project area are to restore the health of the catchment area by reducing the volume and velocity of surface runoff, including creation of vegetative cover in common land like afforestation and horticulture plantation, other plantation crops, field bunds, ring bunds etc.

i. Drainage line treatment with a combination of vegetative and Engineering Structures like Check dams, R.C.C. Drop Spill ways etc
ii. Development of Water harvesting structures such as, Farm ponds, Community tanks, water harvesting structure etc.
iii. Land development including soil and moisture conservation and drainage management measures like Check dams, Spillways, field bund, drainage channel, water distribution channel, including plantation in these bunds as well as in the banks of the Farm ponds.
iv. Nursery raising for fodder, fuel, timber and horticultural species. As far as possible local species are given priority.
v. Crop demonstration for popularizing new crops /verities, water saving technologies and innovative management practices.
vi. Measures for improving moisture regime including supplementary irrigation from the surface storage tanks, dams etc
vii. Pasture development, bee keeping, back yard poultry, Goatary, Dairy, Duckery, Pisciculture etc
viii. Micro enterprises like Wood craft, Bicycle repairing, Rice processing, Sira

processing, Carpentry, Handloom and weaving, Fruit processing, etc.

ix. Fisheries development in community ponds as well as in private ponds/tanks, farm ponds etc.

x. Veterinary services like livestock improvement measures including Veterinary camps artificial insemination etc.

4. Physical target and financial outlay:

The details of physical target and financial outlay are under chapter-5, 6, 7 and 8.

5. Treatment area and details:

The details of treatment area is in Table 1.1 and 2.2

6. Fact sheet about bench mark indicator and action plan at a glance:

The bench mark indicator is in chapter-9 and action plan in chapter-5, 6, 7 and 8.

CHAPTER-1

INTRODUCTION AND BACKGROUND

(I) INTRODUCTION

- Name of the State : Assam
- Name of the District : Golaghat
- Names of the Blocks : Morongii
- Name of the project :GOLAGHAT – I/2021-22 (DOIGRUNG)
- 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 and others(Page 85 to 92)

Background Note of the District of Golaghat

The Golaghat District in which the Golaghat-I (Doigrung) WDC-PMKSY 2021-22 falls in the South east corner of the state and on the Lower side of the river Brahmaputra under jurisdiction of the Golaghat district. The Golaghat district is a plain district of Assam. The soil of Golaghat district moistly of two types inceptisol (Old alluvial) and Entisol (recent alluvial).

Climate and Soil –

The Golaghat district extends from 26031' N 89042/ E longitudes and 930 58' E latitudes. The district has a sub- tropical humid type of climate, with the relative humidity varying from 93% to 95% during the morning hours and from 53% to 75 % during the afternoons. The climate of the place can be divided into three main seasons- summer , monsoon and winter. The average annual rainfall is 1512.38 mm out of which 75% is received during monsoon months (June to September). The monsoon months are wet and winter is dry. Both pre and post monsoon months have unpredicted and erratic rainfall. The mean maximum and minimum temperature varies from 33 to 38 C and 9 to 10 C, respectively. The average radiation is the highest during March – April, while overcast sky reduces the solar radiation to the least during July.

The soil of Golaghat district moistly of two types inceptisol (Old alluvial) and Entisol (recent alluvial).The texture of surface soil ranges from Fine loamy, coarse silty and fine soil. 58% of total are categorized under fine loamy soil under Incept sol.

The most typical characteristic of the soil of the district is its acidity. The major part of the soils of Golaghat district is acidic in nature. The organic matter content of soil is medium to high. The available N is medium and available P and K is low to medium.

Agricultural scenario:-

Agriculture is the main occupation in the district and contributes a major parts of district economy which however is a subsistence type. Sali (winter) paddy is the main crop in the district under rainfed condition Jute, banana, potato, vegetables, pineapple, turmeric, ginger etc. are also important crops. The district is surplus in production of oilseeds, fruits and spices while it is measurably deficit in pulses, milk, meat, egg and fish production. There are tremendous scope for horticultural crops, plantation crops, animal husbandry and sericulture in the district.

Soil-

The two orders of soils are found in the district namely (i) Entisols (recent alluvium), (ii) Inceptisols (old alluvium). The soil of zone is mostly acidic nature and PH increases near the river track. The organic carbon and available Nitrogen of the soil mostly varies from medium to high, low in available P2O5 and medium in K2 O status). Mild micronutrient deficiency specially of Boron has been observed in some areas throughout the district. However, in general, soil of the district is acidic in reaction. Soil of major areas are mildly acidic (5.5-6.5 PH), while soil in high land old alluvial is severely acidic. There is a problem of riverbank erosion in the riverine tracts, especially during flood season.

Climatic condition of the area:

The climate is sub-tropical in nature with warm and humid summer followed by dry and cool winter. The average annual rainfall is about 1512.38 mm per annum of which 75% is received during monsoon month (June to September). The monsoon months are wet and winter is dry. Both pre and post monsoon months have unpredicted and erratic rainfall. The mean maximum and minimum temperature varies from 33 to 380 C and 9 to 100C, respectively. The average radiation is the highest during March – April, while overcast sky reduces the solar radiation to the least during July. The climatic season is classified as follows.

(a) Winter
(b) pre-monsoon,
(c) (c) monsoon and
(d) (d) retreating monsoon

WINTER:

The winter covers the months of December, January and February. In this season, fair weather prevails occasionally associated with fogs and haze. December and January are the driest months and January is the coldest. The minimum temperature ranges between 8 C and 10 C and the maximum between 27 C and 29 C. The average rainfall in the season is 20 cm.

PRE-MONSOON:

The months of March, April and May constitute the pre-monsoon season. From March the land surface gets steadily heated and the temperature starts rising. Strong convection develops due to the local depressions formed especially in the afternoon. The nor ‘westers locally called Bordoichilla appears during the period. Rainfall ranges

between 59 and 160 cm and maximum temperature ranges between 28 C and 32 C. This season is, in fact, a transitional phase between the dry cool winter and the warm moist monsoon.

MONSOON:

With the onset of monsoon in early June, heavy rainfall occurs. Widespread low clouds and high humidity together maintain almost uniform temperature over the area. The maximum temperature ranges between 33 C and 37 C. The average annual rainfall during the period is 300 cm. The occurrence of thunderstorms is the most conspicuous characteristics of the monsoon weather. This is the season of dominant agricultural operation in the area.

RETREATING MONSOON:

The monsoon withdraws from the area in the last week of September or first week of October. The geographic low is replaced by high pressure and a flat pressure gradient occurs. Rainfall decreases abruptly and the sky becomes progressively clear. Sunny days prevail till the end of November. The CWB climate thus has a profound influence on the economy and life of the people of the area. It is most suitable for the cultivation of a variety of grain and horticultural crops.

Rainfall data analysis for the area:

GROUND WATER POTENTIALITY: -

The depth of ground water table plays an important role in determining the risk due to contamination to groundwater. Like the surface water bodies, the pressure on the ground water is increasing in the watershed area. Ground water occurs under phreatic condition in the shallow aquifer zone and under semi-confined condition in the deeper aquifer. Flow of ground water is from north to south. Pre-monsoon water level varies from 0.01 to 9.40 mbgl and during post-monsoon period, water level varies from 0.56 to 8.26 mgbl. Other than higher arsenic (As) and iron (Fe) concentration in ground water, most of the chemical constituents are within the permissible limit.

(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		GOLAGHAT – I/2021-22 (DOIGRUNG)			
3	Name of the District		Golaghat			
4	Names of the Blocks		Morongi			
5	Names of Gram Panchayats		1. Bholaghuri 2. Doigrung 3. Garangajan 4. Ponkial			
6	Names & Census Code of Villages covered	MWS	Name	Census Code	Block Name	GP Name
		Doigrung	MithamChapori	1975700	Morongi	Ponka
			Jathipotia	1975800	Morongi	Ponka
			Halwa Gaon	1977000	Morongi	Doigrang
			Kenduguri	1977100	Morongi	Doigrang
			No.1 Doigrang	1976100	Morongi	Letekujan
			No.3 Doigrang	1976900	Morongi	Letekujan
			Miri Pathar	1977900	Morongi	Doigrang
			No.2 Doigrang	1976200	Morongi	Letekujan
		Bholaguri	Bholaguri Gaon	1974000	Central dev.Kothalguri	Sensowa
			Halmira Grant Gaon	1974300	Central dev.Kothalguri	Sensowa
			Na-Pamua Gaon	1973900	Central dev.Kothalguri	Sensowa
			Halmira Mohkhuti Gaon	1973800	Central dev.Kothalguri	Sensowa
			Dhansiripar Gaon	1973700	Central dev.Kothalguri	Sensowa
		Ponkial	Chesamukh	1977400	Morongi	Morongi
			Ponkial	1977800	Morongi	Doigrang
			Dholagaon	1977700	Morongi	Morongi
			Kohorapar	1977300	Morongi	Doigrang
			Kordoiguri	1977200	Morongi	Doigrang
		Gorongajan	No.2 Koiborto	1979600	Morongi	Morongi
			Panikora	1977600	Morongi	Morongi
			No.3 Koiborto	1977500	Morongi	Morongi
			Kochari Gaon	1979500	Morongi	Morongi
			Telia Gaon	1979700	Morongi	Morongi
			GorongajanPt.I (Bagan)	1979900	Morongi	Rongajan
			Sarar Gaon	1979800	Morongi	Morongi
			Prajabasti	1980900	Morongi	Rongajan
			GorongajanPt.II (Garden)	1980000	Morongi	Rongajan

7	Four major reasons for selection of watershed	1. Upliftment of Socio-Economic condition of the rural poor. 2. Increase of Agricultural area as well as Production. 3. Generation of employment opportunities to the rural people. 4. Conservation and Proper utilization of Natural Resources.
8	Name, Address, Phone No. and Registration No.of the PIA(s)	Divisional Officer, Golaghat Soil Conservation Division, Golaghat, Assam (9085757345/9854450561)
9	Date of approval of Watershed Development Plan by the DPC	
10	Area of the Project (ha.)	5533.00
11	Area proposed to be treated (ha.)	4386.00
12	Financial year of sanction	2021-22
13	Project duration	5 years
14	Project Cost (Rs. in Lakhs)	964.92
15	Date of sanction by the State Authority	
16	Date of release of 1st installment of Central Assistance (to be filled up by DoLR)	
17	Any other (please specify)	-

Source : From Field Survey

Table No.1.2: Need and Scope for Watershed Development

A write up elaborating the weight age table for selection of the watershed (Weight age for selection of Watershed as per DoLR's instructions already issued)

Name of the project	Type of project (Hilly/ Desert/ Others)	Weightage under the criteria#													
		i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	Total
Golaghat-I/ (Doigrung) WDC-PMKSY:2021-22	Others	10	3	5	5	2	0	15	7.5	5	10	10	10	-	82.50

Source : From Field Survey

As per PPR:

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	Land with moderate production & where productivity can be enhanced with	Lands with high production & where productivity can be marginally enhanced with reasonable	

			efforts (10)	reasonable efforts (5)	efforts (0)	

Sl. No.	Criteria	Max Score	Ranges and Scores			
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:-

Name of Project	Watershed Code	Sl. No.	Village to be treated	Geographical Area (Hact)	Treatable Area (Hact.)	Approval Year
Golaghat-I(Doigrung) WDC-PMKSY/2021-22	Doigrung 3B3A3c3	1	MithamChapori	210.00	159.84	2021-22
		2	Jathipotia	64.00	51.14	
		3	HalwaGaon	39.00	31.16	
		4	Kenduguri	332.00	268.14	
		5	No.1 Doigrang	136.00	105.40	
		6	No.3 Doigrang	178.00	137.79	
		7	MiriPathar	161.00	129.16	
		8	No.2 Doigrang	296.00	243.12	
	Bholaguri 3B3A3n5	9	BholaguriGaon	508.00	357.62	
		10	Halmira Grant Gaon	153.00	126.57	
		11	Na-PamuaGaon	147.00	122.17	
		12	HalmiraMohkhutiGaon	235.00	196.39	
		13	DhansiriparGaon	221.00	176.58	
	Ponkial 3B3A3n1		Chesamukh	97.00	77.50	
			Ponkial	135.00	105.51	
			Dholagaon	316.00	244.12	
			Kohorapar	91.00	75.38	
			Kordoiguri	142.00	115.60	
	Gorongajan 3B3A3c2		No.2 Koiborto	178.00	140.99	
			Panikora	200.00	157.25	
			No.3 Koiborto	250.00	199.75	
			KochariGaon	153.00	125.69	
			TeliaGaon	191.00	152.11	
			GorongajanPt.I (Bagan)	44.00	34.09	
			SararGaon	555.00	451.35	
			Prajabasti	5.00	2.56	
			GorongajanPt.II (Garden)	496.00	399.50	
Total				**5533.00**	**4386.00**	

Source: GIS.

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
1	PMKSY	Irrigation Dept.	Har khet ko pani	APRIL 2017 TO MARCH 2021	13 Nos.	570
2	MGNREGA	DRDA	Employment generation,			1535

Source: Zilla Parishad & Irrigation Division, Golaghat

Table No.1.5: Status of previous watershed programme:

Sl. No.	Project Name	Year started	Name of village	No. of Micro watershed	Watershed code	Area under treatment	Funding source	Nodal Agency	PIA	Total Cost	Expenditure incurred up to start of New Generation PMKSY	% financial completion	% physical completion
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Nil													

CHAPTER-2
GENERAL DESCRIPTION OF THE PROJECT AREA

Table No.2.1 Location:

Longitude	93º48'20" to 93º56'40"
Latitude	26º28'40" to 26º34'40"
Name of the State	Assam
Name of the District	Golaghat
Name of the Sub-Division	Golaghat
Names of the Blocks	Morongi Dev. Block
Names of Gram Panchayats	**(1)** Bholaghuri**(2)** Doigrung **(3)**Garangajan **(4)** Ponkial
Villages	**(1)** MithamChapori, **(2)**No.3 Doigrung, **(3)**Gorongajan Pt.I (Bagan) **(4)** Jathipotia, **(5)**Miri Pathar, **(6)**Sarar Gaon, **(7)** Chesamukh **(8)**No.2 Koiborto, **(9)**Halmira Mohkhuti Gaon, **(10)**HalwaGaon, **(11)**No.2 Doigrang**,** **(12)** Prajabasti, **(13)**Kenduguri **(14)** Panikora **(15)**Gorongajan Pt.II (Garden) **(16)**No.3 Koiborto **(17)**Kochari Gaon **(18)**DhansiriparGaon (**19)**Ponkial **(20)**Halmira Grant Gaon **(21)**Dholagaon **(22)**BholaguriGaon **(23)**Na-Pamua Gaon **(24)**Kohorapar **(25)**No.1 Doigrang **(26)**Telia Gaon **(27)**Kordoiguri
Approach Road	**The area is approachable via NH-39**

Source: From PPR

LOCATION MAP

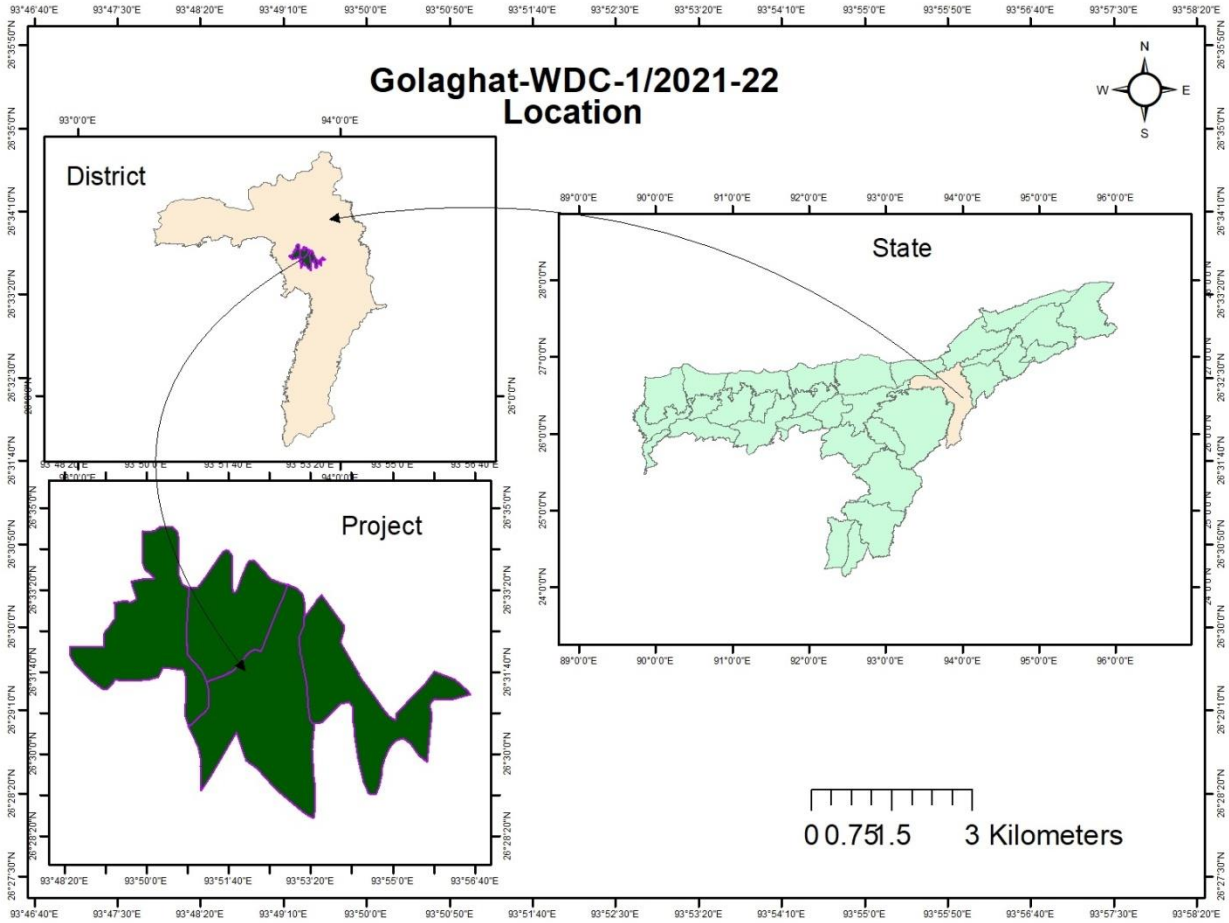


Table No.2.2 Land Details (Area in Ha):

1	2	3	4	5	6	7	8	
Sl. No.	**Names of villages**	**Geographical Area of the village (ha)**	**Forest Area (ha)**	**Land under agricultural use (ha)**	**Rain-fed area (ha)**	**Permanent pastures (ha)**	**Wasteland**	
							Cultivable (ha)	**Non-cultivable (ha)**
1	MithamChapori	210.00	2.66	180.00	153.00	10.00	6.84	10.50
2	Jathipotia	64.00	0.00	60.16	51.14	0.64	0.00	3.20
3	Chesamukh	97.00	0.00	91.18	77.50	0.97	0.00	4.85
4	HalwaGaon	39.00	0.00	36.66	31.16	0.39	0.00	1.95
5	Kenduguri	332.00	0.00	312.08	265.27	0.45	2.87	16.60
6	No.3 Koiborto	250.00	1.00	235.00	199.75	1.50	0.00	12.50
7	Ponkial	135.00	1.59	121.00	102.85	3.00	2.66	6.75
8	BholaguriGaon	508.00	23.83	405.00	344.25	15.00	13.37	50.80
9	No.1 Doigrang	136.00	1.00	124.00	105.40	0.80	0.00	10.20
10	No.3 Doigrang	178.00	2.00	151.00	128.35	2.21	9.44	13.35
11	MiriPathar	161.00	1.59	140.00	119.00	1.20	10.16	8.05
12	No.2 Koiborto	178.00	1.26	161.00	136.85	1.60	4.14	10.00
13	No.2 Doigrang	296.00	1.30	278.24	236.50	1.50	6.62	8.34
14	Panikora	200.00	0.20	185.00	157.25	0.63	0.00	14.17
15	KochariGaon	153.00	0.21	135.00	114.75	0.73	10.94	6.12
16	Halmira Grant Gaon	153.00	0.20	148.90	126.57	0.84	0.00	3.06
17	Na-PamuaGaon	147.00	0.00	141.90	120.62	0.61	1.55	2.94
18	TeliaGaon	191.00	0.00	169.30	143.91	0.91	8.20	12.59
19	GorongajanPt.I (Bagan)	44.00	0.00	40.10	34.09	0.89	0.00	3.01
20	SararGaon	555.00	0.60	531.00	451.35	1.20	0.00	22.20
21	HalmiraMohkhutiGaon	235.00	0.00	217.60	184.96	1.27	11.43	4.70
22	Prajabasti	5.00	0.00	3.01	2.56	0.12	0.00	1.87
23	GorongajanPt.II (Garden)	496.00	0.50	470.00	399.50	0.70	0.00	24.80
24	DhansiriparGaon	221.00	0.00	207.74	176.58	0.00	0.00	13.26
25	Dholagaon	316.00	0.00	287.20	244.12	0.36	0.00	28.44
26	Kohorapar	91.00	0.00	85.54	72.71	0.00	2.67	1.82
27	Kordoiguri	142.00	0.00	136.00	115.60	0.32	0.00	5.68
Total		**5533.00**	**37.94**	**5053.61**	**4295.57**	**47.84**	**90.89**	**301.75**

Source: From PPR

Table No.2.3 Details of the types of areas covered under the project:

1	2	3				
Sl. No.	**Names of villages**	**No. of beneficiaries covered**				
		MF	**SF**	**LF**	**Landless**	**Total**
1	1. MithamChapori, 2. No.3 Doigrung, 3. Gorongajan Pt.I (Bagan) 4. Jathipotia 5. MiriPathar 6. SararGaon 7. Chesamukh, 8. No.2 Koiborto, 9. Halmira Mohkhuti Gaon 10. HalwaGaon, 11. No.2Doigrang 12. Prajabasti 13. Kenduguri 14. Panikora 15. Gorongajan Pt.II (Garden) 16. No.3 Koiborto 17. Kochari Gaon 18. DhansiriparGaon 19. Ponkial 20. Halmira Grant Gaon 21. .Dholagaon 22. BholaguriGaon 23. NaPamua Gaon 24. Kohorapar 25. No.1 Doigrang 26. Telia Gaon 27. Kordoiguri	251	423	Nil	62	736

Source : From Field Survey

Table No. 2.4: Details of Agro-climatic condition:

1	2	3	4	5	6		7	8	9	
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**		**Topography#**	**Average rainfall in mm (preceding 5 years average)**	**Major crops**	
					a)Type	**b) Area in ha**			**a) Name**	**b) Area in ha**
1	Golaghat-I (Doigrung) WDC-PMKSY	Upper Brahmaputra Vally	5533	MithamChapori	Alluvial(Clay Loam)	5533	Moderate Slope	1643 mm	Paddy	
2				Jathipotia						
3				Chesamukh						
4				HalwaGaon						
5				Kenduguri						
6				No.3 Koiborto						
7				Ponkial						
8				BholaguriGaon						
9				No.1 Doigrang						
10				No.3 Doigrang						
11				MirPathar						
12				No.2 Koiborto						
13				No.2 Doigrang						
14				Panikora						
15				KochariGaon						
16				Halmira Grant Gaon						
17				Na-PamuaGaon						
18				TeliaGaon						
19				GorongajanPt.I (Bagan)						
20				SararGaon						
21				HalmiraMohkhutiGaon						
22				Prajabasti						
23				GorongajanPt.II (Garden)						
24				DhansiriparGaon						
25				DhodangGaon						
26				Kohorapar						
27				Kordoiguri						

Source: From PPR

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 - 4			
		Na-PamuaGaon , Dhodang Gaon, Kohorapar, Kordoiguri	Occasionally		Others are not affected
2	Drought	No. of villages - 4			
		Chesamukh , Kenduguri, Halwa Gaon, Jathipotia	Occasionally		Others are not affected

Source: From field

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 (70%)	3070.20	556	0.009 Tonnes/ ha/ year (50 Tonnes/year from the entire Project Area)
b	Rill (7%)	307.02		
c	Gully (5%)	219.30		
Sub-Total		**3596.52**		50
Wind erosion		Nil	NA	-
Total		**3596.52**	**556**	**50**

Source: From field

Table No. 2.7: Details of Soil pH:

1	2	3	4	5
SL. No.	**Names of the villages**	**Sample No.**	**Soil pH**	**Soil Type**
1	MithamChapori	1	5.50 to 6.00	Alluvial(Clay Loam)
2	Jathipotia	2	5.50 to 6.00	Alluvial(Clay Loam)
3	Chesamukh	3	5.50 to 6.00	Alluvial(Clay Loam)
4	HalwaGaon	4	5.50 to 6.00	Alluvial(Clay Loam)
5	Kenduguri	5	5.50 to 6.00	Alluvial(Clay Loam)
6	No.3 Koiborto	6	5.50 to 6.00	Alluvial(Clay Loam)
7	Ponkial	7	5.50 to 6.00	Alluvial(Clay Loam)
8	BholaguriGaon	8	5.50 to 6.00	Alluvial(Clay Loam)
9	No.1 Doigrang	9	5.50 to 6.00	Alluvial(Clay Loam)
10	No.3 Doigrang	10	5.50 to 6.00	Alluvial(Clay Loam)
11	MiriPathar	11	5.50 to 6.00	Alluvial(Clay Loam)
12	No.2 Koiborto	12	5.50 to 6.00	Alluvial(Clay Loam)
13	No.2 Doigrang	13	5.50 to 6.00	Alluvial(Clay Loam)
14	Panikora	14	5.50 to 6.00	Alluvial(Clay Loam)
15	KochariGaon	15	5.50 to 6.00	Alluvial(Clay Loam)
16	Halmira Grant Gaon	16	5.50 to 6.00	Alluvial(Clay Loam)
17	Na-PamuaGaon	17	5.50 to 6.00	Alluvial(Clay Loam)
18	TeliaGaon	18	5.50 to 6.00	Alluvial(Clay Loam)
19	GorongajanPt.I (Bagan)	19	5.50 to 6.00	Alluvial(Clay Loam)
20	SararGaon	20	5.50 to 6.00	Alluvial(Clay Loam)
21	HalmiraMohkhutiGaon	21	5.50 to 6.00	Alluvial(Clay Loam)
22	Prajabasti	22	5.50 to 6.00	Alluvial(Clay Loam)
23	GorongajanPt.II (Garden)	23	5.50 to 6.00	Alluvial(Clay Loam)
24	DhansiriparGaon	24	5.50 to 6.00	Alluvial(Clay Loam)
25	DhodangGaon	25	5.50 to 6.00	Alluvial(Clay Loam)
26	Kohorapar	26	5.50 to 6.00	Alluvial(Clay Loam)
27	Kordoiguri	27	5.50 to 6.00	Alluvial(Clay Loam)

Source: District Agriculture Office, Golaghat

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	2017	166.25	1995.00	37,00	9.00	5 to 11 km/hr	51.00	73%	598.00
2	2018	143.92	1727.00	38,00	13.00	5 to 11 km/hr	52.00	74%	518.00
3	2019	140.25	1683.00	38,00	12.00	5 to 11 km/hr	51.00	72%	505.00
4	2020	147.67	1772.00	33,00	13.00	5 to 11 km/hr	49.00	74%	532.00
5	2021	147.25	1767.00	32.00	12.00	5 to 11 km/hr	52.00	73%	530.00
Average		149.07	1788.80	35.00	12.00	5 to 11 km/hr	50.00	75%	536.60

Source: Water Resource, Golaghat

Table No.-2.8 Physiographic Features:

Elevation(MSL)	Slope Range(%)	Order of Watershed	Major Stream	Top sequence (Soil series)	Average annual soil loss(Ton / hectare/year)
100.00m	2 to 5	-	Doigrung	Clay loam	0.009

Source: From field

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
Rectangular	Doigrung River a. Total length=87km b. Within project=17km	0.30	0.55%	plain	28457.00RM

Source: From field

CHAPTER – 3
BASE LINE INFORMATION OF WATERSHED

Table No. 3.1: Demographic Feature:

1	2	3	4	5
Sl. No	**Feature**	**Male**	**Female**	**Total**
1	Population	13407	13395	26802
	SC	648	633	1281
	ST	292	301	593
	BC	1856	1881	3737
	Others	10611	10580	21191
2	Children(0-14 years)	2027	1996	4023
3	Sex Ratio	-	-	1000:999
4	Literacy	69.43%	58.42%	63.93%
	Literates	9308	7826	17134
	Illiterates	4099	5569	9668
5	Work Force	7210	3764	10974
	Agriculture	6140	3652	9792
	Industrial/Business	783	105	888
	Service	287	7	294
6	Birth Rate	22:1000	20:1000	21:1000
7	Death Rate	6.4:1000	6.2:1000	6.3:1000

Source: From field

Table No. 3.2: Live Stock Details:

1	2	3
Sl. No	**Feature**	**No./ quantity)**
1	**Milch Animals**	
	Cows	5408
	Buffaloes	161
	Goat, sheep	5081
2	**Draft Animals**	
	Ox	5730
	He Buffalo	69
3	**Others**	
	Poultry	14430
	Piggery	59387
4	**Total Milk production** from milch animals (ltrs/day)	10816
5	**Fodder Availability**	
6	Dry (Abundant/Sufficient/ Scarce)	Sufficient
	Green (Abundant/Sufficient/ Scarce)	Scarce
	Fuel wood Availability (Abundant/Sufficient/Scarce)	Scarce

Source: From field

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	2226	1945	108.85	58.99	2058.20	--	--	--	60,000.00	58,000.00	60,000.00	178,000.00
2	Small Farmers	3050	305	303.78	161.65	1143.60	--	--	--	110,000.00	110,000.00	120,000.00	340,000.00
3	Big farmers	25	--	10.00	9.00	532.00	--	--	--	500.000.00	500,000.00	600,000.00	1600,000.00
4	Landless	62	62	--	--.	--	--	--	--	--	--	--	--
Total		**5730**	**2312**	**422.63**	**229.64**	**3733.80**	**--**	**--**	**--**	**670,000.00**	**668,000.00**	**780,000.00**	**1957,000.00**

Source: From field

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	260	Nil	260	110	To get regular wages etc. during lean period of the year and after completing of cultivation practice and get subsidiary income for up liftmen of the family member.	10-12 km	Daily wage	6000-8000

Source: From field.

Table No. 3.5: Details of Community Based Organization 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	8	7	0	15	(i) Landless	11	24	35	4	8	12	4	8	12				11	24	35	-	nil
						(ii) MF	40	40	80	11	13	24	11	13	24				2	4	6	-	nil
						(iii) SF	41	63	104	16	28	44	18	31	49				13	16	29	-	nil
						(iv) LF	11	15	26	2	3	5	2	3	5				--	-	-	-	nil
	Total	8	7	0	15		103	142	245	33	52	85	35	55	90				26	44	70	-	nil
2	UGs	Nil	Nil	Nil	Nil	(i) Landless	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
						(ii) MF	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
						(iii) SF	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
						(iv) LF	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
	Total	8	7	0	15		103	142	245	33	52	85	35	55	90				26	44	70	-	nil
3	VSS	Nil																					
4	FG/ FC[1]	Nil																					
5	WUA	Nil																					
6	F-SHG-C	Nil																					
7	F-SHG-B	Nil																					
8	PG	Nil																					
9	PC	Nil																					
10	Other related Groups (Specify)	Nil																					

Source: From fieldVSS: 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	16	In walking distance	Inallvillages
	Primary School	16	In walking distance	Withinprojectarea
	Secondary school	1	In walking distance	
	Govt. College	0	In walking distance	
	Vocational Institutions	Nil	In walking distance	
2	Service Institutions			
	Bank	1	In walking distance	
	Post office	1	In walking distance	
	Primary Health Care Center	1	In walking distance	
	Veterinary Center	3	In walking distance	
	Markets/ Village Haat	3	In walking distance	
3	No. of bore wells/pump sets (Functional)	90Nos. bore wells	In walking distance	
4	No. of Milk collection centers (Union/ Society/ Pvt. Agency/Others)	nil	In walking distance	
	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	5444	-	-
8	No. of HHs with access to drinking water	--	-	-
9	Access to Agro Industries (Yes/No)	no	-	-
10	Any other facilities (specify----------)		-	-

Source: From field

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 micsc. Use	Uncultivable private land		Cultivated area		Net Sown Area	Net area sown more than once	Gross cropped area
								Temporary fallow	Permanent fallow	Cultivated Rainfed	Cultivate Irrigated			
1	MithamChapori	210.00	2.66	2.00	30.00	10.00	0.50	6.84	10.50	153.00	27.00	180.00	32.00	212.00
2	Jathipotia	64.00	0.00	1.00	3.84	0.64	0.50	0.00	3.20	51.14	9.02	60.16	10.00	70.16
3	Chesamukh	97.00	0.00	1.00	5.82	0.97	0.50	0.00	4.85	77.50	13.68	91.18	16.00	107.18
4	HalwaGaon	39.00	0.00	0.50	2.34	0.39	0.50	0.00	1.95	31.16	5.50	36.66	7.00	43.66
5	Kenduguri	332.00	0.00	2.00	19.92	0.45	0.50	2.87	16.60	265.27	46.81	312.08	57.00	369.08
6	No.3 Koiborto	250.00	1.00	1.00	15.00	1.50	0.50	0.00	12.50	199.75	35.25	235.00	46.00	281.00
7	Ponkial	135.00	1.59	1.00	14.00	3.00	0.50	2.66	6.75	102.85	18.15	121.00	23.00	144.00
8	BholaguriGaon	508.00	23.83	4.00	103.00	15.00	1.00	13.37	50.80	344.25	60.75	405.00	70.00	475.00
9	No.1 Doigrang	136.00	1.00	1.00	12.00	0.80	0.50	0.00	10.20	105.40	18.60	124.00	22.00	146.00
10	No.3 Doigrang	178.00	2.00	2.00	27.00	2.21	0.50	9.44	13.35	128.35	22.65	151.00	31.00	182.00
11	MiriPathar	161.00	1.59	1.00	21.00	1.20	0.50	10.16	8.05	119.00	21.00	140.00	28.00	168.00
12	No.2 Koiborto	178.00	1.26	1.00	17.00	1.60	0.50	4.14	10.00	136.85	24.15	161.00	31.00	192.00
13	No.2 Doigrang	296.00	1.30	1.00	17.76	1.50	0.50	6.62	8.34	236.50	41.74	278.24	49.00	327.24
14	Panikora	200.00	0.20	1.00	15.00	0.63	0.50	0.00	14.17	157.25	27.75	185.00	33.00	218.00
15	KochariGaon	153.00	0.21	1.00	18.00	0.73	0.50	10.94	6.12	114.75	20.25	135.00	27.00	162.00
16	Halmira Grant Gaon	153.00	0.20	1.00	4.10	0.84	0.50	0.00	3.06	126.57	22.33	148.90	28.00	176.90
17	Na-PamuaGaon	147.00	0.00	1.00	5.10	0.61	0.50	1.55	2.94	120.62	21.28	141.90	25.00	166.90
18	TeliaGaon	191.00	0.00	2.00	21.70	0.91	0.50	8.20	12.59	143.91	25.39	169.30	32.00	201.30
19	GorongajanPt.I (Bagan)	44.00	0.00	0.50	3.90	0.89	0.50	0.00	3.01	34.09	6.01	40.10	9.00	49.10
20	SararGaon	555.00	0.60	1.00	24.00	1.20	1.00	0.00	22.20	451.35	79.65	531.00	94.00	625.00
21	HalmiraMohkhutiGaon	235.00	0.00	1.00	17.40	1.27	0.50	11.43	4.70	184.96	32.64	217.60	40.00	257.60
22	Prajabasti	5.00	0.00	-	1.99	0.12	0.50	0.00	1.87	2.56	0.45	3.01	0.50	3.51
23	GorongajanPt.II (Garden)	496.00	0.50	3.00	26.00	0.70	0.50	0.00	24.80	399.50	70.50	470.00	85.00	555.00
24	DhansiriparGaon	221.00	0.00	2.00	13.26	0.00	0.50	0.00	13.26	176.58	31.16	207.74	38.00	245.74
25	Dholagaon	316.00	0.00	2.00	28.80	0.36	0.50	0.00	28.44	244.12	43.08	287.20	50.00	337.20
26	Kohorapar	91.00	0.00	1.00	5.46	0.00	0.50	2.67	1.82	72.71	12.83	85.54	15.00	100.54
27	Kordoiguri	142.00	0.00	1.00	6.00	0.32	0.50	0.00	5.68	115.60	20.40	136.00	28.00	164.00
Total		**5533.00**	**37.94**	**36.00**	479.39	**47.84**	**14.50**	**90.89**	**3.1.75**	**4295.57**	**758.04**	**5053.61**	**926.50**	**5980.11**

Source: From field &Census

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	392.64	-	-	-	90.89	-	-	-
2	Pastures	Nil	47.84	-	-	-	-	-	-
3	Orchards	nill	-	-	-	-	-	-	-
4	Village Forest	nil	-	-	-	-	-	-	-
5	Forest	Nil	37.94	-	-	-	-	-	-
6	Village Ponds/ Tanks	40.00	-	-	-	1.40	-	-	-
7	Community Buildings	1.50	-	-	-	0.30	-	-	-
8	Weekly Markets	2.50	-	-	-	-	-	-	-
9	Permanent markets	3.00	-	-	-	-	-	-	-
10	Temples/ Places of worship	1.60	-	-	-	-	-	-	-
11	Others (Pl. specify)	-	-	-	-	-	-	-	-
Total		**441.24**	**85.78**	**-**	**-**	**92.59**	**-**	**-**	**-**

Source: From field

Table No. 3.9: Agriculture Implements:

1	2	3
Sl. No	**Implements**	**Nos.**
1	Tractor	3
2	Sprayers-manual/ power	210
3	Cultivators/Harrows	nil
4	Seed drill	nil

Source: From fieldSource: From field

Table No. 3.10: Crop Classification:

1	2	3
Sl. No	**Crop classification**	**Area (Hact.)**
1	Single crop	4127.11
2	Double crop	926.50
3	Multiple crop	100.00

Table No. 3.11: Crops & Cropping Pattern:

1	2	3	4				5				6			
			Rain fed				Irrigated				Total			
Sl. No	Season	Crop sown	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) (4+8)	Production (Ton/yr) (5+9)	Productivity (Kgs/ha) (6+10)/2	Cost of cultivation (Rs. /ha) (7+11)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Kharif	Sugar cane	4	28.80	7200.00	7000.00	3	22.50	7500.00	9000.00	7	51.30	7350.00	8000.00
		Black gram	15	16.88	1125.00	8000.00	10	11.75	1175.00	8000.00	25	28.63	1150.00	8000.00
2	Rabi	Mustard	6	36.00	6000.00	15000.00	-	-	-	-	6	36.00	6000.00	15000.00
		Vegetable	3	1.50	500.00	20000.00	2	1.20	600.00	20000.00	5	2.70	550.00	20000.00
3	Summer	Summer Rice	4100	10250	2500.00	24000.00	-	-	-	-	4100	10250	2500.00	24000.00
	Total	**-**	**4128**	**1033.18**	**-**	**-**	**15**	**35.45**	**-**	**-**	**4143**	**10368.63**	**-**	**-**

Source: From field

Table No. 3.12: Land capability Classification:

1	2	3	4	5					6		7		8				
Sl. 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
													Water			Wind	
				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)	Rill	Sheet	Gully		
1	Valley	3320	Loamy Clay	0	0	0	0	0	0	3320	0	0	41	0	0	0	Class - II

Source: From fieldSoil 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	124	620.00
2	Open wells	Nil	Nil
3	Bore wells	671	671.00
4	Canal irrigation	Nil	Nil
5	Natural spring head	4	8.00

Source: From field

Table No. 3.14: Status of water table:

1	2	3	4	5	6	7	8
Sl. No	**Source (open well)****	**Plot No of the source**	**Name of the Owner***	**Date of recordin g**	**Depth of water table from ground level (in mts)**	**Source located at (ridge/middl e/valley)**	**Remarks**
1	Tubewell	Mithaam Chapori	Prahlad Chetry	March 2021	7.50	Valley	
2	Tubewell	Kochari Gaon	Ajit Gayon	March 2021	8.00	Valley	
3	Tubewell	Na-Pomua	Prasanta Mazinder	March 2021	8.00	Valley	
4	Tubewell	Dhansiripar	Nivaj Gogoi	March 2021	8.00	Valley	
5	Tubewell	Miripathar	Rajen turi	March 2021	8.00	Valley	
6	Tubewell	Halwagaon	Bhupen Bora	March 2021	7.50	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** (Source: From field)

Table No. 3.15: Assessment of drinking water facility*:

1	2	3	4	5
Sl.No	**Item**	**Units**	**Quantity**	**Source**
1	Drinking water requirement	Lit/day	5.56lakh	Pond/tubewell
2	Present availability of drinking water	Lit/day	3.23lakh	tubewell
3	No. of drinking water sources available	No	**593**	
a)	Functional	Nos.		
b)	Need Repairing	Nos.		
c)	Defunct	Nos.		
4	Short fall if any	Ltrs/day	**2.33 lakh**	
5	No. of families getting drinking water from outside the Micro watershed area	Nos.	**Nil**	
6	**Requirement of new drinking water sources (if any)**	**Nos.**	**110 Nos.**	Open well, Tubewell-Pond

Source: From field

Table No. 3.16: Surface water resources:

1	2	3	4	5
Sl.No	**Type of water resource**	**Nos.**	**Area irrigated (Ha)**	**Storage capacity (Cum)**
1	Tank	**--**		
2	Pond	**124**	**1057.00**	**600000.00cum**
3	Lake	**--**		
4	Check dam	**--**		
5	Percolation tank	**--**		
6	Channel/Canal	**--**		
7	Any others (specify----------)	**--**		

Source: From field

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**
	Water Harvesting Tank	-	**5**	**-**	**5**
	Total	-	**5**	**-**	**5**

Source : From Field Survey

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. (Cum)**
Nil					

Source : From Field Survey$: 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
Sl. No.	**Name of activity**	**No. of beneficiaries**					**Pre-project average income per HH (Rs.)**
		SC	**ST**	**Others**	**Total**	**Women**	
1	Dairy	76	12	128	216	76	42000
2	Piggery	-	72	-	72	27	32000
3	Poultry	167	76	385	628	180	27000
4	Goatary	242	72	619	933	314	36000
5	Fishery	83	38	82	203	12	37000
Total		568	270	1214	2052	2160	-

Source: From field

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
Sl. No	Name of the work	Plot No.	Quantity (No./RMTs)	Amount spent (Rs.)	Programme
Nil					

Table No.3.21 PROBLEM TYPOLOGY OF THE WATERSHED:

1	2	3	4
Sl. No	Problemarea	Problemanalysis	Proposedinterventionstoovercomeproblems
1	**Soil Conservation**(slope, erosion, soil loss,rainfall,productivity,etc)	1. Soil Erosion,andheavysoillossinuplandarea. 2. Sheeterosioniscombativelyhighinmany places. 3. unpredictablenatureofSoil	1. Constructionofgradedbundandfieldbundtoprotectthesoilerosionandsiltationproblems.
2	**Water conservation**(Water budget, Groundwaternorms,productivity)	1. Degradation of Natural Resource such as congestionofnaturaldrainage, 2. Lack of water storage facility results in shortage ofwaterduringwinter. 3. Run-off resulting from seasonal rain conquers highvelocity due to steep slope in the watershed andtherebycausesdifferenttypesofsoil erosionhazards. 4. Due to inadequate irrigation infrastructure mainlymonocroppingisdone	1. Re-generationofdrainagechannel byexcavationandreclamationactivities. 2. Reclamation of natural water bodies (beel) byexcavatingandconstructingperipherybundetc.to Increasewaterstoragecapacity. 3. creation of Farm Pond and related distributionchannelforwaterharvesting/storageandirrigation 4. ConstructionofNull bundtocontrolthewater loggingproblem.
3	**Crop coverage – {80% of w/s area should be with canopy}**	1. Rabi crop area is proportionately small due to inadequate irrigation facilities. 2. Predominance Mono cropping 3. Flooding problem during summer 4. Scarce vegetative cover over the area	1. Agro-forestry, fuel wood plantat 2. Turmeric & Banana Plantation

1	2	3	4
Sl. No	**Problemarea**	**Problemanalysis**	**Proposedinterventionstoovercomeproblems**
	Agriculture productivity (crop wise compare with dist. average)	**1.** Low agricultural productivity due to high flood during summer, lack of irrigation facility, erratic and uncertain rainfall, low cropping intensity, lack of locally available agri-technologies to match the high ecological diversity of rainfed area etc.	**1.** Brick canal and water storage farm pond for irrigation for both Rabi & Kharif crop.
5	**Livestock productivity (Milk Yield, Meat yield, Eggs, Wool Yield, Kidding etc.)**	1. Dearth of fodder during flood period. 2. Lack of protected shelter for the inhabitants during flood period 3. lack of grazing land effects the production of milk and allied products, which inturn results in inadequate nutrition. 4. Diseases which reduce the production potential of livestock.	1. Promotion of Marketing facilities through SHG 2. Promotion of Dairy, Piggery, goatery, Duckery and Poultry farming activities.
6	**Existing Livelihood activities for Asset less persons**	1. Less income generating unsustained activities. 2. Their present occupation is Daily Labour, Rikswa Pullers etc.	1. Promotion of Dairy, Piggery, goaery, 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 SHGs are not functional.	1. Formation of SHG, User groups for promotion of various income generating activities
8	**Capacity Building**(participation, training,awarenessofwatershedcommunity	1.In many villages it is observed that the Participation inGram Sabha is very low due to lack of awarenesstowardswatersheddevelopmentactivities.	1. Conducting Awareness programmesamong thevillagers. 2. Providing training in respect to each activitiesproposed for watershed development as well aslivelihoodgeneration.
9	**Others(specify)**	**1.**LackofMarketingandtreadingFacilities	**1.** Providing Market Promotion Centres along withLowCostgo-downforstorageofvariousproducts.

Source : From Field Survey

CHAPTER – 4
Institutional Building and Project Management

Table No. 4.1 Details of SHGs & UGs newly formed under IWMP:

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	Can be filled up only after execution of the project																
						(ii) MF																	
						(iii) SF																	
						(iv) LF																	
	Total																						
2	UGs					(i) Landless																	
						(ii) MF																	
						(iii) SF																	
						(iv) LF																	
	Total																						

Table No. 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**	**Education qualification**	**Function/s assigned#**
						Write "Yes" if applicable											
Ponkial MWS	**Under Progress**	**11**	Nominee MWS	Dibyajit Doley	M		-	-	-	-	-	-	-	-	-	Civil Engineering	A,B,C,D,E,G
			Chairperson	Mrs. Mousumi Bora	F	-	-	--	Yes	-	-	-	-	-	-	H.S	A,B,D
			Secretary	Sri Prosanta Mozinder Boruah	M	-	-	--	Yes	-	-	-	-	-	Yes	B.Com	A,B,C,D,E,G,
			Member	Sri Binud Rai	M	-	ST	--	Yes	-	-	-	-	-	-	H.S	A.E,H
			Co-Chairperson	Sri Anil Tamuly	M		-	--	Yes	-	-	-	-	-	Yes	H.S.L.C	A.E,H
			Member	Sri Suren Saikia	M	-	-	--		-	Yes	-	-	-	Yes	Under matric	A.E,H
			Member	Sri Porag Rajbonshi	M	-	ST	--	Yes	-	-	-	-	-	-	H.S	A.E,H
			Member	Mrs. Dipsikha Phukon	F	-	-	--	Yes	-	-	-	-	-	Yes	HSSLC	A.E,H
			Member	Sri Sundeep Buragohain	M	-	--	--	Yes	-	-	-	-	-	Yes	H.S.L.C	A.E,H
			Member	Sri Bubul Saikia	M	-	-	--	Yes	-	-	-	-	-	-	H.S.L.C	A.E,H
			Member	Kumari Jyogi	F	-	-	---	Yes	-	-	-	Yes	-	-	H.S	A.E,H

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**	**Education qualification**	**Function/s assigned#**
						Write "Yes" if applicable											
Bholaguri MWS	**Under Progress**	**11**	Nominee MWS	Dibyajit Doley	M		-	-	-	-	-	-	-	-	-	Civil Engineering	A,B,C,D,E,G
			Chairperson	Sri Monuj Saikia	M	-	-	-	Yes	-	-	-	-	-	-	H.S	A,B,D
			Secretary	Sri Nivaj Gogoi	M	-	-	-	Yes	-	-	-	-	-	-	B.A.	A,B,C,D,E,G,
			Member	Sri Tarun Das	M	Yes	-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Co-Chairperson	Mrs Sangita Saikia	F	-	-	-	Yes	-	-	-	-	-	-	H.S.	A.E,H
			Member	Mrs Alpona Thengal Bora	F	-	Yes	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Md. Romjan Ali	M	-	-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Md. Nekibuddin Ahmed	M	-	-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Sri Sanjib Hazorika	M	-	--	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Sri Duleswar Das	M	Yes	-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Mrs. Mridula Saikia	F	-	-	-	Yes	-	-	-	-	-	-	H.S	A.E,H

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**	**Education qualification**	**Function/s assigned#**
						Write "Yes" if applicable											
Gorongajan MWS	**Under Progress**	11	Designation	Name	M /F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Education qualification	Function/s assigned#
			Nominee MWS	Dibyajit Doley	M		-	-	-	-	-	-	-	-	-	Civil Engineering	A,B,C,D,E,G
			Chairperson	Sri Raka Bordoloi	M		-	-	Yes	-	-	-	-	-	-	Matric	
			Secretary	Sri Ajit Gayon	M		-	-	Yes	-	-	-	-	-	-	H.S.L.C	A,B,C,D,E,G,
			Co-Chairperson	Mrs.Mira Tamuly Bora	F		--	-	Yes	-	-	-	-	-	-	H.S.L.C	A.E,H
			Member	Mrs.Upamoni Saikia	F		Yes	-	Yes	-	-	-	Yes	-	-	H.S.L.C	A.E,H
			Member	Mrs Rina Saikia	F		Yes	-	Yes	-	--	-	-	-	-	Under Matric	A.E,H
			Member	Sri Bipul Razwar	M		-	-	Yes	-	-	-	-	-	-	H.S.L.C	A.E,H
			Member	Sri Jiten Bora	M		-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Sri Munindra Boruah	M		-	-	Yes	-	Yes	-	-	-	-	Under Matric	A.E,H
			Member	Sri Devoprashad Saikia	M		-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Sri Abhijit Saikia	M		-	-	Yes	-	-	-	-	-	-	H.S.L.C	A.E,H

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**	**Education qualification**	**Function/s assigned#**
						Write "Yes" if applicable											
Doigrung MWS	**Under Progress**	**11**	Nominee MWS	Dibyajit Doley	M		-	-	-	-	-	-	-	-	-	Civil Engineering	A,B,C,D,E,G
			Chairperson	Sri Prahlad Chetry	M	--	-	-	Yes	-	-	-	-	-	-	H.S	A,B,D
			Secretary	Mrs. Bonti Bora Rajbonshi	F	-	--	-	Yes	-	-	-	-	-	-	H.S	A,B,C,D,E,G,
			Member	Mrs. Rambha Thengal Gogoi	F	-	Yes	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Member	Mrs.Manju Chetry	F	--	-	-	Yes	-	-	-	Yes	-	-	Under Matric	A.E,H
			Member	Sri Mintu Hazorika	M	-	-	-	Yes	-	-	-	-	-	-	Under Matric	A.E,H
			Co-Chairperson	Sri Sewali Kakati	F	-	-	-	Yes	-	-	-	-	-	-	H.S.L.C.	A.E,H
			Member	Sri Shraban Boraik	M	-	-	-	Yes	-	-	-	-	-	-	H.S	A.E,H
			Member	Sri Dibash Tanti	M	-	--	-	Yes	-	-	-	-	-	-	H.S.L.C	A.E,H
			Member	Sri Saurov Tanti	M	-	-	-	Yes	-	-	-	-	-	-	H.S	A.E,H
			Member	Sri Bablu Kisan	M	-	--	--	Yes	-	-	-	-	-	-	Under Matric	A.E,H

(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
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

Source: From Watershed Committee Formation Meeting

Table No 4.3: WDT Particulars:

1	2	3	4	5	6	7
Sl. No	**Names of WDT members**	**M/F#**	**Age**	**Qualification / Experience**	**Description of professional training**	**Role/ Function***
1	Sri Dibyajit Doley Range Officer	M	56	Diploma in Civil Engineering.	Departmental Training on Forestry	A, B, C, D, E, F, G, H, I
2	Dr. Jogeswar Bori Veterinary Officer.	M	34	Master in Veterinary Science (MVSC)	Departmental Training on Veterinary	E, F, J (Training on Veterinary)
3	Sri Bibek Bikash Gogoi Asstt. Engineer, Block Office.	M	31	B.E. Civil	Departmental Training on Civil Engineering	E, F, J (Training on Civil Engineering)
4	Mrs. Sanghamitra Sharma A.D.O.	F	44	M.Sc. (Agri)	Departmental Training on Agriculture	E, F, J (Training on Agriculture)
5	Sri Rajkumar Gogoi Sericulture Demonstrator.	M	49	H. S. L. C.	Departmental Training on Sericulture	E, F, J (Training on Sericulture)
6	Sri Namrata Gohain Fisheries Dev. Officer	F	31	Master in Fisheries Science	Departmental Training on Fisheries	E, F, J (Training on Fisheries)

*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).

Source: Discussion with the line department

Table No. 4.4: PIA particulars:

1	2	3
Sl.No	**Particulars**	**Details of PIA**
1	Type of organization#	H.Government Department
2	Name of organization	Department of Soil Conservation, Assam
3	Designation & Address	Divisional Soil Conservation Officer, Golaghat Soil Conservation Division, Golaghat, Assam
4	Telephone	9085757345/9854450561
5	Fax	
6	E-mail	golaghatsoil@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 Organizations	H	Any other (please specify).

Source : From Office Record

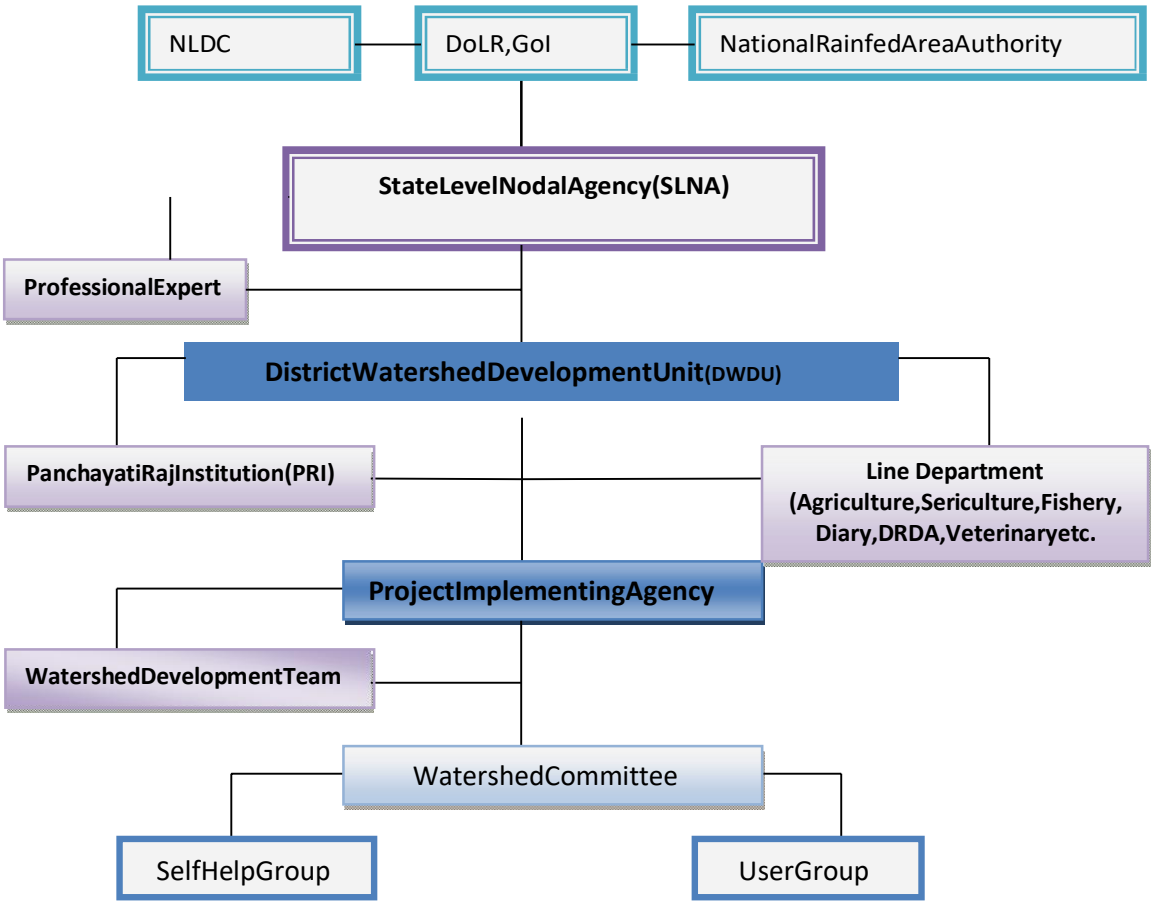
Table No. 4.5 Bank Account Details

Name of WC/PIA	Name of the Bank/Place	Account No.	Name of the Signatory	Address
WCDC, Golaghat	State Bank of India, Pulibor, Golaghat SBIN0007060	**40608759415**	1.Sultan Jahedur Rahman 2.Sri Longsing Rongchehon	Office of the Project Manager, Golaghat & Divisional Officer, Golaghat Soil Conservation Division, Golaghat
PIA, Golaghat-I (Doigrung) 2021-22 WDC-PMKSY 2.0	State Bank of India, Pulibor, Golaghat SBIN0007060	**40754231147**	Sultan Jahedur Rahman	Office of The Project Implementing Agency & Divisional Officer, Golaghat Soil Conservation Division, Golaghat
Bholaguri WC	State Bank of India, Pulibor, Golaghat SBIN0007060	**40969360420**	1.Dibyajit Doley 2.Monoj Saikia.	Office of The Project Implementing Agency & Divisional Officer, Golaghat Soil Conservation Division, Golaghat
DoigrungWC		**40969360431**	1.Dibyajit Doley 2.Prahlad Chetry.	
Gorongajan WC		**40969360453**	1.Dibyajit Doley 2.Raka Bordoloi.	
Ponkial WC		**40969360464**	1.Dibyajit Doley 2.Mouchumi Bora.	

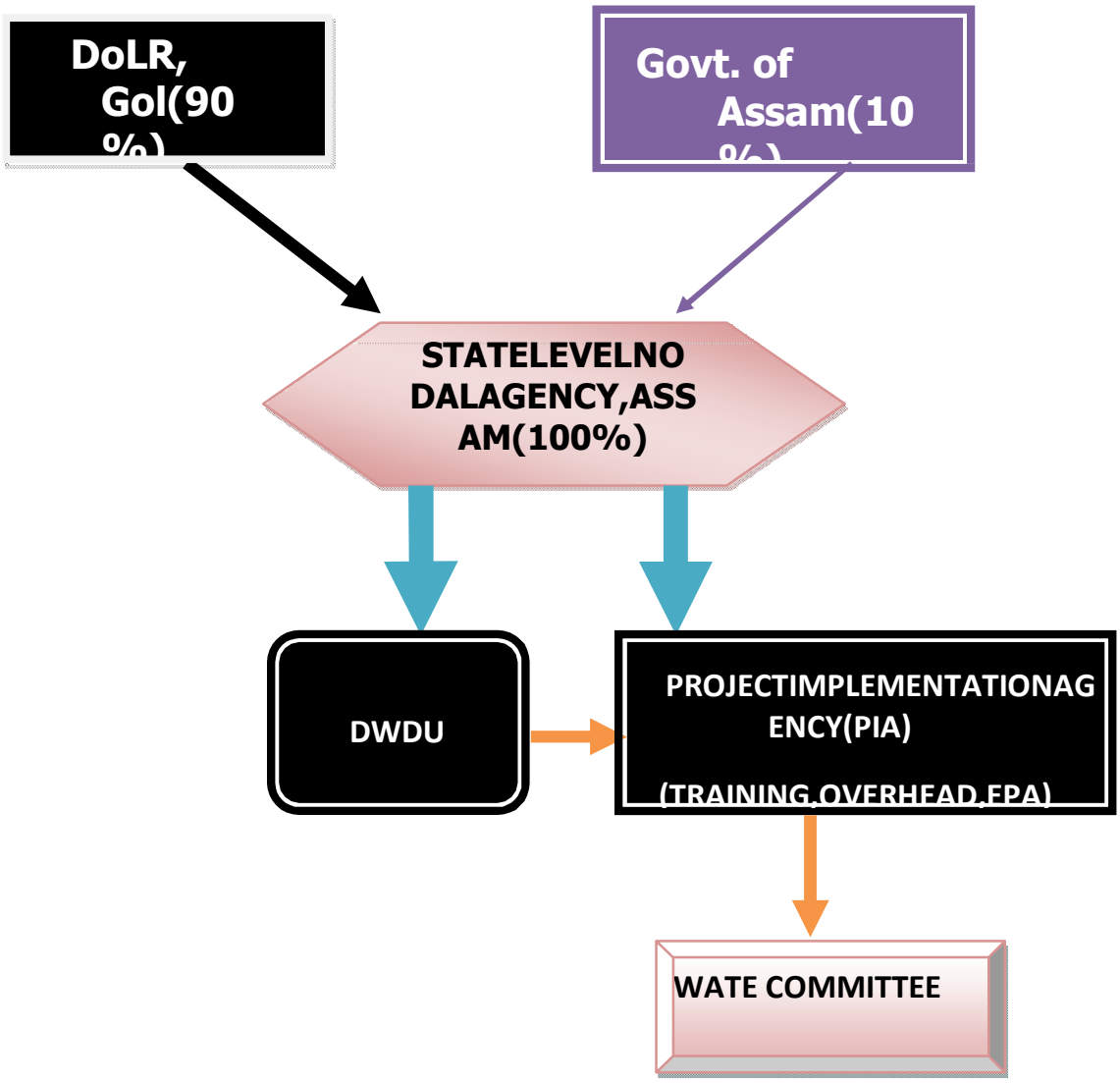
Source : From Office Record

Table No. 4.6 Institutional Mechanisms: (Enclose the following documents):

4.6.1 Flow Chart of Institutional Arrangement from District to watershed level



4.6.2 Fund Flow mechanisms – flow chart,



4.6.3 List of Watershed Records to be maintained:

A) ATWATERSHEDCOMMITTEELEVEL

- RegistrationCertificate
- Bylaws
- DetailProjectReport
- AnnualActionPlan
- CashBook
- ProjectFundPassbook
- WatershedDevelopmentFundPassbook
- LedgerBook
- AssetRegister
- Vouchers
- LandDetails
- MeasurementBook
- AuditReport/SocialAuditReport
- PhotoDocuments
- ProjectCompletionReport
- CommonGuidelines
- MoUbetweenWatershedCommitteeandProjectImplementingAgency
- Revenue Records.

B) ATPROJECTIMPLEMENTINGAGENCYLEVEL

- CashBook
- ComputerizedAccountingSystem
- Vouchers

Table No. 4.7 Documents of Agreements:

4.7.2 4.7.1) Watershed Committee Registration certificate(under process)

4.7.3 MoU – PIA – DWDU, PIA – WC (under process)

4.7.4 Resolution of Gram Sabha ,Aam Sabha, WC approving action plan# (to be enclosed latter)

#the resolution should be done village wise and needs to be approved in Gram/Aam Sabha

4.8 Project Implementation:

Project Implementation Strategy including coordination and monitoring of implementation process, WCDC and other coordination mechanism (Describe in detail).

Project Implementation involves a number of activities of which the major are - securing communityparticipation,co-ordinationofactivitiesandprojectmanagement&Controlling,Monitoring.

Co-ordination is the practice whereby more people or organizations work together to deal collectivelywithasharedobjective.Therationalefor co-ordinationshallbe-

1. Totakeimmediatecurativeactionforproblemsencounteredinimplementationoftheproject.
2. To promote better relationship among organizations, institution, agencies, departments andindividuals connected with the project and to harmonies resources and activities for theachievementsoftheprojectobjectives.
3. To establish cordial relationship between the target population of the project and all the othersegmentsofthesociety.
4. Teambuilding,whichincludesrecruitingpeoplewithappropriatequalificationandcapabilityforpositions in the organization, orienting new people to their position to help them learn abouttheirresponsibilitiesandprovidingtrainingwhennecessarytoupgradepeople'sskills.

ProjectManagement&Controllingmeansmanagingactivitiestoensureprogresstowardstheprojectobjecti ves.

1. Evaluatingtheprogressofprojectbycomparingthecurrentsituationwithestablishedgoalsandobjectives.
2. Submittingreportstoaccountforprojectactivitiesandfinance
3. Monitoringperformancetodocumentthewaypeoplecarryouttheirresponsibilities.
4. Providing feedbackto people on aregular,informalbasisincluding optimisticfeedbackandconstructivecriticism.
5. Adjustingplanstorespondthechangesintheinternalandexternalorganizationalenvironment

Monitoring is an important stage of project implementation and it implies the process of routinelygatheringinformationonall aspectsoftheproject**.**

The first level monitoring shall be done by the project staff. The DWDU and PIA shall beresponsible formonitoring the staffand taskunderthem and Project Managershallbe accountablefor monitoring all aspects of the project. The second level monitoring shall be done by third party.The monitoring team shall be collected the report through field visit, progress and measuresperformanceincludingfinancialreporting.

StepforMonitoringProcess:

- Definingtheobjectivesofthemonitoringsystem;
- Designingaprogrammetomonitorachievementssystematically;
- Selection of indicators/parameters to be monitored, the location, methods/processes andfrequency of observations and the information processing and reporting procedure areessential;and
- Organizing,motivatingandtrainingpeopletoobtainconveyandusetheinformation.

MonitoringTools

- Semi-structuredinterviews;
- Community workshops to evaluate the extent of adoption and resulting achievements fromconservationpractices.
- Observationandmeasurementofeasilyquantifiablefieldindicators.

- Farmers'ownrecordscanbepreparedwhichprovidesvitalinformationtothecentraltheme.
- Ground photographs takenfromthesameplace beforeandafterremedialmeasures,depictingdetailsaboutlandscapeCPR'schangesinthestatusofnaturalres ources.
- Communityevaluationofcertainsimpletechnical,ecological,economical,socialandessentialservicesindic ators.
- Remotesensingsatelliteimageriesandaerialphotographstakenatthestartoftheplanarerepeatedperiodic ally.
- GeographicalInformationSystems(GIS)
- Videomonitoring.
- Comparisonwithdemonstrationandresearchplots/farms.
- Comparisonwithdemonstrationandresearchmicro-watersheds.
- Hydro-meteorologicalmeasuring.
- Usingtheinformationgatheredbyotherinstitutionalandprivateenterprises.
- Combinationofabovementionedtools.

PIS	Tasks	Responsibility
Project Co-ordination	Immediate correctiveactionforproblemencountered	WCDC,ProjectManager,WDTM ember
	CreateRelationshipamongstaffandInstitution	ProjectManager
	TeamBuilding&CapacityBuilding	WCDC/PIA/ProjectManager
	Co-operationandNetworkDevelopment	WCDC/PIA/ProjectManager
Project Management&Contro lling	ProgressofProject	ProjectManager
	Reportgeneratingtoaccountprojectactivities andfinancialstatement	PIA/ProjectManager
	Performancemonitoring	PIA/ProjectManager/WCDC
Monitoring	1st LevelMonitoringStaff PerformanceWorkPerform ance Targetachievement	WCDC/ProjectManager/PIA
	2nd Level MonitoringWork QualityDeviationReport Financialstatement	WCDC/ThirdParty

Table No. 4.8 Convergence plan with IWMP:

1	2	3	4	5	6	7
Sl. No.	**Names of Departments with Schemes converging with IWMP**	**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	**Nil**					

CHAPTER – 5
Management/Action Plan

Table 5.1 Description on methodology of plan adopted

a) **Awarenessgenerationinterventions**:

i. Awareness campaign through Gram Sabha in all villages of watershed area is essential.Awareness generation programme will be conducted for all project stakeholders atwatershed level with the fundamental purpose of educating them and creating moreinterestinregardtovariousaspectsof theIWMPproject.

ii. Awareness campaign through distribution of leaflet and brochures describing about theIWMPproject.

b) **Initial Orientation program:** For successful completion of the project, orientation of both projectpersonnel and watershed communities according to the changing perspective is vital and it willenhance skills and competency of project staff to work with the villagers. Various training,awareness programme, meeting and seminar shall be conducted to build necessary ability andcompetency among the project officials, PRIs, especially GPs and other Communities BasedOrganizations(CBOs)aboutplanning,implementationandmanagementofvariousprojectactivities.

c) **FormationprocessUGs&WatershedCommittee:**TheUserGroupandWatershedCommitteeareformedthroughGramSabhaandawarenessprogramme.

d) **DPRpreparationprocess:**

1. Data Collection: The study area is confined to 27 villages of Golaghat district of Assam. Both primary and secondary data pertaining to the study were collected from various sources. While the secondary data were collected from various government organizations, published documents and literatures. The primary data were collected from the villagers staying within the watershed area. Structured questionnaires were used for collecting the primary data. The study team also visited many problem prone areas to obtain first-hand information of natural resources and their uses. Data and information thus collected have been analyzed to know about the characteristics of the problem and prospects. The following are the various steps of data collection & report preparation-

- Secondarydatacollection,preparations
- Village meeting & Conduct of Participatory Rural Appraisal (PRA) techniques for problemidentification need assessment and selection of project activities. All the treatment plan andinterventionsareidentifiedafter elaboratePRAexercise.
- SocioEconomicSurveyofallHouseholdsinWatershedvillage.
- Collection of baseline data such as Demographic features, Livestockdetails, BPL status,Operational Holdings, Migration particulars, Details of Community Based Organization, Landfeatures, Details of CPR, Crops & Cropping patters, Soil classification & Erosion status,Climate&Hydrologicalfeatures,Groundwaterstatus,Irrigationfacilities, Statusofwatertable,Qualityandavailabilityofdrinkingwater,Waterbudget,Detailsoflivelihoods.

- ProblemTypologyAnalysis.
- Productivity&Livelihoodsplanningexercise.
- Institutional&CapacityBuildingplan(withsupportofCourseDirectors).
- DataConsolidation&DocumentationofDPR.
- Integration of various spatial and non-spatial (attribute) data using the GeographicalInformation system (GIS).GIS software is an especially effective tool for watershedmanagement. GIS software provides the ability to create a computerized database consistingofspatial(maporimage)data.

1. Planning Process: All the data collected have been compiled and filled up the required table accordingly.
2. Mapping: Mapping has been done with the help of local villagers after doing the PRA exercise.
3. Hydro-geological Survey: The ground water table and the peculation capacity of the area have been studied during preparation of DPR.
4. Public-Private partnership: The relationship of the public with the villagers of the adjoining villages has been studied.
5. Consolidation & preparation of DPR documents: Combining all the records, the DPR has been prepared with the best effort. Approval by Aam Sabha/ Gram Sabha : The DPR has been approved by the Gram Sabha.

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	12	13
Name of MWS	Name of Activities (Structure)	Name of village	Plot No. (including name of the local patch)	Name of beneficiaries	Area (in Hact) Dimension (in M/sqm/cum) of structure	Unit cost	Total Cost (in Rs.)	Contribution (in Rs.)	Total Grant amount (in Rs.)	Year of implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)	Latitude	longitude
Doigrung	Agri Bund (with H.P. Culvert)	Kenduguri	Kordoiguri to Jathipotia (Ph-II)	-	545.00 RM	1650	900000	45000	900000	1^{st}	26.563971	93.847949
		Miripathar	Miripathar pathar	-	700.00 RM	1002	701240	35062	701240	1^{st}	26.549424	93.840758
Ponkial	Agri Bund (with H.P. Culvert)	Kordoiguri	Sarku Lamas Paddy field to Sunil Bhuyans Paddy field	-	600.00 RM	1500	900000	45000	900000	2^{nd}	26.567194	93.856949
		Kordoiguri	Kamal Rajbonsis paddy Field to Balitup	-	600.00 RM	1500	900000	45000	900000	2^{nd}	26.574829	93.866416
		Kohorapar	Kohorapar village to Kenduguri	-	333.00 RM	1500	500000	25000	500000	2^{nd}	26.562404	93.859321
		Kohorapar	Kohorapar village to Chechamukh	-	733.00 RM	1500	1100000	55000	1100000	5^{th}	26.573858	93.863144
		Dholagaon	Dhola Gaon Paddy field (Ph-I)	-	586.00 RM	1002	587480	29374	587480	1^{st}	26.548468	93.851766
		Dholagaon	Dhola Gaon paddy field	-	400.00 RM	1500	600000	30000	600000	2^{nd}	26.546778	93.853602
Bholaguri	Agri Bund (with Box Culvert)	Halrira Grant	Halrira Grant pathar	-	848.50 RM	1650	1400000	70000	1400000	1^{st}	26.305970	93.551920
		Salmira Mohkhuti Gaon	Salmira mohkhuti pathar	-	606.00 RM	1650	1000000	50000	1000000	1^{st}	26.508426	93.911586
Doigrung	Agri Bund (with Box Culvert)	Kenduguri	Kordoiguri to Jathipotia	-	485.00 RM	1650	800000	40000	800000	1^{st}	26.563027	93.842637

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	**Name of Activities (Structure)**	**Name of village**	**Plot No. (including name of the local patch)**	**Name of beneficiaries**	**Area (in Hact) Dimension (in M/sqm/cum) of structure**	**Unit cost**	**Total Cost (in Rs.)**	**Contribution (in Rs.)**	**Total Grant amount (in Rs.)**	**Year of implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)**	**Latitude**	**Longitude**
Doigrung	Earthen Agri Bund	Jathipotia	Pushna karmakar	-	900.00 RM	1000	900000	45000	900000	1^{st}	26.578249	93.847267
		Jathipotia	Jathipotia	-	606.00 RM	1000	606200	30310	606200	2^{nd}	26.575269	93.840084
		Mithamchapori	Mithamchapori (Ph-I)	-	700.00 RM	1000	700000	35000	700000	3^{rd}	26.582423	93.842941
		Mithaamchapori	Mithaamchapori (Ph-II)	-	1000.00RM	1000	1000000	50000	1000000	4^{th}	26.575005	93.838990
		Halwa Gaon	Borali	-	800.00 RM	1000	800000	40000	800000	2^{nd}	26.559087	93.834692
Gorongajan	Earthen Agri Bund	Panikora	Solmariroad to Bholachapori	-	350.00 RM	1000	350000	17500	350000	1^{st}	26.54741	93.875319
Ponkial	Earthen Agri Bund	Dhola Gaon	Dhola gaon paddy field (Ph-II)	-	113.00 RM	1000	112520	5626	112520	2^{nd}	26.548468	93.851766

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	**Name of Activities (Structure)**	**Name of village**	**Plot No. (including name of the local patch)**	**Name of beneficiaries**	**Area (in Hact) Dimension (in M/sqm/cum) of structure**	**Unit cost**	**Total Cost (in Rs.)**	**Contribution (in Rs.)**	**Total Grant amount (in Rs.)**	**Year of implementation (1^{st}/2^{nd}/3^{rd}/ 4^{th}/5^{th})**	**Latitude**	**longitude**
Gorongajan	Reclamation of Drainage Channel	Prajabosti	Prajabosti Stream	-	1500 RM	400	600000	30000	600000	1^{st}	26.514256	93.851812
Bholaguri	Excavation of Drainage Channel	Gorongajan pt-I	Haldhibari Stream	-	400 RM	1000	400000	20000	400000	3^{rd}	26.502183	93.867378
		Saror Gaon	Garangajan Stream	-	1500 RM	400	600000	30000	600000	4^{th}	26.517265	93.875052
Ponkial	Excavation of Drainage Channel	Chesamukh	Chechamukh to Goruchora beel	-	600 RM	667	400000	20000	400000	1^{st}	26.557032	93.862542
Ponkial	Excavation & construction of Brick Canal	Ponkial	Near Podumoni beel	-	142.50 RM	3650	520000	26000	520000	2^{nd}	26.557374	93.846835
Bholaguri	Excavation & construction of Brick Canal	Na-Pomua Gaon	FromMohkhuti jan stream	-	274 RM	3650	1000000	50000	1000000	2^{nd}	26.523110	93.908913
TOTAL OF SMC							**17377440**	**868872**	**17377440**	**-**	**-**	**-**

Source: From PRA Exercise & field survey

Table No. 5.2.2 Water Harvesting Structures:

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	Name of Activities (Structure)	Name of village	Plot No. (including name of the local patch)	Name of beneficiaries	Area (in Hact) Dimension (in M/sqm/cum) of structure	Unit cost	Total Cost (in Rs.)	Contribution (in Rs.)	Total Grant amount (in Rs.)	Year of implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)	Latitude	longitude
Gorongajan	Reclamation of Marshy land with H.P. Culvert	Sarorgaon	Guwalpatty to Rangajan	-	1 No.	250000	250000	12500	250000	1^{st}	26.504562	93.888486
		Gorongajan pt-II	Sankar Tantis House & Anuj Saikias House	-	1 No.	400000	400000	20000	400000	1^{st}	26.517451	93.850969
		Gorongajan pt-II	Biren Rajuar House to Babul Ghatwar House	-	1 No.	208370	208370	10419	208370	3^{rd}	26.544470	93.854585
		Gorongajan pt-II	Ruhit Rajwars House to Rajen Tanti House	-	1 No.	400000	400000	20000	400000	3^{rd}	26.521093	93.862601
		Gorongajan pt-II	Rajkumar Tantis House to Sankar Tanti House	-	1 No.	208370	208370	10419	208370	3^{rd}	26.553714	93.886691
Gorongajan	Reclamation of Marshy land with H.P. Culvert	Sarorgaon	Kaligupal Namghar to Dholajan	-	2 Nos.	250000	500000	25000	500000	4^{th}	26.504562	93.888486
		Prajabosti	Kalisoron House to No.5 Purajangal	-	2 Nos.	247380	494760	24738	494760	4^{th}	26.518985	93.862855
		No-3 Koiborta	Near Sondiram Thengals House	-	1 No.	250000	250000	12500	250000	2^{nd}	L26.557462	93.879767
		Panikora	Jiten Das House to Ajit Duttas House	-	1 No.	250000	250000	12500	250000	5^{th}	L26.518985	93.862855

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	Name of Activities (Structure)	Name of village	Plot No. (including name of the local patch)	Name of beneficiaries	Area (in Hact) Dimension (in M/sqm/cum) of structure	Unit cost	Total Cost (in Rs.)	Contribution (in Rs.)	Total Grant amount (in Rs.)	Year of implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)	Latitude	longitude
Bholaguri	Reclamation of Marshy land with H.P. Culvert	Dhansiripar Gaon	Dhansiripar Gaon	-	1 No.	250000	250000	12500	250000	2^{nd}	26.504802	93.930017
Doigrung	Reclamation of Marshy land with H.P. Culvert	Kenduguri	Kenduguri Pathar	-	1 No.	250000	250000	12500	250000	3^{rd}	26.569764	93.840322
Bholaguri	Reclamation of Marshy land with Box Culvert	Dhansiripar Gaon	Mudoi chuk	-	63 cum	16667	1050000	52500	1050000	1^{st}	26.506666	93.929531
Gorongajan	Reclamation of Marshy land with Box Culvert	Kachari Gaon	Dholajan	-	42 cum	16667	700000	35000	700000	1^{st}	26.527376	93.865186
		Telia Gaon	Hanschora jan	-	24 cum	16667	400000	20000	400000	2^{nd}	6.528294	93.867586
		No-2 Koiborta	near Diganta Thengal House	-	24 cum	16667	400000	20000	400000	5^{th}	26.549401	93.872808
Ponkial	Reclamation of Marshy land with Box Culvert	Kohorapar	Kohorapar	-	30 cum	16667	500000	25000	500000	2^{nd}	26.564680	93.859050
Doigrung	Reclamation of Marshy land with Box Culvert	Kenduguri	Kenduguri	-	30 cum	16667	500000	25000	500000	3^{rd}	26.577715	93.837927
		Jathipotia	paddy Field road	-	30 cum	16667	500000	25000	500000	3^{rd}	26.577715	93.837927
Bholaguri	Water Conservation with DSW	Na-Pomua Gaon	Mohkhuti jan stream	-	10 RM	100000	1000000	50000	1000000	1^{st}	6.521555	93.908340
Ponkial	Rain Water Harvesting	Dhola Gaon	Dholaguri M.E.School	-	1380 cum	190	262300	13115	262300	5^{th}	Lat-26.529547	93.859729

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	**Name of Activities (Structure)**	**Name of village**	**Plot No. (including name of the local patch)**	**Name of beneficiaries**	**Area (in Hact) Dimension (in M/sqm/cum) of structure**	**Unit cost**	**Total Cost (in Rs.)**	**Contribution (in Rs.)**	**Total Grant amount (in Rs.)**	**Year of implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)**	**Latitude**	**longitude**
Ponkial	Renovation of Pond	Chesamukh	Near Garuchara Bill	-	1980 sqm	202	400000	20000	400000	1^{st}	26.560560	93.863132
Gorongaja	Renovation of Pond	Gorongajan pt-I	Near Simsong Sorengs House	-	1980 sqm	202	400000	20000	400000	3^{rd}	26.547410	93.875319
		Saror Gaon	Near Jatin Sarmas House	-	1485 sqm	202	300000	15000	300000	4^{th}	26.509769	93.882040
Gorongaja	Construction of Farm Pond	Saror Gaon	Near Gouranga Kalita House	-	1656 sqm	302	500000	25000	500000	1^{st}	26.519298	93.876508
		Prajabosti	Near Rituraj Chubbas house	-	1325 sqm	302	400000	20000	400000	5^{th}	26.521665	93.853803
		No-2 Koiborta	Near Doyal sankar Boras House	-	1656 sqm	302	500000	25000	500000	1^{st}	26.544662	93.867598
Gorongaja	Construction of Farm Pond	No-3 Koiborta	Near Prodip Boras House	-	1325 sqm	302	400000	20000	400000	2^{nd}	26.557463	93.879757
Gorongaja	**Construction of Farm Pond**	Kachari Gaon	Near Sanjib Saikias House	-	1987 sqm	302	600000	30000	600000	1^{st}	26.527376	93.865186
		Kachari Gaon	Near Rupom Boras House	-	1325 sqm	302	400000	20000	400000	2^{nd}	26.5527376	93.865186
		Panikora	Near Ujjal Boras House	-	1325 sqm	302	400000	20000	400000	3^{rd}	L26.547254	93.875406
		Kachari Gaon	Near Anuj Saikias House	-	1325 sqm	302	400000	20000	400000	2^{nd}	L26.527376	93.865186

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	Name of Activities (Structure)	Name of village	Plot No. (including name of the local patch)	Name of beneficiaries	Area (in Hact) Dimension (in M/sqm/cum) of structure	Unit cost	Total Cost (in Rs.)	Contribution (in Rs.)	Total Grant amount (in Rs.)	Year of implementation ($1^{st}/2^{nd}/3^{rd}$/	Latitude	longitude
Ponkial	Construction of Farm Pond	Ponkial	Near Podumoni beel	-	4967 sqm	302	1500000	75000	1500000	1st	26.557374	93.846835
		Kordoiguri	Near Binud Rais Paddy field	-	1325 sqm	302	400000	20000	400000	2nd	26.574423	93.859490
		Kordoiguri	Kamal Rajbonsis Paddy Field	-	2980 sqm	302	900000	45000	900000	2nd	26.567180	93.857002
		Dhola Gaon	Field of Biswajit Boruah	-	1656 sqm	302	500000	25000	500000	2nd	26.546785	93.853157
		Dhola Gaon	Paddy Field ofAnil Tamuli	-	1656 sqm	302	500000	25000	500000	1st	26.548489	93.851769
		Chesamukh	Near Garuchara Bill	-	1325 sqm	302	400000	20000	400000	1st	26.560560	93.863132
Bholaguri	Construction of Farm Pond	Halmira Grant Gaon	Tall Grant	-	2980 sqm	302	900000	45000	900000	2nd	26.303560	93.552460
		Dhansiripar Gaon	Dhansiripar Gaon	-	2649 sqm	302	800000	40000	800000	2nd	26.502779	93.933845
		Na-Pomua Gaon	Na-Pomua Gaon Ph-I	-	1656 sqm	302	500000	25000	500000	2nd	26.521238,	93.907136
		Na-Pomua Gaon	Na-Pomua Gaon Ph-II	-	1656 sqm	302	500000	25000	500000	2nd	26.521186	93.907167
		Salmira Mohkhuti Gaon	Tall Grant	-	2980 sqm	302	900000	45000	900000	2nd	26.303550	93.552420
		Halmira Grant Gaon	Tall Grant (Ph-II)	-	2980 sqm	302	900000	45000	900000	3rd	26.303560	93.552460
Doigrung	Construction of Farm Pond	Mithaam Chapori	Mithaam Chapori (Ph-I)	-	1325 sqm	302	400000	20000	400000	3rd	26.583748	93.846912
		Mithaam Mhapori	Mithaam Chapori (Ph-II)	-	1325 sqm	302	400000	20000	400000	3rd	26.581180	93.844888
		Mithaam Chapori	Mithaam Chapori (Ph-III)	-	1656 sqm	302	500000	25000	500000	3rd	26.583206	93.847065
		Jathipotia	Near Buka Beel	-	2980 sqm	302	900000	45000	900000	3rd	26.575231	93.840160
TOTAL OF WHS							24373800	1218690	24373800	-	-	-

Source: From PRA Exercise & field survey

Table No. 5.2.3 Vegetative Covers:

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of MWS	**Name of Activities (Structure)**	**Name of village**	**Plot No. (including name of the local patch)**	**Name of beneficiaries**	**Area (in Hact) Dimension (in M/sqm/cum) of structure**	**Unit cost**	**Total Cost (in Rs.)**	**Contribution (in Rs.)**	**Total Grant amount (in Rs.)**	**Year of implementation ($1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$)**	**Latitude**	**longitude**
Bholaguri	Road Side Plantation	Bhulaguri Gaon	Bhulaguri Gaon	-	2.00 Hact.	750000	1500000	75000	1500000	2nd	26.508428	93.911587
Bholaguri	Horticulture Plantation	Halmira Grant Gaon	Halmira Grant Gaon	-	1.00 Hact.	600000	600000	30000	600000	3rd	26.526240	93.910939
		Na-Pomua Gaon	Na-Pomua Gaon (Ph-I)	-	1.00 Hact.	500000	500000	25000	500000	3rd	26.525234	93.907795
		Na-Pomua Gaon	Na-Pomua Gaon (Ph-II)	-	1.00 Hact.	500000	500000	25000	500000	3rd	26.522651	93.908684
		Na-Pomua Gaon	Na-Pomua Gaon (Ph-III)	-	1.00 Hact.	500000	500000	25000	500000	3rd	26.5218641	93.908515
TOTAL OF VEGETATIVE COVERS							3600000	180000	3600000			

Source: From PRA Exercise & field survey

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	8				9	10
Sl. No.	**Name of Structure**	**Name of village**	**Area (in Hact)**	**Name of farmers**	**Total unit (No./cum/RM)**	**Unit cost**	**Proposed Plan**					
							Estimated cost (Rs. in lakh)				**Farmers' Contribution (Rs. In lakh)**	**Grant Portion (Rs. In lakh)**
							M	**W**	**O**	**T**		
A	**Private Land**											
	Nil											
B	**Common Land**											
1	Agri Bund (with H.P. Culvert)	Kenduguri	88		545.00 RM	0.01650	1.60000	7.30000	0.10000	9.00000	45000	9.00000
2		Miripathar	67		700.00 RM	0.01002	1.60000	5.40240	0.10000	7.01240	35062	7.01240
3		Dholagaon	58		586.00 RM	0.01002	1.60000	4.17480	0.10000	5.87480	29374	5.87480
4		Kordoiguri	88		600.00 RM	0.01500	1.60000	7.30000	0.10000	9.00000	45000	9.00000
5		Kordoiguri	75		600.00 RM	0.01500	1.60000	7.30000	0.10000	9.00000	45000	9.00000
6		Kohorapar	50		333.00 RM	0.01500	1.60000	3.30000	0.10000	5.00000	25000	5.00000
7		Dholagaon	60		400.00 RM	0.01500	1.60000	4.30000	0.10000	6.00000	30000	6.00000
8		Kohorapar	100		733.00 RM	0.01500	1.60000	9.30000	0.10000	11.00000	55000	11.00000
9	Agri Bund (with Box Culvert)	Halrira Grant	140		848.50 RM	0.01650	4.90000	9.00000	0.10000	14.00000	70000	14.00000
10		Salmira Mohkhuti	100		606.00 RM	0.01650	4.90000	5.00000	0.10000	10.00000	50000	10.00000
11		Kenduguri	78		485.00 RM	0.01650	4.90000	3.00000	0.10000	8.00000	40000	8.00000
12	Earthen Agri Bund	Jathipotia	88		900.00 RM	0.01000	0.15000	8.80000	0.05000	9.00000	45000	9.00000
13		Panikora	33		350.00 RM	0.01000	0.15000	3.30000	0.05000	3.50000	17500	3.50000
14		Halwa Gaon	77		800.00 RM	0.01000	0.15000	7.80000	0.05000	8.00000	40000	8.00000
15		Dholagaon	10		113.00 RM	0.01000	0.15000	8.80000	0.05000	1.12520	5626	1.12520
16		Jathipotia	58		606.00 RM	0.01000	0.15000	5.86200	0.05000	6.06200	30310	6.06200
17		Mithamchapori	79		700.00RM	0.01000	0.15000	6.80000	0.05000	7.00000	35000	7.00000
18		Mithaamchapori	102		1000.00 RM	0.01000	0.15000	9.80000	0.05000	10.00000	50000	10.00000

1	2	3	4	5	6	7	8				9	10
							Proposed Plan					
Sl. No.	Name of Structure	Name of village	Area (in Hact)	Name of farmers	Total unit (No./cum/RM)	Unit cost	Estimated cost (Rs. in lakh)				Farmers' Contribution (Rs. In lakh)	Grant Portion (Rs. In lakh)
							M	W	O	T		
19	Reclamation of Drainage Channel	Prajabosti			1500 RM	0.00400	Nil	5.90000	0.10000	6.00000	0.30000	6.00000
20		Gorongajan pt-I			400 RM	0.01000	Nil	3.90000	0.10000	4.00000	0.20000	4.00000
21		Saror Gaon			1500 RM	0.00400	Nil	5.90000	0.10000	6.00000	0.30000	6.00000
22	Excavation of Drainage Channel	Chesamukh			600 RM	0.00667	Nil	3.90000	0.10000	4.00000	0.20000	4.00000
23	Excavation & construction of Brick Canal	Na-Pomua Gaon	75		274 RM	0.03650	7.70000	2.20000	0.10000	10.00000	0.50000	10.00000
24		Ponkial	50		142.50 RM	0.03650	3.90000	1.20000	0.10000	5.20000	0.26000	5.20000
TOTAL OF SMC							**40.15000**	**131.62440**	**2.00000**	**173.77440**	**8.68872**	**173.77440**

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

Source: From PRA Exercise, field survey and analysis

5.3.2: Details of Engineering Structures for Water Harvesting WHS:

1	2	3	4	5	6				7
Sl. No.	Name of Structure	Name of village	Total unit (No./cum/RM)	Unit cost	Proposed Plan				
					Estimated cost (Rs. in lakh)				Farmers' Contribution (Rs. In lakh)
					M	W	O	T	
A	**Private Land**								
	Nil								
B	**Common Land**								
1	Reclamation of Marshy land with H.P. Culvert	Saror Gaon	1 No.	2.50000	1.60000	0.85000	0.05000	2.50000	0.12500
2		Gorongajan pt-II	1 No.	4.00000	1.60000	2.35000	0.05000	4.00000	0.20000
3		Dhansiripar Gaon	1 No.	2.50000	1.60000	0.85000	0.05000	2.50000	0.12500
4		No-3 Koiborta	1 No.	2.50000	1.60000	0.85000	0.05000	2.50000	0.12500
5		Kenduguri	1 No.	2.50000	1.60000	0.85000	0.05000	2.50000	0.12500
6		Gorongajan pt-II	1 No.	2.08370	1.60000	0.43370	0.05000	2.08370	0.10419
7		Gorongajan pt-II	1 No.	2.08370	1.60000	0.43370	0.05000	2.08370	0.10419
8		Gorongajan pt-II	1 No.	4.00000	1.60000	2.35000	0.05000	4.00000	0.20000
9		Saror Gaon	2 Nos.	2.50000	3.20000	1.75000	0.05000	5.00000	0.25000
10		Prajabosti	2 Nos.	2.47380	3.20000	1.69760	0.05000	4.94760	0.24738
11		Panikora	1 No.	2.50000	1.60000	0.85000	0.05000	2.50000	0.12500
12	Reclamation of Marshy land with Box Culvert	Dhansiripar Gaon	63 cum	0.16667	5.00000	5.45000	0.05000	10.50000	0.52500
13		Kachari Gaon	42 cum	0.16667	5.00000	1.95000	0.05000	7.00000	0.35000
14		Telia Gaon	24 cum	0.16667	3.00000	0.95000	0.05000	4.00000	0.20000
15		Kohorapar	30 cum	0.16667	4.00000	0.95000	0.05000	5.00000	0.25000
16		Kenduguri	30 cum	0.16667	4.00000	0.95000	0.05000	5.00000	0.25000
17		Jathipotia	30 cum	0.16667	4.00000	0.95000	0.05000	5.00000	0.25000
18		No-2 Koiborta	24 cum	0.16667	3.00000	0.95000	0.05000	4.00000	0.20000
19	Water Conservation with DSW	Na-Pomua Gaon	10 RM	1.00000	8.00000	1.90000	0.10000	10.00000	0.50000
20	Rain Water Harvesting	Dhola Gaon	1380 cum	0.00190	2.10000	0.50000	0.02300	2.62300	0.13115

1	2	3	4	5	6				7
Sl. No.	**Name of Structure**	**Name of village**	**Total unit (No./cum/RM)**	**Unit cost**	**Proposed Plan**				
					Estimated cost (Rs. in lakh)				**Farmers' Contribution (Rs. In lakh)**
					M	**W**	**O**	**T**	
21	Renovation of Pond	Chesamukh	1980 sqm	0.00202	Nil	3.90000	0.10000	4.00000	0.20000
22		Gorongajan pt-I	1980 sqm	0.00202	Nil	3.90000	0.10000	4.00000	0.20000
23		Saror Gaon	1485 sqm	0.00202	Nil	2.90000	0.10000	3.00000	0.15000
24	Construction of Farm Pond	Saror Gaon	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
25		No-2 Koiborta	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
26		Kachari Gaon	1987 sqm	0.00302	Nil	5.90000	0.10000	6.00000	0.30000
27		Ponkial	4967 sqm	0.00302	Nil	14.90000	0.10000	15.00000	0.75000
28		Dhola Gaon	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
29		Chesamukh	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
30		Halmira Grant Gaon	2980 sqm	0.00302	Nil	8.90000	0.10000	9.00000	0.45000
31		Dhansiripar Gaon	2649 sqm	0.00302	Nil	7.90000	0.10000	8.00000	0.40000
32		Na-Pomua Gaon	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
33		Na-Pomua Gaon	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
34		Salmira Mohkhuti Gaon	2980 sqm	0.00302	Nil	8.90000	0.10000	9.00000	0.45000
35		Kachari Gaon	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
36		No-3 Koiborta	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
37		Kordoiguri	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
38		Kordoiguri	2980 sqm	0.00302	Nil	8.90000	0.10000	9.00000	0.45000
39		Dhola Gaon	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
40		Halmira Grant Gaon	2980 sqm	0.00302	Nil	8.90000	0.10000	9.00000	0.45000
41		Mithaam Chapori	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
42		Mithaam Chapori	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
43		Mithaam Chapori	1656 sqm	0.00302	Nil	4.90000	0.10000	5.00000	0.25000
44		Jathipotia	2980 sqm	0.00302	Nil	8.90000	0.10000	9.00000	0.45000
45		Panikora	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
46		Prajabosti	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
47		Kachari Gaon	1325 sqm	0.00302	Nil	3.90000	0.10000	4.00000	0.20000
TOTAL OF WHS					**58.90000**	**181.10700**	**3.723000**	**243.73800**	**12.18690**

Source: From PRA Exercise, field survey and analysis

Table No. 5.3.3: Details of activities connected with vegetative cover in watershed works*

1	2	3	4	5	6	7	8	9
Sl. No.	Name of Structure	Name of village	Area (in Hact.)	No of Plants	Unit cost	Proposed Plan		
						Estimated Cost (Rs. In lakh)	Farmers' Contribution (Rs. In lakh)	Grant Portion (Rs. In lakh)
A	**Private Land**							
	Nil							
B	**Common Land**							
1	Road Side Plantation	Bhulaguri village	2.00 Hact.	250	7.50000	15.00000	0.75000	15.00000
2	Horticulture	Halmira Grant Gaon	1.00 Hact.	200	6.00000	6.00000	0.30000	6.00000
3		Na-Pomua Gaon	1.00 Hact.	200	5.00000	5.00000	0.25000	5.00000
4		Na-Pomua Gaon	1.00 Hact.	200	5.00000	5.00000	0.25000	5.00000
5		Na-Pomua Gaon	1.00 Hact.	200	5.00000	5.00000	0.25000	5.00000
TOTAL OF VEGETATIVE COVER						**36.00000**	**1.80000**	**36.00000**

Source: From PRA Exercise, field survey and analysis

Chapter 6
Capacity Building Plan

Table No. 6.1 Details of Capacity Building:

1	2	3	4	5	6	7	8	9	10
Sl. No.	NameoftheTraining &Exposure(Knowledge,Skill,etc.a tbothBeingand Doinglevel)	Numberofe vents	Number ofParticipant sinanevent	TotalNumb er ofdaysper event	TotalTraineedays (=3 x4x5)	Cost perTrainee day(inRs)	Total Costrequiredfort heprogramme(=6 x7;inRs.)	TotalGrantA mount(inRs)	YearofImplementation(1 st/2nd/3rd/4th/5th)
MASSMEETING									
1	Mass Meeting	4	500	1	2000	100	200000	200000	1st, 2nd, 3rd
Sub Total		4	-	-	2000	-	200000	200000	
AWARENESS MEETING									
1	AwarenessMeeting	8	200	1	1600	200	320000	320000	1st, 2nd, 3rd
Sub Total		8	-	-	1600	-	320000	320000	
PUBLICITYMATERIALS									
1	PublicityMaterials	-	-	-	-	-	275760	275760	1st, 2nd, 3rd, 4th, 5th
Sub Total		-	-	-	-	-	275760	275760	
INSTITUTIONALBUILDING									
1	WCFormation&Registration,etc.	4	300	1	1200	100	120000	120000	1st
2	UGFormation	15	50	1	750	200	150000	150000	1st, 2nd, 3rd, 4th,
3	SHGFormation	18	50	1	900	300	270000	270000	1st, 2nd, 3rd, 4th,
Sub Total		37	-	-	3200	-	540000	540000	
TRAINING									
1	WCDC	2	10	1	20	1000	20000	20000	1st,3rd
2	PIA/WDT	3	20	1	600	1000	60000	60000	1st,3rd
3	WatershedCommittee	9	11	1	99	1000	99000	99000	1st,3rd
4	UserGroup	10	20	1	200	1000	200000	200000	1st,3rd, 4th, 5th
5	SHG	12	40	1	480	1000	480000	480000	1st, 5th
Sub Total		39	-	-	1450	-	910000	859000	

1	2	3	4	5	6	7	8	9	10
Sl. No.	NameoftheTraining &Exposure(Knowledge,Skill,etc. atbothBeingand Doinglevel)	Numbero fevents	Number ofParticipant sinanevent	TotalNumbe r ofdaysper event	TotalTrainee days(=3 x4x5)	Cost perTrainee day(inRs)	Total Costrequiredforth eprogramme(=6x7; inRs.)	TotalGrantAm ount(inRs)	YearofImplementation(1st/ 2nd/3rd/4th/5th)
EXPOSURE VISIT									
1	Farmers/WCMembers	2	20	2	80	1500	120000	120000	3rd, 4th,
2	PIA/WDT	4	10	2	80	2000	160000	160000	3rd, 4th, 5th
Sub Total		6	-	-	160	-	280000	280000	
EXPOSURE VISIT									
1	Farmers/WCMembers	2	20	2	80	1500	120000	120000	3rd, 4th,
2	PIA/WDT	4	10	2	80	2000	160000	160000	3rd, 4th, 5th
Sub Total		6	-	-	160	-	280000	280000	
PARTICIPATIONINEXHIBITION									
1	SHG/UG	2	20	4	160	2000	320000	320000	2nd, 3rd,
Sub Total		2	-	-	160	-	320000	320000	
SEMINER&WORKSHOP									
1	Seminar&Workshop	1	40	1	40	1500	60000	60000	3rd
Sub Total		1	-	-	40	-	60000	60000	
MEETING WITH WC IN THE OFFICE									
1	Meeting with WC	20	10	1	200	200	40000	40000	1st, 2nd, 5th
Sub Total		20	10	1	200	200	40000	40000	1st, 2nd, 5th
GRAND TOTAL							**2894760**	**2894760**	

Source: From PRA Exercise, field survey and analysis

Chapter 7
Phasing of Programme and Budgeting

***Please refer to the "Fund Utilization pattern component wise in % under IWMP" letter attached in the Annexure.**

Table No. 7.1: Phasing of the action plan:

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activities	Unit	Unit Cost (Rs.)	1st year		2nd year		3rd year		4th year		5th year		Total	
					Phy (No)	Fin (Rs.)	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%)**															
	i	Renovation of Na-pomua community Hall near Siva Mandir	No.	5,50,000.00	1	5,50,000.00	-	-	-	-	-	-	-	-	1	5,50,000.00
	ii	Agri-field bund with Hume pipe culvert	RM	1300.00	300	3,90,000.00	-	-	-	-	-	-	-	-	300	3,90,000.00
	Iii	Renovation of Doigrung Community Hall	No.	4,50,000.00	1	4,50,000.00	-	-	-	-	-	-	-	-	1	4,50,000.00
	iv	Development of community playground.	Hact.	179,946.67	3.00	5,39,840.00	-	-	-	-	-	-	-	-	3.00	5,39,840.00
	Sub Total of Entry Point Activity					**19,29,840.00**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**19,29,840.00**

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activities	Unit	Unit Cost (Rs.)	1st year		2nd year		3rd year		4th year		5th year		Total	
					Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)
2	**Institution & Capacity Building (3%)**															
	I	**Mass Meeting**														
		Mass Meeting	No.	50000	2	100000	1	50000	1	50000	-	-	-	-	4	200000
	ii	**Awareness Meeting**														
		Awareness Meeting	No.	40000	6	240000	1	40000	1	40000	-	-	-	-	8	320000
	Awareness Generation (events) to be conducted (Publicity Materials)															
	iii	Pamphlets distribution	No.	5.60	9925	55580	-	-	-	-	-	-	-	-	9925	55580
		Wall posters	No.	10.00	4380	43800	5246	52460	146	1460	1123	11230	1123	11230	12018	120180
		Rallies	No.	10000	10	100000	-	-	-	-	-	-	-	-	10	100000
	Institutional Building															
	iv	WCFormation&Registration,etc.	No.	30000	4	120000	-	-	-	-	-	-	-	-	4	120000
		Formation of UGs	No.	10000	9	90000	4	40000	1	10000	1	10000	-	-	15	150000
		SHGFormation	No.	15000	10	150000	8	120000	-	-	-	-	-	-	18	270000
	Training															
	v	WCDC	No.	10000	1	10000	-	-	1	10000	-	-	-	-	2	20000
		PIA/WDT	No.	20000	2	40000	-	-	1	20000	-	-	-	-	3	60000
		WatershedCommittee	No.	11000	8	88000	-	-	1	11000	-	-	-	-	9	99000
		UserGroup	No.	20000	4	80000	-	-	1	20000	4	80000	1	20000	10	200000
		SHG	No.	40000	8	320000	-	-	-	-	-	-	4	160000	12	480000
	Exposure Visit															
	vi	Farmers/WCMembers	No.	60000	-	-	-	-	1	60000	1	60000	-	-	2	120000
		PIA/WDT	No.	40000	-	-	-	-	1	40000	2	80000	1	40000	4	160000
	Participation in Exhibition															
	vii	SHG/UG	No.	160000	-	-	1	160000	1	160000	-	-	-	-	2	320000
	Seminar and Workshop															
	viii	Seminar and Workshop	No.	60000	-	-	-	-	1	60000	-	-	-	-	1	60000
	Meeting with WC in the office															
	ix	Meeting with WC	No.	2000	5	10000	10	20000	-	-	-	-	5	10000	20	40000
	Sub Total of Institution & Capacity Building					**1447380**		**482460**		**482460**		**241230**		**241230**		**2894760**

1	2	3	4	5			6			7			8			9			10	
				1st year			2nd year			3rd year			4th year			5th year			Total	
Sl. No	Component	Activities	Unit	Unit Cost	Phy (No)	Fin (Rs.)	Unit Cost	Phy (No)	Fin (Rs.)	Unit Cost	Phy (No)	Fin (Rs.)	Unit Cost	Phy (No)	Fin (Rs.)	Unit Cost	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)
3	**Productivity System (15%)**																			
	i	Dairy	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	12	528000	44000	2	88000	44	1936000
	ii	Poultry	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	12	528000	44000	2	88000	44	1936000
	iii	Duckery	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	12	528000	44000	2	88000	44	1936000
	iv	Goat Rearing	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	13	572000	44000	2	88000	45	1980000
	v	Piggery	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	13	572000	44000	2	88000	45	1980000
	vi	Fishery	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	13	572000	44000	2	88000	45	1980000
	vii	Weaving	No.	44000	3	132000	44000	9	396000	44000	18	792000	44000	13	572000	44000	2	88000	45	1980000
	viii	Horticulture	No.	40920	1	40920	40920	3	122760	40920	6	245520	38152	6	228910	35897	3	107690	19	745800
	Total of Productivity System				**22**	**964920**	**-**	**66**	**2894760**	**-**	**132**	**5789520**	**-**	**94**	**4100910**	**-**	**17**	**723690**	**331**	**14473800**
4	**Livelihood Activities for the asset less persons, Micro Enterprise & Business Development (15%)**																			
	i	Dairy	No.	25000	6	150000	-	-	-	25000	30	750000	25000	18	450000	25000	6	150000	96	2400000
	ii	Poultry	No.	25000	6	150000	-	-	-	25000	30	750000	25000	18	450000	25000	6	150000	96	2400000
	iii	Duckery	No.	25000	-	-	25000	16	400000	25000	30	750000	25000	18	450000	25000	6	150000	96	2400000
	iv	Goat Rearing	No.	25000	6	150000	25000	16	400000	25000	30	750000	25000	18	450000	25000	6	150000	96	2400000
	v	Piggery	No.	25000	-	-	25000	16	400000	25000	30	750000	25000	18	450000	25000	5	125000	95	2375000
	vi	Weaving	No.	25000	6	150000	25000	10	25000	25000	26	650000	25000	18	450000	25000	5	125000	75	1875000
	vii	Bee keeping	No.	21640	3	64920	23186	7	162300	23253	6	139520	23690	6	142140	22984	5	114920	27	623800
	viii	E Rickshaw / Thela	No	25000	12	300000	-	-	-	25000	18	450000	25000	12	300000	-	-	-	-	-
	ix	Carrier Van	No	25000	-	-	25000	32	800000	25000	32	800000	25000	48	1200000	-	-	-	-	-
	Total of Livelihood Activities				**39**	**964920**	**-**	**97**	**2412300**	**-**	**232**	**5789520**	**-**	**174**	**4342140**	**-**	**38.6**	**964920**	**581**	**14473800**

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activities	Unit	Unit Cost (Rs.)	1st year		2nd year		3rd year		4th year		5th year		Total	
					Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)
5	**Natural resource Management**															
	i	**Soil and Moisture Conservation Structure**														
	a	Agri Bund (with H.P. Culvert)	No.		3	2188720	4	2900000	-	-	-	-	1	1100000	8	61,88,720
	b	Agri Bund (with Box Culvert)	No.		3	3200000	-	-	-	-	-	-	-	-	3	32,00,000
	c	Earthen Agri Bund	No.		2	1250000	3	1518720	1	700000	1	1000000	-	-	7	44,68,720
	ii	**Water Harvesting Structure**														
	a	Reclamation of Marshy land with H.P. Culvert	No.		2	650000	2	500000	4	1066740	2	994760	1	250000	11	34,61,500
	b	Reclamation of Marshy land with Box Culvert	No.		2	1750000	2	900000	2	1000000	-	-	1	400000	8	45,70,000
	c	Water Conservation with DSW	No.		1	1000000	-	-	-	-	-	-	-	-	1	10,00,000
	d	Rain Water Harvesting	No.		-	-	-	-	-	-	-	-	1	262300	1	2.62,300
	e	Reclamation of Drainage Channel	No.		1	600000	-	-	1	400000	1	600000	-	-	3	16,00,000
	f	Excavation of Drainage Channel	No.		1	400000	-	-	-	-	-	-	-	-	1	400000

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activities	Unit	Unit Cost (Rs.)	1st year		2nd year		3rd year		4th year		5th year		Total	
					Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)
	g	Excavation & construction of Brick Canal	No.		-	-	2	1520000	-	-	-	-	-	-	2	1520000
	h	Renovation of Pond	No.		1	400000	-	-	1	400000	1	300000	-	-	3	11,00,000
	i	Construction of Farm Pond	No.		6	4000000	11	6600000	6	3500000	-	-	1	400000	23	145,00,000
iii	**Vegetative Cover**															
	a	Nature Conservation	Hact		-	-	2.00	1500000	-	-	-	-	-	-	2	1500000
	b	Horticulture	Hact		-	-	-	-	4.00	2100000	-	-	-	-	4.00	2100000
	Total				**22**	**15438720**	**25**	**15438720**	**19**	**9166740**	**5**	**2894760**	**5**	**2412300**	**76**	**45351240**
6	**Administration**															
	a	WC office expenditure	No.	36000	4	144000	4	144000	4	144000	4	144000	4	144000		7,20,000
	b	WSsecretarySalary	No.	48000	4	192000	4	192000	4	192000	4	192000	4	192000		9,60,000
	c	StationaryTA & Miscellaneous	-	-	-	1029840	-	1029840	-	1029840	-	1029840	-	1029840		51,49.200
	d	Salary of Accountant	No.	300000	1	300000	1	300000	1	300000	1	300000	1	300000		15,00,000
	e	Salary of DEO	No.	264000	1	264000	1	264000	1	264000	1	264000	1	264000		1,32,000
	Total					**1929840**		**1929840**		**1929840**		**1929840**		**1929840**		**9649200**
7	**Monitoring & Evaluation**															
	a	Monitoring & Evaluation	No.	482460	-	-	1	482460	1	482460	1	482460	1	482460	4	1929840
	Total				-	-	1	482460	1	482460	1	482460	1	482460	4	1929840

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activities	Unit	Unit Cost (Rs.)	1st year		2nd year		3rd year		4th year		5th year		Total	
					Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)
8	**Detail Project Report (DPR)**															
	a	DPR preparation including Socio-economic survey, PRA etc.	No.	964920	1	964920	-	-	-	-	-	-	-	-	1	964920
Total					1	964920	-	-	-	-	-	-	-	-	1	964920
9	**Natural resource Management Governance**															
	I	**Maintenance of Natural Resource Related Assetts.**														
	a	Meeting with PRI	No.	0.05	8	0.40	8	0.40	8	0.40	8	0.40	-	-	32	1.60
	b	Preparation of overall Project Development Plan	No.	0.05	4	0.20	4	0.20	4	0.20	4	0.20	-	-	16	0.80
	c	Meeting with Annual Audit	No.	0.05	2	0.10	2	0.10	2	0.10	2	0.10	-	-	8	0.40
	II	**Water Budgeting**														
	a	Ground Water Monitoring (twice a year)	No.	0.08	27	2.16	27	2.16	27	2.16	27	2.16	-	-	108	8.64
	b	Training for the Monitoring Exercise	No.	0.20	2	0.40	2	0.40	2	0.40	2	0.40	-	-	8	1.60
	III	**Protection & Regulation/Regeneration of common land (for the protection of the upper reaches of watershed slopes)**														
	a	Meeting with Departmental Officer & staff of Forest, Agriculture, Veterinary etc. for protection of the upper reaches of watershed slopes)	No.	0.05	8	0.40	8	0.40	8	0.40	8	0.40	-	-	32	1.60

1	2	3	4	5	6		7		8		9		10		11	
Sl. No	Component	Activities	Unit	Unit Cost (Rs.)	1st year		2nd year		3rd year		4th year		5th year		Total	
					Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)	Phy (No)	Fin (Rs.)
	b	Formation of UG & Mobility	No.	0.02	40	0.80	40	0.80	40	0.80	40	0.80	-	-	160	3.20
	c	Formation of Voluntary Organization & Mobility	No.	0.03646	10	0.36460	10	0.36460	10	0.36460	10	0.36460	-	-	40	1.4584
Total						**482460**		**482460**		**482460**		**482460**	**-**	**-**		**1929840**
10	**Consolidation & Withdrawal Phase**															
	a	Consolidation & Withdrawal Phase	No.	2894760	-	-	-	-	-	-	-	-	1	2894760	1	2894760
Total					**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**2894760**	**1**	**2894760**
GRAND TOTAL						**24123000**		**24123000**		**24123000**		**14473800**		**9649200**		**96492000**

Source :From Field Survey and as per Norms

Table No. 7.2 Estimated Benefit Cost Ratio:

Sl. No.	Name of the activity	Total Cost (Rs.)	Total Benefit expected * (Rs.)	BCR	Remarks
1	EPA	19,29,840.00	22,57,913.00	1.17:1	The benefit cost ratio will further increase from the next year.
2	NRM	453,51,240.00	643,98,761.00	1.42:1	
3	Production System	144,73,800.00	248,94,936.00	1.72:1	
4	Livelihood for Asset less	144,73,800.00	246,05,460.00	1.70:1	
5	Institution and Capacity building	28,94,760.00	37,63,188.00	1.30:1	
6	Overall	791,23,440.00	1199,20,258.00	1.52:1	

***kindly relate this with table no. 9.2 (expected outcomes)**

Chapter 8
Consolidation and completion of various works

Table No. 8.1: Consolidation of Action Plan:

Sl. No	Component	Implementation Phase								Consolidation/exit Phase		Total(Rs.)
		1st Year		2nd Year		3rd Year		4th Year		5th Year		
		Phy (No/ Unit)	Fin (Rs.)	Phy (No/ Unit)	Fin (Rs.)	Phy (No/ Unit)	Fin (Rs.)	Phy (No/ Unit)	Fin (Rs.)	Phy (No/ Unit)	Fin (Rs.)	
1	Entry Point Activities (2%)	2%	19,29,840.00	-	-	-	-	-	-	-	-	1929840.00
2	DPR Preparation by PIA(1%)	1%	9,64,920.00	-	-	-	-	-	-	-	-	964920.00
3	Institution & Capacity Building (3%)	1.5%	14,47,380.00	0.5%	4,82,460.00	0.5%	4,82,460.00	0.25%	2,41,230.00	0.25%	2,41,230.00	28,94,760.00
4	Productivity Enhancement (15%)	1%	9,64,920.00	3%	28,94,760.00	6%	57,89,520.00	4.25%	41,00,910.00	0.75%	7,23,690.00	1,44,73,800.00
5	Livelihoods for Asset less (15%)	1%	9,64,920.00	2.5%	24,12,300.00	6%	57,89,520.00	4.5%	43,42,140.00	1%	9,64,920.00	1,44,73,800.00
6	Natural Resource Management (47%)	16%	154,38,720.00	16%	154,38,720.00	9.5%	91,66,740.00	3%	28,94,760.00	2.5%	24,12,300.00	4,53,51,240.00
7	Monitoring (2%)	-	-	0.5%	4,82,460.00	0.5%	4,82,460.00	0.5%	4,82,460.00	0.5%	4,82,460.00	19,29,840.00
8	NRM & Governance (2%)	0.5%	4,82,460.00	0.5%	4,82,460.00	0.5%	4,82,460.00	0.5%	4,82,460.00	-	-	19,29,840.00
9	Consolidation phase (3%)	-	Nil	-	Nil	-	Nil	-	Nil	3%	28,94,760.00	2894760.00
10	Management Cost (10 %)	2%	19,29,840.00	2%	19,29,840.00	2%	19,29,840.00	2%	19,29,840.00	2%	19,29,840.00	96,49,200.00
		25%	**241,23,000.00**	**25%**	**241,23,000.00**	**25%**	**241,23,000.00**	**15%**	**144,73,800.00**	**10%**	**96,49,200.00**	**96492000.00**

Source : From Field Survey and as per Norms

CHAPTER – 9
EXPECTED OUTCOMES

9.1: Describe in detail the "Expected Outcomes"

Employment has always been a problem in the village. The principal occupations of the people are land agriculture, animal husbandryand casual labour work. However, rain fall being periodic hence agriculture suffers, i.e. at best they can take only a single crop, whichkeeps them partially engaged for about 6-7 months. Lack of fodder makes animal husbandry very difficult too. So, animal husbandrydoes not keep them engaged full time. Thus the people mainly depend upon casual labour, either in the village itself or outside it. Theproject plans for creation of both wage employment and self employment opportunities. Wage employment would be created byengaging people in watershed physical works like construction of earthen bunds, farm bunds, village pond, plantation, etc. Selfemployment would be created by providing the people with cash support in the form of direct livelihood activities like agriculture,animal husbandry and enterprise development.

Table No. 9.2: Summarize in the table given below (Quantifiable indicators)

1	2		3	4	5	6
S. No.	**Item**		**Unit of measurement**	**Pre-project Status**	**Expected Post-project Status**	**Remarks**
1	Status of water table (Depth to Ground water level)		Meters	8.00	7.85	
2	Ground water structures repaired/ rejuvenated		No.	---	5	
3	Quality of drinking water		Description	Treated	Potable	
4	Availability of drinking water		Description	70%	90%	
5	Increase in irrigation potential		Hec.	-	1000	
6	Change in cropping/ land use pattern		Description	From single	To double & multiple	
7	Area under agricultural crop		Hec.	5053.61	5144.50	
	I	Area under single crop	Hec.	3470.61	2759.50	
	Ii	Area under double crop	Hec.	1140.00	1505.00	
	iii	Area under multiple crop	Hec.	443.00	880.00	
8	Net increase in crop production area	Hec.	Qnt.	7079.61	8409.50	
9	Increase in area under Vegetation/Forest	Hec.	Hec.	12.00	15.00	
10	Increase in area under horticulture	Hec.	Hec.	10.00	16.00	

1	2	3	4	5	6
S. No.	**Item**	**Unit of measurement**	**Pre-project Status**	**Expected Post-project Status**	**Remarks**
11	Increase in area under fuel	Hec.	Nil	2.00	
12	Increase in area under Fodder	Hec.	Nil	7.00	
13	Increase in milk production	Litres/day	0.5 to 2.0	2.0 to 3.5	Per household
14	Environmental Impact Change in Soil Loss Perenniality of flow and change in Run-offRecharge of ground water	Tone/Hact/Year	0.009	0.005	
14	No. of SHGs Promoted	No.	136	236	
15	Increase in no. of livelihoods	No.	2052	2631	
16	Increase in income	Rs.	10,000.00	15,000.00	Per HH/month
17	Status of Migration	No.	3820	3056	
18	SHG Federations formed	No.	Nil	1	
19	Credit linkage with banks	Rs.	Nil	40.00 lakhs	
20	Resource use agreements		Nil	Initiated	
21	WDF collection & management	Rs.	Nil	22,67,562.00	
22	Summary of lessons learnt	Description Area could progress and become self-sufficient if irrigation potential is enhanced, asset less are roped under livelihood generation/micro-enterprises activities with several other techno economic/socio-economic efforts			

Table No.9.3: Backward and Forward Linkages:

TypeofMarketingFacility	Nameofthe	Pre-project(no.)	Expectedpostprojectstatus

	institution		
(A) Backward linkages			
(i) Seedcertification	Govt.ofAssam	Nil	Willbedone
(ii) Seedsupplysystem	Co-operativeand AgricultureDept.	Nil	StrongSeedsupplysystemwillbedeveloped
(iii) Fertilizersupply System	Co-operativeandlocal fertilizerdealer	Nil	StrongFertilizersupplysystemwill be developed
(iv) Pesticidesupply System	LocalPesticideDealer	Nil	StrongPesticidesupplysystemwillbe developed
(v) Creditinstitutions	Co-operative Bank,SHG,LocalBank,NodalBanketc.	Nil	InternalCreditlinkwillbedevelopedamongSHG,LocalBank,Co-operativeBanketc.andexternalcreditlinkfromcommercial/nodal banks.
(vi) Watersupply	WaterUserGroup	Nil	Willbedeveloped,
(vii) Extensionservices	KVK,ATMA, Agriculture Dept.,NGOs	2	Strongextensionserviceswillbedevelopedamong all institutions
(viii)Nurseries	SHG,Horticulture Nursery,LocalNursery	Nil	Strongextensionserviceswillbedeveloped amongallinstitutions
(ix)Tools/machinery Suppliers	Agri.Deptt.	1	WillContinued
(x) PriceSupport System	AgDeptt,VettyDept.	1	WillContinued
(xi) Labour	Local wagelabour	9792 nos	Strongnetworkwillbedeveloped
(B) Forwardlinkages		Nil	Strongnetworkwillbedeveloped
(i) Harvesting/threshing Machinery	Locallevel	3	Strongnetworkwillbedeveloped
(ii) Storage(including coldstorage)	Locallevel	Nil	Strongnetworkwillbedeveloped
(iii) Roadnetwork	Locallevel	1	Strongnetworkdevelop
(iv) Transportfacilities	Locallevel	1	Strongnetworkdevelop
(v) Markets/ Mandis	Localcommittee, Cooperative	3	Institutionwilltakeinitiativesothat beneficiarieswillgetbetteropportunities.
(vi) Agroandother Industries	Localcommittee, Cooperative	Nil	Institutionwilltakeinitiativesothat beneficiarieswillgetbetteropportunities.
(vii) Milkandother collectioncenters	Localcommittee, Cooperative	Nil	Institutionwilltakeinitiativesothat beneficiarieswillgetbetteropportunities.

CHAPTER – 10

Table No.10: Area taken up for Treatment:

Sl. No.	Component		Total Area taken up for treatment as per DPR (Hact)	
1	NRM Activities	A	a. Soil & Moisture Conservation Structure	1719.00
			b. Water Harvesting Structure	2656.00
			c. Vegetative Cover	6.00
2	Production System (Land Based Activities)	B	a. Reclamation of problematic soils	Nil
			b. Organic Farming	Nil
			c. Horticulture	5.00
Total			C = A + B	4386.00
N.B.: C. Total Target Area to be Treated = Project Treatable Area				

ANNEXURE-II

SDG Format

TOTAL TARGET AREA TO BE TREATED DURING IMPLEMENTATION OF THE PROJECT UNDER WDC-PMKSY 2.0

DISTRICT: GOLAGHAT

PROJECT: Golaghat-1(Doigrung)WDC-PMKSY 2.0/2021-22

Sl No.	Component	List of Activities (As per 5 Year Action Plan)		Total Treatable Area to be benefitted (Ha)
		Name of Activities	Location	
1	NRM	**Agri Field Bund with RCC Box Culvert at paddy Field of Halmira Grant Gaon**	**Halmira Grant gaon**	**140.00**
2		**RCC Box culvert at Dhansiripar gaon Mudoi chuk**	**Dhansiripar gaon**	**103.00**
3		**RCC Drop spillway at Mohkhuti jan stream**	**Na-Pomua gaon**	**98.00**
4		**Agri Field Bund with RCC Box Culvert at paddy Field of Salmira mohkhuti gaon**	**Salmira mohkhuti gaon**	**100.00**
5		**Agri Field Bund with RCC BOX CULVERT at paddy Field Kordoiguri to Jathipotia village**	**Kenduguri village**	**78.00**
6		**Agri Field Bund with Hume pipe Culvert at paddy Field Kordoiguri to Jathipotia village**	**Kenduguri village**	**88.00**
7		**Agri Field Bund near paddy field of Pushna karmakar**	**Jathipotia**	**88.00**
8		**Agri Field Bund with H.P.C ulvertAt Miripathar**	**Miripathar**	**67.00**
9		**Excavation of Farm pond near Gouranga Kalita House**	**Sarorgaon**	**60.00**
10		**Installation of Hume pipe culvert Guwalpatty to Rangajan connecting road**	**Sarorgaon**	**24.00**
11		**Drainage line treatment(Remodeling)for water distribution of Prajabosti Stream**	**Prajabosti**	**58.00**
12		**Excavation of Farm pond near Doyal sankar Boras House**	**No-2 Koiborta**	**48.00**
13		**Installation of Hume pipe culvert Sankar Tantis House to Anuj Saikias House**	**Gorongajan pt-ii**	**38.00**
14		**Agri Field Bund Solmariroad to Bholachapori**	**Panikora**	**33.00**
15		**Excavation of Farm pond near Sanjib Saikias House**	**Kachari gaon**	**48.00**
16		**Installation of RCC BOX culvert at Dholajan**	**Kachari gaon**	**68.00**
17		**Marshy land development with creation of pond near Podumoni beel**	**Ponkial**	**140.00**
18		**Agri field bund with H.P.Culvert at Paddy field at Dhola gaon paddy field**	**Dholagaon**	**58.00**
19		**Excavation of farm pond at Paddy field of Anil Tamuly**	**Dholagaon**	**48.00**
20		**Earthen Drainage Channel from chechamukh to Goruchora bill**	**Chesamukh**	**38.00**
21		**Marshy land development with creation of pond near Garuchara Bill**	**Chesamukh**	**38.00**
22		**Renovation of pond near Garuchara Bill**	**Chesamukh**	**39.00**
23		**Marshy land development with creation of pond at Tall Grant**	**Halmira Grant gaon**	**87.00**

24		Marshy land development with creation of pond	Dhansiripar gaon	79.00
25		Installation of hume pipe culvert	Dhansiripar gaon	24.00
26		Marshy land development with creation of pond Ph-I	Na-Pomua gaon	48.00
27		Marshy land development with creation of pond Ph-II	Na-Pomua gaon	50.00
28		Water distribution channel (Brick) from Mohkhuti jan stream	Na-Pomua gaon	97.00
29		Marshy land development with creation of pond at Tall Grant	Salmira mohkhuti gaon	88.00
30		Integrated nature conservation with soil and moisture conservation	Bhulaguri village	146.00
31		Agri Bund at Jathipotia	Jathipotia	58.00
32		Agri Field Bund at Borali	HalwaGaon	77.00
33		Excavation of Farm pond near Anuj Saikias House	Kachari gaon	37.00
34		Excavation of Farm pond near Rupom Boras House	Kachari gaon	38.00
35		Excavation of Farm pond near Prodip Boras House	No-3 Koiborta	38.00
36		Installation of Hume pipe culvert near Sondiram Thengals House	No-3 Koiborta	25.00
37		Installation of RCC BOX culvert at Hanschora jan	Telia Gaon	37.00
38	NRM	Agri Field Bundwith H.P.Culvert Sarku LamasPaddy field to Sunil Bhuyans Paddy field	Kordoiguri	88.00
39		Excavation of Farm pond near Binud Rais Paddy field	Kordoiguri	37.00
40		Agri Field Bund with Hume Pipe Culvert Kamal Rajbonsis paddy Field to Balitup	Kordoiguri	75.00
41		Marshy land development with creation of pond at Kamal Rajbonsis paddy Field	Kordoiguri	77.00
42		Water distribution channel (Brick) near Podumoni beel	Ponkial	49.00
43		Agri Field Bund with Hume Pipe Culvert Kohorapar village to Kenduguri	Kohorapar	50.00
44		RCC Box culvert at Agri fild of kohorpar village	Kohorapar	49.00
45		Agri field bund with H.P.Culvert at Paddy field at Dhola gaon paddy field 1	Dholagaon	60.00
46		Agri field bund with H.P.Culvert at Paddy field at Dhola gaon paddy field	Dholagaon	10.00
47		Excavation of farm pond at Paddy field of Biswajit Boruah	Dholagaon	47.00
48		Marshy land development with creation of pond at Tall Grant	Halmira Grant gaon	88.00
49		Horticulture plantation	Halmira Grant gaon	58.00
50		Horticulture plantation	Na-Pomua gaon	50.00
51		Horticulture plantation	Na-Pomua gaon	51.00
52		Horticulture plantation	Na-Pomua gaon	49.00

53		**Hume pipe Culvert at paddy Field**	**Kenduguri village**	**26.00**
55		**RCC BOX CULVERT at paddy**	**Kenduguri village**	**49.00**
56		**Agri Field Bund Ph-I**	**Mithaamchapori village**	**72.00**
57		**Farm pond Ph-I**	**Mithaamchapori village**	**38.00**
58		**Farm pond Ph-II**	**Mithaamchapori village**	**40.00**
59		**Farm pond Ph-III**	**Mithaamchapori village**	**52.00**
60		**Marshy land development with creation of pond near buka bill**	**Jathipotia**	**90.00**
61		**RCC Box Culvert at paddy Field road**	**Jathipotia**	**48.00**
62		**Installation of Hume pipe culvert Biren Rajuar House to Babul Ghatwar House**	**Gorongajan pt-ii**	**18.00**
63		**Installation of Hume pipe culvert Rajkumar Tantis House to Sankar Tanti House**	**Gorongajan pt-ii**	**18.00**
64		**Installation of Hume pipe culvert Ruhit Rajwars House to Rajen Tanti House**	**Gorongajan pt-ii**	**38.00**
65		**Excavation of Farm pond near Ujjal Boras House**	**Panikora**	**37.00**
66		**Remodeling of Farm pond near Simsong Sorengs House**	**Gorongajan pt-I**	**38.00**
67		**Drainage line treatment (Remodeling)for water distribution of Haldhibari Stream**	**Gorongajan pt-I**	**38.00**
68		**Agri Field Bund**	**Mithaamchapori village**	**102.00**
69		**Renovation of Farm pond near Jatin Sarmas House**	**Sarorgaon**	**28.00**
70		**Installation of Hume pipe culvert Kaligupal Namghar to Dholajan connecting road**	**Sarorgaon**	**49.00**
71		**Drainage line treatment(Remodeling)for water distribution of Garangajan Stream**	**Sarorgaon**	**54.00**
72		**Installation of Hume pipe culvert near Kalisoron House to no.5 Purajangal connecting road**	**Prajabosti**	**50.00**
73		**Excavation of Farm pond near Rituraj Chubbas house**	**Prajabosti**	**41.00**
74		**Installation of RCC BOX culvert near Diganta Thengal House**	**No-2 Koiborta**	**38.00**
75		**Installation of Hume pipe culvert Jiten Das House to Ajit Duttas House**	**Panikora**	**23.00**
76		**Agri Field Bund with Hume Pipe Culvert Kohorapar village to Chechamukh**	**Kohorapar**	**100.00**
77		**Rain water harvesting tank near Dholaguri M.E.School**	**Dholagaon**	**24.00**
		Total A		**4378.00**
78	Production System (Land Based Activities)	Horticulture Plantation	**…**	**8.00**
		Total B		**8.00**
		Grand Total (A+B)		**4386.00**

DOOR TO DOOR SOCIO-ECONOMIC SURVEY

WATERSHED COMMITTEE FORMATION

PRA MEETING


AI DUAL CAMERA
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2022/02/21 15:37


AI DUAL CAMERA
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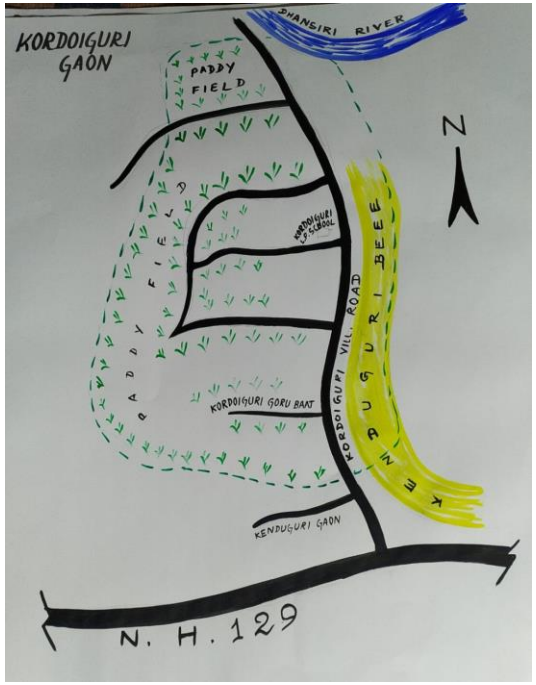
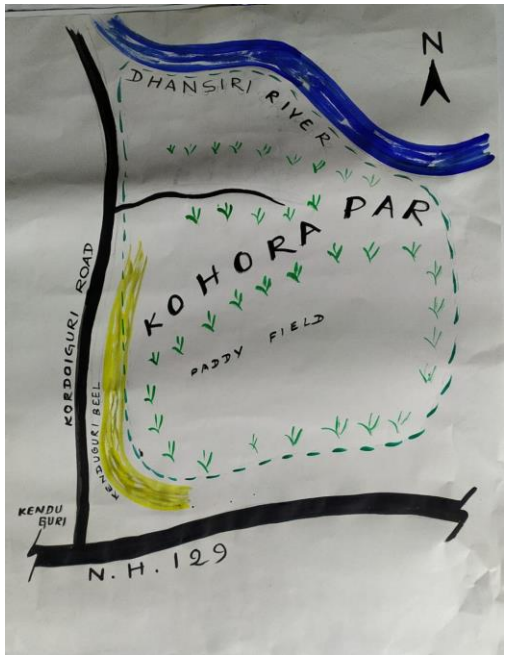
2022/02/21 16:34

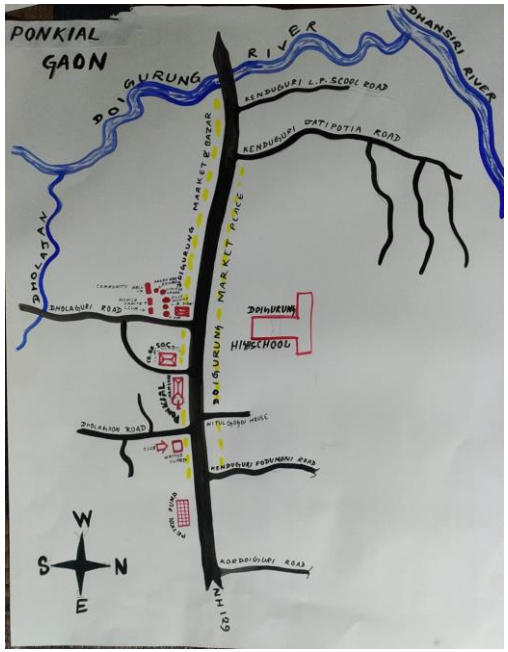

DEPARTMENT OF SOIL CONSERVATION
GRAM SABHA
AI DUAL CAMERA
Shot by পংকজ
2022/02/21 15:08

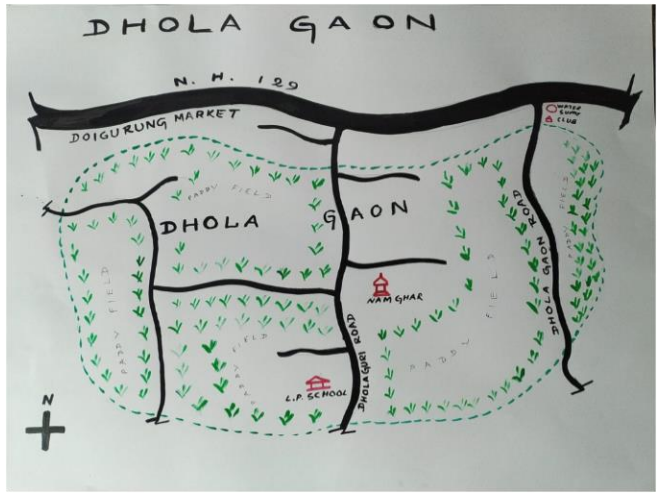
PRA EXERCISE

PRA MAPS

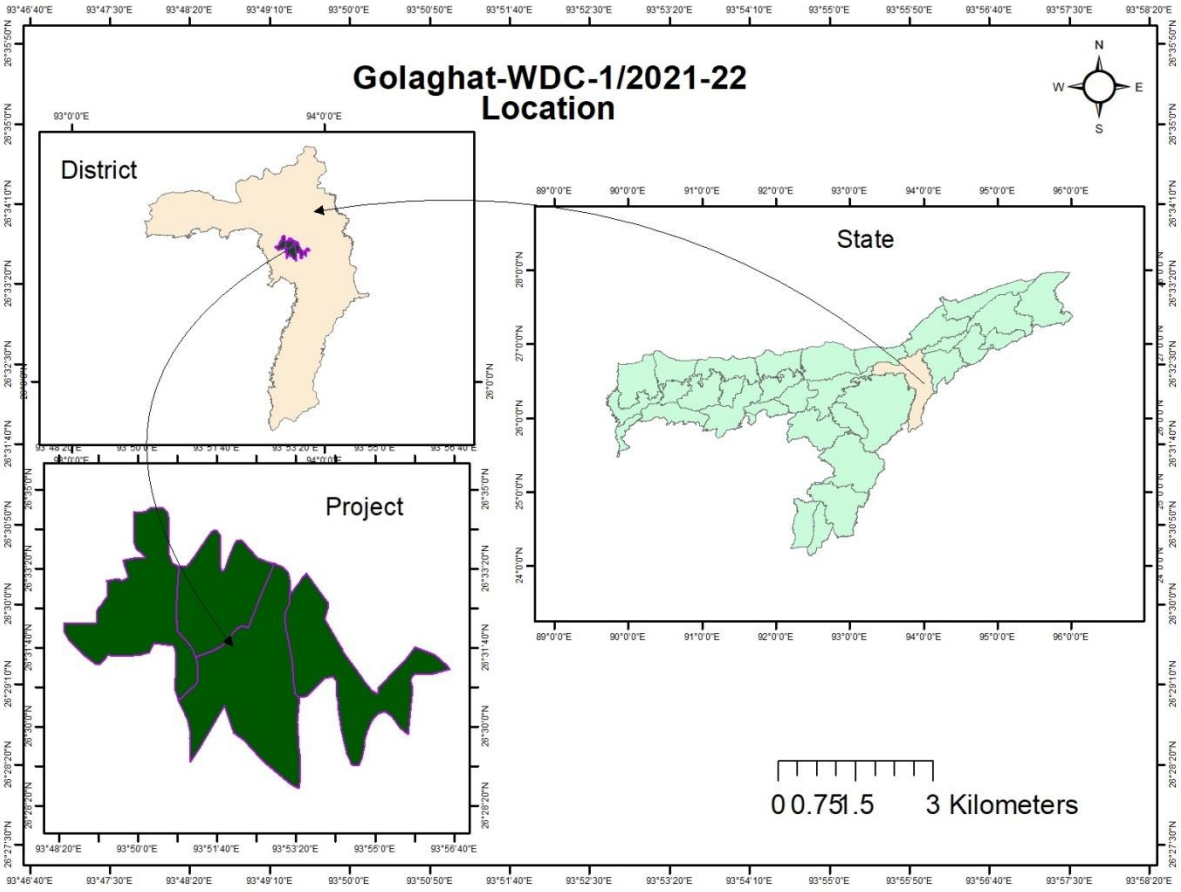

KORDOIGURI GAON
DHANSIRI RIVER
PADDY FIELD
KORDOIGURI VILL ROAD
KENDUGURI BEEE
KORDOIGURI GORU BAAT
KENDUGURI GAON
N. H. 129
N

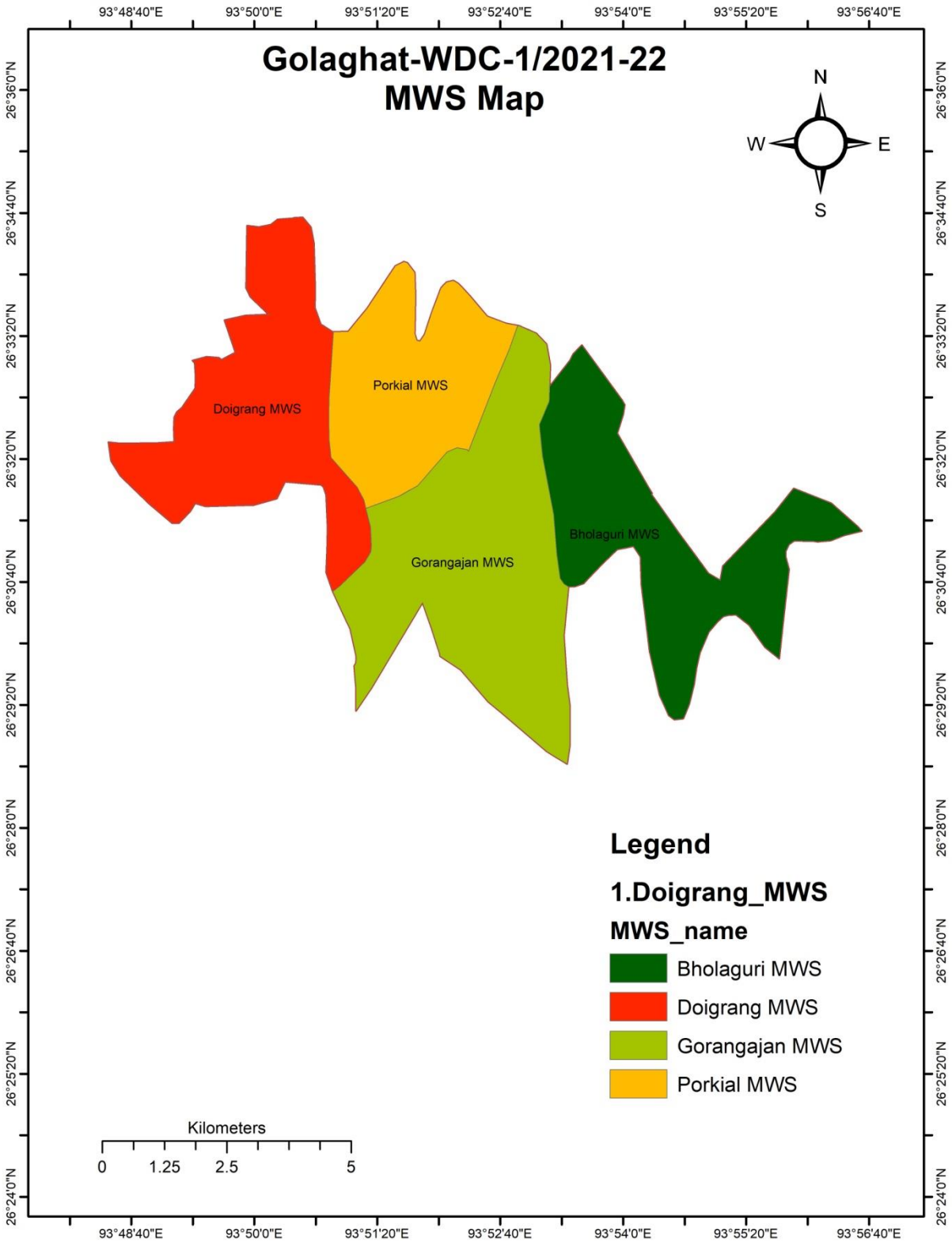

DHANSIRI RIVER
KOHORA PAR
PADDY FIELD
KORDOIGURI ROAD
KENDU BURI
N. H. 129
N

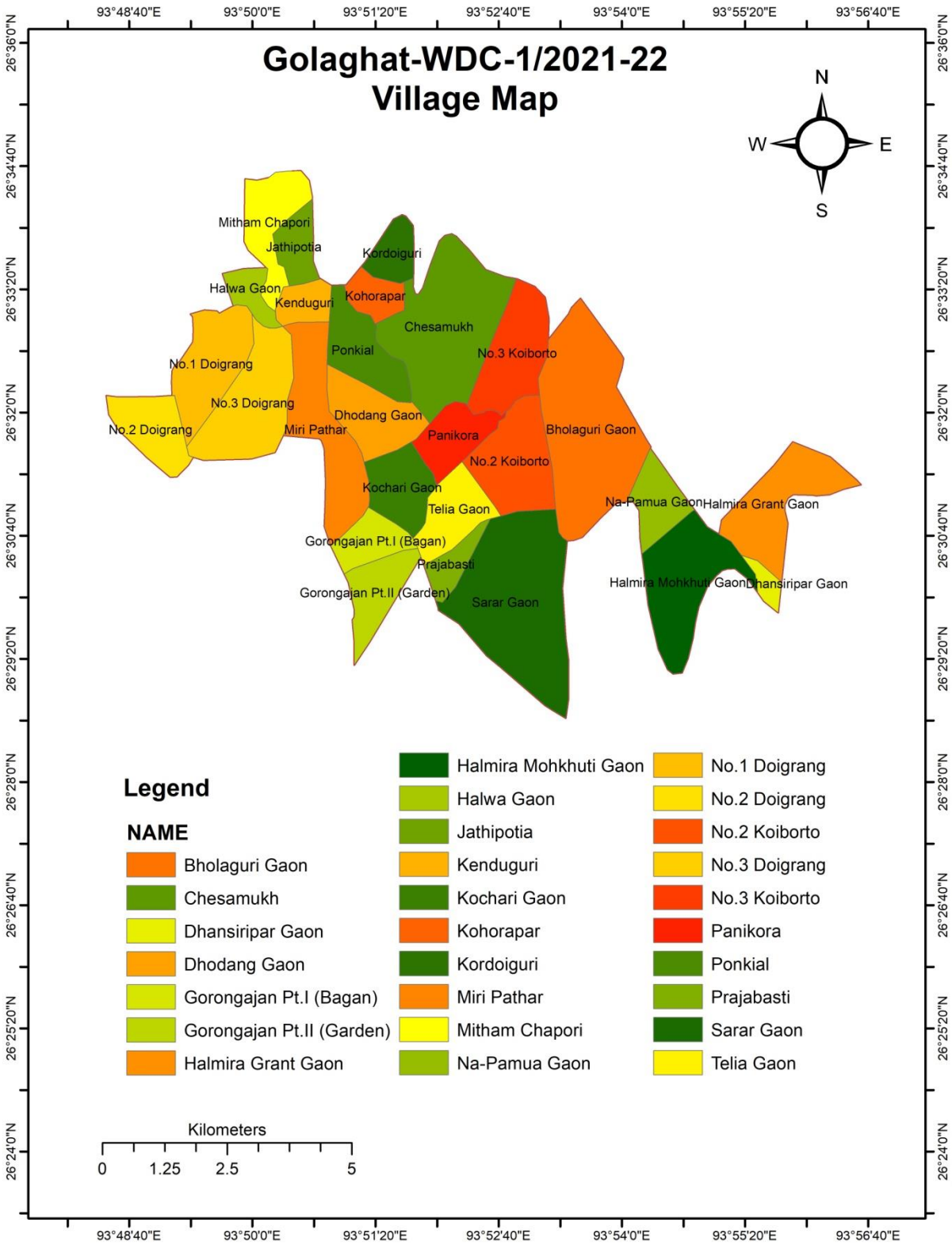

PONKIAL GAON
DOIGURUNG RIVER
DHANSIRI RIVER
KENDUGURI L.P. SCOOL ROAD
KENDUGURI DATIPOTIA ROAD
DOIGURUNG MARKET PLACE
DHOLAGURI ROAD
DOIGURUNG HIGHSCHOOL
DHOLAGAON ROAD
KENDUGURI PORUMONI ROAD
KORDOIGURI ROAD
W
S
N
E

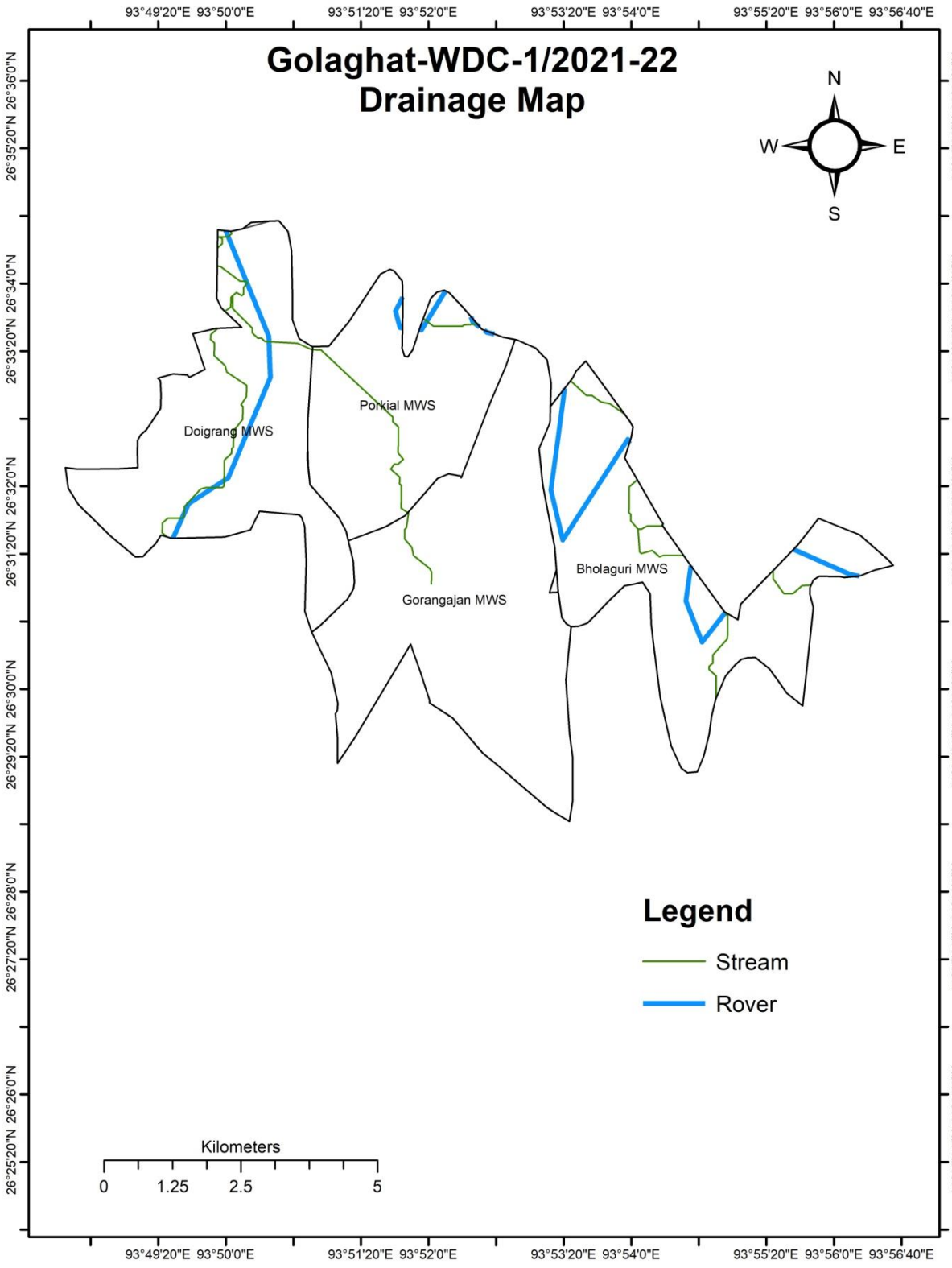

DHOLA GAON
N. H. 129
DOIGURUNG MARKET
DHOLA GAON
NAMGHAR
L.P. SCHOOL
DHOLA GAON ROAD
N

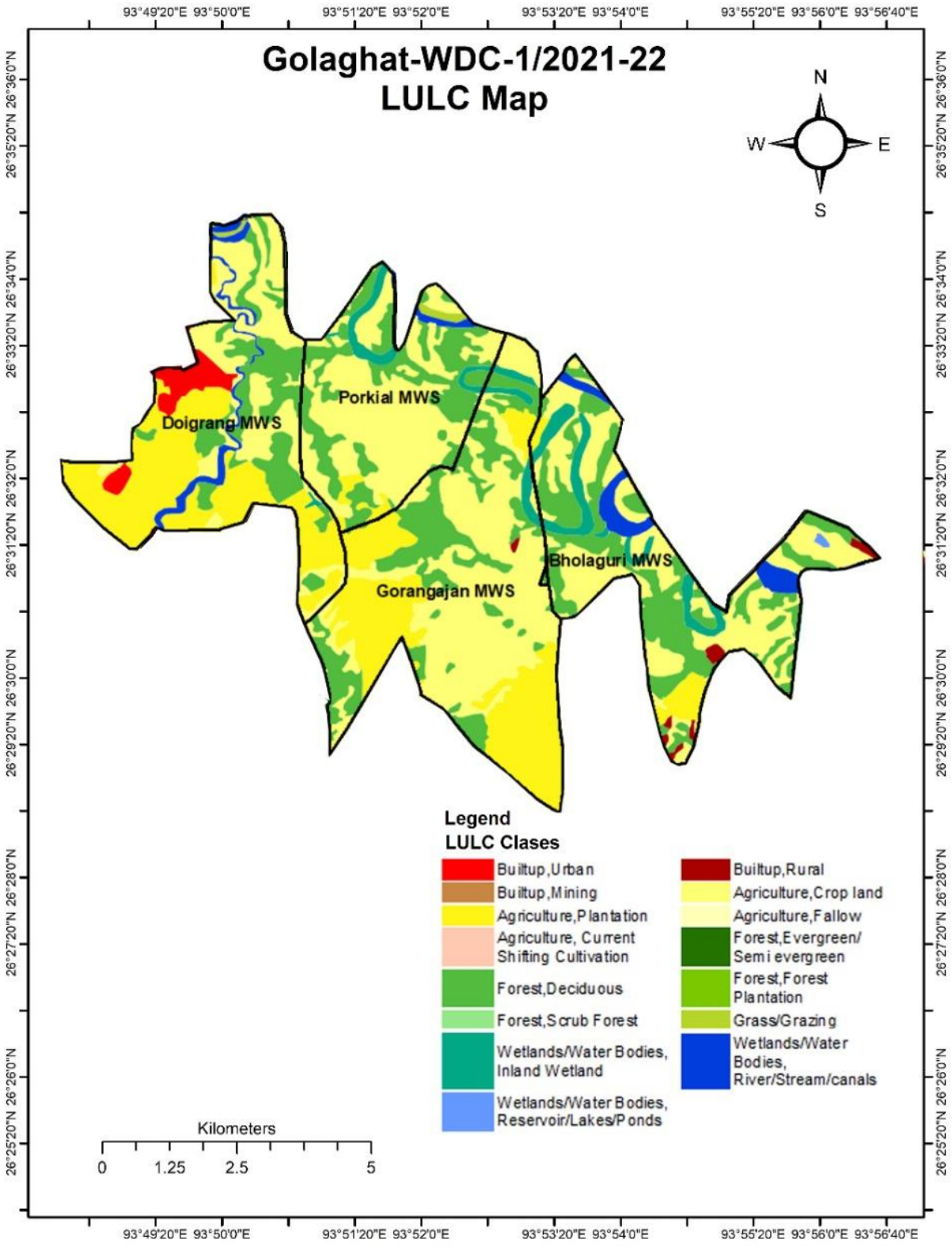
SOME PHOTOGRAPHS OF THE PROJECT SITE

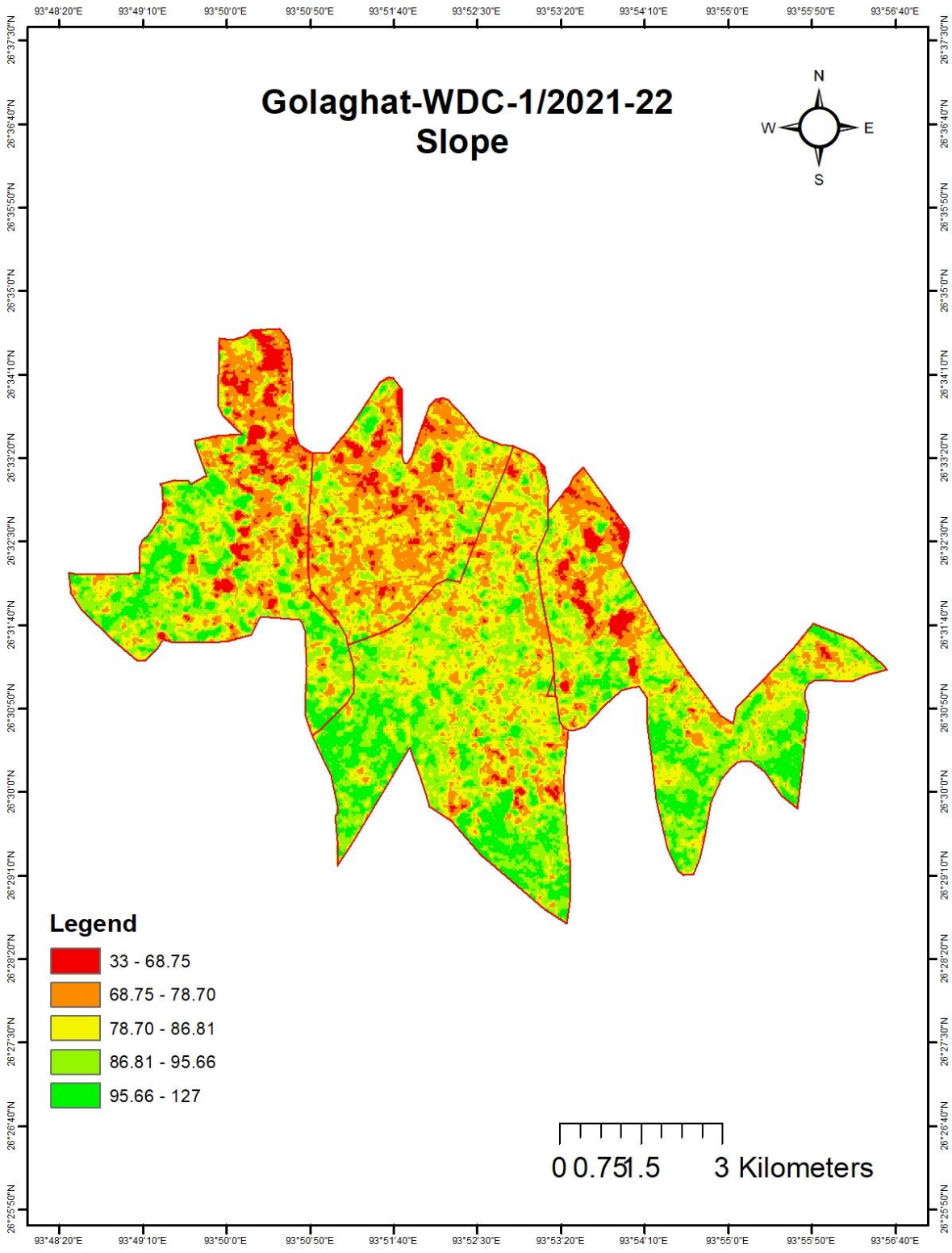

Golaghat-WDC-1/2021-22
Location
N
W
E
S
District
State
Project
0 0.75 1.5 3 Kilometers

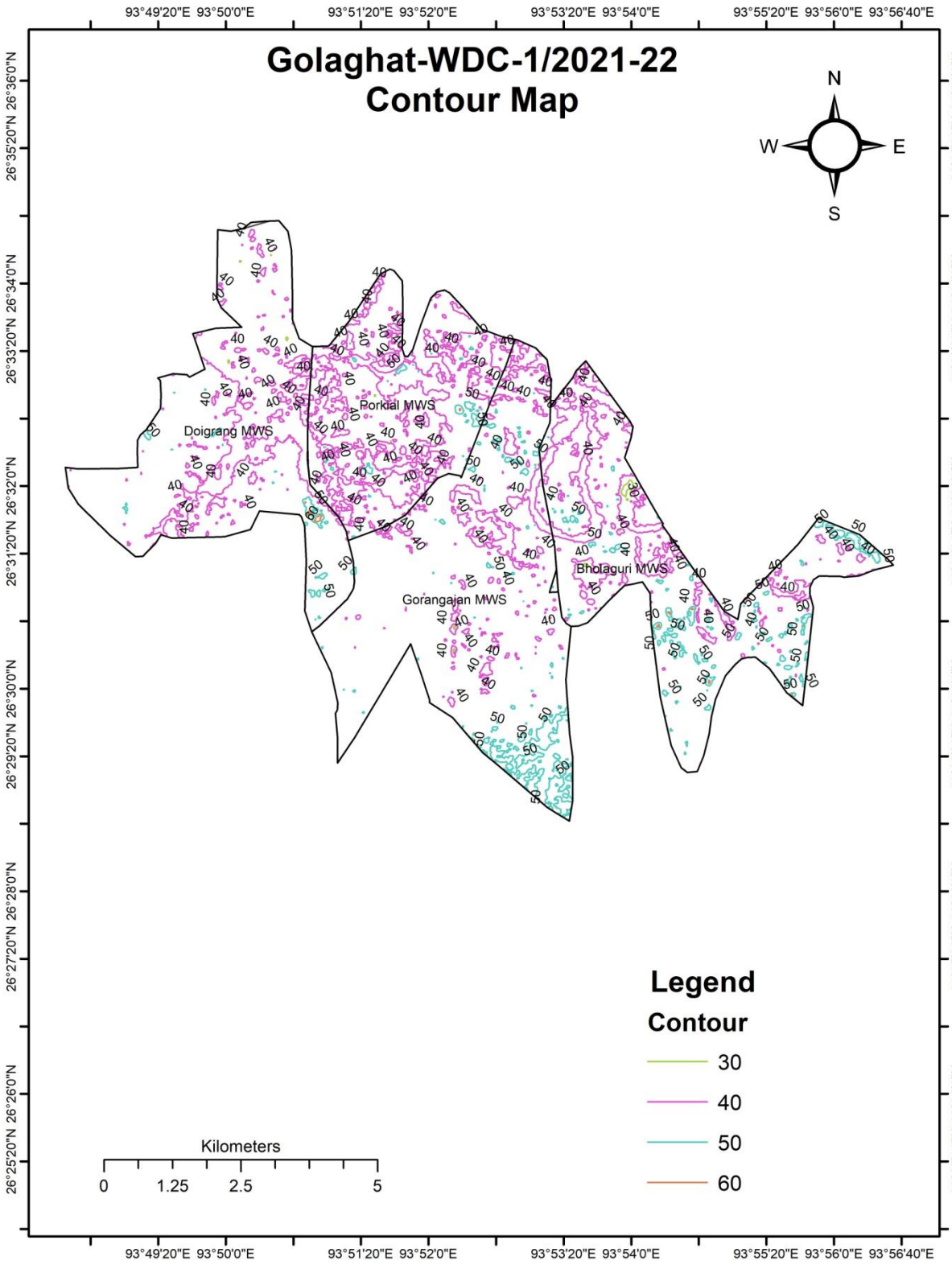

Golaghat-WDC-1/2021-22
MWS Map
93°48'40"E
93°50'0"E
93°51'20"E
93°52'40"E
93°54'0"E
93°55'20"E
93°56'40"E
26°36'0"N
26°34'40"N
26°33'20"N
26°32'0"N
26°30'40"N
26°29'20"N
26°28'0"N
26°26'40"N
26°25'20"N
26°24'0"N
N
W
E
S
Doigrang MWS
Porkial MWS
Gorangajan MWS
Bholaguri MWS
Legend
1.Doigrang_MWS
MWS_name
Bholaguri MWS
Doigrang MWS
Gorangajan MWS
Porkial MWS
Kilometers
0
1.25
2.5
5

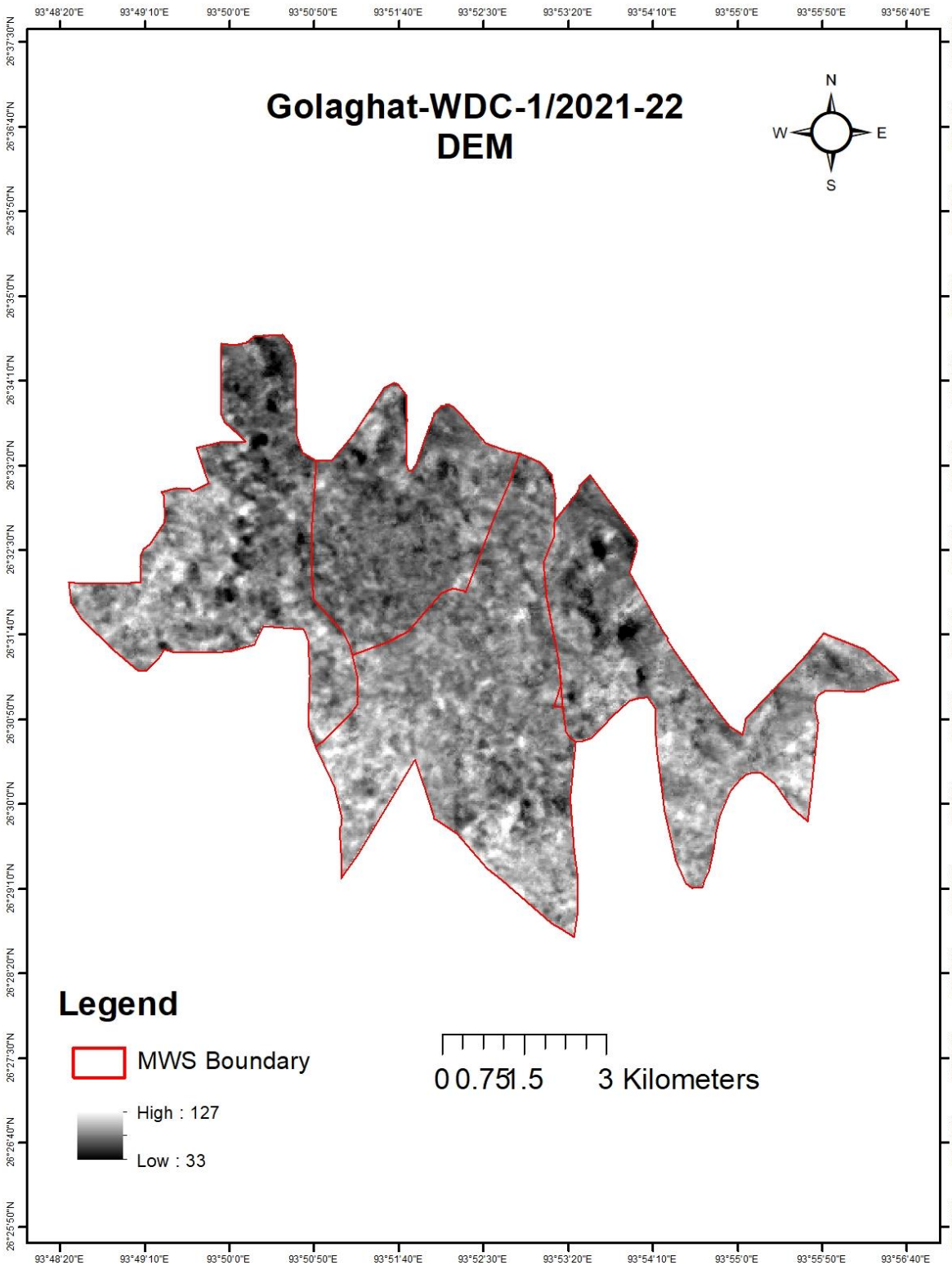

Golaghat-WDC-1/2021-22
Village Map
N
W
E
S
93°48'40"E
93°50'0"E
93°51'20"E
93°52'40"E
93°54'0"E
93°55'20"E
93°56'40"E
26°36'0"N
26°34'40"N
26°33'20"N
26°32'0"N
26°30'40"N
26°29'20"N
26°28'0"N
26°26'40"N
26°25'20"N
26°24'0"N
Mitham Chapori
Jathipotia
Kordoiguri
Halwa Gaon
Kenduguri
Kohorapar
Chesamukh
Ponkial
No.3 Koiborto
No.1 Doigrang
No.3 Doigrang
No.2 Doigrang
Miri Pathar
Dhodang Gaon
Panikora
Bholaguri Gaon
No.2 Koiborto
Kochari Gaon
Telia Gaon
Na-Pamua Gaon
Halmira Grant Gaon
Gorongajan Pt.I (Bagan)
Prajabasti
Halmira Mohkhuti Gaon
Dhansiripar Gaon
Gorongajan Pt.II (Garden)
Sarar Gaon
Legend
NAME
Bholaguri Gaon
Chesamukh
Dhansiripar Gaon
Dhodang Gaon
Gorongajan Pt.I (Bagan)
Gorongajan Pt.II (Garden)
Halmira Grant Gaon
Halmira Mohkhuti Gaon
Halwa Gaon
Jathipotia
Kenduguri
Kochari Gaon
Kohorapar
Kordoiguri
Miri Pathar
Mitham Chapori
Na-Pamua Gaon
No.1 Doigrang
No.2 Doigrang
No.2 Koiborto
No.3 Doigrang
No.3 Koiborto
Panikora
Ponkial
Prajabasti
Sarar Gaon
Telia Gaon
Kilometers
0
1.25
2.5
5

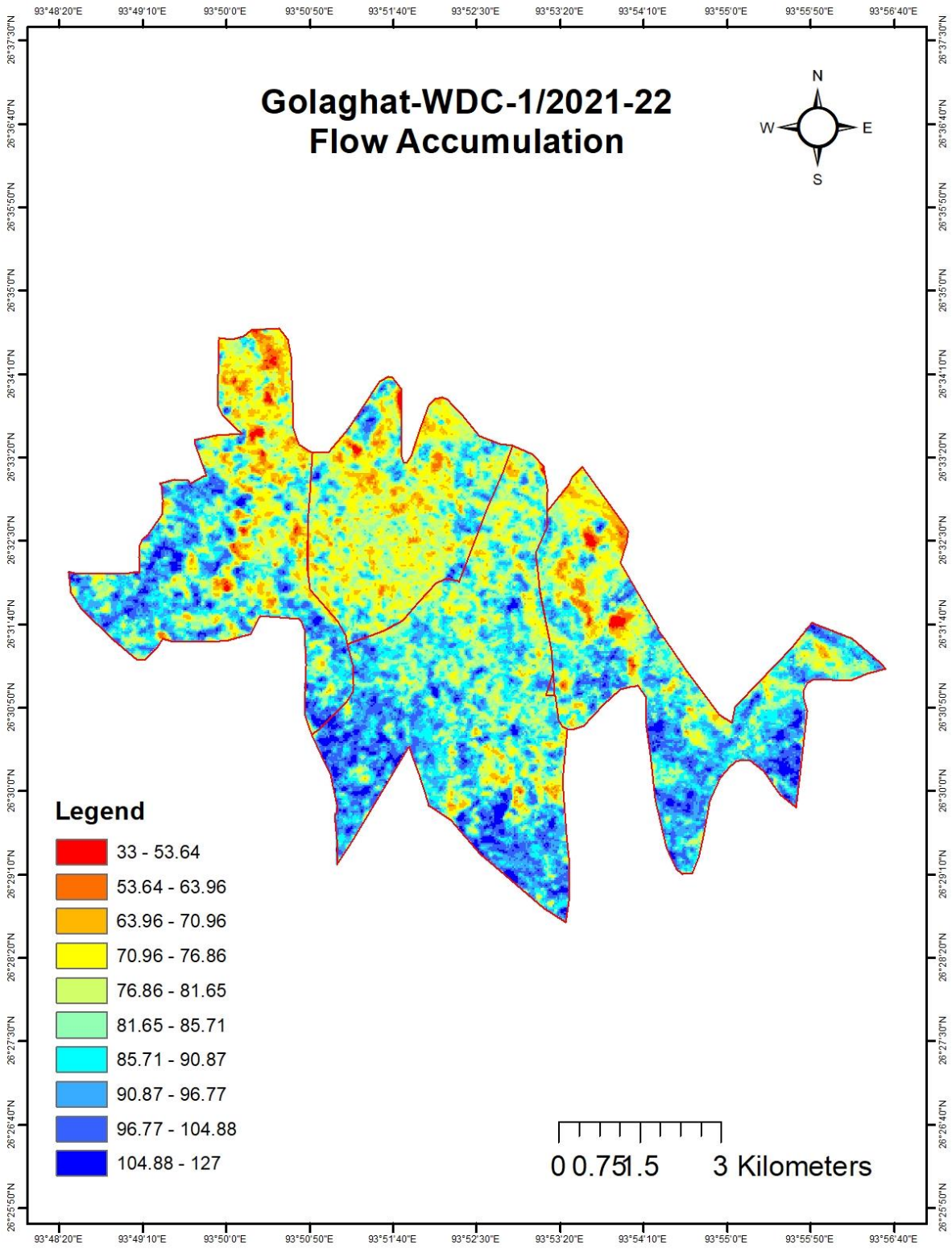

Golaghat-WDC-1/2021-22
Drainage Map
N
W
E
S
93°49'20"E 93°50'0"E
93°51'20"E 93°52'0"E
93°53'20"E 93°54'0"E
93°55'20"E 93°56'0"E 93°56'40"E
26°35'20"N 26°36'0"N
26°33'20"N 26°34'0"N
26°31'20"N 26°32'0"N
26°29'20"N 26°30'0"N
26°27'20"N 26°28'0"N
26°25'20"N 26°26'0"N
Doigrang MWS
Porkial MWS
Gorangajan MWS
Bholaguri MWS
Legend
Stream
Rover
Kilometers
0
1.25
2.5
5

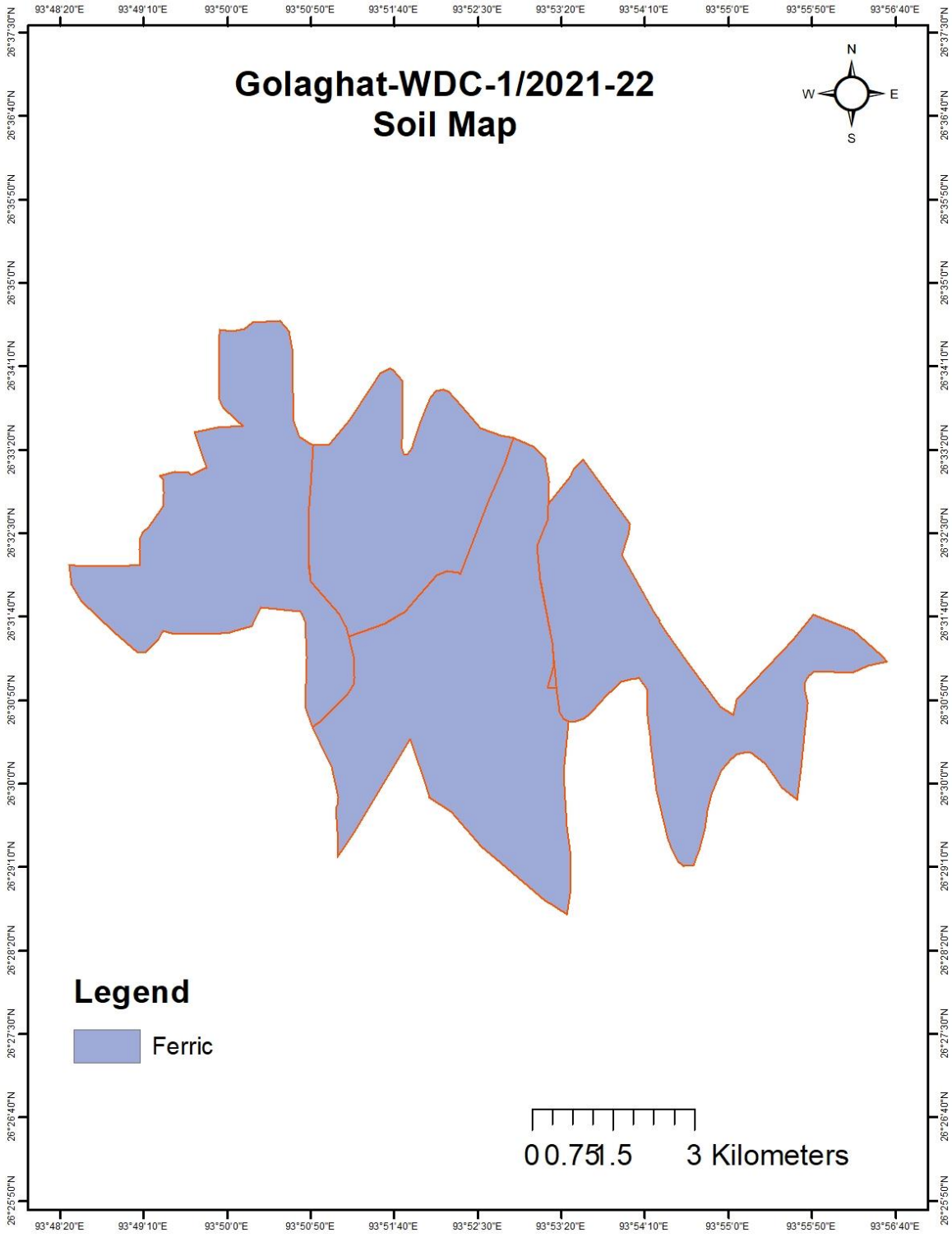

Golaghat-WDC-1/2021-22
LULC Map
93°49'20"E 93°50'0"E
93°51'20"E 93°52'0"E
93°53'20"E 93°54'0"E
93°55'20"E 93°56'0"E 93°56'40"E
26°35'20"N 26°36'0"N
26°33'20"N 26°34'0"N
26°31'20"N 26°32'0"N
26°29'20"N 26°30'0"N
26°27'20"N 26°28'0"N
26°25'20"N 26°26'0"N
N
W
E
S
Porkial MWS
Doigrang MWS
Gorangajan MWS
Bholaguri MWS
Legend
LULC Clases
Builtup,Urban
Builtup,Rural
Builtup,Mining
Agriculture,Crop land
Agriculture,Plantation
Agriculture,Fallow
Agriculture, Current Shifting Cultivation
Forest,Evergreen/ Semi evergreen
Forest,Deciduous
Forest,Forest Plantation
Forest,Scrub Forest
Grass/Grazing
Wetlands/Water Bodies, Inland Wetland
Wetlands/Water Bodies, River/Stream/canals
Wetlands/Water Bodies, Reservoir/Lakes/Ponds
Kilometers
0
1.25
2.5
5


Golaghat-WDC-1/2021-22
Slope
N
W
E
S
93°48'20"E
93°49'10"E
93°50'0"E
93°50'50"E
93°51'40"E
93°52'30"E
93°53'20"E
93°54'10"E
93°55'0"E
93°55'50"E
93°56'40"E
26°37'30"N
26°36'40"N
26°35'50"N
26°35'0"N
26°34'10"N
26°33'20"N
26°32'30"N
26°31'40"N
26°30'50"N
26°30'0"N
26°29'10"N
26°28'20"N
26°27'30"N
26°26'40"N
26°25'50"N
Legend
33 - 68.75
68.75 - 78.70
78.70 - 86.81
86.81 - 95.66
95.66 - 127
0 0.751.5 3 Kilometers


Golaghat-WDC-1/2021-22
Contour Map
N
W
E
S
93°49'20"E 93°50'0"E
93°51'20"E 93°52'0"E
93°53'20"E 93°54'0"E
93°55'20"E 93°56'0"E 93°56'40"E
26°35'20"N 26°36'0"N
26°33'20"N 26°34'0"N
26°31'20"N 26°32'0"N
26°29'20"N 26°30'0"N
26°27'20"N 26°28'0"N
26°25'20"N 26°26'0"N
Porkial MWS
Doigrang MWS
Gorangajan MWS
Bholaguri MWS
Legend
Contour
30
40
50
60
Kilometers
0
1.25
2.5
5


Golaghat-WDC-1/2021-22
DEM
N
W
E
S
93°48'20"E
93°49'10"E
93°50'0"E
93°50'50"E
93°51'40"E
93°52'30"E
93°53'20"E
93°54'10"E
93°55'0"E
93°55'50"E
93°56'40"E
26°37'30"N
26°36'40"N
26°35'50"N
26°35'0"N
26°34'10"N
26°33'20"N
26°32'30"N
26°31'40"N
26°30'50"N
26°30'0"N
26°29'10"N
26°28'20"N
26°27'30"N
26°26'40"N
26°25'50"N
Legend
MWS Boundary
High : 127
Low : 33
0 0.75 1.5 3 Kilometers


Golaghat-WDC-1/2021-22
Flow Accumulation
N
W
E
S
93°48'20"E
93°49'10"E
93°50'0"E
93°50'50"E
93°51'40"E
93°52'30"E
93°53'20"E
93°54'10"E
93°55'0"E
93°55'50"E
93°56'40"E
26°37'30"N
26°36'40"N
26°35'50"N
26°35'0"N
26°34'10"N
26°33'20"N
26°32'30"N
26°31'40"N
26°30'50"N
26°30'0"N
26°29'10"N
26°28'20"N
26°27'30"N
26°26'40"N
26°25'50"N
Legend
33 - 53.64
53.64 - 63.96
63.96 - 70.96
70.96 - 76.86
76.86 - 81.65
81.65 - 85.71
85.71 - 90.87
90.87 - 96.77
96.77 - 104.88
104.88 - 127
0 0.751.5 3 Kilometers


Golaghat-WDC-1/2021-22
Soil Map
N
W
E
S
93°48'20"E
93°49'10"E
93°50'0"E
93°50'50"E
93°51'40"E
93°52'30"E
93°53'20"E
93°54'10"E
93°55'0"E
93°55'50"E
93°56'40"E
26°37'30"N
26°36'40"N
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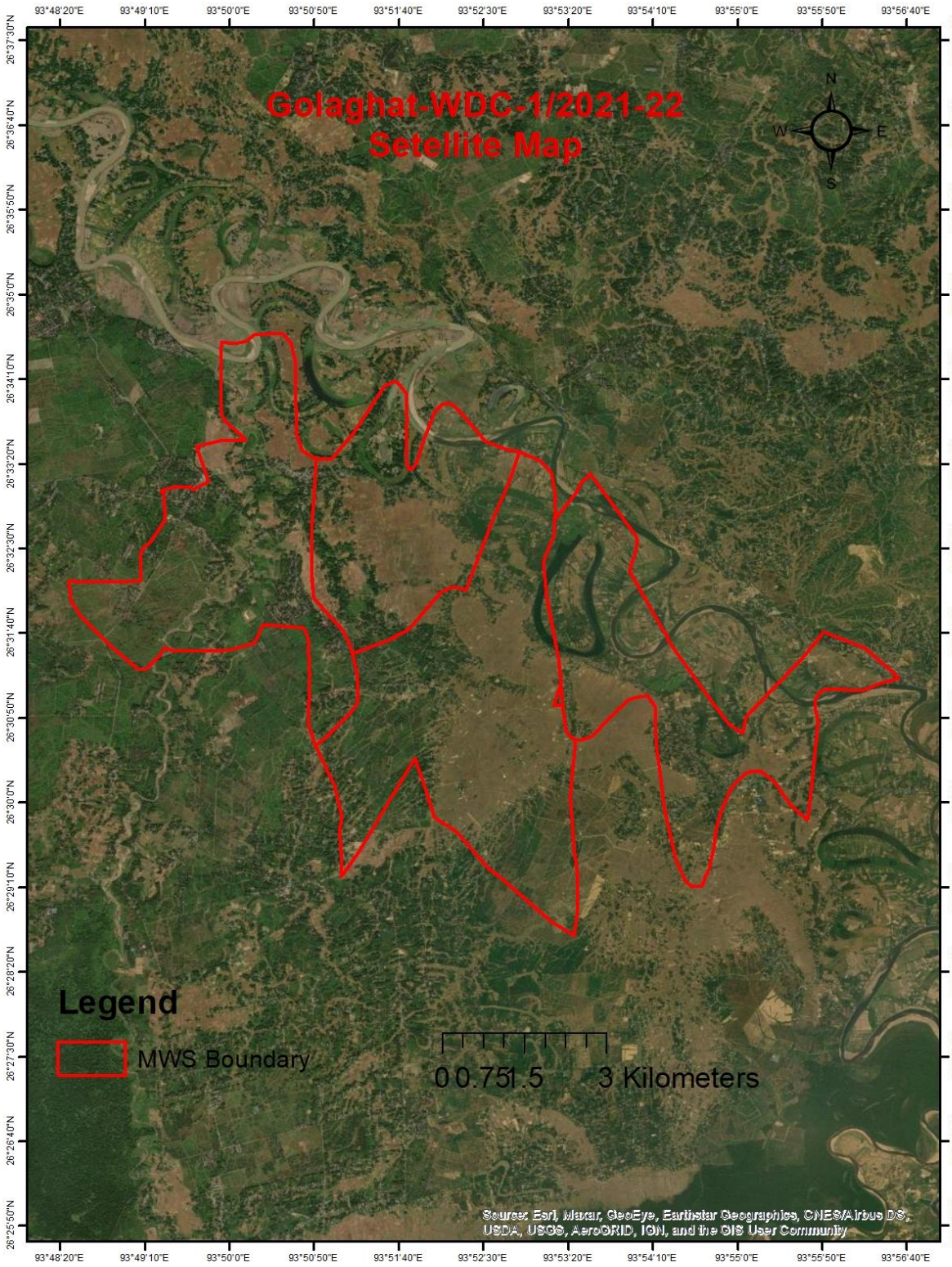
26°33'20"N
26°32'30"N
26°31'40"N
26°30'50"N
26°30'0"N
26°29'10"N
26°28'20"N
26°27'30"N
26°26'40"N
26°25'50"N
Legend
Ferric
0 0.75 1.5 3 Kilometers


Golaghat-WDC-1/2021-22
Setellite Map
N
W
E
S
93°48'20"E
93°49'10"E
93°50'0"E
93°50'50"E
93°51'40"E
93°52'30"E
93°53'20"E
93°54'10"E
93°55'0"E
93°55'50"E
93°56'40"E
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26°36'40"N
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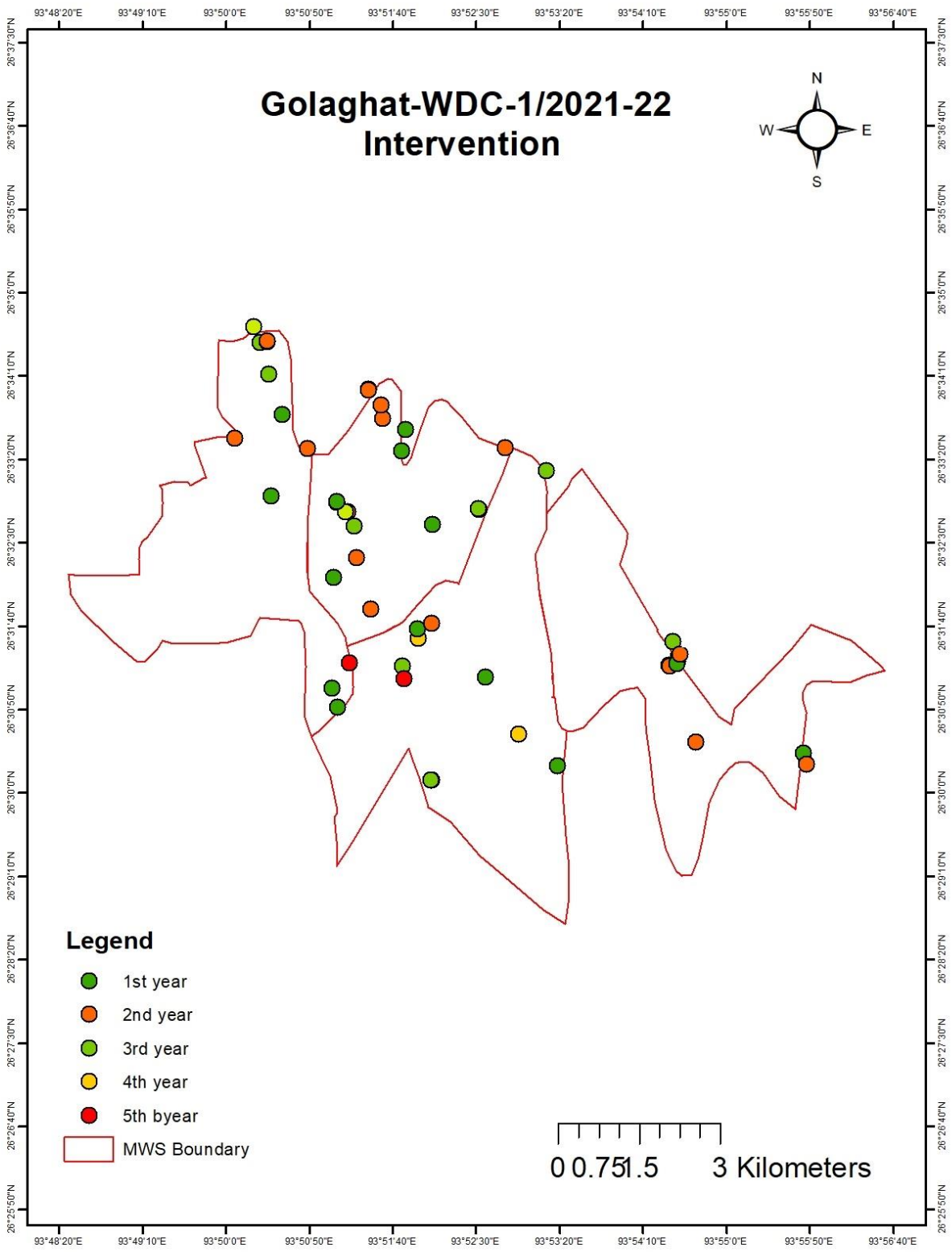
26°30'50"N
26°30'0"N
26°29'10"N
26°28'20"N
26°27'30"N
26°26'40"N
26°25'50"N
Legend
MWS Boundary
0 0.75 1.5 3 Kilometers
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Sources of maps

1. Open Source ORNL DAAC
2. Indian Geo-Platform of ISRO
3. Google Earth Pro