Meghalaya

REPORT

to Citizens

2022-2023

Meghalaya Basin Development Authority
Meghalaya Basin Management Agency
Government of Meghalaya


MBDA
MEGHALAYA


MBMA
Meghalaya Basin Management Agency
ENVIRONMENT | ENTREPRENEURSHIP | MARKETS | FINANCE


GOVERNMENT OF MEGHALAYA

PREFACE

Over the last few decades, climate change and anthropogenic activities have degraded Meghalaya's natural resources and are among the state's most pressing issues. Shifting weather patterns have impacted Meghalaya due to its geo-ecological fragility, landscape, and socio-economic profile, affecting agricultural productivity, biodiversity, water security, and livelihood assets. Environmental contamination, including unscientific and primitive coal mining methods, has contributed to the deterioration and pollution of ecosystems. Conditions are only worsening with growing populations and rising resource requirements. Furthermore, Meghalaya's indigenous practice of passing down traditional knowledge from one generation to another is weakening and fast becoming a thing of the past. Hence, there is an urgent need for an intervention that comprehensively addresses these multi-faceted challenges, aids communities in overcoming them, and facilitates a sustainable and supportive turnaround.

Since 2012, the Meghalaya Basin Development Authority (MBDA) and the Meghalaya Basin Management Agency (MBMA), through their citizen-centric programs and bottom-up projects, have been working to deliver such integrated services to the citizens of Meghalaya. Both entities are incorporated under the State's Planning Department. The MBDA is a registered society that implements work in collaboration with community groups, voluntary organizations, non-profit institutions, and government departments, while the MBMA is a registered company that implements Externally Aided Projects (EAPs) to bridge prevailing gaps in developmental processes. Work is centred on sustainable entrepreneurship, community-led natural resource management, rural finance, market linkage, and knowledge services by leveraging investments from the state and central governments, UN organizations, multilateral institutions, and other stakeholders to advance rural development and facilitate sustained growth at the grassroots.

As of 31 March 2023, a total of five EAPs are being implemented, all at different stages, covering Meghalaya's 6800+ villages - the Meghalaya Livelihoods and Access to Markets Project (Megha-LAMP) supported by the International Fund for Agricultural Development (IFAD), the Meghalaya Community-Led Landscape Management Project (CLLMP) funded by the World Bank, and the Project for Community Based Forest Management and Livelihoods Improvement in Meghalaya (MegLIFE) funded by the Japanese International Cooperation Agency (JICA). Two other EAPs, funded by the KfW Development Bank, are in preparatory phases, and on-the-ground implementation will commence shortly. Other initiatives implemented by MBMA and MBDA include the Promotion and Incubation of Market-driven Enterprises (PRIME), the Farmers' Collectivization for Upscaling of Production and Marketing Systems (FOCUS), and the Smart Village Movement (SVM).

Cumulative yearly progress and achievements are collated, packed together, and reproduced in the form of a report to appraise and update the citizens of Meghalaya about the performances of both MBDA and MBMA. The Report to Citizens 2022-2023 edition strives to enhance standards in reporting and offer a comprehensive, detailed, transparent, and well-presented overview.

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CHAPTER 01

THE MEGHALAYA BASIN DEVELOPMENT AUTHORITY (MBDA)

Introduction

Meghalaya faces a range of complex challenges in its pursuit of sustainable growth and development, stemming equally from the demand and supply sides. On the demand side, the state grapples with maximizing productivity and returns for farmers amid challenges of deteriorating natural resources and unsustainable land use practices. These challenges are compounded by the effects of climate change, which threaten the stability of agricultural systems and exacerbate environmental degradation. Farmers face significant challenges in connecting with remunerative markets, accessing capital and finance, and leveraging platforms such as collective marketing to improve incomes and profits, while citizens struggle to access financial linkage opportunities and credit, leading to urban migration in search of job security. Although the state has invested significantly in the enterprise sector to capitalize on its growth potential, entrepreneurship remains in its nascent stages, and extending sustainable livelihood opportunities state-wide will take time. On the supply side, the conventional top-down approach has created a disconnect with ground realities, while the absence of a unified platform for convergence has led to instances of duplicity of efforts and wasteful use of resources, with expertise residing in silos and not always accessible to the departments and programs that require them.

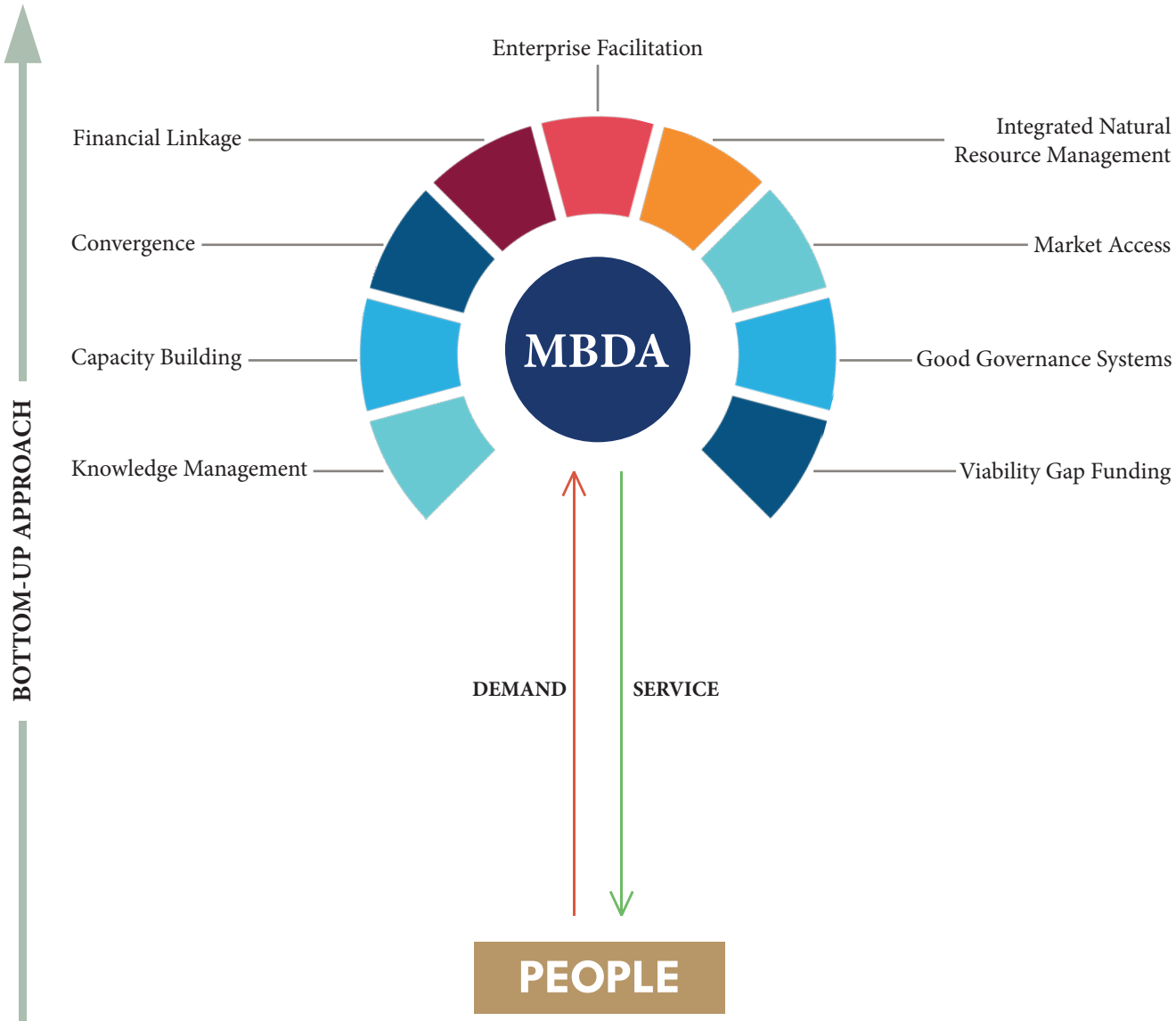
Given this, the Meghalaya Basin Development Authority (MBDA), a non-profit registered under the Societies Registration Act 1860 and headed by the Chief Secretary, Government of Meghalaya, was established to take ownership of the complex challenges and spearhead adaptable solutions that cater to a wide range of demands. Since its establishment in 2012, the MBDA has harnessed natural resources and river basins to create livelihood opportunities for rural citizens and foster inclusive development. Notably, the MBDA actively promotes Natural Resource Management (NRM) initiatives while also facilitating access to capital and high-leverage markets. The primary goal is to alleviate poverty and enhance the quality of life through collaborative programs and initiatives involving grassroots-level stakeholders, government departments, organizations, civil societies, and traditional institutions. These efforts are aimed at ensuring effective planning, good governance, appropriate and timely interventions, and adequate investment.

Aims & Objectives

The aims and objectives for which the MBDA is established are as under:

1. To sustainably develop river basin resources which can ultimately lead to promoting sustainable livelihoods and gainful employment opportunities for residents of river basins, independent or through the convergence of initiatives.
2. To, without any motives to earn profit, enhance and improve the livelihood for the poor in the state of Meghalaya.
3. To increase sustainable income generating cultivation systems and establishment of micro/ small scale/ medium scale bio-industrial units.
4. To enable people's participation to select livelihood activities most suited to their resources, skills, and interest.
5. To address the felt needs and priorities of women and increase their participation in local institutions and decision-making processes.
6. To promote micro finance including saving, and thrift and micro insurance projects.
7. To provide business development services including demonstrations, trainings, consultancies and advisory services on all matters relating to technical, organizational, management commencement and expansion of the enterprise, purchasing techniques, production, purchases, sales, material and cost, quality control, marketing, advertising, publicity, personnel' information technology services, development and transfer, backward and forward business linkage promotion and horizontal linkage among enterprises, export and import to and for institutions/ concerns/ bodies/ associations/ corporations/ public and local authorities/ trusts/ cooperative societies.
8. To help in promoting sustainable enterprises at micro and small-scale levels especially to the poor by way of providing equity, debt financing, leasing, insurance and other means and mechanisms that may be necessary for promoting livelihoods based on basin resources
9. To rotate and utilize the resources of the authority for ongoing building up of new enterprises by exciting the enterprises that have achieved the sustainable scale and viability, through appropriate mechanisms; and
10. To act as a catalyst in facilitating mobilization of financial resources to micro/small/ medium scale enterprises to benefit the poor.

MBDA
A Citizen-Centric and Bottom-up Approach to Implementation



Institutional Arrangements

The institutional structure of MBDA involves the participation of the highest level of Government to enable convergence down the entire structure.

MBDC
Policy Level

Meghalaya Basin Development Council
Apex body headed by the Chief Minister and the Council of Ministers, responsible for providing overall direction and strategy for the programme.

MBDA
State Level

Meghalaya Basin Development Authority
The Chief Secretary is the Chairman and Principal Secretaries as members, ensuring departmental convergence.

DBDU
District Level

District Basin Development Units (DBDUs)
The District Basin Development Units (DBDUs) are headed by the respective Deputy Commissioners, ensuring convergence of various arms of the government at the district.

EFC
Block Level

Enterprise Facilitation Centres (EFCs)
The Enterprise Facilitation Centres (EFCs) are institutions that act as an interface between the Citizens and the Government.

The 4 Pillars of Meghalaya

MBDA has developed a unique 4-pillar structure that emphasizes bottom-up, citizen-centric, and inclusive development, which comprises four key components: Natural Resource Management, Entrepreneurship Development, Good Governance, and Knowledge Management. Natural Resource Management focuses on the sustainable use of natural resources to enable long-term, inclusive, and ecologically sound development. Entrepreneurship Development encompasses a range of processes designed to support existing and potential entrepreneurs by creating a conducive and enabling environment for enterprises to thrive. Good Governance initiatives stress transparency, inclusiveness, and stakeholder participation through systematic engagement with traditional institutions and civil societies, adaptive leadership programs, social impact assessments, and programs that promote ethics in governance. Knowledge Management forms the backbone of the entire process, providing a network of support services that include accessible repositories, documentation, lesson learning, action research, and communication and outreach.

Facilitating Convergence

Between 2012 and 2015, the MBDA facilitated the convergence of programs and policies across government departments for sustainable development through extensive collaboration. During this period, the MBDA implemented interventions that were focused on NRM, entrepreneurship, and intellectual development to empower communities in addressing critical ecological and economic issues and pursuing their own development aspirations.

Current Work

MBDA's current work focuses on co-conceptualizing, collaborating on, and implementing sustainable and innovative development projects such as the JICA-funded Project for Community Based Forest Management and Livelihoods Improvement in Meghalaya (MegLIFE), the Smart Village Movement, and the Institute of Natural Resources, Meghalaya (INR). MBDA's other mandates remain constant - it continues to play a vanguard role in environmental and natural resource conservation initiatives, supports critical development programs through viability gap funding, facilitates enterprise building and livelihood promotion interventions, contributes to climate change management, adaptation, and mitigation awareness, and provides strong and accessible knowledge services to support the implementation of the various programs under its umbrella.


JICA

1.1 MEGLIFE

(PROJECT FOR COMMUNITY BASED FOREST MANAGEMENT AND LIVELIHOODS IMPROVEMENT IN MEGHALAYA)

As of 2017, the total forest area of Meghalaya accounted for approximately 76.4% of the total area (22,429 km2). However, the forests have deteriorated, as the forest area decreased by 142 km2 (approximately 1.2%), and the Open Forest rate increased by 157 km2 to approximately 42% from 2013 to 2017 (Indian State of Forest Report 2017). Deforestation and forest degradation cause a decline in the production of timber and non-timber forest products, soil erosion, and sedimentation in rivers, leading to the deterioration of local communities' livelihoods and access to water resources.

To address the above, the Project for Community-Based Forest Management and Livelihoods Improvement in Meghalaya (MegLIFE) was launched.

The objective of MegLIFE is to restore and conserve natural resources within the project villages through sustainable forest management, livelihood improvement, and institutional strengthening, thereby contributing to the conservation of the environment, biodiversity, and upliftment of the socio-economic conditions of people in the State of Meghalaya.

The Project falls in line with "Meghalaya Vision 2030" issued by the State Government and aims at sustainable community forest management through participatory planning and inclusive growth development along with capacity development for people and institutions concerned.

The project will also contribute to achieving the objectives of North Eastern Region Vision 2020 which aims to alleviate poverty and emphasize inclusive sustainable development through sustainable community forest management, grassroots planning by adopting participatory development approach. MegLIFE will also work in achieving the objective of "Green India Mission" under the National Action Plan on Climate Change.

MegLIFE

IMPLEMENTING AGENCY

Meghalaya Basin Development Authority (MBDA)

FUNDING AGENCY

Japanese International Cooperation Agency (JICA)

PROJECT AIM

To restore and conserve natural resources within the villages through sustainable forest management, livelihood improvement, and institutional strengthening, thereby contributing to the conservation of the environment, biodiversity, and uplifting of socio-economic conditions of people of Meghalaya

PROJECT PERIOD

2020 *to* 2030

PROJECT COVERAGE

22 Blocks *in* 11 Districts

PROJECT OUTCOME

Afforestation of 22,500 ha. of land, the rejuvenation of water resources, community nurseries, training and capacity building of stakeholders, and Income Generation Activities for the Communities

at a Glance

COMPONENT 1:
Sustainable Forest Management

Sustainable Forest Management includes planning and implementation of core forestry operations Major sub-components includes grass-root planning of forestry operations; implementation of forest working plans for individual forests units; planning and development of village level community nurseries and nurseries management by Forest and Environment Department and Autonomous District Council; soil and water conservation measures; fire management in fire-vulnerable forest areas; development of critical infrastructure for forest management.

COMPONENT 2:
Community Development and Livelihood

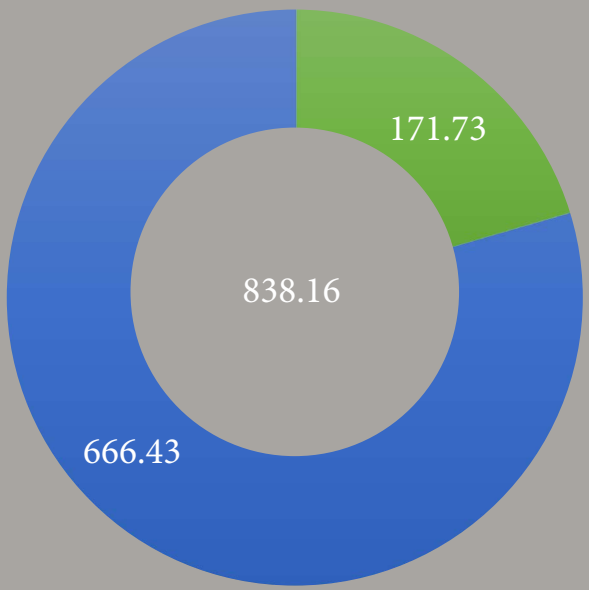
Community Development and Livelihood supports forest-based livelihoods and enterprise development for enhanced incomes of communities from forest management. This component is designed to provide sufficient incentives for community participation in sustainable land and water management.

COMPONENT 3:
Institutional Strengthening

Institutional Strengthening addresses institutional capacity gaps of the implementing agencies with assessment, reforms, training and capacity building, supply of equipment, hardware and software, provision for professional support, development and implementation of social and environmental framework, knowledge management and communication etc.

Financial Pattern - INR Cr

JICA - 666.43 INR Cr
GoM - 171.73 INR Cr
Total - 838.16 INR Cr



MegLIFE - Participatory Approach

MegLIFE has adopted a participatory approach with a focus on inclusiveness, i.e., activities being implemented are identified at the village level in a participatory manner. The villages with a high deprivation percentage are selected for the implementation of project activities.

Afforestation activities cover private/community forests that have high levels of degradation, vulnerability to soil erosion, and low biodiversity. Besides NRM activities, livelihood improvement of vulnerable communities is also an important focus through which the project aims to create alternative livelihoods to the forest-dependent communities and encourage the sustainable use of forest and non-timber forest products.

MegLIFE has completed the 2-year 'Preparatory Phase' and entered the 'Implementation Phase'. The project is being implemented by the community at the village level through Village Project Implementation Committees (VPICs).

The project is divided into 3 phases: Preparatory Phase - 2 Years (2019-20 to 2021-22), Implementation Phase - 6 Years (2021-22 to 2027-28) & Consolidation (Closing) Phase - 2 Years (2027-28 to 2029-30).

Achievements

Under Component 1:
Sustainable Forest Management

Component	Target	Achievement till March 2023
1.1 Participatory Land Use Planning		
Printing maps for land use planning	1(no.)	Demarcation of 500 villages completed. Printing of LULC Maps of 175 batch-1 village completed. Drone Mapping of 2nd Batch Villages going on.
Facilitation of participatory land use planning at communities	500 (no.)	PLUP of 100 Batch-1 Villages completed.
1.2 Restoration of degraded forests		
Restoration of timber resources (ANR with enrichment planting)	1600 (ha)	Advance Work for plantation started
Restoration of natural vegetation (ANR)	7700 (ha)	Advance Work for plantation started
Afforestation on barren land (AR)	5500 (ha)	Advance Work for plantation started
1.3 Forestry nurseries		
Creation of new permanent nurseries	8 (no.)	6 Permanent nurseries established by Soil and Water Conservation Dept. 2 more under establishment by JHADC & KHADC.
Improvement of existing permanent nurseries	8 (no.)	Fund placed to Silviculture Division of FED for improvement of 3 Hi tech nurseries
Creation of new community nurseries	54 (no)	Nursery works started in 50 villages
1.4 Conservation of forests in good conditions		
Construction of RCC Water Storage Tank for Drinking Water	750 (no.)	Site verification completed in 42 villages
Construction of Spring Tapped Chamber	500 (no.)	Site verification completed in 46 villages

Potential Plantation Area identified for 2023 plantation season

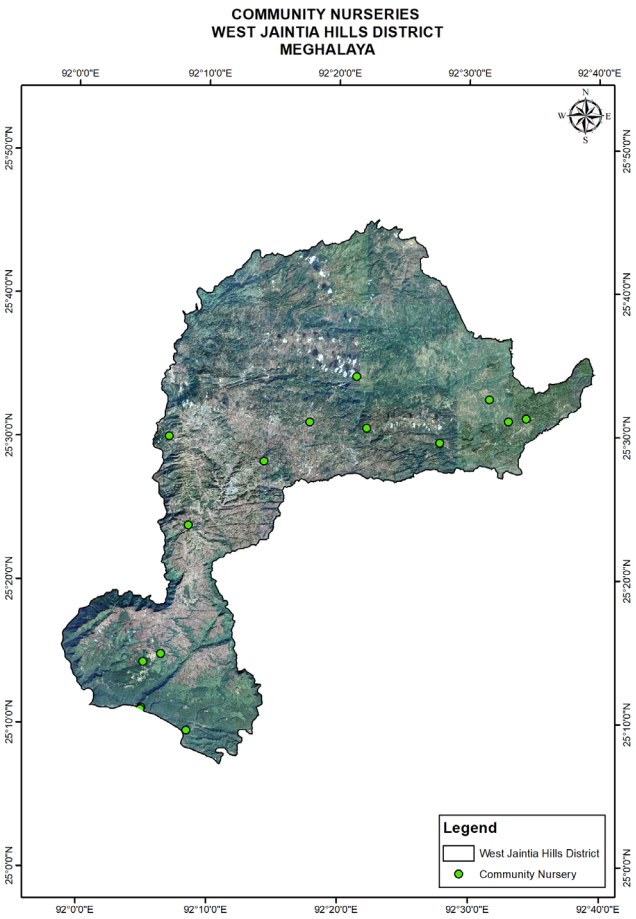
Block	Villages to be Covered	Total Potential Area (Ha)
Dambo Ron-jeng	Chibilbang, Dagal Nokat, Dambo Chare, Dogep gipuram, Mejolgre Nokat, Miktongjeng, Rongcheck Akong, Thaugittim	168.24
Samanda	Chonggigre, Dolwarigre, Dorakgre, Gitokgre, Gonggnagre, Jingamgre, Kalak Songgital, Kalak Songgitcham, Sawilgre	333.13
Songsak	Dangkong Chitoregre, Dangkong Dokatong, Dangkong Doragre, Dangkong Gilmatdam, Dangkong Songgital, Dangkong Tasekgre, Dangkong Tasilgre	12.92
Saipung	Daistong, Lura, Saipung, Situng, Tlangpui, Tuidam, Tuituk	353.53
Mawkynrew	Laitmynsang, Mawdulop, Mawjatap, Mawsir, Mynsang, Pashang, Siangkhnai	96.89
Mawryn-gkneng	Iapshyndeit, KsehPyndeng, Kut, Pomlahier, Pommura	136.46
Mairang	Laitdombah, Mawlumkhri, Mawtharap, Patharlyndan, Sohtyngkhur (63.3 Ha available), Sylleibah, Umniangriang, Umpdem	200.49
Kharkutta	Dokongsi C, IllaRongchim, Imsambal, Kalwe, Mandadrop, Mitegittim, Remagittim	62.39
Resubelpara	Ajasiram, Chore Pahar, Gambil Apal, Guresimram, Khaldang Agitok, Nokatgre, Rongmatcha, Rongpetchi	182.52
Umling	Bleishah, Jermanai, Lumdieng, Umden Khasi, Umden Manipur, Umdennongtluh, Umpyrdong, Umshit	113.76
Umsning	Mawkorblang, Mawlang, Niangdai, Patharan, Sain Urbania, Umnongkrem, Umraleng, Umtyrkhang, Wahpipa	37.58
Baghmara	Agrenggitim, Chramgre, Darang Akepgittim, Darang Boldak, Darit Asim, Dobakol Awemong, Dobakol Chenggalgittim, Era aning, Rongkandi Dengjama, Rongsa Awe	371.31
Gasuapara	Andamarigre, Balmoragre, Darit Simragittim, Darit Wacholgre, Dompaigre, Gnengkolsi Songgitcham, Rangmai Aruak, Rongchonggre, Tebisokgre, Wagebokgre, Wakskogre	66.77
Rongara	Amonggre, Bolbokgre, Chimitap, Bolchugre, Dilsinggre, Gulpani Songmong, Taidang	209.38
Betasing	Ajonggre, Bolsal Dobokgre, Chiringpara, Golmangre, Kasibil, Malchapara, Mokpara, Skagre	
Zikzak	Ajonggre, Bolsal Dobokgre, Chiringpara, Golmangre, Kasibil, Malchapara, Mokpara, Skagre	46.06
Mawkyrwat	Mawbri, Mawkhyrwang, Mawrap, Mawsain, Mawtangden, Nongnam, Pyndenlyngdoh, Pyndensohlang	14.6
Dalu	Akinpara, Darenggagiri (Darangagre), Mandagre, Rangdapara, Sandongpara, Selbalgre, Songmagre	128.31
Gambagre	Abendagre, Balikimgiri, Jarimpara, Kapogre, Rajinpara, Santogre, Sisogiri, Wakolanggre	41.65
Rongram	Anogre, Chinapgre, Dijinggre Apal, Dirikgre, Gindopara, Manggakgre, Rencha Apal, Marakapara, Renchagre, Silsakgre, Teksragre	137.41
Tikrikilla	Bawegiri, Dildigre, Katchunangre, Kurung, Megonggiri, Mengotchigre, Pedaldoba (Rabha), Rangtapgiri	28.27
Thadlaskein	Lakaroi, Lapangap, Pdeintaloo, Pdeniadaw, Sanaro, Shiabnai, Umjalisiaw	229.78
Grand Total		**3118.67**

Permanent Nurseries established in collaboration with Soil & Water Conservation Dept. & Autonomous District Councils

Sl. No.	District	Division
1	West Garo Hills	Tura (T)
		Tura (PC)
3	East Khasi Hills	Shillong (T)
4	South Garo Hills	Baghmara
5	West Jaintia Hills	Jowai (T)
6	East Garo Hills	Simsanggre
7	East Khasi Hills	Shillong (PC)
8	Jaintia Hill ADC	Sabah Muswang, WJH
9	Khasi Hill ADC	East Khasi Hills

Community Nurseries

Sl. No.	Block	Villages to Take up Nursery	No. of villages trained	Jungle clearing status	Land prepa-ration status	Beds prepa-ration
1	Mawkynrew	21	21	21	21	0
2	Mawryngkneng	13	13	10	1	0
3	Mawkyrwat	21	21	4	0	0
4	Mairang	23	23	12	3	0
5	Saipung	18	18	16	16	0
6	Thadlaskein	20	20	10	0	0
7	Umling	18	18	4	0	0
8	Umsning	20	16	4	0	0
9	Resubelpara	22	22	13	5	0
10	Kharkutta	18	18	6	6	0
11	Songsak	21	21	8	3	0
12	Samanda	19	19	14	13	13
13	Dambo Rongjeng	20	20	6	3	0
14	Baghmara	19	19	13	3	3
15	Gasuapara	22	22	12	5	2
16	Rongara	18	18	17	9	7
17	Gambegre	11	11	11	8	1
18	Dalu	19	19	3	3	0
19	Rongram	24	24	23	23	23
20	Tikrikilla	21	21	13	3	0
21	Zikzak	22	22	22	0	0
22	Betasing	23	23	22	7	1
Total		**433**	**429**	**264**	**132**	**50**



Under Component 2:
Community Development & Livelihoods Improvement

Component	Target	Achievement till March'2023
Community mobilization workshops (mobilized by NGO)	1500 (no.)	1st round Workshops at 500 villages completed
2.2 Micro Planning		
Training/workshops on how to make a micro plan (by NGO)	1500 (no.)	conducted in 175 Batch-1 Villages
Conducting PRA (facilitated by NGO)	1500 (no.)	Do
Planning on IGAs and convergence with available national/state schemes (facilitated by NGO)	1500 (no.)	Do
2.3 Entry Point Activities (EPAs)		
Workshops to prioritize/determine EPA and decide village's contribution (unskilled labor, materials	1000 (no.)	Workshops scheduled for 298 villages
Conducting EPA	500 (no.)	Work initiated in 370 villages
2.4 Soil & Water Conservation for Livelihood Improvement		
Construction of rainwater harvesting structure	250 (no.)	This will be constructed along with Community Hall
Construction of drinking water tank	1000 (no.)	Site verification completed in 28 villages

Status of Microplanning in 175 Batch-1 Villages

District	Block	Total Batch I Village	Completed Exercise on the field	Ongoing Exercise on the field	Yet to Start
East Garo Hills	Dambo Rongjeng	8	4	1	3
East Garo Hills	Samanda	9	2	4	3
East Garo Hills	Songsak	7	2	3	2
East Jaintia Hills	Saipung	7	7	0	0
East Khasi Hills	Mawkynrew	7	6	0	1
East Khasi Hills	Mawryngkneng	5	2	3	0
Eastern West Khasi Hills	Mairang	8	3	2	3
North Garo Hills	Kharkutta	7	3	2	2
North Garo Hills	Resubelpara	8	7	1	0
Ri-Bhoi	Umling	8	4	1	3
Ri-Bhoi	Umsning	9	2	2	5
South Garo Hills	Baghmara	10	4	2	4
South Garo Hills	Gasuapara	11	8	1	2
South Garo Hills	Rongara	6	4	1	1
South West Garo Hills	Betasing	8	3	2	3
South West Garo Hills	Zikzak	8	3	2	3
South West Khasi Hills	Mawkyrwat	8	8	0	0
West Garo Hills	Dalu	8	3	3	2
West Garo Hills	Gambegre	8	4	3	1
West Garo Hills	Rongram	10	8	0	2
West Garo Hills	Tikrikilla	8	4	3	1
West Jaintia Hills	Thadlaskien	7	7	0	0
Total		**175**	**98**	**36**	**41**

Status of Entry Point Activities

District	Block	Total Villages opted for Community Hall	Identified site approved by VPIC	Environmental and Social Screening
East Garo Hills	Dambo Ronggengs	17	15	1
East Garo Hills	Samanda	18	12	12
East Garo Hills	Songsak	14	11	0
East Jaintia Hills	Saipung	14	12	0
East Khasi Hills	Mawkynrew	17	17	0
East Khasi Hills	Mawryngkneng	8	7	7
Eastern West Khasi Hills	Mairang	17	16	8
North Garo Hills	Kharkutta	16	15	4
North Garo Hills	Resubelpara	20	20	20
Ri-Bhoi	Umling	7	7	0
Ri-Bhoi	Umsning	16	16	0
South Garo Hills	Baghmara	18	17	4
South Garo Hills	Gasuapara	22	22	9
South Garo Hills	Rongara	17	17	16
South West Garo Hills	Betasing	20	20	20
South West Garo Hills	Zikzak	20	20	0
South West Khasi Hills	Mawkyrwat	16	12	12
West Garo Hills	Dalu	22	18	18
West Garo Hills	Gambegre	19	19	19
West Garo Hills	Rongram	19	18	18
West Garo Hills	Tikrikilla	19	19	19
West Jaintia Hills	Thadlaskien	14	13	0
Total		**370**	**343**	**187**

Under Component 3:
Institutional Strengthening

Activities undertaken under this component include capacity development and training, monitoring and development, infrastructure and mobility, PR and publicity, establishment of project implementation units, and consulting services.

Table below shows Training conducted under this component:

Sl. No.	Training	Trainees	No. of Persons Trained
1	Orientation Training	BPMs & NGO Staff	100
2	MegLIFE Accounting	Program Associate, Finance	11
3	TOT on VPIC Management	BPMs & NGO Staff	100
4	Participatory Land Use Planning	Do	100
5	Micro-plan Preparation	Do	100
6	VPIC Management	VPIC Executive Committee Member	6000
7	Orientation of VCFs	Village Community Facilitator	500
8	Orientation on Raising Community Nursery	SWCD & ADC Foresters & BPMs	50
9	Training on Raising Community Nursery	VPIC Member	866
10	Orientation Training of Field Engineers	Field Engineer	39
11	ToT on Raising Plantation in MegLIFE Villages	BPMs & NGO Staff & Project Associate, Forestry	127
Total			**7993**

Project Expenditure (INR Crore)

Financier	Costs	Expenditure
JICA	666.43	65.8
GoM	171.73	9.79
Total	**838.16**	**75.6**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www.cimap.res.in

1.2 INR

(INSTITUTE OF NATURAL RESOURCES, MEGHALAYA)

The Institute of Natural Resources, Meghalaya (INR), was established in 2014 as part of the Meghalaya Basin Development Authority (MBDA) and registered as a society under the Meghalaya Societies Registration Act, XII of 1983. Its purpose is to address issues related to sustainable natural resource use by strengthening and empowering stakeholders, particularly farming communities and entrepreneurs who rely on natural resources for their basic needs and livelihoods.

The primary goal of the Institute is to manage and enhance knowledge of natural resources and sustainable livelihoods. It currently provides knowledge services through three centres - the Centre for Bio-Resources, the Centre for Water Resources, and the Centre for Climate Change Adaptation and Mitigation. INR aims to enrich and empower individuals and communities by offering proven conservation technologies, management practices, and knowledge to increase productivity and profitability without depleting natural resources. It also facilitates the integration of information technology tools, remote sensing tools, Geographic Information System (GIS) and geospatial platforms, Global Positioning Systems (GPS), and local knowledge. These resources are used to develop and provide the necessary knowledge for integrated natural resources management planning, ensuring the sustainable fulfilment of basic and diverse livelihood needs of rural communities.

Vision

Educating and empowering all stakeholders and users of natural resources on the management of bio-resources, water resources, land resources, and climate change in order to address sustainable basic and livelihood needs and disaster risk reduction.

Mission

Facilitating development and dissemination of time-tested conservation technologies and management practices for improved productivity and profitability without deteriorating the natural resource base as also disaster preparedness plan.

Objectives

1. Facilitating information and knowledge support for concerned stakeholders and natural resource users on bio-resources, water resources, land (soil) resources, and climate change management.
2. Entering into partnerships with universities, research and development institutions, centres of excellence, stakeholders, and others to provide resource support (as Knowledge Partners) in the field of bio-resources management in order to address the users' long-term basic and livelihood needs.
3. Taking up studies and action/adaptive research for enhanced productivity of bio-resources, water resources, land (soil) resources within the sustainable development framework.
4. Establishing knowledge repository on biological, water, land (soil), disaster preparedness, and climate change adaptation.
5. To collaborate with global consultants, sector associations, and experts from national and international agencies involved in research and development, training, skill development, course accreditation, or other required sector specializations.
6. To cooperate and communicate with various associations in the sector or through other appropriate means (memorandums of understanding, collaboration agreements, partnering arrangements, and others) for the benefit of society.

Centres under INR

Centre for Water Resources

The Centre for Water Resources was established to better understand the state's water resource problems and to develop effective and long-term solutions. The centre is the result of inter-departmental collaboration and convergence, and it encompasses a broad range of activities.

The centre for water resources engages in a wide range of activities. These include conducting research on water related topics such as hydrology, water quality, water conservation and mainly focuses on developing and making available datasets related to the water sector for wider use and planning. As a result, it has the potential to cause a paradigm shift in data management, knowledge management, and inter-departmental integrated planning. It will also help to build capacity at various levels of government as well as at the community level. The centre is involved in community-level institution building and will assist in the establishment of a knowledge network with the assistance of a growing cadre of para-hydrologists. The scope of the centre is wide, and it is being geared up to make focused, need-based, and demand-based interventions as and when required.

Centre for Bio-Resources

The Centre for Bio-Resources focuses on Meghalaya's sustainable development whilst also ensuring long-term ecosystem health through the sustainable utilization of bio-resources through biotechnological approaches. The Centre's research activities are primarily focused on promoting the conservation, micro-propagation, and genetic improvement of the state's bio-resources through biotechnological approaches. Currently, the Centre focuses on plant resources in Meghalaya, including medicinal, and aromatic bio-resources. Conservation of these resources has been initiated through Documentation, Collection, Propagation and Development of Agro-technologies for their sustenance.

The centre for Bio-resources mostly collaborates with various stakeholders, including government agencies, researchers, local communities, and non-governmental organizations etc. The Centre established networking with various institutions, viz. CIMAP, ICAR, BSI, ZSI, NEHU, and the State Department of Agriculture, Horticulture and Medicinal Plant Board, Government of Meghalaya.

Centre for Climate Change Adaptation & Mitigation

Meghalaya being a hilly state and geo-sensitive in nature because of its strategic location, it is more vulnerable to Climate Change. Hence adaptation and mitigation measures at all levels of governance is the need of the hour. The state has drafted a State Action Plan on climate change in line with the National Action Plan. The Centre's primary objective is to facilitate the implementation of the State Action Plan on Climate Change by prioritizing sectors spelled out in it viz energy sector and preparation of a Detailed Project Report and facilitates implementation of Decentralized Green Energy Development Project in the state besides other as an Adaptation & Mitigation Project.

Key Activities of the Centres of INR

1. Decentralised Green Energy Development Project:

The Centre facilitates the planning, projectization, implementation by respective VECs, and monitoring of the Decentralized Green Energy Development Project. The purpose of this project is to promote Green Energy as an Adaptation Project to Mitigate Climate Change. Green Energy is generally defined as Renewable Energy that is collected from resources which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat. Renewable Energy often provides energy in four important areas: electricity generation, air and water heating/cooling, transportation, and rural (off-grid) energy services. Almost all income-generating activities require electricity. If these activities, be they micro, small, or medium enterprises, are harnessing Green Energy, it would be beneficial to them and to the environment. The other dimension would be to ensure that the ecosystem services value-add livelihood opportunities.

The project aims to harness green energy off-grid for unelectrified villages, cottage-based industrial units, eco-tourism villages, locality street lightings, and so on, which is cost-effective in nature. Pico Turbine is mainly used in small, remote communities, basically for lighting purposes.

Project activities include:

1. Training and Capacity Building of Barefoot Engineers, Village Energy Committee on operation &Maintenance.
2. Construction of Weir, Forebay, Penstock and Power House.
3. Installation of Hydroger and Transmission.
4. Street/House Lighting; Cottage based industrial units' connections, water lifting, etc

At present, 220 feasible sites have been identified as the target of the Decentralized Green Energy Development Project. The Pico-Turbines have been successfully installed at all 113 sites, generating approximately 3kW of electric power. The energy generated is transmitted at a frequency of 50 Hz, Single Phase, two-wire AC system, 230-240 volts, which is sufficient to electrify the villages' tourist spots, households, street lighting, community lighting, etc.

2. Open Limestone Channel in collaboration with the Megha-LAMP Project

Neutralization of acid mine drainage (AMD) contaminated water is being carried out at 15 sites in coal mining areas of West Garo Hills, South West Garo Hills, South Garo Hills, West Jaintia Hills, East Jaintia, and East Khasi Hills of Meghalaya. The chosen method involves constructing open limestone channels. This technique involves passing acidic water through a series of chambers filled with limestone. When the acidic water comes into contact with the limestone, it undergoes neutralization, making the water suitable for domestic use. The process effectively treats the water, mitigating the harmful effects of acid mine drainage.

The project objective is to ensure safe drinking and irrigation water by implementing eco-friendly solutions to treat acid affected water sources from coal mining activities, emphasizing mostly on water PH data and other water quality parameters.

OLC Sites

Sl. No.	Village	Type of Channel	Water Quality	
			Pre	Post
1	Rangad	OLC	4.06	5.1
2	Cham Cham	OLC	4.1	8.4
3	Sohkymphor	OLC	3.43	-
4	Lumshyrmit	OLC	3.07	4.9
5	Shkentalang	Open Limestone Incubation Chamber	2.67	-
6	Umladkhur	Open Limestone Incubation Chamber	3.4	5
7	Umsalang	Open Limestone Incubation Chamber	4.6	-
8	Shkenpyrsit	OLC	3.5	-
9	Laitmawsiang	Open Limestone Incubation Chamber	2.84	5.1
10	Laitduh	Open Limestone Incubation Chamber	3.68	-
11	Laitryngew	Open Limestone Incubation Chamber	3.6	5.6
12	Balughat	Open Limestone Incubation Chamber	3.3	-
13	Damalgre	Open Limestone Incubation Chamber	3.4	-
14	Amguri	Open Limestone Incubation Chamber	3.5	-
15	Mengkulgittim	Open Limestone Incubation Chamber	3.8	-

3. Hydrological Spring Mapping in Meghalaya

Hydrological Spring Mapping is currently underway for all villages within Meghalaya, aiming to generate a comprehensive spring database and disseminate the acquired data to water-related departments and organizations. This mapping initiative covers numerous villages across the state, and data on water quality has already been captured for over 6000 springs using the Sankalp app, with more data being collected continuously. Various water quality parameters such as pH, turbidity, odour, and discharge have been measured during the mapping process. Additionally, information on spring names, source locations, discharge levels, turbidity, odour, household dependency on the springs, uses of the water, ownership, catchment notes, and other relevant details have also been collected. Once the spring mapping is completed for the entire state, an Atlas containing the mapped springs will be generated. After the hydrological spring mapping, measuring the discharge during both the lean and peak periods can provide valuable insights into the quantity of water being discharged. This data can be used to develop a springshed development plan, prepare a Village Water Security plan, and conduct water budgeting for selected villages for future projects, ensuring sustainable water management and planning.

The project objective is to improve the quantity and quality of the water available within the village, propagate the importance of spring protection to the community, ensure water security for communities, conserve and protection of spring sources, and generate a spring database for future references.

Abstract of Springs Mapped

District	Total Villages mapped	Total Springs mapped
East Khasi Hills	272	1561
West Khasi Hills	192	1887
Eastern West Khasi Hills	62	753
South West Khasi Hills	43	438
Ri-Bhoi	99	505
East Jaintia Hills	40	231
West Jaintia Hills	95	1265
West Garo Hills	17	250
East Garo Hills	30	245
South Garo Hills	35	388
South West Garo Hills	137	1730
North Garo Hills	64	607
Total	**1084**	**9859**

4. Spring Rejuvenation for Water Security in Himalaya under "Jal Abhayaranya Campaign"

The Jal Abhayaranya Programme was initiated by the Ministry of Environment, Forest, and Climate Change (MoEF & CC) to rejuvenate the drying springs in the Himalayan regions. Among the approximately 1 lakh springs in the Himalayas, those that are experiencing drying conditions have been identified as a priority for intervention. These springs are a crucial source of water for the communities residing in the Indian Himalayan Region (IHR).

The programme aims to gather baseline data and information on the characteristics of mountain springs in inhabited villages across the 12 Himalayan states. This includes documenting information on seasonal springs, dry-up springs, and perpetual springs. The 12 Himalayan states that heavily rely on spring water are Kupwara (Jammu Kashmir), Chamba (Himachal Pradesh), Champawat/Almora (Uttarakhand), Darjeeling (West Bengal), West Sikkim (Sikkim), Namsai (Arunachal Pradesh), Dima Hasao (Assam), Kiphire (Nagaland), Chandel (Manipur), Mamit (Mizoram), Dhalai (Tripura), and Ri Bhoi (Meghalaya).

In Meghalaya, the project aims to develop at least one Jal Abhyaranya demonstration model in Ri Bhoi District. Promote replication of field model for rejuvenation of drying springs in Ri Bhoi through Technology and Community based approaches in collaboration with state agencies.

Mapping of Springs in Ri Bhoi

Block	Total no. of Villages	Villages with Springs	Villages Without Springs	Total No. of Springs
Umsning C&RD	171	164	7	294
Bhoirymbong C&RD	134	124	10	222
Umling C&RD	224	219	5	421
Jirang C&RD	111	102	9	200
Total	**640**	**609**	**31**	**1137**

5. Rehabilitation of mine spoilt areas through the introduction of Medicinal & Aromatic Plants- a sustainable approach

Rehabilitation of coal mine spoilt degraded soil using phytoremediation method for sustainable livelihood and income generation for the local people residing in coal mining areas. The project aims to convert degraded land into cultivable land, promote livelihood of rural marginal farmers by creating an environment that is supportive of the commercial cultivation of MAPs, and improve the socio-economic status of the local inhabitants.

Progress

Sl. No.	Village	Block	District	Area (Ha)	Work Completed (Ha)
1	Phramer	Laskein	WJH	65	18
2	Khlokynring			5	5
3	Khliehrangnah			15	15
4	Mynska			5	5
5	Iongnoh	Thadlaskein		6	6
6	Shkenpyrsit	Amlarem		4	4
7	Umladkur			2.5	2.5
8	Tluh	Saipung	EJH	31	31
9	Lelad			12	12
10	Narwan			4	4
11	Sutnga			21	21
12	Molamylliang			7	7
13	Samasi			3	3
14	Deinshynrum	Khliehriat		12	12
15	Ladwahwapung			20	20
16	Lumshken			5	5
17	Rngad			2	2
18	Lumshyrmit			2	2
19	Iongkaluh			16	16
20	Mynthlu			6	6
21	Mookynpad			6	6
22	Mutong	Wapung		2	2
23	Sohkynphor			5	5
24	Byrwai			4	4
25	Suchen Lumiarain			12	12
26	Suchen Dhana			5	5
27	Umlangmar	Mawphlang	EKH	3	3
28	Jatah Lakadong	Mawkynrew		10	10
29	Jatah Nonglyer			7.5	7.5
30	Syntung			9	9
31	Rangtmah	Laitkroh 12 shnong		3	3
32	Ladmawsiang	Shella Bholaganj		1	1
33	Maraikaphon			2	1
34	Kmawanrum	Mawsynram		3	3
35	Langsymphut			10	10
36	Songmagre	Samanda	EGH	17	8.5
Total Area				**343**	**287.5**

6. Promotion of Medical & Aromatic Plants (MAPs) plantation in cultivable wastelands of Meghalaya for Livelihoods Sustainability

To empower rural farming communities through cultivation, processing, value addition and marketing of Aromatic plants in degraded and wastelands.

Sl. No.	District	Block	Name of Village	Crop Type	Area (Ha.)	No. of farmers involved
1	EJH	Khliehriat	Lumshyrmit	Lemongrass	0.4	94
				Citronella	1	
			Rangad	Citronella	0.8	
2	WJH	Amlarem	Umladkur	Lemongrass	0.5	121
			Skhenpyrsit	Lemongrass	0.21	
				Citronella	0.23	
		Thadlaskein	Mynsngat	Lemongrass	0.8	26
3	Ri Bhoi	Umling	Umdap Rangi	Lemongrass & Citronella	0.8	35
			Umdap Dummu		0.8	
4	WKH	Mawshynrut	Pyndeng Mawlieh	Lemongrass	0.32	5
			Porksai	Lemongrass	0.32	
			Nongriangka	Lemongrass	1.8	
			Langshongthiang	Lemongrass	0.21	
			Nongjaiaw	Lemongrass	0.28	
			Nongriangba	Citronella	0.3	7
5	SWKH	Ranikor	East Rangasora	Citronella	0.4	1
			Khasiadop	Citronella	0.4	11
			Nayapara	Citronella	0.4	12
6	EGH	Dambo-Rong-jeng	Gabil Daningka	Lemongrass	0.9	33
			Gabil Rongmil	Citronella		
7	SWGH	Zikzak	Dinapara	Lemongrass	6.625	5
			Anangpara Songsarek	Lemongrass		
			Salmanpara	Lemongrass		
			Nachilpara	Lemongrass		
8	SGH	Chokpot	Daldogre	Lemongrass & Vetiver	0.9	3
			Ringkapgre	Citronella		
			Jongkolgre	Lemongrass		
9	WGH	Dadenggre	Adinggre	Citronella	0.809	15
				Lemongrass		
10	NGH	Kharkutta	Lower Bolmedang	Lemongrass	0.809	4
				Citronella	0.809	

7. Installation of Field Distillation Units (FDU)

Using saturated steam, field distillation units distil and extract essential oils from herbs, shrubs, leaves, roots, or entire plants. The FDU is made up of internal boiler tubes that are submerged in water to produce steam. The FDU can be set up and run without the need for highly technical or trained labour. It can also run without electricity. The project aims to promote cultivation of high value crops, processing, value addition and marketing of essential oil for providing additional income to farming communities and encouraging agri-businesses for the people of the state. The Mission has successfully installed a total of 18 Field Distillation Units, significantly enhancing its processing capabilities. Tables below are details.

500 Kgs Field Distillation Units

Sl. No.	Village	Block	District
1.	Narwan	Saipung Block	East Jaintia Hills
2.	Lad Wahwapung	Wapung Block	East Jaintia Hills
3.	Cham Cham	Khliehriat Block	East Jaintia Hills
4.	Mooshrot	Laskein Block	West Jaintia Hills
5.	Sylleibah	Mairang Block	West Khasi Hills
6.	Pyrdiwah	Pynursla Block	East Khasi Hills
7.	Nongriangka	Mawshynrut Block	West Khasi Hills
8.	Byrwa (2)	Umsning Block	Ri Bhoi
9.	Niangbari	Umling Block	Ri Bhoi
10.	Chokpotgre	Chokpot	South West Garo Hills
11.	Sanchonggre	Gambegre Block	West Garo Hills

200 Kgs Field Distillation Units

Sl.No	Village	Block	District
1.	Pyndenglitha	Mawphlang Block	East Khasi Hills
2.	Umkrem	Mawthadraishan Block	West Khasi Hills

50 Kgs Field Distillation Units

Sl. No.	Village	Block	District
1.	Khliehmawlieh	Mawthadraishan Block	West Khasi Hills
2.	Mawphanlur	Mawthadraishan Block	West Khasi Hills
3.	Mawreng	Mawphlang Block	East Khasi Hills
4.	Nongsynrih	Mawkyrwat Block	West Khasi Hills
5.	Sanchonggre	Gambegre Block	West Garo Hills

1.3 MCCC

(THE MEGHALAYA CLIMATE CHANGE CENTRE)

The Meghalaya Climate Change Centre (MCCC) is the State's Nodal Cell for coordinating climate change related adaptation and mitigation actions. Established in 2015 under the MBDA, the Centre carries out activities under 5 main areas as follows:

Vulnerability and Risk Assessment at District Level

- Integrated Vulnerability profiling Meghalaya: District level vulnerability assessment.
- Vulnerability Profile of Meghalaya State: Block level integrated vulnerability assessment.
- Agriculture Vulnerability Profile of Meghalaya: District level vulnerability assessment.

Climate Change Impact Studies

- Climate vulnerability hot-spots in Meghalaya using high resolution climate projections' by IIT Gandhinagar, Gujarat.
- Impacts of climate change on forests and biodiversity of Meghalaya by IISc, Bangalore (funded by the State Govt.)
- Impacts of Climate Change and Adaptation to It: Perception and Traditional Knowledge of the People in Rural Areas of Meghalaya.

Institutional capacity building and R&D for database/ information generation as per the SAPCC and NMSHE requirements

- Developing State-wide geospatial database relevant to climate change adaptation planning in GIS platform comprising of 32 layers (funded by the State Govt.)

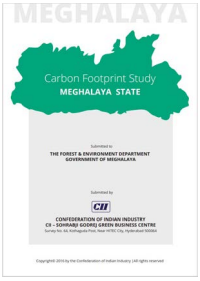
Training programmes for stakeholders including legislators, government officials, researchers, community based organisation, media, etc

- Level I: Legislators' Orientation and Dialogue on Climate Change Adaptation in Meghalaya.
- Level II: Training Programme for State Level Officials on Climate Change Adaptation Planning.
- 'Climate Change Reporting in Himalayas' for Media.
- Level III: Training Programme for District Level Officials.
- Level IV: Training of Trainers Programme on Climate Change Adaptation.

Community Awareness

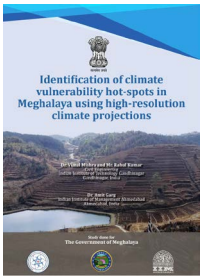
- Climate change awareness programs for rural communities.
- Mass awareness through radio talks in English and regional languages.
- Awareness creation by dissemination of knowledge materials at various State events and programmes etc.

MCCC: Generating Climate Change Related State Specific Knowledge



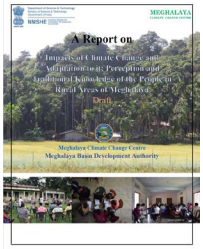
Carbon footprint Study : Meghalaya State

Assessment of the Impact of Climate Change on Forests and Biodiversity of Meghalaya



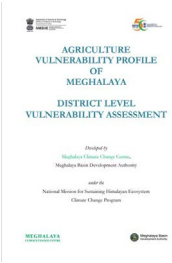
Identification of climate vulnerability hot-spots in Meghalaya using high resolution climate projections

Integrated Vulnerability Assessment at Block level



Sectoral Vulnerability Assessment for Agriculture at District Level

Integrated Vulnerability Assessment at District level

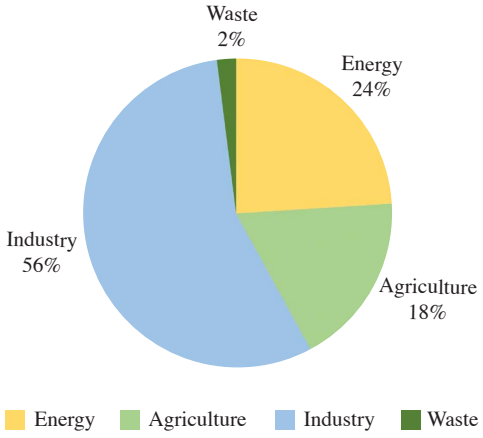


Impacts of Climate Change and Adaptation to it: Perception and Traditional Knowledge of the People in Rural Areas of Meghalaya

Carbon Footprint of Meghalaya

The Carbon Footprint study for Meghalaya indicates that the total GHG emissions in the baseline year 2012-13 was 2.96 million Tons of CO2 Eq with contributions from energy, agriculture, waste, industry, and land use.

Emission Contribution



EMISSION SOURCES

Industry Sector - **3.89** million Tons of CO2 eq./ 56% of the total emissions

Energy sector - **1.59** million tCO2 eq.) 24%

Agriculture sector - **1.23** million tCO2 eq./18%

Sequestrated through **Land Use Land Use Change and Forestry** (LULUCF) - **3.79** million tCO2

Net emission was **2.96** million tCO2 eq.

Climate Change Forests Vulnerability

Inherent Vulnerability

Assessment of the Impact of Climate Change on Forests and Biodiversity of Meghalaya	About 25% of the total forested area in Meghalaya has high or very high inherent vulnerability
	About 64% of the forested area in the State is estimated to have low inherent vulnerability, indicating higher resilience in these areas
	Most Vulnerable Forests - districts of North Garo Hills and Ri-Bhoi
	Most Vulnerable Forests - districts of East Jaintia Hills and East Khasi Hills

Inherent Vulnerability

Assessment of the Impact of Climate Change on Forests and Biodiversity of Meghalaya	In high emission scenario (RCP 8.5) in 2080s about 70% forested grids will become extremely vulnerable
	Districts of West Khasi Hills, South-West Khasi Hills, East Khasi Hills, East Jaintia Hills, West Jaintia Hills and Ri-Bhoi are assessed to be the most vulnerable
	Forests in the district of South West Garo Hills and West Garo Hills are assessed to be the most resilient

Climate vulnerability hot-spots in Meghalaya:

Identification of climate vulnerability hot-spots using high resolution climate projections

SUMMARY

- Meghalaya has experienced a steady rise in the temperature as well as increase in the rainfall during the past three decades (1981-2012).
- Since 1981, annual temperature increment at the rate of 0.031 °C per year has been observed.
- The temperature increased consistently up to 1°C during the past three decades.
- The rate of increase in temperature has not been uniform across the State. The south-eastern part had experienced a slower rate of warming than the rest of the State.
- Since 1981, annual rainfall increment at the rate of 11.56 mm per year during the past three decades.
- The central region had experienced higher rainfall than the rest of the State.
- There has been an increasing trend in temperatures in most part of the State.
- The daily mean and minimum temperatures showed an increasing trend in the past, and its likely to continue in the future.
- The mean temperatures are projected to increase upto 3.5°C and 2.2°C for the extreme (RCP 8.5) and mild (RCP 4.5) scenarios, respectively.
- No. of cold days and cold nights are expected to decline with projected increase in temperature
- No. of heat wave events are expected to rise in future.
- East Jaintia Hills, West Jaintia Hills, and some parts of East Khasi Hills and Ri-Bhoi are at high risk with respect to temperature based hazards.

- Rainfall is projected to increase in the State under the future climate projections.
- The Central plateau region is projected to experience an increase in precipitation at a higher rate than the rest of the State.
- The frequency of extreme rainfall events are set to rise as per the projections.
- An increase by 3-13% in rainfall is projected under various scenarios and time period suggesting the State will receive more rainfall in future.
- South West Khasi Hills, West Khasi Hills, some parts of East Khasi Hills, South West Garo Hills and West Garo Hills are at high risk with respect to precipitation based hazards.

Vulnerability Assessments

Integrated-District

Integrated District Level Vulnerability Assessment

Integrated Vulnerability Assessment at district level was done based on 8 indicators (both bio-physical and socio-economic/institutional).

Vulnerability Index (VI) indicates the level of vulnerability of a district i.e., based on the Index value, the districts were ranked from highest to lowest vulnerability. Therefore, a district with higher index value is comparatively more vulnerable to the impacts of climate change than the other.

The Vulnerability Index is highest for the **West Khasi Hills** district (**0.62**), followed by West Garo Hills (0.58).

Integrated-Block

Integrated Block Level Vulnerability Assessment

15 indicators (covering bio-physical, socio-economic and institutional amenities).

Relatively the most vulnerable block was found to be Thadlaskein (0.65).

20 blocks falling in the Relatively High Vulnerability category (0.582 - 0.651).

Relatively the least vulnertmable block was found to be Zikzak (0.44), followed by Betasing and Mylliem.

The 5 major drivers contributing to the State's Vulnerability

- Lack of Aganwadi centres (10%);
- Low percentage of Rural households with Kisan Credit Card with limit of Rs.50,000 & above (9%);
- High level of Rural poverty (9%);
- Low forest area per 1000 rural population (8%);
- Lack of Irrigation (8%).

Sectoral Vulnerability Assessment based on 14 indicators

Agriculture Sectoral Vulnerability Assessment

The VI for the sectoral assessment ranges between 0.25-0.78.

Categorized into 3 classes:
Relatively High (~0.60-0.78) vulnerability.
East Jaintia Hills (0.784), South-West Khasi hills (0.78) and West Khasi Hills (0.67) as top 3

Relatively Moderate (~0.42-0.60) vulnerability.

Relatively Low (~0.25-0.42) vulnerability.
South-West Garo Hills District (0.25) and West Garo Hills (0.43) as Bottom 2

The drivers of Vulnerability

- 5 indicators were found to contribute to 50% of the state's agricultural vulnerability;
- Low percentage of Rural households with Kisan Credit Card with limit of Rs.50,000 & above (12%);
- Lack of main and local markets (11%);
- Low road density (10%);
- Lack of number of NRM works per 1000 ha (9%);
- Low livestock to human ratio (8%).

Contribution to State's Climate Actions

The MCCC has delivered beyond the mandates of DST and has also been successful in adding feathers to the State.

- Rejuvenation and climate proofing of spring-sheds for livelihood, water and food security in Meghalaya – under NAFCC, GoI.
- Protection of vulnerable catchment areas in Meghalaya (Umiew and Ganol) – under Climate Change Adaption Program in Himalayas with financial support from KfW Bank, Germany.
- The climate concerns are being considered in preparing the Village Development Plan (VDP) under IFAD funded "Meghalaya Livelihood and Access to Market Project (MLAMP)" of Meghalaya basin Development Authority.
- The Centre is engaged in creating Three Climate Resilient Agricultural Model Villages with an objective to improve resilience to climate change.
- A great deal of attention to climate issues is made in designing the World Bank supported project on "Community Led Landscape Management Project (CLLMP)" of the Meghalaya Basin Development Authority
- Inputs from the Centre were duly considered in the drafting of the State Water Policy 2019.
- Assisted in implementation of PES (GREEN Meghalaya Scheme).

MCCC - SAPCC Revision

Formation of Core Group

- On 5th November, 2020 Govt. of Meghalaya notified a Core Group of 27 members.

Review of Sectoral Strategies

- State specific scientific studies conducted.
- Workshop, training programs and consultative meetings have been conducted.
- District level, Block level and Sectoral level Vulnerability Assessment completed.

Identification of Climate Change Strategies

- Identified 40 Mitigation and 61 Adaptation Actions.
- Included New Sectors - Sustainable Tourism & Disaster Management.

Submission to State Level Steering Committee

- On 14th December, 2022 the Core Group Chairperson presented to the SLSC headed by the Chief Secretary.
- Fine tuning in process in view of the comments of the Committee.

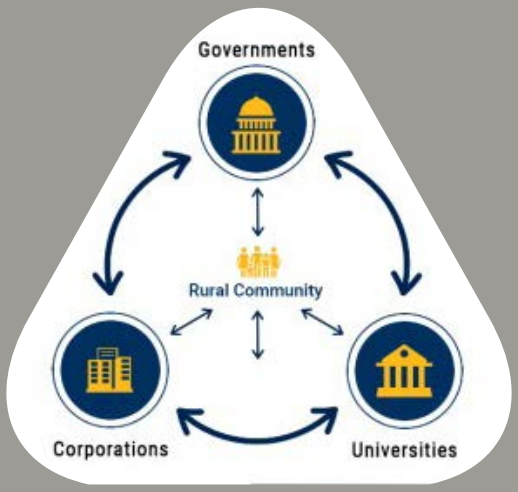
Capacity Building & Awareness Creation

EVENTS	TARGET GROUP
Consultative meeting of the core group for revision of State Action Plan on Climate Change	SAPCC Review Core Group members & experts from academia
Legislators' Orientation and Dialogue on Climate Change in Meghalaya	State Legislators
District Level Officials & Level 4 Training of Trainers Programme on Climate Change Adaptation	District Level Departmental Officials
Consultation Workshop for Revision of SAPCC	Senior Department Officials
Climate Change Awareness Programme in Schools across Districts	School Students
Climate Change Reporting in Himalayas	Media Personnel
Level-II Training Programme on Climate Change Adaptation Planning	Senior Department Officials
Adaptation to Climate Change in Meghalaya- Knowledge Sharing & Learning	Cross-discipline University Students

Workshops/Capacity Building/Training Programme /Awareness

EVENTS	TARGET GROUP
Legislators' Orientation Program and Dialogue on Climate Change Adaptation in Meghalaya	Legislators and Bureaucrats
District Level Officials & Level 4 Training of Trainers Programme on Climate Change Adaptation	District Level Departmental Officials
Consultation Workshop for Revision of SAPCC	Senior Department Officials
Climate Change Awareness Programme in Schools across Districts	School Students
Climate Change Reporting in Himalayas	Media Personnel
Level-II Training Programme on Climate Change Adaptation Planning	Senior Department Officials
Adaptation to Climate Change in Meghalaya- Knowledge Sharing & Learning	Cross-discipline University Students
Climate Change and Green Economy	College Students
Adaptation to Climate Change in Meghalaya	State Government Departments
Expert Consultation Workshop for Prioritizing Actions under the State Action Plan on Climate Change, Meghalaya'	State Government Departments
Radio Talks on Climate Change: Issues, Impacts and adaptation measures (in Khasi & English languages)	-
Awareness on various climate change issues and their impacts	6500 Rural People

1.4 SVM
(THE SMART VILLAGE MOVEMENT)



The project of Smart Village Movement (SVM) with the University of California, Berkeley aims to create a smart village ecosystem which began as a pilot in 50 villages in East Khasi Hills District in August 2020 and is now scaling to other districts of the state. The model is based on 'open innovation' coined by Prof. Henry Chesborough and the 'triple helix model' (Governments-Universities-Corporates) promulgated by the Centre for Growth Markets, UC Berkeley.

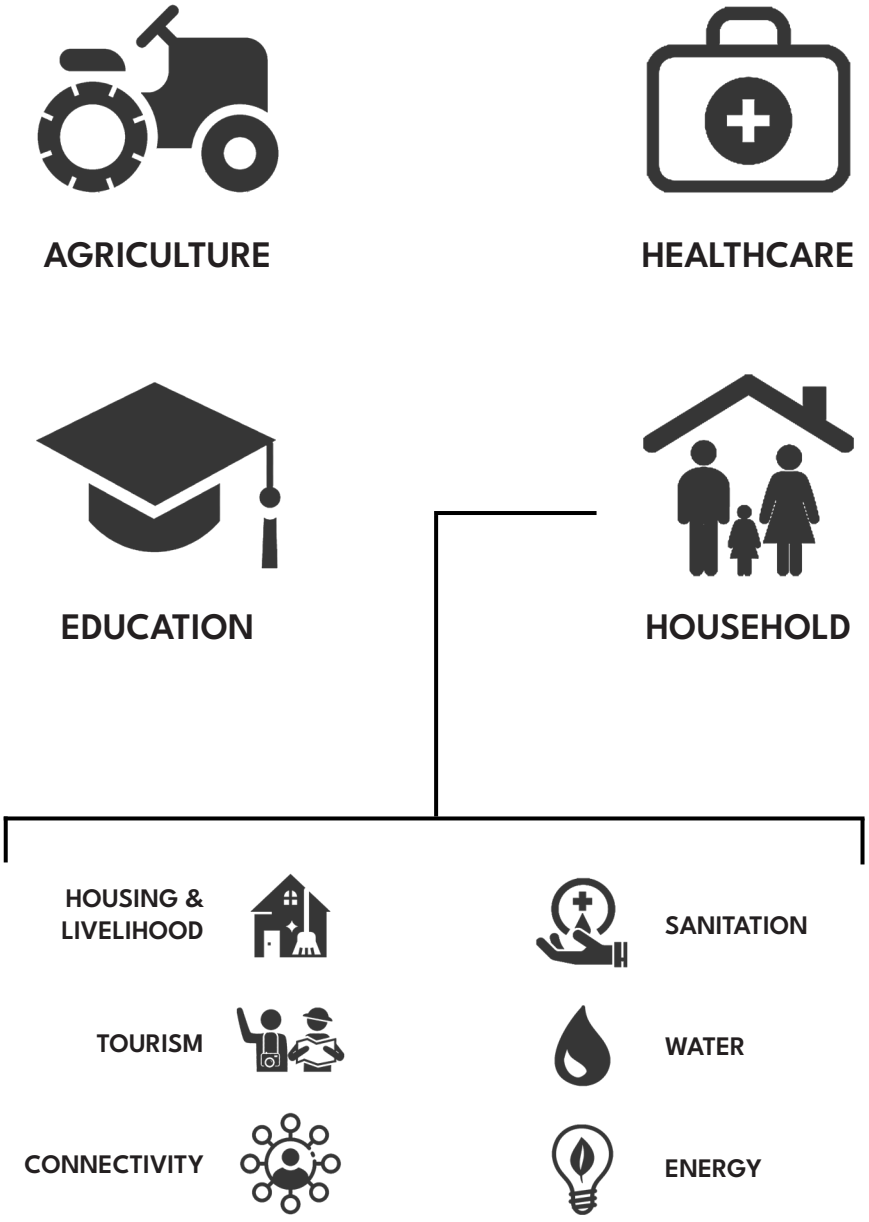
Vision

The vision is to enhance development of villages through open innovation and enterprise-led ecosystems

Mission

The mission is to build smart villages by empowering people through technology and digital solutions

SVM Areas of Rural Development



Highlights of Activities under each Vertical

Agriculture Projects:

1. Spatial Imagery with Kratos Innovation

Spatial Imagery is being introduced to rural Meghalaya with FoodLens (Kratos Innovation platform). The satellite data uses blockchain technology and AI to provide insights into reduced input costs and boosting productivity.

2. Farmer Development Centres

Farmer Development Centres (FDCs) have been developed and set up in collaboration with eFresh Global to provide a one-stop-shop for farmers in rural Meghalaya. The centres are run via an entrepreneurial model.

Education Projects:

1. Satellite Trailblazer Labs

2 Pilot Salesforce Trailblazer Labs now scaled to 20 more as Chief Minister's Youth Centers (CMYCs).

2. Innovation Hubs with Curiosity Gym

Boost Science, Technology, Engineering and Mathematic skills among rural community.

3. Improved Schools with OSAAT

Providing basic infrastructure for rural schools in India that bring children to school and continue their learning.

4. Coding with IBM

Python basics, data structures, programming fundamentals, and how to work with data in Python.

5. Programming Language with Navgurukul

Learn coding for free, including Python Programming, Spoken English, and Touch-Typing courses.

Healthcare Projects:

1. Digital Dispensaries with Apollo Hospitals

Quality services through teleconsultation, diagnostic services, and medicines at affordable rates.

2. Gramin Rural Polyclinic

Bridging healthcare access gaps through cutting edge technology and medical services in the rural areas. Now scaled up to 20 locations across the State.

3. Positive Public Healthcare Management

Building healthy and productive communities by educating the public on the preventive aspects of health through early diagnosis.

4. Tech Eagle-Medicines from the Sky

Demonstration of aerial logistics (drones) for time sensitive medical supplies to inaccessible remote areas. Now scaled up under the Meghalaya Health Systems Strengthening Project.

Household Projects:

1. Safe Potable Water with WATSAN

Complete water testing to ensure safe potable water in 50 villages of SVM Meghalaya.

2. Renewable Shared Energy with Hygge

Hygge Solar Panels and Microgrid at Salesforce Trailblazer Labs, Sohrarim. In April 2023, Hygge transferred solar energy from the learning centre to Tirot Singh Syiem School (0.5 km away) via peer-to-peer energy sharing model.

3. Purified Water with TATA Swatch

Water purifiers operating at the capacity of supplying 200 litres of water per hour set up at community level.

Key Achievements

The number of villages covered through SVM interventions is 48. The number of districts present is 9. There are 21 Gramin Health Centres, 5 Apollo Centres and 22 Chief Minister's Youth Centres. However, all these centres cater to surrounding villages as well.

Key Achievements are the following:

1. Enabling private enterprises to complement the primary healthcare system of the state. Currently, there are 26 private health centres initiated with Apollo Hospitals Ltd and Gramin Healthcare Ltd.
2. Demonstrated 'proof of concept' in 2021 to enable launch of India's first Hybrid e-Vtol drones for medicine delivery (the Meghalaya Drone Delivery Network project) in 2022. Thus, enabling for the country's first drone station setup in the public healthcare system (along with Tech Eagle Innovations).
3. Executing a pilot model for the preventive health approach of the Meghalaya State Health Policy 2021 called the **Positive Public Healthcare Management in Bhoirymbong block**, Ri Bhoi (with Maya.MD as the AI screening partner and KRSNAA for Diagnostics). This project is currently under process for the scale-up across other districts in the State.
4. Provisioning alternative learning spaces for the children and youth in villages as part of the State Youth Policy 2021. Currently, **22 Centres** are active on ground with project implementation partners like Project Defy, Sauramandala, Open Door, Curiosity Gym for different learning components, etc.

1.5

PROTECTION OF VULNERABLE CATCHMENT AREAS IN MEGHALAYA

(Umiew Catchment-East Khasi Hills & Ganol Catchment-West Garo Hills)

Funded under *Climate Change Adaptation Programme in Himalaya* - Component III of KfW German Development Bank

To address issues of water security and sustainable management of water resources the Government of Meghalaya enunciated its Water Policy in 2019, emphasizing the creation of Water Resources Councils at village, block, district and State levels for preparation and implementation of water security, micro-watershed, and catchment plans. The Government of Meghalaya has formulated a project proposal seeking KfW assistance, for protection of Umiew catchment in East Khasi Hills (EKH) district and Ganol catchment in West Garo Hills (WGH) district which supply water to the two biggest cities in the State viz. Shillong and Tura. The project is expected to also help adaptation to climate change by measurable and concrete results ensuring water, food, income, and livelihood security besides increasing forest cover and agricultural productivity.

The Project proposes to cover 106 Villages in these two catchments:

Sl. No.	Catchment Name	Micro Watersheds	Villages covered	No. of HH	Population
1	Umiew	13	71	5052	26385
2	Ganol	26	35	3020	16124
Total		39	106	8072	42,509

The project will be implemented over a period of 7 years with a total budget of Euro 41 million (INR 34,440 lakhs). KfW will contribute Euro 33 million (80% of the Project cost) as loan to the Government of India which in turn will be passed on as grant cum loan in 90:10 ratio to the Government of Meghalaya. KfW will also provide technical assistance grant of Euro 1 million.

Project Components:

01 Knowledge-based participatory planning & implementation and capacity building.

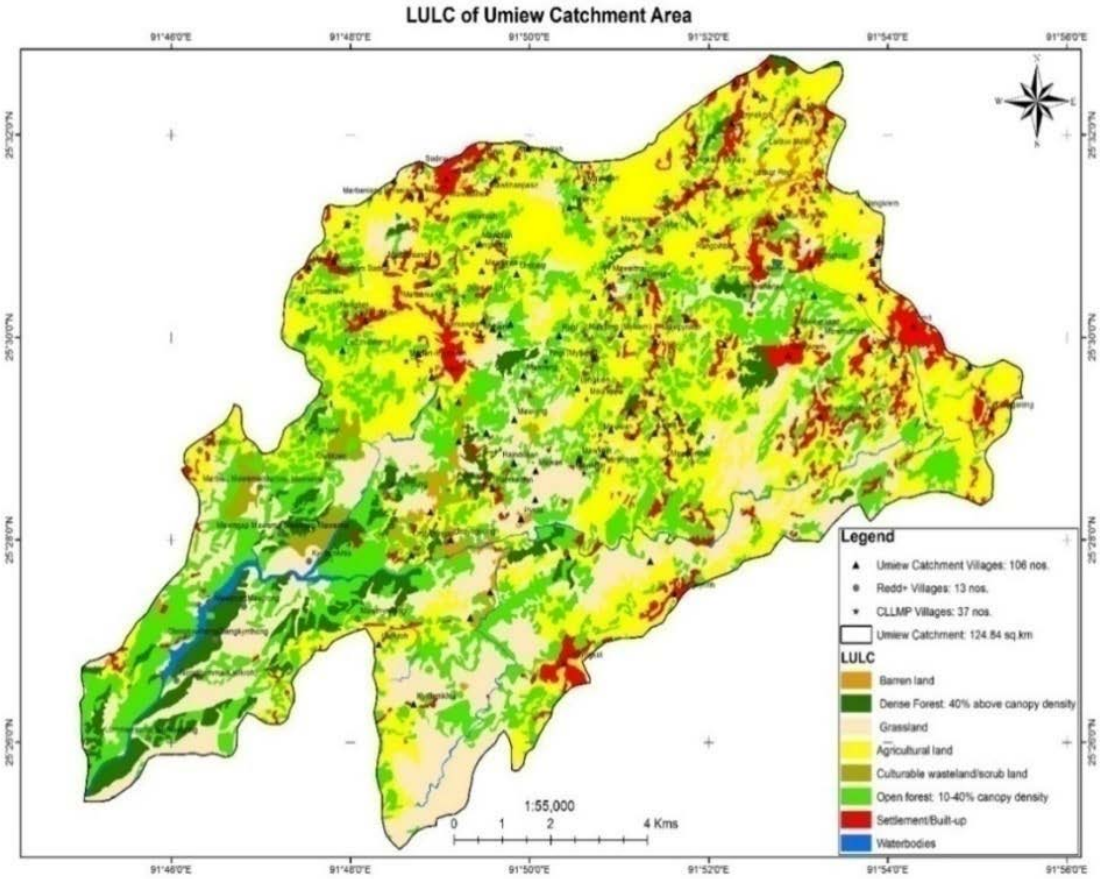
02 Enhancement of forests and other ecosystems in the catchment areas.

03 Livelihood improvement activities of vulnerable communities in the catchment areas.

04 Project administration / management.

Umiew Catchment

Project Area:

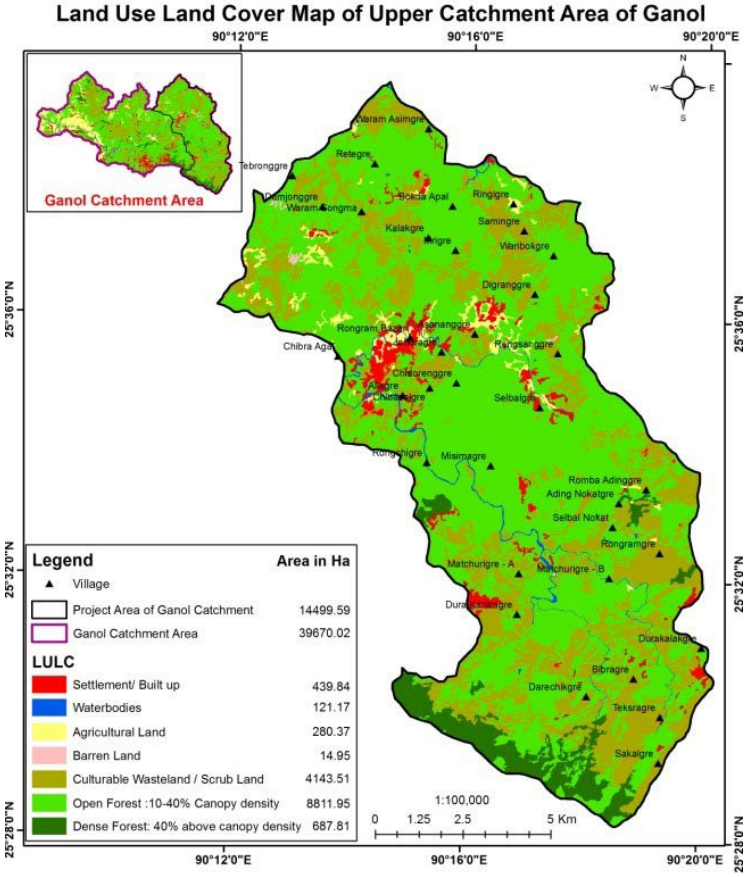


Land Use:

Description	Area in Ha.
Agricultural land	4494.47
Barren land	147.48
Culturable waste land/scrub land	113.64
Dense Forest: 40% above canopy density	630.60
Grassland	2700.63
Open forests: 10-40% canopy density	3272.41
Settlement/Built up	953.80
Waterbodies	171.19
Grand Total	**12,484.22**

Ganol Catchment

Project Area:



Land Use:

Description	Area in Ha.
Agricultural land	280.37
Culturable waste land/scrub land	4143.51
Dense Forest: 40% above canopy density	687.81
Open forests: 10-40% canopy density	8811.95
Waterbodies	121.17
Grand Total (Excluding water bodies)	**14,499.59**

Project Status

The loan agreement for the project was signed on 24 November 2022 followed by commencement of the project. The date of completion of the project is November 2029. The project has engaged a Project Management Consultancy as per the signed agreements after which implementation of project activities will commence.

CHAPTER 02

THE MEGHALAYA BASIN MANAGEMENT AGENCY (MBMA)

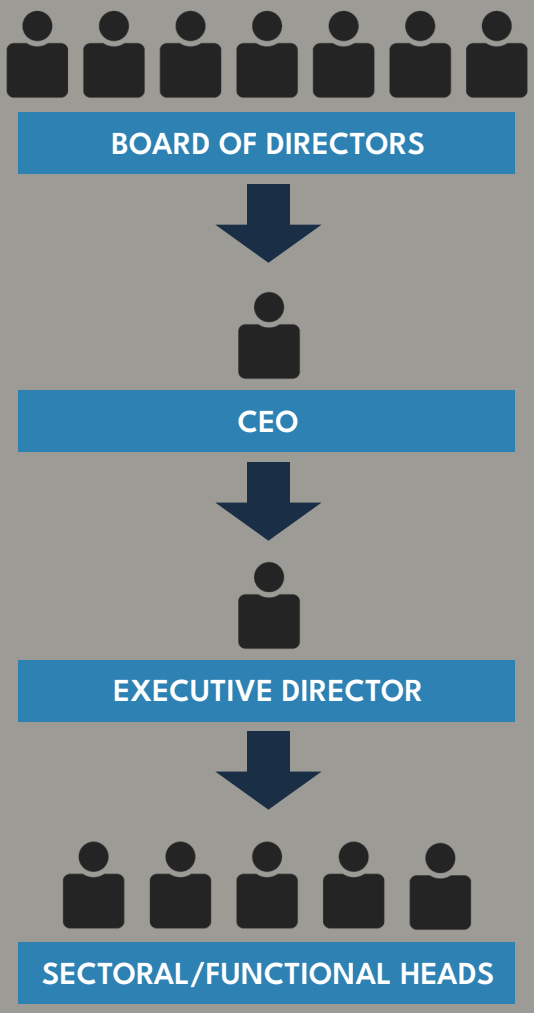
The Meghalaya Basin Management Agency (MBMA) is a not-for-profit company established under Section 8 of the Companies Act, 2013, incorporated under the Planning Department of the Government of Meghalaya for channelizing investments from multi-lateral agencies, central government UN organizations, and other stakeholders. MBMA is headed by a Chief Executive Officer and functions under the overall guidance of a Board chaired by the Chief Secretary.

Governance Structure

The Board of Directors of MBMA headed by Chairman comprises the permanent and non-permanent directors. The constitution of Board of Directors of MBMA as per its Articles of Association is as follow:

Sl. No.	Member	Type
1	Chief Secretary, Government of Meghalaya	Chairman
2	Additional Chief Secretary, Government of Meghalaya	Director
3	Principal Secretary & Development Commissioner, Government of Meghalaya	Director
4	Commissioner & Secretary, Government of Meghalaya	Director
5	PCCF, Government of Meghalaya	Director
6	Secretary, Government of Meghalaya	Director
7	Executive Director of the Company (MBMA)	Director
8	Joint Secretary, Government of Meghalaya	Director
9	Director, MBMA	Director

MBMA Structure



NRM / Supply Chain / Rural Finance / Knowledge Management / GIS / Admin / Finance / Procurement / HR / Monitoring & Evaluation

Implementation of Externally Aided Projects

MBMA was specifically created to address the requirements of Multilateral Funding Agencies (IFAD, JICA) and Multilateral Development Banks (World Bank, KfW) for a more structured, professional, and regulated organization for implementation of their Projects. In this regard, MBMA has constituted a State Project Management Unit (SPMU) and District Project Management Units (DPMU) for enhancing the effective implementation of externally aided projects. Together, SPMU and DPMUs play the important role of streamlining project implementation, improving project performance, and achieving the developmental outcomes in a structured and regulated manner.

State Project Management Unit (SPMU)

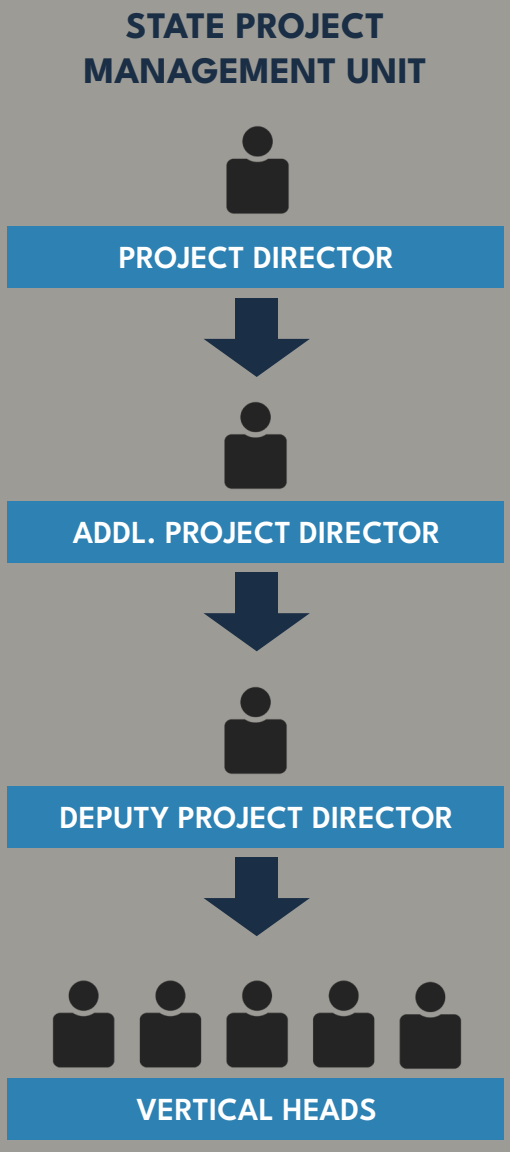
Each project has a State Project Management Unit (SPMU) located in the registered office of MBMA, Shillong, headed by the Project Director (PD). The PD is supported by their multidisciplinary functional teams. The SPMU and programme support unit lead all the activities and functions at the State Level under the control, guidance, and direction of the Board of Directors of MBMA.

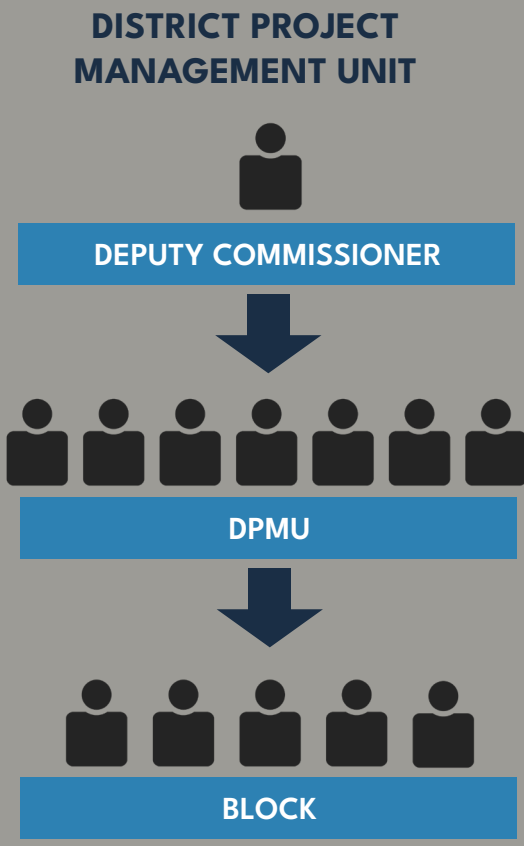
District Project Management Unit (DPMU)

At the district level, District Project Management Units (DPMU) located in all districts at the respective District Basin Development Unit are headed by the Deputy Commissioners (DC) who act as ex-officio District Project Coordinators of MBMA projects. All functions and activities of projects at the district level are under the overall guidance and control of the DCs. District Project Managers (DPM) of DPMUs report to the District Project Coordinators and lead day-to-day management of project activities at the district levels and below.

Block and Village functionaries are set up as per the requirements of each individual project.

Structure for Implementation of EAPs





Current Work

MBMA is implementing 2 Externally Aided Projects namely -

1. Meghalaya Livelihood and Access to Markets Project (Megha-LAMP) supported by IFAD.
2. Meghalaya Community Led Landscape Management Project (CLLMP) funded by World Bank.

A KfW-funded project named "Farmers' Mobilization Project" is currently engaging a Project Management Consultancy as per the signed agreements after which implementation will commence.

Work is also implemented through other sector-focused programs namely the Promotion and Incubation of Market-driven Enterprises (PRIME) program which works to make entrepreneurship the preferred career choice for the people of Meghalaya and the Farmers' Collectivization for Upscaling of Production and Marketing Systems (FOCUS) which follows a bottom-up approach that begins with the mobilization of farmers to work collectively and form member-owned and member-controlled Producer Groups (PG).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2.1 Megha-LAMP

(THE MEGHALAYA LIVELIHOODS AND ACCESS TO MARKETS PROJECT)

The Meghalaya Livelihoods and Access to Markets Project (Megha-LAMP) is an Externally Aided Project (EAP) of the Government of Meghalaya that implements multi-sectoral interventions to empower the rural communities of Meghalaya and improve their quality of life. The project is co-funded by the Government of Meghalaya and IFAD and implemented by MBMA.

The objective is to enhance the incomes of farmers by supporting the creation and access to inclusive supply chains, strengthening land productivity through targeted NRM, improving production through knowledge infusion, and facilitating access to capital and other financial services through farmer-managed financial institutions called Integrated Village Cooperative Societies (IVCS Ltd.) to enable farmers to enhance value creation and participate in remunerative supply chains.

Megha-LAMP also mobilizes farmers into producer groups to ensure they obtain a fair share of profits and avoid exploitation. Collective Marketing Centres (CMC) enables the aggregation, processing, and marketing of produce, while Custom Hiring Centres (CHC) provide access to tools and implements to improve agricultural productivity and efficiency. Farmers' Markets have also been established to support local farmers, promote healthy and sustainable agricultural practices, and help strengthen market connections. Additionally, Entrepreneurship Promotion Hubs have been set up across the state to provide support related to skilling, marketing, funding, and market connect.

In the original project period, the coverage was 1350 villages in 18 blocks across 11 districts. In the AF period, the coverage is extended to 5 further blocks raising the total to 23 blocks across all 12 districts of Meghalaya.

MeghaLAMP

IMPLEMENTING AGENCY

Meghalaya Basin Management Agency (MBMA)

FUNDING AGENCY

International Fund for Agricultural Development (IFAD)

PROJECT AIM

Improving farmers' incomes and quality of life in rural Meghalaya.

MeghaLAMP
Meghalaya Livelihoods Access to Market Project
In Partnership With IFAD

PROJECT PERIOD

2014 *to* **2024**

PROJECT COVERAGE

1350 Villages *in*
18 Blocks *across* **11** Districts
Project plans to extend coverage to a further
5 Blocks

DEVELOPMENTAL OBJECTIVE

Expanded and sustainable livelihood opportunities adapted to the hill environment and to the effects of climate change.

at a Glance

01: ***Integrated Natural Resource Management (INRM)***

Empowering communities to develop and manage natural resources holistically, support the reduction of drudgery, and have them serve as the foundation for sustainable livelihoods and enhanced incomes.

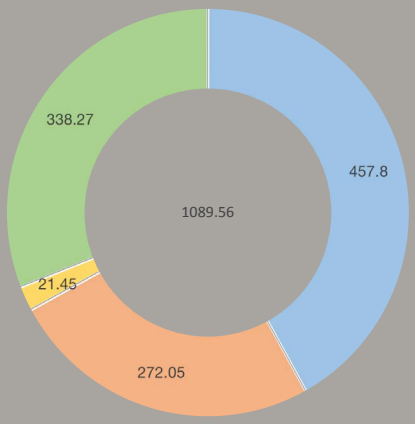
02: ***Rural Finance (RF)***

Ensuring the availability of financial services in rural and unserved areas through the Integrated Village Cooperative Societies (IVCS), which are homegrown, community-based organizations to enable farmers to take on higher level activities and participate in remunerative supply chains.

03: ***Inclusive Supply Chain & Enterprise Development***

Enhancing productivity and marketing capacity of farmers and ensuring inclusive growth of commodity supply chains that cover not only crops and livestock products but also enterprise development.

Financial Pattern - INR Crore (includes Addl. Financing)



IFAD	-	457.8 INR Cr.
Government of Meghalaya	-	272.05 INR Cr.
Community Contribution	-	21.45 INR Cr.
Others	-	338.27 INR Cr.
Total	-	**1089.56 INR Cr.**

Approach

Implement integrated NRM and promote farm mechanization to enhance farm productivity and output.

Deliver access to capital and other financial services for taking on higher order activities in the value chain.

Develop the supply chain through farmer collectivization and investment in market infrastructure.

1350 Villages

Doubling Farmers' Incomes

Project Journey

Megha- LAMP became effective in December 2014 and the completion, which was scheduled for December 2022, has been extended till December 2024, with Additional Financing (AF) of USD 20.58 million. Extension was approved by the Department of Economic Affairs (DEA) under the Ministry of Finance, Government of India and IFAD as a result of good, sustained performances across the physical and financial aspects. The total outlay of the project, originally at USD 169.90 million, has increased to USD 205.75 million.

The focus of the Additional Financing period will be on:

1. Compensating for the time lost due to the pandemic and build on, strengthen, and scale up its good practices into new product clusters.
2. Consolidating the existing IVCS and linking them to markets and private players.
3. Formation of a further 170 IVCS and capacity building of these IVCS across the value chain.

A brief look at the journey of Megha-LAMP is as below:

Project Launch

DEC 2014

2014 *to* 2017

Initial Period

- Poor physical progress and poor coordination across all levels of implementation
- First 2 years spent on staffing, training and institutional strengthening
- Disbursement was 5.3%
- Project Rating: 2

JULY 2018

Mid Term Point revealed that project needed to

- Reevaluate original targets
- Identify key issues
- Revamp implementation strategy
- Restructure entire project

2018 *to* 2019

Project given 1 year to Turnaround to

- Reorganize core components
- Strengthen top management
- Decentralize planning
- Delegate financial powers to districts
- Strengthen human resources and M&E systems

2019 *to* 2022

Successful Turnaround

- Dramatic improvement in physical and financial performance
- Higher trajectory despite COVID-19 impact

2023

Megha-LAMP Today

- Regarded as one of the best performing projects in India
- Improved and sustained performance led to extension to 2024 with Additional Financing of USD 20.57 million
- Project rating: 4

Project Expenditure

IFAD Share (pre-additional financing)	Expenditure
298.30 INR Crore	260.62 INR Crore

Project Components

Component 1 - Integrated Natural Resource Management

Megha-LAMP empowers target communities by enhancing their capacities and skills to manage and address key natural resource issues through comprehensive training and capacity building. The goals are improving agricultural productivity, reducing drudgery, and increasing output. The program focuses on capacity development, natural resource planning, and development of land, water resources, and food crops. By establishing an efficient and sustainable mechanism for villages to manage development and utilize natural resources, the project aims to boost food production and create a foundation for better livelihoods. The Integrated Natural Resource Management (INRM) initiative is implemented in 1350 project villages across 18 blocks in 11 districts of Meghalaya.

Key Activities in INRM

- Preparation and Implementation of INRM Plans (INRMP)
- Institutionalizing a System on Convergence
- Custom Hiring Centres
- Generation of GIS-based Village Resource Maps and LULC Maps
- Water Security
- Land Resource Development

Preparation and Implementation of INRM Plans (INRMP)

Megha-LAMP has made significant strides in achieving sustainable management of natural resources through the community-collaborated Integrated Natural Resource Management Plans (INRMP). By conducting a comprehensive mapping exercise, the project effectively identified priority activities for interventions, thereby facilitating the preparation and implementation of these plans in the targeted 1350 villages. INRMPs are ensuring the responsible use and conservation of natural resources across the project area.

Generation of GIS-based Village Resource Maps and LULC Maps

Megha-LAMP has facilitated the generation of satellite-based maps known as Village Resource Maps, which provide comprehensive details of village boundaries. The maps were first created with the active cooperation and support of local communities, utilizing GIS tools and equipment. These maps serve as valuable tools for planning and managing natural resources by the target communities. Each map contains a wide range of information about the village, including demographic and social data, economic data, soil and water data, land use and availability data, forest cover, and catchment areas. Moreover, they serve as a baseline for tracking changes over the duration of the project and beyond. To date, maps for all 1350 villages have been generated.

Institutionalizing a System on Convergence

One of the noteworthy achievements of Megha-LAMP is supporting the integration of the INRM component into the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). This strategic incorporation has enabled project villages to access additional funds and expand the scope of work they can undertake. Given the communities' familiarity with MGNREGS, the assimilation of INRM was executed seamlessly. This convergence has allowed INRM to implement interventions aimed at securing water for domestic and irrigation purposes, as well as boosting agricultural production, thus maximizing benefits and outreach to the target villages.

Convergence has been established with various departments, including Soil and Water Conservation, C&RD (Community and Rural Development), Water Resources, PHE (Public Health Engineering), and Forests and Environment, among others. Since its inception, the project has successfully empowered target Village Executive Committees (VECs) to mobilize a convergence fund of approximately Rs. 64.87 crores, complemented by a community contribution of Rs. 7.02 crores. This has significantly strengthened the project's impact and empowered communities in efficiently managing and utilizing their natural resources for sustainable development.

Water Security

INRM works to ensure access to water for domestic and irrigation purposes. It encourages and facilitates communities to take up catchment area treatment and management activities for soil and water conservation, maps and rejuvenates water sources, and implements interventions to prevent soil erosion. Water lifting devices such as hydrams and solar/electrical water pumps have also been installed. The total number of water security intervention sites is 4124 sites across the project area. These include the implementation of 3880 domestic water security intervention sites and 244 sites (check dams and RCC canals) for irrigation use.

Custom Hiring Centres

Megha-LAMP has strengthened farm mechanization in Meghalaya with the establishment of Custom Hiring Centres (CHC) at 72 locations across the project area. The initiative aims to accelerate the process of agricultural modernization in the state, improve agricultural production efficiency, create an agricultural surplus economy, increase the possibility of farmers' market participation, and promote high-quality agricultural development. CHCs are owned and managed by the Integrated Village Cooperative Societies (IVCS) in a social enterprise mode and provide fee- based custom hiring of agri tools and farm machinery at reasonable and fair charges. Some of the tools available for rent in CHCs include power tillers, rotary tillers, post-hole diggers, and sprayers.

The progress of the 72 CHCs is as below:

Overall area (Acre)	4193.27
Overall income (Rs)	35.49 lakhs
Overall Profit (Rs)	9.52 lakhs
Overall Villages covered under Megha-LAMP	237
Overall Villages covered under Non Megha-LAMP	31
Total villages covered under CHC services	268
Overall HH benefitted under Megha-LAMP	3141
Overall HH benefitted under Non Megha-LAMP	319
Total HHs benefited under CHC services	3460

Other Activities of INRM

Megha-LAMP has also introduced land reclamation activities to treat and rejuvenate degraded landscapes, including areas affected by coal mining by promoting the cultivation of medicinal and aromatic plants (MAP), conducting tree plantation drives, and treating mine-contaminated waters using the Open Lime Channel (OLC) technology. Currently, MAPs have been planted across 50 acres out of the identified 75 acres of degraded land, while the treatment of water contaminated due to mining activities is in progress at 12 out of the 15 identified sites. Plans for strengthening the project's INRM interventions in the coming year include expanding the integration of NRM and agronomy in the production of selected value chain crops. This will be done in partnership with 167 Integrated Village Cooperative Societies (IVCS) Ltd, with the aim of empowering rural small and marginal farmers, producer groups, and service providers to enhance productivity, promote sustainable production, and increase resilience to the adverse impacts of climate change.

Component 2 - Rural Finance

In Meghalaya, the need to ensure the availability of basic financial services for farming households in the rural areas stemmed from a recognition that there existed a thin spread of banking networks and micro-financial institutions across such regions. The penetration of the formal banking sector has always been minimal because of the non-viability of operations in remote areas with difficult topography, limited transportation facilities, and a dearth of communication infrastructure. Residents would often need to travel long distances just for deposits and withdrawals. Even in areas where bank branches are present, clear gaps exist because of the cumbersome processes of banks, language barriers, and poor general knowledge of financial literacy. Further, other financial institutions have not been able to function at the levels intended due to their large areas of operation spread over multiple villages and lack of good governance, among others. To contend with these challenges, Megha-LAMP has leveraged the strong social capital of the State to establish Integrated Village Cooperative Societies (IVCS), which are home-grown, community-led institutions that are deeply rooted in the local culture of the people aimed at ensuring long-term financial inclusion.

IVCS provide essential financial services such as thrift and credit to their members. They also engage in various economic activities including establishing retail outlets for groceries, supplying inputs for agricultural activities, aggregating and marketing agricultural produce, and promoting animal husbandry and other enterprises. In addition, farmers have access to collective aggregation and marketing centers, as well as rental services for farming tools and implements. They are now formally recognized as Primary Agricultural Credit Society (PACS) vide Government of Meghalaya, Cooperation Department Notification No.COD.12/2015/69 dated Shillong, the 2nd of February 2021.

For an IVCS to be economically beneficial and sustainable, it needs to find ways to increase the enrolment of new members regularly, which would then lead to an increase in member funding since this represents the lowest-cost-lowest-risk form of capital for operations and investment. Even where outside support, government, and/ or other donors are available, the advantage of increased reliance on member funding is that it gives greater autonomy to the IVCS and lowers the risk of the withdrawal of outside funding. The other economic activities would help sustain the IVCS beyond the project period.

Activities of Rural Finance

RURAL FINANCE

- Formation, Handholding, and Strengthening of IVCS
- Making IVCS BCs of MCAB for linking IVCS to the interoperable platform so that villages covered by IVCS become banked villages
- Computerizing the operations of IVCS
- Developing IVCS into village-level institutions providing basic financial services and marketing intermediaries
- Facilitating Bank Linkages
- Extending Financial Literacy

Support to the IVCS

1. Corpus Fund – A sum of Rs.2.50 lakhs is given to each IVCS that fulfills certain laid down criteria linked to the mobilization of share capital and savings.
2. Office Equipment & Furniture – A sum of Rs. 1.50 lakhs, recently revised to Rs. 1.80 lakhs, is provided to each IVCS for procuring the items required for running their offices, which also includes a computer and a fireproof safe, apart from the usual office furniture.
3. Honorarium to VLFs – Honorarium is paid to two Village Level Facilitators per IVCS for a period of six months at Rs. 2500 per month each for facilitating works related to formation, registration, and initial mobilization.
4. Viability Gap Funding – Under this support, the project compensates for any loss incurred by an IVCS up to Rs. 77,500 during a financial year. The reimbursement, however, is only in respect of expenses incurred towards payment of the salary of the secretary of the IVCS and the honorarium paid to the members of the Managing Committee for attending the Managing Committee (MC) meetings. While a basic salary is fixed, the secretaries can be eligible for a higher salary, subject to a maximum of Rs. 5,000, based on performance for which suitable guidelines have been issued.
5. Books of Accounts, Ledgers, Registers, Pass Books, etc. are prepared, printed, and provided free of cost to all the IVCS.
6. Training - Apart from the awareness programs conducted in all villages during the initial formation stages, capacity-building training programs are provided regularly to the secretaries and members of the MCs. These training programs include orientation training, business development and preparation of business plans and action plans, maintenance of books of accounts and registers, and basic computer training. Additionally, motivational workshops are conducted for IVCS that are performing poorly, where secretaries of successful IVCSs are invited as Resource Persons to share their experiences and strategies.
7. Financial Literacy Programmes (FLP) – In a significant departure from the usual Financial Literacy Programs (FLP) conducted by banks/FIs, which are often outsourced to NGOs, Megha-LAMP's FLPs are conducted in all the IVCS/villages by Financial Literacy Facilitators (FLFs). The FLFs are identified by the respective IVCS from their village, duly trained, and provided with necessary stationery materials, training manuals, and other IEC materials in local languages. These materials are then distributed to all participants during the programs.
8. Exposure visits are arranged for the poor-performing IVCS to the good-performing IVCS within the state and for good-performing IVCS to other States in the country.

IVCS as Banking Correspondents

Although the IVCS are tackling the challenge of financial inclusion in the remote areas, the 976 villages covered by them, however, remain unbanked areas. To be categorized as banked villages, they need to be linked to the interoperable core banking system (CBS) platform of banks. This can only happen if the IVCS are made Banking Correspondents (BC)of banks. Only when they are provided with a Micro ATM and linked to the interoperable platform can the villages be considered banked areas. To this end, in May 2022, Katchi Garantai IVCS Ltd. from South Garo Hills not only became the first IVCS to be a Banking Correspondent for a formal bank, but also became the first ever business correspondent of the Meghalaya Cooperative Apex Bank Ltd. (MCAB). As of March 2023, 322 IVCS are affiliated with the MCAB and are in the process of being formally inducted as banking correspondents to enable community members to access the services of such banks through these IVCS. The MCAB has agreed to take 200 IVCS as their BC and of which 145 IVCS are trained at IIBM, Guwahati. 39 IVCS have received Micro ATMs and have started transactions like deposits and withdrawals for its members.

IVCS - Enhancing Farming Households Incomes

331 IVCS Ltd. *formed and registered, reaching out to* **976** Villages *and* **48,453** Households

75,908 total shareholders subscribing to total **Rs.3.5 Cr.**

58,091 deposit accounts & total **Rs.3.5 Cr.** savings amount

314 IVCS initiated lending activities to **14,286 Loaners** accumulating to **Rs.15.7 Cr.**

Plans include formation of 170 new IVCS (26 registered as of 2023) and establishment of credit linkages (IVCS loans, loan from Banks/Financial Institutions for IVCS and their members) and IVCS Supervision Structures (IVCS Apex and Regulatory Cells).

Component 3 - Inclusive Supply Chain & Enterprise Development

The Inclusive Supply Chain and Enterprise Development (ISC&ED) component is a key driving force of impact for the entire project. Megha-LAMP has given big importance to developing the commodity supply chain to ensure larger-scale growth and greater participation of farmers, especially with the agriculture sector becoming more market-oriented. The focus is on facilitation and capacity-building support to ensure inclusive growth of commodity supply chains covering crops and livestock products, and enterprise development. The term "inclusive" means poorer households benefiting from participation in supply chains and being able to enter markets more competitively. Initiatives in this area include project clustering, farmer collectivization, and establishment of market access infrastructure to support the farmers' linkage to markets and access to capital.

Activities of ISC&ED - A Flowchart Overview of Farm to Market

Clustering of villages was done to determine the right structure for the collection of previously unavailable data and targeting of interventions. The project identified 167 clusters across the 18 project blocks. These have been further sub-divided into 485 subclusters or product clusters. For each cluster and sub-cluster, mapping has been conducted for identified supply chain commodities to generate information on coverage, households involved, and production potential. The data generated is then authenticated via block-level sensitization programs followed by phase-wise Multi-Stakeholder Platforms (MSP). MSPs are platforms for stakeholders and actors with similar interests and activities to converge and improve existing market conditions through a process of shared learning, joint decision-making, and collective action. MSPs serve to scale up the state's production rates through inclusive and sustainable growth while identifying lasting solutions to larger-scale issues.

MSP 01

One-day sensitization programs organized at central village of a cluster where interested farmers, traders and entrepreneurs of that cluster participate to identify current gaps and aspirations of various actors as well as potential solutions.

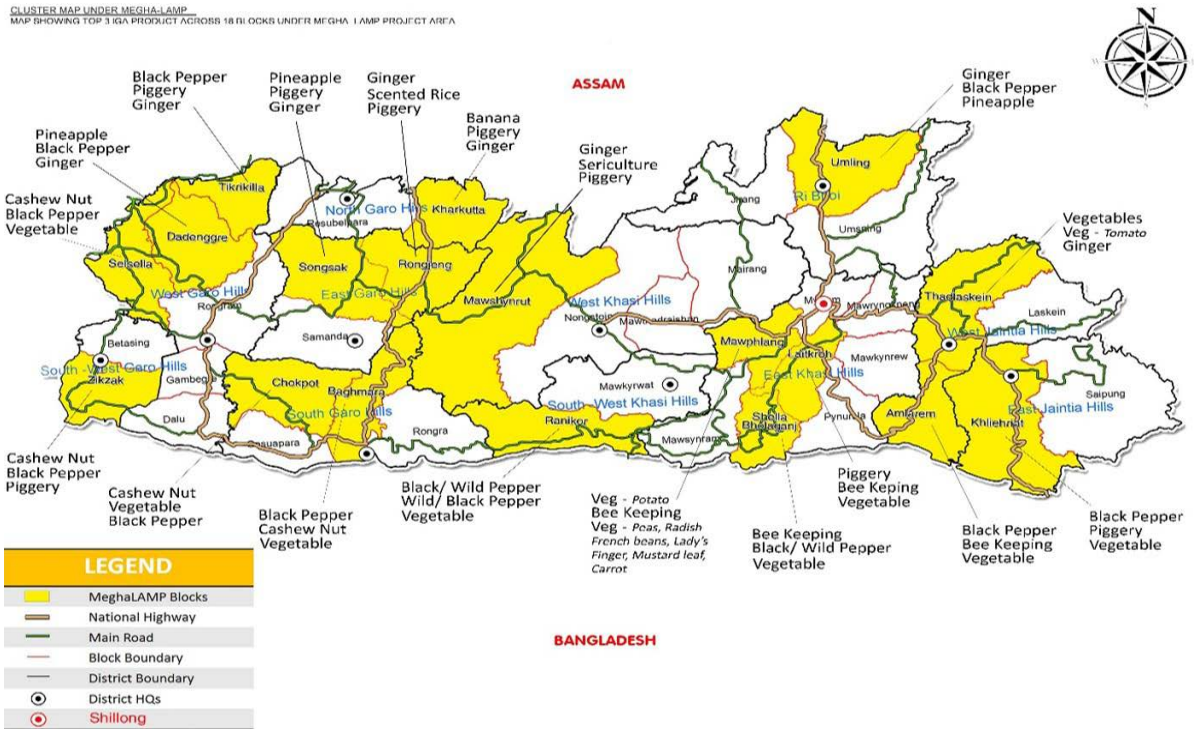
MSP 02

Interested youths from MSP 1 villages engaged as village facilitators to organize village level sensitization and profile their village. Trained to collect data and identify potential livelihood of every household. Members who share similar livelihoods are then grouped together to form a Producer Group or an Interest.

MSP 03

Addresses various issues related to production, post harvesting, value addition, transportation and logistics, infrastructure, human resources, extension services, marketing, and bank linkages. Feasible intervention strategies are drawn for support under the project.

Clustering has resulted in the coverage of over 1,22,000 households across Meghalaya.



Collectivization of Farmers

Megha-LAMP addresses the challenges of the small and marginal farmers, the village-level input-suppliers, and the aggregators through productivity enhancement, extension services delivery, and value chain development for improved market access and bargaining power by organizing them into member-owned and member-controlled Producer Groups (PG). PGs are formed from among farmers involved in similar levels of activities like agriculture, livestock or NTFP. The focus is on area expansion and marketing as collectives. These PGs are predominantly unregistered entities organized as Common Activity Groups, Farmers' Interest Groups, or Joint Liabilities Groups. The average size is 10 to 20 members. The project has only one restriction regarding membership, which is, only one member per household can be part of one group. Megha-LAMP's PG intervention has empowered the farmers to solve challenges related to availability of inputs and marketing, which has translated into increased productivity and improved incomes. Over 7150 PGs are being supported by the project, comprising a total of 108,700 members.

Collective Marketing Centres (CMC)

Collective marketing initiatives are being promoted by Megha-LAMP to respond to the growing challenge of rural farmers having little to no control in supply chains and enable them to regain bargaining power, cut costs of transportation and storage, and eradicate the influence and position of middlemen, while realizing fair and competitive negotiation prices for their produce at the markets. This was a result of observations of individual farmers not being able to keep up with varying market dynamics because of production and marketing issues that they face as individuals and a poor understanding and knowledge of how the market works. In view of this, 162 Collective Marketing Centres (CMC) have been set up as one-stop shops for marketing and processing agricultural produce, input-supply, and for providing forward and backward linkages. Their establishment was to create awareness of collective marketing and its merits, initiate a system of aggregation and value addition at the market level, ensure transparent and good governance for the marketing of produce by a collective, and enhance the skills of the stakeholders in areas of marketing and financial linkages. These centres are also equipped with storage bays, solar-powered cold storage, processing units, office spaces, and parking and are usually connected to major highways.

Trial Marketing

Trial marketing has emerged as a practical tool to boost farmers' market participation. With an understanding of the challenges faced by individual farmers in understanding market trends, trial marketing is being introduced to test new strategies across the project area. These trials take place within the supportive environment of Producer Groups and Collective Marketing Centres, allowing farmers to explore various marketing methods. By doing so, farmers gain valuable insights into consumer preferences and market dynamics, helping them adapt better, and ultimately improving their market access. In 2022, Megha-LAMP initiated bulk trading of the "kew" pineapple variety in Ri Bhoi to buyers from across the country, involving 6 IVCS/Cooperatives. The interventions encompassed marketing, branding, and logistics support. Handholding was also provided to assist farmers in conducting future trades. This pioneering initiative brought benefits to a total of 318 farmers, resulting in the dispatch of 47.4 MT of pineapples to buyers, with a cumulative trade value of Rs. 7.5 lakhs.

Farmer's Market

In Meghalaya, agriculture and farming have long been the primary livelihood for farmers. Farm produce is traditionally traded and managed through inherited market systems, based on supply and demand. However, non-farm agents dominate trade and commerce in these systems, driven by profit and loss. Rural markets operate on a weekly schedule, and trading agents determine prices for farmers' produce. Despite the efforts of marketing committees, market infrastructure and facilities are largely inaccessible and disorganized. Guidelines for farmers with surplus production are unclear. Farmers now seek information on current prices and lucrative markets, leading to increased demand for input, funding support, market linkage, and enterprise development opportunities. To address these issues, Megha-LAMP has established new Farmer-Owned and Farmer-Managed Markets, mobilizing farmers groups. The project aims to construct 50 such markets with additional funding from the North-Eastern Council (NEC). These markets have improved infrastructure and basic facilities, including storage, parking, shades, and better sanitation and hygiene. Megha-LAMP's farmers' markets are expected to generate additional revenue for farmers, and management committees will include representation from all primary stakeholders. Unlike conventional markets that impose fixed fees and taxes on farmers regardless of transaction size, the Megha-LAMP markets will levy fees and taxes proportionate to the goods, services, and facilities utilized by sellers and buyers. Each market will be supported with an investment of up to INR 15 lakhs.

Development of PRIME Hubs

The Promotion and Incubation of Market-Driven Enterprises (PRIME) program seeks to create and promote a robust entrepreneurial ecosystem in the state. Aspiring entrepreneurs, start-ups, and early-stage enterprises are nurtured and supported to translate their innovative ideas into businesses and enterprises and sustain them in the long run by fostering effective networking opportunities. PRIME aims to make entrepreneurship a preferred career choice for the youth of the State through the creation of a dynamic and collaborative ecosystem that enables easy availability of credit, relevant technology, skilling and mentoring support and access to high leverage markets. They are also hubs to handhold farmers, producer groups, and agri-entrepreneurs, and to help them realize improved incomes through the provision of market and credit linkages, technical know-how, access to better quality seeds, and support funding, among others. The PRIME Hubs have been envisioned as physical spaces where the existing and aspiring entrepreneurs can visit to get support on various aspects of setting up or running an enterprise. These include support in making Business Plans, getting information on funding support, facilitation of credit, training sessions etc. The PRIME Hubs also act as incubation hubs with provisions for co-working spaces that the entrepreneurs can access and for activities related to value addition such as processing and packaging. 7 PRIME Hubs have been set up in collaboration with the North-Eastern Council and SCSTE as one-stop shops for providing support to entrepreneurs in agriculture and food processing sectors. This is a first of its kind initiative in the North East and has become especially relevant during the COVID/ post-COVID time as it offers opportunities for returnee migrants and other youths interested in setting up their enterprises.

Megha-LAMP's Community Talks Knowledge Sharing Event

Meghalaya is home to numerous community good practices and innovations that could serve as potential solutions to various challenges in rural development and livelihood enhancement. These practices have the potential to thrive and shine if provided with enabling environments. However, they have yet to become widely recognized standards and suffer from poor visibility due to various reasons, including limited documentation and promotion, as well as the lack of strong platforms for showcasing and scaling up. To address this and publicize these untold stories for others to learn from, Megha-LAMP organized a series of community-driven knowledge sharing events across the districts of Meghalaya in 2022-23. The primary aim was to enable communities to share their knowledge and experiences on a variety of subjects, ranging from traditional knowledge and natural resources management to entrepreneurship, financial inclusion, and community organization. These events played a crucial role in transforming individuals and communities, fostering learning and growth. The culmination of these district events is a state-level Knowledge Sharing Event named "Community Talks", held at the State Convention Centre in Shillong on 19 December 2022. The program was exclusively for the communities by the communities.

The edition witnessed 12 communities from across Meghalaya spotlighted and celebrated for their good work and for being role models to others. Over 250 people were present at the event including officials from various line departments and agencies of the state government and enthusiastic communities that arrived far and wide across Meghalaya to be part of the unique showcase on community cross-learning and sharing.

Megha-LAMP going forward

The project's success has resulted in the state government scaling up the various initiatives under LAMP, replicating the model across the entire state through the FOCUS program. The EFCs have evolved into PRIME; the CMC concept is being replicated in the state's Lakadong Cluster, and community procurement systems are being adopted in other activities. Innovations such as the Open Lime Canal and the use of Medicinal and Aromatic Plants (MAPs) for land reclamation, piloted with project support, are now being replicated in other projects such as the CLLMP and MegLIFE projects. The state Aroma Mission has incorporated value chains for multiplication of planting materials, technological support under CIMAP for distillation of essential oils, and marketing. Target villages and farmer households involved in MAP cultivation have been linked with the Megha Aroma Mission for access to benefits related to distillation and marketing services.Objectives of Megha-LAMP by project end in 2024 include incorporating the 1 lakh agricultural households covered by the project into the cooperative network and providing them with access to formal credit. The Collective Marketing Centres (CMC) are being continuously strengthened to eventually replace middlemen, while all initiatives of Megha-LAMP will be replicated in non-project villages through the FOCUS program.

2.2 CLLMP

(THE COMMUNITY-LED LANDSCAPE MANAGEMENT PROJECT)

The Community-Led Landscape Management Project (CLLMP) is an Externally Aided Project that is funded by the World Bank and implemented by the Meghalaya Basin Management Agency (MBMA). The project aims to manage and conserve natural resources through a holistic landscape approach to support accelerated economic growth and institutionalize and demonstrate a model for governments (both state and central) on community-led management of natural resources in the country.

The "Landscape Approach" refers to the decision-making to reduce trade-offs between competing land uses (agriculture, forestry, mining, etc.) and multiple livelihood systems in a geographic unit to reduce poverty, increase food production, protect ecosystems, and increase resilience to climate change.

Sub-objectives are

1. Sustainable Management of natural resource for economic growth: to manage and conserve the natural resources, especially forests, soil, and water sources, in a manner that supports the financial and physical well-being of communities in the State, and

2. Institutional development: develop and institutionalize a model for government support to community-led management of natural resources that can be replicated in other parts of India.

A survey conducted by NESAC in 2012 identified 579 villages in Meghalaya whose landscapes are in critical condition, requiring immediate intervention. However, with the passage of time, the number of villages with critical landscapes has increased and currently stands at more than 1900. CLLMP is being implemented to cover 400 of the most degraded villages with direct investment, while the remaining villages are supported with training, capacity building, and funding of innovative and scalable best practices.

MCLLMP

IMPLEMENTING AGENCY

Meghalaya Basin Management Agency (MBMA)

FUNDING AGENCY

The World Bank

PROJECT AIM

To manage and conserve natural resources through a Landscape Approach so that it supports accelerated economic growth and to institutionalise and demonstrate a model for government support (state and central) to "community-led management of natural resources" in the country.

MCLLMP
Meghalaya Community Led Landscape Management Project

PROJECT PERIOD

2018 *to* 2023

(+1 year extension to 2024)

PROJECT COMPONENT

Component 1:
Strengthening Knowledge and Capacity for Sustainable NRM

Component 2:
Community-led Landscape Planning and Implementation

PROJECT COVERAGE

6800 Villages across the State

400 Villages will be covered with **The World Bank** support

at a Glance

Development Objectives

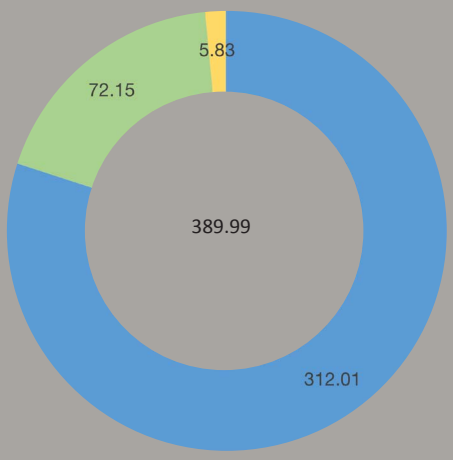
PDO 01
All project villages NRM Committees have adequate capacities to implement landscapes approach for natural resource management.

PDO 02
All villages are able to implement NRM Plans in accordance with CLLMP principles

PDO 03
Project beneficiaries are 'Satisfied' with project interventions

PDO 04
About 31 thousand Hectare of Land is brought under sustainable landscape management practices

Financial Pattern - INR Crore



The World Bank	-	312.01 INR Cr.
Government of Meghalaya	-	72.15 INR Cr.
Community Share	-	5.83 INR Cr.
Total	-	**389.99 INR Cr.**

Scope

CLLMP focuses on increasing the capacities of communities and traditional institutions (TI) by adopting a landscape approach to manage their natural resources such as soil, springs and other water sources, forests, and biodiversity, etc. The project is being implemented in 400 villages across the state.

CLLMP has a strong focus on institution-building at the village-level, by ensuring systematic capacity-building on technical and social skillsets. The project also extends such training to communities beyond the targeted villages and support efforts made by them to access funding from various rural and natural resources initiatives and schemes. CLLMP also invests in improving the process and outcome delivery by developing and adhering to effective systems and procedures, supported by the appropriate technology.

Benefits

1. Benefits for community (skills and capacity relating to technical and managerial areas like NRM and conflict resolution)
2. Benefits to traditional institutions (village councils, traditional leaders, community-based organizations, SHGs, etc.) through knowledge sharing, promotion of innovative approach, access to technology, technical managerial, and financial support.
3. The project is on course to impact about 1 lakh partners (of which 50% are women) who depend on land, forest, and agroforestry.
4. Through the project, interventions for approximately 32,000 Ha of targeted area is being implemented to ensure availability of water, biological resources, and soil productivity, which will in turn benefit about 400 villages.

Project Expenditure (INR Crore)

Financier	Costs	Expenditure (March 2023)
The World Bank	312.01 INR Cr.	272.32 INR Cr.
Govt. of Meghalaya	72.15 INR Cr.	51.75 INR Cr.
Community Share	5.83 INR CR.	0.45 INR Cr.
Total	**389.99 INR Cr.**	**324.52 INR Cr.**

Project Components

Component 1 - Strengthening Knowledge and Capacity for Sustainable Natural Resource Management

This component focuses on building the capacities of the communities for natural resource management through training, exposure visits, learning from best practices and traditional knowledge, investment to catalyse good practices and support for scaling up of innovative practices, and subsequently creating a center of excellence to house all the knowledge generated for wider accessibility and adoption.

Coverage: All 6500+ villages in Meghalaya.
This component is further divided into 5 sub-components as follows:

Promotion of Traditional Knowledge, Grassroot Innovations and Communication

Most communities in the state are already practicing traditional NRM which have evolved over generations of living close to nature. Preservation and propagation of this knowledge is important especially for community led efforts such as CLLMP. In this regard, the project is working to document and support the scaling up of existing traditional knowledge and innovations from across the state with the intention of preserving and making this knowledge available to all. Accordingly, the project has created an Innovation Fund for providing support to NRM innovations for further scaling up and wider application that can also benefit other villages in the state.

Strengthen Communities through Training and Capacity Building

As CLLMP is a community led project, it is important that the community is equipped with the necessary knowledge, tools, and support to enable the achievement of goals envisaged under the project. In this regard, the project has accorded significant importance to the training of communities to build their capabilities in project management, good governance, soft skills, leadership, and the use of technology such as Information Technology and Geographic Information Systems (GIS). Training needs assessment has been conducted to identify knowledge gaps and the project has developed a number of implementation manuals and technical manuals, planning tools, and other resources to aid communities in planning and implementation of their NRM plans.

Preparation of Strategies, Research and Development

To develop a better understanding of ground situations and identify gaps, opportunities, and challenges pertaining to NRM in the state, a number of research and studies have been undertaken under the project. These studies examine various themes including causes of landscape degradation, adaptation to climate change, project sustainability, rehabilitation of mine spoiled areas, etc. Learning from these studies has helped shaped the overall strategy to address the NRM challenges in the state.

Research studies that have been conducted under this sub-component include:

1. Baseline Study to support the Project
2. Study on Areas affected by Mining conducted by the North Eastern Hill University (NEHU)
3. Identification of Drivers of Deforestation conducted by the Rain Forest Research Institute (RFRI), Jorhat

Ongoing research activities:

1. Developing Effective Communication strategy for the indigenous Communities of Meghalaya
2. Project Sustainability Study
3. Institutional Health Tracking System
4. Research and Studies related to Living Root Bridges for applying to UNESCO as a World Heritage Site

Monitoring, Learning and Reporting

Under CLLMP, a State-level Management Information System (MIS) is being set up to document and inform all project activities, including M&E. At the community level, M&E is being carried out by social audits and citizens' engagement processes. Broadly speaking, the process is as follows:

1. Development of the M&E process and tools for results-based management and to ensure that data and information on the progress of the project towards achievement of the outcomes are available to the SPMU for course-correction and decision-making.
2. The frequency of data collection will be annual, and sources of data include perception survey (for citizen engagement and gender), field survey, skills and institutional assessment and review of key documents.

M&E Activities:

1. Generate information on progress of the project and meet the World Bank's routine reporting requirements, i.e., the six-monthly progress report, Implementation Status and Results (ISR) report which is developed for each country and publicly disclosable, and data and information requirements for the mid-term review (MTR) of the project.
2. Analyze and aggregate data generated at regional and local levels to provide timely feedback for decision-making.
3. Document and disseminate key lessons to all stakeholders in Meghalaya.

Besides the information collected by the SPMU on an annual basis, the citizen engagement process including perception surveys, and social audits also supports the M&E process.

Development of the citizen engagement strategy, tools, and process. The specific elements of the framework for citizen engagement include: (a) support to engagement of rural communities and households in planning and management; (b) support community engagement in determining local investment in land and watersheds; (c) support to a feedback mechanism from stakeholders and partnering beneficiaries to be designed to process concerns and questions from partnering beneficiaries and other stakeholders at different levels, with a view to resolving these concerns and questions; and (d) specific third-party monitoring of project activities will be supported two times during project implementation (at mid-term and at completion) to ensure transparency and feedback on these activities.

Component 2 - Community-Led Landscape Planning and Implementation

This component involves the preparation and implementation of Community Natural Resource Management Plans (CNRMP) by 400 of the most degraded villages, to address challenges faced by them and bring about improvement in water availability, forest cover, soil fertility, land productivity, and overall land uses that will benefit the community environmentally and economically. The selection of villages is done in consultation with the district administration based upon the criteria as per the project guidelines. The selected villages are then consulted and orientation on the project objectives and principles is given to the communities. Once the communities are convinced that the project is as per their felt needs, they will grant their consent and sign the Green Charter and also the Village Grant Agreement. This follows the principles of Free, Prior and Informed Consent. The DPMU team will then facilitate Participatory Rural Appraisal tools to assess the resources of the village and accordingly suggest interventions that can be implemented in the village. The villages are taken up in a staggered manner, based upon the resources available and other factors.

Coverage: 400 villages

CNRM Plan Implementation

The implementation of the CNRM plans is done by the community through the VNRMC. The VNRMC mobilises the workforce required for implementation and where necessary, it also mobilises additional funds through convergence with MGNREGA and other schemes to enable bigger activities, beyond the ambit of CLLMP, to be taken up.

Typically, the interventions include soil and water conservation measures, soil health improvement and productivity enhancement measures, spring-shed development and water management plans, nursery and agro-forestry and community forestry, effective measures in shifting cultivation, and treating areas which have been affected by mining.

Procurement of material is done by the VNRMC through its procurement committee. Most of the material is sourced locally which brings an added advantage of local economic enhancement.

CNRM Implementation Support

To support the communities with implementation, the project has established systems to make all information related to development, governance, project design, planning, monitoring etc. available for use at different levels. Data on land use, land cover and other information related to NRM is also available and shared through Geographical Information Systems (GIS) maps and other tools. These maps and other resources are essential tools that help the communities take stock of resources already available with them. This in turn enables them to make better decisions during the planning process.

Monitoring and Evaluation is another important support function of the project that helps progress tracking, learning and decision making.

1. In-house monitoring – SPMU undertakes monitoring the progress of physical and financial targets. Procurement monitoring is also being undertaken on a regular basis to assess any need that may arise, and to course-correct when required.
2. At the community level, Social Audit is carried out as per the provisions of the law, to verify the implementation of the project on the ground.
3. Regular evaluation of the project is conducted by external third-party agencies appointed by World Bank and the Project, to assess progress and identify implementation gaps and way forward.

Component 3 - Project Governance and Management

The State Project Management Unit (SPMU), which has its office at MBMA, oversees the entire governance and management of the project at the State Level. At the District Level, the project is being implemented by the District Project Management Unit (DPMU) under the overall supervision of the Deputy Commissioner, who is also the Chairperson of the DPMU. The SPMU facilitates the DPMU in the implementation of the project. At the village level is the Village Natural Resource Management Committee (VNRMC). The DPMU implements the project directly at the Village through the VNRMC. Each VNRMC has an Executive Committee, a Procurement Sub-committee and Book Keeper for day-to-day management of project activities. These are further supported by three Village Community Facilitators (VCFs), who are energetic youths from the village, trained by the project to support the VNRMC Executive Committee in implementing the project.

Project Development Objectives

CLLMP has 4 Project Development Objectives (PDOs) with 16 Indicators and 6 Intermediate Results with 16 Indicators. As shown in table below, the Project has made exceptional achievements on every PDOs, every Indicator of the PDOs, and as well has made more than 100% achievements on the Intermediate Result Indicators. There are a number of Indicators where the planned targets were in percentage, however, the project has gone beyond and carried out the said targets in all the project villages.

Project Performance as per Result Framework

PROJECT PERFORMANCE REPORT - CLLMP | MEGHALAYA PDO: To strengthen community-led landscapes management in selected landscapes in the state.			Project Target	Achievement (No.)	Performance %
PDO Indicators		Unit			
Objective/Outcome 1:	**Indicator**	No.			100%
Village NRM Committees functioning with adequate fiduciary capacities and capable of monitoring capacities to lead on landscapes management. (Number)	**Indicator 1:** VNRMCs maintaining Books of Accounts and Register	No.	400	400	100%
	Indicator 2: Purchase committee established	No.	400	400	100%
	Indicator 3: Information on activities and cost regularly displayed	No.	400	400	100%
	Indicator 4: Verification of works by VNRMC at start, mid-term and closure	No.	400	400	100%
Objective/Outcome 2:	**Indicator**	%			
Share of Village-level NRM Plans under implementation according to agreed criteria (%)	**Indicator 1:** Green Charter and Village Grant Agreement signed	%	360	400	111%
	Indicator 2: Formation of VNRMCs	No.	400	400	100%
	Indicator 3: CNRM plan complies with project environmental and social management framework	%	360	400	111%
Obkective/Outcome 3:	**Indicator**	%			
Percentage of beneficiaries 'Satisfied' with project interventions (disaggregated by sex) (%)	**Indicator 1:** Beneficiaries 'Satisfied' over functioning of VNRMC committee	%	160	Ongoing	Ongoing
	Indicator 2: Beneficiaries 'Satisfied' on CNRM planning process	%	160	Ongoing	Ongoing
	Indicator 3: Beneficiaries 'Satisfied' on information on the project	%	160	Ongoing	Ongoing
	Indicator 4: Beneficiaries 'Satisfied' on implementation of works	%	160	Ongoing	Ongoing
Objective/Outcome 4:	**Indicator**	Ha	31,510	32,289	102%
Land area under sustainable landscape management practices {Hectare (Ha)}	**Indicator 1:** Land area brought under Afforestation/Reforestation	Ha	6653	8828	132%
	Indicator 2: Land area brought under Agroforestry	Ha	2758	888	32%
	Indicator 3: Land are brought under agriculture	Ha	7265	5389	74%
	Indicator 4: Land area under soil and water conservation and catchment treatment	Ha	11964	19256	161%
	Indicator 5: Area of Culturable wasteland covered under Horticulture	Ha	2553	834	33%
	Indicator 6: Mining affected area covered for treatment	Ha	317	814	256%

PROJECT PERFORMANCE REPORT - CLLMP | MEGHALAYA			Project Target	Achievement (No.)	Performance %
PDO: To strengthen community-led landscapes management in selected landscapes in the state.					
PDO Indicators		**Unit**			
Intermediate Results Indicators	**Indicator**	Unit			
Share of villages supported with capacity-building package in NRM (Percentage)	**IR Indicator 1:** Village outreach programmes for sensitization (number of villages)	%	400	461	115%
	IR Indicator 2: Trainings organized for VNRMC members	No.	400	400	100%
	IR Indicator 3: Training organized for village facilitators	No.	400	400	100%
	IR Indicator 4: Villages attemd learning platforms	%	400	400	100%
Forest area brought under management plans {Hectare (Ha)}	**IR Indicator 1:** Total Forest land included in CNRM plans	Ha	12,587	1,08,000	858%
Meghalaya Basin Management Agency functional as Agency of Excellence in community-led NRM (Yes/No)	**IR Indicator 1:** Developed data systems on NRM	Y/N	NA	Yes	Yes
	IR Indicator 2: Established platforms for innovation and knowledge management	Y/N	NA	Yes	Yes
	IR Indicator 3: Established learning centre on NRM	Y/N	NA	Yes	Yes
Community NRM management plans prepared and approved by village CNRM Committees and DPMU of MBMA that include financing from other central and state government sources available for NRM (Number)	**IR Indicator 1:** CNRM plans that leverage other schemes	No.	400	381	95%
	IR Indicator 2: Total convergence amount	Lakhs	857.99	958.91	112%
Share of village NRM Committees with equal or more representation of women among 9 members of the Executive Committee (Percentage)	**IR Indicator 1:** VNRMC in place with 9 EC members	%	400	400	100%
	IR Indicator 2: Purchase Committees in place with minimum two women members	%	400	400	100%
	IR Indicator 3: VNRMC with 33% or more women members	%	400	400	100%
CLLMP mainstreams gender and citizen engagement (Yes/No) & Numbers	**IR Indicator 1:** Women's priorities included in the CNRM Plans	Y/N	0	Yes	Completed
	IR Indicator 2: Social Audit conducted in CLLMP villages	No.	400	248	62%
	IR Indicator 3: Functional Grievance Redressal Mechanism	Y/N	0	16	NA

Key Highlights of Activities as per the PDOs

1. **Spring Chambers** - Although Meghalaya is blessed with the highest rainfall in the world, there is an acute water crisis in project villages during lean seasons. As such the project supported the communities with 1,080 Spring chambers. Tap water connections are also provided in convergence with Jal Jeevan Mission (JJM). The project ensures that the water spring chambers have proper fencing to protect from cattle, ensure safety net for children, ensure that there is no soil erosion, siltation, and contamination from any sources.

2. **Spring Mapping** - According to the estimates, the state has over 60,000 springs, and 78% of the total number of villages (approx. 6,800) depend on springs as their main source of water for household, drinking and irrigation purposes. Over 54% of the springs have either dried up or their water discharge has significantly reduced in the past few years. To address this great challenge, the project has taken initiative and mapped 8,569 nos of Springs in project villages and non-project villages. These Springs are being mapped every month for a year and periodically in the 2nd and 3rd year to check the variances so that corrective intervention could be planned and intervened.

3. **Community Nurseries** - Meghalaya imports a large number of saplings (agri, horti, forest, etc.) from Assam and other neighboring states. To make the project village self-sufficient, the project has promoted and ensured setting up of Nursery units in all the project villages. A total of 339 nursery units are nurturing an inventory of 373,434 saplings. Among these, 144,895 saplings are made available for sale, creating a steady supply of plants to meet diverse needs. The survival rate of Nurseries is approx. 83% and the survival rate of plants planted is approx. 75%. In order to facilitate and ensure that benefits reach the last mile, the project has developed a repository of the nurseries established by the project, furthermore, it also consolidates the information on nurseries being promoted by the Soil and Water Conservation Department, Community and Department, and the Forest Department. the same can be accessed at https://coenrm.megplanning.gov.in/cllmp/.

4. **Afforestation** - Using GIS technology, the project developed LULC maps so that afforestation/ reforestation activities could be taken up in the degraded land, barren land, wasteland and also carry out plantation activities. The project has a policy of planting endemic species, planting of 60% water retention plants and 40% of fruit bearing/ commercial plants. The project has ensured setting up of nursery units in all the project villages to meet the requirements. 702 afforestation units have been established across 11 districts, resulting in the planting of 810,438 saplings over 8,828 hectares, including catchment areas.

5. **Composting** - The project is also attempting to increase agricultural productivity through improved input and techniques. This would result in enhancing the income of the rural communities. Across 11 districts, a total of 240 composting units have been established. These units encompass a range of composting methods, including vermicomposting, 18-day composting and NADEP. As a result, a significant quantity of compost has been produced, with 8,768 kilograms made available for sale.

6. **Water Harvesting Structures / Water Conservation Pond** - Water harvesting is a sustainable process that helps in preserving water for future needs especially in the off-monsoon season, it also helps in recharging the groundwater. The harvested water is used for agricultural and domestic purposes from 280 nos of structure implemented in the project villages.

7. **Agroforestry** - Agro forestry is a land use management system in which trees or shrubs are grown around or among crops or pastureland. The practice of agroforestry in the village forests and also within their housing space helps in restoration and management of the soil and landscape. A total of 276 villages have undertaken this activity in which they have witnessed an increase in both productivity and increase of income levels.

8. **Soil and water conservation** - 8.Soil and water conservation measures have been implemented across 22,184 Ha., viz. terracing, trenches, recharge pits, soak pits, gabion walls, protection walls, retaining walls, gully plugs, earthen embankments, check dams, water harvesting, water conservation ponds that reduces loss of soil fertility, reduces siltation and soil erosion, increases soil moisture, increases productivity on soil & crop which enhances the income of the farmers.

9. **Treatment of Mine Affected Areas** - Rampant unscientific mining is a major concern that has resulted in the massive degradation of land in many parts of the state. Special emphasis has been given by the project to reclaim such lands through interventions done in collaboration with North Eastern Hill University (NEHU) and Agriculture department. Interventions include physical reclamation such as Lime treatment, the addition of natural biomass (green & dry available plants species), diversion of leaching acidic water from the main area, biological reclamation such as use of medicinal and aromatic plants and nitrogen fixing trees and crops, and use of Open Limestone Channel (OLC) to neutralize acidic water to make it fit for domestic and agricultural use. A total of 303.4 hectares of mine-spoiled lands have been treated, benefiting over 5262 households.

10. **Convergence under CLLMP** - The project has made a big effort on Convergence with MGNREGA across Project as well as in non- project villages. The project has mobilized 9.59 Crores (112%) as against the planned target of 8.58 Crores and an additional 10.74 Crores is in the pipeline. Out of the 9.59 Crores, MGNREGA gave 8.3 Crores while communities contributed with 1.3 Crores. The Catalytic fund in the project was meant to support villagers (project as well as non-project villages) who were doing very well in NRM activities prior to CLLMP, through various existing Govt. Schemes. MBMA made a formal agreement with State Rural Employment Society (SRES), a State Agency, implementing MGNREGA in the state. It was mandated that 50% (of total proposal/ cost) or more should be contributed from MGNREGA. All facilitation is being carried out by SRES and the proposed NRM activities are being evaluated and vetted by the Department of Soil and Water Conservation, Govt. of Meghalaya. The facilitation of implementation, monitoring and evaluation of the Catalytic fund is being carried out by SRES and in the project villages by MBMA.

Convergence as of March 2023

Type of Villages	MGNREGA		Community Contribution		TOTAL	
	No. of Villages	Amount	No. of Villages	Amount	No. of Villages	Amount
CLLMP Villages	82	3,09,87,474	256	1,16,78,850	256	4,26,66,324
Non-CLLMP Villages	91	5,20,09,098	34	12,15,116	125	5,32,24,214
Total Convergence Amount Received	173	8,29,96,572	290	1,28,93,965	381	9,58,90,537
In Pipeline (Non-CLLMP Villages)	122	10,73,93,153	0	0	122	10,73,93,153
Grand Total (Received + Pipeline)	295	19,03,89,725	290	1,28,93,965	503	20,32,83,690

Component-Wise Performance

Component 1 - Training and Capacity Building

Capacity building intervention under Community Led Landscape Management Project (CLLMP) is taken up for all project functionaries which includes project staff, VNMRC members, VCFs, supporting government departments and other partner agencies. The objective is to ensure that project activities are planned and executed within time and budget, and that the Project Development Objectives (PDOs) are achieved in a timely manner. Broadly, the activities include:

1. State- and regional-level workshops on sharing unique and traditional NRM practices.
2. Sharing of NRM-related knowledge with the community through a web-based platform and using GIS tools and development of knowledge networks.
3. Training stakeholders and beneficiaries on community leadership and management of natural resources and the approaches promoted by the project.
4. National and international exposure visits for project stakeholders to expand horizons and infuse fresh ideas and innovation into the project stakeholders.

Training methods are adapted to the requirements and local context but largely include classroom- based training, hands-on demonstrations, exposure visits, and virtual training using Zoom amongst other things. Another unique approach the project utilizes is the Guided Mentoring Sessions. These are weekly virtual sessions whose dates and time are prefixed at the beginning, and that run without the need to re-mobilize people each week, thereby saving the project time and effort. These Sessions are used as learning grounds and platforms for stakeholders to air their challenges and have their peers offer solutions that have worked for them. Whenever a stakeholder comes across an issue on the ground, they share it in special WhatsApp groups created for this purpose so that others can prepare their offers beforehand, and these topics are then taken up for discussion in the following session.

The project prepares comprehensive training calendars that are aligned with the larger needs of the project based on the annual work plans prepared by various arms of the project. Given the critical nature of this sub-component, a dedicated training unit headed by a senior training manager has been established under the project.

Training Partners

The project has engaged a number of training partners to support the project across the levels from designing of the training to effective delivery of the various trainings.

Partners	Area of Expertise
Arghyam	Learner oriented content - NRM and reusable NRM community resources
Socion	Participatory Digital Attestation (PDA app) for the CLLMP
Sattva	Capacity Building using PDA, Guided Mentoring and Learner oriented content
ACWADAM	Aquifers and Springs, Spring Inventory, Hydrogeological Mapping, Spring Recharge Area Delineation etc.
Rajarhat PRASARI	Community Mobilization, Social Survey Tools, S&WCM, Agroforestry, Springshed Development Management etc.
CHIRAG	Community Mobilization, Social Survey tools, Spring recharge interventions, Agroforestry - Himalayan-Sub Himalayan region, Springshed Development etc.
People's Science Institute	Hydrology, Aquifers and springs, Spring Inventory, Hydrogeological Mapping, Spring Recharge Area Delineation, etc.
RMSI	Develop Management and Information System for CLLMP

The project has also partnered with technical departments of the state government to support various training interventions. Departments include:

1. Soil and Water Conservation (SWCD)
2. Agriculture Training Management Agency (ATMA)
3. State Forest Department (SFD)
4. State Institute of Rural Development (SIRD)
5. Institute of Natural Resources, Meghalaya (INRM)

Summary of Trainings Conducted under CLLMP

Particulars		No. of Training	No. of Villages Covered
CLLMP Villages		1,233	400
Scale Program (All villages in the State)		6,244	
		Training	5,397
NESFAS		48	100
NESAC		48	141
Sadhana Forest		25	25
Living Root Bridge	Dialogues	142	74
	Trainings	40	46
Guided Mentoring Session		522	400

Year-Wise Progress for CLLMP Villages

Year	No. of Training
2018 - 2019	4
2019 - 2020	123
2020 - 2021	229
2021 - 2022	545
2022 - 2023	122
Virtual (2020 - 2021)	210
Total	**1233**

Theme-Wise Progress

Sub Topics under Component 1	Topics	No. of Trainings	No. of Villages
Soft project management skills, reord maintenance	Finance & Soft Skills Management	120	400
	Procurement	133	400
Development of Community NRM Plans	CNRMP Training	84	400
	Agroforestry, Forestry and Community	3	
	Forestry	23	
	Springshed Management	72	
	Land Productivity	2	
	Soil & Water Conservation	8	
	NRM	22	
	Water Policy	9	
	Combined Thematic Training	45	
Environmental and social safeguards	Safeguards	24	400
	Environment Management		
Project governance and conflict resolution	Social Management & Community Mobilization & Conflict Management	107	400
	GIS	107	400
Use of GIS and Geospatial technology in planning	Training on GIS Application & Future Advances (Apprentice)		
	Training on GIS/GPS/Google Earth/ Mobile		
	Apps (VCFs & VNRMC Members)		
	Training on GPS, go to location app, collection of data for FMP (VCFs)		
	Refresher training for NRM Boundary		
	Mapping using GPS and Mobile app(VCFs)		
	VCFs training on Sangra App, GPS mapping for GREEN Project (PES)		
	Scale program VCFs training on mobile app mapping of NESAC Activity		

Training on KM tool for the community	Knowledge Management	39	382
Other trainings	Mining	8	104
	ASCI	10	
	FMP	46	
	MIS	25	
	Innovation	12	
	Monitoring & Evaluation	65	
	PDA	17	
	Project Management	10	
	ToR	10	
Training on Report Writing, Orientation, Documentation, Minute Register, etc.		23	

Capacity Building through the Apprenticeship Program

The state is making huge investment into Natural Resource Management (e.g., 60% of MGNREGA funds allocated for NRM; state is also implementing several EAPs related to NRM such as CLLMP, Catchment Area Protection, LAMP) and there is an increasing need for professional human resources in this sector. To augment this need, MBMA has launched an Apprenticeship Program whereby fresh graduates from colleges undergo a comprehensive training course under the project such that by the end of the program they become thoroughly capacitated to perform on the job. The pilot batch started with just 14 apprentices and one sector - Geographical Information System (GIS) and UAV Drone. As of March 2023, the project has trained 54 apprentices in various sectors such as Environment Management, Finance and Accounts, Procurement etc.

Scaling up CLLMP Principles to entire Meghalaya

1. Catalytic Funds

Most of the communities in the state are already practicing traditional natural resource management, which have evolved over generations of living close to nature. Preservation and propagation of this knowledge is especially important for community-led efforts such as CLLMP. Accordingly, the project has also created a Catalytic Fund that is being used to support and scale up new sustainable approaches in NRM. The fund aims to support integration for sustainable natural resource based solutions (i.e. related to the conservation, protection of soil, water, forests, sustainable use of natural resources, rehabilitation of degraded or deforested lands, among others) and stimulate innovations and alternatives approaches towards efficient Community led NRM that empowers communities to better manage their environment including promotion and revival of existing and traditional knowledge and their application. It also aims to promote changes through innovation, which is measured in the application of new ideas, products, and processes to address both existing and emerging developmental challenges. Finally, the Fund aims at speeding-up the impact of NRM activities in the state. Altogether 275 villages/VECs are supported under Catalytic Fund in convergence with MGNREGA for implementing over 400 NRM activities across the 11 districts. The total project cost is Rs 26,74,78,051 of which Rs 16,00,84,898 (60%) is from Catalytic Fund and the remaining Rs 10,73,93,153 (40%) is from MGNREGA. Most of the activities are in the implementation stage and the work will be completed latest by Jan 2023. It is expected that at least 9630 Ha of land will be treated/benefited from the implementation of different NRM activities which will benefit about 12000 households. The detailed break up is shown in below table:

Sl. No.	District	No. of Villages	CTF (INR Cr)	Convergence (INR Cr)	Total Cost (INR Cr)
1	EJH	17	1,09,30,908	81,75,927	1,91,06,835
2	EKH	68	2,85,59,107	4,05,74,841	6,91,33,948
3	NGH	32	2,08,91,102	70,86,191	2,79,77,293
4	RB	31	2,00,43,940	2,10,25,127	4,10,69,067
5	SGH	34	1,88,13,302	1,31,21,641	3,19,34,943
6	SWGH	22	1,63,50,726	-	1,63,50,726
7	SWKH	9	82,92,700	204	82,92,904
8	WGH	20	1,24,77,200	-	1,24,77,200
9	WJH	18	93,15,000	51,60,968	1,44,75,968
10	WKH	20	91,19,194	45,43,599	1,36,62,793
11	EGH	16	91,42,279	77,04,655	1,68,46,934
Total		**275**	**16,00,84,898**	**10,73,93,153**	**26,74,78,051**

2. Cluster Development Fund

There are 34 watersheds, 179 sub watersheds and 2,776 micro watersheds in Meghalaya. These micro watersheds range from 113.37ha to 877.64 ha. While CLLMP adopts a landscape approach of project implementation taking a single village as a unit in the project targeted 400 villages, there may be instances where the NRM problems faced by a particular village require interventions at a sub watershed and or at a micro watershed level. Often the micro watershed areas essential for treatment are situated in village(s) boundaries that may not directly benefit from the investment in a single village. These villages may be covered under the project or there may be situations where villages outside the project would be required to be brought within the fold of the project to facilitate interventions that will significantly benefit clusters of villages within the micro watershed. As such interventions at the micro watershed level and/or at sub watershed level have a larger impact than that of landscape approach in a single village. Cluster Development Fund is meant to be implemented primarily in micro- watersheds as a unit though it may be possible that treatment, particularly those that concern underground water, may need to be implemented outside of the micro-watershed. CLLMP has created Cluster Development Fund, a grant meant specifically for investment in clusters that covers boundaries of more than one village. This will facilitate the participation of villages that may be within as well as outside the project villages to achieve a greater common good and enhance the benefits from the interventions. A total of 45.35 Cr. has been earmarked for investment under Cluster Development Fund to support 180 clusters across the state. Comprehensive guideline for Cluster Development Fund is prepared with different roles to be played by different agencies such as Meghalaya State Watershed & Wasteland Development Authority (MSWWDA), State Rural Employment Society (SRES), Meghalaya Basin Management Society (MBMA) and the Community.

3. Payments for Ecosystem Services

The Project has initiated a Payments for Ecosystem (PES) model to help and support communities to protect and maintain the forests that we see today. This is the first state-wide PES to be implemented in the country. The main objective of this initiative is to further augment the efforts of the communities towards conservation. The target under this initiative is to conserve a total forest area of 50,000 Ha across the State. The PES initiative has officially been adopted by the government under the aegis of the GREEN Meghalaya (Grassroot Level Response towards Ecosystem Enhancement and Nurturing), which was launched by the hon'ble Chief Minister to incentivise those who have been proactively protecting natural forest. In the 1st phase (Aug 22- Feb 23), the total no of beneficiaries under the scheme is 890, covering an area of 17,000 hectares.

4. NRM Boundary Mapping

A key contribution of the project is the preparation of NRM boundaries for all villages covered under the project. Due to the complex land ownership and traditional governance system, Meghalaya does not have any cadastral map in the state. For CLLMP, having defined boundaries is important as NRM interventions are site specific. In this regard, the project through its GIS lab has, for the first time in the state, generated NRM Boundary maps for the 400 core project villages which outline the physical boundary within which the various NRM interventions are required. The entire exercise is done entirely with the help of local community members and VCFs who have knowledge about the village boundaries. Using these boundaries, the project has also been able to generate other critical information such as Land Use Land Cover, resource map, drainage, slope map, soil maps, statistical analysis etc. that have significantly improved NRM planning and ensured higher success of various interventions. Due to the success and usefulness of this initiative, this exercise has now been expanded to cover the entire state of Meghalaya. Maps for more than 2,550 villages have been captured and generated.

5. Seedball Initiative

Seed balls and seed bombing is a technique of compassionate natural farming where we become instrumental in dispersal of seeds of our native trees for their regeneration. Seed balls are actually an ancient Japanese practice called Tsuchi Dango which means 'Earth Dumpling' as they are made of clay earth. This technique was reintroduced by Japanese farmer Masanobu Fukuoka. This is made of clay and also some additives like humus and compost. There are many references of using this technique to recover derelict grounds resulting due to some human activities like mining and heavy tillage agriculture. Seed ball broadcasting is a low-cost method of enhancing green cover in the State in a widespread manner. It is an efficient way of seed dispersal, and the rate of germination is as high as 70%, which is comparable to conventional plantation methods. The exercise can be done either by throwing or by using catapults for dispersing from a distance. Furthermore, in inaccessible terrains, drones will be used to disperse the seeds. Under the project, the seedball initiative was launched on 1st June 2022 in which 2,30,000 seedballs were distributed and dispersed in all 46 C & RD Blocks. Based on the success of this initiative, the project has kept a target of training 73,600 students across the State in Seedball making and which they will in turn make the seedballs. Approx. 30,00,000 seedballs would be made in the coming year and would be dispersed throughout the State.

6. Building a Cadre of Community Professionals

The inclusion of NRM under MGNREGA with 60% of the funds dedicated to improving the NRM sector has been a huge milestone in the step towards tackling various NRM-related issues. The challenge, however, is the implementation of NRM works in the villages, which lay in the hands of the VECs, who lack sufficient knowledge in choosing the appropriate interventions to alleviate the issues. Hence, it was envisaged that the lessons from CLLMP can be scaled up to other villages, and CLLMP in collaboration with the Soil and Water Conservation Department is conducting sensitization programs in all 6500+ villages of the state and intensive training on NRM principles and planning for 2 to 3 youth known as Village Community Facilitators or VCF from each village so that they become useful and productive resources for their village. Furthermore, Meghalaya recognizes that achieving its climate change vision requires the participation and leadership of communities. The state aims to leverage its strong social capital by creating these village professionals who will drive climate change actions. Currently, over 14,000 VCFs have been trained and positioned across 6,004 villages. They are engaged in facilitating the implementation of various government programs, including CLLMP, MegLIFE, Digital Agriculture, FOCUS, and more. With time, the VCF would become NRM experts and assist the VEC in taking a holistic landscape approach to NRM planning and implementation. They will also play a crucial role in mobilizing and building a network of green volunteers across the state.

Scaling up of Innovations and Traditional Knowledge

The communities in Meghalaya have a very distinct approach to natural resource management (NRM). Nearly 90% of the forest of Meghalaya are governed under customary law by the Khasi, Garo, and Jaintia tribes, the state's predominant population, who are the custodians of the forest in contrast to the majority of Indian states where the state is in charge of the protection and management of forests. There is already an abundance of traditional practices and innovations that can help the project achieve its objective. In this regard, CLLMP recognized the promotion of local and national innovations as one way for enhancing knowledge and capacity in natural resource management (NRM). The project has thus established an Innovation Fund to develop and strengthen these NRM innovations that would benefit the communities that depend on natural resources for a living. The project supports innovations for sustainable natural resource management, including those that promote the conservation and protection of soil, water, and forests; the sustainable use of natural resources; the rehabilitation of degraded or deforested lands; and the adoption of clean and environmentally friendly technology. The fund encourages innovations in community led NRM across the entire state of Meghalaya.

CLLMP support can be divided into two broad categories - Grassroot innovations and National-level. Over the past five years, the CLLMP has supported more than 21 grassroot-level innovations and 5 national-level innovations in areas such as landscape management, revival of traditional knowledge, rehabilitating mine-affected areas, etc., the latter which are summarized as below:

1. **Agroecological Learning Circles under NESFAS** - The North East Slow Food & Agrobiodiversity Society (NESFAS) is a platform that ties individuals to the enjoyment and significance of eating locally grown food as well as the process from farm to fork. The goal of NESFAS is to provide a single platform where traditional knowledge systems and contemporary science can coexist on an equal footing. For the benefit of indigenous communities, NESFAS has used agroecology as a framework over the years in defending, restoring, and promoting indigenous food systems. The project "Empowering indigenous communities through Agroecology Learning Circles (ALCs) for resilient, integrated, and creative natural resource management." is a unique initiative combining agroecology and participatory research with a goal of enabling indigenous communities to recognize, practice, and eventually further develop traditional agroecology technologies and practices as well as to foster local innovation for sustainable local food systems. The project is community centric and involves the indigenous farmers in problem identification, solution proposition, field-based trials, documentation, and propagation of successful experiments. As of March 2023, 100 ALCs have been established.

2. **Sadhana Forest Model** - The innovation seeks to introduce the Sadhana Model in NRM planning to increase availability of food producing trees, improve soil quality, and water conservation. Strengthening community knowledge is crucial for sustainable landscape planning and ecosystem management. In this regard, the Sadhana Forest facilitators are providing training in conservation, resource management, and dry-land tree planting techniques. The local communities will lead the water-conservation design and implementation process so that they will be motivated and able to carry out water conservation independently in the future. To date, preliminary research has been conducted to identify and classify native trees that produce food and are primarily oxalogenic. This research considers site-specific characteristics and social acceptability considerations, and the findings have been shared with the villages. Project staff and employees of various government agencies have undergone training on a range of topics related to soil and moisture conservation, tree planting, and management. NRM plans have been facilitated for 25 villages, and training on food forest plantation and water conservation methods, including swales, gabions, earth dams, etc., has been provided to 400 CLLMP villages. Further, Sadhana Forest has compiled a database of over 100 indigenous, food-producing tree species, which was prepared through a comprehensive review of existing literature, contributing valuable information to the project's resources.

3. **Sadhana Immersion Centres** - In this project, Sadhana Forest is focusing on increasing the awareness of local people in three different districts of Meghalaya to the region-specific effects of climate change. Sadhana Forest is providing training in practical, efficient, and cost-effective techniques that are appropriate to their specific needs. The project is establishing three permanent Immersion Centres in the state of Meghalaya (in the Khasi, Garo, and Jaintia regions). The centres will enable an immersive experience in nature and sustainable living and will provide an in-depth assessment of local needs and resources as well as training in water conservation and reforestation. The focus is on training on various aspects of conservation, landscape planning, and ecosystem management and helping communities improve NRM methods and carry out water conservation, reforestation, and soil conservation independently in the future. Significant progress has been made so far - the project has created large-scale awareness at the grass roots and is currently focused on capacity building on technical, managerial, and social development skills and the project is working to improve the efficiency and tangible returns of public funding on environmental protection by ensuring convergence of various centrally and state sponsored schemes.

4. **The Living Root Bridges (LRB)** have been in Meghalaya for centuries with little or no investment made on conservation effort, except by the community themselves. And CLLMP has put in significant efforts to support the communities. In the initial phase, there were many doubts and hesitation among villagers on Government Interventions or Government efforts to partner with villagers in the conservation efforts. MBMA has conducted more than 142 community consultations over 4 years that has resulted in a strong rapport forged with the community. As of March 2023, 46 villages have come together and formed 26 Cooperative Societies and conserving at least81 LRB sites, with the ambition to obtain UNESCO the World Heritage Site. The Cooperatives have made Guidelines on conservation of LRB sites and for the first time in Meghalaya, the community is imparting training on NRM and sustainability to Government Officials. CLLMP also facilitated 3 members from these Cooperatives to participate and speak at the COP27. As a culmination of all these efforts, the LRBs have today been included in the list of tentative UNESCO World Heritage Sites.

5. **Rehabilitation of mine spoiled areas through the introduction of Medicinal & Aromatic Plants** - One of the strategies to reclaim mine spoiled area and degraded land is by introducing different grasses of high yielding variety such as Lemon grass, Citronella, Palmarosa, and Vetiver, which at the same time provides livelihoods for communities. Aromatic grasses also provide sustainable stabilization of highly acidic mine waste soil and are considered as one of the potential and excellent candidates for phytoextraction and phytostabilization and have more potential than shrubs and trees due to their better adaptability to stress environment and higher biomass production. The agro-climatic conditions of the state are suitable for the cultivation of MAPs; the aromatic plants serve as raw materials for pharmaceutical industry and traditional medicine. The demand for MAPs has grown due to local, national, and international interest. The cultivation of MAPs in wastelands protects the ecosystem by reclamation and provides new income opportunities for the farmers of the state. Significant progress has been made so far. Mine degraded soil has improved through the plantation of MAPs across 214 hectares of degraded land currently benefiting 40 villages and 49 Village NRM Committees/ VOs/ SHGs. 5 Zonal Nurseries have been established covering a total of 10 hectares.

Grassroots Innovations

To identify and promote innovators of different NRM practices at the village level, the project has instituted a "Grassroots Innovation Fund". This Fund is meant for individuals, village institutions, community representatives, and State / national level institutions / organisations for innovations in sustainable natural resource management and their products and services. A total of 18 innovations across the State have been awarded the Grassroots Innovation Fund.

Dr. Jasper B Manic - Ri Bhoi Traditional Healer Association

Revitalizing ancient healing practices, Ri Bhoi Traditional Healer Association overcame habitat challenges. With membership growth, they conducted awareness programs, established a medicinal plant nursery, and earned revenue by selling medicinal herbs.

Green Mawtneng Village – Green Initiatives

Mawtneng, declared a "Green Village," excels in eco-conscious living with innovative governance and sustainable practices. These include soil erosion prevention, kitchen gardens, biodiversity enhancement, eco-friendly alternatives, indigenous flora preservation, and responsible fishing practices, showcased in their green museum.

Jorsing Syngkli – Organic Biopesticide

Jorsing Syngkli, a 70-year-old farmer, developed a cost-effective organic pesticide due to the impracticality of chemical alternatives. His grassroots innovation not only improved his farming practices but also benefited 120 farmers across 200 hectares, reducing reliance on harmful chemicals.

Kyrsiew Ryngkhlem – Reclamation of Mine-spoiled Farmlands

Kyrsiew Ryngkhlem, a farmer from Wapung Skur Village, tackled mine-induced soil infertility with her low-cost organic manure. With support from CLLMP, she produced 2 tonnes of organic manure, selling 1.79 tonnes to over 500 farmers. Kyrsiew now dedicates her time to training others in land rehabilitation.

Dharmen G Momin – the Karitchi local soda

Dharmen Momin from Sasatgre Village gained renown for Karitchi, an indigenous soda. Supported by CLLMP, he expanded the business, registered with FSSAI, produced 500 litres, and earned over Rs. 90,000. Besides entrepreneurship, Dharmen's green activism earned him the Meghalaya Excellency Award 2023 for Environment Protection, highlighting his commitment to biodiversity and cultural preservation.

Hill Myna – Good governance by Umpung Village

Umpung Village in South West Khasi Hills successfully preserved Hill Mynas, once endangered due to poaching and deforestation. With support from CLLMP, the Dorbar Shnong enacted strict laws, engaged the community, and created a sanctuary. Today, the area thrives as a Hill Myna sanctuary and a tourist attraction, demonstrating effective grassroots conservation.

Biodiversity conservation – Rohbah Village

Rohbah Village's Leaf Conservation Group, with CLLMP support, scales biodiversity efforts. Initiatives include Pyndeniahsiat rejuvenation, rare species identification, and an innovative Pethia Shalenia fish breeding centre.

Hejew Klien - Low-cost power tiller machine and thresher

Tomongpo Anglong Village's Hejew Klien made a cost-effective power tiller and threshing machine, revolutionizing farming in Ri Bhoi. Over five sets fabricated, reducing labour and time, showcasing the impact of grassroots innovation in agriculture.

Stephan Shadap – Beehive made of straw and bamboo

Master Beekeeper Stephan Shadap of Nongthymmai Kyrdem innovates eco-friendly beekeeping with straw hives, supported by CLLMP. His training programs empower beekeepers, fostering cost-effective and sustainable practices, and his brand "LINO HONEY" contributes to Meghalaya's honey industry growth.

Lamuni N. Sangma - Beehive made of Mud Top of Form

Lamuni N. Sangma, from Chichotcheng village, innovates with 30 mud beehives supported by CLLMP, boosting honey production. Her inventive approach gains recognition, attracting interest from communities, researchers, and nature enthusiasts. Lamuni shares her knowledge through training sessions, promoting beekeeping with innovative beehive designs for domestic viability.

Aruakgre Village Development Committee - Aruakgre Turtle Sanctuary

Aruakgre Village establishes a turtle sanctuary, declaring it with a protective wall, preventing erosion, and creating a path for accessibility. This initiative safeguards endangered Indian turtles and promotes eco-tourism for additional income.

Grassroots (NGO) & Mutong Village - Bottle Brick Technology

Grassroots NGO and Mutong Village pilot bottle brick technology for plastic waste. With community consent, a 2-day training program produced 1800 bottle bricks, paying Rs. 5 per piece, fostering collaboration across age groups. Local establishments aid in collecting and transporting plastic bottles for this innovative project.

Bernadette Lapasam - Clay Stove

Bernadette Lapasam innovated a clay stove, cutting wood consumption from three to one log per day. With CLLMP's support, she's enhancing stove efficiency and developing a business plan in three phases: workshop construction, product testing in 30 households, and future expansion.

Laitumsaw Village – Conserving the Hill Myna

Laitumsaw, inspired by Umpung Village, is preserving Hill Mynas with CLLMP support. They've built nests and pathways, addressing challenges by acquiring land and planting trees to conserve ecosystems on privately-owned lands.

Just Synrem - Plastic to fuel by Incineration

Just Synrem of Mylliem Village innovatively addresses plastic waste by converting it into eco-friendly fuel using the pyrolysis method. Supported by CLLMP's Innovations Fund, he aims to scale up the initiative and encourage community participation in waste management and recycling practices.

Nongstion Social Service Society (NSSS) - Low Cost & Zero Energy Cold Storage

Nongstoin Social Service Society in Mawthadraishan is establishing low-cost cold storage facilities, aiding farmers in storing surplus produce and preventing distress sales. The units, using cost-effective technology, offer post-harvest cooling, allowing farmers to access markets more effectively.

De·chraowe Sam A·chik Association

De·chraowe Sam A·chik Association, led by a herbal medicine practitioner and MSA member, promotes traditional medicine. Greenhouses in Williamnagar and Nongchram facilitate the cultivation of essential plant species, while the association is publishing a comprehensive manual on traditional medicines.

Raid Buam Environmental Protection Association (REEPA) - Environmental Protection

RBEPA revitalizes degraded lands with lemongrass and citronella cultivation on a 7-hectare area, aligning with wildlife conservation efforts and creating a tourist attraction at Krangsuri Waterfalls. They emphasize forest preservation and engage tourists in planting tree saplings for ecosystem sustainability.

Component 2 - Strengthening Community Institutions for NRM

CLLMP being a community-led Project, Institutions at the village level play the major role. The tribal communities consider forest and natural resources as larger as part of their life and livelihood as such they have their own system and mechanisms to manage the same. CLLM Project is designed to further add value to community-based institutions. It has promoted Village NRM Committees (VNRMCs) in every village to manage their own resources using traditional knowledge and practices. The project brings in technical and modern knowledge, tools, and techniques (acceptable to the community) and merges the same with the existing traditional knowledge and practices.

The Community Institutions for NRM

The VNRMCs has a General Body (GB) which is represented by two members from every household in the village; the Executive Committee (EC) consisting of 9 or more members with a minimum 33% of women representatives. The membership in the EC has provision to take members from Self Help Groups, women groups, youth groups and persons with different abilities. The VNRMCs also have independent Purchase Committees to look into Procurement Masters. The project has completed the formation of VNRMCs in the 1st year of Project Implementation with all required criteria. The VNRMCs are the main PIA (Project Implementing Agency) in the CLLM Project. They are being trained in all aspects of organizational management, financial & procurement management, activity planning, implementation, monitoring, evaluation and reporting of activities.

Community Capacities in Project Management

CLLM Project has facilitated and capacitated the members of Village NRM Committees, the Village Community Facilitators, and the External Experts in various Capacities.

Soft Skill in Organizational Management

The VNRMC members, the VCFs and External experts have been trained in soft skills such as setting up agenda for meetings, conducting meetings, group dynamics, use knowledge and skills within members, working with individuals and groups, exchange of knowledge and skills, hosting programs and events, etc.

Capacity in Maintenance of Books of Records

The Project ensures proper record maintenance and transparency. The book-keepers of VNRMCs are trained in maintaining books of records. The project has 7 books of records – the Minute Register, Cash Book, Bill Register, Cheque Register, Payment Register, Asset Register, and the Community Contribution Register. All these Registers are being maintained by the Book-Keepers from the village itself. As of March 2023 66% of VNRMCs are maintaining all the books of records without external expert support and the remaining with the support of External Experts and Project Experts.

The Procurement Committee of VNRMCs

The VNRMCs has a 3-member procurement committee (at least 1 female member) to cater the procurement requirements. They are being trained in procurement procedures and requirements as required by the World Bank. They are trained on publishing and advertising the RFQ, accepting quotation from bidders and abide by the minimum 3 quotation system, evaluation of quotation, issuance of purchase order to the successful and L1 bidder, maintenance of GRM, maintenance of asset register, book of accounts, maintenance of utilization certificates and release of payments, etc. While there are a number of challenges in complying with the procurement procedures, the Bank is satisfied with present compliances of procurement Committees across project villages.

Spring Mapping by the Community

Springs, Streams, and Rivers in Meghalaya are degrading year after year. To address the problems, the VCFs are trained to data on Ph, temperature, TDS-Total dissolved solid and electrical conductivity (EC) of all the critical springs (villagers dependent on these springs) in the village. The VCFs are provided with water testers to map on the qualitative measures of all the springs in 400 project villages. The VCF are provided with a tablet each for recording the monthly data of Springs both qualitative and quantitative in the arc GIS spring mapping app.

Forest Management Plan by Villages

The Village Community Facilitators across 400 villages are being trained in Forest Mensuration - how to handle and use the equipment/tools such as Abney's level, GPS, Prismatic Compass, and Measuring Tape. Through these training the VCFs are able to capture the length and breadth of a tree, they are also able to lay out a sample plot to carry out enumeration and forest inventory for 400 VNRMCs. As of March 2023, CLLM Project has 400 Forest Management Plans ready for Implementation, the 1st of their kind ever in the state.

Capacity in managing the Living Root Bridge (LRB)

The Green Meghalaya vision, UNESCO World Heritage Site training and Shlem Jingtip (spaces for learning) is inspired by community's' suggestion to link the LRB conservation works with learning and education, indigenous community led natural resource-based trainings are being held at block and village level to demonstrate the potential of local natural material based traditional construction works. Participating members in these learning workshops include Government officials from the Community and Rural Development department, Green Meghalaya Movement, and State Rural Employment a society - which is the nodal agency for implementation of MGNREGA in Meghalaya. Live learning and demonstration of construction - growth processes which have informed "Nature homes" and community nursery have inspired other officials and village community members to join the journey and demand for continued knowledge exchange. Future policy impact through use of NRM budget under MGNREGA and informing Green Village Development plans is anticipated. These responsible nature-based community Led village development plans will also directly inform UNESCO World Heritage Site nomination dossiers of the state.

Capacity in Planning, Implementation, Monitoring & Evaluation

The VNRMC Members, the VCFs and the External Experts are being trained in mapping Village Resources through PRA, GIS Maps and Community Consultations. Every VNRMC has facilitated for 3-5 days NRM planning, Implementation, Monitoring and Evaluation of project activities. The Project has engaged Engineers (professionals from open market) who are placed at the District Project Management Units (DPMUs) to support the VNRMCs in designing and making the cost estimates of each and every activity planned for implementation.

Promotion of learning culture

Participatory documentation and dissemination of traditional knowledge and practices related to sustainable NRM, including lessons from other NRM projects has been taken up through exposure visits. So far, the project has completed 55 exposures within the state with a total of 954 participants and 22 Exposures outside the state with a total of 396 participants. In addition to that, innovation grants and catalytic funds are made available to non CLLMP villages as well to encourage new approaches in NRM products and services and community NRM respectively.

Hosting Exposure Visits by Villagers

The Regional Exposure Visit are mainly the Exposure Visits that are organized for cross learning from one district to another or within the district for villagers and VCFs to explore best practices villages in terms of Natural Resource Management in which they can learn and share their learnings about the practices and implementations they manage in their respective villages. These Exposure Visits are mainly organized by the DPMU Team.

Development and Implementation of NRM plans

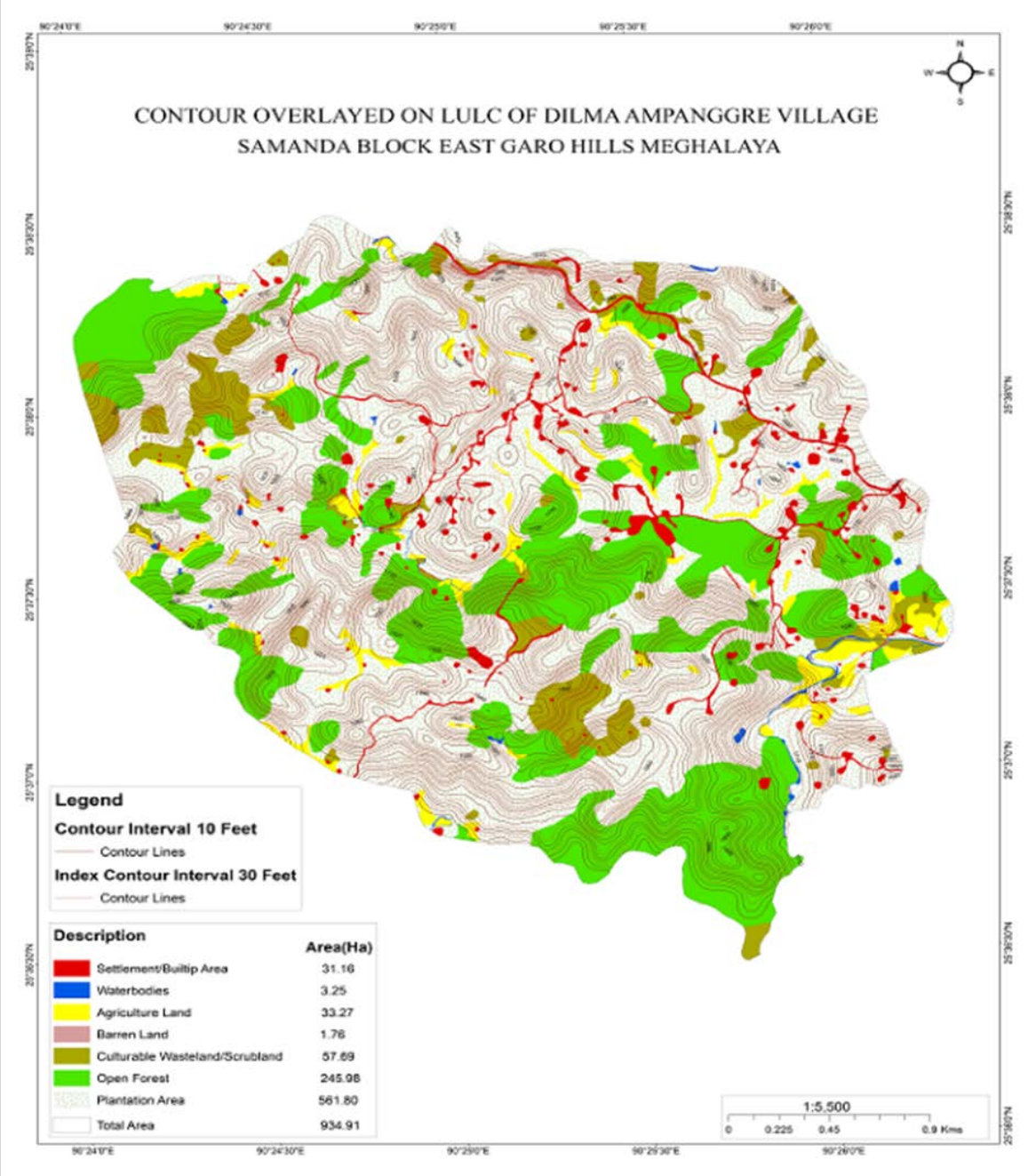
The Community Natural Resource Management Plan (CNRMP) has to be prepared for all the project villages in a **Landscape Approach.** There is no single widely accepted definition of this approach. Landscape approach usually refers to decision making to reduce trade-offs between competing land uses (agriculture, forestry, mining, and so on) and a multiple livelihood system in a geographic unit to reduce poverty, increase food production, protect ecosystems, and increase resilience to climate change. For the execution of the CLLM Project, landscape approach means that the agriculture, forest and other common land and water resources under the jurisdiction of one village is defined as the operational landscape. The term landscape plan and NRM plan have been used interchangeably.

A unique feature of CLLMP is that it is entirely "Community-Driven", which means that planning and decisions to take up as well as implement interventions are done by the communities themselves. The project's role is only limited to facilitation and providing technical support such as training and capacity building, provision of planning tools including GIS, Geospatial tech, equipment, social and environment safeguards, etc.

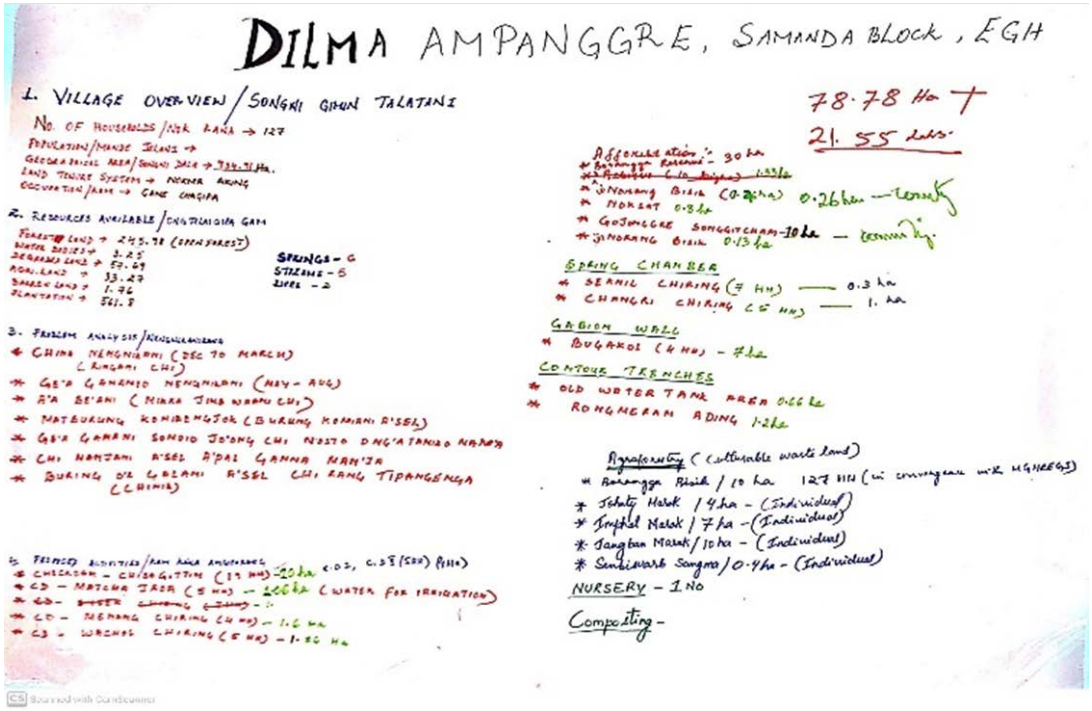
Community Natural Resource Management Plans - address immediate challenges faced by villages in critically degraded landscapes and bring about improvement in water availability, forest cover, soil fertility, land productivity, and overall land use that will benefit the community environmentally and economically. 400 villages are covered with World Bank assistance, while the remaining villages are covered under convergence.

As part of the CNRM plan preparation, communities identify the leading causes of degradation of natural resources in their areas along with the impacts that such degradation has on the local population. This process of plan preparation involves several steps to help establish the current profile and status of the village, the various actors, and human resources available for implementing the project, and a careful analysis of the problems faced by the village and their relation to natural resource degradation, the collective short-term and long-term visions of the village, and the preparation of detailed CNRM plans and priorities to address these challenges.
The planning process is inclusive and involves the participation of the entire community. Problem analysis is done through a consultative process taking inputs from all stakeholders of the village including vulnerable groups such as women, children, the elderly, and the infirmed, among others. The project has provisions in cases where the intervention needed falls outside the jurisdiction of the project village. In such cases, the corresponding village can also participate using project funding to take up activities that would mutually benefit all villages concerned. Each plan adopts a landscape approach and is holistic in nature, containing all possible interventions necessary for addressing NRM challenges. In most plans, the funding from CLLMP would cover only a part of it, but the balance is met through other schemes and programs of the government. Hence, the CNRM plan is thus a ready reference for all future NRM schemes and programs which can then significantly shorten the planning process of such programs.

CNRM Plan Preparation



400 villages have formed ***Village Natural Resource Management Councils*** (VNRMCs) and have appointed members of an Executive Committee to implement the project in their village. Each VNRMC comprises 1 adult male and 1 adult female of each household of the village. The project has completed the ***CNRMP*** preparation in all 400 villages with over **7500 interventions** implemented.



Forest Management Plan

CLLMP is supporting communities in the preparation of sustainable Forest Management Plans (FMPs) which will enable scientific management of forest by the forest owners while enabling them to also harvest timber in a sustainable way. The creation of these plans has enabled communities to sustainably manage forest resources including sustainable harvest of timber. The key focus is on forest demarcation, improving forest fire control, afforestation/ reforestation, establishment of food forest nursery, and implementation of necessary soil and water conservation measures.

The FMPs have been made to be in alignment with the "Working Scheme" under the Ministry of Environment, Forest, and Climate Change, so that communities can leverage on the resources available under that scheme in the long run. To date, FMPs of 400 villages have been prepared, covering 1,08,000 hectares of forest area. Further, a total of Rs. 9.67Cr. has been disbursed to communities for implementation of activities under FMP.

Use of Innovative tools and platforms

To fully realize the objectives of the project, it is understood that the project will have to adopt and equip project functionaries and communities with innovative tools and platforms for improved management of the project, knowledge sharing and seamless flow of project activities. In this regard, the project has adopted a number of innovative tools and platforms across its structure.

Technology Enabling of Community members

Across the 400 villages, one of the three trained VCFs in every village has been equipped with a mobile Tablet which they use for monitoring & evaluation, documentation, and communication. The tablets are preloaded with various project related applications to be used by the VCFs. For example, to verify the applications received by the project under its Payment for Ecosystem (PES) initiative, VCFs are trained and equipped with GPS devices and mobile phone-based verification app which they use onsite to assess the proposed forest area, the stakeholders and to accurately demarcate the area of the forest. This data is linked to the GIS lab of MBMA which then maps these forests and computes the amount of payment due to each eligible application.

Using the same GPS devices coupled with Water Tracers, the VCFs have also mapped more than 9,000 important springs in the state, capturing key data such as geo-coordinates, water quality, discharge, seasonal variation, usage, dependent households etc. This data feeds into a Spring Dashboard development by the project, which is used by the Chief Minister of Meghalaya, to monitor these springs.

Communities are also introduced to GIS maps and other decision-making support tools to give a scientific perspective to their understanding of their surroundings and to aid in the planning and implementation of NRM interventions.

State GIS (Geographic Information System) and UAV (Unmanned Aerial Vehicle) Lab

It has been established with an array of capabilities to improve decision making, planning, and monitoring of NRM. The Role of Drone has been critical in enabling the state to overcome the challenges posed by difficult terrain and accessibility. MBMA first established a Drone Lab in 2020 to enable it to leverage on this emerging technology for a variety of applications. Due to the immense application and opportunities, this lab was expanded into a full-fledged Meghalaya State GIS and UAV Centre, which was launched in December 2022. The various applications include:

1. Aerial Mapping of villages in Meghalaya - Satellite data does not provide the kind of resolution needed for planning particularly in a state like Meghalaya where the terrain varies every few metres and precise data is essential for decision making. The use of drones has enabled the project to generate high resolution imagery which has been useful in NRM planning, mapping of archeological sites, mapping of natural disaster and others.
2. Crop Mapping - The Centre is also undertaking mapping of various mining affected sites as well as Lemon grass/Citronella field across the state to help in planning restoration activities and improve the livelihood for the people using medicinal and aromatic plants.
3. Mapping and documentation of Living Root Bridge Cultural Landscape & constituent Natural-Cultural Heritage Sites - The Centre is also undertaking aerial mapping of LRB sites and surrounding areas as part of an exercise to promote Community and Science-based conservation and subsequently for recognition as a UNESCO World Heritage Site.
4. Remote Pilot Training Organization - MBMA is also in the process of setting up Remote Pilot Training Organization (RPTO) under the centerin the state to train the youth with technical knowledge to become professional certified pilots with targeted 30-40 per year.
5. Seed bombing - In mining affected areas, a pilot was conducted to drop seed balls in these highly degraded areas using drones to ascertain the efficacy of this technology and if it can be scaled-up in other mining affected areas of Meghalaya.
6. Surveillance of Disaster affected site - Meghalaya witnessed the fury of Nature in the month of June & July 2022 where various parts of South Garo Hills region of the states were cut off due to heavy rains followed by flash floods and landslides. Drones were deployed to assess the extent of damage and then relief measures were accordingly planned.

7. Bio Pesticide Spraying – Areca nut is one of Meghalaya's primary cash crops. Given that the crown of areca nut trees is usually 10 to 25 meters above the ground, managing pests at this height is difficult for most farmers. Using bio-pesticide, the centre had piloted the use of drones to spray the crown of these areca nut trees. This initiative has proven to be an efficient and cost-effective way of managing pests and has the opportunity for scaling up.
8. Sensor integration - The Centre has an array of sensors which are integrated into drones, including RGB, LiDAR, Thermal, and multispectral sensors. This enables drones to collect and process a wide spectrum of data from a variety of sources, which can be used for a number of applications such as mapping, surveying, and monitoring.

Field level Decision Making Support System

To support communities, particularly those outside of the core 400 project villages, where dedicated project teams are not available to support, the project is using a specialized decision support tool called Composite Landscape Assessment and Restoration Tool (CLART) developed by the Foundation for Ecological Security (FES).

Composite Landscape Assessment and Restoration Tool (CLART)

CLART is a GIS based tool, developed to enhance the planning of region-specific soil and water conservation measures. CLART enables rural communities to design measures that would either help recharge ground water or augment surface water availability, depending upon the location specific geo-hydrological characteristics.

Villagers using Geo-Informatic System (GIS)

The VCFs through capacity building on Geo-spatial applications has built up a strong understanding of the uses of GIS tools. They are capable of assisting in mapping of village boundaries using GPS, geo-tagged points using both GPS and Mobile applications, capturing photos with locations, able to read and understand various maps like boundary maps, LULC, slope, contour, and intervention maps. The GIS team has strengthened the confidence of the VCFs to further accomplish simple mapping activities on their own.

Use of Participatory Digital Attestation

The Participatory Digital Attestation (PDA) is an application used as a platform for automatic collection and easy access to training data. The participants need to sign in and sign out before and after the training so that they can have access to resource materials provided during the training. The resource persons upload all content in the app for the participants to have access. All VCFs/ Master Trainers/ DPMU & SPMU Team have registered in PDA. Through this app the project is able to keep records and view how much of resources have been used by participants. It also helps agencies/departments to look for resource persons across the state.

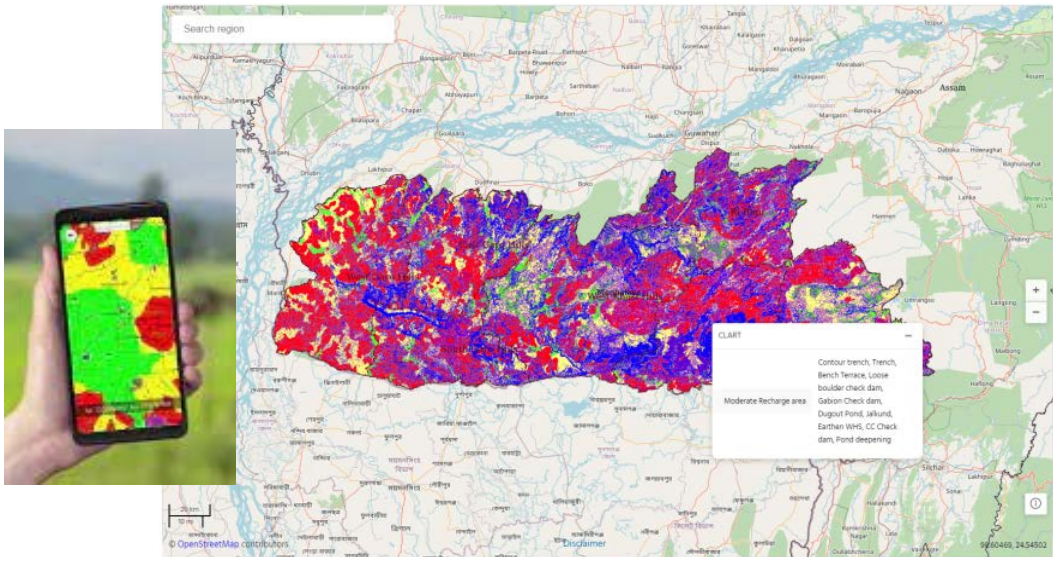
MBMA as an Agency of Excellence for NRM

Establishing the Centre of Excellence for Sustainable NRM and Livelihoods

One of the larger objectives of CLLMP is to scale up the lessons and principles of the project to the entire state by transforming the implementing agency MBMA into an Agency of Excellence in Community Led NRM so that it can anchor and facilitate NRM development in the state. In this regard, the Centre of Excellence for Sustainable NRM and Livelihoods has been established to strengthen NRM activities in the State, promote NRM based livelihoods, and enhance resilience to climate change.

The CoE is one of its kind in the entire country, as this is a synergy of efforts from different departments of the State to come together to promote conservation in the State. The CoE has created digital community infrastructure to store and enable access to information, data and artifacts that are being generated by programs across the state. This makes Meghalaya the first state to democratize a vast trove of information and artefacts that can strengthen programmatic and local efforts around NRM.

More than 20,000 people including Villages Community Facilitators (VCFs), officials from departments etc. and are resources for the state, already being deployed in other NRM initiatives across the state. CoE has also played a key role in anchoring initiatives such as Forest Management Plans, Seed Ball propagation in Meghalaya with the involvement of 1,800 schools, mapping of NRM boundaries of all villages in Meghalaya, development of Community Nursery Information System (CNIS). The initiatives of the CoE are done with the active involvement of different departments such as the Forest and Environment Department, Soil and Water Conservation Department, Education Department, C & R Department, Water Resources Department, the Autonomous District Councils, etc.



2.3 FOCUS

(FARMERS' COLLECTIVIZATION FOR UPSCALING OF PRODUCTION AND MARKETING SYSTEMS)

The State Government has upscaled PG model of LAMP and launched the Farmers' Collectivization for Upscaling of Production and Marketing Systems (FOCUS) program with a total financial outlay of INR 200 Cr. earmarked, targeting all 4.5 lakh farming households of the State. FOCUS aims to enhance the livelihoods of Meghalaya's farmers through interventions across the value chain. It identifies production clusters of marketable produce, focuses on Value Chain Analysis of the produce, forms bottom-up small collectives known as Producer Groups (PGs), trains extension service providers known as Service Producers (SPs), and builds large collectives in the form of Cooperative Societies and Farmer Producer Organizations (FPOs) by bringing together well-functioning PGs. Coverage is across all 46 Blocks of Meghalaya.

Vision

Bottom-up collectivization is essential for producers to obtain the maximum value out of their produce. Collectivization enables the producers to achieve scale, to increase production and productivity, to improve market access, and further enables them to establish the forward and backward linkages in a cost-effective manner. Additionally, the producers have certain fundamental needs, and they look to the government for support. The FOCUS program aims at solving the twin challenge of providing some seed money support to the producers and helping them collectivize.

FOCUS addresses production and value chain enhancement challenges, including the inability to source quality and affordable seeds/inputs, continuing to use outdated agricultural practices, dependence on middlemen, lack of post-processing activities, and opacity in price discovery. In Meghalaya's rural economy, higher production and productivity will form the basis for entrepreneurship in all primary sector activities including agriculture, horticulture, livestock, fisheries, textiles, and other crafts. Given the above, focusing on the PGs is both a way of nurturing collective entrepreneurs and creating a stronger base for both collective and individual entrepreneurs.

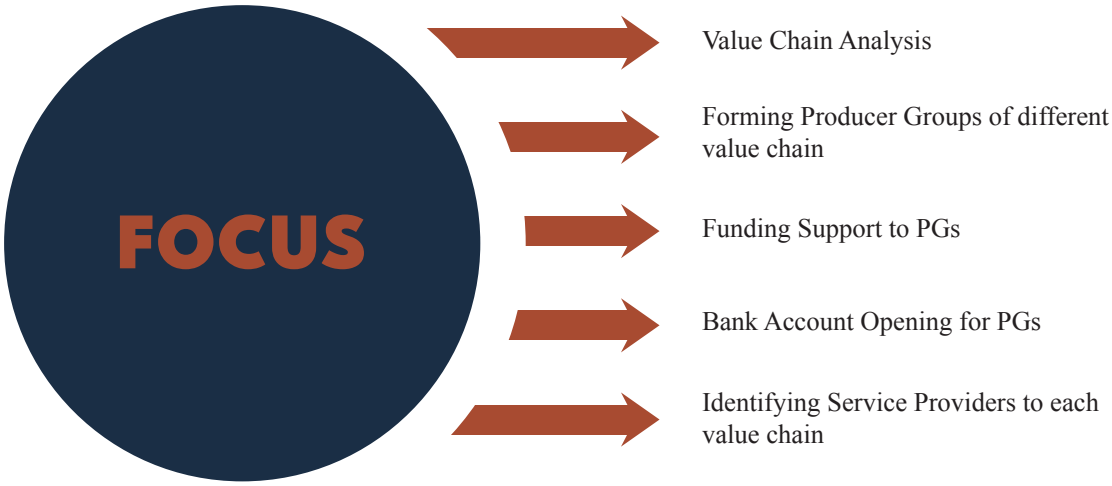
The approach emphasizes the participation of the local producers/ aggregators/ traders in value chain development initiatives so that they can identify immediate challenges and take steps to resolve them. The fundamental goal of the program is to build and nurture collective entrepreneurship through systematically forming producer groups, training them, providing them initial seed funding in the form of the FOCUS support, and hand holding them through the value chain development process.

The program is designed as a universal support to all producer groups formed as per the program guidelines. While the support being provided under FOCUS is universal, additional funding support (in the form of interest free loans and linkage to existing government programs) for taking up more capital-intensive value chain activities will be provided to successful PGs that have formed into cooperatives and FPOs, post the utilization of the FOCUS support fund.

In summary:

1. FOCUS follows a bottom-up approach starting with the formation of Producer Groups (PGs) comprising 10-20 producers.
2. The performing PGs will be facilitated to form higher level collectives such as Farmer Producer Organizations (FPOs) and Cooperatives for taking up higher order activities related to aggregation, processing, and marketing, etc.
3. Funding support will be given to all the PGs and the selected SPs to take up identified value chain related activities.

Key Activities



Funding Support

The funding support provided through FOCUS serves as a kickstart corpus or a catalytic fund. Its purpose is to empower individuals to act at the local level and address specific problems within their value chains. These issues are identified through a comprehensive engagement process facilitated by program facilitators.

Each producer group member receives funding support amounting to Rs. 5,000. When pooled together, this translates to a corpus of approximately Rs. 50,000 to Rs. 1,00,000 for a group consisting of 10 to 20 producers. This corpus fund plays a crucial role in helping the producers overcome critical bottlenecks within their production value chains.

The producer groups have the autonomy to decide how to utilize these funds to address their unique challenges. They have the flexibility to invest in various interventions that can enhance their production processes. These interventions may include purchasing better-quality inputs such as seeds, manure, or piglets, acquiring equipment, establishing small or micro processing units, creating storage facilities, hiring experts, and other initiatives that will benefit their production practices and value chains.

For Producer Groups -

1. Each PG is provided with a sum that would be equal to (Number of Members Rs. 5,000), an amount of Rs. 50,000 to Rs. 1,00,000 depending upon the number of members in the PG.
2. Up to three products in every block with potential of generating more value through a systematic Value Chain Development approach and marketing is being taken up.
3. The FOCUS fund released to the PGs works as a corpus with the group.
4. The amount, under the guidance and support of the FOCUS team, is used by the PGs to improve production, productivity, value addition, and market linkages.

For Service Providers -

PGs need technical and knowledge support to take up the various activities. For instance, in the piggery value chain, trained paravets would be required to provide vaccination to the piglets and breeding services. Such extension services are being provided by individuals called Service Providers (SP). The SPs focus on providing services like vaccination, crop advisory, supply of inputs, feeds, and aggregation of output, among others. The concept of Service Providers is built on the framework of 'Agripreneurs', which is being implemented in other States of the country. During planning, it was envisaged that the service providers will be entrepreneurs and will provide effective service for a fee at the doorstep of the producers. Each SP are catering services up to 20 PGs.

1. Support through MBMA - The selected SPs who undergo the mandatory training are given one-time support that ranges from Rs. 50,000 to Rs. 75,000 depending upon the value chain that they are associated with.
2. Additional funding support through Bank Linkages - Entrepreneurial SPs who require additional funding support are provided credit support via bank linkages or other Government schemes.

Implementation Mechanism

FOCUS is being implemented via two different mechanisms/ strategies - one via the Megha LAMP project in 1,350 villages in 18 blocks and the other in collaboration with 14 NGOs across in 46 blocks.

Key Achievements

20,322
TOTAL PRODUCER GROUPS

11,159
TOTAL RECEIVED FUND

Fund Support for Producer Groups under FOCUS

Sl. No.	District	PGs Formed	Received Received Fund
1	East Khasi Hills	3,624	1,962
2	West Khasi Hills	2,501	1,450
3	South West Khasi Hills	863	210
4	Ri Bhoi	1,419	793
5	East Jaintia Hills	727	192
6	West Jaintia Hills	1,844	504
7	West Garo Hills	3,568	2,263
8	South West Garo Hills	1,496	771
9	South Garo Hills	1,208	817
10	East Garo Hills	1,347	843
11	North Garo Hills	1,725	1,354
TOTAL		**20,322**	**11,159**


URBAN ADVENTURE

2.4 PRIME

(THE PROMOTION AND INCUBATION OF MARKET-DRIVEN ENTERPRISES)

The Promotion and Incubation of Market-Driven Enterprises (PRIME) program inaugurated by the Honourable Chief Minister of Meghalaya Conrad K. Sangma in January 2020 seeks to create and promote a robust entrepreneurial ecosystem in the state. Aspiring entrepreneurs, start-ups, and early-stage enterprises are nurtured to translate their innovative ideas into business and sustain them in the long run by providing a host of support mechanisms. The PRIME program is working towards implementing the initiatives outlined in the Meghalaya Startup Policy. PRIME aims to make entrepreneurship a preferred career choice for the youth of the State through the creation of a dynamic and collaborative ecosystem that enables easy availability of credit, relevant technology, skilling and mentoring support and access to high leverage markets.

Implementation Partners

For the implementation and execution of the PRIME Entrepreneurship Program, the Government of Meghalaya has partnered with institutions like the Meghalaya Basin Management Authority (MBMA), the Meghalaya Institute of Entrepreneurship (MIE), and IIM Calcutta Innovation Park (IIMCIP) as the nodal knowledge and capacity building partners for enterprise development.

Vision

To make entrepreneurship a preferred career choice for the youth of the State through the creation of a dynamic and collaborative ecosystem that enables easy availability of credit, relevant technology, skilling and mentoring support, and access to high leverage markets.

Mission

To provide systematic and targeted support to existing and aspiring entrepreneurs through a network of PRIME Startup Hubs that are one-stop-shops for all entrepreneurs in the state.

PRIME Startup Hubs

At the core of PRIME are the PRIME Startup Hubs, which are incubation centres where promising entrepreneurs are supported in growing their businesses and creating livelihoods in the State. In these vibrant spaces, the entrepreneurs of Meghalaya are offered shared spaces where they can avail office and co-working facilities, attend knowledge sessions, workshops, and training, and receive support from the PRIME team regarding various challenges and requirements they may have. The hubs are dedicated co-working spaces where entrepreneurs can nurture, develop, and expand their businesses while participating in workshops, seminars, and other skill development programs frequently conducted in the hub. Currently, there are two PRIME Startup Hubs in Shillong and Tura, with a third hub under construction in Jowai. The vision is to have one PRIME Startup Hub in every district.

CM's E-Champion Challenge & the PRIME Incubation Program

The flagship initiatives behind PRIME are the Chief Minister's E-Champion Challenge and the PRIME Incubation program, which is currently in its third edition in 2022. It is a state-wide, recurring annual event that aims to identify and support the most promising entrepreneurs through a rigorous selection process. During this process, participants pitch their business ideas in front of industry experts, successful entrepreneurs, government officials, and academic leaders.
The Government of Meghalaya will launch the 4th edition of the Chief Minister's E Championship Challenge on 14 August 2023 with additional benefits for the entrepreneurs.

Top 50 selected entrepreneurs will receive the following benefits:

1. Business Support Grant- Rs. 2 Lakhs for Top 25 & Rs. 1 Lakh for bottom 25.
2. Recognition Certificate- Awarded from Meghalaya Government & IIM Calcutta Innovation Park.
3. Dedicated One-on-one mentoring with seasoned industry experts & professionals to handhold and guide the entrepreneur.
4. Capacity Building – Regular bootcamps, training and workshops related to entrepreneurial development to build a sustainable and growth-oriented business.
5. Access to Funding – Funding opportunities available under PRIME (Grant/ Loan/ Venture Capital, etc).
6. Access to Markets – Connect to buyers in and outside Meghalaya.
7. Free Co-Working Space – Incubatees are offered free co-working space at the Hubs in Shillong & Tura.
8. Support on Marketing and Legal Services – Assistance on a variety of services from logo designing, website making, accounting, branding to legal advice on establishment of a Company.
9. Visibility & Networking – Strong visibility in local and national media outlets as well as social media channels.
10. Opportunity to collaborate with successful existing entrepreneurs of the State.
11. Incubated startups will be eligible for startup tools.
12. Exposure to global practices on Entrepreneurship to the most promising startup during the Incubation Program.
13. Bottom 50 will transition to the Pre-Incubation Program subject to qualification.

PRIME Pre-Incubation program

The PRIME Pre-Incubation program empowers aspiring entrepreneurs in Meghalaya to develop their promising business ideas and concepts into prototypes. It caters specifically to entrepreneurs working on innovative ideas or those who have recently launched their businesses and seek guidance on understanding their customers, refining their ideas, and successfully launching their ventures. The four-month virtual program aims to create a strong pool of entrepreneurs for potential selection in the Chief Minister's E-Champion Challenge and the linked PRIME Incubation. Through regular training, workshops, and mentorship sessions, participants gain essential entrepreneurial knowledge and skills. Industry experts and resource persons conduct weekly knowledge sessions, while 1-on-1 mass mentoring sessions lasting 3-4 hours per week allow mentors to assign and review dedicated tasks for participants. The program utilizes the Design Thinking methodology, embraced globally by successful entrepreneurs and start-ups, to rapidly implement new ideas, businesses, products, and services. By the program's end, participants acquire the necessary mindset and skills to validate and pitch their ideas, ultimately leading to the creation of a prototype for their envisioned product or service.

Support Provided

PRIME has dedicated funding options for innovative startups and entrepreneurs as well as traditional food processing-based enterprises. A dedicated team at PRIME supports entrepreneurs with the creation of their DPRs (Detailed Project Report) or Business Plans required to apply for funding. In collaboration with local banks and government departments, PRIME is also facilitating access to further schemes & funding.

1. PRIME Kick Start Grant - This non-returnable grant is meant to give innovation-based start-up entrepreneurs and aligned community-led enterprises financial equipment to take smaller capital and operational expenditures regarding product development (e.g., R&D, Product Samples, Machinery, Fit out of Development Facilities). The grant can be awarded up to Rs. 10 lakhs. This grant is specifically for entrepreneurs in their early stages who already have some prototype/minimum viable product or convincing concept to showcase but need additional funding to develop this product or service to market readiness.
2. PRIME Innovation Scale-up Loan - This fund is meant for those entrepreneurs that already have an innovative existing business and have a clear pathway to scale up their operations to the next level and need financial means to do so. The Innovation Scale-up Fund can be awarded up to Rs. 50 lakhs via an interest-free, collateral-free soft loan. A standard repayment moratorium of 6 months is given for the Innovation Scale-up Loan to consider the logistical challenges entrepreneurs face when expanding their businesses. This Innovation Scale-up Loan is specifically for entrepreneurs with an innovative and scalable business that is not recognized or considered as a traditionally fundable business by banks or other financial institutions and hence are usually not eligible for bank loan funding.
3. Food Processing Zero-Interest Loan - It is an initiative taken in collaboration with the North-East Small Finance Bank, where aspiring entrepreneurs of Meghalaya, who own imitation-based food processing units and enterprises, are given the opportunity to apply for interest–free and collateral-free loans up to Rs. 25 lakhs. Entrepreneurs who want to start a new food-processing business can avail a loan of up to Rs. 5 lakhs. This opportunity will allow food processing entrepreneurs to expand their business endeavours without worrying about finances.

Overview

PRIME Kickstart Grant	PRIME Innovation Scale-up Loan	Food Processing Zero Interest Loan
Via PRIME	Via PRIME/NESFB	Via NESFB
Up to Rs. 10 lakhs	Up to Rs. 50 lakhs	Up to Rs. 25 lakhs (for existing businesses) Up to Rs. 5 lakhs (for new businesses)
Non-Returnable Grant	Zero-Interest Collateral-Free Loan	Zero-Interest Collateral-Free Loan
For innovation-based startups to conduct product development and R&D	For innovation-based start-ups to scale up their operations.	For Imitation based entrepreneurs to start or scale up their operations.

Academia Engagement & Entrepreneurship Promotion & Development Program (E.P.D.P.)

Instilling an entrepreneurial mindset from a young age is vital to promote entrepreneurship in Meghalaya. However, local aspiring entrepreneurs in the region still face challenges due to negative opinions and judgments from their families and communities when considering entrepreneurship as a career option. Moreover, many talented students are leaving Meghalaya after completing their studies, seeking opportunities in metropolitan cities. The lack of support mechanisms for entrepreneurial pursuits in the state has also deterred those with an entrepreneurial mindset. To address these issues and retain local talent, PRIME aims to deeply engage with colleges and universities in Meghalaya. The initiative involves actively skilling academic staff and faculty members to become champions of this mindset shift and youth movement. By closely linking these centres and initiatives to PRIME's various programs like Pre-Incubation, Incubation, and Funding, there can be ongoing support and seamless exchange between the teams. This approach will cultivate an ecosystem that nurtures and supports young entrepreneurs throughout their journey.

Building an entrepreneurial ecosystem for persons with disability in Meghalaya

Entrepreneurship is flourishing in Meghalaya, thanks to government initiatives and PRIME's support. However, one section of the community, Persons with Disability (PWD), is yet to fully embrace entrepreneurship due to mindset blocks, limited access, and lack of support. To address this, PRIME Meghalaya and Barefoot Trust are collaborating to understand the entrepreneurial ecosystem from the perspective of PWD. Through district-wise discussions and focus groups, they aim to empower 10-15 PWD per district by providing the necessary tools and support for their entrepreneurial journey. This inclusive approach seeks to unlock the potential of PWD and foster a thriving entrepreneurial environment in the state.

Nano Entrepreneurs

PRIME's main focus is on supporting imitation-based businesses with job creation potential, such as bakeries and spices processing. Over the past two years, PRIME has recognized that Nano Entrepreneurs in the state need specific support to grow their businesses. With their upgraded mission as a one-stop-shop for all entrepreneurs, PRIME aims to understand Nano Entrepreneurs' unique needs through diagnostic visits conducted by engaging with Block Program Management Units. The visits covered 19 blocks, identifying 123 Nano Entrepreneurs. Based on the findings, PRIME is developing new support mechanisms, including advanced training, capacity building, packaging assistance, and rural sales seminars. This targeted approach aims to empower Nano Entrepreneurs and promote economic growth in Meghalaya.

The PRIME-Sauramandala Rural Entrepreneurship Fellowship (PSREF)

PRIME-Sauramandala Rural Entrepreneurship Fellowship (PSREF) is an 18-months program (Fellows) and 12-months program (Associates) in collaboration with Sauramandala Foundation. Young changemakers actively contribute to underdeveloped rural areas. PRIME Fellows, along with local PRIME Associates, are placed in remote blocks of Meghalaya to promote rural entrepreneurship. They identify and support promising rural entrepreneurs, guiding them in various aspects like value chain development, frugal innovation, market linkages, and funding.

The Music Incubation Program

Through the Music Incubation program, PRIME aims to support aspiring artists in pursuing successful careers in music. The program provides well-rounded guidance, pairing them with experienced mentors from various fields to nurture their talents. The goal is to help artists create albums that reflect their progress and growth. The music incubation program, including recording and shooting music videos, is exclusively offered to Launchpad winners. However, all workshops and masterclasses are open to anyone interested, with finalists of Launchpad participating for free and others paying for their participation.

Meghalaya Wins Best Performer Award in *"The States Startup India Ranking, 2021"*

The States' Startup Ranking Framework, which was conceived by the Government of India in 2018, under the dynamic leadership of Hon'ble Prime Minister Shri Narendra Modi, launched its third edition of the exercise in 2020 and has now been completed with the active participation of 31 States and Union Territories. After the successful completion of a rigorous evaluation process, Shri Piyush Goyal, Hon'ble Minister of Commerce & Industry, Consumer Affairs, Food & Public Distribution and Textiles announced the results of 3rd edition of the States' Startup Ranking 2021 on 4th July 2022 at an event held at The Ashok, New Delhi.

Meghalaya alongside Gujarat & Karnataka was awarded the BEST PERFORMER title in the States Start-up Ranking 2021 compiled by the Department for Promotion of Industry & Internal Trade (DPIIT).

PRIME Achievements - Overview

Total No.	About Schemes	Beneficiaries
5557 Beneficiaries	PRIME Incubation	150
	PRIME-Pre-Incubation	90
	PRIME-Fundings	247
	NESFP Food Processing Funding	186
	Basic/Public Training/Workshop participants	1150
	Advance Training Participants	150
	PRIME Walk-in Support	995
	FSSAI on the-Spot Registration	90
	Participants in Funding Awareness & Loan Melas	218
	Academic Faculty Members Upskilled	160
	Students engaged in Workshops/Hackathons/Awareness	1800
	Engagement with Govt. Officials	30
	PWD Entrepreneurship Awareness	100
	Supported Entrepreneurs in PRIME Fellowship	191
Funds sanctioned to beneficiaries amounting to Rs. 1147.69 Lakhs	NESFB Food Processing Funding Collaboration amounting to Rs.488.90 Lakhs	186
	E Champion Challenge Business Support Grants Rs.112.50 Lakhs	150
	Training Centre Establishment 120 lakhs	6
	PRIME Kickstart Grant Rs. 142.58 lakhs	29
	PRIME Scaleup Innovation Loan Rs. 283.72 lakhs	26
Total		**397**


Yaaaas!

2.5 SLM

(SUSTAINABLE LAND MANAGEMENT -FARMERS' MOBILIZATION PROJECT)

The Sustainable Land Management - Farmers' Mobilization Project (SLM) is an externally aided project of the Government of Meghalaya funded by KfW Development Bank. The implementing agency for the project is MBMA, who is being supported by its implementing partners: the Directorate of Horticulture under Department of Agriculture and Farmers' Welfare, the Bio-Resources Development Centre (BRDC), and the Meghalaya State Rural Livelihoods Society (MSRLS).

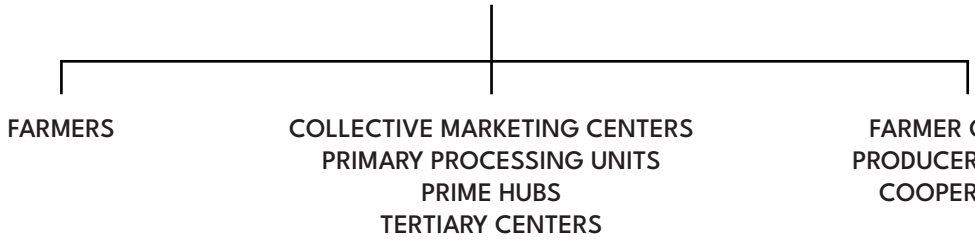
For the initial 18-month Preparatory Phase, SLM will cover 76 total villages and 2000 households farming across 1366 hectares. The project will work to support farmers, farmers groups and cooperatives such as Farmer Producer Organizations, Producer Groups, SHGs, Integrated Village Cooperative Societies Ltd. etc and aim to strengthen the operations of established Collective Marketing Centers (CMCs), Primary Processing Units (PU), PRIME Hubs, and Tertiary Centers such as the LIFE Spices.

Farming Categories

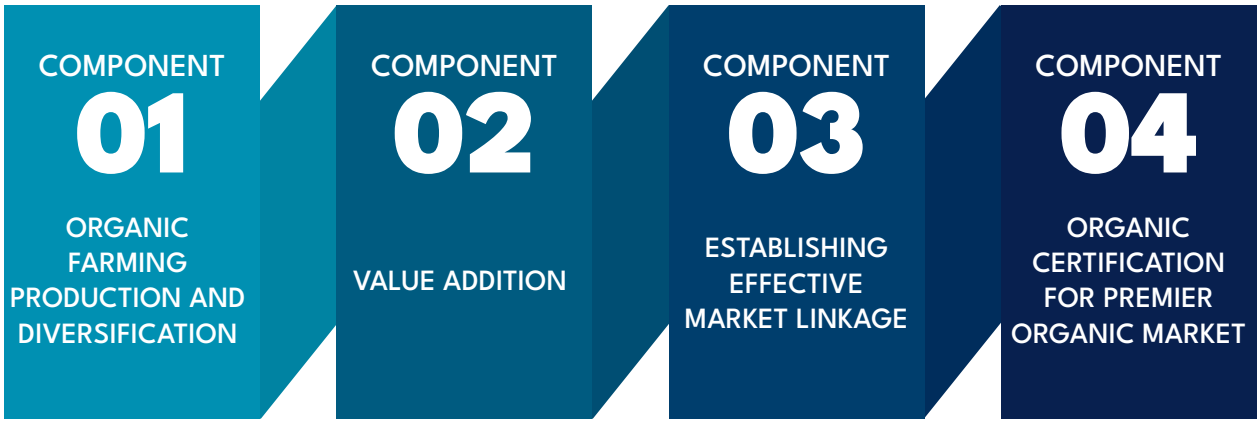
The 4 different models below, all of which are in existence on different scales in the state, will be the areas of interventions. The aim is to up-scale to suitable and sustainable agricultural organic practices.

1. Traditional
2. PGS
3. NPOP (Phase-1)
4. Natural Farming

IMPLEMENTATION STRATEGY



Project Components



Matching Grant

Financier	Costs
KfW	Euros 3.15 million
Govt. of Meghalaya	Euros 1.76 million
Totla Grant Budget	Euros 4.9 million

The Meghalaya Basin Development Authority | The Meghalaya Basin Management Agency | Government of Meghalaya

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