

MONITORING, EVALUATION, LEARNING AND DOCUMENTATION (MEL&D)

For WATERSHED
DEVELOPMENT COMPONENT-PRADHAN MANTRI KRISHI
SINCHAYEE YOJANA (WDC-PMKSY 2.0)

Inception Report

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Prepared by

Vision EIS Consulting Pvt. Ltd.
Unit No. 612 and 613, Assotech Business
Cresterra, 6th Floor, Tower No. 4,
Plot No. 22, Sector 135,
Noida – 201 305, Uttar Pradesh

VISION EIS Consulting Pvt. Ltd.
Environment, Infrastructure and Social Development Consultants

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1. BACKGROUND AND INTRODUCTION

Watershed management refers to the process of managing and conserving the land and water resources within a particular watershed or river basin. It is an attempt to halt land degradation and a holistic process for getting maximum production out of the land. A watershed is an area of land where all water, such as rainfall, snowmelt, and runoff, drains into a common water body, such as a river, lake, or ocean.

The goal of watershed management is to ensure the sustainable use of water resources while minimizing negative environmental impacts. It involves the coordination and integration of various activities, such as land use planning, water quality protection, flood control, erosion control, and natural resource conservation.

1.1. Integrated Watershed Management Program

The Integrated Watershed Management Program (IWMP) is a flagship program of the Government of India aimed at sustainable development and management of watersheds across the country. It was launched by the Ministry of Rural Development in 2009 and is implemented through the State Watershed Development Agencies (SWDAs).

The program focuses on sustainable management of natural resources, including soil, water, vegetation, and biodiversity within watersheds, emphasizes rainwater harvesting and water conservation techniques to enhance water availability within watersheds, promotes soil conservation practices to prevent erosion, improve the socio-economic conditions of rural communities by promoting sustainable livelihoods, promotes the creation of sustainable employment opportunities through watershed-based enterprises, emphasizes convergence and coordination among various departments, agencies, and programs to optimize resources and achieve holistic development outcomes and adopts a participatory approach, involving local communities, stakeholders, and user groups in planning, implementation, and monitoring of watershed development activities.

The IWMP is a comprehensive program that addresses the challenges of soil erosion, water scarcity, land degradation, and rural poverty through integrated watershed management approaches. By promoting sustainable natural resource management and livelihood enhancement, it contributes to rural development, environmental conservation, and improved quality of life for rural communities.

1.2. Watershed Development Component of PMKSY (erstwhile IWMP)

Government of India is committed to accord high priority to water conservation and its management. To this effect, Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) has been formulated with the vision of extending the coverage of irrigation '**Har Khet ko Pani**' and improving water use efficiency '**More Crop Per Drop**' in a focused manner with end-to-end solution on source creation, distribution, management, field application and extension activities.

The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies, enhance recharge of aquifers and introduce sustainable water conservation practices by exploring the feasibility of reusing treated municipal waste water for peri-urban agriculture and attract greater private investment in the precision irrigation system.

PMKSY has been conceived amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Integrated Watershed Management Programme (IWMP) of the Department of Land Resources (DoLR) and the On-Farm Water Management (OFWM) of

Department of Agriculture and Cooperation (DAC). The scheme is implemented by Ministries of Agriculture, Water Resources and Rural Development.

Watershed Development under Pradhan Mantri Krishi Sinchayee Yojana involves comprehensive planning and implementation of measures to conserve soil, water, and other natural resources within a specific watershed area. Its primary objective is to achieve a balance between socioeconomic development and the sustainable use of water resources while maintaining ecological integrity and resilience within the watershed using Rainwater Harvesting, Soil and Moisture Conservation, Afforestation and Horticulture, Livelihood Support, Integrated Farming Systems and Public Participation.

The implementation of watershed development under PMKSY is carried out by various agencies and institutions at the national, state, and local levels. These include the Ministry of Agriculture and Farmers Welfare, State Departments of Agriculture, State Watershed Development Agencies, and Non-Governmental Organizations (NGOs). The initiative provides financial support, technical assistance, and capacity building to ensure successful implementation of watershed development projects.

1.2.1. Progress in PMKSY 1.0 - Assam

In WDC-PMKSY 1.0 in Assam, the total area covered was 11.65 lakh hectares.

Table 1: Details of Watersheds in Assam

Report SB2- Number of Watersheds, Total Geographical Area and Net Treatable Area		
	ASSAM	INDIA
Total number of States	1	30
Total Number of Districts	27	656
Total number of Blocks	238	6706
Total no. of Micro-watersheds	5022	248593
Total geographical area	78.44	1966.099
Total untreatable area*	30.12	464.5943
Total Area covered under pre-IWMP schemes of DoLR	8.24	218.7712
Total Area covered under schemes of other Ministries	1.16	235.0712
Total Area covered under IWMP/WDC-PMKSY of DoLR (WDC 1.0)	11.65	208.4526
Project Area proposed under WDC-PMKSY 2.0	1.36573	33.17527
Total area with assured irrigation	7.33	283.8885
Net treatable area	18.57427	522.1456

Source: <https://wdcpmsy.dolr.gov.in/netTreatable>, 19/07/23

* Area under habitation, steep slopes, snow covered areas, roads, forests, rocky mountainous, etc.
 All amounts (in Rs Lakhs) and All Area in Lakh Ha

Information on WDC-PMKSY 1.0 can be observed from reports¹ available in the IWMP-MIS portal.

Table 2: PMKSY 1.0

FY	Projects Sanctioned	Fund released (in lakhs)	Expenditure (in lakhs)
2009-10	57	3417.7	82.29
2010-11	86	4466.52	1284.55
2011-12	83	4019.38	2019.79

¹ <https://iwmpmis.nic.in/fusionChart.do?method=dashboard&cd=18::::21>

FY	Projects Sanctioned	Fund released (in lakhs)	Expenditure (in lakhs)
2012-13	54	4571.5	3050.68
2013-14	45	13126.2	8342.39
2014-15	47	699	10216.64
2015-16		4500	4284.78
2016-17		0.0	2284.1
2017-18		6807	5417.4
2018-19		7080.22	6409.12
2019-20		5647.33	8800.8
2020-21		18921.78	11110.3
2021-22		-	6932.2
Total	372	73256.63	70235.04

Source: <https://iwmpmis.nic.in/>

Figure 1: Dashboard representation of PMKSY 1.0, Assam 2021-22



1.3. Pradhan Mantri Krishi Sinchayee Yojana- Watershed Development Component 2.0

The Centrally Sponsored Scheme (CSS) 'Integrated Watershed Management Programme' (IWMP) (2009-10), was amalgamated as the Watershed Development Component of PMKSY (WDC-PMKSY) in 2015-16. The continuation of WDC-PMKSY has been allowed by the Government of India on 15.12.2021 as 'WDC-PMKSY 2.0' for the project period of 2021-2026.

The vision of PMKSY- WDC 2.0 is to accelerate the economic growth rate of rainfed areas agriculture. At the watershed level, the development plan is guided by the need to achieve higher income for farmers, expanded livelihood options for landless, equity in the distribution of benefits, and community ownership and management.

The major objectives of the project are as follows:

1. Securing production and farmers income against climate variability and its risks of drought spells through diversification of crop systems & animal husbandry. Efficient water harvesting

and retention of rainwater in soil profile; and entitling all project members to ground and surface water resources on an equitable basis.

2. Improving intensity and productivity of various crops, livestock, fisheries, and biomass production systems through optimal integrated, sustainable, and efficient use of natural resources in the project areas.
3. Recognizing the stake of non-land holding project members and promoting alternate livelihood opportunities.
4. Sustained community action in the management of natural resources/assets such as groundwater, soil, community resources, etc. by way of building community organizations like User Groups (UG), and transferring maintenance.
5. Promotion of simple, easy to use and affordable technologies and practices, that builds upon local knowledge and available materials.
6. Greater access to income-generating opportunities.
7. Formation/Promotion of FPOs.

1.3.1. Planning and Implementation

The vision of the new generation of watershed development projects will be achieved through Participatory Watershed Development Plans (PWDP) prepared by the watershed community with technical guidance from the WDTs. The following constitute broader components of the watershed development plan:

- i. Ecosystem Regeneration and Production.
- ii. Natural Resources Management and Governance.
- iii. Services & Livelihoods.

These three are organically linked and relate to development, management and governance of natural resources. The plan should focus on effective and efficient use of natural resources to realize better income for the rural people. In hilly regions, participatory approach should be adopted for springs rejuvenation with meticulous planning, involving communities in twin arrangements in upper and lower reaches.

At project level, WDC-PMKSY 2.0 envisages a bottoms-up approach of implementation by involving the community through community-based organizations such as Self-Help groups, user groups and watershed committee besides project implementing agencies (PIAs) from both government or non- government organizations and the watershed development team. These groups need continuous monitoring for effective implementation of the project.

- The organizational learning processes need to be facilitated through the observations of an external agency to assist the project functionaries at various levels.
- Impact evaluation of watershed projects in particular has to be made using the state of art technology such as Remote Sensing, GIS and GPS for unbiased and reliable assessment in terms of changes in biophysical parameters which requires specific skills plus expertise.
- In WDC-PMKSY 2.0, process monitoring along with documentation needs to be undertaken to confirm that project activities are being implemented in conformity with the New Generation Project WDC-PMKSY 2.0 Guideline and the decisions of the State Level Nodal Agency (SLNA) thereon.
- Each project being implemented under WDC-PMKSY 2.0 requires timely and appropriate information on its performance, measured by combining both qualitative and quantitative performance indicators.
- It is imperative that the component MEL&D under WDC-PMKSY 2.0 has to add value to the project during the course of its implementation and as well as for achievement of expected outcomes and impacts.

1.3.2. WDC-PMKSY 2.0 – Assam

In Assam, the Soil Conservation Department, Government of Assam is the implementing agency (IA) for the Watershed Development Component - Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY) through the State Level Nodal Agency (SLNA), funded by the Department of Land Resource (DoLR), Govt. of India.

Table 3: Project Details - PMKSY 2.0, Assam

Report P1- State-wise, District-wise and Year-wise Details of Projects Sanctioned including Area Sanctioned, Total Cost (Central/State Share)						
SN	Project Name	Project Sanction Date	Area Sanctioned	Total Cost	Central Share	State Share
1	BAKSA-WDC - 1 /2021-22	19/01/2022	4,700	1034.00	930.60	103.40
2	BARPETA-WDC - 1 /2021-22	19/01/2022	4,917	1081.74	973.56	108.17
3	BONGAIGAON-WDC - 1 /2021-22	19/01/2022	3,637	800.21	720.18	80.02
4	CACHAR-WDC - 1 /2021-22	19/01/2022	3,421	752.62	677.35	75.26
5	CHARAIDEO-WDC - 1 /2022-23	27/03/2023	3,982	876.04	788.43	87.60
6	CHIRANG-WDC - 1 /2021-22	19/01/2022	4,000	880.00	792.00	88.00
7	DARRANG-WDC - 1 /2021-22	19/01/2022	4,500	990.00	891.00	99.00
8	DHEMAJI-WDC - 1 /2021-22	19/01/2022	4,180	919.60	827.64	91.96
9	DHUBRI-WDC - 1 /2021-22	19/01/2022	4,956	1090.32	981.28	109.03
10	DIBRUGARH-WDC - 1 /2021-22	19/01/2022	5,000	1100.00	990.00	110.00
11	DIMA HASAO-WDC - 1 /2021-22	19/01/2022	4,500	1260.00	1134.00	126.00
12	GOALPARA-WDC - 1 /2021-22	19/01/2022	3,835	843.74	759.36	84.37
13	GOLAGHAT-WDC - 1 /2021-22	19/01/2022	4,386	964.92	868.42	96.49
14	HAILAKANDI-WDC - 1 /2021-22	19/01/2022	5,000	1100.00	990.00	110.00
15	HOJAI-WDC - 1 /2021-22	19/01/2022	5,000	1100.00	990.00	110.00
16	JORHAT-WDC - 1 /2021-22	19/01/2022	4,962	1091.64	982.47	109.16
17	KAMRUP-WDC - 1 /2021-22	19/01/2022	4,145	911.95	820.75	91.19
18	KAMRUP METRO-WDC-1/2022-23	27/03/2023	4,018	883.96	795.56	88.39
19	KARBI ANGLONG-WDC - 1 /2021-22	19/01/2022	4,700	1316.00	1184.40	131.60
20	KARBI ANGLONG-WDC-2/2021-22	19/01/2022	3,300	924.00	831.60	92.40
21	KOKRAJHAR-WDC - 1 /2021-22	19/01/2022	4,138	910.36	819.32	91.03
22	LAKHIMPUR-WDC - 1 /2021-22	19/01/2022	3,911	860.42	774.37	86.04
23	MAJULI-WDC - 1 /2021-22	19/01/2022	4,600	1012.00	910.80	101.20
24	MARIGAON-WDC - 1 /2021-22	19/01/2022	4,800	1056.00	950.40	105.60
25	NAGAON-WDC - 1 /2021-22	19/01/2022	5,000	1100.00	990.00	110.00
26	NALBARI-WDC - 1 /2021-22	19/01/2022	3,859	849.02	764.11	84.90
27	SIVASAGAR-WDC - 1 /2021-22	19/01/2022	4,226	929.72	836.74	92.97
28	SONITPUR-WDC - 1 /2021-22	19/01/2022	5,000	1100.00	990.00	110.00

Report P1- State-wise, District-wise and Year-wise Details of Projects Sanctioned including Area Sanctioned, Total Cost (Central/State Share)						
SN	Project Name	Project Sanction Date	Area Sanctioned	Total Cost	Central Share	State Share
29	TINSUKIA-WDC - 1 /2021-22	19/01/2022	5,000	1100.00	990.00	110.00
30	UDALGURI-WDC - 1 /2021-22	19/01/2022	4,500	990.00	891.00	99.00
31	WEST KARBI ANGLONG-WDC - 1 /2021-22	19/01/2022	4,400	1232.00	1108.80	123.20
TOTAL				31060.26	27954.14	3105.98

Source: <https://wdcpmkysy.dolr.gov.in>

All amounts (in Rs lakhs), All Area in Ha

1.3.3. Monitoring, Evaluation, Learning and Documentation (MEL&D) in WDC-PMKSY 2.0

A well designed and functional M&E system is meant to effectively capture the progress, the achievements of the multiple objectives, noting the deviations, provide the learnings and framework for improvements while documenting the processes and achievements. Setting-up an effective state-level MEL&D system, helps a decentralized project like this to consolidate results and findings and link up to provide the national picture. The external and independent agency will support in sanitizing the system of any kind of bias for the task, is underlined. The MEL&D process would delve into bio-physical, socio-economic and program performance data that would need to be captured and analyzed for the system.

1.3.4. Assignment Details

Vision EIS Consulting has been engaged by State Level Nodal Agency, WDC-PMKSY, Department of Soil Conservation, Government of Assam for monitoring, evaluation, learning and documentation of various watershed projects on-going under PMKSY 2.0.

The objective of this consultancy is to establish an effective MEL&D system to provide unbiased, reliable and relevant information on progress and performance of each project by reflecting the actual status of the implementation process (both quantitative and qualitative) and propose timely corrective measures as required.

The main deliverables are as follows:

Table 4: Key Project Deliverables

Analytical Reports	Monitoring Reports	Video Documentation
(a) Inception Report (1) (b) Baseline Study Report (1) (c) Satellite Imageries Report (2) (d) Final Impact Evaluation Report (1)	(a) Monthly Reports (35) – process monitoring, input-output, good practices, CB, WDF Account details and convergence (b) Annual Reports (5) – process monitoring, input-output, good practices, works phase and completed phase reports, pathway analysis and thematic reports (c) Quarterly Progress Reports (1+4) – 2021-22 and 2022-23	(a) Video Documentaries (3)

2. Inception Phase Activities

2.1. Signing of Contract

The contract SLNA/WDC-PMKSY/45/2022/Vol-I/505 with SLNA-WDC-PMKSY, Assam and Vision EIS Consulting Private Limited was signed on 7th June 2023 for a period 3 years.

2.2. Mobilizing core team of experts

Table 5: MEL&D Core Team Members

SN	Name	Designation
1	Ms. Anindita Roy	Team Leader (M&E)
2	Ms. Sarabjeet Kaur	Project Coordinator
3	Ms. Debotri Chatterjee	Documentation Expert
4	Ms. Garima Mishra	NRM Specialist
5	Mr. Arvind Gupta	IT Expert
6	Mr. Kaushik Birendra Mahanta	MIS Officer
7	Mr. Naba Kalita	Hydrologist
8	Mr. Devansh Agarwal	GIS Analyst
9	Ms. Pragya Timsina	MEL Associate
10	Ms. Martina Pachani	Office Assistant

2.3. Kick-off Meeting with SLNA

The project kick-off meeting for MEL&D assignment was organised along with the introduction of the MEL&D team on 22/06/2023. The key suggestions are mentioned below:

- Identify the issues, challenges in the field and flag them to SLNA in a timely manner
- State MIS team should try to integrate the monthly data from both district and MEL&D team before submitting to DoLR, Gol
- Highlight at least one success story in every month
- Use of social media for information dissemination and proper documentation

2.4. Meetings and Interactions with SLNA and District team members

Meetings and Interaction			
SN	Date of meeting	Key persons	Details
1	22-06-2023	Shri Ravi Shankar Prasad, IAS (ACS, Soil Conservation Department), Shri Dipu Kumar Deka, ACS (CEO, SLNA) and other officials of SLNA	<ul style="list-style-type: none"> • The project kick-off meeting for MEL&D assignment was organised along with the introduction of the MEL&D team. (Refer Annexure III – Minutes of Meeting)
2	22-06-2023	Shri Pradip Dutta (Kamrup and Golaghat Divisional Officer)	<ul style="list-style-type: none"> • He explained about the organisational structure for the implementation of WDC - PMKSY 2.0 projects and the type of NRM works taken up under watershed management projects • He briefed about the project details of Kamrup and Goalpara districts

Meetings and Interaction			
SN	Date of meeting	Key persons	Details
3	22-06-2023	Pranab Jyoti Kalita (GIS Expert, SLNA) and Samiul Hoque (MIS Expert, SLNA)	<ul style="list-style-type: none"> Discuss to understand the type and nature of project data available with SLNA It was informed that very high-resolution satellite imagery has not been procured till date by the department
4	23-06-2023	Shri Dipu Kumar Deka, ACS (CEO, SLNA) and Chandrali Sarma (IT Programmer, SLNA)	<ul style="list-style-type: none"> Request by MEL&D team was made for sharing the relevant project documents such as DPRs, AAPs, Geo-spatial data and MIS formats
5	26-06-2023	Shri Pradip Dutta (Kamrup Project Manager) and Kamrup district team	<ul style="list-style-type: none"> MEL&D team informed the Project Manager that they wish to visit the sites in both the district DPM coordinated with the respective Project Leaders and shared their contact details with MEL&D team Interacted to understand the process of data generation, collation and reporting of information from the site level and to understand the responsibilities assigned to PIA team members
6	26-06-2023	Chandrali Sarma (IT Programmer, SLNA) and other SLNA team members	<ul style="list-style-type: none"> Discussion was held to understand the status of the availability of the requested data mailed by the MEL&D team
7	27-06-2023	Mrs. Lipi Boruah (Kamrup Project Leader) and Mr. Satish Rajwanshi (Goalpara Project Leader)	<ul style="list-style-type: none"> MEL&D team was explained about the process for the preparation of PPRs, DPRs, AAPs. Further, the reporting process and the approach adopted for PRA exercise and for the selection of watershed committee members was also explained
8	28-06-2023	Shri Sidhartha S Chaliha (Nagaon and Morigaon Divisional Officer), K.Das (Morigaon Project Leader), Amarjyoti sharma (Accountant Nagaon district) and other WDC members	<ul style="list-style-type: none"> MEL&D team visited farm ponds, contour bunds, sluice gate and earthen drainage channel in Mazgaon MWS, Takowbari MWS of Nagaon district and composite production system including fish farming, duck farming and poultry farming and horticulture plantation, renovation of community pond, farm ponds and farmers rest shed constructed under EPA activity in Kumoi MWS of Morigaon district MEL&D team also interacted with divisional officer along with other district officers and watershed committee members

Meetings and Interaction			
SN	Date of meeting	Key persons	Details
9	30-06-2023	Mrs. Lipi Boruah (Kamrup Project Leader) along with other WDC members	<ul style="list-style-type: none"> MEL&D team visited RCC Check dams, Loose Boulder/Boulder Revetment, Agri-Band with Box culvert, Earthen channel, Brick canal, Production system site and Ring well under EPA activity in Joypur MWS, Sakhati MWS and Garamimura MWS of kamrup district MEL&D team also interacted with various district officers and watershed committee members
10	4-07-2023	Online Meeting with IT Programmer (Project Coordinator)	<ul style="list-style-type: none"> Discussion of previous QPR and Annual Reports preparation process and collection of information related to the same
11	17-07-2023	District Consultation Workshop	<ul style="list-style-type: none"> All District level functionaries attended the workshop. The objectives and activities of the MEL&D agency was shared. A detailed consultation related to current status and challenges along with expectations from MELD Team and proposed actions was undertaken. (Refer Annexure IV for the outcome details)
12	5-07-2023 to 20-07-2023	Interaction with individual SLNA members Correspondence with District Watershed Development Teams	<ul style="list-style-type: none"> Interactions with CEO, System Analyst (IT), GIS Expert, IT Programmer - for data, reports and clarifications
Correspondence			
SN	Date	Letter Number	Particulars
1	27/06/2023	SLNA/WDC-PMKSY/45/2022/Vol-I-558	Introduction Letter to Districts
2	30/06/2023	SLNA/WDC-PMKSY/45/2022/Vol-I-561	Intimation Letter to DoLR, Gol – Engagement of MEL&D Agency
3	14/07/2023	SLNA/WDC-PMKSY/18/2023/4	Letter to Districts for MELD Consultation

2.5. WDC-PMKSY 2.0 – understanding the current status

Department of Land Resources (DoLR), Gol approved WDC-PMKSY 2.0 for the State of Assam² in the Steering Committee Meeting held on 4th January 2022.

- Total numbers of watershed projects sanctioned: 29 Nos
- Total treatable area: 1.28574 Lakhs hectare.
- Total project cost: Rs. 293.0028 Crores.
- Total project period: 3-5 years i.e., 2021-2026

² <https://soildirectorate.assam.gov.in/schemes/watershed-development-component-pradhan-mantri-krishi-sinchayee-yojana-wdc-pmkysy>

The Government of India has sanctioned and released **Rs. 16.48 Cr** as 1st tranche.

- In the FY 2021-22 for preparatory phase work and its Matching state share **Rs. 1.08 Cr.** has been received.
- In the Financial Year 2022-23 Central Share Received **Rs. 54.02 Cr** and State Share Received **Rs. 6.75 Cr.**

Table 6: Budget allotment (2022-23) to Districts

SN	District Name	FY 2021-22	FY 2022-23	FY 2023-24 ³
		Total Sanctioned Amount (In Lakhs)		
1	<u>BAJALI</u>	0	0	
2	<u>BAKSA</u>	42.91	1,034	
3	<u>BARPETA</u>	44.89	1,081.74	
4	<u>BISWANATH</u>	0	0	
5	<u>BONGAIGAON</u>	33.20	800.21	
6	<u>CACHAR</u>	31.23	752.62	
7	<u>CHARAIDEO</u>	0	876.04	
8	<u>CHIRANG</u>	36.52	880	
9	<u>DARRANG</u>	41.08	990	
10	<u>DHEMAJI</u>	38.16	919.6	
11	<u>DHUBRI</u>	45.24	1,090.32	
12	<u>DIBRUGARH</u>	45.65	1,100	
13	<u>DIMA HASAO</u>	52.29	1,260	
14	<u>GOALPARA</u>	35.01	843.74	
15	<u>GOLAGHAT</u>	40.04	964.92	
16	<u>HAILAKANDI</u>	45.65	1,100	
17	<u>HOJAI</u>	45.65	1,100	
18	<u>JORHAT</u>	45.30	1,091.64	
19	<u>KAMRUP</u>	37.84	911.95	
20	<u>KAMRUP METRO</u>	0	883.96	
21	<u>KARBI ANGLONG</u>		2,240	
22	<u>KARIMGANJ</u>	0	0	
23	<u>KOKRAJHAR</u>	37.77	910.36	
24	<u>LAKHIMPUR</u>	35,70,744.00	860.42	
25	<u>MAJULI</u>	41,99,800.00	1,012.00	
26	<u>MARIGAON</u>	43,82,400.00	1,056.00	
27	<u>NAGAON</u>	45,65,000.00	1,100.00	
28	<u>NALBARI</u>	35,23,475.00	849.02	
29	<u>SIVASAGAR</u>	38,58,338.00	929.72	
30	<u>SONITPUR</u>	45,65,000.00	1,100.00	

³ District budget allocation data – 2023-24 – by account heads and not by districts – July 2023 (as of 6/7/23)

SN	District Name	FY 2021-22	FY 2022-23	FY 2023-24 ³
		Total Sanctioned Amount (In Lakhs)		
31	<u>SOUTH SALMARA MANCACHAR</u>	0	0	
32	<u>TINSUKIA</u>	45,65,000.00	1,100.00	
33	<u>UDALGURI</u>	41,08,500.00	990	
34	<u>WEST KARBI ANGLONG</u>	51,12,800.00	1,232.00	
	Grand Total	12,15,96,172.00	31,060.26	13,64,65,572.00

Source: <https://wdcpmksy.dolr.gov.in/> and SLNA

The table below is a brief progress report of cumulative achievement (till May 2023) on three components – (i) NRM, (ii) Production System and (iii) Plantation Activities.

Table 7: Progress as on May 2023

Progress as on 31.05.2023							
Number of Projects	Total Activity	Completed	Ongoing	Financial Target (in Lakhs)	Financial Achievement (in Lakhs)	Balance	Percentage
Progress of NRM Activities							
29	693	545	148	4479.08	4114.59	364.49	92%
Progress on Production System							
29	1565	992	573	532.46	379.754	152.7	71%
Progress on Plantation Activities							
29	103	100	3	380.08	378.1	1.98	99%

Source: <https://soildirectorate.assam.gov.in/schemes/watershed-development-component-pradhan-mantri-krisi-sinchayee-vojana-wdc-pmksy>

2.5.1. Target and Achievement – EPA, NRM Activities and Production System

Table 8: Target and Achievement - EPA, NRM

S N	District Name	EPA (2021-23)			Year	NRM works		Percentage of Achievement
		Total Number of activities	Total number of works created	Percentage of Achievement		Target	Achievement	
1	Barpeta	9	9	100%	2022-23	7604.04	1446	19.02%
					2023-24	2643.31	1571.3	59.44%
2	Bongaigaon	4	4	100%	2022-23	9651.88	1017.15	10.54%
					2023-24	3999.2	1113.22	27.84%
3	Cachar	7	7	100%	2022-23	2008	810.7	40.37%
					2023-24	475.14	24.52	5.16%
4	Darrang	1	1	100%	2022-23	2769.07	1724.09	62.26%
					2023-24	1659.49	1047.73	63.14%
5	Dhemaji	4	4	100%	2022-23	2770.29	804.65	29.05%
					2023-24	2360.05	348.75	14.78%

S N	District Name	EPA (2021-23)			Year	NRM works		Percentage of Achievement
		Total Number of activities	Total number of works created	Percentage of Achievement		Target	Achievement	
6	Dhubri	17	17	100%	2022-23	8406.03	2198.36	26.15%
					2023-24	2894.43	1436.54	49.63%
7	Dibrugarh	13	13	100%	2022-23	19925	35	0.18%
					2023-24	2241	6565	292.95%
8	Goalpara	11	11	100%	2022-23	845.67	444.5	52.56%
					2023-24	6801	206	3.03%
9	Golaghat	5	5	100%	2022-23	3445.83	317.07	9.20%
					2023-24	1194	335.41	28.09%
10	Hailakandi	12	12	100%	2022-23	8264.75	2653.3	32.10%
					2023-24	2402.55	2948.45	122.72%
11	Jorhat	11	11	100%	2022-23	6753.78	175.27	2.60%
					2023-24	3393.52	30.09	0.89%
12	Kamrup	10	10	100%	2022-23	7369.78	1747	23.70%
					2023-24	3516.11	1258.33	35.79%
13	Karbi Anglong	7	11	157%	2022-23	2433.9	606.97	24.94%
					2023-24	3231.73	6	0.19%
15	Kokrajhar	4	4	100%	2022-23	2507.11	48.22	1.92%
					2023-24	1304.41	1152.48	88.35%
16	Lakhimpur	5	5	100%	2022-23	37124.31	5612.74	15.12%
					2023-24	12830.62	20178.25	157.27%
17	Marigaon	11	11	100%	2022-23	5986.3	666.9	11.14%
					2023-24	0	0	0.00%
18	Nagaon	4	4	100%	2022-23	3544.31	3400.8	95.95%
					2023-24	0	0	0.00%
19	Nalbari	20	20	100%	2022-23	1796.68	1455.4	81.00%
					2023-24	14082.81	27	0.19%
20	Dima Hasao	10	10	100%	2022-23	307.41	57.63	18.75%
					2023-24	71.6	67.51	94.29%
21	Sivasagar	8	8	100%	2022-23	9952.2	1622.1	16.30%
					2023-24	916.5	0	0.00%
22	Sonitpur	8	8	100%	2022-23	17909.5	16701	93.25%
					2023-24	5037.72	498	9.89%
23	Tinsukia	29	29	100%	2022-23	11394	69	0.61%
					2023-24	1021.4	3254	318.58%
24	Chirang	15	15	100%	2022-23	1060.65	308.14	29.05%

S N	District Name	EPA (2021-23)			Year	NRM works		Percentage of Achievement
		Total Number of activities	Total number of works created	Percentage of Achievement		Target	Achievement	
					2023-24	640.16	258.83	40.43%
25	Baksa	4	4	100%	2022-23	1444.82	51.36	3.55%
					2023-24	495.2	641.48	129.54%
26	Udalguri	3	3	100%	2022-23	3218.56	910.99	28.30%
					2023-24	3218.56	0	0.00%
27	Majuli	4	4	100%	2022-23	7593.64	306	4.03%
					2023-24	17519	7950	45.38%
28	Hojai	11	11	100%	2022-23	3696.5	472.3	12.78%
					2023-24	0	0	0.00%
29	West Karbi Anglong	10	10	100%	2022-23	79.3	27.19	34.29%
					2023-24	25.33	0	0.00%
		257	261			283838.15	96608.72	

Source: <https://wdcpmsy.dolr.gov.in/> (DoLR), 19/07/23

Table 9: Production System

SN	District Name	Total no. of Activities	Total no. of beneficiaries					Total no. of Work Created
			SC	ST	Other	Total	Women	
1	BAKSA	0	0	0	0	0	0	0
2	BARPETA	50	0	0	50	50	7	50
3	BONGAIGAON	40	9	2	29	40	25	37
4	CACHAR	0	0	0	0	0	0	0
5	CHARAIDEO	0	0	0	0	0	0	0
6	CHIRANG	74	0	42	32	74	23	74
7	DARRANG	405	0	1	404	405	18	243
8	DHEMAJI	0	0	0	0	0	0	0
9	DHUBRI	10	0	0	72	72	31	10
10	DIBRUGARH	0	0	0	0	0	0	0
11	DIMA HASAO	0	0	0	0	0	0	0
12	GOALPARA	0	0	0	0	0	0	0
13	GOLAGHAT	0	0	0	0	0	0	0
14	HAILAKANDI	0	0	0	0	0	0	0
15	HOJAI	0	0	0	0	0	0	0
16	JORHAT	0	0	0	0	0	0	0
17	KAMRUP	8	0	8	0	8	3	8
18	KAMRUP METRO	0	0	0	0	0	0	0

SN	District Name	Total no. of Activities	Total no. of beneficiaries					Total no. of Work Created
			SC	ST	Other	Total	Women	
19	KARBI ANGLONG	14	0	48	0	45	21	8
20	KOKRAJHAR	0	0	0	0	0	0	0
21	LAKHIMPUR	0	0	0	0	0	0	0
22	MAJULI	51	6	15	30	51	18	51
23	MARIGAON	0	0	0	0	0	0	0
24	NAGAON	0	0	0	0	0	0	0
25	NALBARI	25	13	1	11	25	7	25
26	SIVASAGAR	53	5	0	48	53	10	53
27	SONITPUR	0	0	0	0	0	0	0
28	TINSUKIA	0	0	0	0	0	0	0
29	UDALGURI	60	3	57	5	65	45	0
30	WEST KARBI ANGLONG	0	0	0	0	0	0	0
Grand Total		790	36	174	681	888	208	559

Source: <https://wdcpmksy.dolr.gov.in/>

- Out of 790 activities, 559 have been completed
- Out of 888 beneficiaries, 208 (23.4%) are women, 36 (4%) belong to SC and 174 (19.6%) belong to ST categories

Table 10: Works created for Production activities



Production Activities	Works Created
Agri-Horti Tools	0
Agro Forestry	243
Dairy	15
Duckery	8
Fisheries	19
Floriculture	45
Fruticulture	47
Goatery	53
Handicraft	1
Horticulture Plantation	20
Mushroom Cultivation	7
Piggery	8
Poultry	40
Vegetable Cultivation	46
Vermi-Composting	7
Total	559

Source: <https://wdcpmksy.dolr.gov.in/>

2.6. Activities undertaken by the MEL&D Team

- The MEL&D core team members have been onboarded and are in the process of recruiting district team members
- Since the signing of the contract, the MEL&D team members have had continuous deliberations with SLNA members through physical meetings and online discussions
- The Kick-off meeting and the District Consultation meeting at SLNA were helpful in understanding the requirements of the assignment

- The team members also undertook few District visits and site visits to understand the processes better. Moreover, communication with District Teams through emails/calls are being done to collect project information
- Secondary information analysis is being done from the project documents, existing reports and online reports
- Baseline Study design and drafting questionnaire with sampling frame has also been completed and is being shared with the IR for review and comments
- A proto-type on the MIS Dashboard and Mobile App with key features was shared in the kick-off meeting and also being shared through the IR
- A google form has been designed and will be shared with the District Teams to compile learnings and photographs of EPAs
- The Inception Report for the assignment has been prepared and is being shared with SLNA

2.7. Preliminary observation

Our initial understanding about the MIS in the present PMKSY 2.0 is that information is being generated periodically but managing it systematically has been a challenge. District prepares monthly reports and review meetings at DC level are undertaken; validated and approved reports are uploaded in the DoLR and CMs portal. District also prepares a QPR and shares with SLNA. There is a time-lapse in this process.

Moreover, as there are not many edit options in the DoLR site, so District people tend to delay the uploading process, so that they are sure of what they are entering. Targets specified in Annual Action Plans sometimes do not match in the portal data, as there are earlier back-logs that have been added. Uniformity of monitoring formats is also an issue.

A detailed discussion on current practices, challenges, expectations from the MEL&D team was held with all Districts. Refer workshop outputs (Annexure IV)

Figure 2: Stakeholder Consultation



3. Refining and Revising MEL&D Approach and Methodology



SN	Tasks	Methodology	Actions	Key Features	
1	Establishing a Monitoring System				
1.1	Institutionalising standardised uniform formats across all projects	Monthly Report	Collection, collation and comparison of various formats from Districts Discussions with District Counterparts	Comparing key indicators with the requisite ones Designing revised formats comprising key information based on time span (monthly / quarterly)	The formats to be linked with IT-enabled tools for easy uploading and sharing Easy selection of indicators for MPR and QPR
		Quarterly Report			
1.2	Project monitoring	Concurrent Monitoring	Strengthening the collection of field-level data for different indicators from micro watershed / project level	Generating State Monthly Process Monitoring Reports, timely with accurate District data and qualitative information. Key challenges will be featured in	Status of activities against plan Good practices at district level Capacity building Convergence
		Input-Output Monitoring	Strengthening the data collection and data management processes at various ends – District Watershed Development Officers, Watershed Committees	Generate the Annual Input-Output Report using OOMF - summarizing progress and performance of all projects and providing overall observation	Sectoral analysis Key improvements / changes achieved by the State Success stories; Thematic Studies

SN	Tasks	Methodology	Actions	Key Features	
		Pathway Analysis	Developing a system of data analysis with project outputs periodically with District counterparts	Experience-sharing workshop with District Counterparts to prepare six-monthly pathway analysis which will steer the project – specifying and analysing emerging aspects	Highlighting key contributing / facilitating factors and major impediments
1.3	Designing and developing an online MIS portal with data collection App	Online MIS Portal	Discussion with SLNA about the location of the portal, use, access and rights	A separate domain has been purchased for launching the portal. The current SLNA site is with the NIC and with limited rights and permissions.	State and District dashboards Easy access to data and information, analyses and reports All aspects of the project covered
		Mobile App	Detailed consultations with SLNA and District Counterparts on the process of using the App for data collection	MEL&D Coordinators (MELD) and Watershed Development Leader will collect the data and punch in real-time data in the App The compiled data will be presented to the Project Managers for validation and upload	MIS formats in-built in the app Easy-to-use Excel and PDF versions downloads Synced with online portal for seamless upload
1.4	Strengthening review and feedback mechanism	State and District Levels	MEL&D Coordinators to maintain strong and close coordination with District Watershed Development Officers, Watershed Committees and conduct regular site-visits Using the State / SLNA review meeting platforms	Quarterly Consultations with SLNA Monthly consultation between District Counterparts and MEL&D Coordinators Validation of data before uploading Periodic Field Visits to be conducted by senior MELD Team Members	Sharing of information through the portal Sharing of information at Gram Sabha meetings
2	Conducting Impact Evaluation				
2.1	Conducting Baseline Survey	Household Survey Village Survey	Intervention and Control	Quasi-experimental, difference-in-difference approach to be adopted. Using Purposive Sampling Designing Baseline Questionnaire for HH survey and Village Survey capturing key socio-economic and bio-physical indicators	Findings to help revision /formulation of Livelihood action plans Assist in future comparisons

SN	Tasks		Methodology	Actions	Key Features
2.2	Phase-wise Project Evaluations	Preparatory Phase Evaluation	Secondary research – DPRs, Reports, Project Documents Compilation and analysis Continuous interactions with SLNA and Districts Teams Mapping of information available to understand the gaps and requirements	Collection of information of each project – GIS images, Photographs (Before and Current) Physical and Financial Targets versus Achievement Watershed committee details Watershed development fund (WDF) details Awareness, Capacity Building activities CBO formation	Project Profile / Project Detailed Statement (PDS) of each project featured in the State Dashboard
2.3		Mid-term / ongoing Evaluation	Cross-learning approach to be adopted Designing a calendar for evaluation exercises along with team movement plan Using IT-enabled tools for data collection	Designing questionnaires for different respondents – District Project functionaries, WDC members, User Groups, SHGs Developing a mechanism to share findings and outcome with project participants	Key findings shared in MIS Portal List of actions taken Identification of good practices and success stories Beneficiaries impacted Audits Project objectives achieved
2.4		Completion of Works Evaluation	Analyses and presentation of findings Review and feedback	Review of findings for course correction	
2.5	Change detection and Impact Assessment through satellite imageries	Using satellite imageries to capture and detect change	Consultations with SLNA and District Counterparts Issuance of letter to procure maps	Procure Cartosat-1 2.5 m resolution for 25% of the project area (2021, if available with NRSC) Data collection related to hydrology, rainfall etc. from various departments Integrate data collected in GIS and prepare a preliminary report mentioning the pre-project status	Pre-project status
				Procure Cartosat-1 2.5 m resolution for 25% of the project area (2025) Generate GIS-based resource inventory (geo-tagging all the structures/works) Conduct change detection and impact evaluation study	Impact of various interventions during the period of 5 years will be evaluation assessing the change in Land Use & Land Cover, area brought under cultivation, vegetation cover, etc.

SN	Tasks	Methodology	Actions	Key Features	
2.6	Conducting Final Evaluation Survey	Household Survey	Using the RCEEIS+E ⁴ Framework and Experimental and Control design	The Baseline Survey Tool will be used with minor revisions and incorporations Evaluation will use a mixed method approach utilising both quantitative and qualitative as well as secondary and primary data to provide an integrated study. To validate findings, primary data will be collected in the form Household Survey, Key Informant Interview and Focus Group Discussions from the ward/village to State level.	Quantitative and Qualitative assessment of progress Impact assessment of project vis-à-vis End-of Project targets Experiment versus Control Socio-economic impacts of the project Sustainability Analysis of investments
3 Ascertaining a Learning and Dissemination Process					
3.1	Institutionalizing the process of Learning	Learning	Continuous interactions with SLNA and Districts Teams Preparation of dissemination plan Using the SLNA Review Meeting opportunities to share information and findings	Conducting sharing / reflection workshops annually with District Team Members Using the online portal as a knowledge management tool where reference materials will be regularly uploaded for State and District functionaries	Sharing of experiences – cross-learning, team-building aspects Using the online MIS portal as a knowledge Tool
3.2		Dissemination		Designing and developing project brochures and other documents to share project information Effectively using social media platforms (Facebook, Instagram, YouTube) to share learnings, events and stories	Up-to-dated documents Validated content and image sharing Regular uploads Review of comments
4 Instituting ongoing documentation process					
4.1	Ongoing documentation	Print	Identification of themes for documentation from various consultations and evaluation findings Collection, collation and analyses	Using IT-enabled tools to collect information from districts on identified themes. Designing formats to collect standardised information on good	Process documentation for peer learning and wider dissemination

⁴ RCEESI+E framework - Relevance, Coherence, Efficiency, Effectiveness, Sustainability, Impact, and Equity - OECD DAC Network on Development Evaluation (EvalNet)

SN	Tasks		Methodology	Actions	Key Features
			of project information Designing documentation framework	practices, case studies and success stories Detailing out a documentation calendar	
		Photos	Continuous capturing of relevant photographs with key information and locations	Pre and Post GPS / GIS enabled photographs to document changes	Photo gallery in the online portal will show changes in the topography as well as in the lives of the people
		Video	Shortlisting of successful processes from districts and selection of processes to be filmed	Video documentaries will present a state-picture, with information being collected from different districts Content development and story-board preparation Site-management during shooting and information collection process Monitoring of editing process.	Showcasing achievements of the state
		Digital	Creating content for social media	Creating FB posts, Instagram stories from site reports Brief site-level videos for YouTube Channel	Assigning a day for each district

3.1. Baseline Survey

The project is in its third year, but the Baseline Survey will be conducted to have a set of data that will be compared with the Final Evaluation data to measure change.

WDC-PMKSY 2.0 is operational in 28 districts of Assam, with 29 projects comprising 126 micro-watersheds.

Table 11: PMKSY 2.0 Project Spread

SN	District	Number of Projects	Number of Blocks	Number of Gram Panchayats / Village Councils	Number of Villages	Number of WSCs
1	Baksa	1	2	7	23	4
2	Barpeta	1	2	6	28	4
3	Bongaigaon	1	1	5	27	4
4	Cachar	1	3	8	30	4
5	Chirang	1	1	6	31	5
6	Darrang	1	3	7	34	5
7	Dhemaji	1	1	5	35	4
8	Dhubri	1	2	10	24	4
9	Dibrugarh	1	2	8	52	5
10	Dima Hasao	1	1	2	10	8
11	Goalpara	1	1	2	15	3
12	Golaghat	1	2	6	27	4
13	Hailakandi	1	2	7	21	4
14	Hojai	1	2	9	30	4
15	Jorhat	1	1	5	26	4
16	Kamrup	1	1	3	23	5
17	Karbi Anglong	2	7	10	33	8
18	Kokrajhar	1	1	8	26	4
19	Lakhimpur	1	1	4	32	4
20	Majuli	1	2	5	21	4
21	Morigaon	1	2	7	24	4
22	Nagaon	1	3	12	27	4
23	Nalbari	1	1	4	23	4
24	Sivsagar	1	2	7	30	5
25	Sonitpur	1	1	7	29	4
26	Tinsukia	1	1	4	53	5
27	Udalguri	1	2	9	31	5
28	West Karbi Anglong	1	1	1	13	4
	Total	29	51	174	778	126

Based on the State Cabinet decision on December 2022, the state is now divided into thirty-one (31) districts. It has five (5) divisions – North Assam, Upper Assam, Central Assam, Lower Assam

and Barak Valley.

The state has also been broadly divided into six agro-climatic zones (ACZ) on the basis of patterns of rainfall, terrain, soil type and climatic conditions. They are North Bank Plains Zone (NBPZ), Upper Brahmaputra Valley Zone (UBVZ), Central Brahmaputra Valley Zone (CBVZ), Lower Brahmaputra Valley Zone (LBVZ), Barak Valley Zone (BVZ) and Hills Zone (HZ).

Table 12: ACZs and Administrative divisions

Agro-Climatic Zones (ACZ)	Districts	Administrative Divisions	Districts	PMSKY 2.0 Districts
North Bank Plains Zone (NBPZ)	Darrang, Dhemaji, Lakhimpur, Sonitpur, Udalgiri,	North Assam	Darrang, Sonitpur, Udalguri	Darrang, Dhemaji, Lakhimpur, Sonitpur, Udalguri
Upper Brahmaputra Valley Zone (UBVZ)	Charaideo, Dibrugarh, Golaghat, Jorhat, Majuli, Sivsagar, Tinsukia	Upper Assam	Charaideo, Dhemaji, Dibrugarh, Golaghat, Jorhat, Lakhimpur, Majuli, Sivasagar, Tinsukia	Dibrugarh, Golaghat, Jorhat, Majuli, Sivsagar, Tinsukia
Central Brahmaputra Valley Zone (CBVZ)	Morigaon, Nagaon, Hojai	Central Assam	Dima Hasao, East Karbi Anglong, West Karbi Anglong, Morigaon, Nagaon	Morigaon, Nagaon,
Hills Zone (HZ)	East Karbi Anglong, West Karbi Anglong, Dima Hasao			Dima Haso, Hojai (Nagaon), East Karbi Anglong, West Karbi Anglong,
Lower Brahmaputra Valley Zone (LBVZ)	Baksa, Barpeta, Bongaigaon, Chirang, Dhubri, Goalpara, Kamrup (Metro), Kamrup (Rural), Kokrajhar, Nalbari, South Salmara-Mankachar	Lower Assam	Baksa, Barpeta, Bongaigaon, Chirang, Dhubri, Goalpara, Kamrup (Metro), Kamrup (Rural), Kokrajhar, Nalbari, South Salmara-Mankachar	Baksa, Barpeta, Bongaigaon, Chirang, Dhubri, Goalpara, Kamrup, Kokrajhar, Nalbari
Barak Valley Zone (BVZ)	Cachar, Karimganj, Hailakandi	Barak Valley	Cachar, Hailakandi, Karimganj	Cachar, Hailakandi
6 ACZ	32 Districts	5 Divisions	31 Districts	28 Districts

Study Design:

A **quasi-experimental, difference-in-difference approach will be adopted**. The difference-in-differences method helps compare the changes in outcomes over time between a population enrolled in a program (the treatment group) and a population that is not (the comparison group).

The quantitative data collection will establish empirical evidence between agro-climatic zones (ACZ) as well as between the intervention and the control area to understand the impact of intervention vis a vis non-intervention.

$$Y_R = (Y_t - Y_0) - (C_t - C_0)$$

where,

Y_R = the resultant change in the independent variable

Y_t = the independent variable in the intervention area in the end line

Y_0 = the independent variable in the intervention area in the baseline

C_t = the independent variable in the control area in the end line

C_0 = the independent variable in the control area in the baseline

The difference between $C_t - C_0$ might happen due to some trickle-down effect or some other changes due to demographic factors. This needs to be subtracted to understand the result due to intervention alone.

Determination of sample size

In the pre and post-assessment study the following formula is used for the sample size determination:

$$n = (Z_{\alpha/2} + Z_{\beta})^2 * (p_1(1-p_1) + p_2(1-p_2)) / (p_1 - p_2)^2,$$

where $Z_{\alpha/2}$ is the critical value of the Normal distribution at $\alpha/2$ (e.g., for a confidence level of 95%, α is 0.05 and the critical value is 1.96), Z_{β} is the critical value of the Normal distribution at β (e.g., for a power of 80%, β is 0.2 and the critical value is 0.84) and p_1 and p_2 are the expected sample proportions of the two groups, the baseline, and the end-line.

The project does not specify the expected change in any particular parameter; hence we consider a baseline value of 50% (usually considered in the absence of parametric values) and we expect a change to 60% for the indicator in consideration. The narrower the change more sample is required.

$$P_1 = 0.50$$

$$P_2 = 0.60$$

The required sample size is **197**.

Since sample distribution is not random, we consider a **design effect** of 1.77 (197 x 1.77) and the stipulated **sample size is 350** in each agro-climatic zone with a total intervention sample of (350 x 6) 2100 for the project area.

Sampling Intervention

Step 1: In each agro-climatic zone, **2 project districts** will be chosen randomly

Step 2: Within each district, **4 micro watersheds** will be selected.

Step 3: 2 villages from each micro watershed will be randomly selected. From each village 22 household interviews will be conducted

Step 4: The household samples will be distributed by the habitation marked by upper reach, middle reach, and lower reach within the village.

The Baseline Survey will primarily select two districts from each ACZ; hence the survey will be conducted in 12 districts (nearly 43% geographical coverage). Lower Brahmaputra Valley Zone (LBVZ) has a number of project districts, hence additionally 1 more district from this ACZ with an additional sample size of 175 will be taken up.

Hence the total sample size for Intervention areas will be 2100 + 175 = 2275 HHs from 13 districts covering 52 micro watersheds, 104 villages

Setting the Counterfactual or Control

The control area should be free from the influence of the intervention but need to have similar demographics in all respects to the intervention area. In this study, the control would also be divided into agro-climatic zones.

The study considers 100 samples per agro-climatic zones. Hence a **total of 600 samples will be considered per ACZ for control**.

Sampling Control

Step 1: Two far-off blocks where the intervention has not happened will be chosen from the district which has been selected for intervention or a district where no intervention has happened will be chosen.

Step 2: From within the district 2 blocks will be chosen

Step 3: From each block, 2 villages will be chosen

Step 4: From each village, 25 interviews will be conducted

Hence a total of 100 samples will be covered per ACZ for the control

3.1.1. Sampling

Based on random sampling, 13 districts were chosen and approval on the same was sought from SLNA.

Table 13: Sampled Districts

North Bank Plains Zone (NBPZ)	Upper Brahmaputra Valley Zone (UBVZ)	Central Brahmaputra Valley Zone (CBVZ)	Hills Zone (HZ)	Lower Brahmaputra Valley Zone (LBVZ)	Barak Valley Zone (BVZ)
Darrang	Dibrugarh	Hojai	Dima Hasao	Baksa	Cachar
Dhemaji	Golaghat	Morigaon	East Karbi Anglong	Barpeta	Hailakandi
Lakhimpur	Jorhat	Nagaon	West Karbi Anglong	Bongaigaon	
Sonitpur	Majuli			Chirang	
Udalgirl	Sivsagar			Dhubri	
	Tinsukia			Goalpara	
				Kamrup (Rural)	
				Kokrajhar	
				Nalbari	

Table 14: Baseline Survey: Snapshot

	Intervention	Control
Villages	104	24
Districts	13	12
Sample	13 districts x 175 Households = 2275	12 districts x 50 Households = 600
	Around 22 HHs each from 104 villages	Around 25 HHs each from 24 villages
Micro Watersheds	54	None

Table 15: Survey Details

SN	Project Name	Block Name	Gram Panchayat/Village Council	Village Name	MWC
1	BARPETA-WDC - 1 /2021-22	BARPETA	RADHAKUCHI	Panichilla	Radhakuchi MWC
2	BARPETA-WDC - 1 /2021-22	BARPETA	RADHAKUCHI	Radhakuchi	Radhakuchi MWC
3	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Bara	Sitolijan MWC
4	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Barbila	Sitolijan MWC
5	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Bar Suha (Barsoha)	Batikuriha MWC
6	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	BARBILA	Kaljahi	Batikuriha MWC

SN	Project Name	Block Name	Gram Panchayat/Village Council	Village Name	MWC
7	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	GUMA	Balapara	Guma MWC
8	BARPETA-WDC - 1 /2021-22	GOMAPHULBARI	GUMA	Guma (Goma)	Guma MWC
9	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KRISHNAPUR BHAIKABNAGAR	Bhairab Nagar	Krishnapur MWC
10	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KRISHNAPUR BHAIKABNAGAR	Krishna Pur	Krishnapur MWC
11	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KUMARPARA NIZ-JOYNAGAR	Balighat	Niz Joynagar MWC
12	CACHAR-WDC - 1 /2021-22	SALCHAPRA	KUMARPARA NIZ-JOYNAGAR	Kumarpara	Niz Joynagar MWC
13	CACHAR-WDC - 1 /2021-22	SALCHAPRA	RAJNAGAR	Manikpur	Patherigram MWC
14	CACHAR-WDC - 1 /2021-22	SALCHAPRA	RAJNAGAR	Nischintapur	Patherigram MWC
15	CACHAR-WDC - 1 /2021-22	SALCHAPRA	SALCHAPRA	Salchapra Pt I	Salchapra MWC
16	CACHAR-WDC - 1 /2021-22	SALCHAPRA	SALCHAPRA	Sridharpur	Salchapra MWC
17	DARRANG-WDC - 1 /2021-22	BECHIMARI	CHAKARABAS TI	Baruapara	Baruapara MWS
18	DARRANG-WDC - 1 /2021-22	BECHIMARI	CHAKARABAS TI	Borgora Bagicha	Baruapara MWS
19	DARRANG-WDC - 1 /2021-22	BECHIMARI	DALGAON	Chakaragaon	Dalgaon MWS
20	DARRANG-WDC - 1 /2021-22	BECHIMARI	DALGAON	Dalgaon Town	Dalgaon MWS
21	DARRANG-WDC - 1 /2021-22	BECHIMARI	LALPOOL	Madhupur	Chikanmati MWS
22	DARRANG-WDC - 1 /2021-22	BECHIMARI	LALPOOL	Nadirkash	Chikanmati MWS
23	DARRANG-WDC - 1 /2021-22	DALGAON-SIALMARI	BIHUDIA	Alikhash	Bihdia MWS
24	DARRANG-WDC - 1 /2021-22	DALGAON-SIALMARI	BIHUDIA	Bihdia	Bihdia MWS
25	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	KONWORIGAN	Betoni No.1	Betoni
26	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	KONWORIGAN	Betoni No.2	Betoni
27	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Bortani No.1	Sishumora
28	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Bortani No.2	Sishumora
29	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Simaluguri	Mahmora

SN	Project Name	Block Name	Gram Panchayat/Village Council	Village Name	MWC
30	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	MOHMORA BORPATHER	Thulaichuk	Mahmora
31	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	TINGKHONG	Latomoni	Raidangia
32	DIBRUGARH-WDC - 1 /2021-22	TINGKHONG	TINGKHONG	Purani Sripuria	Raidangia
33	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Boro Mulko	Boro Muolko MWC
34	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Choto Mulko	Choto Muolko MWC
35	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Jatinga Lampu	Miyungkro MWC
36	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Kapurchera	Mailongdisa MWC
37	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Mailongdisa Rly. Station	Mailongdisa MWC
38	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Harangajao Autonomous Council Constituency	Miyungkro	Miyungkro MWC
39	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Jatinga Autonomous Council Constituency	Jatinga Khasia	Jatinga MWC
40	DIMA HASAO-WDC - 1 /2021-22	HARANGAJAO	Jatinga Autonomous Council Constituency	Retzol	Retzol MWC
41	DHUBRI-WDC - 1 /2021-22	GAURIPUR	DHARMASALA	Kachuar Khas Pt.I	Borbila MWC
42	DHUBRI-WDC - 1 /2021-22	GAURIPUR	DHARMASALA	Kachuar Khas Pt.II	Borbila MWC
43	DHUBRI-WDC - 1 /2021-22	GAURIPUR	JHAGRARPAR	Jhagra Pt.I	Jhagra MWC
44	DHUBRI-WDC - 1 /2021-22	GAURIPUR	JHAGRARPAR	Jhagra Pt.II	Jhagra MWC
45	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOUL MARI TIYAMARI	Madhusoulmari Pt. I	Dumardaha MWC
46	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOUL MARI TIYAMARI	Rowah Pt.I	Rowah MWC

SN	Project Name	Block Name	Gram Panchayat/Village Council	Village Name	MWC
47	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOUL MARI TIYAMARI	Rowah Pt.III	Rowah MWC
48	DHUBRI-WDC - 1 /2021-22	GAURIPUR	MADHUSOUL MARI TIYAMARI	Tiamari Pt.II	Dumardaha MWC
49	JORHAT-WDC - 1 /2021-22	TITABOR	BORHOLLA	Borholla Grant	Borholla
50	JORHAT-WDC - 1 /2021-22	TITABOR	BORHOLLA	Orangial Gaon	Borholla
51	JORHAT-WDC - 1 /2021-22	TITABOR	EKORANI	Bosa Gaon	Bosa
52	JORHAT-WDC - 1 /2021-22	TITABOR	EKORANI	Ikarani Gaon	Bosa
53	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Abhaypuria	Rajabahar
54	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Gohain Gaon	Rajabahar
55	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Rajabari	Rajabari
56	JORHAT-WDC - 1 /2021-22	TITABOR	RAJABAHAR	Sonowal Kachari	Rajabari
57	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	BASHBARI	Chandipur Grant	Chandipur MWS
58	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	CHANDIPUR	Chandipur Pt II	Bhatirkupa MWS
59	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	CHANDIPUR	Chandipur Pt III	Bhatirkupa MWS
60	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	PANCHGRAM	Badarpur Grant	Dakhin Badarpur MWS
61	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	PANCHGRAM	Dakhin Badarpur	Dakhin Badarpur MWS
62	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	PANCHGRAM	Thandapur	Chandipur MWS
63	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	UTTAR KANCHANPUR	Dholidahar	Dholidhar MWS
64	HAILAKANDI-WDC - 1 /2021-22	ALGAPUR	UTTAR KANCHANPUR	Dholidahar Grant	Dholidhar MWS
65	MORIGAON-WDC - 1 /2021-22	BHURBANDHA	AZARBARI	Ajarbari	Ajarbari MWC
66	MORIGAON-WDC - 1 /2021-22	BHURBANDHA	AZARBARI	Karaibari	Ajarbari MWC
67	MORIGAON-WDC - 1 /2021-22	MAYANG	GHAGUA	Ghagua Pahar	Silsaku MWC
68	MORIGAON-WDC - 1 /2021-22	MAYANG	GHAGUA	Morigaon	Silsaku MWC
69	MORIGAON-WDC - 1 /2021-22	MAYANG	JAGIBHAKAT GAON	Bhakatgaon	Kumoi MWC
70	MORIGAON-WDC - 1 /2021-22	MAYANG	JAGIBHAKAT GAON	Chatabori	Khola MWC

SN	Project Name	Block Name	Gram Panchayat/Village Council	Village Name	MWC
71	MORIGAON-WDC - 1 /2021-22	MAYANG	JAGIBHAKAT GAON	Dayangial Gaon	Kumoi MWC
72	MORIGAON-WDC - 1 /2021-22	MAYANG	JAGIBHAKAT GAON	Dimoruguri	Khola MWC
73	NAGAON-WDC - 1 /2021-22	DOLONGGHAT	MAJ JAJORI	Majgaon	Majgaon MWC
74	NAGAON-WDC - 1 /2021-22	DOLONGGHAT	MAJ JAJORI	Maj Jajari	Majgaon MWC
75	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	BORBHETI	Barbheti	Simaluguri MWC
76	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	BORBHETI	Kawaimari	Simaluguri MWC
77	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Auguri	Auguri MWC
78	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Bamun Gaon	Takawbari MWC
79	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Mahe Khosha	Auguri MWC
80	NAGAON-WDC - 1 /2021-22	KHAGARIJAN	KUCHAMARI	Takowbari	Takawbari MWC
81	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	BALITARA	Balitara No.1.	Balitara MWC
82	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	BALITARA	Balitara No.2	Balitara MWC
83	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	CHATAIBARI	Mayusiral	Velamari MWC
84	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	CHATAIBARI	Mohina	Velamari MWC
85	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Bar Bistupur	Keherua MWC
86	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Barghopa	Keherua MWC
87	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Dihjari	Nilpur MWC
88	NALBARI-WDC - 1 /2021-22	BARIGOG BANBHAG	DIHJARI	Ghohkuchi Gathiakuchi	Nilpur MWC
89	UDALGURI-WDC - 1 /2021-22	ODALGURI	Ambagaon	Bicharchuburi	Bisar Chuburi
90	UDALGURI-WDC - 1 /2021-22	ODALGURI	Ambagaon	Khash Raonagarh	Bisar Chuburi
91	UDALGURI-WDC - 1 /2021-22	ODALGURI	Bangaon	Chaibari	Pachim-Phutkibari
92	UDALGURI-WDC - 1 /2021-22	ODALGURI	Bangaon	Gerua	Pachim-Phutkibari
93	UDALGURI-WDC - 1 /2021-22	ODALGURI	Harisinga	Baniapara	Kathalguri
94	UDALGURI-WDC - 1 /2021-22	ODALGURI	Harisinga	Niz Harisinga	Kathalguri
95	UDALGURI-WDC - 1 /2021-22	ODALGURI	Sastrapara	Bhura Chuburi	Khokhagaon

SN	Project Name	Block Name	Gram Panchayat/Village Council	Village Name	MWC
96	UDALGURI-WDC - 1 /2021-22	ODALGURI	Sastrapara	Chamtabari	Khokhagaon
97	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Chongkhili	Motha
98	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Langlongpak	Prisek
99	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Langsomepi	Langsomepi
100	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Mutha	Motha
101	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Prisek	Prisek
102	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Rongjangphong (Langsomepi)	Langsomepi
103	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Taseng	Thatskai
104	WEST KARBI ANGLONG-WDC - 1 /2021-22	SOCHENG	Amreng	Thatskai	Thatskai

3.1.2. Information Coverage

3.1.2.1. Household Survey

- **Background Information of the Head of the Household** - Gender, Age, Educational Qualification, Family size, School-going children etc.
- **Landholding** - Owned land, Leased-In land, Leased out land Homestead land, Cultivable land by season, Irrigated land
- **Irrigation** - Irrigated Area, source, Access to several sources, if seasonal or perennial source
- **Drinking water:** Access to drinking water, sources available, distance from the sources and time taken to fetch water
- **Income from**
 - **Agriculture** -Type of Crops grown, area cropped under different crops, Average yield/ha, Total revenue, Total cost involved and Total Income
 - **Orchard, Plantation Crops, Agro-Forestry** -Number and Type of Trees, Area covered, the year started, outputs, Total Revenue, Total cost, Total Income
 - **Livestock**- Numbers owned, Revenue earned by selling animals and animal products, total revenue, Total cost, and Total Income
 - **Fishery**-Type of Fishing, Yield, Annual Return, Cost, Total Income
 - **Non-Timber Forest Produce (NTFP)**-Type of NTFP, Quantity Collected, Quantity sold, Income from NTFP
 - **Income from Remittances**
- **Expenditure** - Monthly Household Expenditure, Annual Expenditure

- **Assets Owned - Durable**
- **Sanitation** - Access to Toilets and Use
- **Fuel Used** - Type, Distance travelled to collect fuel etc.
- **Government Entitlements** - BPL, Ration card, **MGNREGA**
- **Savings & Credit** - Amount Saved, where saved, rate of interest, Amount borrowed, at what rate of interest
- **Social Capital** - SHG, User Group, FPOs, any other
- **Access to services**
 - Agricultural Extension services
 - Veterinary Services – health camps, AI Services
 - Credit
 - Education
 - Health
 - Farm Inputs- HYV seeds, Fertilizers, Pesticides, Weedicides
 - Market for outputs -Crops, Orchards Livestock, Fishery, NTFP
 - Mobile connectivity
 - ATM /Banking
 - Workshop for Machinery /Vehicles
- **Self Sufficiency** -Food, Fodder, Fuel Drinking water Employment
- **Health Condition:** General Health condition of the household, Improvement in Nutrition intake of the Household
- **Food security**
(Refer Annexure V)

3.1.2.2. Village & Micro Watershed

- **Background Information about the village** – Village Details -District, GP, Village, Micro Watershed
- **Area & Population Details** –
 - **Area of the village and the area by land classifications** – Forest, Area under Nonagricultural land, Barren and Un-cultivable Land, Permanent pastures and other grazing land, Land under Miscellaneous Tree Crops, Culturable Waste Land, Fallow Lands other than Current Fallows and Net Area Sown
 - **Water Bodies** -Total Number of water bodies, Area under water bodies (in Ha).
 - **Total Population** -by religion, caste, and gender, Total number of children, Total No. of Landless Households, (Households without Farm Land), No. of Women-headed Households, No. of Households with BPL Cards, and Main Avenues of Employment, number of persons migrated (out-migration in last 5 years)- permanently and seasonally
- **Provision of amenities** -electricity supply, Access to Drinking water (tube wells & Piped water, Nos. of Households Connected, Black-topped Access Road, if the village is connected by metaled road,
- **Education**
 - Anganwadi Centre (AWC) - number of Kendra
 - Primary Schools: If no, distance to nearest Lower Primary School km, (e)
 - Secondary Schools
 - Higher Secondary School
 - College

- **Health:** Number of Sub centres, PHCs, CHCs-30 bedded (within or outside -if outside the distance), distance of the district hospital from the village –
- **Nearest rail station**
- **Nearest state highways, national Highway, Nearest Motorable road**
- **Post office**
- **Bank**
- **Veterinary Centers**
- **Agricultural extension Offices**
- Main Sources of **Drinking Water**
- Main Sources of **Fuel for Cooking**
- Main Sources of **Fodder for Cattle**
- **Common property resources** - Details of Common Property Resources - Grazing Reserve /Ground, Water bodies, Forest (source of NTFP) and Other- Nature of Right of these properties, Months Used in the year, Nos. of HH Benefitted and User Charges (if any)
- **Soil, water & vegetation related**
 - Depth of Water Table (meters below ground level), summer months, monsoon months and winter months
 - Type of soil erosion- Water Erosion; Wind erosion; Rill erosion and; 4) Gully erosion –
 - Details of Areas under Forest / Groves in the Village (in Ha, Type of Forest / Grove etc.
 - Average Annual Rainfall (in mm) Any Change in Rainfall Pattern in the last 3-5 years
 - Floods: YES/NO. If 'Yes' Duration — Frequency per year and Extent of Damage
 - Period of shortage of Water, if any
 - Reasons for Crop Failure if any
 - Soil Organic Carbon
 - Water Availability in the Streams — (i) Perennial (ii) Seasonal - Up to which Month
 - Any other point about Soil & Water Resources
- **Village Level Institutions (Non-political | Non-religious) - CBO** - Details of Village Level Institutions (excludes Political & Religious Institutions), Name of Institution, Year of Formation, No. of Members | Main Activities
- **Details of Government Schemes** - Details of Government Schemes implemented/ongoing in the village (Last FY year) - Name of Scheme, Department and Nos. of HH Benefitted
- **Participation in Community Programmes** - Knowledge, capacity to execute works, capacity for decision making
- **Employment opportunities** - Employment opportunities, wage rates, Reduction in migration Opportunities for women and vulnerable groups
- **Involvement and Participation in the project** - Planning, implementation, and Monitoring. Upkeep of community works/assets
- **Involvement and Participation of the community in decision-making at the local government level**
(Refer Annexure VI)

3.1.2.3. Bio Physical in the Micro Shed

- **Soil** - soil loss, run-off, silt deposition, nutrient loss, soil physical and chemical properties
- **Surface Water** - Water resources, flow pattern in local streams, sedimentation, flood/drought mitigation, number of water harvesting and irrigation structures created, water storage capacity, water availability and utilization for drinking, domestic, irrigation and livestock purposes, water quality

- **Groundwater** – Ground water table, water availability and utilization for drinking, domestic, irrigation and livestock purposes, water quality etc.
- **Land** - Change in land use/ land cover pattern, slope reduction, runoff reduction, stabilization of mass eroded areas, landslide area treated, vulnerability
- **Common Property Resources/pasture lands** - Fodder development / silvi-pasture
- **Agriculture** - productivity, cropping intensity, cropped area, the new package of practices, Adoption of soil and moisture conservation measures and
- **Agricultural Diversification** - cropping pattern and diversification cropping pattern, shift to commercial, food, fodder crops, shift to agro-horticulture, agroforestry, Shift from mono-cropping to intercropping/mixed cropping
- **Horticulture** - productivity, diversification etc.
- **Livestock** - number, composition, productivity, health, improved cattle breeds, buffaloes, milk production/daily activities, and animal disease outbreaks number of households having cattle shed / sheep shed, Self-sufficiency in fuel wood and fodder
- **Fishery** - number, productivity
- **Non-arable land** - forests, pastures, plantation crops etc. (e.g., productivity, carrying capacity, vegetation biodiversity etc.), the extent of reduction in wastelands / degraded lands, the extent of increase in forest cover/plantations / silvi-pasture, Improvement in bio-diversity / canopy cover and Area of fallow lands brought under cultivation.
- **Environmental aspects** - Hazardous industrial activity (including mining), Rare/endemic/endangered species of flora and fauna, Indigenous knowledge, artefacts, traditional values, indigenous people, Wildlife sanctuary, and National Park cultural heritage / archaeologically important sites.
- **Bio-diversity** - non-browsable tree species (such as Sheesham, Pine, Sandalwood, and Teak Planting of minor, traditional fruit, and medicinal, silvi-pastoral systems, Rejuvenation of local species of trees.
- **Sustainability** - e.g., vegetative cover, forest dependency, drought tolerance etc.)

3.1.2.4. *Spring Sheds*

- Availability of springs and list
- Household dependency on Springs – purpose
- Recharge area information
- Maintenance and protection of Springs
- Aquifer recharge / divert excess run-off
- Measures to prevent negative impacts
- Community participation in effective water management
- Livelihood activities around springs
- User group activities

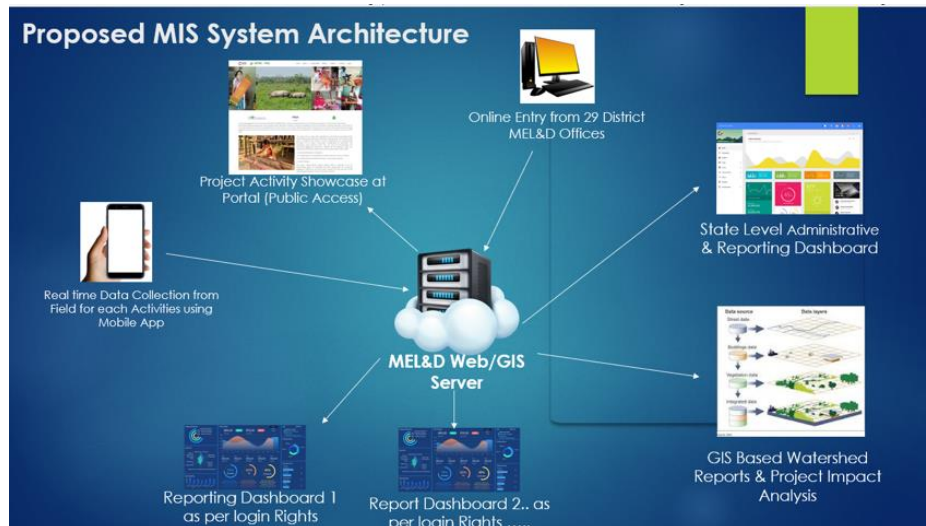
3.2. *Online MIS Portal and Mobile App*

Our IT Team is developing a cloud-based application which will capture real-time data from field covering all project related information, survey questionnaires, reports, files and sheets uploads, field activities image bank, video uploads etc. It will cover components like EPA, NRM, Production System, Livelihood activities, micro watershed level activities, skill trainings, SHG / CBO formation etc. This IT enabled system will capture information of all the activities under this project.

We are also developing a Reporting Framework where all the records will be populated real time. The Dashboard will display various queries performed on database tables. It will serve as a Decision Support System (DSS) Platform for Management.

The **online MIS portal** is a comprehensive Web/App based MIS Application with key features like:

Figure 3: System Architecture



1. Realtime Data Collection through Web and Mobile App based environment
2. Activity Monitoring and Reporting
3. State and District Dashboards for wider dissemination
4. Analytical Project Report generation from uploaded data
5. Pre and post analysis and charting
6. Developing Databank / Repository for Project activity images, videos, documents files etc.
7. Display of GIS Maps for comparative analysis (before-after)
8. Tracking changes through satellite imageries; evaluation results
9. Showcasing Project activities on MELD Portal
10. Tracking social media outreach

State-level Administrative

Dashboard: The Dashboard will showcase each and every activity of the project, for SLNA. It will display a comprehensive picture of the state’s performance and also have the option of viewing each district’s progress. Activities, Survey Results, Images, Documentations will also be categorized by districts and components. Social media outreach will also feature

in the dashboard; physical and financial progress by components and districts along with beneficiaries impacted can be viewed. Reports and studies can be downloaded along with formats and frameworks. The state level portal will also serve as a knowledge Tool, wherein up-to dated reference materials will be available for State and District staff members.

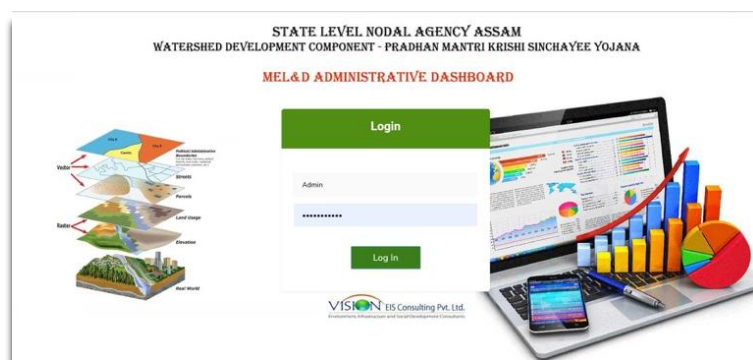
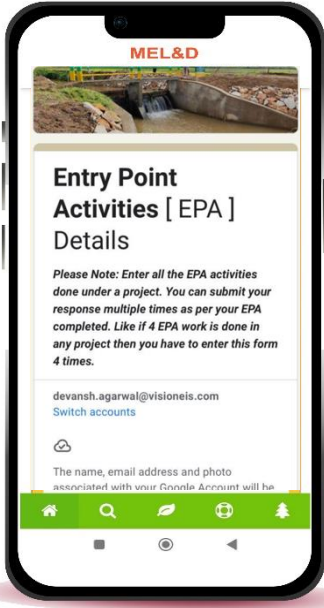


Figure 4: State Portal Login

District Level Performance Dashboard: Each district will be able to view their progress and performance in their dashboard. Activities, Survey Results, Images, Documentations categorized by components will be featured-in.

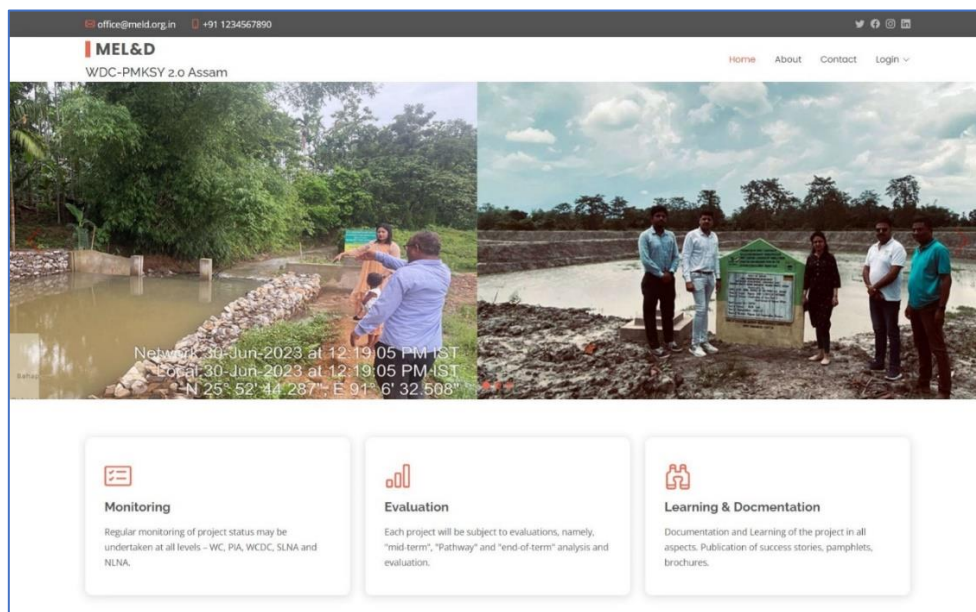
Mobile Application:

	<p>App for Data Collection: The MIS system will also integrate a Mobile App for on-going data collection and conducting project surveys (works phase and after completion). The WTD Leader and the MEL&D Coordinator will enter data directly from the field through Mobile App, with Images etc. The data captured will be saved on the server, which can be accessed from the Dashboard. The App will also capture GIS Lat long automatically. The advantages are as follows:</p> <ul style="list-style-type: none"> • All information collected are real-time with GPS features • Report are downloadable; hence Project Managers at the district level will validate them monthly and that excel sheet can be used for uploading information in the CM's and DoLR portals <p>Moreover, tracking of issues faced by field team can be done easily.</p> <p>Geo-tagged images directly from the field will be captured and stored for future comparisons. All images will have time-stamp, project locations and details to ease monitoring and search.</p>
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MEL&D Web Portal: To showcase the activities of the project MELD team will develop a web portal which will be available in the public domain URL – <https://meld.org.in/>

The website will showcase the activities being carried out, Success Stories, Social and Livelihood activities, etc. For the easy access of information public reports will be available on the portal. Login links will also be available for various stakeholders for data entry and reporting. The portal will also contain the Learning and documentation contents like Training Videos, Public Reports, GIS location of MWS Structures etc.

Figure 5: MEL&D Web Portal



3.3. Project Evaluations

The following table attempts to explain the processes that would be followed to conduct phase-wise project evaluations:

Table 16: Project Evaluation Framework

	Preparatory Phase Evaluation	Works Phase Evaluation	Completed works Evaluation
Methodology	Secondary Literature Review and Data compilation	Questionnaire-based surveys conducted through Mobile Apps Designing the survey questionnaire for the App Formation of Survey Teams: District team members of one district to visit another nearby district and collect Mapping and formation of survey teams and planning their itineraries and scope of work information; Analysis of findings; Sharing / Reflection workshop Analysis of MIS data	
Features	DPRs, AAPs, Physical and Financial Targets and Achievements, GIS maps prior to works (if available), Photographs (before and current) Current status – WCs UGs; PWDP outputs; workplans	<ul style="list-style-type: none"> • Ecosystem regeneration and production enhancement • Natural resource governance • Services and livelihoods FPO Membership Compliances of WCs Sectoral upliftment	Capacity building of FPOs Auditing natural resources Use of WDF Income generating activities of CBOs CPR development
Time-span	Within first three months; along with Annual Report (2022-23)	Preparation of a list of projects based on the project dates progress and end dates and prepare a calendar for conducting the evaluations. Subsequent Annual Reports (2023-24) onwards will feature the results of these evaluations	

3.4. Change detection through Satellite Imageries

Integrating Geographic Information Systems (GIS) and other Remote Sensing (RS) techniques with watershed management supports informed decision-making for sustainable watershed management; with its ability to provide temporal and spatially explicit information, remote sensing can facilitate pre and post monitoring of changes over time by integrating real-time data from remote sensing, weather stations, and various other sources, and assists in the implementation of sustainable management practices.

The activities need to be performed in order to fulfil the needs from GIS/RS perspective under WDC-PMKSY 2.0, Assam are as follows:

1. LULC pre and post project and its analysis in respect of changes, to monitor the temporal dynamics of agricultural ecosystems, forest conversions, surface waterbodies, etc.
2. NDVI and NDWI of pre and post project over same time period which will help in understanding the vegetation coverage with its vigour in the project area
3. DEM data of sampled project area (25%) which will provide elevation of the topography of the project area, stream network with order, topography, slope, aspect, flow direction and flow accumulation map.

To achieve the aforementioned requirements, we need to procure stereo-pair multispectral satellite imageries. As per the contract, SLNA directed to procure the satellite imageries from Indian satellite 'Cartosat-1' but while exploring the specifications and availability of Cartosat-1 satellite imageries, MEL&D found that Cartosat-1 can only provide single band imageries with which we cannot perform NDVI, NDWI and various other analysis. Also, Cartosat-1 had stopped capturing data after 2019.

Proposed methodology for selection of 25% project area

The state has been broadly divided into six agro-climatic zones (ACZ) on the basis of patterns of rainfall, terrain, soil type and climatic conditions. The ACZ wise districts selected for the impact evaluation study and their respective areas are mentioned in the table below:

Note: The total area of all the 29 projects is 1,924.10 sq. km (25% will be 481.02 sq. km)

Table 17: Selection of 25% project area for GIS based impact evaluation

S. No	Agro-Climatic Zones (ACZ)	Selected districts	Area (sq. km) *
1	North Bank Plains Zone (NBPZ)	Sonitpur	64.4
2	Upper Brahmaputra Valley Zone (UBVZ)	Tinsukia*	139.92
3	Central Brahmaputra Valley Zone (CBVZ)	Hojai	121.04
4	Hills Zone (HZ)	Dima Hasao	62.3
5	Lower Brahmaputra Valley Zone (LBVZ)	Baksa, Nalbari, Kokrajhar and Chirrang	235.92
6	Barak Valley Zone (BVZ)	Cachar and Hailakandi	93.26
Total Area			716.84

*Only one MSW is selected from Tinsukia district. Rest in all other mentioned districts, all the MWSs are chosen for our study

The MEL&D team is in the process of exploring viable options based on the specifications and we will discuss the same with SLNA at the earliest possible.

The Remote Sensing and satellite data will be integrated into GIS for proper handling, processing, projection and interpretation of data. The dimensions and coverage of all the above-mentioned criteria's will be calculated and thematic maps will be prepared. The data will also be converted from attributes to Excel format for proper documentation and easy accessibility.

The above-mentioned processes will be conducted in two stages: Pre-Project and Post-Project which will help in comparing and analysing the pre-project conditions and the alterations that might arise after the completion of the project using change detection techniques and supports informed decision-making and facilitates effective communication among stakeholders involved in watershed management.

3.5. Documentation, Learning and Dissemination

One of the core activities envisaged for this assignment is systematic Process Documentation. Standard Templates, discussion guidelines, structured questionnaires, listing tables will be designed and developed to gear-up the process of documentation.

The assignment expects documentation pieces like:

- Project information Documents like Brochures, Pamphlets
- Thematic Studies
- Good practices / Case Studies / Success Stories
- Content development for social media posts

Alongside, Report preparation being a full-time activity –

- Inception Report
- Synthesized Process Monitoring Monthly Report
- Annual Reports and Pathway Analyses

- Baseline Report, Phase-wise Evaluation Reports and Final Evaluation Report

Frameworks and formats will be designed that would enable smooth, standardized information gathering across all districts.

IT based tools like Google forms etc will be used to collect qualitative information from all districts on an identified topic. For instance, one form has been circulated to collect information on EPA across districts.

Documentation (FY 2021-22 and 2022-23) - An additional requirement was placed from SLNA which was not mentioned in the ToR to prepare QPRs and Annual Reports of the two earlier FYs.

- Funds for PMKSY 2.0 was released in February 2022, hence few activities were undertaken in that financial year (2021-22); matching state share, PRA rounds for DPR preparation and some institutional capacity building activities were conducted. A brief QPR-cum-Annual Report (5 pages) will be prepared and shared with SLNA
- For FY 2022-23 – Four QPRs and one Annual Report will be prepared and shared with SLNA. Additionally, the preparatory phase evaluation of PMKSY 2.0 will be shared with this AR.

Thematic Studies - The requirement for thematic studies is based on projects, but we shall identify and select relevant themes and cover all projects so that a comprehensive state-level documentation is prepared. This will be shared with the Annual Reports.

We shall also try to integrate **video documentation** with the thematic studies. Moreover, since the SLNA has procured a drone. Some good practices of districts can be shot through the device for wider dissemination. The videos will be uploaded in the SLNA's YouTube channel.

Learning will be a focus area for the MEL&D Team – various learning modes will be explored and institutionalized to enable SLNA to evolve as a learning organization. The processes of interpreting, analyzing data and information and using it for next phase program conceptualization and policy notes is a key output of learning. Also using learnings from project activities of one phase to another is also crucial.

A **dissemination** plan will be made to share project information (brochures, leaflets), knowledge products (key study findings, case studies) and others with different stakeholders at the national, state and district levels. The dashboard portal will be the key mode for dissemination. Few key materials will also be printed and distributed. The video documentaries will be uploaded in SLNA's YouTube channel for wider sharing. SLNA will use social media handles like Facebook, Instagram, Twitter to disseminate project information. WhatsApp group with district counterparts would be an easy way of sharing site-visit information and pictures.

Each district will be assigned one particular day of the month (every month) to post in Facebook and Instagram. In that way the whole month would be covered. Social media outreach will be tracked and reported.

3.6. Implementation road-map and work-plan

Monthly review meetings – the MEL&D Coordinator will have monthly meetings with WDC members, while compiling the District Monthly Reports. Moreover, online meetings with District counterparts related to monitoring, site-visits will be regularly held.

Quarterly Review Meetings will be organised by MEL&D Team with SLNA at the state level to discuss about project challenges, achievements and revisions (if required). Review of M&E observation, findings, project compliances for improved decision-making will be the main purpose.

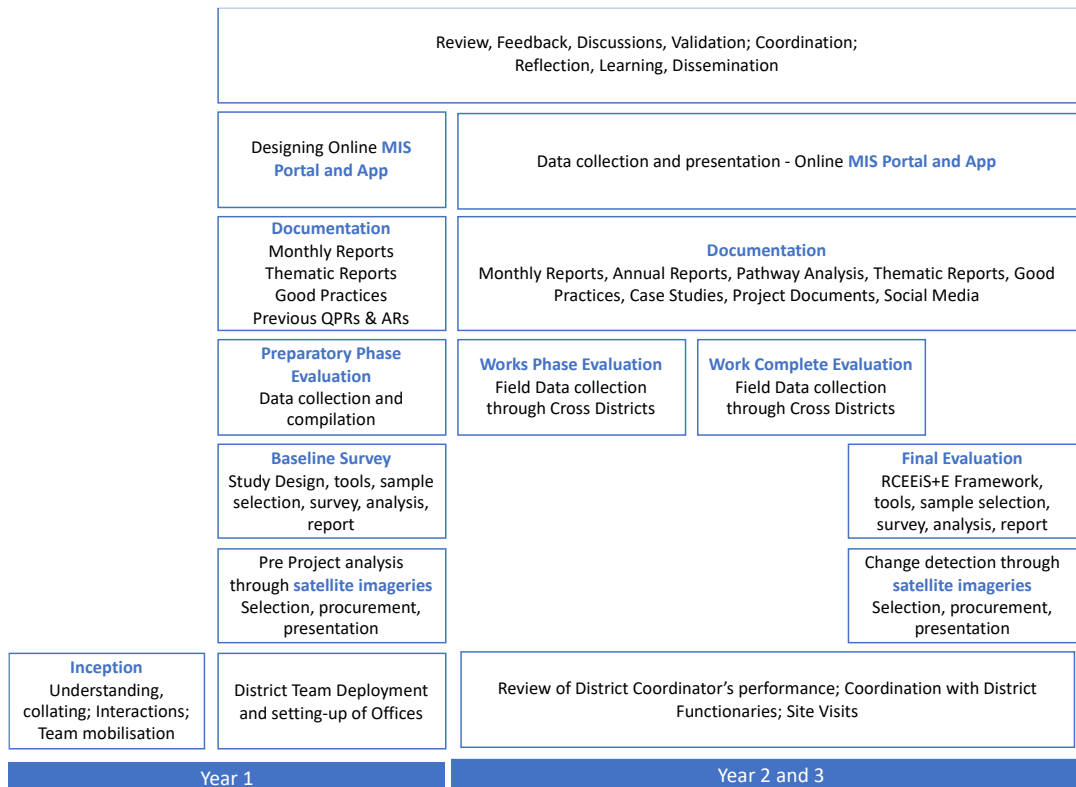
Experience-sharing workshops with evaluation teams (district level) will be held to understand the observation they had while they visited other districts. The participants will reflect on key

lessons learned, good practices they have observed and provide suggestions on some of the hurdles they have come across. These reflection exercises would help SLNA gather the nuances of a large program like this and also help to decide on the aspects that needs documentation in terms of print and electronic.

An output of the workshop will be to formulate the **Pathway analysis** through consultation with districts, which would help both the state and district teams to gain an insight into the bigger program.

The MEL&D will assist SLNA to establish and strengthen **convergence** with other projects and departments in Assam at the State and district level.

Figure 6: Implementation Framework



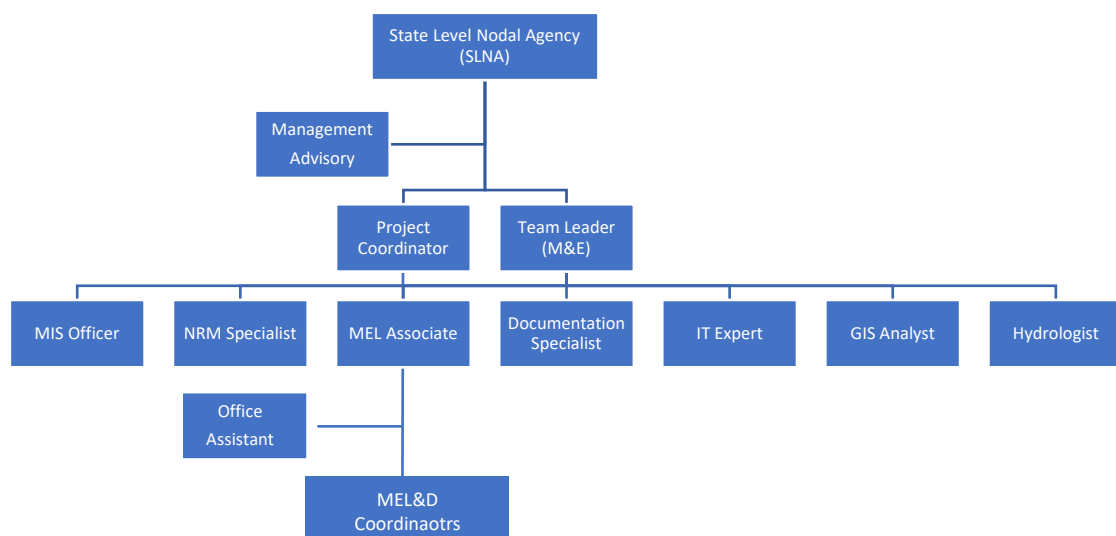
4. Field Organization, Coordination and Data management

4.1. Recruitment, Training, Office set-up

MEL&D assignment aims to provide quantitative and qualitative inputs to SLNA to measure program efficacy covering all key components being implemented under the project and also suggest actions to build an efficient monitoring system. MEL&D will also focus on documenting key learnings and undertaking process monitoring.

In view of the above, MEL&D has onboarded senior professionals including a Team Leader with over 25 Years of experience in the Development Sector with specific experience of planning and managing monitoring and evaluation assignments. The project team is further supported by the head office support for various domain, management and logistic activities.

Figure 7: Organisational Structure of MEL&D team



Further, MEL&D has also to deploy suitable resources in the field for day-to-day coordination with Project offices/Authority to collect data of ongoing activities, data correction wherever needed by onsite validation of the same, and also cross learnings.

Deployment of MEL&D Coordinators

It is expected that one field personnel (MEL&D Coordinators) are needed to be placed in each project district. We shall phase out this deployment activity as per requirement. We are proposing around 16 MEL&D Coordinators for the 28 Districts in the first phase as data collection will be primarily automated, which would minimize a lot of in between steps. Hence, it is proposed to integrate the districts into a cluster or group comprising adjoining and nearby districts and syncing with the existing Divisions. Each cluster shall be facilitated by a MEL&D Coordinator who will have relevant experience of working with communities, M&E and conducting surveys. S/He will maintain regular contact with the Project Managers and work closely with the WDT Leader and the micro watershed team members. The proposed Cluster is as per the table below:

Proposed Cluster for the deployment of MEL&D Coordination for all 28 Districts

Table 18: Clustering for MEL&D Coordinators for all 28 Districts (WDC-PMKSY 2.0)

S. No	Districts	Divisional Offices	MELD Coordinator
1	Tinsukia	Project Manager	MELD Coordinator 1
2	Dibrugarh		

S. No	Districts	Divisional Offices	MELD Coordinator
3	Majuli	Project Manager	MELD Coordinator 2
4	Dhemaji	Project Manager	
5	Lakhimpur	Project Manager	MELD Coordinator 3
6	Sonitpur	Project Manager	
7	Kokrajhar	Project Manager	MELD Coordinator 4
8	Dhubri	Project Manager	
9	Goalpara	Project Manager	MELD Coordinator 5
10	Bongaigaon	Project Manager	
11	Kamrup	Project Manager	MELD Coordinator 6
12	Morigaon	Project Manager	
13	Nagaon	Project Manager	MELD Coordinator 7
14	Hojai		
15	Karbi Anglong Kohra	Project Manager	MELD Coordinator 8
16	Golaghat	Project Manager	
17	Sivasagar	Project Manager	MELD Coordinator 9
18	Jorhat	Project Manager	
19	Darrang	Project Manager	MELD Coordinator 10
20	Udalguri	Project Manager	
21	Nalbari	Project Manager	MELD Coordinator 11
22	Barpeta	Project Manager	
23	Baksa	Project Manager	MELD Coordinator 12
24	Chirang	Project Manager	
25	West Karbi Anglong	Project Manager	MELD Coordinator 13
26	Karbi Anglong Diphu	Project Manager	MELD Coordinator 14
27	Dima Hasao	Project Manager	MELD Coordinator 15
28	Cachar	Project Manager	MELD Coordinator 16
29	Hailakandi		

The recruitment of MEL&D Coordinators will be completed by August end. Training and deployment will soon follow. Based on future increase of project scope and requirements, additional number of MEL&D Coordinators will be on-boarded.

Establishment of Offices in the field: We will set up a working space in each district where the MEL&D Coordinator shall be deployed with the necessary Office support system needed to collect, store and manage data and documentation.

The MEL&D agency is also in the process of setting up a state-level Office at Guwahati for better and more effective coordination with SLNA on a day-to-day basis where Senior Team Members such as TL, Project Coordinator, IT Expert, MIS Officer, MEL Associate and Office Assistant shall be operating from, as per requirement.

As stated, the MEL&D agency is committed to the best outcome expected from it by providing the best resources at all levels i.e., state level, cluster/ districts and effectively supporting/ complementing from HO/Corporate.

4.2. Coordination

A senior team member from the Corporate Office has been assigned as the Project Coordinator for this assignment, she will maintain regular communication and close coordination not only with state level counterparts, but also with District WCDCs. Moreover, the Managing Director will

directly supervise into the quality and the timeliness of the deliverables.

4.3. Data Management

Data management will be one of the corner stones for this assignment, with good data management we will ensure that:

- a) the **data** which will be available for data analyses and reporting are:
 - i. **complete**, i.e., no data collected from the survey subjects were lost.
 - ii. **correct**, i.e., there are only justifiable differences between the values which were originally measured and the values in the final database.
 - iii. **verifiable** in the sense that the relationship between the original data collected and the final data in the database can be described.
- b) the **data analysis** will be:
 - i. done using the correct data and other information which are relevant for the data analysis.
 - ii. done without errors.
 - iii. documented in such a way that the whole analysis or a part of it can be repeated later. If the documentation is not done properly, it may be difficult or impossible to reach the same results when similar analyses are repeated in other situations.
- c) the **confidentiality of the data is secure**. It is particularly important that the information which connects the survey data to the personal identification of the subject, will be available only to persons who have authorized access to such data.

Well-planned data management facilitates good quality data and ready availability of the data for analysis. Poorly planned data management is usually expensive, increases risk of loss of data, decreases data quality and delays the data analysis.

Back-up - data in electronic format will be backed up routinely for accidental breaks of the storage devices, failures in data transfer and unintentional deletion of the data files.

Confidentiality - Only authorized persons should have access to the data and all of them must understand the importance of the confidentiality of the data.

5. Work Plan

Activities	Months																																											
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		J	F	M	A	M	J	J					
Signing of contract	x																																											
Kick-off meeting with Client	x																																											
Mobilisation of team members	x																																											
Setting-up of State Project Office				x																																								
Preparation of Inception Report			x																																									
Recruiting of District Resource Persons		x	x																																									
Setting-up of District Project Offices			x	x																																								
Designing and conducting Baseline Survey			x	x	x																																							
Preliminary analysis of satellite imageries				x	x																																							
Designing and developing M&E framework			x	x																																								
Designing the MIS portal		x	x																																									
Conducting Preparatory Phase Evaluation			x	x																																								
Conducting Works Phase Evaluation					x	x																																						
Designing and Conducting Impact Evaluations - Works										x	x																									x	x							
Supporting on-going Data collection				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
Conducting real-time monitoring, collection of pictures				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
Review of content, story-board and editing of video documentaries											x	x																											x	x				
Selection of themes and conducting studies											x																												x					
Designing and Conducting Final Impact Evaluation																																												
Handing over project data																																									x	x		
Report Preparation																																												
Inception Report		x																																										
Baseline Survey Report					x																																							
Preparation of QPRs and ARs (2021-22, 2022-23)			x	x	x																																							
Report on Satellite Imageries					x																																							
Monthly Reports			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
Pathway Analysis						x																																			x			
Annual Reports											x																																	
Phase-wise Evaluation - Preparatory				x																																								
Phase-wise Evaluation - Works						x																																						
Phase-wise Evaluation - Completion of Works											x																																	
Final Impact Evaluation Report																																										x	x	
Documentation																																												
Project Information - Brochure, Leaflet						x																																						
Creation of brief content for social media uploads				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
Thematic / Special Studies																																												
Case studies / Success Stories / Good Practices			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
Photograph compilations			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
Video documentaries											x																																	x
Review and Dissemination																																												
District monthly review meetings			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
Quarterly review meetings at SLNA					x																																							
Review Social media outreach					x																																							
Experience sharing / Lessons learnt / Reflection Workshops																																												

6. Site Visits

Figure 8: Contour Bund and Sluice Gate in Nagaon district



Figure 9: NRM and Production system site with Morigaon Divisional officer



Figure 10: Boulder Revetment and Check Dam in Kamrup district



Figure 11: Discussion with Morigaon WCDC members and Renovation of Community Pond



7. ANNEXURES

ANNEXURE I – INTRODUCTORY LETTER FROM SLNA



OFFICE OF THE STATE LEVEL NODAL AGENCY
WATERSHED DEVELOPMENT COMPONENT -
PRADHAN MANTRI KRISHI SINCHAYEE YOJANA (WDC - PMKSY), ASSAM
NODAL DEPTT: SOIL CONSERVATION, GOVT. OF ASSAM
3rd Floor, Bhumi Sangrakshan Bhawan, R.G. Baruah Road, Guwahati-781005
E-mail ID: assamslnaiwmp@gmail.com

No. SLNA/WDC-PMKSY/45/2022/Vol-I/558

Dated Guwahati the 27th June, 2023

From: **Dipu Kr Deka, ACS**
Chief Executive Officer,
SLNA, WDC-PMKSY, Assam
& Joint Secretary to the Govt. of Assam
Soil Conservation Deptt., Assam

To:
The Divisional Officer cum Project Manager
WDC-PMKSY, Assam
WCDC (all)

Sub: Introductory letter for MEL&D under WDC-PMKSY 2.0


Sir/Madam,

With reference to the subject cited above I would like to inform you that as per the WDC-PMKSY 2.0 Guideline, a third party agency viz. M/S Vision EIS Consulting Pvt. Ltd, Noida, Uttar Pradesh has been engaged by SLNA, Assam for Monitoring, Evaluation, Learning & Documentation for the 29 Nos. of projects under WDC-PMKSY 2.0. The copy of the Award of Contract has already been sent *vide* letter No. SLNA/WDC-PMKSY/45/2022/554 dt. 23rd June, 2023. The team of the said consultancy service will visit the project areas under each district shortly for proceeding their works.

Therefore, you are requested to cooperate with the team of M/S Vision EIS Consulting Pvt. Ltd. and provide necessary information with respect of monitoring for smooth running of the project. The Contact details of State level functionaries of M/s Vision EIS Pvt. Ltd. are-

- Ms. Sarabjeet Kaur, Deputy General Manager, Vision EIS cum Project Coordinator
Phone No: 8800841301

Yours faithfully,


Chief Executive Officer
SLNA, WDC-PMKSY, ASSAM &
Joint Secretary to the Govt. Of Assam
Soil Conservation Deptt., Dispur
Dated Guwahati the 27th June, 23

Memo No. SLNA/WDC-PMKSY/45/2022/Vol-I/558-A

Copy to:

1. Director(WM), DoLR, GoI, New Delhi for kind information.
2. P.S to the Additional Chief Secretary to the Govt. of Assam, Soil Conservation Department and Chairman SLNA, WDC-PMKSY, Assam for kind information.
3. M/s Vision EIS Consulting Pvt. Ltd. for kind information. They are requested to furnish the names of district level functionaries of the agency to the Divisional Officers cum Project Managers and Project Leaders.
4. Office file.


Chief Executive Officer
SLNA, WDC-PMKSY, ASSAM

ANNEXURE II – INTIMATION LETTER TO DoLR



OFFICE OF THE STATE LEVEL NODAL AGENCY
WATERSHED DEVELOPMENT COMPONENT -
PRADHAN MANTRI KRISHI SINCHAYEE YOJANA (WDC - PMKSY), ASSAM
NODAL DEPTT: SOIL CONSERVATION, GOVT. OF ASSAM
3rd Floor, Bhumi Sangrakshan Bhawan, R.G. Baruah Road, Guwahati-781005
E-mail ID: assamslnaiwmp@gmail.com

No. SLNA/WDC-PMKSY/45/2022/Vol-I/561

Dated Guwahati the 30th June, 2023

From: **Dipu Kr Deka, ACS**
Chief Executive Officer,
SLNA, WDC-PMKSY, Assam
& Joint Secretary to the Govt. of Assam
Soil Conservation Deptt., Assam

To: **The Director (WM)**
Department of Land Resources
Ministry of Rural Development
Government of India
New Delhi-110011

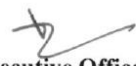
Sub: Regarding engagement of MEL&D agency by SLNA, Assam for the 29 projects under WDC-PMKSY 2.0

Sir/Madam,

With reference to the subject cited above, I would like to inform you that as per the WDC-PMKSY 2.0 Guidelines, a third party agency (M/S Vision EIS Consulting Pvt. Ltd, Noida, Uttar Pradesh) has been engaged by SLNA, Assam for external Monitoring, Evaluation, Learning & Documentation (MEL&D) in respect of 29 projects under WDC-PMKSY 2.0 in Assam.

A copy of the Award of Contract and Memorandum of Understanding (MoU) is enclosed herewith for your kind information.

Yours faithfully,


Chief Executive Officer
SLNA, WDC-PMKSY, ASSAM &
Joint Secretary to the Govt. Of Assam
Soil Conservation Deptt., Dispur

Memo No. SLNA/WDC-PMKSY/45/2022/Vol-I/561

Dated Guwahati the 30th June, 23

Copy to:

1. P.S to the Additional Chief Secretary to the Govt. of Assam, Soil Conservation Department and Chairman SLNA, WDC-PMKSY, Assam for kind information.
2. M/s Vision EIS Consulting Pvt. Ltd. for kind information.
3. Office file.


Chief Executive Officer
SLNA, WDC-PMKSY, ASSAM

ANNEXURE III – MINUTES OF MEETINGS – KICK-OFF Dated 22.06.2023

Minutes of the “Project Kick-off Meeting for Monitoring, Evaluation, Learning & Documentation (MEL&D) under WDC-PMKSY 2.0” held on 22nd June, 2023 at 03:30 pm at the Conference Hall, 4th floor, Bhumi Sangrakshan Bhawan, R.G. Baruah Road, Guwahati- 5

List of members present in the meeting is annexed herewith.

A kick-off meeting for gearing up the projects under WDC-PMKSY 2.0 for MEL&D was held under the Chairmanship of Shri Ravi Shankar Prasad, IAS - Additional Chief Secretary to the Government of Assam, Soil Conservation Department etc. & Chairman, SLNA, Assam and with the team of M/S Vision EIS Consulting Pvt. Ltd.

2. At the outset, Shri Dipu Kumar Deka, ACS, Joint Secretary to the Government of Assam, Soil Conservation Department & Chief Executive Officer, SLNA, Assam welcomed the Chairman and the representatives of the agency and other officials of SLNA who were present in the meeting and outlined the broad scope of MEL&D along with the agenda of the meeting.


3. With the permission of the Chair, Shri Ajay Kumar Singh, MD, Vision EIS introduced the context of the meeting and spoke about the project deliverables. He further stated that the methodology and work plan proposed at the RFP stage would be re-visited and fine-tuned during the preparation of Inception Report in order to make it more appropriate/ relevant and implementable on ground. He also introduced Ms. Anindita Roy who would be leading the MEL&D team in Assam and Ms. Sarabjeet Kour for regular coordination with SLNA.

4. Further, Ms. Anindita Roy explained about the MEL&D process and the approach that would be adopted for this assignment through a Power Point Presentation. She presented on the project coverage and the objectives, components and key activities under MEL&D that would be undertaken in the entire assignment. She also added that the agency would develop a MIS-GIS dashboard for online monitoring of the projects. This was followed by Mr. Arvind Gupta, IT expert, Vision EIS, who explained about the key features to be included in the upcoming online MIS-GIS dashboard.

5. After threadbare discussion, the following points are suggested:

- Chairman, SLNA suggested that at the each stage of the assignment, there should have absolute clarity on the role of each stakeholder (both District officers and MEL&D team) for MIS report generation. Further, he also added that the State MIS team should try to integrate the monthly data from both district and MEL&D team before submitting to DoLR,GoI.
- The MEL&D team was directed to identify the issues, challenges in the field level while compiling the report and intimate to SLNA from time to time in a continuous manner. The Chairman, SLNA also advised the MEL&D team members to highlight at least one success story in every month. Further, use of social media for information dissemination and proper documentation was strongly advised by the Chair.
- The Chairman, SLNA also directed the team of SLNA to plan and organize at least one or two event related to the Department with the extensive support from the MEL&D team.

The meeting ended with vote of thanks from the Chair.


Shri Ravi Shankar Prasad, IAS

Additional Chief Secretary to the Govt. of Assam
Soil Conservation Deptt., Assam
& Chairman, SLNA, WDC-PMKSY, Assam

Memo No.SLNA/WDC-PMKSY/45/2022/Vol-I/559

Dated Guwahati the 22nd June, 2023

Copy to:-

1. P.S to Additional Chief Secretary to the Govt. of Assam, Soil Conservation Department etc. and Chairman, SLNA, WDC-PMKSY, Assam, Dispur, Guwahati-6 for kind information.
2. M/S Vision EIS Consulting pvt. Ltd. for kind information and necessary action.
3. Guard file.


Chief Executive Officer

SLNA, WDC-PMKSY, ASSAM

ANNEXURE IV - Outcomes of the District Consultation

A consultation meeting with district functionaries for the MEL&D assignment was held under the Chairmanship of Shri Dipu Kumar Deka, ACS - Chief Executive Officer, SLNA, WDC-PMKSY, Assam and Joint Secretary to the Government of Assam, Soil Conservation Department, Assam at the Conference Room of State Level Nodal Agency on 17th July 2023 at 10.30 AM with the SLNA officials, Divisional Officer cum Project Managers, Project leaders and representative of M/S Vision EIS Consulting Pvt. Ltd. The list of participants present in the meeting is annexed herewith.

At the outset, Shri Dipu Kumar Deka, ACS, welcomed all the members present and outlined the broad scope of MEL&D agency along with the agenda of the meeting. Following this, Ms. Anindita Roy - Team Leader explained the objectives, components and activities of the assignment, the project understanding MEL&D agency has developed so far and explained the purpose of the meeting to all.



She mentioned that the consultation workshop is organized to understand the status and process of data generation, monitoring, reporting, specific requirements and expectations for the online MIS portal and current challenges faced, which would help the team effectively plan MEL&D implementation. She further added that the MELD team is in the process of preparing the Inception Report and understanding the nuances of the project deeply, so that a reasonable and realistic implementation plan can be chalked out, wherein the team is able to support the SLNA and the District Teams with improved data management processes.

Subsequent to this, the discussion with district teams focused to capture information on current status, challenges, expectations from MELD - clarity on role and responsibility of each stakeholder, proposing key actions pertaining to the following areas.

- Reporting and Monitoring
- Data collection and presentation - Online MIS / Mobile App, Satellite Imageries
- Evaluation of Projects (mid-term, end term)
- Documentation and Learning

The key outcomes of the meeting are presented below:

SN	Tasks	Current Status	Challenges	Expectations from MEL&D	Key actions proposed
1	Reporting and Monitoring	The districts are submitting MPRs to Deputy Commissioner for the approval The MPR formats are not uniform across	Inaccurate/ Duplication of data entries on the portal Work initiation get affected due	To develop a standardized process of data collection and reporting for effective monitoring	Standardized format needs to be prepared for MPRs Annual calendars can be prepared with AAPs - Priority list of

SN	Tasks	Current Status	Challenges	Expectations from MEL&D	Key actions proposed
		<p>districts</p> <p>Districts are directly updating MIS on the monthly basis on the DoLR website</p> <p>It has been observed by the MEL&D team that the data uploaded by districts on DoLR website has certain gaps</p> <p>The MPRs and QPRs are submitted to SLNA by each district</p> <p>Districts are submitting six monthly/quarterly to District Development Coordination and Monitoring Committees (DISHA) - Headed by MP</p> <p>WCDC members are keeping records of beneficiaries, asset registers, water testing, etc.</p>	<p>to various factors, the most important being delay in disbursement of funds, heavy rains, floods, etc.</p>	<p>Ensure the accuracy and timeliness of data uploaded on the DoLR portal</p> <p>Monthly site visit by MEL&D district coordinators to get updated data</p> <p>Document one success story every month</p>	<p>activities can be prepared keeping in mind the external factors</p> <p>Data validation option maybe added in the mobile app – review meeting may be held in district office before uploading data in the DoLR portal</p> <p>Data from watershed committee asset registers need to be collected from the districts</p>
2	Data collection and presentation - Online MIS / Mobile App, Satellite Imageries	<p>Currently there is no provision to capture training outcome data and other social interventions. Livelihood activities are yet to begin</p>	<p>Data is being entered manually to the DoLR portal and CM's portal</p> <p>There is delay in uploading of data; in order to ensure correct data entry</p> <p>In PMKSY 1.0 satellite imageries was done through outsourcing, hence the District Team could not recall much</p>	<p>Procure better resolution imageries for the NDVI and LULC analysis</p> <p>Develop an online MIS portal and Mobile App</p> <p>Develop formats for capacity building, to evaluate the impact of livelihood activities, employment generation and number of beneficiaries benefitted</p>	<p>Uniform formats need to be developed to compile data related to beneficiaries of production system, livelihood, capacity building activities and spring shed projects</p> <p>Scheme wise photographs need to be uploaded on the MIS portal by each district</p> <p>Sub-activity wise monitoring of projects needs to feature in the online MIS Portal</p>
3	Evaluation of Projects (Mid-term and End-term)	<p>Cross learning from each other through site visits was also tried out during PMKSY 1.0</p> <p>SLNA shared google</p>	<p>There are many government schemes on ground which the District functionaries</p>	<p>Direct data entry facility through mobile Apps may ease the process of evaluation.</p>	<p>Cross learning will be promoted by the MEL&D team</p> <p>Districts will prepare a short writeup</p>

SN	Tasks	Current Status	Challenges	Expectations from MEL&D	Key actions proposed
		sheet with the districts to get regular updates	have to supervise. To make out time and visit other districts for evaluation work may pose a challenge		related to EPA activities in which basic background information will be provided, how the process took place including before and after photographs in the same frame (by 31st July 2023). Google form will be prepared for the same by the MEL&D team and will be shared with all the districts
4	Documentation and Learning	Few districts are doing photo documentation for e.g., Baksa and Nagaon	There is a dearth of human resources at districts. All information is available but organizing them and presenting them is a challenge	Documentation framework need to be prepared Formats for case studies, best practices and success stories need to be developed	Asset register module need to be developed along with the watershed development fund – watershed committee wise There is provision for additional Human Resources with the SLNA. The districts have to place a request with justifications.

ANNEXURE V - Household questionnaire (Draft)

VISION EIS	HOUSEHOLD QUESTIONNAIRE	GEOLOCATION
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SECTION 1 - IDENTIFICATION PARTICULARS

101.	Type	Intervention 1; Control 2
102.	Name of the District/Project	
103.	Name of the Block	
104.	Name of the GP	
105.	Name of the Revenue /Forest Village	
106.	Name of the Habitation	
107.	Address with the landmark of the Respondent	
108.	Name of the Respondent	
109.	Name of the Investigator	
110.	Name of the Supervisor	
111.	Mobile Number of the Respondent	
112.	Name of the Micro watershed	
113.	Position of the Habitation in the Watershed	Upper Reach :1. Medium Reach: 2, Lower Reach:3

FIELD CONTROL INFORMATION	INTV START TIME	
DATE OF INTERVIEW: /..... /23	INTV END TIME	

Namaskar. My name is _____. We are doing a survey to understand about the livelihood including agricultural practices, water use, water resources, irrigation etc.

I shall be grateful to you if you can spare some of your valuable time. The interview will help us to provide useful information for improving the interventions and thereby improve agricultural practices and water conservation in rural Assam and benefit many persons like you:

Please ask for an interview with the household

ALL YOUR RESPONSES WOULD BE USED SOLELY FOR RESEARCH PURPOSES.

Do you agree to participate?

YES-----1 CONTINUE NO-----2 TERMINATE AND EXIT

BACKGROUND INFORMATION ABOUT RESPONDENT /FARMER (Both 1 and 2)		
201.	What is your primary Livelihood? SINGLE RESPONSE	Agriculture & Horticulture (own, shared, leased in) 1 Animal Husbandry 2 Fisheries 3

		Agricultural Labourer 4 Skilled Labour 5 Unskilled Labour (other than Agr. Lab) 6 Petty Business/Enterprise 7 Salaried (Govt + Pvt) 8 Other (Specify) অন্যান্য (উল্লেখ করক)	
202.	What is your Secondary Occupation/s? MULTIPLE RESPONSES POSSIBLE	Agriculture & Horticulture (own, shared, leased in) 1 Animal Husbandry 2 Fisheries 3 Agricultural Labourer 4 Skilled Labour 5 Unskilled Labour (other than Agr. Lab) 6 Petty Business/Enterprise 7 Salaried (Govt + Pvt) 8 Non-Timber Forest Produce 9 None 99 Other (Specify) অন্যান্য (উল্লেখ করক)	
203.	Gender of the Respondent?	Male 1 Female 2	
204.	Please mention the relationship to the Head of the Household	Self 1 Wife/Husband 2 Son /Daughter 3 Daughter-in-law/Son in law 4 Granddaughter/ Grandson 5 Parents 6 Other (Specify) অন্যান্য (উল্লেখ করক)	
205.	What is your religion?	Hindu 1 Islam 2 Christian 3 Buddhist 4 Jain 5 Sikh 6 Other (Specify) অন্যান্য (উল্লেখ করক)	
206.	What is your social category?	SC 1 ST 2 OBC 3 General 4 Do not know/can't say 5	
207.	What is your age?	In Years	

208.	What is your literacy status?	Illiterate 1 Read and write..... 2 Class 1-5 1ম-5ম শ্রেণী 3 Class 6-8 ৬ষ্ঠ-৪ম শ্রেণী 4 Class 9-12 ৯ম-১২শ শ্রেণী 5 Graduation স্নাতক 6 Above Graduation স্নাতকৰ ওপৰত 7																
209.	How many Members are there in your family?	Adult male Adult Female Children (below 18) Male Children (below 18) Female Total members of the family																
210.	Are all the children of school-going age (6-14 years) attending School?	Yes..... 1 No 2 No children within this age group..... 3																
211.	Is there anyone in the household who is a member of the institution? If yes how many members (SOCIAL CAPITAL)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Type of Institution</th> <th style="width: 20%;">Yes = 1, No = 2</th> <th style="width: 40%;">Number of members participated</th> </tr> </thead> <tbody> <tr> <td>SHG</td> <td></td> <td></td> </tr> <tr> <td>User Group</td> <td></td> <td></td> </tr> <tr> <td>Farmer Producer Organisation</td> <td></td> <td></td> </tr> <tr> <td>Other (specify)</td> <td></td> <td></td> </tr> </tbody> </table>	Type of Institution	Yes = 1, No = 2	Number of members participated	SHG			User Group			Farmer Producer Organisation			Other (specify)			
		Type of Institution	Yes = 1, No = 2	Number of members participated														
		SHG																
		User Group																
		Farmer Producer Organisation																
Other (specify)																		
212.	Are any members elected member of Panchayat	Yes..... 1 No 2																
213.	If yes is the member male or female	Male 1 Female 2																
214.	How many members of the family are employed (work for Money)?	Adult male Adult Female Children (below 18) Male Children (below 18) Female Total members of the family																
LANDHOLDING (Both 1 and 2)																		
301.	What is the size of the plot on which your house is built?	In Kakatha																
302.	How much agricultural land do you own?	In Bigha No Land Owned 88																
303.	Out of this, how much do you cultivate season wise	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%;">Kharif</th> <th style="width: 20%;">Rabi</th> <th style="width: 30%;">Boro</th> </tr> </thead> <tbody> <tr> <td>Number of plots</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Area in Bigha</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Kharif	Rabi	Boro	Number of plots				Area in Bigha							
			Kharif	Rabi	Boro													
		Number of plots																
Area in Bigha																		
304.	How much of the cultivated land is irrigated?	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%;">Kharif</th> <th style="width: 20%;">Rabi</th> <th style="width: 30%;">Boro</th> </tr> </thead> <tbody> <tr> <td>Number of plots</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Kharif	Rabi	Boro	Number of plots											
	Kharif	Rabi	Boro															
Number of plots																		

		Area in Bigha				
305.	How much agricultural land have you LEASED IN ?	In Bigha No Land Owned 88				
306.	Out of this, how much do you cultivate season wise?	Kharif	Rabi	Boro		
		Number of plots				
		Area in Bigha				
307.	How much of the cultivated land is irrigated?	Kharif	Rabi	Boro		
		Number of plots				
		Area in Bigha				
308.	How much land have you leased out?	In Bigha				
309.	Please mention the distribution of land and operational holding in the micro watershed (in Bigha) Upper Reach (UR) - HHs at ridge of the watershed, Middle Reach (MR) - HHs in middle of the watershed Lower Reach (LR) - HHs at valley of the watershed	Classifications	Upper Reach	Middle Reach	Lower Reach	
		Owned				
		Leased In				
		Leased Out				
IRRIGATION (Both 1 and 2)						
401.	What are the sources of irrigation used in different seasons by the household? (MULTIPLE RESPONSES ARE POSSIBLE IN EACH SEASON)	Sources	Kharif	Rabi	Boro	
		Well (including shallow /Submersible)	1	1	1	
		Pond	2	2	2	
		River	3	3	3	
		Canal	4	4	4	
		Spring	5	5	5	
		Other (Specify)				
402.	Please mention the number of sources available in the micro watershed/spring shed. Also, mention if water is available in the sources perennially or seasonally. (Only 1)	Sources of irrigation	Nature of Source		No of sources	
			Upper Reach (UR)	Middle Reach	Lower Reach	
		Well (including shallow /Submersible)	Perennially			
			Seasonally			
		Pond	Perennially			
			Seasonally			
		River	Perennially			
Seasonally						
Canal	Perennially					

			Seasonally									
		Spring	Perennially									
			Seasonally									
		Other (Specify)	Perennially									
			Seasonally									
403.	Water Availability in the indicated months for the micro watershed/ spring shed (FOR SEASONAL SOURCES ONLY (Only 1))	Sources of Irrigation	Summer Months April - June			Monsoon Months July - Sept			Winter Months Oct - Mar			
			Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	Yes=1, No=2	
			Upper Reach	Middle Reach	Lower Reach	Upper Reach	Middle Reach	Lower Reach	Upper Reach	Middle Reach	Lower Reach	
			Well (including shallow /Submersible)									
			Pond									
			River									
			Canal									
			Spring									
			Other (Specify)									
		DRINKING WATER (Both 1 and 2)										
501.	Please mention the details about the drinking water facilities.	Type of Sources	Sources regularly used Used=1		Distance to source (In metres)	Time taken (In Minutes)	Main source=1 Other regular=2					
			Summer	Other Season								
		Piped water into dwelling/ yard/plot										
		Public tap/ standpipe										
		Tube well or borehole										
		Protected dug well										
		Protected spring										
		Rainwater										
		Tanker truck										
		Cart with small tank										
		Bottled water										
Community RO plant												
	Other (Specify)											
HOUSEHOLD AMENITIES (Both 1 and 2)												
601.	What kind of toilet facility do members of your household usually use? (Single Response Possible)	Open fields									1	
		Pit latrine									2	
		Flush toilet/Pour flush toilet									3	
		Community Toilet									4	

		Other (Specify) অন্যান্য (উল্লেখ করক)													
602.	If coded 2,3 and 4 in Q601, what is the distance between the toilet and your dwelling?	Within the dwelling 1 Within ½ km 2 Between ½ to 1 km 3 More than 1 km 4													
603.	Do all the members of the household use the toilet regularly?	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%; text-align: center;">Yes=1</th> <th style="width: 35%; text-align: center;">No=2</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td></td> <td></td> </tr> <tr> <td>Female</td> <td></td> <td></td> </tr> <tr> <td>Children</td> <td></td> <td></td> </tr> </tbody> </table>		Yes=1	No=2	Male			Female			Children			
	Yes=1	No=2													
Male															
Female															
Children															
604.	How much time is required to reach the toilet? Minutes													
605.	Whether livestock or any other materials (observe) are kept in the toilet?	Yes 1 No 2													
606.	What type of fuel does your household mainly use for cooking?	Electricity 1 LPG 2 Bio Gas 3 Kerosene 4 Coal 5 Charcoal 6 Wood 7 Straw/Grass/leaves 8 Agricultural crop waste 9 Cowdung/dung cake 10 Other (Specify) অন্যান্য (উল্লেখ করক)													
607.	How much time is required to get your fuel? Minutes													
608.	What is the main source of lighting in the evening of your house?	Electricity 1 LPG Petromax 2 Bio Gas-Based Light 3 Solar Light 4 Kerosene Oil Lamp 5 Other (Specify) অন্যান্য (উল্লেখ করক)													
CONSUMER DURABLE ASSETS (Both 1 and 2)															
701.	Do you have consumer durable assets? (Multiple)	Sewing machine 1 Refrigerator 2 Washing Machine 3 Almirah 4 Kerosene stove 5 Cookstove/Oven..... 6													

		Bicycle..... 7 Manual Rickshaw 8 Motorized Two-wheeler 9 Car/jeep/tempo/mini-truck/truck..... 10 Motorized 3-Wheeler (including E-Rickshaw) 11 Landline Telephone 12 Mobile phone 13 Television..... 14 VCR / CD /DVD player 15 Electric fan 16 Computer/laptop 17 Pressure cooker..... 18 Cooler..... 19 Air Conditioner 20 Radio/Transistor 21 LPG Cylinder 22 TATA Sky/ Set top box/satellite disc/Cable TV 23 Gold 24 Silver 25 Other (Specify) অন্যান্য (উল্লেখ কৰক)	
MIGRATION (Both 1 and 2)			
801.	Has anyone in the family resided outside the village/ panchayat/region continuously for 15 days or more for work? (Last FY year)	Yes 1 No 2	If No, Go to The Next Section
802.	What are the reasons for migration?	Unavailability of work in Village 1 Lack of assured work in the village throughout the year..... 2 Better wages at migrating destination 3 Lack of Skill based works 4 No work in the panchayat area..... 5 Other (Specify) অন্যান্য (উল্লেখ কৰক)	
803.	For what type/s of work he goes outsidess?	Unskilled worker (Construction labour, loader, house help, caretaker, watchman, etc) 1 Skilled worker (carpenter, plumber, driver, mason, mechanic) 2 Entertainment industry (circus or plays) 3 Farming /Agriculture labour 4 Services (job) 5 Self-employed professional 6 Housemaid 7 Petty trader/ shop owner..... 8	
804.	What are the places they	Outside block 1	

	migrate to	Outside the District 2 Outside the State 3	
805.	Does he remit money?	Yes 1 No 2	
806.	If yes, how much does he remit to the HH, annually?	IN Rupees	

CROPS GROWN (Both 1 and 2)

901.	Please tell us the income of the crops grown last year after harvest net of all expenses	MULTIPLE RESPONSES POSSIBLE UNDER EACH CROP	Total Area cultivated under each Season (In Bigha)	Irrigated under each season (In Bigha)	Area Cultivated under HYV (In Bigha)	Total Production in the cultivated area in each season in kgs	The average rate of the produce per kg by season in rupees	The cost/ Expenditure incurred under each row	Income = (Total Production * Market Price)- Cost (Auto calculate row and total)
Paddy		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Maize		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Pulses		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Potato		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Mustard		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Other Spices & Condiments		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Vegetable other than potato		Kharif=1							
		Rabi=2							
		Boro=3							
		Not Applicable=4							
Fruits		Kharif=1							
		Rabi=2							

		Boro=3 Not Applicable=4							
	Fodder	Kharif=1							
		Rabi=2							
		Boro=3 Not Applicable=4							
LIVESTOCK & POULTRY (Both 1 and 2)									
902.	Details of Ownership of livestock (Annual Income)								
	Particulars	Numbers Owned	Output			Revenue IN Rs.	Cost	Income = Revenue - Cost	
			Milk=1, Meat=2 Selling of Animals=3, Eggs=4						
	Cattle								
	Buffaloes								
	Goats								
	Pigs								
	Poultry								
	Others								
ORCHARDS, PLANTATION CROPS AND AGROFORESTRY (Both 1 and 2)									
903.	Details of Fruit and Nut bearing Trees (Income is the annual Income net of all expenses)	Type of plants	Areas Covered in Bigha (Auto-convert to Ha)	Number of Trees	Years Started	Cost/ Expenses Incurred	Revenue/ Earning	Income	
		Fruit Trees							
		Nut Bearing Trees							
		Rubber							
		Tea							
		Coffee							
		Sal							
		Teak							
	Other (specify None)								
FISHERY (Both 1 and 2)									
904.	What is the pond or water body area you do fishery?	In Bigha (Autocorrect to Ha) None							
905.	Details of the fishery operations last year (income is net of all expenses)	Type of Fish	Quantity Produced (kg)	Price per Kg	Total Return	Total Cost for the pond for Dewatering and desilting, Lime, Fish seed, Cow Dung, Urea, SSP, Fish feed (Pellets), Labour Wages, Other costs		Income	
		Rohu							
		Catla							
		Mrigal							

		Silver Carp					
		Grass Carp					
		Common Carp					
		Small Carp and other local species (Mola, Cheniputhi, Chela, Dhela, etc.)					
		Tilapia					
		Rupchanda					
		Other (Specify)					
NON-TIMBER FOREST PRODUCE (Both 1 and 2)							
906.	NTFP Output and Earning – Output and Earnings	Collected =1/Not Collected=2	Consumed =1, Sold=2, Both =3	Earnings from the amount sold			
	Fruits						
	Nuts						
	Fung						
	fibres						
	Medicinal Plants						
	ornamental plants						
	Mosses						
	dyes,						
	resins,						
	gums						
	fuel-wood						
	charcoal						
	leaves as fodder						
	honey,						
	Fish, Animals Hunted and other animal products						
WAGE LABOUR (Both 1 and 2)							
907.	Receipts from Wage labor	Days Worked per year	Rate per day	Total Earned			
	1.Yes 2.No						
908.	Please tell if any member of household earn/receive income from any other sources like pension, scholarship, remittances, etc. If yes, mention the amount?	Yes 1 No..... 2 IN Rupees					
TOTAL INCOME							
909.	AUTO CALCULATE FROM ALL THE SOURCES	IN Rupees					
TOTAL EXPENDITURE OF THE HH (Both 1 and 2)							

910.	How much do you expend on consumables (groceries), School fees, tuition fees electricity, mobile bill, regular medicine and other expenditures to run the HH in a month?	In Rupees																									
911.	What was your expenditure last year on festivals, family occasions (marriage etc.)?	In Rupees																									
912.	What was the expense on exigencies - hospital admission etc. in the last year?	In Rupees																									
913.	AUTO CALCULATE =Q909*12+Q910+Q911	In Rupees																									
SAVINGS & CREDITS (Both 1 and 2)																											
1001	Do you save any amount?	Yes 1 No 2																									
1002	What is the amount saved last year?	In Rupees																									
1003	Where did you save?	SHG 1 Banks (other than SHG) 2 Post office 3 Mutual funds..... 4 Shares /Stocks..... 5 Land 6 Gold 7 Other (Specify) অন্যান্য (উল্লেখ কৰক)																									
1004	Did you take loans in the last 3 years?	Yes 1 No 2																									
1005	If yes, how many loans did you take in the last 3 years?	Numbers																									
1006	Please tell me the details of the loans	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">LOANS</th> <th style="width: 30%;">From where did you take the loan? SHG =1, Banks=2, MFI=3, Moneylenders =4, Friends & Relatives =5, Other (Specify</th> <th style="width: 15%;">Has the loan been repaid or continuing? Repaid =1 Continuing =2</th> <th style="width: 10%;">Amount of Loan taken</th> <th style="width: 10%;">What was the rate of interest of the loan (yearly)</th> <th style="width: 10%;">Time period of Loan (In Months) NA=88</th> </tr> </thead> <tbody> <tr> <td>Loan 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Loan 2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Loan 3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	LOANS	From where did you take the loan? SHG =1, Banks=2, MFI=3, Moneylenders =4, Friends & Relatives =5, Other (Specify	Has the loan been repaid or continuing? Repaid =1 Continuing =2	Amount of Loan taken	What was the rate of interest of the loan (yearly)	Time period of Loan (In Months) NA=88	Loan 1						Loan 2						Loan 3						
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Loan 1																											
Loan 2																											
Loan 3																											
GOVERNMENT ENTITLEMENT (Both 1 and 2)																											
1101	Have you /Your HH got NREGA card?	Yes 1 No..... 2																									

1102	If yes, Number of days worked?	Number of days			
1103	IF MORE THAN 0 in 1102, Number of days payment received?	Number of days			
1104	Have you got a ration card?	Yes 1 No..... 2			
1105	Have you got a Aadhaar Card?	Yes 1 No..... 2			
1106	Have you got a PAN Card?	Yes 1 No..... 2			
1107	Items purchased and quantity Purchased	Items	Bought in the last 3 months Yes=1, No=2	The total amount bought in last 3 months (in kg)	Price Paid, if any (in Rs.)
		Rice			
		Kerosene			
		Wheat			
		Grains			
		Sugar			
1108	Do you have these BPL cards (Multicolored cover page)?	Antyodaya Anna Yojana (AAY) Ration Card 1			
		Priority Household (PHH) Ration Card 2			
ACCESS TO SERVICES (Both 1 and 2)					
1201	Do you or your household have access to these services	Service	Yes=1, No =2, Can't Say=3	IF YES	
				Where provided Within the village =1, Within 5 Km =2, More than 5 kms=3, Can't Say=4	Frequency of Use Daily =1, Weekly=2, Fortnightly=3, Monthly =5, Annually=6, Never use/Don't use= 7, NA for non-user=88
		Agricultural extension Services			
		Education (Primary School)			
		Education (Secondary school)			
		Education (Higher Secondary School)			
		Education (College)			
		Health sub-centre			
		Health (PHC)			
		Health (CHC)			
		Health (Districts Hospital)			
		VETERINARY SERVICES			
		Health Camp			
		AI services			
		CREDIT FACILITIES			
FARM INPUTS					

		HYV Seeds						
		Fertiliser						
		Pesticides						
		Weedicides						
		Diesel						
		MARKET FOR FARM PRODUCE						
		Crops						
		Orchard Output						
		Livestock						
		Fishery						
		Non-Timber Forest Products (NTFP)						
		Mobile Connectivity-Offices						
		ATM &/BANK						
		WORKSHOP FOR MACHINERY/VEHICLES						
SELF SUFFICIENCY (Both 1 and 2)								
1301	In which of the areas are you self-sufficient? Single option	Areas /Items	1.Round the year	2.9-11 months	3.8-9 months	4.3-6 months	5.Below 3 months	
		Food						
		Fodder						
		Fuel						
		Drinking Water						
		Employment						
OTHER QUESTIONS ON IMPROVED AGR PRACTICES (Both 1 and 2)								
1401	Has the household used the new technology for farming?	Yes	1					If No, Go to Q1406
		No.....	2					
1402	IF YES, who provided the technology?	Agriculture Department	1					
		Assam Agricultural University.....	2					
		ATMA	3					
		IRRI	4					
		Other (Specify) অন্যান্য (উল্লেখ কৰক).....						
1403	Did they demonstrate the technology in the village or nearby?	Yes	1					
		No.....	2					
1404	Did it help the household to earn more?	Yes	1					
		No.....	2					
1405	Has the household adopted the following practices?	Integrated Nutrient Management	1					
		Integrated Disease Management	2					
		Integrated Pest Management	3					
		Not Adopted.....	4					

1406	Are you aware of Climate change?	Yes 1 No..... 2						
1407	What do you mean by climate change? Multiple options	Change in weather conditions 1 Heavy Rainfall 2 Scarce Rainfall 3 Change of season 4 Drought 5 Storm /Cyclones 6 Flood..... 7 Other (Specify) অন্যান্য (উল্লেখ কৰক).....						
1408	Has any of them received training on agricultural practices?	Yes 1 No..... 2						
1409	From where have you received training on improved agricultural practices? Multiple options	Agriculture Department 1 Assam Agricultural University..... 2 ATMA 3 IRRI 4 Other (Specify) অন্যান্য (উল্লেখ কৰক).....						
1410	Are you a member of any Farmer's Collective / Cluster?	Yes 1 No..... 2						
1411	What are the machineries used for the different stages of cultivation?	Stages of Cultivation	Tractor	Power tiller	Combine	Rotavator	Shallow Tube Well	None
		Land Preparation						
		Irrigation of Crops						
		Harvesting						
		Threshing of Crops						
1412	THOSE INVOLVED WITH LIVESTOCK, do you carry stall feeding of livestock Stall feeding of livestock means to keep and feed an animal in a stall (inside the shed or house) for keeping them away from grazing outside. Inside the shed or house, the animals are cared and are given controlled feed to have better growth and development of the animals.	Yes 1 No..... 2						
1413	IF YES, Details of quantity of fodder used, numbers and type of animals (CONSIDER AN AVERAGE FOR ALL AGE GROUPS)	Type of animals	Number of animals	Quantity of Fodder used per animal in kgs (per month)	TOTAL FODDER REQUIREMENT (AUTO CALCULATE)			
		Cows						
		Bulls						
		Oxen						

		Buffaloes			
		Goats			
		Pigs			
		Other (specify)			
1414	Do you undertake fodder cultivation?	Yes	1		
		No.....	2		
1415	If no, from where do you source fodder?	Get from neighbours and relatives free	1		
		Buy from the neighbours and relatives.....	2		
		Buy from the market.....	3		
		Other (Specify)			
		অন্যান্য (উল্লেখ কৰক).....			
FOOD SECURITY (Both 1 and 2)					
1501	Over the past 12 months, was there always enough food for all family members to have at least two full meals every day?	Yes	1		
		No.....	2		
1502	How many days in the last 12 months there were not enough food?	Number of days			
				
1503	During the period of food scarcity this past year, how severe was food shortage?	We did not eat dal at all	1		
		We did not eat fish/meat/egg at all	2		
		We only had rice with potato	3		
		We reduced the intake of milk to our children.....	4		
		All the above	5		
		Other (Specify)			
		অন্যান্য (উল্লেখ কৰক).....			
1504	Do you receive any food items through the Ration/Public Distribution System?	Yes	1		
		No.....	2		
1505	How frequently do you receive your Ration through Public Distribution System?	Once a week.....	1		
		Once in 15 days.....	2		
		Once in month	3		
		More than 4 times in a month	4		
HEALTH & NUTRITION (Both 1 and 2)					
1601	Did any member of household fall sick for which he or she sought health services from health professional in the last 2 months?	Yes	1		If No, Skip to 1605
		No.....	2		
1602	IF YES, where did they go for OPD services?	Sub centre	1		
		PHC	2		
		CHC/BPHC	3		
		District Hospital	4		
		Private Qualified doctor	5		

		Indigenous Health care Provider..... 6 Services not sought from OPD 7 Other (Specify) অন্যান্য (উল্লেখ করক).....																																																																																								
1603	If admitted in hospital, from where did he seek service?	Government Hospitals 1 Private Hospitals & Nursing Homes..... 2 Services not sought from IPD..... 3																																																																																								
1604	What amount had to be spent on medicine and consultations for the mentioned illnesses in last 2 months?	In Rupees																																																																																								
1605	Did the adults and children had the following food yesterday?	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Food Items</th> <th colspan="5">Adults</th> <th colspan="5">Children</th> </tr> <tr> <th>All Adults</th> <th>Most of the adults</th> <th>Some of the adults</th> <th>A few adults</th> <th>None of the adults</th> <th>All Children</th> <th>Most of the children</th> <th>Some of the children</th> <th>A few children</th> <th>None of the children</th> </tr> </thead> <tbody> <tr> <td>Starchy Food (Rice, Roti)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Vegetables</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Fruits</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Dairy (milk, milk products)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Protein (meat, poultry, eggs dal, nuts etc)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Fat (oil, ghee, butter)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </tbody> </table>	Food Items	Adults					Children					All Adults	Most of the adults	Some of the adults	A few adults	None of the adults	All Children	Most of the children	Some of the children	A few children	None of the children	Starchy Food (Rice, Roti)	1	2	3	4	5	1	2	3	4	5	Vegetables	1	2	3	4	5	1	2	3	4	5	Fruits	1	2	3	4	5	1	2	3	4	5	Dairy (milk, milk products)	1	2	3	4	5	1	2	3	4	5	Protein (meat, poultry, eggs dal, nuts etc)	1	2	3	4	5	1	2	3	4	5	Fat (oil, ghee, butter)	1	2	3	4	5	1	2	3	4	5	
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ANNEXURE VI - Village questionnaire (Draft)

VISION EIS	VILLAGE QUESTIONNAIRE	GEO-LOCATION
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SECTION 1 - IDENTIFICATION PARTICULARS

101.	Type		1. Intervention 2. Control
102.	Name of the District/Project		
103.	Name of the Block		
104.	Name of the GP		
105.	Name of the Revenue /Forest Village		
106.	Name of the Habitation		
107.	Address with the landmark of the Respondent		
108.	Name of the Respondent		
107.	Name of the Investigator		
108.	Name of the Supervisor		
109.	Mobile Number of the Respondent		
110.	Name of the Micro watershed		
111.	Name of the District/Project		
112.	Name of the Block		

FIELD CONTROL INFORMATION	INTV START TIME	
DATE OF INTERVIEW: /..... /23	INTV END TIME	

Namaskar. My name is _____. We are doing a survey to understand about the livelihood including agricultural practices, water use, water resources, irrigation etc.

I shall be grateful to you if you can spare some of your valuable time. The interview will help us to provide useful information for improving the interventions and thereby improve agricultural practices and water conservation in rural Assam and benefit many farmers:

Please ask for an interview with village head which was prefixed because other household members cannot be substituted

ALL YOUR RESPONSES WOULD BE USED SOLELY FOR RESEARCH PURPOSES.

Do you agree to participate?
 আপুনি অংশগ্রহণ কৰিবলৈ সন্মত নে?

YES-----1 CONTINUE NO-----2 TERMINATE AND EXIT

AREA & POPULATION DETAILS (Both 1 and 2)			
201.	Please mention the number of total Households in the village	Number	
202.	Please mention the population of the Village	Total	
		Male.....	
		Female.....	
203.	Please mention the population of 0-6 years	Number	
204.	Please mention the population by religion	Hindu	
		Islam	
		Christian.....	
		Buddhist	
		Jain.....	
		Sikh	
		Other (Specify)	
		অন্যান্য (উল্লেখ কৰক)	
205.	Please mention the population by social category	SC	
		ST.....	
		OBC	
		General.....	
		Other (Specify)	
		অন্যান্য (উল্লেখ কৰক)	

206.	Please Mention the household of the following population	No. of Landless Households (Households without Farm Land) No. of Women headed Households No. of Households with BPL Cards	
207.	Please mention the number of persons migrated (out) in the last 5 years	Number	
208.	Please mention the area of the village	In Ha	
209.	Please Mention the area by land classification (REMARKS ON LAND CLASSIFICATION IN THE ANNEXURE)	Land Classification	Area in HA
		Forest	
		Area under Non-culturable Use	
		Barren and Un-culturable Land	
		Permanent Pastures and other Grazing Lands	
		Land under Miscellaneous Tree Crop, etc.	
		Culturable Waste Land	
		Fallow Lands other than Current Fallows	
		Current Fallows	
	Net area Sown		
210.	Please mention how many water bodies are there in the village	Number	
211.	Please mention the approximate area in hectare	Total Area of the water bodies	
212.	What are the primary Livelihoods of the population? (MENTION THE FIRST THREE IMPORTANT ONES)	Agriculture & Horticulture (own, shared, leased in) 1 Animal Husbandry 2 Fisheries 3 Agricultural Labourer 4 Skilled Labour 5 Unskilled Labour (other than Agr. Lab) 6 Petty Business/Enterprise 7 Salaried (Govt + Pvt) 8 Other (Specify) অন্যান্য (উল্লেখ কৰক)	
213.	How many households have received livelihood support from the project?	Number	
214.	If received livelihood support, in what areas are the support given? (Multiple)	Agriculture (seeds) 1 Agriculture (Processes -technology) 2 Agriculture (irrigation) 3 Animal Husbandry 4 Fishers 5 Other (Specify) অন্যান্য (উল্লেখ কৰক)	
AMENITIES (Both 1 and 2)			
215.	Does the village have electricity supply?	Yes 1 No 2	
216.	IF YES, Number of electrified households?	Number	
217.	Does the village have Rural Piped Water Supply?	Yes 1 No 2	
218.	IF YES, Nos. of Households Connected?	Number	
219.	Does the village have Black-topped Access Road?	Yes 1 No 2	
220.	IF NO, Is the village connected by a metal led road?	Yes 1 No 2	
221.	Does the village have a Lower Primary School?	Yes 1 No 2	
222.	IF NO, what is the	In km	

	distance of the nearest Lower Primary School?	
223.	Does the village have a Secondary School?	Yes 1 No 2	
224.	IF NO, what is the distance of the nearest Secondary School?	In km	
225.	Does the village have a Higher Secondary School?	Yes 1 No 2	
226.	IF NO, what is the distance of the nearest Higher Secondary School?	In Km	
227.	Is there a Anganwadi Kendra?	Yes 1 No 2	
228.	IF YES, please mention the number of AWCs in the Village?	Number	
229.	Please mention the number of Subcentre (if there is no sub centre write 0)	Number	
230.	Distance in Km to nearest (IF WITHIN THE VILLAGE WRITE 0 KM)	Amenities	Distance in km
		Rail Station	
		State Highway	
		National Highway	
		Motorable Road	
		Post Office	
		Bank	
		PHC	
		Community Hospital (30 bedded)	
		College	
		Veterinary Centre	
		Daily Bazar	
		Weekly Bazar	
	Agriculture Extension Offices		
231.	What are the main sources of Drinking Water? (FIRST 3)	Piped water into dwelling/ yard/plot 1	
		Public tap/ standpipe 2	
		Tube well or borehole 3	
		Protected dug well 4	
		Protected spring 5	
		Rainwater 6	
		Tanker truck 7	
		Cart with small tank 8	
		Bottled water 9	
		Community RO plant 10	
232.	What are the Main Sources of Fuel for Cooking for the villagers (FIRST 3)	Electricity 1	
		LPG 2	
		Bio Gas 3	
		Kerosene 4	
		Coal 5	
		Charcoal 6	
		Wood 7	
		Straw/Grass/leaves 8	
		Agricultural crop waste 9	
		Cowdung/dung cake 10	
		Other (Specify) অন্যান্য (উল্লেখ কৰক)	
233.	What are the main sources of fodder? (FIRST 3)	Oats 1	
		Napier Grass 2	
		Rice Bean 3	
		Deenanath Grass 4	
		Guinea Grass 5	
		Cow pea (Leesera) 6	
		Rina Grass 7	

		Para Grass.....	8			
		Maize /Corn	9			
COMMON RESOURCE PROPERTY (Both 1 and 2)						
234.	What are the main sources of fodder?	Particulars	Nature of Right 1. Common property 2. Private property	Months Used in the Year	Nos. of HH Benefitted	User Charges
		Grazing Reserve/Ground				
		Water Bodies				
		Forest (source of NTFP)				
		Other				
SOIL WATER & VEGETATION RELATED (Both 1 and 2)						
235.	Depth of Water Table (meters below ground level)?	Month	Summer Months April -June	Monsoon Months July-Sept	Winter Months Oct - Mar	
		Depth (meters below ground level)→				
236.	Has there been any soil erosion in the village?	Yes				1
		No				2
237.	IF YES, what type of soil erosion is observed?	Rain Drop or Splash Erosion.				1
		Sheet Erosion				2
		Rill Erosion				3
		Gully Erosion				4
		Stream Bank Erosion				5
238.	What is the average rainfall (in mm) last year?	In mm				
					
239.	Was there any change in the rainfall pattern in last 3 years?	Yes				1
		No				2
240.	IF YES, has it increased or decreased?	Increased				1
		Decreased.....				2
241.	Areas under Forest/ Groves in Village (in Ha, etc.)	IN HA				
	 NO FOREST COVER				88
242.	IF YES, type of Forest/Grove	Tropical Wet Evergreen				1
		Tropical Semi-Evergreen				2
		Tropical Moist Deciduous				3
		Tropical Dry Deciduous				4
		Sub-Tropical Pine Forests				5
243.	Water Availability in the Streams?	Perennial				1
		Seasonal				2
244.	IF SEASON, MENTION MONTHS FROM - TO		FROM MM	TO MM		
		Monsoon				
		Summer				
		Winter				
245.	Do you experience floods in the region?	Yes				1
		No				2
246.	IF YES, what was the longest duration of the flood in the last 2 years?	In Days				
					
247.	What was the damage in the flood you mentioned?	Extensive damage				1
		High level of damage				2
		Some damages				3
		A few damages				4
		Hardly any damage				5
248.	Was there a shortage of water in any season in the last 2 years?	Yes				1
		No				2
249.	IF YES, please mention the seasons?	Summer				1
		Winter				2
		Autumn				3
		Spring.....				4

250.	Has the village experienced crop failure in the last 2 years?	Yes 1 No 2	
251.	What are the reasons for crop Failure?	Drought 1 Excessive Rain 2 Flood 3	
252.	Are you aware of the proportion of soil organic carbon in this village?	Yes 1 No 2	
253.	If yes, what is the range?	FROM (in %)... TO (in %)	

VILLAGE LEVEL INSTITUTIONS (NON-POLITICAL/NON-RELIGIOUS) (Both 1 and 2)

254.	What is the type of village institutions you have in this village?	Type of Village Institutions Codes: SHG (ASRLM) =1, Village Organisation-VO (ASRLM), Clubs/CBOs =3, Other (Specify)	Name of the Institution	Year of Formation MM/YYYY	Number of Members	Main Activities Social mobilisation =1, Livelihoods=2, Finance=3, Recreation=4, Sports =5
		1				
		2				
		3				
		4				
		5				

GOVERNMENT SCHEMES (Both 1 and 2)

255.	Details of Government Schemes that the village getting benefited from in the last financial year	Department	Name of the Scheme	Codes - Schemes	Number of beneficiaries in the village
		Agriculture Central = 1	National Food Security Mission (NFSM)	1.	
			Prime Minister Krishi Sinchayee Yojana	2.	
			Green Revolution - Krishonnati Scheme	3.	
			Rashtriya Krishi Vikas Yojana (RKVY)	4.	
			Paramparagata Krishi Vikash Yojana	5.	
			Soil Health Card under National Mission on Sustainable Agriculture	6.	
			Mission Organic Value Chain Development for NE Region	7.	
			Cultivation of pulses and oil seeds in rice fellow	8.	
		Agriculture State = 2	Chief Minister Samagra Gramya Unnayan Yojana	9.	
			Assam Agribusiness & Rural Transformation Project (APART)	10.	
			National Rural Livelihood Mission	11.	
			Mahatma Gandhi National Rural Employment Guarantee Scheme	12.	
		P&RD - Centre = 3	National Social Assistance Programme	13.	
			Pradhan Mantri Awas Yojana – Rural	14.	
		P&RD - State	Kanaklata Mahila Sabalakaran Yojana:	15.	
Swahid Kushal Kunwar Sarbajanin Bridhya Pension	16.				

		Achani:		
	Soil Conservation	Integrated Watershed Development Programme	17.	
		Afforestation	18.	
		Development of cultivable wasteland under land development project:	19.	
		Construction of water harvesting structures like check dams, field ponds, and earthen periphery bunds under land development projects	20.	
		Gully Control Programmes and anti-erosion measures	21.	
	Animal Husbandry & Veterinary Dairy Development	White Revolution	22.	
		Livestock Insurance Programme:	23.	
		Capacity Development of Livestock and Poultry Farmers	24.	
		Comprehensive Vaccination Programme of Cow and Other Animals	25.	
		Supply of Feeder Seeds	26.	
		Fodder Development Schemes	27.	
	Food, Civil Supplies and Consumer Affairs	National Food Security Mission	28.	
		Pradhan Mantri Ujjawala Yojana	29.	
		Strengthening of Aamar Dukans	30.	
		Amar Dukan on Wheels:	31.	
		Setting up of Price Stabilization Fund	32.	
		Financial assistance to BPL families for domestic gas connection	33.	
	Education	Fair Price Shop Automation	34.	
		National Literacy Mission (NLM)	35.	
		Mid-Day Meal Programme	36.	
		Sarva Shiksha Abhiyan (SSA)	37.	
		Pratyahban	38.	
		Distribution of bi-cycle to girl students	39.	
		Waiver of admission and tuition fee	40.	
		Distribution of free textbook below graduation level	41.	
		Free textbook for the students of the degree courses	42.	
	Distribution of two-wheeler to the top girl's student	43.		
	Social Welfare	The Mission for Protection and Empowerment of Women	44.	
		Integrated Child Development Services (ICDS)	45.	
		National Nutrition Mission- SNP, POSHAN Abhiyan	46.	
		Umbrella scheme for Differently abled and Other vulnerable persons	47.	
		PM Matri Vandana Yojana	48.	
		Pension benefit to unmarried daughters of pensioners	49.	

			Creation of safe and child friendly space for vulnerable children in the children's homes	50.	
			Scholarship to differently-abled students	51.	
			Unemployment allowance to differently abled persons	52.	
			Construction of Night Shelter Homes	53.	
			Assistance to voluntary organization	54.	
SOIL CONSERVATION AND WATER SHED/SPRING MANAGEMENT (Only1)					
256.	Has afforestation programme taken up in the village in the last 2 FY years?	Yes 1 No 2			
257.	Has cultivable wasteland under land development project been developed?	Yes 1 No 2			
258.	Have the Construction of water harvesting structures happened in the village?		Yes=1	No=2	
		Construction of check dams			
		Construction of field ponds			
		Construction of earthen periphery bunds			
		Rejuvenation of ponds / water bodies			
SPRING SHED (Only1)					
259.	Is there a spring shed in the village?	Yes 1 No 2			
260.	IF YES, how many spring sheds are there and please specify name and recharge area?	Number	Name of the Spring Shed	Recharge area in HA	Toxicity Test Undertaken Yes=1, No=2
		1			
		2			
		3			
		4			
261.	IF YES, how many households are within the recharge area under the spring shed?	Number			
262.	Out of them, how many are dependent on the spring?	Number			
263.	Please mention the purposes the spring is used for? (Multiple)	Irrigation 1 Washing clothes 2 Washing Utensils 3 Drinking water 4 Cooking purposes 5 Washing clothes 6 Bathing 7 Washing Animals 8 Toilet purposes 9 Other (Specify) অন্যান্য (উল্লেখ কৰক)			
264.	What are activities related to maintenance and protection of springs already taken up under ongoing project? (Multiple)	Afforestation 1 Construction of water tank or any other water storage structure 2 Other (Specify) অন্যান্য (উল্লেখ কৰক)			
265.	Has the village identified interventions for aquifer recharge?	Yes 1 No 2			
266.	Has the village taken up initiatives to divert excess run off water to the spring from its catchment area?	Yes 1 No 2			

267.	Has the village taken up initiatives to prevent the following through rulings or fines or punishments?	Anti - Environment activities	Yes =1	No=2
		Over-grazing		
		Deforestation		
		Artificial gullies		
		Road construction		
		Over extraction		
268.	Are you aware, were people trained on managing community resources/assets?	Yes	1	
		No	2	
269.	What kind of awareness activities were held? (Multiple)	Meeting	1	
		Miking	2	
		Banners/Posters/Hoardings	3	
		Flyers/Pamphlets.....	4	
		Wall writing.....	5	
		Rally	6	
		Other (Specify) অন্যান্য (উল্লেখ কৰক)		
COMMUNITY PARTICIPATION (Only1)				
270.	Do you have user groups in the village?	Yes	1	
		No	2	
271.	If yes, how many user groups are there?	Number		
272.	How many members are associated with the user groups?	Number		
273.	Do you have watershed committee in the village?	Yes	1	
		No	2	
274.	If yes, how many members are part of the committee?	Number		
275.	Is the village engaged in the following activities? (MULTIPLE RESPONSE POSSIBLE)	NRM	1	
		Production.....	2	
		Livelihood	3	
		Other (Specify) অন্যান্য (উল্লেখ কৰক)		
276.	Do community members of the village participate in the watershed/spring shed project?	Yes, to a large extent	1	
		Yes, to some extent.....	2	
		Very rare participation.....	3	
		No participation at all	4	
277.	Do you think Involvement and Participation of the community in decision-making at the local government level is appreciable?	Yes	1	
		No	2	
278.	Are there sufficient employment opportunities in the village?	Yes	1	
		No	2	
279.	According to you, Is the wage rate sufficient (as per the minimum wage rate)?	Higher	1	
		Right.....	2	
		Lower	3	
280.	Have you observed reduction in migration in the last 2 years?	Yes	1	
		No	2	
281.	Do you think women have sufficient employment opportunities in the village?	Yes	1	
		No	2	
282.	Do you think the vulnerable communities have sufficient employment opportunities in the community?	Yes	1	
		No	2	

Classification of Land	Remarks
Forest	Incl. private forests
Area under Non-culturable Use	Incl. all lands occupied by buildings, roads & railways or under water, e.g., rivers & canals and other lands put to uses other than agriculture
Barren and Un-culturable Land	Land which cannot be brought under cultivation except at an exorbitant cost
Permanent Pastures and other Grazing Lands	Incl. village common grazing land
Land under Miscellaneous Tree Crop, etc.	Incl. all cultivable land which is not included 'Net area sown' but is put to some agricultural uses. Lands under Casuarina trees, thatching grasses, bamboo bushes and other groves for fuel, etc. which are not included under 'Orchards.
Culturable Waste Land	Lands available for cultivation, whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and the last five years or more in succession for one reason or other
Fallow Lands other than Current Fallows	Included all lands, which were taken up for cultivation but are temporarily out of cultivation for a period of not more than one year and not more than five years
Current Fallows	This represents cropped area, which are kept fallow during the current year
Net area Sown	This represents the total area sown with crops and orchards