2023-2025

Report To Citizens

Meghalaya Basin Management Agency
Meghalaya Basin Development Authority
Government of Meghalaya


MBDA
MEGHALAYA


GOVERNMENT OF MEGHALAYA


MBMA
Meghalaya Basin Management Agency

Preface

Meghalaya faces multifaceted challenges in achieving sustainable growth and development. On the demand side, the state struggles to boost agricultural productivity and returns for farmers amid degrading natural resources and unsustainable land-use practices. Climate change further destabilizes agricultural systems and exacerbates environmental degradation. Farmers have difficulty accessing profitable markets, capital, and finance, while citizens often lack financial linkage opportunities, leading to urban migration for job security.

On the supply side, a traditional top-down approach has disconnected policies from ground realities. The lack of a unified platform for convergence has resulted in duplicated efforts and inefficient resource use, with expertise often siloed and inaccessible to the departments and programmes that need them.

However, since 2012, the Meghalaya Basin Management Agency (MBMA) and Meghalaya Basin Development Authority (MBDA) have been working to help address these issues through various citizen-centric, community-driven projects and programmes. Incorporated under the State's Planning, Investment Promotion & Sustainable Development Department, MBMA and MBDA partner with multilateral agencies, banks, non-profits, UN organizations, government departments, and community groups to bridge developmental gaps and promote sustainable entrepreneurship, natural resource management, rural finance, market linkage, catchment area protection, forest management, agroecological and organic agricultural practices, marketing, and knowledge services.

Coverage of work spans across Meghalaya through Externally Aided Projects (EAP) such as the IFAD-supported Meghalaya Livelihoods and Access to Markets Project (Megha-LAMP), the JiCA-funded Project for Community-based Forest Management and Livelihood Improvement in Meghalaya (MegLIFE), the KfW Development Bank-funded Sustainable Land Management Meghalaya Project (SLM) and the Protection of Vulnerable Catchment Area in Meghalaya (MegARISE) Project, and the recently-concluded World Bank-funded Community Led Landscape Management Project (CLLMP). State programmes being implemented include the Promotion and Incubation of Market-Driven Enterprises (PRIME), the Farmers Collectivization for Upscaling Production and Marketing Systems (FOCUS), and the Smart Village Movement (SVM).

Against this backdrop, the **Report to Citizens** is intended to keep the citizens of Meghalaya informed about the performance of the MBDA and the MBMA and their projects and programmes. This edition, covering progress as of 31 March 2025, consolidates activities and achievements across sectors and aims to maintain consistency in reporting standards, comprehensiveness, and transparency.

Abbreviations and Acronyms

ADC	Autonomous District Council
ALC	Agroecology Learning Circles
BC	Banking Correspondents
CBOs	Community-Based Organizations
CBS	Core Banking System
CDP	Cluster Development Programme
CHC	Custom Hiring Centres
CIMAP	Central Institute of Medicinal and Aromatic Plants
CLART	Composite Landscape Assessment and Restoration Tool
CLLMP	Community Led Landscape Management Project
CMC	Collective Marketing Centres
CNRMP	Community Natural Resource Management Plan
CoE	Centre of Excellence for Sustainable NRM and Livelihoods
DPMU	District Project Management Unit
EAP	Externally Aided Projects
EFC	Enterprise Facilitation Centres
EPDP	Entrepreneurship Promotion & Development Program
EPA	Entry Point Activities
FDU	Field Distillation Unit
FICCI	Federation of Indian Chambers of Commerce & Industry
FOCUS	Farmers' Collectivization for Upscaling Production and Marketing Systems
FSSAI	Food Safety and Standards Authority of India
GIS	Geographic Information System
GoM	Government of Meghalaya
GPS	Global Positioning System
ha	Hectare
ICAR	Indian Council of Agricultural Research
IFAD	International Fund for Agricultural Development
INR	Institute of Natural Resources
ISC	Inclusive Supply Chain
IVCS	Integrated Village Cooperative Societies
IWRM	Integrated Water Resource Management
JHADC	Jaintia Hills Autonomous District Council
JICA	Japan International Cooperation Agency
JJM	Jal Jeevan Mission
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
LULC	Land Use Land Cover

LRB	Living Root Bridges
MAPs	Medicinal and Aromatic Plants
MBDA	Meghalaya Basin Development Authority
MBMA	Meghalaya Basin Management Agency
MCCC	Meghalaya Climate Change Centre
MegARISE	Protection of Vulnerable Catchment Areas in Meghalaya Project
MegLIFE	Project for Community - Based Forest Management and Livelihoods improvement in Meghalaya
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
Megha-LAMP	Meghalaya Livelihoods and Access to Markets Project
MoEF & CC	Ministry of Environment, Forest and Climate Change
NADEP	Narayan Devrao Pandharipande (composting technique)
NAFCC	National Adaptation Fund for Climate Change
NEC	North Eastern Council
NESFAS	North East Slow Food & Agrobiodiversity Society
NGO	Non-Governmental Organization
NMSHE	National Mission on Sustaining the Himalayan Ecosystem
NRM	Natural Resource Management
OLC	Open Limestone Channel
PDA	Participatory Digital Attestation
PES	Payments for Ecosystem Services
PG	Producer Groups
PDO	Project Development Objectives
PRIME	Promotion and Incubation of Market-Driven Enterprises
PSREF	PRIME-Sauramandala Rural Entrepreneurship Fellowship
R&D	Research & Development
SAPCC	State Action Plan on Climate Change
SCSTE	State Council of Science Technology and Environment
SLM	Sustainable Land Management Meghalaya Project
SVM	Smart Village Movement
SWCD	Soil and Water Conservation Department
T&CB	Training and Capacity Building
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar
UAV	Unmanned Aerial Vehicles
VCF	Village Community Facilitators
VEC	Village Employment Councils
VNRMC	Village Natural Resource Management Committee
VPIC	Village Project Implementation Committee

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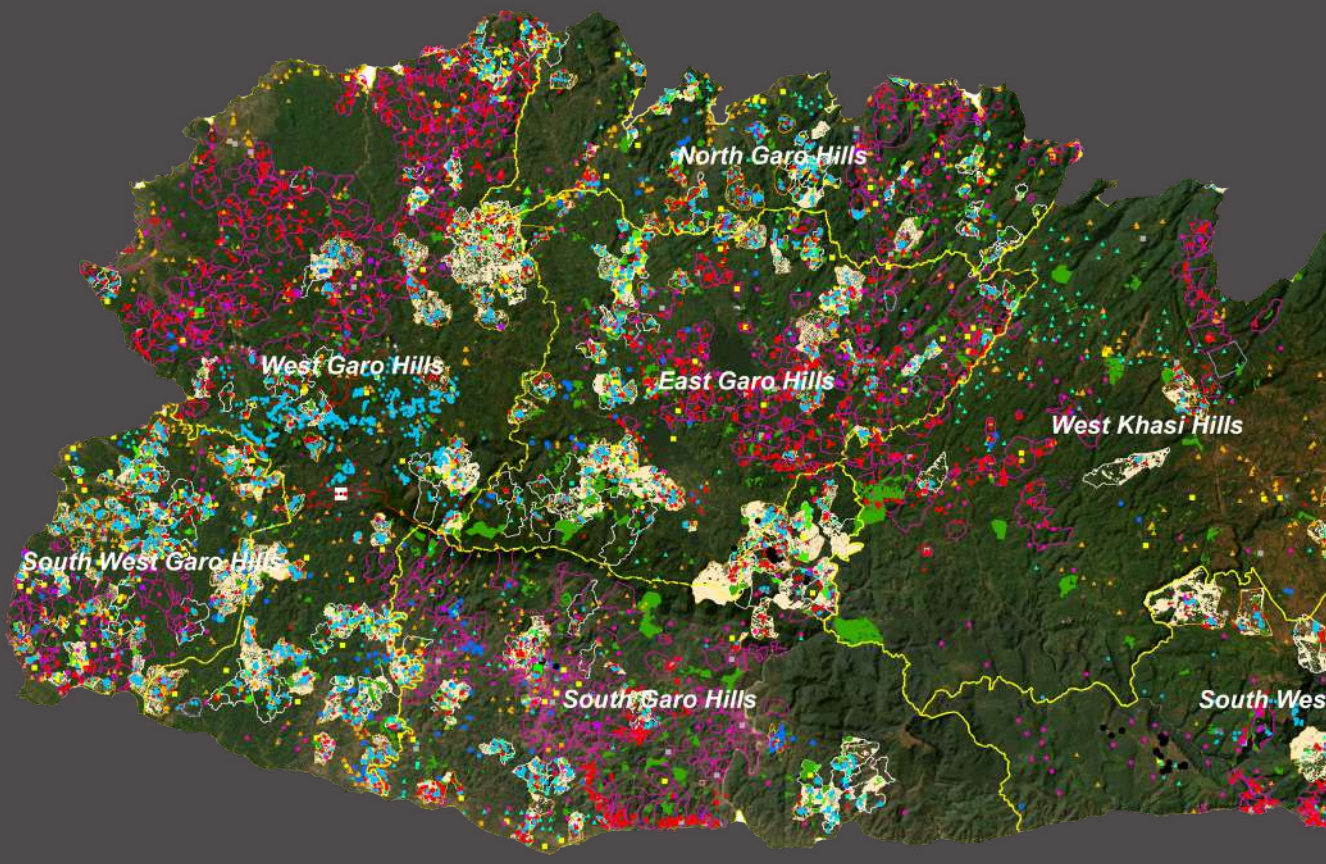
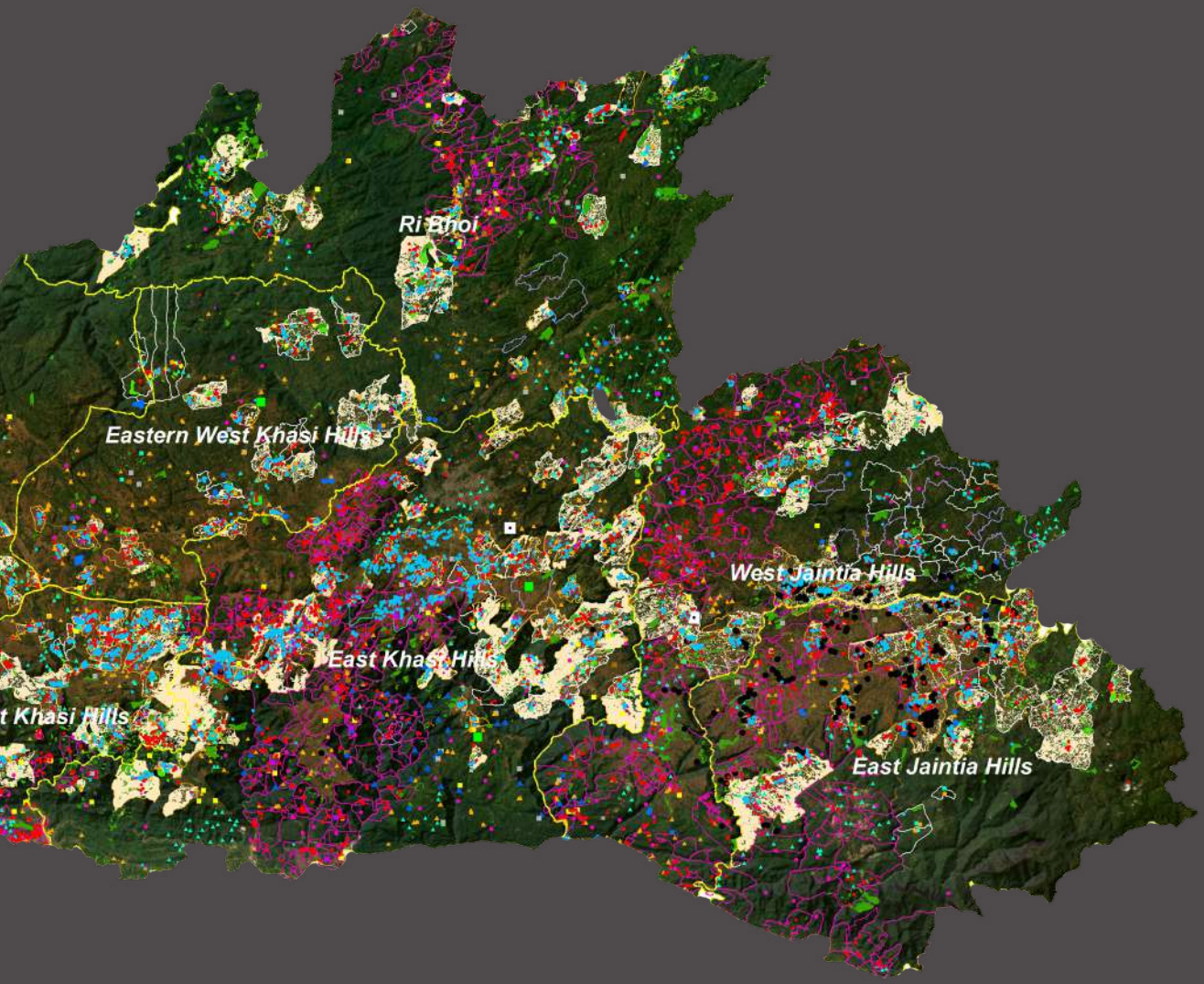


Legend

- Soil & Water Conservation Activities
- Spring Mapping
- Integrated Village Cooperative Societies
- Cluster Development Funt/Catalytic Fund
- Sloping Agricultural Land Technology (SALT) Farming
- Treatment of Mining Affected Areas
- Bamboo Resource
- Seedball Broadcasting
- Living Root Bridge Conservation Villages
- Grassroot Innovations
- Other Intervention Activities
- NRM Immersion Centres
- Rural Road
- Collective Marketing Centres
- Community Halls
- Community Nurseries
- Custom Hiring Centres
- PRIME Hubs
- Agroecological Learning Centres

PROJECT INTERVENTIONS



- Payment for Ecosystem Services
- Agroforestry
- Plantation Sites
- Forest Management Plan
- MegARISE-Greater Ganol Catchment Boundary
- MegARISE-Umiew Catchment Boundary
- MLAMP Project Boundary
- CLLMP District Boundary
- MegLIFE Umiew Catchment Boundary
- SLM Project Boundary
- District Boundary

CHAPTER 01

The Meghalaya Basin Management Agency (MBMA)

Introduction

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, Investment Promotion & Sustainable Development 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.

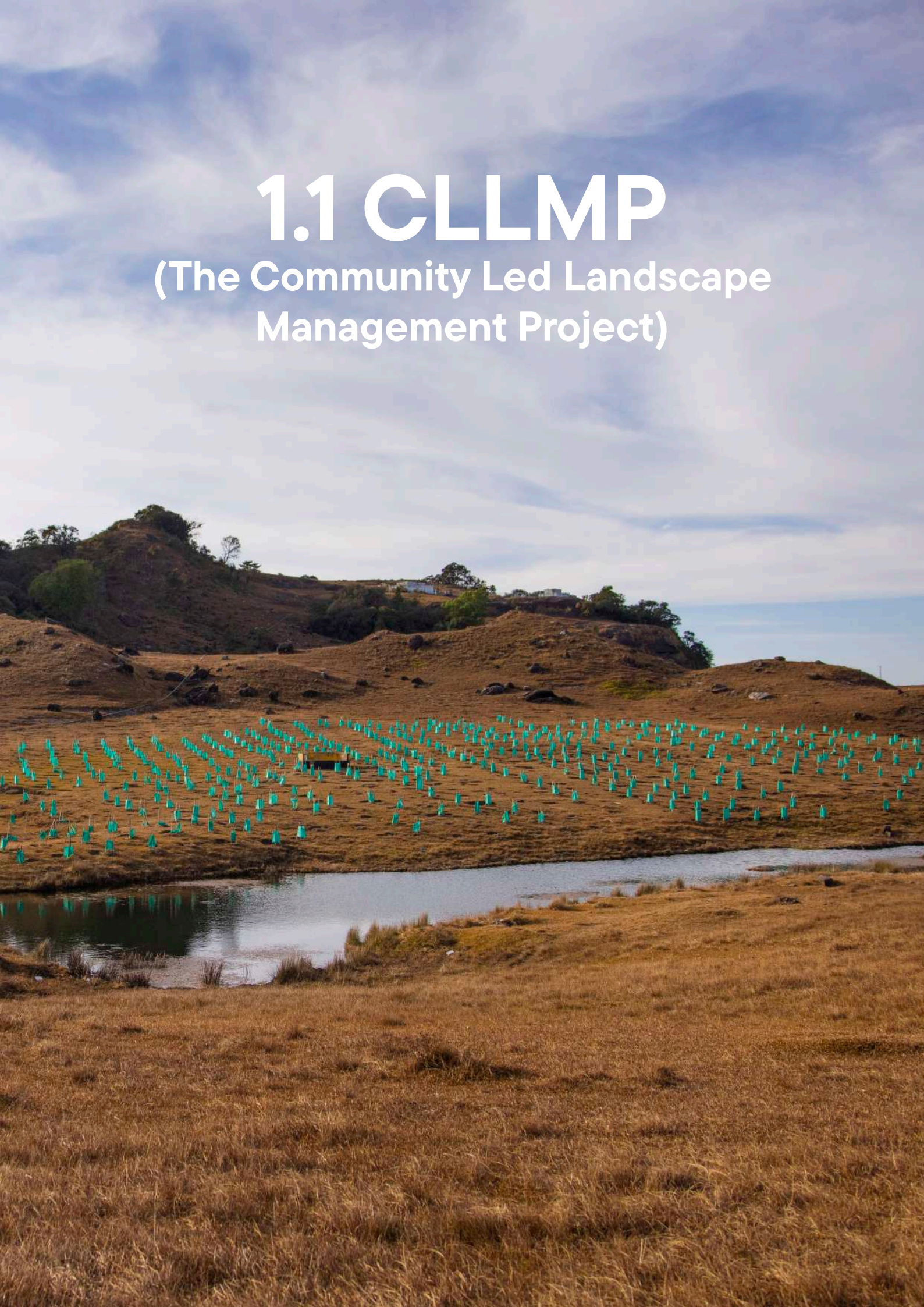
Governance Structure

As of 31 March 2025, MBMA is implementing the following projects and programmes:

1. Meghalaya Livelihoods and Access to Markets Project (**Megha-LAMP**)
2. Sustainable Land Management Meghalaya Project (**SLM**)
3. Promotion and Incubation of Market-driven Enterprises (**PRIME**)
4. Farmers' Collectivization for Upscaling of Production and Marketing Systems (**FOCUS**)
5. Cluster Development Programme (**CDP**)
6. Meghalaya State Bamboo Mission (**MSBM**)

In addition, the World Bank-funded Meghalaya Community-Led Landscape Management Project (**MCLLMP**), which was launched in 2018, concluded its implementation in June 2024.

1.1 CLLMP
(The Community Led Landscape Management Project)



Introduction

The Meghalaya Community-Led Landscape Management Project (CLLMP) was an Externally Aided Project of the Government of Meghalaya funded by the World Bank and implemented by MBMA. Over the course of the project duration, the project successfully empowered the communities of Meghalaya to manage and conserve natural resources through a holistic landscape approach for driving economic growth and demonstrating a model for governments across the country on community-led natural resource management (NRM).

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:

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,
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.

CLLMP concluded implementation in June 2024. Its comprehensive and participatory approach resulted in the integration of community perspectives into decision-making for ensuring that interventions address local needs and priorities over the long term. This community-driven model has enhanced the resilience of landscapes, improved livelihood opportunities, and encouraged environmental responsibility among the participating communities.

CLLMP- AT A GLANCE

The Community Led Landscape Management Project

ABOUT

The Meghalaya Community-Led Landscape Management Project (CLLMP) was a World Bank-funded externally aided project implemented by the Meghalaya Basin Management Agency (MBMA). The project aimed to strengthen community-led Natural Resource Management (NRM) through a holistic landscape-based approach that promoted ecosystem conservation, climate resilience, and sustainable livelihoods.

Designed to restore degraded landscapes and enhance water security, CLLMP focused on community-driven solutions for environmental sustainability. It emphasized participatory decision-making and the integration of traditional knowledge with modern conservation practices.

Project Period

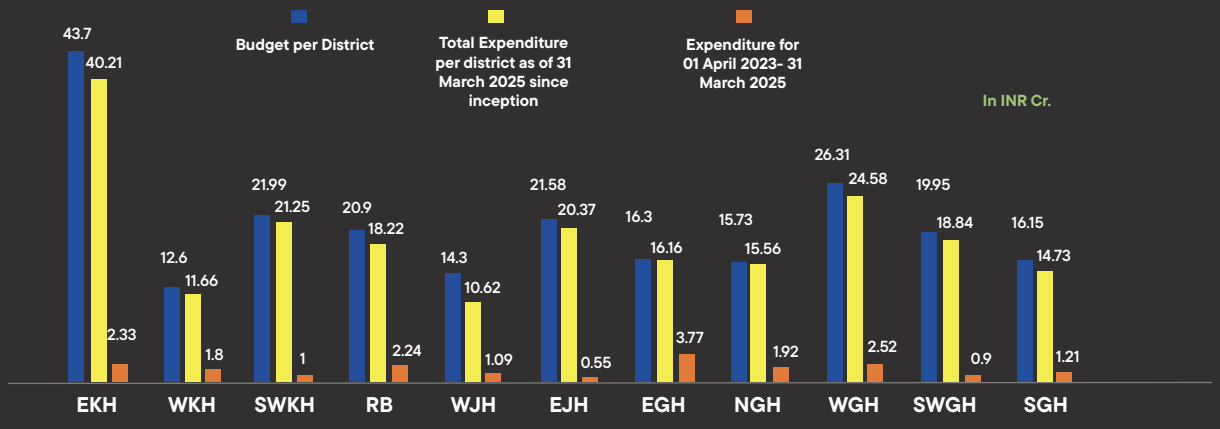
2018 – 2023; extended to 2024

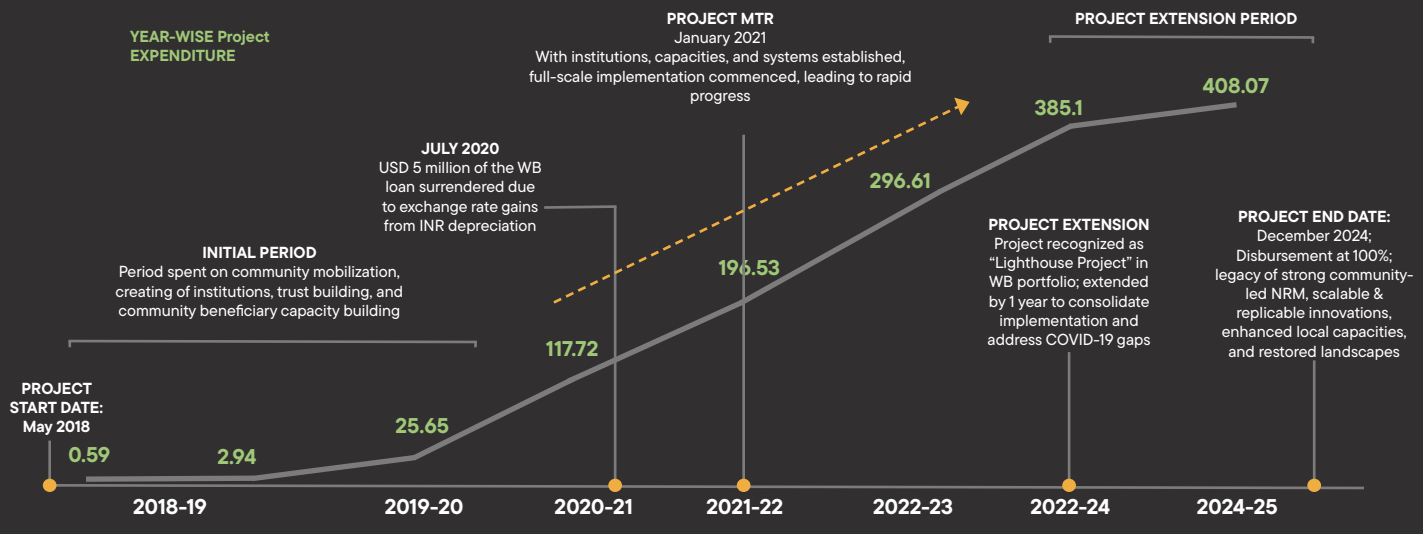
CLLMP – Costs and Expenditure

In INR Cr

Total Project Costs	INR 408.07 Crore
Total Expenditure from 1 April 2023 to 31 March 2025	INR 111.46 Crore
Total Expenditure of World Bank Loan from 1 April 2023 to 31 March 2025	INR 82.61 Crore
Cumulative Expenditure from Project Inception to 31 March 2025	INR 408.07 Crore
Cumulative Expenditure of World Bank Loan from Project Inception to 31 March 2025	INR 335.65 Crore

District-Wise Costs and Expenditure

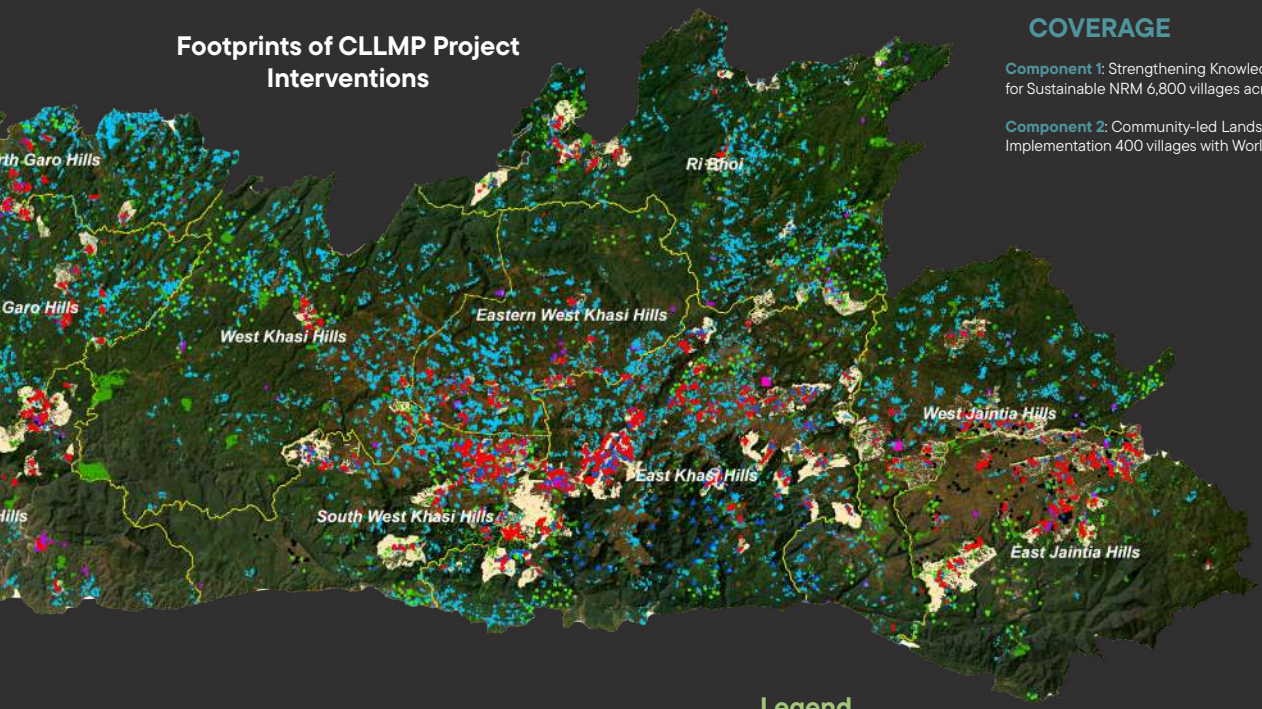




MCLLMP
Meghalaya Community Led Landscape Management Project

THE WORLD BANK
IBRD - IDA

Footprints of CLLMP Project Interventions



COVERAGE

Component 1: Strengthening Knowledge and Capacity for Sustainable NRM 6,800 villages across the state.

Component 2: Community-led Landscape Planning and Implementation 400 villages with World Bank support.

Legend

- Soil & Water Conservation Activities
- Community Natural Resource Management Plan
- Bamboo Resource
- Spring Mapping
- Seedball Broadcasting
- Treatment of Mine Affected Areas
- Living Root Conservation Villages
- Agroecological Learning Circles
- Cluster Development Fund/Catalytic Fund
- Grasroot Innovations
- NRM Immersion Centres
- Payment For Ecosystem Services
- Agroforestry
- Plantation Sites
- Forest Managent Plan Areas
- Project Village Boundary
- District Boundary

PROJECT COMPONENTS

1

Strengthening Knowledge and Capacity for Sustainable Natural Resource Management

Building the capacities of the communities for natural resource management (NRM) through training, exposure visits, learning from best practices and traditional knowledge, investment to catalyze good practices and support for scaling up of innovative practices, and subsequently creating a centre of excellence to house all the knowledge generated for wider accessibility and adoption.

2

Community-Led Landscape Planning and Implementation

Preparation and implementation of Community Natural Resource Management Plans (CNRMP) by 400 of the most degraded villages to address challenges 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.

Transforming Landscapes: CLLMP's Impact in Community-Led NRM Addressing Key Challenges Of Meghalaya

Meghalaya, with its abundant natural resources and rich biodiversity, faces pressing challenges of land degradation, deforestation, and unsustainable resource use. These issues not only strain the environment but also threaten the livelihoods of the communities that depend on it. Recognizing the need for urgent and localized action, the Community-Led Landscape Management Project (CLLMP) was launched to support the government's address all of these challenges through comprehensive and community-driven Natural Resource Management (NRM) plans tailored to every project village.

Through CLLMP's multi-faceted interventions, Meghalaya's communities have been empowered and equipped to tackle some of their most pressing natural resource challenges in a structured, impactful, and sustainable manner. These efforts under CLLMP have opened the door to implementing a range of innovative practices and interventions that were previously out of reach due to systemic constraints.

Community Natural Resource Management Plan (CNRMP)

As a community-driven project, CLLMP worked with village-level institutions to support the management of natural resources. Tribal communities view forests and natural resources as integral to their life and livelihood, and they have established systems to manage these resources. CLLMP built on this foundation by establishing Village NRM Committees (VNRMCs) to oversee resource management and implementation of initiatives at the village level.

The CNRMP addressed immediate challenges like degraded landscapes, poor water availability, declining forest cover, and soil fertility. With World Bank support, 400 villages were covered, while other villages were included through convergence.

The CNRMP Process: During CNRMP preparation, communities identify the causes of resource degradation and the impacts on the local population. The process involves analyzing the village's current situation, available human resources, and key issues related to natural resource degradation. It also incorporates the village's short- and long-term goals, ensuring that all stakeholders, including vulnerable groups, are consulted. The planning is inclusive, and when interventions extend beyond a single village's scope, other villages can collaborate with project funding. Each CNRMP adopts the aforementioned landscape approach, outlining interventions necessary to tackle NRM challenges. While CLLMP funding may cover only part of the plan, the balance is often supported by other government schemes, making the CNRM plan a useful reference for future NRM projects.

400 villages have formed Village Natural Resource Management Councils (VNRMCs) while the project has facilitated the completion of 400 CNRMP in all 400 project villages with total 7760 interventions implemented.
These councils have received comprehensive training and necessary support to build their expertise, enabling them to operate independently.

Building a Cadre of Community Professionals

The inclusion of Natural Resource Management (NRM) under MGNREGA, with 60% of its funds dedicated to the sector, represents a significant step towards addressing NRM-related challenges. However, implementation at the village level has been fraught with obstacles. Village Employment Councils (VECs) often lack the technical expertise to identify and prioritize suitable interventions. Moreover, the absence of government presence beyond the block level, coupled with the small, dispersed, and remote nature of villages, insufficient funding, and limited manpower, further hampers effective large-scale implementation.

In collaboration with the Soil and Water Conservation Department, intensive sensitization programmes and NRM training were introduced for Village Community Facilitators (VCFs), youth that are comprehensively trained from each village to serve as local resources. These facilitators were equipped with the technical skills needed to bridge the knowledge gap and support VECs in planning and implementing interventions.

At the policy level, the government's adoption of an NRM policy reinforced the focus on community leadership in addressing climate change. This policy led to the formation of NRM committees in every village, with the mandate to plan and implement the 60% allocation under MGNREGA. Equipped with tools like GPS and mobile-based applications, VCFs became invaluable assets to their communities. Their contributions extended beyond environmental management to ensuring the effective implementation of government initiatives, positioning them as emerging NRM specialists within their villages.

Over 13,000 VCFs have been trained across more than 6,000 villages. These VCFs now play a crucial role within the NRM committees, contributing technical know-how to enhance planning processes. The VCFs are now actively engaged in implementing various government programmes, such as MegLIFE, Digital Agriculture, and FOCUS. They are also instrumental in adopting a landscape-based approach to NRM planning, mobilizing green volunteer networks, and driving sustainable development initiatives. Over time, the VCFs are expected to take on larger roles, promoting long-term sustainability and resilience in natural resource management.

6800+ villages
across Meghalaya.

Over **13,000 VCFs** have been trained across more than **6,000 non-project villages.**

NRM Boundaries

Alongside these initiatives, the VECs with support from the GIS Unit of MBMA were able to help address another critical challenge: the process of creating clearly defined village boundaries. As a Sixth Schedule state under the Constitution of India, Meghalaya entrusts land ownership and governance to communities and traditional institutions, rather than the government. While this decentralized system empowers communities, it also presents challenges for centralized planning, as many communities are hesitant to disclose or formally register their boundaries due to concerns over land ownership and autonomy.

To navigate this challenge, CLLMP adopted an innovative approach - the introduction of NRM Boundaries - to emphasize their functional use in resource management rather than legal ownership. The mapping process was collaborative, inviting communities from both sides of each boundary to ensure mutual agreement and avoid disputes. This sensitive and inclusive approach marked the first time in Meghalaya's history that such a comprehensive exercise has been undertaken.

Through these boundaries, CLLMP have since been able to generate 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 is now being expanded to cover all the 6500+ villages of Meghalaya.

Soil and Water Conservation

CLLMP has also focused on creating various Soil and water conservation structures. Throughout the project period, more than 6,017 such structures with a combined storage capacity of 66,02,141 cubic meters has been constructed. These structures have helped in rejuvenating 50,467+ hectares of land through soil and water conservation interventions carried out by the communities. The project has also led to a significant improvement in water availability for 59,000+ households across 11 districts.

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 had a policy of planting endemic species, with 60% water retention plants and 40% fruit bearing/commercial plants. The project ensured the setting up of nursery units in all the project villages to meet the requirements. Through the project, 9,746 hectares has been covered under afforestation with the total expenditure of approximately ₹16.78 crore. including catchment areas.

Spring Mapping

According to the estimates, the state had over 60,000 springs, and 78% of the total number of villages (approx. 6,800) depended on springs as their main source of water for household, drinking and irrigation purposes. Over 54% of the springs had either dried up or their water discharge had significantly reduced in the past few years. To address this great challenge, the project took the initiative and mapped 55,000 springs in project and non-project villages. These Springs were 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 implemented.

Spring Chambers

Although Meghalaya was blessed with the highest rainfall in the world, there was an acute water crisis in project villages during lean seasons. As such, the project supported the communities with 6,017 water conservation structures which includes spring chambers, water reservoirs, water storage tanks, check dams etc. Tap water connections were also provided in convergence with Jal Jeevan Mission (JJM). The project ensured that the water spring chambers had proper fencing to protect from cattle, ensure safety net for children, and prevent soil erosion, siltation, and contamination from any sources.

Treatment of Mine Affected Areas

Addressing climate resilience through water access involves tackling the essential need for clean water access, which is crucial for the climate resilience of the state's agrarian economy. Our innovative approach utilizes naturally occurring limestone to neutralize acidic water, successfully restoring pH levels to normal standards suitable for human and animal consumption. Over 16 critical locations have undergone successful treatment that has benefitted 237 households in CLLMP villages and 515 households in Non-CLLMP villages.

Community Nurseries

Meghalaya imported a large number of saplings (agri, horti, forest, etc.) from Assam and other neighbouring states. To make the project villages self-sufficient, the project promoted and ensured setting up of Nursery units in all the project villages. A total of 765 nursery units were established with 40 lakhs saplings raised annually.

Composting

The project also attempted to increase agricultural productivity through improved inputs and techniques. This resulted in enhancing the income of rural communities. Across 11 districts, a total of 240 composting units were established. These units encompassed a range of composting methods, including vermicomposting, 18-day composting and NADEP. As a result, a significant quantity of compost was produced, with 8,768 kilograms made available for sale.

Water Harvesting Structures / Water Conservation Ponds

Water harvesting was implemented as a sustainable process that helped in preserving water for future needs, especially in the off-monsoon season. It also helped in recharging the groundwater. The harvested water was used for agricultural and domestic purposes from 280 structures implemented in the project villages.

Agroforestry

Agroforestry, a land use management system in which trees or shrubs are grown around or among crops or pastureland, was implemented. The practice of agroforestry in the village forests and also within their housing space helped in restoration and management of the soil and landscape. A total of 276 villages undertook this activity, witnessing an increase in both productivity and income levels.

Cluster Development Fund

Meghalaya contains 34 watersheds, 179 sub-watersheds, and 2,776 micro-watersheds, ranging in size from 113.37 hectares to 877.64 hectares.

While CLLMP adopts a village-based landscape approach, targeting 400 villages, some NRM challenges require interventions at the sub-watershed or micro-watershed level. Often, critical areas requiring treatment fall within the boundaries of villages not directly benefiting from single-village investments.

In such cases, interventions beyond individual villages become necessary to address broader issues and benefit clusters of villages within a micro-watershed. Recognizing this, CLLMP established the Cluster Development Fund, a grant dedicated to investments that span the boundaries of multiple villages. This fund facilitates collaborative efforts among villages both within and outside the project's scope, ensuring interventions yield shared benefits and address issues such as underground water management that may extend beyond specific micro-watersheds.

By focusing on micro- and sub-watershed-level interventions, the Cluster Development Fund enhances the impact of NRM efforts, promoting greater ecological and community benefits compared to a single-village approach.

Catalytic Fund

Most communities in Meghalaya already practice traditional natural resource management, developed over generations of living in close connection with nature. Preserving and propagating this knowledge is crucial for community-led initiatives like CLLMP. To support these efforts, the project established a Catalytic Fund to scale up and sustain innovative approaches to NRM.

The fund focuses on integrating sustainable natural resource-based solutions, including the conservation and protection of soil, water, and forests, the sustainable use of resources, and the rehabilitation of degraded or deforested lands. It encourages the adoption of new ideas, products, and processes to address both existing and emerging developmental challenges.

Through convergence with MGNREGA, 276 villages and VECs across 11 districts have implemented over 400 activities, such as constructing water conservation structures, afforestation efforts, and improving land management practices. By combining traditional knowledge with innovative solutions, the Catalytic Fund has bolstered community-led NRM efforts and accelerated environmental restoration across Meghalaya.

Scaling Up of Innovations and Traditional Knowledge

The communities in Meghalaya have long practiced a unique approach to NRM. Unlike most Indian states, where forests are managed by the government, nearly 90% of Meghalaya's forests are governed by customary laws under the stewardship of the Khasi, Garo, and Jaintia tribes. These tribes, as the primary custodians of the forests, have developed traditional practices and innovations that align closely with the goals of sustainable resource management. Recognizing the value of these traditions, the CLLMP project emphasized promoting both local and national innovations to strengthen community capacity in NRM.

To this end, the project established an Innovations Fund aimed at advancing sustainable NRM-related practices. The fund supported initiatives focused on soil, water, and forest conservation; the sustainable utilization of resources; rehabilitating degraded or deforested lands; and adopting clean, eco-friendly technologies. By encouraging community-led solutions, the fund helped scale innovations across Meghalaya.

Support under the Innovations Fund was categorized into two areas: Grassroots Innovations and National-Level Innovations. The project backed 21 grassroots initiatives and 5 national-level programs, addressing landscape management, the revival of traditional knowledge, and the rehabilitation of mine-affected areas. These efforts reflect a collaborative approach to leveraging innovation for sustainable development, elucidated as follows:

National Level Innovations:

a. The Living Root Bridges (LRB)

The Living Root Bridges (LRBs) in Meghalaya have been maintained by local communities for centuries with little external investment in their conservation. Recognizing the need to support these efforts, CLLMP initiated activities to assist the communities in preserving this unique heritage. In the early stages, there was hesitation among villagers regarding government involvement in conservation initiatives. To address this, MBMA conducted over 142 community consultations in four years, which helped establish trust and collaboration.

In 2022, the Living Root Bridge Cultural Landscapes were included in UNESCO's Tentative List. Since then, sustained efforts have been underway to prepare a nomination for World Heritage status—marking the first-ever initiative of its kind to be led entirely by the community. Between 2019 and 2023, a total of 7,341 indigenous community members participated in open dialogues held at the village, block, and state levels, fostering a shared understanding of the vision, process, and potential impact of the UNESCO World Heritage Site nomination.

By March 2025, 63 villages had come together to form 42 cooperative societies, under the leadership of the Syrwet U Barim Mariang Jingkieng Jri Cooperative Federation Ltd. (SUBMJJCF). Together, they are working to conserve at least 131 Living Root Bridge (LRB) sites across five blocks in the East Khasi Hills and West Jaintia Hills districts. These cooperatives have also developed protection and management guidelines to safeguard the landscapes surrounding the Living Root Bridges and for the first time in the state, have begun training government officials on natural resource management and sustainability.

The project has also enabled greater participation from community members in global forums. Three representatives from these cooperatives attended and shared their insights at COP27. One representative participated from community to share the insight at ICOMOS GA23 held at Australia and one representative presented at UNESCO Sub Regional Conference on World Heritage, Bhopal, Madhya Pradesh. Community members also participated in exposure visits to various culturally and environmentally significant sites, including the Araku region with the Naandi Foundation in Andhra Pradesh, the Ramappa Temple in Telangana, the Cultural Landscape of Bali Province featuring the Subak system in Indonesia, and the Rock Shelters of Bhimbetka in Madhya Pradesh.

b. Agroecological Learning Circles under NESFAS

NESFAS, short for the North East Society for Agroecology Support (formerly known as North East Slow Food and Agrobiodiversity Society), was established in 2012 as a platform dedicated to revitalising, safeguarding, and promoting Indigenous Peoples' Food Systems (IPFS) while upholding their cultural integrity. Functioning as an indigenous grassroots organisation primarily led by local youth, NESFAS works closely with indigenous communities in Northeast India, recognising and emphasising the pivotal role of women as guardians of biodiversity, food, land, people, and nutrition. NESFAS' vision is to reconnect people to Mother Earth for equity, resilience and peace. Over the years, NESFAS has used agroecology as a guiding framework to protect, revive, and promote indigenous food systems, ensuring the well-being of indigenous communities.

The project "Empowering Indigenous Communities through Agroecology Learning Circles (ALCs) for Resilient, Integrated, and Creative Natural Resource Management" represents a distinctive approach by combining agroecology with participatory research. The initiative enables indigenous communities to identify, practice, and refine traditional agroecological techniques while advancing local innovations for sustainable food systems. Grounded in community participation, the project engaged indigenous farmers in identifying challenges, proposing solutions, conducting field trials, and sharing successful practices. This collaborative approach led to the establishment of 100 Agroecology Learning Circles, creating opportunities for shared learning and collaboration to strengthen local food systems.

c. Sadhana Forest Model

The Sadhana Model aims to enhance natural resource management by increasing the availability of food-producing trees, improving soil health, and promoting water conservation. Strengthening community knowledge is central to sustainable landscape planning and ecosystem management. To achieve this, Sadhana Forest facilitators conduct training sessions on water conservation, resource management, and dry-land tree planting techniques. Local communities are actively involved in the design and implementation of water conservation measures, enabling long-term independence and motivation in managing these systems.

Preliminary research was carried out to identify and classify native food-producing and oxalogenic tree species, considering site-specific conditions and social acceptability. The findings have been shared with the communities, ensuring that planning aligns with local needs. Additionally, project staff and government agency employees have received training on soil and moisture conservation, tree planting, and management techniques.

NRM plans were developed for 25 villages, and training on food forest plantation and water conservation methods—such as swales, gabions, and earth dams—was extended to 400 CLLMP villages. A comprehensive database of over 100 indigenous food-producing tree species was also created, drawing from existing scientific literature to support the project's efforts.

d. Sadhana Immersion Centres

Sadhana Forest is working to raise awareness among local communities in three districts of Meghalaya about the region-specific impacts of climate change. Tailored training programmes are being provided to equip residents with practical, efficient, and cost-effective techniques suited to their needs. To support this initiative, three permanent Immersion Centres are being established in the Khasi, Garo, and Jaintia regions. These Sadhana Forest centres aim to offer hands-on experience in sustainable living, conduct in-depth assessments of local needs and resources, and provide training in water conservation and reforestation.

The initiative focuses on improving NRM through training in conservation, landscape planning, and ecosystem management. Communities are being supported to independently implement water conservation, reforestation, and soil conservation practices. Progress as of 31 March 2024 includes raising widespread awareness at the grassroots level and building community capacity in technical, managerial, and social development skills. Efforts are also being made to enhance the impact of public funding for environmental protection by ensuring better convergence of various state and centrally sponsored schemes.

e. Rehabilitation Of Mine Spoiled Areas Through The Introduction Of Medicinal & Aromatic Plants

One approach to reclaiming mine-degraded and barren lands involves introducing high-yielding grasses such as lemongrass, citronella, palmarosa, and vetiver. These grasses not only stabilize highly acidic mine waste soil but also create livelihood opportunities for local communities. Aromatic grasses are particularly effective for phytoextraction and phytostabilization due to their adaptability to stressed environments and higher biomass production compared to shrubs and trees.

The state's agro-climatic conditions make it well-suited for cultivating Medicinal and Aromatic Plants (MAPs). These plants are key raw materials for traditional medicine and the pharmaceutical industry. Increasing local, national, and international demand for MAPs has highlighted their dual role in ecological restoration and providing alternative income streams. Cultivating MAPs on degraded lands helps restore ecosystems while creating economic opportunities for farmers.

Progress includes the rehabilitation of 328 hectares of mine-degraded soil, benefiting 40 villages and 49 Village NRM Committees, Village Organizations, and Self-Help Groups. Additionally, five zonal nurseries have been established across 10 hectares to support ongoing cultivation efforts.

Grassroots-Level Innovations

To support and encourage innovation in natural resource management (NRM) at the village level, the project introduced the Grassroots Innovation Fund. This initiative was designed to recognize and promote innovative practices by individuals, village institutions, community representatives and organizations. The fund specifically focused on sustainable NRM practices, products, and services, aiming to enhance community-led solutions for resource management.

Dr. Jasper B Manih- 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.

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.

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

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.

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.

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.

Sloping Agriculture Land Technology (SALT)

In Meghalaya, abundant rainfall—averaging around 11,500 mm each year—has nurtured a land of rich biodiversity, yet it also brings a formidable challenge. High rainfall contributes to significant soil erosion and nutrient depletion, especially on hillsides where farming is not carefully managed. Traditional practices like Jhum agriculture, with its shortened fallow periods and repeated cycles, along with the widespread monocropping across the region, further strain the soil, leading to reduced fertility, declining crop yields, and growing threats to both food security and livelihoods.

While farmers have tried to control waterlogging by constructing bunds along slopes, these efforts can inadvertently accelerate land degradation, causing some fields to be abandoned altogether. In response to these difficulties, a movement toward sustainable farming is taking root in Meghalaya. Increasingly, farmers are embracing the Sloping Agricultural Land Technology (SALT) conservation method.

SALT is a sustainable agroforestry system developed for hilly regions with high rainfall, like Meghalaya. By planting nitrogen fixing hedgerows along contour lines, SALT slows surface runoff, reduces soil erosion, and enriches soil fertility. The hedgerows' roots help bind the soil, while their biomass serves as organic mulch, retaining moisture and suppressing weeds. Regularly pruned, these hedgerows provide a nitrogen boost that enhances soil health, making it possible for communities to cultivate a variety of crops between the hedgerows, supporting both ecological stability and agricultural productivity. designed to combat soil erosion and boost fertility.

Among the 1,091 SALT farmers now cultivating across 272 villages, many are already seeing the benefits of this approach.

Forest Management Plans (FMP)

FMPs were created to enable communities to sustainably manage forest resources including sustainable harvest of timber. This activity was carried out with the involvement of community members and local youths identified as VCFs. The methodology and field work of forest inventory has led to major capacity development in the communities of a technical and specialized kind where more than 1,200 VCFs were trained on the use of tools such as Abney's Level and GPS for forest enumeration. FMP have been prepared for 400 forests of under CLLMP villages (more than 1,10,000 ha). Working Scheme ongoing in all forests. Additionally, FMP was also completed for 100 PES Forests which covered more than 6000 ha.

After the completion of 500 FMPs (400 forests under CLLMP villages and 100 PES villages/ Forest, the work has been initiated so as to further extend the same activity to 500 villages under MegLIFE project.

Payments for Ecosystem Services (PES) Model

CLLMP launched the Payments for Ecosystem Services (PES) model as the first state-wide initiative in India, aimed at supporting communities in protecting and maintaining Meghalaya's forests. The primary goal is to strengthen community efforts towards conservation, targeting the protection of 50,000 hectares of forest across the state. The initiative has since been officially adopted by the State Government under the GREEN Meghalaya (Grassroots Level Response towards Ecosystem Enhancement and Nurturing) programme, launched by the Hon'ble Chief Minister of Meghalaya.

Building on the initial success, the government expanded the programme in 2024 through GREEN+ Meghalaya, offering increased financial incentives and more flexible funding to further empower communities as guardians of their lands. GREEN+ Meghalaya serves as a model for how local communities can lead conservation efforts, ensuring the preservation of Meghalaya's ecological and cultural heritage for future generations.

PES Pilot Project included 18 villages in the Ganol Catchment of Garo Hills District of Meghalaya. This entailed the implementation of 110 activities under the following broad categories:

1. Sustainable Management of Community Forests
2. Reforestation
3. Afforestation
4. Soil and Water Conservation
5. Transition from Shifting Cultivation to improved Agricultural Practices

The total area under this pilot PES is 740.3 ha. Payment to the beneficiaries is completed for the first year (2022-2023) and the second year (2023-2024) and was based on an MRV Protocol that was also prepared by CoE.

How the Scheme Works:

The PES scheme offers a maximum of Rs. 15,000 per hectare per year. However, during the first phase, despite wide media advertising, only 850 applications were received statewide. Additionally, discrepancies were found between the submitted measurement data and the actual conditions on the ground during verification.
Overview of the status of implementation is as follows:

	No. of Beneficiaries	Total Forest Area (in Ha)	PES Amount
Total (INR Crore)	3275	50,610.13	417,777,318
Applied for Community Working Scheme	175	3993.22	
Applied for Community Reserve	198	5410.58	

To address these challenges, the second phase of the scheme introduced the recruitment of Green Field Associates (GFAs) in each block. GFAs are selected based on their educational background, willingness to travel to remote areas, and their local residency. Their role is to conduct awareness programmes and engage directly with communities to encourage participation in the scheme. To ensure their dedication, the project provides them with a significant monthly salary of Rs. 17,000, excluding other benefits.

The introduction of GFAs has proven successful, as they have already facilitated approximately 15,000 applications across the state. This achievement is attributed to their comprehensive training, use of technology, and the consistent support provided by CLLMP. The GFAs use various tools, such as apps, online spreadsheets, and photographs, to verify their tasks. Their efforts are essential to meeting the scheme's goals.

Additionally, the State has partnered with Yale University to assess the design and effectiveness of the PES initiative, ensuring ongoing improvement and success.

Measurement, Reporting & Verification (MRV) Protocol For Meghalaya PES Scheme

The MRV Protocol developed for the PES Scheme of Meghalaya is a set of norms, guidelines, and steps that served as criteria for scoring and verifying effective implementation of the prescriptions/ guidelines. It provides a mechanism to quantify and determine the performance-based incentives. Additionally, the MRV is a mean to assess the impacts of the scheme on the ecosystem based on observations and pre-identified parameters which indicate effective protection, conservation and enhancement of forests.

Seed-Ball Initiative

Seed-ball initiative is a technique of natural farming where we become instrumental in disbursing the seeds of our native trees for their regeneration and as an approach for increasing the green cover in the State. The key highlights of this activity are:

- In 2023, MBMA has partnered with 1,840 Schools covering 75,000+ students, to broadcast seeds across degraded land in an efficient and cost-effective manner.
- Master Trainers (VCFs) were provided with necessary training on seed-ball making.
- 3.5 million seed-balls which were made were dispersed 281 Dispersal Sites during the World Environment Day celebrations, 2023. The Germination rate recorded was 55.31%.
- During 2024, 929 schools participated in the seed-ball making activity with the involvement of Master Trainers, teachers and more than 37,000 students.
- More than 2 million seed-balls were made and their dispersal is completed.

Empowering Development: Establishment of the State GIS and UAV Lab to Support Data-Driven Decision-Making

A major challenge for administrators in Meghalaya is the lack of baseline data, which complicates the process of making informed and impactful decisions. To address this, the GIS lab, established in 2015 under MBMA with the goal of providing technical support for various state projects, was leveraged. Using geospatial tools and applications, the lab has been instrumental in planning, monitoring, and managing resources. Its core functions include generating detailed maps, creating thematic geospatial data, and providing visual insights that aid decision-making and planning.

Beyond resource mapping, the GIS lab focuses on capacity building, offering regular training programs, workshops, and exposure visits to local youth and professionals. These initiatives not only improved project implementation efficiency but also empowered communities to embrace technology and participate in sustainable development activities. The lab's success in integrating GIS technology into community efforts was recognized when it won the prestigious National Geospatial Award (FICCI) for Geospatial Excellence in Sustainable Development.

MBMA has further expanded its role in community empowerment through innovative technology. By using Unmanned Aerial Vehicles (UAVs), or drones, it conducts aerial documentation and mapping of villages, providing valuable insights for resource management. The state's conservation efforts are supported by LiDAR technology, which is used to map ecologically significant areas like living root bridges and forests. Additionally, comprehensive multispectral surveys help identify diverse species, contributing to environmental research and management.

The integration of UAVs also supports sustainable agriculture initiatives, such as seed ball dispersal and bio-pesticide spraying. For public safety, real-time traffic monitoring systems and strengthened search and rescue operations are being implemented. Furthermore, the organization places a strong emphasis on capacity-building by offering regular workshops and training for local youth and departments. These efforts help empower local communities, ensuring long-term sustainability and strengthening the state's capacity for self-driven development.

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).

a. 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.

b. 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.

c. Use of Participatory Digital Attestation (PDA)

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.

Apprenticeship Programme

MBMA developed the apprenticeship programme to provide a valuable training platform for unemployed youth in Meghalaya. This initiative was launched with the intention of bridging the gap between theoretical knowledge and practical skills, thereby enhancing the employability of participants.

The first apprenticeship was implemented in the field of UAV Remote Sensing and GIS and following the successful completion of the first batch, MBMA has fully adopted the initiative and expanded the scope of its apprenticeship programme to include other technical courses such as Procurement, Finance & Accounts, Environment Management, IT Development, Data Analysis, Monitoring & Evaluation, and Knowledge Management. This expansion has enabled MBMA to directly recruit talented individuals from these apprenticeship groups, alleviating the burden of sourcing skilled professionals for critical project areas. The training programme is for a period of three to six months, during which apprentices engage in rigorous training and hands-on practical learning experiences. Based on their performance at the end of their training, successful apprentices are absorbed as full-time contractual employees within the organization. Additionally, trained apprentices are recruited to other institutions, further expanding their career opportunities and contributing to the wider professional community in Meghalaya. This not only benefits the apprentices by providing them with a broader range of employment prospects but also strengthens the overall talent pool available for projects within the state.

The apprenticeship training programme at MBMA, first developed under CLLMP, represents a strategic approach to workforce development, addressing the critical need for skilled professionals in various technical fields for various projects. By equipping young freshers with practical skills and knowledge, MBMA is fostering a group of capable individuals who can contribute to the state's development projects and initiatives. This initiative not only supports the organization's mission but also plays a vital role in the socioeconomic upliftment of the local community, creating a sustainable model for skill development and employment. Through these comprehensive training programmes, MBMA continues to build a robust pipeline of skilled professionals ready to take on the challenges of various projects, ensuring the successful implementation of development initiatives across Meghalaya.

As of 31 March 2025, the Apprenticeship Programme has resulted in the training of 222 youths across the state, with a notable absorption rate of 89%.

Centre of Excellence for NRM & Sustainable Livelihoods

The Centre of Excellence (CoE) for NRM and Sustainable Livelihoods was conceptualized to strengthen NRM activities in the State, to enhance eco-system services, promote NRM based livelihoods and enhance resilience to climate change. The CoE is envisioned to act as the single platform to anchor activities which facilitate widespread practice of NRM and NRM-based livelihoods in whole of the State and help build up an enabling environment of improved coordination, resource allocation, policy decisions and implementation of NRM.

The specific objectives of the CoE are as follows:

- Strengthening the Capacity of the Stakeholders in the State.
- Democratize access to information, knowledge content and documents on NRM related issues.
- Facilitate a network for Village Resource Persons or Village Community Facilitators, etc.
- Develop and institutionalize unique and innovative approaches to NRM.
- Build and nurture universal research and development partnerships in NRM.
- Facilitating in drafting and improving Policy Frameworks in the State.

Activities Undertaken And Completed

The following activities, as mentioned in the previous pages, were initiated under CLLMP and have since been scaled up by the Centre of Excellence (CoE):

- Forest Management Plans (FMP)
- Village Boundary Mapping For NRM
- Payment For Ecosystem Services (PES)
- Measurement, Reporting & Verification (MRV) Protocol for Meghalaya PES Scheme
- Seed-Ball Initiative

Other activities by CoE include:

Carbon Finance Projects

Currently, the State has initiated a State-level carbon project to promote green livelihoods, preserving forest and tree cover, and supporting sustainable farming initiatives. This undertaking is a collaboration between MBMA, Rabobank-Acorn and IORA Ecological Solutions that is focused on the following aspects:

- Cultivating a Green Economy in Meghalaya.
- Rewarding the restoration of forests, preserving biodiversity, and enhancement of ecosystem services.

Convergence Programme – MGNREGA-PES

Activities covered under PES which included Sustainable Management of Community Forests, Reforestation, Afforestation, Soil and Water Conservation and Transition from Shifting Cultivation to Improved Agriculture Practices. It was emphasized that there is a necessity of extending tree planting components in the PES to encompass all 120 villages within the Ganol catchment area. This expansion would not only enhance environmental impacts but also foster sustainable development across the region. This initiative will be carried out with the support of the The Block Development Officer (BDO) along with community members possessing individual or community-owned land holdings.

Baseline Survey for the Project "Climate Change Adaptation Programme in Himalaya – Component III in Meghalaya – Protection of Critical Catchment in Meghalaya" with the assistance of the KfW Development Bank

The baseline assessment was conducted by collecting village and household surveys in project village of the Umiew and Ganol Catchments on a sampling basis. The report presents baseline assessment for the two catchments separately and also for each of the 90 and 126 villages of Umiew and Ganol Catchments.

Bamboo Resource Assessment

This activity was carried out to quantify the bamboo bearing areas according to density classes, site quality classes and species wise in the State.

The outcomes of this exercise entailed the estimation of growing stock and potential production of bamboo.
26 numbers of bamboo species were identified.

Bamboo Growth Study In Khasi And Garo Region

Bamboo growth studies aim to understand and improve the cultivation and utilization of bamboo, focusing on areas like increasing bamboo area, promoting bamboo-based industries, etc. These studies also explore efficient cultivation methods, analyze the economic viability of bamboo cultivation, and investigate the potential of bamboo for various applications.

State Wide Field Inventory On Arecanut And Other Horticulture Crop (TREE)

It enables quantification the arecanut and other horticulture crops (TREE) plantation areas according to density classes, site quality classes and species-wise, in the State. This will also provide estimated area of plantation, number of species, production, yield and it has enormous potential for socio-economic development.

Consultations/ Seminars/ Workshops On Nrm Issues Relevant To The State

- Consultation on Universaling Community - Led Natural Resource Management in Meghalaya (October 2021)
- Meeting on Seed-ball Initiative (November 2021)
- Meghalaya Protection of Catchment Areas Act, 1990 (December 2021)
- Workshop on Geo-Spatial Applications for Natural Resource Management in Meghalaya: Review and Way Forward (November 2022)
- Consultative Workshop on Expanding Areas of Plantations of Areca Nut and Other Commercial Species in Meghalaya: critical review of the changing landscapes with reference to their ecological impacts (April 2023)
- Training Workshop on Acorn Data Collection Tool (DCT) In collaboration with IORA and MBDA (November 2023)
- Workshop on Possibilities of Forest Certification for Community in Meghalaya (December 2023)
- Geo-Spatial Applications for Natural Resource Management (NRM) and Land Use Land Cover (LULC) Change Analysis in Meghalaya (March 2024)
- Workshop on Agro-forestry in Meghalaya: The need for strengthening and reimagining (April 2024)
- Expert Consultation on Methodologies for Soil Mapping and Estimation of Crops in Meghalaya and Action Plan for the same (August 2024)

Reports & Documents

- Proceedings of the Meeting: Universalizing Community - Led Natural Resource Management in Meghalaya (October 2021)
- Inception Report: Payment for Ecosystem Services (PES) approach for restoration of catchments in Meghalaya (April 2022)
- Report of the Meeting: Meghalaya Protection of Catchment Areas Act, 1990 (December 2021)
- Workshop Proceedings: Geo-Spatial Applications for Natural Resource Management in Meghalaya: Review and Way Forward (November 2022)
- Resource Information: Community & Private Forests in Meghalaya (February 2023)
- Consultative Workshop Proceedings: Expanding Areas of Plantations of Arecanut (April 2023)
- Measurement, Reporting & Verification Protocol for Meghalaya PES Scheme (September 2023)
- Report: Germination & Survival Survey of Seed Balls (July 2024)
- Brief Report: Two studies undertaken by CoE (NRM&SL) using archived satellite data indicate rising trend in the area of water bodies (surface water) in the State in the last two decades (July 2024)
- Understanding Arecanut based Agroforestry Systems in Meghalaya – Sample study from Khasi Hills and Garo Hills (July 2024)
- Report: District wise Bamboo Resource Assessment (May 2024)
- Report: Bamboo Resource Inventory of Meghalaya (May 2024)

Overview of Achievements as per the Project Development Objectives (PDO)

CLLMP has 4 Project Development Objectives (PDOs) with 16 Indicators and 6 Intermediate Results with 16 Indicators. As shown in the table below, the Project made exceptional achievements on every PDO, every Indicator of the PDOs, and also achieved more than 100% on the Intermediate Result Indicators. There were a number of Indicators where the planned targets were in percentages; however, the project went beyond these targets and implemented the said objectives in all the project villages.

Project Performance as per Result Framework

PROJECT PERFORMANCE REPORT Project Development Objectives (PDO): To strengthen community-led landscapes management in selected landscapes in the state. PDO Indicators		Unit	Project Target	Achievement	Performance %
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%
Objective/Outcome 3:	**Indicator**	**%**			
Percentage of beneficiaries 'Satisfied' with project interventions (disaggregated by sex) (%)	Indicator 1: Beneficiaries 'Satisfied' over functioning of VNRMC commit-tee	%	160	208	130%
	Indicator 2: Beneficiaries 'Satisfied' on CNRM planning process	%	160	181	113%
	Indicator 3: Beneficiaries 'Satisfied' on information on the project	%	160	194	121%
	Indicator 4: Beneficiaries 'Satisfied' on implementation of works	%	160	203	127%
Objective/Outcome 4:	**Indicator**	**Ha**	**31,510**	**50468**	**160%**
Land area under sustainable landscape management practices {Hectare (Ha)}	Indicator 1: Land area brought under Afforestation/ Reforestation	Ha	6653	9746	146%
	Indicator 2: Land area brought under Agroforestry	Ha	2758	5169	187%
	Indicator 3: Land are brought under agriculture	Ha	7265	7778	107%
	Indicator 4: Land area under soil and water conservation and catchment treatment	Ha	11964	24806	207%
	Indicator 5: Area of Culturable wasteland covered under Horticulture	Ha	2553	2593	102%
	Indicator 6: Mining affected area covered for treatment	Ha	317	376	119%

Conclusion

CLLMP made significant strides in promoting sustainable natural resource management and empowering local communities. By adopting a participatory approach, the project has effectively incorporated community input into decision-making, ensuring that interventions are aligned with the unique needs and contexts of each area. This community-focused model has strengthened landscape resilience, created better livelihood opportunities, and encouraged greater environmental responsibility within the involved communities.

The journey of CLLMP reflects both its accomplishments and the challenges it navigated. By establishing community nurseries and promoting agroforestry, the project has significantly advanced reforestation, combating deforestation and soil erosion in vulnerable areas. Water harvesting structures and sustainable farming techniques have improved water availability and agricultural productivity, addressing the pressing concerns of water scarcity and food security. These interventions, anchored by the active involvement of Village Natural Resource Management Committees (VNRMCs), highlight the vital role of local governance in ensuring the long-term sustainability of natural resource management.

However, this path was not without its hurdles. The global pandemic disrupted progress, while capacity gaps and the need for stronger institutional support revealed areas for improvement. CLLMP's ability to adapt—through enhanced training, resource mobilization, and the reinforcement of institutional frameworks—proved essential to maintaining momentum and ensuring the resilience of its community-led approach.

CLLMP leaves behind not just a legacy of restored landscapes and empowered communities but also a blueprint for future initiatives. The project emphasizes the importance of placing communities at the heart of planning and implementation while ensuring their voices shape interventions that directly impact their lives. The lessons learned offer valuable insights for scaling similar projects and inspire a broader movement toward sustainable, community-driven NRM across regions.

1.2 Megha-LAMP

(The Meghalaya Livelihoods and Access to Markets Project)

Introduction

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 the International Fund for Agricultural Development (IFAD) and implemented by the Meghalaya Basin Management Agency (MBMA).

Megha-LAMP aims 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 essential services through financial and marketing institutions of farmers called Integrated Village Cooperative Societies (IVCs Ltd.) to enable farmers to enhance value creation and participate in remunerative supply chains.

The project mobilizes farmers into producer groups to ensure they get maximum benefits from collectivization, thus enabling them to take up higher order interventions, optimize production, improve collective bargaining and access higher remunerative markets. 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. In addition, entrepreneurship promotion hubs known as PRIME (Promotion and Incubation of Market-Driven Enterprises) Hubs have been set up to provide support related to skilling, marketing, funding, and market connect.

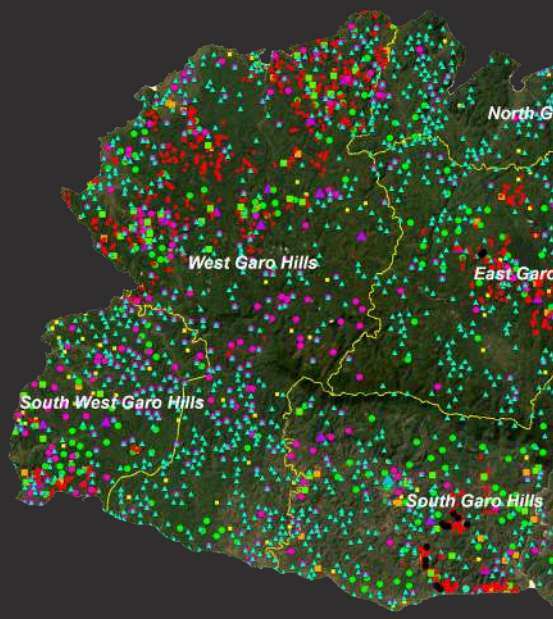
The project is multi-sectoral involving the departments of Agriculture, Community & Rural Development, Cooperation, Soil and Water Conservation, and Forestry thus creating a framework for an integrated approach to development focusing on convergence.

Megha-LAMP - AT A GLANCE

The Meghalaya Livelihoods and Access to Markets Project

ABOUT

The Meghalaya Livelihoods and Access to Markets Project (Megha-LAMP) is a state-wide project of the Government of Meghalaya that is supported by IFAD (International Fund for Agricultural Development). The project was launched on December 2014 and aims at improving family incomes and quality of life of the rural mass in Meghalaya by developing local produce-based livelihoods, enhancing market linkages, and supporting infrastructure through cluster-based interventions.



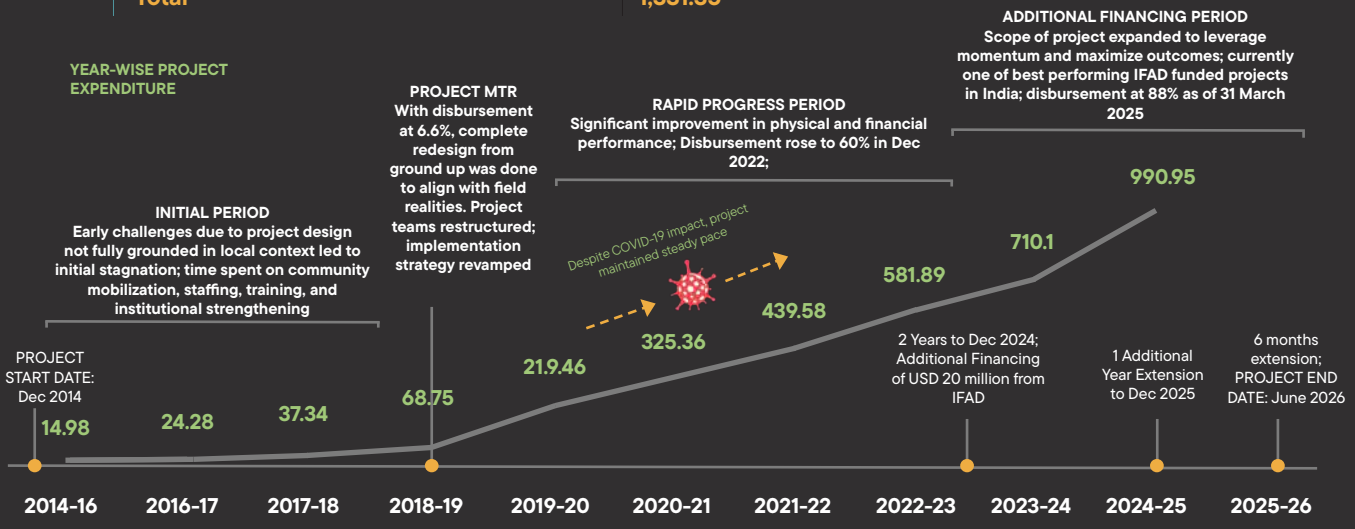
Megha-LAMP - Costs and Expenditure

Total Project Costs	INR 1331.35 Crore*
Total Expenditure from 1 April 2023 to 31 March 2025	INR 409.03 Crore
Total Expenditure of IFAD Loan from 1 April 2023 to 31 March 2025	INR 171.49 Crore
Cumulative Expenditure from Project Inception to 31 March 2025	INR 990.95 Crore
Cumulative Expenditure of IFAD Loan from Project Inception to 31 March 2025	INR 415.09 Crore

Megha-LAMP - Component Wise Costs

SN	Component	Total Project cost
1	Integrated Natural Resources Management	242.96
2	Rural Finance	134.81
3.1	Inclusive Supply chain & ED	413.41
a	Integrated Production & Marketing (Pre MTR)	107.6
b	Enterprise Development (Pre MTR)	41.25
c	Livestock Development (Pre MTR)	163.31
3.2	Access to Markets	144.5
4	Knowledge Services	53.14
5	District Project Management Units	26.05
6	Project Management Unit	4.32
	Total	**1,331.35**

YEAR-WISE PROJECT EXPENDITURE



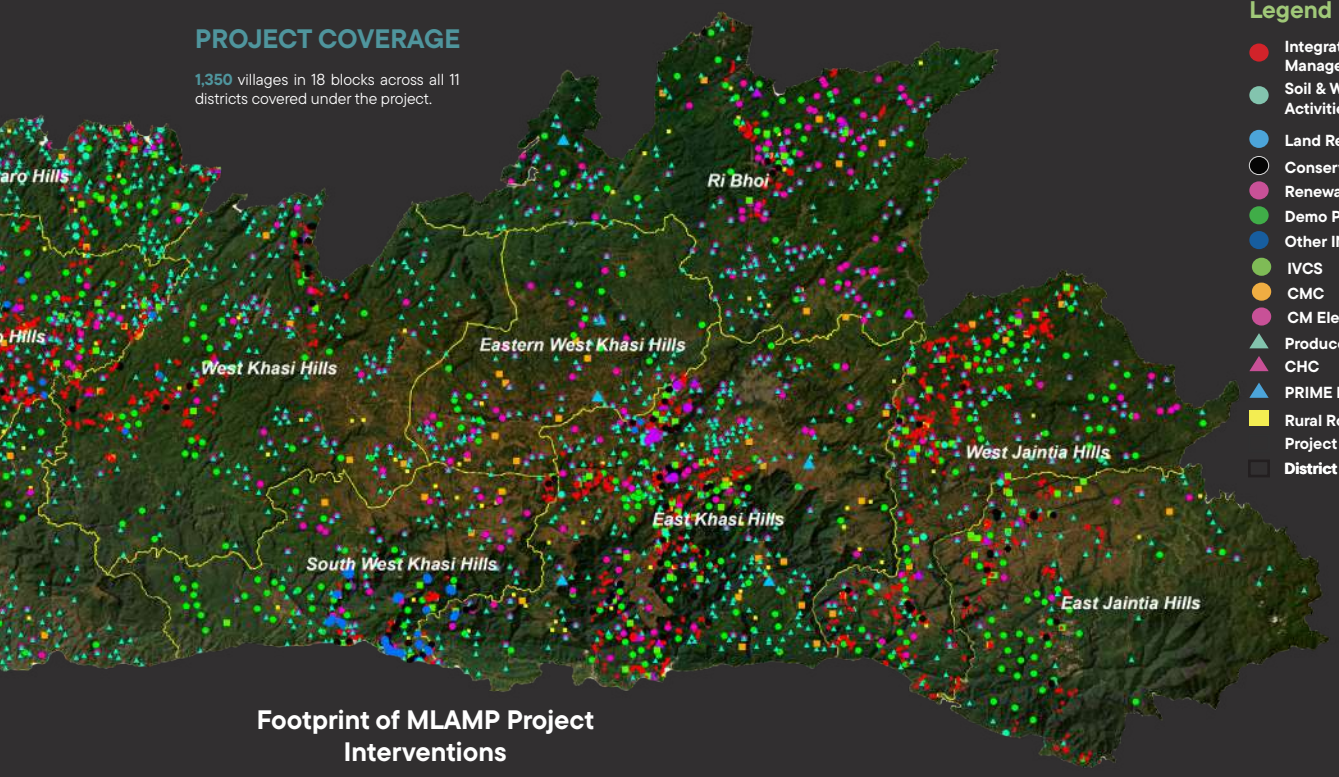
*IFAD + GoM funding = 834.94 Crore |Contribution from Community + Bank + Convergence = 496.41 Crore

MeghaLAMP
Meghalaya Livelihoods Access to Market Project
In Partnership With IFAD

IFAD
Investing in rural people

PROJECT COVERAGE

1,350 villages in 18 blocks across all 11 districts covered under the project.



Footprint of MLAMP Project Interventions

PROJECT INDICATORS

- At least 50,000 households to adopt new livelihood opportunities linked to markets;
- 540 villages to access services for enterprise development from government and private sector;
- 1,200 villages with 90,000 households to implement Natural Resource Management Plans;
- 20,000 households to report reduced time to collect domestic water;
- 70% of Integrated Village Cooperative Societies (IVCS) to be financially sustainable and have loan recovery rates of at least 95%.

PROJECT COMPONENTS

1

Integrated Natural Resource Management (INRM)

Empowering communities to manage natural resources holistically to serve as the foundation for sustainable livelihoods and enhanced incomes.

2

Rural Finance (RF)

Extending financial services to rural and unserved areas through the Integrated Village Cooperative Societies
(IVCS), which are homegrown, CBOs that are deeply rooted in the local culture of the people.

3

Inclusive Supply Chain & Enterprise Development (ISC&ED)

Enabling inclusive growth of commodity supply chains that cover not only crops and livestock products but also enterprise development.

Driving Meghalaya's Growth through Megha-LAMP

Meghalaya's agricultural landscape faces pressures from degrading natural resources, unsustainable land use, and the destabilizing impacts of climate change. These challenges diminish agricultural productivity and limit farmers' returns, especially as they struggle to access better markets, capital, and finance. Limited financial linkages further exacerbate these difficulties. To tackle these issues, Megha-LAMP implements community-driven, citizen-focused projects that bridge developmental gaps and promote sustainable entrepreneurship, resource management, inclusive growth, and rural finance, resulting in improved incomes for farming households, enterprise growth, and a higher quality of life.

Megha-LAMP's approach empowers individuals to engage in additional productive activities. For farmers, this includes organizing and collectivizing their efforts to enhance bargaining power, gain access to better markets, and tap into larger support schemes. Entrepreneurs benefit from incubation programs and market linkages that improve their success rate and create employment opportunities in their communities. Across sectors, investments in training and capacity building are cultivating skilled individuals in every village, supporting Meghalaya's broader development goals.

Over the past decade, Megha-LAMP's interventions have contributed to Meghalaya's growth, creating meaningful impacts in the lives of local communities.

The Integrated Village Cooperative Societies and their Roles

In Meghalaya, limited access to financial services remains a significant challenge for the farm sector due to the sparse presence of banking networks and micro-finance institutions. Factors such as difficult terrain, inadequate transportation, and limited communication infrastructure have contributed to the low reach of formal financial systems. Many residents face the burden of traveling long distances for basic banking activities like deposits and withdrawals. Even in areas with bank branches, barriers such as complex processes, language issues, and low financial literacy further limit accessibility.

To address these challenges, the project has facilitated the establishment and registration of Integrated Village Cooperative Societies Ltd. (IVCS) as community-driven institutions focused on long-term financial inclusion. IVCS provide essential services like thrift and credit to their members and have expanded their role by becoming Banking Correspondents for formal banks. Equipped with Micro ATMs linked to interoperable platforms, these societies have brought convenient banking services closer to rural communities.

It may be noted that during the COVID-19 pandemic, many IVCS demonstrated their adaptability by using part of their working capital to set up grocery stores, thus ensuring the availability of essential items at fair prices. They have also diversified their activities, engaging in agricultural input supply, aggregation and marketing of farm produce, and the promotion of animal husbandry and other enterprises. A notable achievement has been their role in building credit histories for farmers, promoting financial credibility, and enhancing economic stability within rural communities.

The significance of establishing these community-based organizations lies in acknowledging the hurdles that communities encounter in their pursuit of improved livelihoods and quality of life. Setting up community-led institutions resonating with the local way of life has gone a long way in addressing barriers between communities and service delivery in rural regions. As of 31 December 2024, the project has enabled the following:

503
IVCS formed and registered

174,345
Total HHs in Area of Operation

79,738
total HHs covered across 1552 villages

107,065
Total Shareholders

74,090
Total savings deposit accounts opened by members

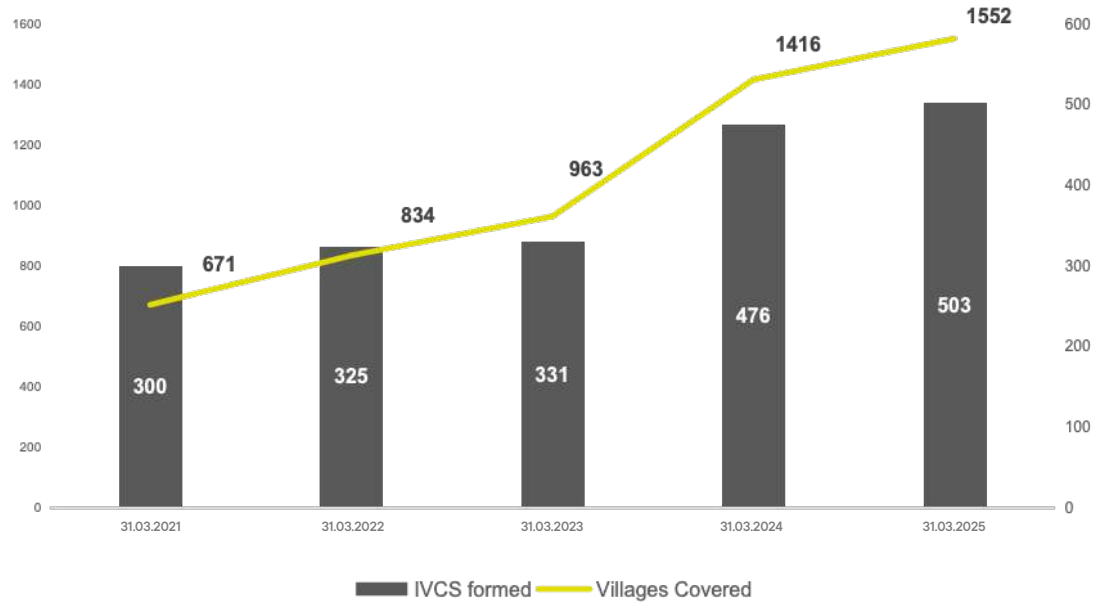
INR 5.4 crore
share capital mobilized

83,843
No. of deposits accounts

INR 66.14 crore
Cumulative amt of deposits mobilised

21,821
No. of IVCS Loans to members

INR 32.2 crore
Amt of Loan disbursed



Financial Inclusion through the IVCS

The issue of financial inclusion in remote areas of India has long been a challenge, with many villages remaining unbanked despite efforts to extend banking services to these communities. The lack of banking infrastructure in these areas has hindered access to formal financial services for residents, limiting their ability to save, invest, and access credit. However, in Meghalaya, the IVCS has emerged to address these challenges by making such services available at the grassroots.

While the IVCS has made significant strides in promoting financial inclusion in remote areas, many villages covered by it still lack access to formal banking services. To manage this issue and qualify as banked villages, they need to be connected to the interoperable core banking system (CBS) platform of banks. This can be achieved by designating IVCS as Banking Correspondents (BCs) of banks so as to enable them to serve as the last-mile link between formal financial institutions and rural communities.

Becoming a BC for a formal bank allows the IVCS to provide essential banking services to their members, such as account opening, deposits, withdrawals, and remittances. In addition, it enables them to offer services like Micro ATMs, which facilitate cash transactions in areas with difficult access to physical bank branches. This arrangement not only enhances financial access for rural residents but also promotes financial literacy and inclusion by bringing formal banking services closer to their doorstep.

Today, there are 200 IVCS operating as banking correspondents. Through their partnership with Meghalaya Co-operative Apex Bank (MCAB) and other formal banks, these IVCS offer a range of financial products and services including low-interest loans, subsidy-related loans, and other benefits.

Digitizing the Operations of the IVCS

In matters of rural development and navigating the challenges of the modern economic landscape, entities like the National Bank for Agriculture and Rural Development (NABARD) play an important role in supporting the trajectory of the IVCS. Recognizing the imperative for sustained growth, NABARD actively engages in comprehensive capacity-building initiatives and efforts toward computerization. To this end, the project is actively computerizing the operations of the IVCS to enhance operational efficiency, ensure accurate data management, facilitate transparent governance, and ensure sustainability.

The thrust towards computerization represents a strategic move to leverage technological advancements. The integration of digital tools is envisioned to streamline various aspects of IVCS operations. This includes adopting platforms for efficient record-keeping, financial management, and streamlined communication. 46 IVCS are provided with hardware for computerization as part of phase 1 implementation.

IVCS as anchors for Megha-LAMP's Market Infrastructures

In the context of ensuring a sustained quality of life for the farming communities of Meghalaya, the Megha-LAMP project strategically channels numerous initiatives through the IVCS. A significant portion of the project's agricultural infrastructure, aimed at strengthening linkages to markets, capital, and supply chains, is managed by the IVCS via a social enterprise approach. Established by the project are Collective Marketing Centres (CMC) and Custom Hiring Centres (CHC), and in partnership with various entities such as the North Eastern Council (NEC) and the State Council of Science Technology and Environment (SCSTE), among others, are PRIME Hubs and Farmers' Markets. These facilities extend services that not only boost agricultural activities and price realization but also cover the costs of the economic activities of the IVCS, including operational expenses. With these assets, IVCS are no longer viewed as just cooperatives that provide essential financial services; today, they have evolved into growth hubs for farmers to access larger economic activities accountable to many other stakeholders. The rationale behind this strategy lies in the imperative to ensure that the IVCS receive and possess essential assets to enable them to sustain operations beyond the project period when most of the support and handholding will end.

From the broader perspective, these assets were established to support the state government's endeavours in addressing challenges across various aspects of farming in generally demanding conditions. In Meghalaya, the list of issues associated with engagement in the agri-allied sector continues to escalate. Its farmers lack sufficient knowledge of market subtleties and are largely unaware of the true worth of their products, resulting in poor bargaining power and diminished returns as they are compelled to price their products based on their immediate financial needs. Compounding these challenges is the shortage of post-harvest management practices, with facilities such as storage, value-addition, and processing units not always readily available. Hence, the project envisages that the facilities managed by the IVCS can go a long way in alleviating some of the most pressing challenges currently impairing this sector and allowing the undertaking of higher-order activities.

1. Collective Marketing Centres (CMC)

Countrywide, initiatives promoting collective marketing have emerged to address the challenges faced by small and marginal farmers, who find themselves with diminishing control within supply chains. The goal is to ameliorate the conditions by restoring bargaining power, reducing transportation and storage costs, and minimizing the influence of middlemen. This strategy also aims to secure fair and competitive prices for their produce, a challenge mirrored in Meghalaya's agricultural landscape.

Currently, farmers in Meghalaya typically sell directly to traders in local or cluster-level markets or have their produce aggregated by a village aggregator, who then sells it to a cluster-level aggregator. However, this approach inevitably results in low returns, as farmers struggle to obtain fair prices due to production and marketing challenges, compounded by a limited understanding of market dynamics. If this model persists, alongside an inability to compete with produce from large-scale farms, it poses a threat to the livelihoods and standards of living of thousands of farmers.

With Megha-LAMP prioritizing enhanced linkages and credit opportunities to ensure equitable profits for farmers, Collective Marketing Centres (CMCs) have been established to address the issues and serve as key entities for marketing and processing agricultural produce. These CMCs operate as comprehensive hubs that facilitate aggregation, processing, marketing, and input supply. The objectives of their set-up are to raise awareness about the benefits of collective marketing, facilitate the implementation of an effective system of aggregation and value addition at the market level, ensure transparent and effective governance for collective produce marketing, and boost stakeholder skills in marketing and financial linkages. The project is working to ensure CMCs come equipped with storage bays, solar-powered cold storages, processing units, office space, parking, and connectivity to accessible roads.

The IVCS owns the CMCs, and operations run through CMC Committees consisting of progressive farmers or current aggregators familiar with marketing. These committees oversee daily operations and establish rules following the IVCS bylaws.

2. Collectivization of Farmers

Megha-LAMP tackles the challenges faced by small and marginal farmers, village-level input suppliers, and aggregators by enhancing productivity, delivering extension services, and developing value chains to improve market access and bargaining power. This is achieved by organizing them into member-owned and member-controlled Producer Groups (PGs), formed from farmers engaged in similar activities like agriculture, livestock, or NTFP. The focus is on expanding areas and marketing as collectives. These PGs, usually unregistered, are organized as Common Activity Groups, Farmers' Interest Groups, or Joint Liabilities Groups, with an average size of 10 to 20 members. Membership is restricted to one member per household per group. Through this intervention, Megha-LAMP has empowered farmers to address input availability and marketing challenges, leading to increased productivity and improved incomes. As of 31 March 2025, 9498 Producer Groups have been formed for productivity enhancement, extension services delivery, and value chain development.

3. PRIME Hubs: Promoting entrepreneurship through centres for innovation, incubation, and skill development

Megha-LAMP focuses on supporting entrepreneurship through funding, technology, and capacity building and provides access to capital and high-leverage markets. The Promotion and Incubation of Market-Driven Enterprises (PRIME) programme 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.

The PRIME Hubs provide physical spaces where existing and aspiring farmers, producer groups and agri-entrepreneurs 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. These hubs are being established across the State Megha-LAMP in partnership with other government organizations and entities.

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.

This is a first-of-its-kind initiative in the North-East India and was especially relevant during the COVID/ post- COVID time as it offered opportunities for returnee migrants and other youths interested in settiSng up their enterprises. 34 PRIME Hubs have been identified, of which 8 are operational as of 31 March 2025.

Diengkynthong PRIME Hub is Empowering Rural Entrepreneurs and Strengthening Local Economies in East Khasi Hills region

To support sustainable livelihoods in Meghalaya's farming communities, the Megha-LAMP project channels key initiatives through the Integrated Village Cooperative Society Ltd. (IVCS). By managing critical agricultural infrastructure through a social enterprise model, the IVCS strengthens market, capital, and supply chain linkages.

Facilities such as Collective Marketing Centres (CMCs) and Custom Hiring Centres (CHCs) have been established, alongside PRIME Hubs and Farmers' Markets in partnership with the North Eastern Council (NEC) and the State Council of Science, Technology, and Environment (SCSTE). These not only enhance agricultural output and price realization but also help cover IVCS operational costs.

As a result, IVCS have evolved beyond traditional financial cooperatives into growth hubs facilitating broader rural economic participation.

Regarding the PRIME (Promotion and Incubation of Market-Driven Enterprises) Hubs, the focus is on supporting small farmers, producer groups, and agri-entrepreneurs by offering business planning, credit facilitation, training, and market linkages. These hubs serve as resource centres where individuals can seek support in setting up or scaling enterprises, accessing funding, and improving production through value addition.

On 16 January 2023, Meghalaya Chief Minister Shri. Conrad K. Sangma inaugurated the Diengkynthong PRIME Hub in Diengkynthong Village under Khatarshnong Laitkroh, East Khasi Hills District. In his address, he highlighted its role in bridging gaps in rural development and expanding economic opportunities. He noted that the hub would serve as an economic zone for farmers and producers, enabling them to take up higher-value activities and improve their incomes.

About the Diengkynthong PRIME Hub

The Diengkynthong PRIME Hub supports small business owners and entrepreneurs from the region by providing training, processing facilities, and a shared working space. It serves as a resource centre where rural entrepreneurs receive skill development, business guidance, and market access support. Equipped with training halls and accommodation units, the hub hosts workshops and capacity building programmes tailored to various industries. A dedicated working space allows business owners to operate in a structured environment, addressing the challenges of inadequate infrastructure at home.

There is also a processing unit that is part of services, which focuses on high-potential products such as bay leaf and honey, improving branding, packaging, and marketing to help local entrepreneurs compete in larger markets. By integrating training and production, the hub enables entrepreneurs to adopt better business practices and sustain their ventures.

Operating under the IVCS, the hub follows a collective

model, engaging producers, traders, and processors to ensure shared benefits and economic sustainability. It also provides digital access to market trends and business information, helping rural youth stay competitive. Aggregation and processing at the hub have resulted in reduced costs for farmers and producers through economies of scale, which has made enterprises more viable. A management committee oversees operations for ensuring efficiency and regular improvements to support long-term growth.

Since its inception, the Diengkynthong PRIME Hub has helped rural entrepreneurs adopt a more structured and business-oriented approach. By providing access to training, market linkages, and financial services, it has contributed to local economic growth. It is serving as a practical example of how community-driven initiatives can strengthen rural enterprises and improve livelihoods.

Recent Activities

In December 2024, a total of 20,000 kg of Grade 2 bay leaf was sold at Rs. 37 per kg, while 10,000 kg of processed bay leaves were sold at Rs. 43 per kg, resulting in a total sales value of Rs. 4,30,000. Similarly, 20,000 kg of Grade 1 bay leaf was sold, along with 3,000 kg of processed bay leaves at Rs. 73 per kg, generating Rs. 2,19,000 in revenue. This effort was supported by 38 aggregators.

In January 2025, 12,430 kg of bay leaf was procured at Rs. 38 per kg. Of this, 3,715 kg was processed and sold at Rs. 69 per kg, yielding a total sales value of Rs. 2,56,335. This initiative engaged 20 aggregators. 50 kg of honey was also procured in January 2025 at Rs. 500 per kg, with 45 kg successfully sold at Rs. 700 per kg, generating a total revenue of Rs. 31,500. This initiative involved 20 honey aggregators and farmers.

4. Custom Hiring Centres (CHC)

In Meghalaya, many farmers still rely on traditional agricultural methods, largely due to a lack of awareness about the benefits of farm mechanization and the limited availability of machinery in local markets. This, combined with a shortage of labour and rising cultivation costs, has made it essential to provide small and marginal farmers with access to modern machinery to improve efficiency and productivity.

To address this, Megha-LAMP has bolstered farm mechanization by establishing 72 Custom Hiring Centres (CHCs) across the project area, with plans in motion for 95 more. These centres are aimed at enhancing production efficiency, promoting an agricultural surplus economy, increasing market participation, and promoting high-quality farming practices.

Each CHC is managed by an IVCS in a social enterprise model and offers fee-based rentals of agri-tools and machinery at subsidized rates. Located in key value chain clusters, the CHCs have not only made modern equipment more accessible but have also promoted the use of region-specific tools through awareness programs and capacity-building exercises, supported by the State Agriculture Department's Mechanical Wing.

The available tools at these centres include power tillers, rotary tillers, post-hole diggers, brush cutters, sprayers, and more. By reducing production costs by approximately 50% compared to traditional tools, the CHCs have significantly contributed to improving the income of small and marginal tribal farmers.

In recognition of the general exclusion of women from handling farm machinery, Megha-LAMP has made a deliberate effort to include at least one woman among the three Farm Machinery Operators at each CHC. This initiative has improved women's access to and control over modern farming tools, boosting their confidence and empowerment in the agricultural sector.

Establishment of **Custom Hiring Centres** (CHC) at **72** locations covering **3141** households in **268** villages across the project area

Contributed towards enhancing the income of the small and marginal tribal farmers by **reducing the cost of production by about 50%** as compared to using traditional agri tools

CHC services extend beyond operational jurisdiction of IVCS which **offers the option to rent machinery** catering to the broader agricultural community

Improved access and control of farm machinery among rural women through **capacity building** to enhance their confidence in using these tools

INR 25.6 Lakhs Overall Profit Generated across all **72 CHCs** **4193 acres** overall area covered

5. Farmers' Markets

In Meghalaya, agriculture has long served as the primary livelihood for farmers, with farm produce traditionally traded through established market systems based on supply and demand. However, the dominance of non-farm agents in these systems has been the biggest issue. Rural markets, operating on a weekly schedule, leave trading agents determining prices for farmers' produce. Despite efforts by marketing committees, the market infrastructure largely remains inaccessible and disorganized. Guidelines for farmers with surplus production are unclear, which has led to a demand for information on current prices, lucrative markets, and opportunities for input, funding support, market linkage, and enterprise development.

In response to these challenges, Megha-LAMP has initiated the establishment of new farmer-owned and farmer-managed markets by mobilizing farmers' groups, including IVCS as stakeholders. Work to construct 50 such markets with support funding from the North-Eastern Council (NEC) is ongoing.

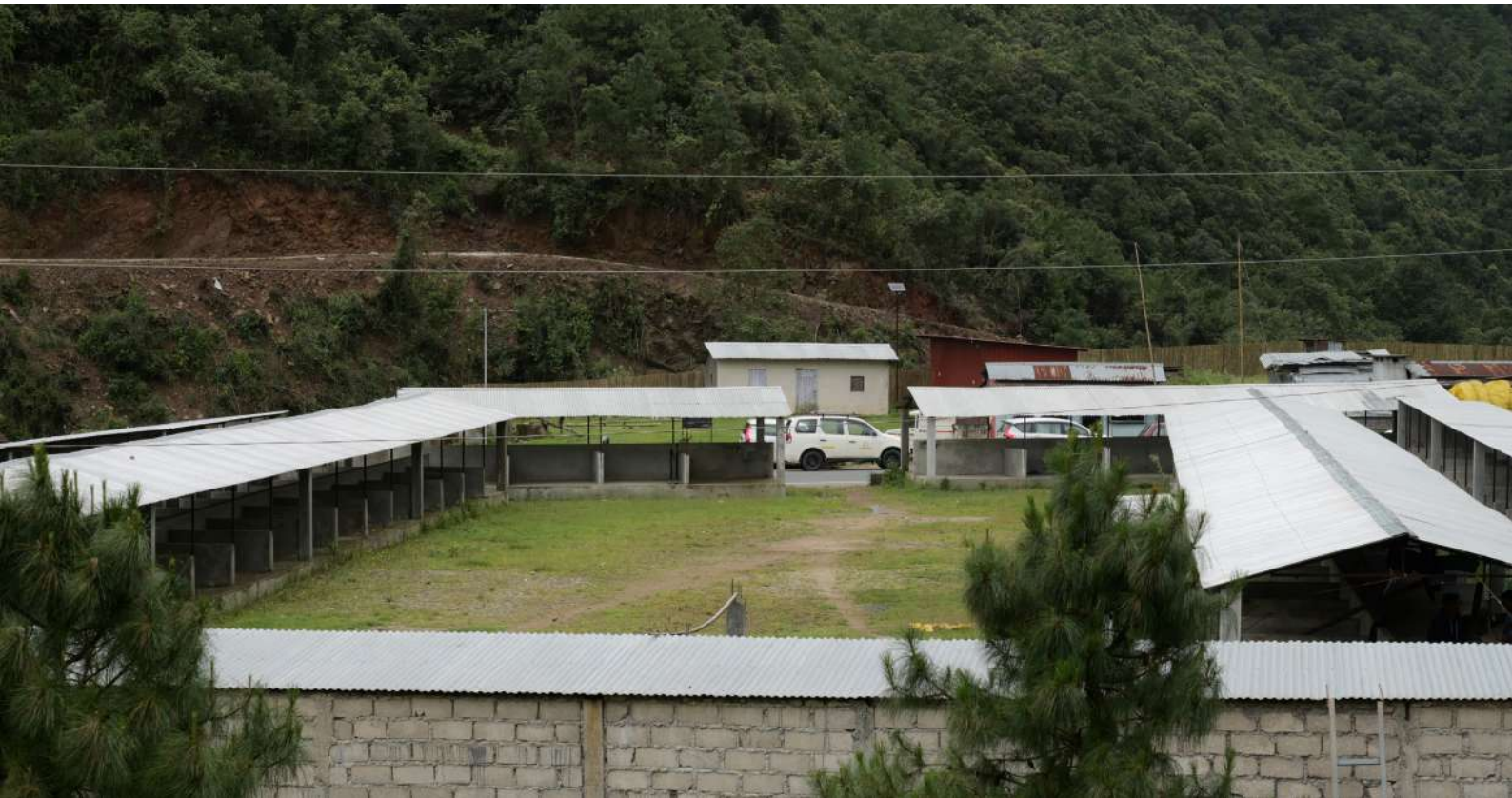
These markets have improved infrastructure and basic facilities including storage, parking, shades, and enhanced sanitation and hygiene. The anticipated outcome of Megha-LAMP's farmers' markets is to generate additional revenue for farmers, with management committees ensuring representation from all primary stakeholders. A departure from conventional markets that impose fixed fees and taxes irrespective of transaction size, Megha-LAMP's markets will implement fees and taxes proportionate to the goods, services, and facilities utilized by sellers and buyers.

20 Markets nearing completion; work in progress to further establish 30 farmers' markets across the project area

Reduced need for extensive transport, handling, and storage contributes to **cost savings and increased freshness** of the produce

Nominal fee charges for farmers availing the service

Established to promote **transparent and organized** marketing practices



STRENGTHENING RURAL LIVELIHOODS THROUGH INTEGRATED SUPPORT IN UMWANG VILLAGE, RI BHOI

Introduction

Small and marginal farmers in Umwang village, Meghalaya, have long faced challenges related to market access, credit shortages, and heavy reliance on middlemen, which have reduced their profitability and control over pricing. The lack of a structured marketing system has made it difficult for farmers to sell their produce—primarily pineapple, ginger, and bay leaves—at fair prices, contributing to financial instability.

Traditional farming practices remain prevalent due to limited awareness and access to modern agricultural equipment. Rising labour shortages and increasing cultivation costs further strain productivity and efficiency, making farming increasingly unsustainable.

To address these challenges, the Umwang Pyllun Integrated Village Cooperative Society Ltd. (IVCS) was established in 2019 as part of farmer empowerment and livelihood improvement interventions of the IFAD-supported Meghalaya Livelihoods and Access to Markets Project (Megha-LAMP).

The IVCS has since become a central hub for financial services, collective aggregation and selling, transportation, storage, market linkages, and access to modern equipment to reduce cultivation costs and enhance productivity, catering financial and other services to residents of Umwang and four neighbouring villages.

About the Umwang Pyllun IVCS Ltd.

Established on October 17, 2019, the Umwang Pyllun Integrated Village Cooperative Society Ltd. (IVCS) has become a cornerstone of economic growth and financial inclusion in the region, reducing dependence on external financial institutions and facilitating local economic development.

Today, its coverage extends to 5 contiguous villages. With a total membership of 167 individuals from 105 households, the IVCS has accumulated total savings of Rs. 665,110, catering services to 328 shareholders.

The Megha-LAMP Project has supported the IVCS with Rs. 150,000 for procuring office equipment and Rs. 250,000 as a corpus fund to ensure sustainability of operations. A notable aspect of the Umwang IVCS is its emphasis on gender inclusivity, with women making up 41% of its members.

The IVCS has provided loans to 69 members, with amounts ranging from Rs. 10,000 to Rs. 1.5 lakhs. Total loans sanctioned amount to Rs. 33.4 lakhs.

Umwang Collective Marketing Centre

The Umwang CMC was established in response to the challenges faced by small and marginal farmers in Umwang, particularly related to limited market access, credit shortages, and reliance on middlemen. The farmers in Umwang village previously struggled with selling their produce at fair prices and were often forced to depend on middlemen, which led to lower profits and reduced control over pricing.

Produce aggregated and marketed at the CMC include pineapple, ginger, and bay leaves. It provides farmers with a platform to collectively sell their products, offering essential services like transportation to better markets, storage to keep the produce fresh, and direct market access to connect farmers with buyers, bypassing middlemen.

CMC's Impact on Market Access and Cost Reduction for local farmers

The Umwang CMC has helped reduce transportation and storage costs by providing facilities such as the Agri-Response Vehicle (ARV), which allows farmers to access better markets and sell at better prices. To strengthen its operations, it availed an ARV under the state government's CM ELEVATE scheme, with 50% grant support and a 45% loan.

To date, the CMC has successfully marketed over 120 MT of pineapple, 55 MT of ginger, and 136 MT of bay leaves.

Collective marketing activities in Umwang area have resulted in improved incomes for 109 pineapple farmers, 160 ginger farmers, and 98 bay leaf farmers

Megha-LAMP has provided Rs. 37.87 Lakhs for 10 acres over 3 years, helping the IVCS take up collective farming of Mauritius variety pineapples using scientific cultivation practices. This financial support aims to triple productivity and profits.

UMWANG Custom Hiring Centre (CHC)

In Umwang village, traditional farming methods dominate due to limited awareness and access to modern agricultural machinery. Rising labour shortages and increasing cultivation costs necessitated the establishment of Custom Hiring Centers (CHCs).

The Umwang CHC was introduced to provide small and marginal farmers with affordable access to modern farming equipment.

The CHC, operating since 2022, currently serves three villages with plans to expand to five.

The CHC has significantly improved productivity by reducing manual labour requirements, particularly benefiting women farmers. Farming activities that previously took months are now completed within a week.

The initiative has also created employment opportunities for 3 individuals.

The farming community in Umwang village has expressed great appreciation for these tools, as they have significantly improved productivity and efficiency. Additionally, the availability of these machines has helped the IVCS generate income. Upon receiving the equipment, the group secured land and constructed an Agri Tools House to ensure proper storage and resource management.

Despite its success, the CHC faces challenges such as spare part shortages and delayed farmer payments. To enhance its services, the CHC plans to acquire additional equipment, including another rotary tiller and a mini tractor suitable for hilly terrains. Expansion efforts aim to extend services beyond the current three villages to cover more farming communities.

Agri Tools available:

- **Power Tillers (3 units)**
- **Tractor (1 unit)**
- **Bush Cutters (2 units)**
- **Pump (1 unit)**
- **Sprayer (1 unit)**
- **Manual Seeder (1 unit)**
- **Rotary Tiller (1 unit)**

Rental Rates:

- **Tractors: Rs. 1,500 per hour**
- **Power Tillers: Rs. 300 per hour**
- **Sprayers: Rs. 100 per day**
- **Bush Cutters: Rs. 200 per day**

Employment Generated:

- **The CHC has employed 3 full-time farm machinery operators**

Monthly & usage trend:

- **Monthly Usage: Approximately 10 to 50 members**
- **Peak Usage: May and June**

Revenue Generated:

- **The CHC has accumulated a revenue of Rs. 48000 to date**

Conclusions

The Umwang Pyllun IVCS Ltd., along with its CHC and CMC, has significantly enhanced financial access, agricultural productivity, and market opportunities for local farmers in the Umwang Village region. The Megha-LAMP project continues to support the IVCS in strengthening livelihoods through various interventions.

Concerning other plans, the IVCS is also receiving support from the KfW Development Bank-funded Sustainable Land Management Meghalaya Project (SLM) to transition pineapple cultivation to organic farming methods. The goal is to secure certification under the National Programme for Organic Production (NPOP), thereby enabling the IVCS to access new markets.

Tapping Lucrative Domestic and International Markets for Enhancing Farmer Incomes: The Market Access and Linkages Created

The Government of Meghalaya through Megha-LAMP is aggressively promoting the local produces with unique quality parameters through strategic marketing initiatives. 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.

The project is supporting with export of produce to remunerative markets which include markets outside state boundaries and even to global markets. Products of farmer collectives supported under the project have been exported to various national markets that include Assam, Maharashtra, Karnataka, Mizoram, and international markets that include Abu Dhabi and Kuwait.

The successful trial marketing initiatives have resulted in recurring market orders and produces such as the Kew pineapple, Khasi mandarin, Lakadong turmeric and local ginger cultivars have made their presence felt in domestic as well as international markets.

Major market linkages facilitated with Megha-LAMP in 2024 are given below:

Bay leaf, Black pepper, Broom grass, Cashew, Cinnamon, Coffee, Ginger, Honey, Khasi mandarin, Pineapple, Rice/ Paddy, Turmeric, (Sliced Dry) Vegetables	**6,76,000+** Total quantity in Kgs	**INR 5.8 Cr** Total trade value

Khasi Mandarin in Al Wahda Mall, Dubai, UAE

Kew Pineapples in Lulu Hypermarket, Kuwait

Building Community Capacity for Sustainable Natural Resource Management through Megha-LAMP

Megha-LAMP empowers target communities by enhancing their skills and abilities to address key natural resource issues through extensive training and capacity-building programs. The component aims to boost agricultural productivity, reduce labour intensity, and increase output by improving the management of natural resources. It focuses on capacity development, natural resource planning, and the development of land and water resources. By creating an efficient and sustainable system for villages to manage development and utilize natural resources, the component seeks to increase food production and lay the groundwork for improved livelihoods.

Preparation and Implementation of INRM Plans

Megha-LAMP has made significant strides in achieving sustainable management of natural resources through the community-collaborated Integrated Natural Resource Management Plans (INRMP) in partnership with the Village Employment Councils (VECs) - VECs are the development delivery institutions in the villages of Meghalaya, consisting of male and female HHs of the traditional village institutions and functioning as Gram Sabha. 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.

Institutionalizing a System of Ongoing Convergence

One of the key achievements of Megha-LAMP is integrating the INRM component into the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). This strategic move has allowed project villages to access additional funds and expand their work scope. Given the communities' familiarity with MGNREGS, the integration of INRM was seamless.

This convergence has enabled the project to undertake interventions beyond its original funding, focusing on securing water for domestic and irrigation purposes and boosting agricultural production, thereby maximizing benefits for target villages.

The project has established convergence with several departments, including Soil and Water Conservation, Community and Rural Development (C&RD), Water Resources, Public Health Engineering (PHE), and Forests and Environment.

Since its inception, the project has empowered Village Employment Councils (VECs) to mobilize approximately Rs. 67 crores through this convergence. Additionally, as part of the strategy to enhance community ownership, the project has facilitated the VECs in mobilizing a 15% community contribution through labor, locally available materials, and cash. As of 31 December 2024, about Rs. 7.6 crores have been mobilized through community contributions. This has significantly strengthened the project's sustainability and encouraged community investment in various project interventions.

Water Security

INRM focuses on securing water access for both domestic and irrigation purposes. It encourages and assists communities in undertaking catchment area treatment and management activities aimed at soil and water conservation. This includes mapping and rejuvenating water sources and implementing measures to prevent soil erosion. Water lifting devices, such as hydrams and solar/electrical water pumps, have also been installed.

As of 31 December 2024, 1,230 villages have benefited from water-related interventions, totaling 5,185 sites across the project area. These include 3,880 domestic water security sites and 1305 irrigation sites, such as check dams and RCC canals. Additionally, INRM provides village communities and individual farmers with opportunities to engage in other natural resource-based livelihood activities, including community fish ponds, integrated farming, and plantations.

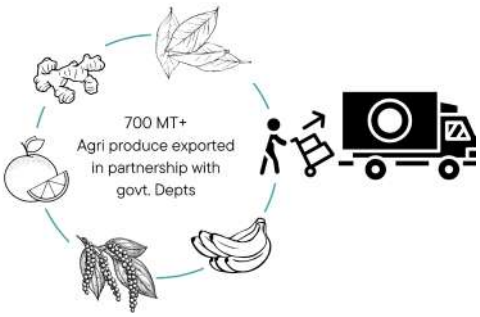
The Impacts of Megha-LAMP in Driving Growth in Meghalaya

Over the past few years, the project, supported by various state government departments, has made remarkable strides in some of the state's most remote areas. Some of the successes include establishing market linkages of 700 MT+ of agri-produce and taking them to lucrative national and international markets across Middle East and Europe; strengthening the rural economy by setting-up decentralized solar powered processing units and cold storage units; and realizing the hon'ble Prime Minister's vision by doubling the incomes of women farmers cultivating high-value crops like the GI tagged Lakadong Turmeric.

In addition, 44% of households reported increased sale prices by 15%, and 29% of households have been linked to improved markets and/or market players.

By reducing farmers' reliance on middlemen for financial and market support, the project is reshaping the agri-economy and empowering communities to take control of their futures. Investments in value addition and post-harvest infrastructure are directly addressing the challenge of distress selling, providing farmers with better avenues to maximize returns. Many of the innovative solutions piloted under the project are now expanding to other regions of the State, setting the foundation for a more resilient and self-reliant agricultural ecosystem.

44% of households reported increased sale prices by at least 15%



29% of households have been linked to improved markets and/or market players

Megha-LAMP Impacts

SN	Intervention	Impact
1	Institution Building	Substantial efforts made to strengthen community-based financial institutions through the formation of IVCS and farmer collectivization, leading to improved access to rural credit, enhanced financial literacy, and the development of economies of scale in aggregation, processing, and marketing: a. A total of 503 IVCS Ltd. have been formed and registered across the state. These institutions have enrolled 79,738 households, achieving 45% coverage within their areas of operation. b. Collectively, the IVCS have 107,065 shareholders and have mobilized ₹5.39 crore in share capital. In addition, 83,843 savings deposit accounts have been opened, with total deposits amounting to ₹66.14 crore. c. A total of 21,821 loans have been sanctioned, resulting in a cumulative loan disbursement of ₹32.2 crore. d. A total of 9,498 producer groups have been formed to strengthen farmer collectivization.
2	Ecosystem for Entrepreneurship	Efforts directed toward building an enabling ecosystem for entrepreneurship through the development of community-managed infrastructure and services: a. A total of 72 Custom Hiring Centres (CHCs) are currently operational, owned by the communities, with an additional 95 under various stages of establishment. b. 75 warehouses and 18 Common Facility Centres (CFCs) are in the pipeline to further support value addition and processing activities at the community level. c. 70 Agri Response Vehicles (ARVs) have been activated to facilitate logistics support and timely delivery of agricultural produce and services. d. 50 Farmers' Markets are planned for construction, out of which 19 are already in progress.
3	Building Inclusive Supply Chain	a. A total of 297 Collective Marketing Centres (CMCs) have been established across the state, which have been facilitating the aggregation and marketing of a wide range of commodities including dry rations, agricultural inputs, animal feed, meat, and agricultural produce. They also support primary value addition at the community level, helping producers move closer to market-ready outputs. b. A total of 34 PRIME hubs have been identified across the state, of which 8 are currently operational already impacting over 6,400 farmers by providing facilities for processing, packaging, and market linkage
4	NRM to Enhance Productivity and Reduce Drudgery	Empowering communities through training and capacity-building to sustainably manage land and water resources for enhancing agricultural productivity and reducing labour intensity: c. Development and implementation of holistic community-collaborated Integrated NRM Plans across 1350 project villages d. Improved water availability for both domestic and agricultural use across 1350 villages; Total 5185 sites – 3880 domestic sites and 1305 irrigation sites

Events & Workshops

A programme celebrating the communities of Meghalaya for their efforts toward community-driven progress and livelihood improvement was held at the State Convention Centre in Shillong on 29 November 2024. Named Community Talks 2, the event was organized by the MBMA as part of initiatives of Megha-LAMP.

A total of 12 communities and individuals from across the State were felicitated during the event, where they shared their experiences and practical knowledge on topics such as traditional farming practices, women empowerment, farmer collectivization, entrepreneurship, financial inclusion, and community organization.

First held in December 2022, this initiative continues to highlight success stories and good practices that often remain underrecognized due to limited documentation or exposure to ensure wider dissemination.

The event saw the participation of over 300 community members from across the State, officials from various state government departments and representatives of development agencies.

SUSTAIN SECAP Training Workshop:
The SUSTAIN SECAP Training Workshop, organized by HELVETAS and the Value Chain Capacity Building Network (VCB-N) on behalf of IFAD, was a four-day training program held from 6–9 August 2024 in New Delhi, India. It was conducted for selected Indian projects—including Megha-LAMP, FOCUS, REAP, OPELIP, and Nav Tejaswini—to strengthen their capacity to comply with IFAD's 2021 Social, Environmental, and Climate Assessment Procedures (SECAP).

The workshop aimed to build awareness of the SECAP framework, provide practical tools for its implementation, and foster peer learning through a Community of Practice. It included an online kick-off, self-study modules, and interactive sessions on risk screening, stakeholder engagement, and action planning, concluding with certificate distribution.

The Knowledge Management and Communication for the India Portfolio – Building Capacity, Driving Innovation workshop was held in Shillong, Meghalaya from 26 to 28 October 2023.

Hosted by Megha-LAMP, the event brought together teams from IFAD-supported projects in Maharashtra, Meghalaya, Odisha, and Uttarakhand, along with representatives from IFAD.

The workshop focused on the development of Knowledge Management (KM) products, communication strategies to enhance project visibility and impact, and the role of effective communication in ensuring reach, uptake, and broader project outcomes.

Sessions also explored good KM practices and approaches to structuring and operationalizing a KM plan.

The one-day Monitoring, Evaluation and Learning (MEL) Workshop, held on 25 November 2024 in New Delhi, was part of a participatory MEL discovery process led by IFAD in collaboration with Collaborative Impact. Prompted by the recent Country Strategy and Programme Evaluation (CSPE), the workshop aimed to enhance MEL as a strategic tool for learning and evidence-based scaling of innovations. It brought together a diverse group of stakeholders including project teams, service providers, community members, and partners to share and validate preliminary findings from the MEL review, and to identify practical steps to improve MEL systems across IFAD-supported projects in India. The workshop emphasized cross-learning, inclusive participation, and the strengthening of data use for greater impact.

Prior to the main one-day workshop for IFAD-supported projects in India, team from Collaborative Impact also held workshops in Shillong and other district offices.

The Training cum Exposure Program to Kerela from 7th–14th February 2024 was organized for 23 staff under the INRM component of Megha-LAMP to enhance their understanding of sustainable natural resource management practices. The visit included exposure to Carmel Ayurveda Farm, which integrates aquaponics, organic farming, and Ayurveda-based healthcare; Mango Meadows Agriculture Theme Park, focusing on organic farming, biodiversity conservation, and climate resilience; and traditional farming systems such as duck-cum-fish farming in Kairakary village.

Participants also explored Vagamon's hill agriculture, Poovar's mangrove ecosystems and eco-tourism models, and observed community-based livelihood activities in Kovalam.

The program successfully combined learning, hands-on experiences, and team-building, offering practical insights that can be replicated in Meghalaya to strengthen sustainable and community-driven development initiatives.

One Week Comprehensive Program on ERP (EPACS) & Analysis of Balance Sheet organized by Systematic Institute of Economic Research and Development (SIERD), New Delhi at Kochi, Kerela from 24th February, 2025 to 28th February, 2025

a. The primary objective of this visit was to provide the officials with firsthand experience of the transition undertaken by PACS in metropolitan states from paper-based systems to computer-based operations.

b. Classroom sessions focussed on topics relevant to EPACs, analysis of Balance sheet, sustainability parameters of PACS

c. A field visit was also conducted to Okkal Service Cooperative Society Ltd to understand the process involved in the transition from paper-based systems to computer-based operations.

Workshop on Income Tax, Budgeting, Accounting & Financial Management organized by Systematic Institute of Economic Research and Development (SIERD), New Delhi at Goa from 11th December, 2023 to 16th December, 2023

a. The primary objective of the workshop was to enhance the knowledge and understanding of the Master Trainers particularly on public accountability, financial management, matters relating to taxation and budgeting, etc.

Institute of Livelihood Research and Training (ILRT):

The Training Program on Scaling-up Pro-Poor Value Chain and Market System Development was held from 4th to 8th February 2025 at Hotel La Pearl, in Bhopal, Madhya Pradesh, organized by the Institute of Livelihood Research and Training (ILRT). Aimed at professionals involved in decision-making and planning for agri-horti and allied sectors, the program focused on strengthening participants' capacity to design and implement value chain and market system interventions for sustainable, pro-poor development.

The training emphasized market systems analysis, intervention design, operational planning, and results measurement. It also introduced practical tools and frameworks to enable large-scale, impactful livelihood initiatives. Supported by expert faculty including Vijay Mahajan, Dr. Sankar Datta, and others, the program contributed to building strategic skills in alignment with the Value Chain Capacity Building Network (VCB-N) under IFAD.

National Spice Conference – 2024

The National Spice Conference 2024 was held in Ahmedabad on 15th–16th November 2024, under the theme "Sustainable Spices Supply Chain – Way Forward." Organized by the World Spice Organisation (WSO), it brought together over 400 delegates, including farmers, FPOs, exporters, regulatory officials, and industry leaders. The programme aimed to promote sustainability, food safety, and innovation across the spice value chain.

Key sessions focused on sustainable agricultural practices, regulatory frameworks, technological integration, and strengthening farmer-market linkages through a structured farmer-buyer interface. Delegates from Meghalaya, including MBMA officials and IVCS members, participated and showcased local spices like turmeric, ginger, cardamom, and bird's eye chilli, generating interest among buyers and peers. The event served as a vital platform for knowledge exchange, innovation, and strategic partnerships in the spice sector.

Exposure visit to Vrutti Bangalore on Best Practices of FPOs:

An exposure visit to Vrutti, Bangalore was conducted from 23rd to 29th June 2024 to enhance the capacity of project officials on the sustainable management of Integrated Village Cooperative Societies (IVCS). The visit was initiated based on recommendations from the IFAD mission (March 2024), which emphasized the need for IVCS to develop comprehensive management and work plans outlining activities, projected earnings, profitability, and a roadmap for sustainability.

The programme included classroom sessions on FPO planning and management, business planning, leadership, collective work, aggregation and marketing, and value chain exercises. Field visits to Bagepalli and Yelampalli FPOs offered practical insights into effective FPO operations, particularly how these organizations facilitate farmer linkages with major buyers like Big Basket, demonstrating successful models of collective action and market integration.

1.3 SLM
(Sustainable Land Management Meghalaya Project)

Introduction

The agricultural landscape of Meghalaya faces significant challenges. Predominantly small-scale farming results in low yields and limited market opportunities. Farmers lack access to modern machinery, technologies, and sufficient extension services. Processing infrastructure is inadequate, and existing aggregation and marketing systems are unable to comprehensively support all farming households, many in remote areas with logistical constraints. In addition, limited remunerative market linkages, low investment levels, restricted agricultural credit access, and poor formal banking network penetration further hinder sector growth.

Despite these challenges, the State Government is well-positioned to address these issues through various developmental programs and projects, which have been working to support sustainable solutions for farming in difficult conditions, including the MBMA, which oversees externally aided projects focused on rural development and farmer empowerment. Partnering with organizations like the International Fund for Agricultural Development (IFAD), the World Bank, and the KfW Development Bank (KfW), MBMA's initiatives reach nearly all of Meghalaya's 6,500+ villages.

Although these projects have made significant strides in facilitating numerous initiatives and leveraging various resources to address these pressing agricultural sector issues, untapped opportunities remain. This led to the launch of the KfW-funded Sustainable Land Management Meghalaya Project (SLM), which aims to capitalize on Meghalaya's traditional farming practices, connect farmers to lucrative markets, and tackle debt and productivity challenges by promoting organic farming, simplifying certification processes, enhancing farmer capacities, and strengthening market linkages.

SLM- AT A GLANCE

Sustainable Land Management Meghalaya Project

ABOUT SLM (GRANT PHASE)

The Sustainable Land Management Meghalaya Project (SLM) is an externally aided project of the Government of Meghalaya, funded by the KfW Development Bank. The Meghalaya Basin Management Agency (MBMA) serves as the Project Executing Agency (PEA), supported by partner implementing agencies: the Directorate of Horticulture under the Department of Agriculture and Farmers' Welfare, the BioResources Development Centre (BRDC), and the Meghalaya State Rural Livelihoods Society (MSRLS).

Launched in August 2023, the project is currently in its Grant Phase.

PROJECT COVERAGE

93 villages; 5000+ households;
1139 hectares.

PROJECT PERIOD

Aug 2023 – June 2026
(Grant Phase)

PROJECT AIM

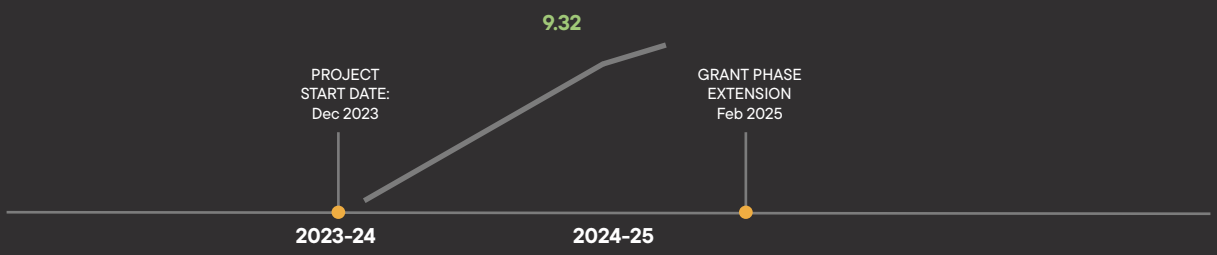
Promoting agroecological and natural/ organic agricultural practices of Meghalaya's farmers.

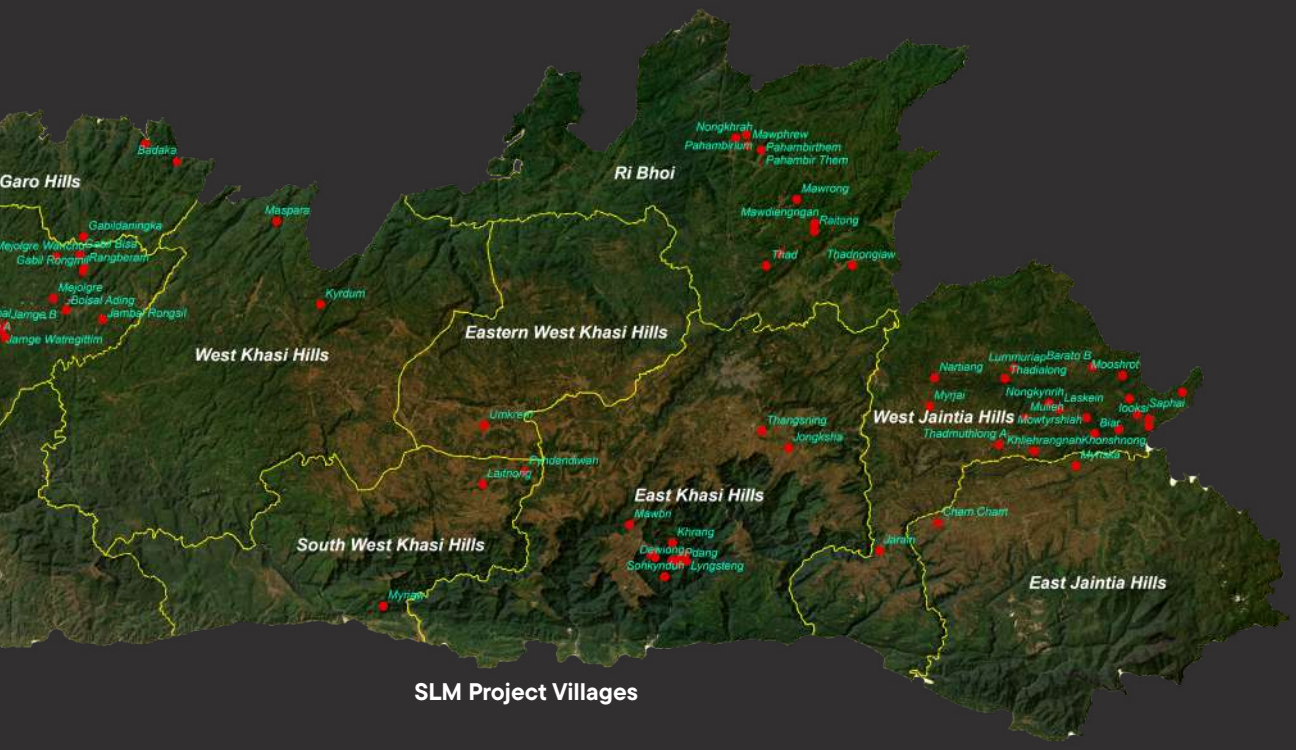
SLM – Costs and Expenditure

In INR Cr

Total Project Costs	INR 41.65 Crore
Total Expenditure from 1 April 2023 to 31 March 2025	INR 9.32 Crore
Total Expenditure of KfW Grant from 1 April 2023 to 31 March 2025	INR 7.78 Crore
Cumulative Expenditure from Project Inception to 31 March 2025	INR 9.32 Crore
Cumulative Expenditure of KfW Grant from Project Inception to 31 March 2025	INR 7.78 Crore

YEAR-WISE PROJECT EXPENDITURE





SLM Project Villages

Focused Crops

Turmeric

Orange

Bay leaf

Jackfruit

Off Season Vegetables

Ginger

Cashew Nuts

Pineapple

Black Pepper

Conversion Systems

Traditional > NPOP

Traditional > PGS

Strengthening Natural Farming to certify under PGS

Strengthening Traditional Practices to Meghalaya Organics

SLM's Role

The SLM Meghalaya Project was launched to address persistent agricultural challenges and support farmers in building on traditional practices to produce clean, organic food for modern markets. As demand for organic products continues to rise both in India and internationally, Meghalaya's history of natural farming puts it in a strong position to respond. While the State remains a relatively small player in India's organic exports, its longstanding low-input farming methods and minimal chemical use offer a clear advantage.

Between 2019 and 2022, India exported more than 19.7 lakh metric tons of organic produce worth ₹20,594 crore, nearly half of which went to the United States, and another 37% to the European Union. The domestic organic market is also expanding, with projected growth of around 21% CAGR over the next five to six years, driven by rising consumer awareness and increased demand through digital platforms. Within this context, Meghalaya can build on its strengths by improving access to certification and better markets.

However, the sector still faces a few bottlenecks, including high certification costs, limited market access, and challenges in maintaining long-term sustainability. SLM helps address these by improving productivity, simplifying certification processes, and helping farmers connect to more lucrative markets. The project strengthens traditional organic practices and provides support to individual farmers, collectives, and cooperatives to participate in clean, sustainable agriculture. One of the project's key areas of focus is building capacity at the grassroots for equipping farmers with the knowledge, techniques, and tools needed for improved organic production and value addition. This approach is expected to expand participation in the organic value chain, support income generation, and contribute to Meghalaya's broader objectives of improving livelihoods and strengthening the rural economy.

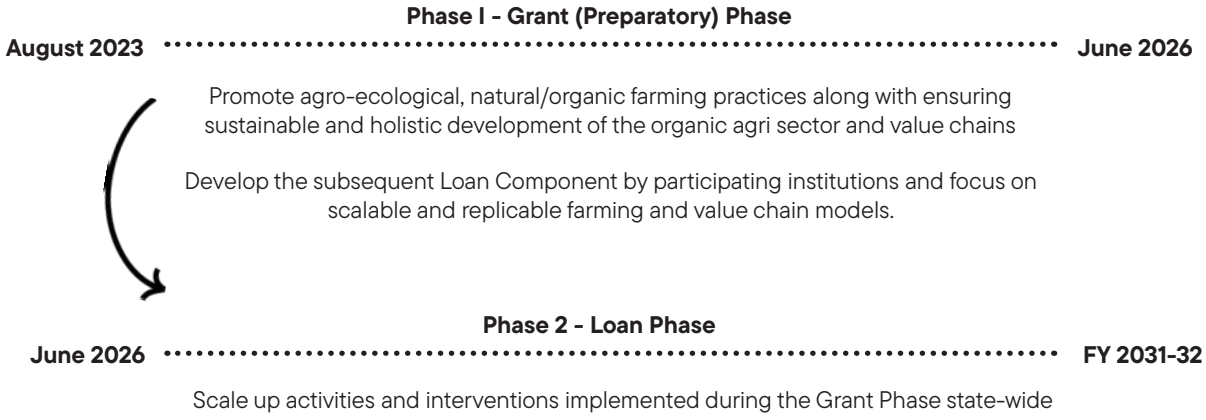
In essence, SLM seeks to establish sustainable land management systems and value chains to unlock the full potential of Meghalaya's agricultural sector.

The First Phase

Launched on 30 August 2023, the SLM Project is an externally aided project of the Government of Meghalaya. MBMA serves as the Project Executing Agency, working alongside implementing partners including the Directorate of Horticulture under the Department of Agriculture and Farmers' Welfare, the Bio-Resources Development Centre (BRDC), and the Meghalaya State Rural Livelihoods Society (MSRLS).

Key interventions include strengthening Natural Farming systems to meet Participatory Guarantee System (PGS) certification requirements and gradually transitioning traditional practices to meet the standards of the National Programme for Organic Production (NPOP). To overcome certification barriers such as complexity and cost, the project is also piloting a new state-level organic certification system tailored to local conditions. This model aims to meet national organic standards while remaining cost-effective and suited for domestic and Northeast Indian markets.

During its Grant Phase, SLM is active in 93 villages, supporting over 5,000 farming households across Meghalaya. This stage focuses on piloting sustainable land management practices and value chain development, with an operational model designed for future scale-up. These efforts will also contribute to the State's mission of bringing 1 lakh hectares under certified organic cultivation by 2028. The Grant Phase aims to establish proof of concept and lay the foundation for the upcoming Loan Phase, which will build on these models to scale efforts and reach up to 10x the number of households currently involved.



1.4 PRIME

(Promotion and Incubation of Market-Driven Enterprises)

Introduction

About

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 centers 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.

Chief Minister's E-Champion Challenge and the PRIME Incubation Program

The flagship initiatives behind PRIME are the Chief Minister's E-Champion Challenge and the PRIME Incubation program. They are state-wide, recurring annual events that aim 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.

Top 50 selected entrepreneurs received 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.

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 centers 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.

CM ELEVATE - A State Supported, Credit Linked Flagship Program, Aiming to Create a Conducive Environment for Entrepreneurs to Accelerate Private Sector Led Growth

The CM-ELEVATE program is a credit-linked scheme created to encourage entrepreneurship, especially among the youth, by promoting non-traditional employment and increasing credit flow in the state. With various schemes under a single umbrella, beneficiaries can apply from the comfort of their homes through a single-window portal. The scheme's subsidy ranges between 35% and 75% across sectors such as agriculture, tourism, animal husbandry, sports and wellness, entertainment, sericulture, and other businesses.
This program not only provides financial support but also assists beneficiaries in acquiring proper training, skill development, and capacity-building programs through various government departments.

The CM-ELEVATE program was launched in 2023 to enable entrepreneurs from various sectors to apply for financial support in a systematic and transparent manner. It comprises 15 schemes covering sectors like animal husbandry, agriculture, tourism, sports and wellness, entertainment, and sericulture. It is designed for individuals who have the training or knowledge to run an enterprise but lack the capital to start their own business.

The program helps budding entrepreneurs access credit and promotes self-employment as an alternative to traditional jobs. For example, a person with land in a tourism-friendly area can apply for the Meghalaya Homestay Scheme, which offers a subsidy of up to 70% for a project cost of up to ₹10 lakhs, enabling them to start a homestay business. This not only promotes financial independence but also contributes to the state's economy. Similarly, individuals with unique business ideas, such as setting up a studio or manufacturing unit, can apply under the Meghalaya Any Business Venture Scheme.

Since agriculture remains a primary source of income in rural Meghalaya, the CM-ELEVATE program includes sector-specific schemes such as the Meghalaya Agriculture Warehouse Scheme, Meghalaya Common Facility Centre Scheme, PRIME Agriculture Response Vehicle Scheme, Meghalaya Homestay Scheme, and Meghalaya Sericulture & Weaving Scheme. These schemes provide targeted financial support to enhance rural livelihoods and promote sustainable income generation.

PRIME Achievements - Overview

Achievements	No & Amount	Details	# Beneficiaries
Beneficiaries supported under PRIME	**6715** Beneficiaries	PRIME Incubation	202
		PRIME-Pre-Incubation	125
		PRIME-Fundings	261
		NESFP Food Processing Funding	186
		Workshop & Training Participants	1300
		PRIME Walk-in Support	1090
		Outreach Sessions	201
		Dept. & Other Org Links	26
		FSSAI on the-Spot Registration	90
		Participants in Funding Awareness & Loan Melas	218
		Academic Faculty Members Upskilled	200
		Students engaged in Workshops/ Hackathons/Awareness	2000
		Engagement with Govt. officials	30
		PWD Entrepreneurship Awareness	100
		Supported Entrepreneurs in PRIME Fellowship	185
How has PRIME Supported Beneficiaries	Funds sanctioned to beneficiaries amounting to Rs. **1905** Lakhs	NESFB Food Processing Funding Collaboration amounting to Rs.480.40 Lakhs	186
		E Champion Challenge Business Support Grants Rs.189.50 Lakhs	201
		Training Centre Establishment 240 lakhs	12
		PRIME Kickstart Grant Rs. 186.45 lakhs	30
		PRIME Scaleup Innovation Loan Rs. 344.218 lakhs	40
		Academic Supported - Amount Sanctioned for E-Cell - Rs. 426 Lakhs	15
		BVT Innovation Fund (PSREF) Rs. 30 Lakhs	17

1.5 FOCUS

(Farmers' Collectivization for Upscaling of Production and Marketing Systems)

Introduction

The State Government 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 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 (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 Meghalaya.

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:

- FOCUS follows a bottom-up approach starting with the formation of Producer Groups (PGs) comprising 10-20 producers.
- 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.
- Funding support will be given to all the PGs and the selected SPs to take up identified value chain related activities.

Key Activities

- Value Chain Analysis
- Forming Producer Groups of different value chain
- Funding Support to PGs
- Bank Account Opening for PGs
- Identifying Service Providers to each value chain

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. 100,000 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-

- 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.
- 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.
- The FOCUS fund released to the PGs works as a corpus with the group.
- 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 is catering services up to 20 PGs.

Achievements

About 20,500 PGs have been formed with total membership of 198,542 farmers and producers across Meghalaya.

SUCCESS STORIES

Tiew Japang PG – Mawphlang

Established in April 2022, Tiew Japang PG in Mawphlang is a 10-member collective committed to advancing household-level vegetable farming. With a Rs. 50,000 grant under the FOCUS scheme, the group successfully cultivated seasonal vegetables and achieved returns of nearly 60%. They collaborated with ICAR and received 1,000 high-yielding potato tubers of premium varieties like Karan, Girdhari, and Himalini. The CRPS Shillong conducted technical training, enhancing members' agricultural practices. The group rotates monthly meetings across members' homes, collects Rs. 10 monthly per member, and currently holds Rs. 66,265 in savings. With a strong focus on collective discipline and savings-led growth, Tiew Japang PG has become a model for other groups in the region.

Myntoilum PG – Khadphra Village

Myntoilum PG was established by 15 enterprising farmers from Khadphra with a vision to strengthen traditional value chains like Bay Leaf and Broom Grass. With Rs. 75,000 from FOCUS, they adopted a revolving loan model where members accessed small loans for agriculture. The group achieved a remarkable Rs. 1.8 lakh in sales from Broom Grass alone. Their regular meetings and member contributions foster a sense of ownership. They are now planning to diversify into piggery and areca nut farming to spread risk and increase group income. The group demonstrates how localized knowledge and collective effort can translate into economic resilience and diversified livelihoods.

Lakhi PG – Demdema Block

Located in Garo Hills, Lakhi PG is a 20-member women's group reviving traditional handloom weaving while also investing in piggery. Initially formed to support cultural preservation, the group used FOCUS support to procure raw materials and looms. When faced with income constraints, they began a piggery unit to supplement group income. Through a blend of tradition and innovation, they now sell woven products in local markets and generate earnings from livestock. Their journey reflects resilience in rural women and the ability to sustain heritage alongside enterprise. Monthly savings and meeting practices have kept the group strong.

Krimkro PG – Resubelpara Block

Krimkro PG in North Garo Hills is a women-led collective of 11 members focused on piggery. With FOCUS funding, they procured piglets, constructed sheds, and invested in high-quality feed. Their group governance includes internal lending systems and monthly rotational meetings. On average, each member earns between Rs. 10,000–15,000 annually from pork and piglet sales. More importantly, the group manages a small revolving fund and has inspired other women in the area to take up livestock farming. Their success story is a reflection of financial independence and strong peer support among women farmers.

Jabirong PG – Gambegre Block

Jabirong PG is a 14-member farming group in West Garo Hills engaged in black pepper and areca nut cultivation. With limited initial capital, they used the FOCUS support strategically—earning Rs. 57,000 from pepper and Rs. 28,600 from areca nut. Encouraged by early success, they have now established a pepper nursery with 2,350 saplings. The group also plans to initiate inter-village learning visits and expand market linkages. Their journey is a fine example of how farmer groups can convert minor investments into structured enterprises through focused planning and teamwork.vv

Jonglapara PG – North Garo Hills

The Jonglapara Farmer Producer Group, with 10 members, cultivated cabbage, cauliflower, potato, tomato, and pumpkin using Rs. 40,000 from FOCUS and group contributions. They earned Rs. 2.56 lakh, with a profit of Rs. 1.98 lakh.
They also received 380 kg of groundnut seeds from KVK East Garo Hills and a summer seed package worth Rs. 14,000 from SeSTA and the Agriculture Department. Their thriving crops reflect strong convergence and effective implementation.

1.6 CDP
(Cluster Development Programme)

Introduction

To address the challenges and enhance the global competitiveness of the Indian horticulture sector, the Ministry of Agriculture and Farmers' Welfare (MoA & FW), Government of India, has launched the Cluster Development Programme (CDP). It is a central sector programme, implemented by the National Horticulture Board (NHB).

The CDP is designed to leverage the geographical specialisation of horticulture clusters and promote integrated and market-led development through interventions in pre-production & production, post-harvest & value addition, and logistics, branding and marketing.

Objectives

The main objectives of the programme are to:

a. Address concerns of the horticulture value chain, from pre-production & production activity, post-harvest & value addition activity, and logistics, branding and marketing, in an integrated manner to accelerate competitiveness in domestic and export markets.
b. Reduce harvest and post-harvest losses by developing/expanding/upgrading infrastructure for post-harvest handling of produce, value addition and developing market linkages.
c. Facilitate the introduction of innovative technologies and practices to enhance the global competitiveness of focus cluster crops.
d. Facilitate the dovetailing of resources, including the convergence of various government schemes, to entrench stakeholders in the global value-chains.
e. Build stakeholder capacity and enhance farmers' income through cluster-specific interventions, including brand promotion.

Present Status of CDP in Meghalaya

The West Jaintia Hills cluster of Meghalaya was selected as one of the clusters for implementation of the programme. The focus crop for the cluster is Turmeric, as the region is home to the G.I. tagged Lakadong turmeric, famous for having the highest curcumin content.

Meghalaya Basin Management Agency (MBMA) is implementing the Cluster Development Programme under National Horticulture Board in West Jaintia Hills Cluster. The total cost of project is ₹ 52.33 crores and MBMA is the implementing agency for all the three verticals i,e

- Pre-production & Production,
- Post Harvest Management and Value addition and
- Logistics, Marketing and branding.

The vertical wise break-up of the project cost is as under:

- Pre- production & production – ₹ 18.93 crores
- Post Harvesting Management - ₹ 29.02 crores
- Logistics Marketing Branding - ₹ 4.38 crores

The Means of Finance for the project is as under:

- ₹ 24.88 crores as financial assistance under CDP.
- ₹ 20. 92 crores as contribution by MBMA.
- ₹ 6.53 crores as contribution through LIFCOM

The project is being implemented in Laskein & Thadlaskein Block for 4 yrs with 6,000 farmers to be benefitted. The projected objective is to increase incomes for farmers through increase in productivity and encouraged them to bring in more area under cultivation. Over the period of 4 years, the area under cultivation is proposed to increase by 1,000 Ha.

VERTICAL WISE INTERVENTIONS for FY 2023-24 are as under:

VERTICAL I – Pre production and Production

1. Area Expansion Under CDP

Under Vertical I pre-production and production, component - Area Expansion, the project selected 1000 registered farmers each possessing an area holding of 0.5 acres for the area expansion initiative.

The registered farmers received training on production technology of turmeric. The training sessions were conducted by the project staffs in their respective cluster. Under area expansion each farmer received 300 kg of seeds/rhizome. These seeds/rhizomes were intended for sowing in a new area of 0.5 acres.

a. Registration Of Farmers:

Sl No	Cluster	Villages	No of Farmers	Total no. of farmers	Area in Acres per farmer	Total Area in Acres
1	Mooshrot	Mooshrot	4	20	0.5	2
		Mynksan	8		0.5	4
		Ionglang	8	40	0.5	4
2	Sahsniang	Sahsniang - A	8	40	0.5	4
		Sahsniang - B	32		0.5	16
3	Thangthring	Umsalait	30	20	0.5	15
		Iongkasaro	10		0.5	5
4	Mowkaiaw	Mowkaiaw	20	20	0.5	10
5	Mowtyrshiah	Mowtyrshiah - A	15	40	0.5	7.5
		Mowtyrshiah – B	25		0.5	12.5
6	Laskein	Laskein	33	50	0.5	16.5
		Mowkyndeng	2		0.5	1
		Mulum	15		0.5	7.5
7	Nongkynrih	Nongkynrih	20	20	0.5	10
8	Raliang	Rtiang	20	20	0.5	10
9	Madankynsaw	Madankynsaw	27	60	0.5	13.5
		Mulieh	33		0.5	16.5
10	Biar	Nongryngkoh	11	26	0.5	5.5
		Biar	15		0.5	7.5

11	Tum tum	Tum Tum	20	37	0.5	10
		Khatkasla	9		0.5	4.5
		Psiar	8		0.5	4
12	Khonshnong	Khonshnong	25	25	0.5	12.5
13	Iooksi kyanmynsar	Lakadong	9	108	0.5	4.5
		Tongkiad	11		0.5	5.5
		Iooksi kyanmynsar	32		0.5	16
		Iooksi iapkhla	25		0.5	12.5
		Umdienglieng	31		0.5	15.5
14	Barato	Barato	193	193	0.5	96.5
15	Saphai	Saphai	100	100	0.5	50
16	Iongkwang	Iongkynshur	15	15	0.5	7.5
17	Shangpung Pohshnong	Shangpung moosyiem	2	17	0.5	1
		Shangpung Pohshnong	2		0.5	1
		Shangpung Khliehmushut	5		0.5	2.5
		Shangpung Moolibang	7		0.5	3.5
		Shangpung Koira	1		0.5	0.5
18	Khliehrangnah	Khliehrangnah	10	11	0.5	5
		Mynkrem	1		0.5	0.5
19	Thadmuthlong	Thadmuthlong	29	38	0.5	14.5
		Pasyih	6		0.5	3
		Pammanik	3		0.5	1.5
20	Mynso - A	Mynso – A	10	46	0.5	5
		Mynso – B	10		0.5	5
		Muthlongrim	8		0.5	4
		Kyndongtuber	18		0.5	9
21	Thadbamon	Lummuriap	25	34	0.5	12.5
		Thadialong	9		0.5	4.5
22	Sanaro	Sanaro	40	40	0.5	20
TOTAL			**1000**	**1000**		**500**

b. Seed Inspection

Before the distribution of seeds to the farmers, seed inspection was conducted by Shri D. Lamar, Adviser MBMA to inspect the seed quality before distribution.

Workshop on Supply of Seeds and Community Procurement

A workshop was organized with the aim of sensitizing and enhancing the capacities of Community Based Organizations (CBOs) involved in the project. The specific focus areas and objectives of the workshop were as follows:

1. Focus Areas:
    - Sensitization of 22 CBOs on the supply of Lakadong turmeric seeds.
    - Sensitization of 15 CBOs on the construction of pack houses.
2. Objectives:
    - To enhance the understanding of community procurement processes among the CBOs.
    - To build the capacity of the CBOs to ensure smoother and more efficient implementation of the project activities related to seed supply and infrastructure development.
3. Participation:
    - A total of 54 participants attended the workshop, representing the various CBOs involved.

c. Seed Distribution

Name of the programme: Seed Distribution under CDP, MBMA

- » No of farmers support for seed/ rhizomes: 1000 Nos
- » Quantity supplied to each farmer: 300 kgs
- » Total quantity supplied: 300 MT
- » Total area covered: 200 Ha

Dates	Name of CBOs	Cluster/ Village
03-04-2024	Shirup Lang Multipurpose CoOperative Society Ltd.	Sahsniang A & Sahsniang B
	Kynhun Manbei VO Sahsniang Saitthad	Iongkasaro, Tum Tum, Khadkasla, Psiar, Iongkynshur
	Farm Connect Development Society Mooshrot	Mooshrot, Mynskan, Ionglang, Umsalait
	Ieinskhem Spice Producers, Industrial Co-Operative Society Ltd.	Madankynsaw, Mulieh
	Life Spices Processing Co-Operative Society Ltd.	Iongkynshur, Nongkynrih, Mowkaiaw
	Iaroilang I SHG	Laskein, Mawkyndeng, Mulum
	Maitluti SHG	Mulieh, Mowtyrshiah A, Mowtyrshiah B

04-04-2024	Synrolang VO CMC Thadmuthlong A	Iooksi kyanmynsar Thlongmoo
	Maia Ia I De Hi SHG	Khongshnong, Saphai
	Sumer SHG Iooksi Iap Khla	Lakadong, Iooksi Tongkiad, Iooski Kyanmynsar Thlongmoo
	Pynmyntoi VO CMC Biar	Nongryngkoh, Biar, Saphai
	Iahluti Multipurpose Cooperative Society Ltd.	Iooksi Iapkhla, Umdienglieng
	Farmer Union Shangpung Pohshnong	Shangpung Moosyiem, Shangpung Pohshnong, Shangpung Khliehmushut, Shangpung Moolibang, Shangpung Koira, 10 Khliehrangnah, Mynkrem, Rtiang, Iongkynshur
	Tylli Lang I SHG	Saphai, Iooksi Kyanmynsar Thlongmoo, Iooski Iapkhla
08-04-2024	Iatyllilang Village Organization Khliehsniriang	Mynso B, Mynso A, Muthlongrim, Kyndongtuber
	Iahluti SHG CMC	Lummuriap, Kyndongtuber, Thadialong
	West Jaintia Hills Farmers Producer Company Ltd.	Sanaro
09-04-2024	Maitshaphrang Self Help Group	Barato
	Myntoilang Agro & Allied Activities Co-Operative Society Ltd.	Barato
	West Jaintia Hills Farmers Producer Company Ltd.	Barato
	Iakyrsulang Village Organization Barato	Barato
	Sohphoh Integrated Village CoOperative Society Ltd.	Barato

d. Seeds Delivered

Sl No	Vendor	Quantity Ordered	Unit
1	Shirup Lang Multipurpose Co-Operative Society Ltd., Sahsniang	12,000	Kgs
2	Farm Connect Development Society, Mooshrot	15,000	Kgs
3	Tyllilang I SHG, Sahsniang	12,000	Kgs
4	Iahluti SHG CMC, Lummuriap	15,000	Kgs
5	Ieinskhem Spice Producers, Industrial Co-Operative Society Ltd, Mulieh	15,000	Kgs
6	Iakyntulang SHG CMC, Saphai	15,000	Kgs
7	Maia Ia I De Hi SHG, Khonshnong	12,000	Kgs
8	Sumer SHG Iooksi Iap Khla, Iooksi Iapkhla	12,000	Kgs
9	Life Spices Processing Co-Operative Society Ltd, Laskein	15,000	Kgs
10	Maitshaphrang Self Help Group, Barato	12,000	Kgs
11	Myntoilang Agro & Allied Activities Co-Operative Society Ltd, Barato	12,000	Kgs
12	West Jaintia Hills Farmers Producer Company Ltd., Sanaro	15,000	Kgs
13	Iatyllilang Village Organization Khliehsniriang, Khliehsniriang	12,000	Kgs
14	Pynmyntoi VO CMC Biar	12,000	Kgs
15	Iaroilang I SHG Laskein	15,000	Kgs
16	Maitluti SHG Mowtyrshiah – B	15,000	Kgs
17	Synrolang VO CMC Thadmuthlong A	15,000	Kgs
18	Farmer Union Shangpung Pohshnong	15,000	Kgs
19	Kynhun Manbei VO Sahsniang Saitthad	15,000	Kgs
20	Iakyrsulang Village Organization Barato	12,000	Kgs
21	Iahluti Multipurpose Cooperative Society Ltd, Iooksi	12,000	Kgs
22	Sohphoh Integrated Village Co-Operative Society Ltd, Sohphoh	15,000	Kgs
	Total Quantity	**3,00,000**	**Kgs**

2. Promotion Of IPM And INM

Under this component of Vertical I, the project promoted the use of bio inputs to enhance the cultivation practices of turmeric. These bio inputs included a) biofertilizers like Azospirillium and Phosphate solubilizing bacteria and b) biopesticides like Pseudomonas, Trichoderma and Metarhizium. In Laskein C & RD Block, since the current cultivation methods were primarily traditional organic, the promoted inputs under IPM and INM were aligned with organic standards. By promoting these bio inputs and practices, the project aimed to enhance the sustainability and productivity of turmeric farming in Laskein C & RD Block, ensuring that the farming methods remained organic while improving overall yield and soil health. Farmers were also advised to use farmyard manure on their fields. This practice was recommended to help retain soil fertility and health, which would ultimately lead to increased production.

• Biofertilizers and Biofertilizers procured:

Supplier	Item Description	Quantity Ordered
Central Agricultural University	Pseudomonas fluorescens	1000
	Trichoderma viride	1000
	Metarhizium	250
State Biological Control Laboratory	Pseudomonas fluorescens	1000
	Trichoderma viride	1000
	Metarhizium	250
	Azospirilium lipoferum	1000
	PSB	1000

• Distribution Of Bioinputs:

BioInputs	Item Description	UOM	Quantity Supplied per farmer	Total Quantity Supplied
A. Biofertilizer	Azospirilium lipoferum	ltrs	1	1000
	PSB	ltrs	1	1000
B. Biopesticides	Pseudomonas fluorescens	ltrs	2	2000
	Trichoderma viride	ltrs	2	2000
	Metarhizium	ltrs	0.5	500

Dates	Name of CBOs	Cluster/ Village
03-04-2024	Shirup Lang Multipurpose CoOperative Society Ltd.	Sahsniang A & Sahsniang B
	Kynhun Manbei VO Sahsniang Saitthad	Iongkasaro, Tum Tum, Khadkasla, Psiar, Iongkynshur
	Farm Connect Development Society Mooshrot	Mooshrot, Mynskan, Ionglang, Umsalait
	Ieinskhem Spice Producers, Industrial Co-Operative Society Ltd.	Madankynsaw, Mulieh
	Life Spices Processing Co-Operative Society Ltd.	Iongkynshur, Nongkynrih, Mowkaiaw
	Iaroilang I SHG	Laskein, Mawkyndeng, Mulum
	Maitluti SHG	Mulieh, Mowtyrshiah A, Mowtyrshiah B
04-04-2024	Synrolang VO CMC Thadmuthlong A	Iooksi kyanmynsar Thlongmoo
	Maia Ia I De Hi SHG	Khongshnong, Saphai
	Sumer SHG Iooksi Iap Khla	Lakadong, Iooksi Tongkiad, Iooski Kyanmynsar Thlongmoo
	Pynmyntoi VO CMC Biar	Nongryngkoh, Biar, Saphai
	Iahluti Multipurpose Cooperative Society Ltd.	Iooksi Iapkhla, Umdienglieng
	Farmer Union Shangpung Pohshnong	Shangpung Moosyiem, Shangpung Pohshnong, Shangpung Khliehmushut, Shangpung Moolibang, Shangpung Koira, 10 Khliehrangnah, Mynkrem, Rtiang, Iongkynshur
	Tylli Lang I SHG	Saphai, Iooksi Kyanmynsar Thlongmoo, Iooski Iapkhla
08-04-2024	Iatyllilang Village Organization Khliehsniriang	Mynso B, Mynso A, Muthlongrim, Kyndongtuber
	Iahluti SHG CMC	Lummuriap, Kyndongtuber, Thadialong
	West Jaintia Hills Farmers Producer Company Ltd.	Sanaro
09-04-2024	Maitshaphrang Self Help Group	Barato
	Myntoilang Agro & Allied Activities Co-Operative Society Ltd.	Barato
	West Jaintia Hills Farmers Producer Company Ltd.	Barato
	Iakyrsulang Village Organization Barato	Barato
	Sohphoh Integrated Village CoOperative Society Ltd.	Barato

3. Custom Hiring Centers

Custom Hiring Centers are units comprising sets of farm machinery and equipment available for hire by farmers. The use of CHCs is intended to reduce the unit cost of production by enhancing input use efficiency. By having access to modern machinery, farmers can improve their farming practices without the high costs associated with purchasing equipment.

4 Nos CHC were set up at Barato CHC , Laskein CHC , Mulieh CHC and Thadmuthlong CHC.

• Agricultural Machineries procured for the CHC

Item Description	Quantity Ordered	UoM
Power Tiller VST Shakti 130 Di	8	Nos
Portable Power Spray Wegwan	8	Nos
Power Weeder Texas TX 701 TG	16	Nos
Brush Cutter Backpack 4 stroke Texas TX1437B with reaper, thread, cutting disc	10	Nos
Portable Water Pump Texas P50G48Q	4	Nos
Earth Auger 2 Stroke Texas EA2631A with 6” Bit & 8” Bit	4	Nos

• Training of Operators on CHC and Agricultural Machineries

Objectives:

1. To provide practical, hands-on training to operators from different villages
2. This training aimed to ensure that operators are well-equipped with the necessary skills to effectively use and maintain the equipment provided by the CHCs, thereby maximizing their utility and ensuring sustainable use.

Overall, the training program was designed to promote the efficient use of agricultural resources through the establishment of CHCs and to build the capacity of local operators to support these centres effectively.

Resource Person:

1. Mr. Ved Prakash, Technical Adviser (MDS Agri Infrastructure)
2. Mr. K. Ryntathiang, Sale Manager (Iaijop Enterprise)

Types of Farm Machineries demonstrated during the training:

1. Power Tiller VST Shakti 130 Di
2. Portable Power Spray Wegwan
3. Power weeder Texas TX 701 TG
4. Brush Cutter Backpack 4 stroke Texas TX1437B
5. Portable Water Pump Texas P50G48Q
6. Earth Auger 2 Stroke Texas EA2631A

Training Details:

Day 1: 51 participants
Day 2: 44 participants

• Demonstration on Agricultural Machineries & Production Technology

One day demonstration on agricultural machineries and production technology of Lakadong turmeric was carried out in the above-mentioned villages, from 25th April, 2024 to 29th April, 2024, conducted by the CDP staffs. The registered farmers from their respected villages attended the program along with the trained operators. The demonstration on the production technology of Lakadong turmeric was performed by the trained farmers who had attended the earlier trainings conducted by the CDP staffs. This was carried out to ensure that they have complied with the POPs as per the training. This was then followed by the demonstration on agricultural machineries by the trained operators in the mentioned Farmer's field. The farmers participated enthusiastically and were well equipped with operating the machines.

Name of the Office:		MBMA, Nongrim Hills	
Tour programme:		Demonstrations on Agricultural Machineries and Production Technology Under CDP, MBMA	
	Clusters	**Team**	
25-04-2024	Saphai looksi kyanmynsar Khonshnong Rtiang Biar	Team A Team B Team C Team D Team E	Team A- Banferbie, Jeremy Team B- Wayoo, Mayondi Team C- Yahphrang, Nippam Team D- Deity, Teringchi, Sa-me Team E- Berniki, Vanita
26-04-2024	Mowkaiaw Mowtyrshiah Nongkynrih Laskein Madankynsaw	Team A Team B Team C Team D Team E	Team A- Banferbie, Jeremy Team B- Wayoo, Mayondi Team C- Yahphrang, Nippam Team D- Deity, Teringchi, Sa-me Team E- Berniki, Vanita
27-04-2024	Thadmuthlong Shangpung Pohshnong Khliehrangnah Mynso(a) Thadbamon	Team C Team D Team E Team A Team B	Team C- Yahphrang, Nippam Team D- Deity, Teringchi, Sa-me Team E- Berniki, Vanita Team A- Banferbie, Jeremy Team B- Wayoo, Mayondi
29-04-2024	Sahsniang-A Tum Tum Thangthring Mooshrot Sanaro Barato & Iongkwang	Team D Team D Team E Team C Team B Team A	Team D- Deity, Teringchi, Sa-me Team D- Deity, Teringchi, Sa-me Team E- Berniki, Vanita Team C- Yahphrang, Nippam Team B- Wayoo, Mayondi Team A- Banferbie, Jeremy

4. Capacity Building: Training & Exposure Visit

• Training on the Production Technology of Turmeric

Due to low production and productivity of the focus crop, the CDP has developed an Organic Production Technology as per the Package of Practises for Turmeric form ICAR NEH and NIPHM. The training was designed to capacitate farmers on the use of bio inputs like biopesticides and biofertilizers, field sanitation with regards to pest infected plants, raised bed preparation, competition of nutrients with their current method of traditional practice, importance of maintaining soil fertility with crop stubbles like maize and practices like green manuring.

The training conducted on the Production Technology of Lakadong Turmeric as under:

Sl no.	Name of the Clusters	Venue	No. of participants	Date
1	Saphai	Saphai	50	05-03-2024
2	Saphai	Saphai	50	06-03-2024
3	Barato & longkwang	Barato	65	07-03-2024
4	Barato	Barato	50	08-03-2024
5	Barato	Barato	40	09-03-2024
6	Barato	Barato	40	11-03-2024
7	Mooshrot	Mooshrot	20	12-03-2024
8	Sahsniang-A	Sahsniang-A	40	13-03-2024
9	Thangthring	Thangthring	40	14-03-2024
10	Mowkaiaw	Mowkaiaw	20	15-03-2024
11	Mowtyrshiah	Mowtyrshiah	40	18-03-2024
12	Nongkynrih	Nongkynrih	20	19-03-2024
13	Laskein	Laskein	50	20-03-2024
14	Raliang	Raliang	20	21-03-2024
15	Madankynsaw	Madankynsaw	60	22-03-2024
16	Tum Tum	Tum Tum	50	25-03-2024
17	Khonshnong	Khonshnong	25	12-03-2024
18	Biar	Biar	30	13-03-2024
19	looksi kyanmynsar	looksi kyanmynsar	38	14-03-2024
20	looksi kyanmynsar	looksi kyanmynsar	37	15-03-2024
21	Shangpung Pohshnong	Shangpung Pohshnong	30	18-03-2024
22	Khliehrangnah & Mynska	Mynska	25	19-03-2024
23	Thadmuthlong	Thadmuthlong	40	20-03-2024
24	Mynso(a)	Mynso(a)	40	21-03-2024
25	Thadbamon	Thadbamon	40	22-03-2024
26	Sanaro	Sanaro	40	25-03-2024
			1000	

- ## Training And Exposure Visit of the Project Staffs To NIPHM

A three-day training program for officials of the MBMA (Meghalaya Basin Management Agency) CDP (Cluster Development Programme) was organized at the National Institute of Plant Health Management (NIPHM) in Hyderabad from December 19th to 21st, 2023. NIPHM is a premier national institute renowned for its expertise in plant health management, plant biosecurity, pesticides management, and related fields. This training was crucial as it aligned with the project's components, which include the establishment of a Bio Control Lab, Plant Health Clinic, implementation of IPM (Integrated Pest Management) and INM (Integrated Nutrient Management), and adherence to Good Agricultural Practices (GAP).

5. Capacity Building: Training & Exposure Visit

In response to the challenges of low productivity of Lakadong Turmeric, the Meghalaya Basin Management Agency (MBMA) has initiated a collaborative effort with the Life Spices Cooperative Society and Biosis Plants Pvt. Ltd. to conduct a field trial. This trial involves planting 500,000 Lakadong Turmeric tissue culture plants in Barato Village, covering an area of 10 hectares.

VERTICAL 2 – Post Harvest Management and Value Addition

1. Pack House:

15 Community Based Organisation were selected and sanctioned ₹ 4,00,000/- each for Construction of Packhouse (9Mx6M). The CBOs are to follow Community Procurement in the construction of Packhouse. The details of selected CBOs are as under:

Sl No.	Name of the Organisation/ Farmers Collective	Type of Organisation	Block	Village
1	West Jaintia Hills Farmers Producer Company Ltd	Farmers Producer Organisation	Thadlaskein	Sanaro
2	Ieinskhem Spice Cooperative Society	Cooperative Society	Laskein	Mulieh
3	Iahluti SHG Lummuriap CMC	Self Help Group	Laskein	Lummuriap
4	Farmer Union Shangpung Pohshnong	Farmers Producer Organisation	Laskein	Shangpung Pohshnong
5	Iakyntulang SHG	Self Help Group	Laskein	Saphai
6	Farm Connect Development Society	Society Register	Laskein	Mooshrot
7	Iahluti Multipurpose Co-Operative Society Ltd.	Cooperative Society	Laskein	Iooksi Kyanmynsar Thlongmoo
8	Synroplang VO CMC Thadmuthlong A CMC	Village Organisation	Laskein	Thadmuthlong A
9	Sdangseinlang SHG	Self Help Group	Laskein	Kyndongtuber
10	Kyrchanlang SHG	Self Help Group	Laskein	Khonshnong
11	Barato IVCS	IVCS	Laskein	Barato
12	Kynhun Manbei CMC Sahsniang Saitthad	Village Organisation	Laskein	Sahsniang
13	Iurim Nongkynrih IVCS	IVCS	Laskein	Nongkynrih
14	Iakrehlang IVCS	IVCS	Laskein	Saphai
15	Shiruplang Mynska IVCS	IVCS	Laskein	Mynska

2. Quality Control and Analytical Laboratory:

The Quality Control and Analytical Laboratory was conceptualized in 2019 with technical support from Indian Institute of Plantation Management, Bangalore (IIPMB) and was proposed to be setup at Bio Resource Development Center (BRDC), Upper Shillong, a Govt of Meghalaya R & D Institution under Science & Technology, Planning Department.

The machineries namely

1. High Performance Liquid Chromatography
2. Gas Chromatography Mass Spectrometer/MS
3. Inductively Coupled Plasma Mass Spectrometer
4. Microwave Sample Digester
5. Automated Solid Phase Extractor
6. Bio Safety Cabinet Class II Type B2
7. UPLC-MS/MS and other machines etc.

have been received in good condition at BRDC and installation to commence after the Lab Infrastructure is complete.

VERTICAL 3 – Logistics Marketing and Branding

• Transport Vehicle:

As part of the initiative to support farmers and improve agricultural logistics, the project procured four Tata Yodha 4x4 pick-up transport vehicles. These vehicles are intended to provide affordable and efficient logistics services, enabling farmers to transport their produce and goods to markets or their chosen destinations. This initiative is a significant step towards enhancing the agricultural value chain by addressing one of the critical challenges faced by farmers—transportation.

Annual Work Plan & Budget for FY 2023-24

Sl no.	**Verticals**	**Project Cost (in lakhs)**
1	Pre production and Production	721.40
2	Post Harvest Management and Value Addition	160.00
3	Logistics, Marketing & Branding	115.80
	Total	**997.20**

Financial Achievement for FY 2023-24

Sl no.	**Verticals**	**Project Cost (in lakhs)**
1	Pre production and Production	126.27
2	Post Harvest Management and Value Addition	824.82
3	Logistics, Marketing & Branding	42.17
	Total	**993.27**

1.7 MSBM
(Meghalaya State Bamboo Mission)

Introduction

From 2024, the Meghalaya Basin Management Agency (MBMA) serves as the implementing agency for National Bamboo Mission (NBM) activities under the Meghalaya State Bamboo Mission (MSBM). The NBM aims to promote the holistic development of the bamboo sector by adopting area-based and regionally differentiated strategies. The Mission focuses on plantation and propagation of bamboo, enhancing bamboo-based value addition, and strengthening market linkages. MBMA will spearhead initiatives aligned with NBM's objectives to harness the state's abundant bamboo resources sustainably and effectively.

Plantation & propagation

MBMA aims to promote bamboo-based agroforestry plantations in 10,000 ha in the next 5 years. This includes bamboo-based restoration of mining wastelands, as raising bamboo on degraded soil and wastelands have been found to improve soil quality and sequester carbon into the soil within a short period of time.

The bamboo-based agroforestry plantation model is expected to add 7 million tonnes of bamboo (green weight), of which 0.7 to 1 million tonnes can be sustainably harvested every year. This will add to the already substantial stock of over 25 million tonnes of bamboo (green weight), with over 18 million tonnes in open forests. Currently, Melocanna baccifera accounts for 28 percent of the total bamboo species, while D. hamiltonii (15 percent), B. jaintiana (14 percent), and B. tulda (10 percent) are some other important species available in the state.

MSBM estimates that 50 lakh bamboo saplings will be required for plantation in the next five years. This provides an excellent opportunity for the nursery sector. MSBM plans to support the establishment of 52 nurseries (big, small, hi-tech and Tissue Culture) to meet this demand.

Benefits of Bamboo-based Agroforestry Plantations

- Year-round supply
- Quality raw material achieved through standard planting protocol
- Big USP for private investors to set up industry in the state
- Livelihood and income generation for farmers as well as rural non-farm sector (RNFS)
- Environmental benefits include, carbon sequestration, biomass production, reclamation of wastelands through agroforestry, as well as the potential benefit of carbon credits

Value Addition in the Bamboo Sector

To enhance the value chain, the mission supports the establishment of innovative primary processing units in close proximity to the bamboo bearing areas. This includes setting up facilities for primary treatment and seasoning of bamboo, as well as implementing preservation technologies to extend the lifespan and usability of the raw material. Furthermore, the mission facilitates the procurement of necessary machinery and equipment, such as pressure treatment plants, which are essential for producing durable and high-quality bamboo products.

To achieve this, MSBM proposes the creation of “Bamboo Prime Hubs” for different product categories. Each Bamboo Hub will have a network of IVCS-based Primary Processing Centres (PPCs). In total, 24 to 30 PPCs will be attached to 6 Bamboo Hubs spread across the State.

Benefits of the Bamboo Prime Hubs & PPCs Model

- 100% utilisation of the bamboo pole
- Livelihood generation through value addition
- Central to creating a bamboo-based green economy in the state

Knowledge Hub Level

Skill & Capacity Development

Investing in human capital is a core component of the mission, with a strong emphasis on promoting skill development and capacity building across the bamboo value chain. MSBM plans to undertake training needs assessment from nursery and plantation to marketing. It will partner with reputed technical experts/ institutions for exposure and training. Specific programs will be prioritised based on the needs assessment. It is expected to benefit over 5,000 beneficiaries across the value chain over the next five years.

Institution Building

The state will identify CFC or FPOs who will act as an institute of knowledge level which will encourage successful enterprises engaged in the manufacture and marketing of niche bamboo-based products such as furniture, baskets, blinds and other utility products. The demand for such products exists in urban markets and high-end stores. With appropriate branding projecting the green credentials of bamboo and its socio-economic relevance, this could be a major component in the bamboo value chain in the State. The interventions suggested are:

a. Identify educated youth with an entrepreneurial bent of mind, build their capacity and provide the required ecosystem for product innovation, adoption of designs as well as the latest trends in marketing through e-commerce and social media marketing, in addition to the traditional physical marketing like exhibitions and securing shelf space in high-end stores. Support to obtain certifications like FSC, EUDR, Carbon Trading, Fair Trade etc. will also be provided.

b. Set up a Design Studio aimed at the development of modern designs with a focus on knock-down furniture considering the remoteness and difficulties in transportation from Meghalaya. This would also provide opportunities for product and process incubation for entrepreneurs and other SMEs.

c. The feasibility of setting up a Mini Park at the Block level would need to be examined as this would provide an opportunity for local investors to be encouraged to set up bamboo value addition units. This could be considered in areas where CFCs have been established and, subject to feasibility, the CFC could be integrated into a Mini Park under a participatory management arrangement between the artisan community/ private sector and Meghalaya Bamboo Mission. CFC could function as a mother unit.

Market Level

The market development initiative will centre on creating a comprehensive strategy to connect bamboo products with targeted buyers and expand their market presence. This effort includes identifying potential target markets and buyers, followed by active promotion through participation in national, regional, and international exhibitions. Additional market outreach activities, such as buyer-seller meets and exposure visits, will further raise awareness and generate interest in bamboo-based products.

The expected output includes the development of tailored marketing strategies for each product, aimed at significantly boosting business turnover.

This approach is expected to integrate bamboo products into regional and national markets, supporting sustainable demand and growth across the sector.

MSBM Supports

- Bamboo nursery
- Bamboo cultivation (agroforestry model)
- Primary processing & Aggregation
- Bamboo value addition (handicrafts/ home furnishings/ food processing/pellets, charcoal & biochar etc.)
- Bamboo boards/ composites/ engineered goods etc.
- Bamboo tools/ equipment development
- Bamboo skill development
- Bamboo construction/ product design
- 100% bamboo waste utilization

Quick Delivery done by Bamboo Mission of 2024-25

Sl. No	Component	Activities	Unit/Location
1	Skill Development & awareness campaign	Workshop/ Training/awareness of Various Stakeholders	State Level Workshops and Training & Cluster level training & awareness.
2	Product development and processing	Handicrafts	5 Units (2 in EWKH, 1 in SWKH & 2 In Ribhoi District)
3	Development of tools, equipment & Machinery	Import of machinery in CFC	Mooshrut, WJH
4	Promotion of bamboo Treatment and Preservation	Vacuum Pressure Impregnation Plant	Forest Department (Ribhoi District)

Sl. no.	Name of the Activity/ Programme	Target Group	Date	Venue
1	Consultative Workshop For Discussing Way Forward For Early Start Of Bamboo Industries In Meghalaya	Line Departments, Govt. of Meghalaya, Bamboo Based Enterpreneurs (from Meghalaya & Outside Meghalaya)	20.09.2024	MBDA Office, Jingkieng
2	Opportunities of Biochar Applications for Soil Enrichment, Environment benefits and Income from Biochar Production and Carbon Credits: Expolring Posibilities in Meghalaya	Line Departments, Govt. of Meghalaya, ICAR, Biochar Byte Ag Tech Pvt Ltd., Line Departments, Govt. of Meghalaya	20.11.2024	MBDA Office, Jingkieng
3	Consultative Meeting on Meghalaya Biochar Initiative	Line Departments, Govt. of Meghalaya, ICAR, Biochar Byte Ag Tech Pvt Ltd.	13.01.2025	Main Secretariat, shillong
4	Sustainable Management Of Bamboo Forests And Certification: Bamboo Growers' Workshop	Line Departments, Govt. of Meghalaya, Biochar Byte Ag Tech Pvt Ltd., FPOs/ FPCs, Bamboo Grower, Local Bamboo Based Enterpreneurs	28.02.2025	MBDA Office, Jingkieng

CHAPTER 02

The Meghalaya Basin Development Authority (MBDA)

Introduction

The Meghalaya Basin Development Authority (MBDA), established in 2012 and registered under the Societies Registration Act of 1860, focuses on utilizing natural resources and river basins to generate livelihood opportunities for rural communities and promote inclusive development. MBDA implements Natural Resource Management (NRM) initiatives and Forest Management and works to improve access to capital and high-value markets. Its primary mission is to alleviate poverty and enhance the quality of life through collaborative programmes and initiatives involving multilateral banks, grassroots-level stakeholders, government departments, organizations, civil societies, and traditional institutions, with efforts aimed at ensuring effective planning, good governance, appropriate and timely interventions, and adequate investment.

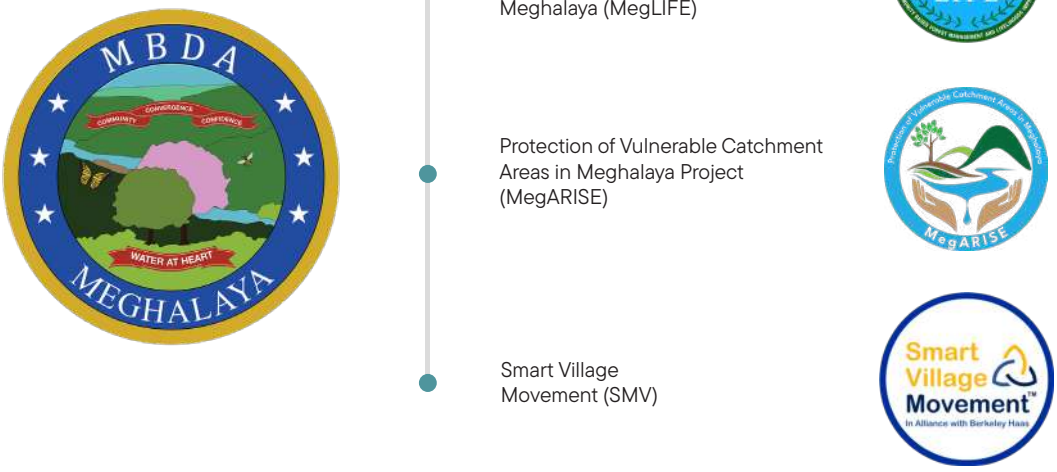
INSTITUTIONAL ARRANGEMENT

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

MBDA is implementing the following projects namely –

1. Project for Community-Based Forest Management and Livelihoods Improvement in Meghalaya **(MegLIFE)** funded by JICA
2. Protection of Vulnerable Catchment Areas in Meghalaya Project **(MegARISE)** funded by KfW Development Bank
3. Smart Village Movement **(SVM)***

*Work is also implemented through the Smart Village Movement (SVM), a project that aims to create a smart village ecosystem and focus on the 'open innovation' approach.



2.1 MegLIFE

(Project for Community-Based Forest Management and Livelihoods Improvement in Meghalaya)

Introduction

In 2017, Meghalaya's forest area covered around 76.4% of the state's total land (22,429 km²). However, between 2013 and 2017, the forests experienced degradation, with the area shrinking by 142 km² (about 1.2%) and the rate of Open Forests rising by 157 km² to nearly 42% (Indian State of Forest Report 2017). This deforestation and degradation have led to reduced timber and non-timber forest product yields, soil erosion, and river sedimentation, which have negatively impacted local livelihoods and access to water. To respond to this, the Project for Community-Based Forest Management and Livelihoods Improvement in Meghalaya (MegLIFE) was launched.

MegLIFE, funded by the Japan International Cooperation Agency (JICA), aims to restore and conserve village natural resources through sustainable forest management, livelihood enhancement, and institutional capacity building to contribute to environmental conservation, biodiversity protection, and socio-economic development across the state.

MegLIFE is being executed by the Meghalaya Basin Development Authority (MBDA). The Project is 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.

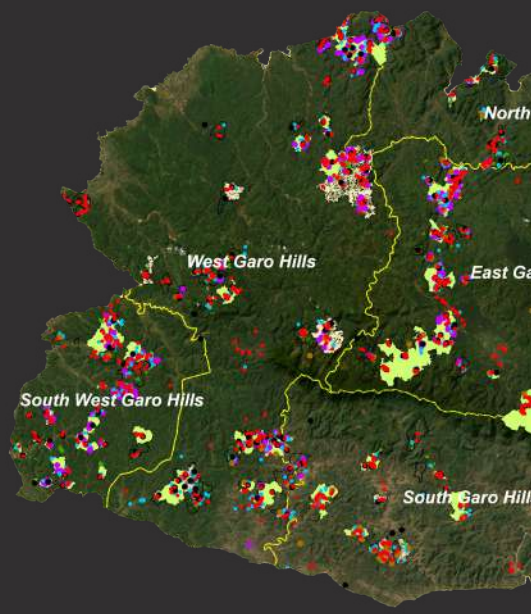
MegLIFE will contribute to achieving the objectives of North Eastern Region Vision 2020 which aims to alleviate poverty and emphasize inclusive sustainable development through sustainable community forest management, grassroots planning by adopting participatory development approach. The Project will also contribute to achieving the objective of "Green India Mission" under the National Action Plan on Climate Change. The interventions include rejuvenation of springs/water streams, restoration of the degraded community forests, promotion of livelihoods, etc.

MegLIFE- AT A GLANCE

Project for Community-Based Forest Management and Livelihoods Improvement in Meghalaya

ABOUT

The Community-based Forest Management and Livelihood Improvement in Meghalaya (MegLIFE) is a JICA (Japan International Cooperation Agency) assisted project implemented in the State of Meghalaya. The objective of the project is to restore and conserve natural resources within the villages by 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 in the State of Meghalaya. The project is being executed by the Meghalaya Basin Development Authority (MBDA).



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

TARGET AREAS

500 villages in **22** blocks across all 11 districts of the state will be covered under the project.

PROJECT PERIOD

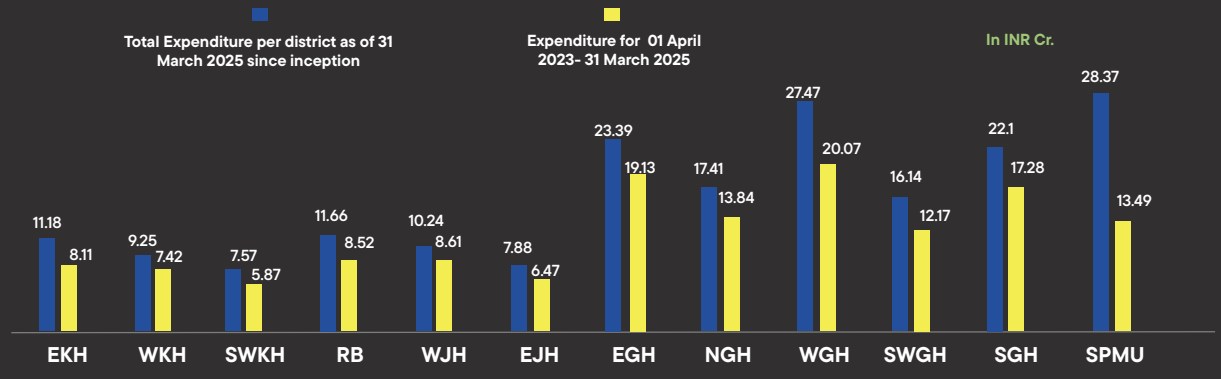
2020-2030

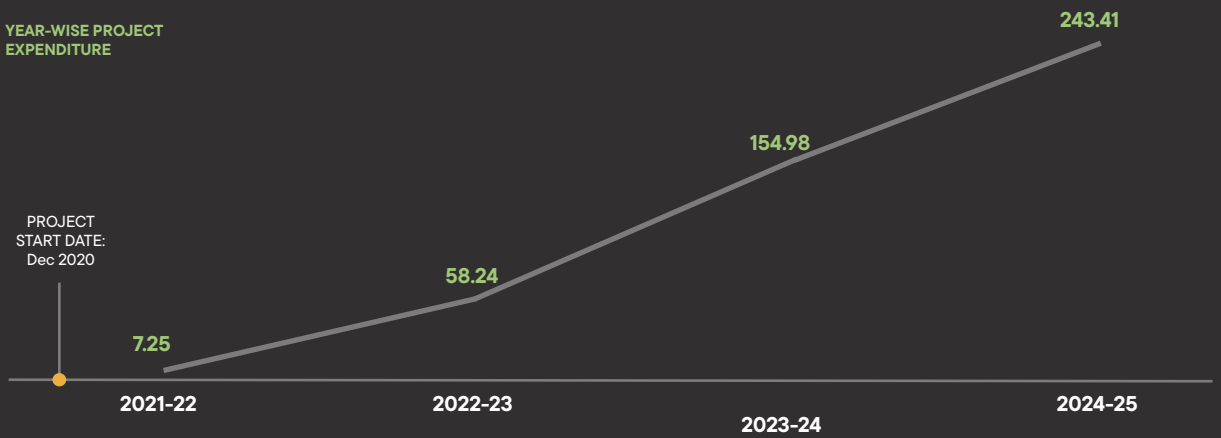
MegLIFE – Costs and Expenditure

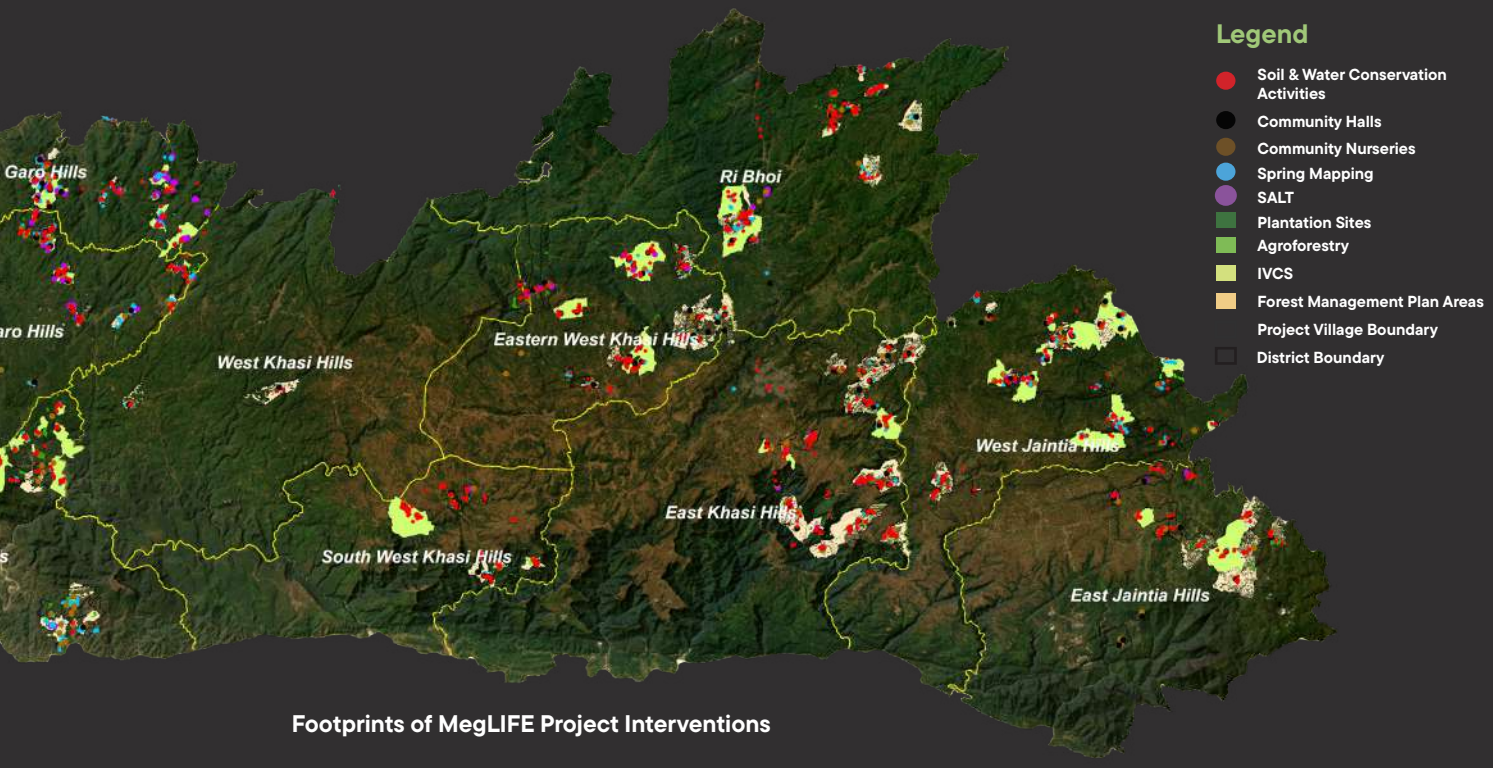
In INR Cr.

Total Project Costs	INR 838.18 Crore
Total Expenditure from 1 April 2023 to 31 March 2025	INR 174.25 Crore
Total Expenditure of JICA Loan from 1 April 2023 to 31 March 2025	INR 144.48 Crore
Cumulative Expenditure from Project Inception to 31 March 2025	INR 243.41 Crore
Cumulative Expenditure of JICA Loan from Project Inception to 31 March 2025	INR 172.78 Crore

District-Wise Costs and Expenditure







Footprints of MegLIFE Project Interventions

PROJECT COMPONENTS

1 Sustainable forest management

This component focuses on planning and implementing core forestry operations, including grassroots planning, forest working plans, nursery development, soil and water conservation, fire risk management, and critical infrastructure development.

2 Community development and livelihood improvement

Under this component, the Project promotes inclusive community development and improves livelihoods in selected villages. It involves women and youth in decision-making, introduces alternative income sources, and provides skill development, marketing, and financial support. External resource organizations and NGOs support these efforts.

3 Institutional strengthening

Institutional strengthening is a key part of project implementation. It includes developing necessary infrastructure, building the capacity of implementing and monitoring personnel, establishing a monitoring and evaluation system, and promoting the Project. All VPIC members and range officials receive training on the FWP planning process, basic forest management, and group administration to support their active participation.

MegLIFE – A Participatory Approach

Achievements 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 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)

Component-Wise Progress

Sustainable Forest Management

The component involves planning and executing core forestry operations, including grass-root planning, implementing forest working plans for individual units, developing and managing village-level nurseries through the Forests and Environment Department and Autonomous District Council, soil and water conservation, fire management in vulnerable areas, and developing critical forest management infrastructure.

Subcomponent 1 & 2: Achievements

Activities	Target	Achievement	%
(1) Participatory Land Use Planning			
Participatory Land Use Plan	500 plans	461	92%
(2) Restoration of Degraded Forest Areas			
Restoration of Degraded Forest Areas	22,500 ha	10,881 ha	48%
Restoration of Timber Resources (ANR with Enrichment Plantation)	1,600 ha	2,643 ha	165%
Restoration of Natural Vegetation (ANR)	7,700 ha	4,512 ha	59%
Afforestation on Barren Land (AR)	5,500 ha	2,470 ha	41%
Restoration of Shifting Cultivation Areas (ANR)	4,450 ha	1,242 ha	28%
Restoration of Degraded Lands due to Quarrying (ANR)	3,100 ha	14 ha	0.004%
Improvement of Corridors (ANR)	150 ha	Research for mapping functional corridors is ongoing based on recommendation interventions will be planned	

One of the key challenges faced by the project is the limited availability of community land for interventions, as most land is either privately owned or used for agriculture. To address this, the project has introduced agroforestry models that integrate tree plantations with existing shifting cultivation and Arecanut monocultures.

MegLIFE Agroforestry Models as below:

Model No	Species Mix			Cost in first 5yrs	Income in first 5 yrs	Net income
	Forestry sps	Horti sps	Agri sps			
I	Duabanga/ Burmese grape	Lemon/ Orange+ Litchi	Turmeric +Maize	1,31,859	6,70,000	5,38,141
II	Duabanga/ Champa/ Toona/ Gmelina	Lemon/ Orange+ Litchi	Turmeric +Maize	1,32,859	7,15,000	5,82,141
III	Duabanga/Agar	Lemon	Turmeric	1,30,831	2,93,000	1,62,169
IV	Teak	Lemon Moringa (periphery)	Ginger	1,57,107	7,04,250	5,47,143
V	Terminalia Chebula/jamun/B. grape/Agar/jalpoi	Lemon/ Orange+ Mango	Maize + Pineapple Moringa/C. tamala (periphery)	1,48,819	5,20,500	3,71,681
VI	Exbucklandia/ Toona Cinnamomum tamala (Periphery) Broom grass in the middle	Citrus sinensis/ C. jambhiri + psodium	-	1,18,383	3,75,774	2,57,391
VII	Gmelina arborea (on the periphery) Ramie in the middle	C sinensis/ C.Jambhiri	-	4,27,693	19,99,587	15,71,894
VIII	Toona ciliata, Michelia champaka	C sinensis/ C.Jambhiri	Turmeric (lakadong) Chilli	3,16,511	27,86,630	24,70,174
IX	Prunus ceratoides/ Toona ciliata/ Alnus nepalensis	C. sinensis/ Assam lemon/ prunus domestica	Turmeric + Maize	1,35,459	7,92,630	6,57,171
X	Alnus nepalensis	Orange	Potato	8,23,428	14,25,000	8,89,279
XI	Pinus kesia	Citronells	-	4,91,505	6,66,000	1,74.495
XII	Duabanga/ Chukrasia/ Gmelina	Areca nut (existing) & Black Pepper	-	93,796	3,85,425	2,91,629
XIII	Duabanga/ Chukrasia/ Gmelina + Agar	Areca nut (existing) & Pineapple	-	76,883	3,34,250	2.57,367
XIV	Duabanga/ Chukrasia/ Gmelina	Areca nut (existing) & Banana	-	79,223	5,69,600	4,90,377

Arenggittim's Green Revolution After Coal Mining

For decades, unscientific coal mining in Meghalaya has impacted its landscape, leaving nearly 20% of the land as barren wastelands and causing lasting harm to both the environment and local communities. Among the most affected areas is the village of Arenggittim in South Garo Hills District under Baghmara Block. Once thriving on the promise of coal, the village now contends with the aftermath— large swathes of land scarred by severe degradation with more than 50 hectares turned to barren land since mining was ceased by the country's National Green Tribunal in 2003.

With the end of mining, life for Arenggittim's 264 residents changed drastically. The Seelpang stream, once a steady lifeline, has now dwindled, its volume sharply reduced by the shifting landscape. Rogo Chiring, a spring revered by locals, now only flows seasonally, drying up during the months of February to June. This decline captures the deep effects of coal mining on the area's hydrology and the challenges now facing the community.

As erosion deepens, siltation has filled nearby streams and springs, compromising drinking water and impacting the water quality downstream in the Simsang River, now marred by coal sediments. The combination of barren landscapes and eroded lands presents a stark environmental challenge for Arenggittim. Lacking vegetation, the land has seen biodiversity dwindle, habitats degrade, and water sources diminish, amplifying water scarcity and ecological instability.

Amid these trials, hope has emerged through the MegLIFE project in collaboration with the Megh Aroma Mission. Together, they have rejuvenated 14 hectares of degraded mining land by transforming it into a flourishing Citronella plantation, planting over 700,000 slips. Once bare, the soil is now shielded, supporting soil organisms and reducing erosion. Additionally, a large-scale afforestation effort—with 400 saplings planted per hectare across 36.92 hectares—promises to bolster the region's biodiversity. This project has achieved an impressive 95% survival rate, inspiring the community and renewing ecological balance.

Further adopting sustainable practices, farmers in Arenggittim have turned to SALT farming to restore groundwater and conserve soil. Equipped with training, they've implemented contour lines using the A-frame method and introduced nitrogen-fixing plants like Tephrosia and Indigofera along these lines. Through zero tillage, this approach has boosted soil moisture retention and minimised runoff, conserving soil and water for the future.

Ultimately, ambitious EAP projects show how even the most remote areas can be revitalised. By uniting the community under a shared goal, these initiatives have made strides toward a future of sustainable forest management, environmental restoration, and renewed livelihoods for the people of Arenggittim.

Subcomponent 3, 4 & 5: Achievements

Activities	Target	Achievement
(3) Forestry Nursery		
Creation of Permanent Nurseries	8 nurseries	•**6 Nurseries** established in convergence with Soil & Water Conservation Dept. (SWCD) •**7th & 8th** established in convergence with Khasi and Jaintia Hills ADCs.
Improvement of Existing Nurseries	15 nurseries	•**3 existing Hi-tech orchid Nurseries improved** •**3 Agar Nurseries under process**
Creation of Community Nurseries	54 nurseries	**458 VPICs** raised community nurseries
(4) Conservation of Forests in Good Conditions		
Constitution of Community Reserve	50 Reserves	**5,952 ha** covered under PES; **20** Villages under process for registration as Community Reserve;
Preparation of Working Schemes	3 Schemes	Forest Management Plans completed for 100 villages and under preparation for 100 Villages
(5) Forest Research		
Forest Research	2 research	Completed

Forestry Nurseries: Bridging the Gap Between Demand and Supply of Plantation Material

Decentralized and managed by local communities, forestry nurseries have played a key role in generating livelihood opportunities while addressing the demand for plantation material. A total of 458 community nurseries have been established, raising 25 lakh saplings from 4452 beds with a survival rate of 86%. These saplings have supplemented plantation requirements across 8,688 hectares of afforested sites. In addition, Self-Help Groups (SHGs) and Village Project Implementation Committees (VPICs) have generated additional income from the sale of saplings, strengthening local economic resilience.

Forest nurseries are crucial for both environmental restoration and community empowerment, especially in regions facing challenges such as deforestation, land degradation, and biodiversity loss. In the MegLIFE project, over 417 community-managed nurseries have been established, raising 28 lakh saplings across 3,316 beds with a survival rate of 86%. These nurseries play an essential role in large-scale afforestation efforts, helping to restore ecosystems, conserve water, and mitigate the effects of climate change.

Seeds of Change: Laitmynsang's Women Leading Environmental and Economic Revival

Laitmynsang's Village Project Implementation Committee (VPIC) shines as a symbol of progress, championing a bold, women-led vision that is reshaping the path toward environmental sustainability. Being one of 500 villages supported under a large JiCA funded project in the state - MegLIFE, Laitmynsang has chosen to entrust its reforestation efforts to women-owned Self-Help Groups (SHGs), allowing them to take charge of the village's environmental stewardship.

The SHGs have turned a simple community nursery into a thriving hub of activity. From planting saplings to tending them with care, these women manage every step of the process. Their dedication is not only reflected in the lush greenery they nurture but also in their entrepreneurial spirit. By controlling the nursery, they've unlocked new streams of income—selling saplings at affordable rates to both the project implementation committee and other surrounding villages. Over 6,000 saplings were sold at ₹2 each, while higher-value saplings fetched ₹15, boosting the SHGs' financial independence.

But the true brilliance of Laitmynsang lies in the way these women have reinvested their earnings. The funds they generate go back into the nursery, ensuring its long-term growth. A revolving fund set up through the project implementation committee has enabled them to maintain the nursery, procure new saplings, and cover labour costs, creating a self-sustaining cycle of growth.

This success story is more than just about reforestation; it is about empowerment. The women of Laitmynsang are leading their community toward a future of resilience and sustainability. They're not only restoring the environment—they're redefining what it means to be leaders in their village. Through their efforts, Laitmynsang has become a model of how women's leadership can drive both ecological and economic transformation.

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Soil & Water Conservation for Sustainable Forest Management

Meghalaya has extremely erosive soil and experiences intensive rainfall. Soil erosion is one of the major contributing factors to forest degradation and sediment disasters in streams and rivers. Therefore, intensive countermeasures for soil and water conservation are necessary and being taken up alongside the sustainable forest management activities in the Project.

Progress

To prevent soil erosion and water runoff, the project has implemented Half Moon Terracing on 2,683 hectares of plantation areas. Additionally, 1,423 hectares of agroforestry land are being treated using the SALT (Sloping Agricultural Land Technology) approach, which incorporates nitrogen-fixing hedgerows and aroma grasses to maintain soil stability. Water conservation efforts include the construction of rainwater harvesting structures in 477 community halls, each with a storage capacity of 20,000 liters. Other measures include the development of conservation ponds, spring-tapped chambers, and drinking water tanks to ensure long-term water availability for local communities

Other SWC Structures completed:

SWC Structure	Project Target	Achievement	%
RCC Water Tank	500	165	33%
Spring Tapped Chamber	500	202	40%
Drinking Water Tanks	500	485	49%
Minor Irrigation Check dams	500	226	45%
Dugout Pond	500	392	78%
Conservation pond for Pisiculture	500	287	57%
Vented Check dam	364	16	4%*

*Implementation began in January 2025

Sloping Agricultural Land Technology (SALT)

In Meghalaya, abundant rainfall—averaging around 11,500 mm each year—has nurtured a land of rich biodiversity, yet it also brings a formidable challenge. High rainfall contributes to significant soil erosion and nutrient depletion, especially on hillsides where farming is not carefully managed. Traditional practices like Jhum agriculture, with its shortened fallow periods and repeated cycles, along with the widespread monocropping across the region, further strain the soil, leading to reduced fertility, declining crop yields, and growing threats to both food security and livelihoods. While farmers have tried to control waterlogging by constructing bunds along slopes, these efforts can inadvertently accelerate land degradation, causing some fields to be abandoned altogether. In response to these difficulties, a movement toward sustainable farming is taking root in Meghalaya. Increasingly, farmers are embracing Sloping Agricultural Land Technology (SALT) first adopted under CLLMP project, a conservation method designed to combat soil erosion and boost fertility.

Progress is as below:

Farmers Trained	1260
Staff Trained	152
No of Active Farmers	1103
Villages under SALT	326
Area under SALT (ha)	250

Springshed Management under MegLIFE

Despite being one of the wettest regions on Earth, Meghalaya experiences severe water shortages during the dry season. Due to its hilly terrain, the state lacks substantial natural surface water storage, making springs the primary source of water for households, drinking, and irrigation. Project assessments indicate that over 54% of springs have either dried up or experienced a significant decline in water discharge in recent years. Furthermore, the state faces a shortage of trained and skilled personnel capable of developing comprehensive plans for Springshed Development. Additionally, the absence of baseline data on water sources presented a challenge in assessing changes in water quantity and quality over time. Furthermore, identifying sustainable water sources for future initiatives in the water sector proved difficult due to the lack of an accurate census and precise location data for water sources, particularly springs.

To address these challenges, MBDA is currently implementing the Springshed Development & Management Program, through the MegLIFE project. The initiative covers 500 villages across 29 Blocks in the state. As part of the project, 1,764 critical springs have been identified and mapped. The mapping process involved documenting key details such as geographical location, ownership status, catchment area condition, physical water quality parameters, and flow rate. The identified springs have been classified into two categories: priority and non-priority. Priority springs are those experiencing significant decline in discharge over time, despite increasing dependency on them. These springs are subject to regular monitoring, with priority springs being assessed monthly, while non-priority springs are monitored on a quarterly basis.

The project has engaged the services of four expert agencies viz., CHIRAG, ACWADAM, PSI, and PRASARI, which specialize in spring rejuvenation and springshed development, particularly in the Indian Himalayan Region. In addition to providing technical support, these organizations are actively involved in developing 250 Springshed Treatment Plans (STPs) across 250 project villages. They also focus on training state resource personnel and enhancing their capacity to independently develop STPs, equipping them to become Master Trainers who will lead the program in the future.

The capacity-building efforts include hands-on training for Master Trainers, encompassing field surveys and community engagement. These field surveys typically span two days. On the first day, activities include spring inventorization, identification of critical springs, focused group discussions, and community consultations to ensure awareness, participation, and consensus. The second day involves a detailed hydrogeological survey, assessing key factors such as slope profile, rock alignment, land use patterns, and existing vegetation. The collected data is then compiled, plotted, and analyzed to identify the potential recharge area of the critical spring. Based on this analysis, appropriate recharge measures are proposed to support spring rejuvenation while ensuring the treatment and conservation of the recharge area.

Under the project, a total of 500 Springshed Treatment Plans are being developed, with 82 STPs currently under implementation. These include 291 interventions, such as plantation activities and recharge measures like check dams, roof rainwater recharge pits, contour trenches, percolation pits, deep recharge pits, dugout ponds, and percolation ponds. The proposed interventions focus on catchment area treatment through conservation measures while promoting the rejuvenation of drying springs through recharge initiatives. Additionally, the project aims to generate livelihood opportunities through implementation of the various activities. As the project is still in its first year of implementation, sufficient data is not yet available to comprehensively assess its progress. However, after one year of execution, the initiative is expected to enhance water availability for daily household needs, domestic use, and agricultural purposes.

Status

01	82 Springshed Treatment Plans (STPs) currently under implementation
02	Interventions implemented 1. Staggered contour Trench 2. Percolation Pit 3. Percolation Pond 4. Roof Rainwater Recharge Pit 5. Deep Recharge Pit 6. Bio Fencing

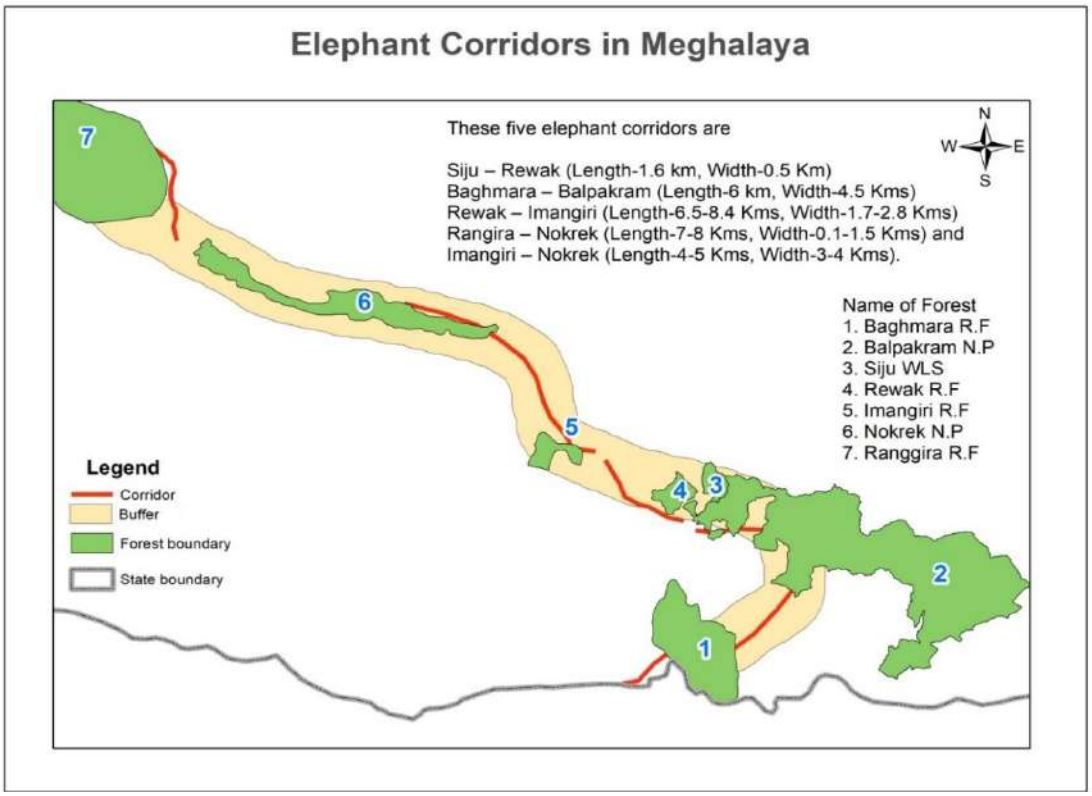
Research Study on: Understanding the landscape-level corridor connectivity of Asian elephants in Meghalaya

The MegLIFE project is supporting the first-ever mapping of elephant corridors in Meghalaya, including genetic assessments to identify residential and non-residential elephant populations. This initiative aims to improve protection measures and reduce human-animal conflict.

A key research component focuses on elephant corridor connectivity in Meghalaya. In collaboration with MBDA, the Forests and Environment Department, and Aaranyak, the project has conducted ecological and genetic assessments of three major corridors in Garo Hills—Rangira-Nokrek, Siju-Rewak, and Baghmara-Balpakram. The findings are expected to enhance conservation efforts for the region's elephant population by informing targeted protection strategies and improving habitat connectivity.

Result of the Study:

- 102 different plant species (including trees, shrubs, herbs, and climbers) were observed during the field survey of the corridors.
- In the Garo Hills, 73 elephant crossing points were identified across five surveyed corridors. Of these, 59 are active, 4 are reduced, and 10 are impaired.
- The Rangira-Nokrek corridor has the highest number of elephant crossing points,
- In the Baghmara-Balpakram corridor, all crossing points are active.
- The Siju-Rewak corridor has 60% natural habitat
- The Rewak-Imangre corridor has all impaired crossing points due to habitat transformation into plantation lands.
- There are nine crossing points in Nokrek-Imangre corridor, of which five crossing points are active while two are reduced and two are impaired.
- A total of 100 structured questionnaire interviews were conducted across the five elephant corridors visited, capturing diverse perspectives on elephant corridors, their conservation, and the overall benefits and dependence of people on forests.
- Total of 91 elephant dung samples were collected during field visits in Garo Hills, including the surrounding populations and 3 out of the five corridors under investigation.
- Total of 39 unique multilocus microsatellite genotypes were identified, indicating that the 63 dung samples belong to 39 individual elephants.
- A moderate to high level of genetic diversity was observed in the elephants of the study area.
- Genotype data indicate two elephant populations in the study area, one is the North population, and the other is the South population.

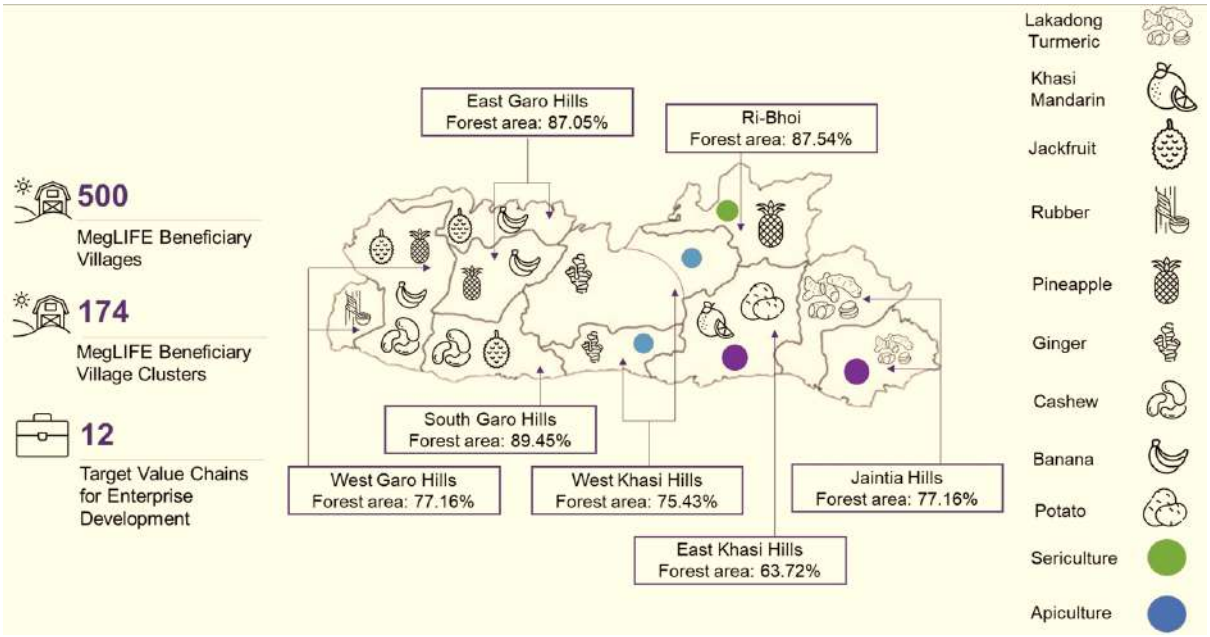


Community Development and Livelihood Improvement

Under this component, the Project aims at promoting inclusive community development and improving the livelihoods of people in selected villages. To achieve these objectives, the Project have actively involved women and youths in the Project, who have often been excluded from the decision-making processes of existing traditional community institutions, as well as introducing alternative income sources to people in selected villages and providing them with skill development, marketing, and financial supports. The Project has also engaged external resource organizations or NGOs to promote inclusive community development and income generation activities.

Progress

Activities	Target	Achievement	%
(1) Community Mobilization and Gender Sensitization			
Community mobilization workshops	1,500 times	600 organized	40%
Formulation of Village Project Implementation Committee (VPICs)	500 committees	500 formed	100%
Micro Plan	500 plans	461 plans prepared & Approved	92%
(2) Entry Point Activities			
Entry Point Activities	500 villages	• Community Hall Construction ongoing 447 villages • Culverts in 2 villages; solar street light in 2 villages, Learning Centre in 1 Village	89%
(3) SHGs Activities			
SHGs to be supported	1,000 SHGs	• 75 IVCS registered, out of 1000 SHGs 663 SHGs prepared business plans and selected for providing loan from Revolving Fund	84%
Enterprises to be established	22 enterprises	• 75 Enterprises selected for development	
(4) Soil and Water Conservation for Livelihood Improvement			
Construction of Rainwater Harvesting Structure	250 units	To be constructed along with Community Halls	



Current Status of Livelihoods Improvement

The livelihood improvement efforts under Component 3 of the MegLIFE Project focus on enhancing economic opportunities for local communities while promoting sustainable resource management. A key initiative has been the strengthening of Integrated Village Cooperative Societies (IVCS), which facilitate community-based economic activities and skill development. The project has also identified value chains to improve market access for forest and agro-based products.

SHG Formed/Adopted	IVCS Registered
842	75

Under the MegLIFE project, livelihood improvement is a core pillar aimed at enhancing the socio-economic well-being of rural communities through sustainable, community-driven enterprise development. To achieve this, till date 75 Integrated Village Cooperative Societies (IVCS) have been established and formally registered with Cooperation Department. These IVCS will provide a structured platform for communities to access affordable credit, mobilize savings, and engage in viable income-generating activities such as agri-allied enterprises, livestock rearing, forest-based value chains, and micro-enterprises. Through capacity building, access to markets, and linkages with government schemes and financial institutions, the IVCS are not only strengthening local livelihoods but also empowering communities to take charge of their economic endeavour.

MegLife being a project focussed on forest management project, simultaneously promoting inclusive and sustainable livelihood models, the IVCS play a pivotal role in reducing dependency on forests, thereby complementing the project's conservation goals. This integrated approach ensures that economic development goes hand in hand with ecological sustainability and institutional resilience.

Institutional Strengthening

The Institutional Strengthening component focuses on improving the capacity of implementing agencies by addressing gaps through assessments, reforms, and targeted training. It includes providing equipment, hardware, and software, offering professional support, developing and implementing social and environmental frameworks, and enhancing knowledge management and communication. Progress is as follows:

Activities	Remarks
Capacity Development	• **TNA completed** • **10,500 persons trained** in VPIC Management, PLUP & Microplanning, Community Nursery, Plantations, Record Maintenance, IVCS, FMP, Springshed etc.
Monitoring & Evaluation	• LULC mapping (1:10,000) completed for **500** Project Villages • CartoSAT Satellite imageries of Khasi/Jaintia/Garo regions procured, NESAC is preparing LULC maps for entire state • Project MIS developed (https://mis.meglife.in) • **Baseline survey of 100 Project Villages** completed
Infrastructure & Mobility	• PCs and software/printers/projectors etc. procured for all SPMU/DPMU/BPMU • Vehicles procured for SPMU/DPMU/BPMU
PR & Publicity	• Brochure/Quarterly Newsletter/ Flyers published • Project Website development completed (https://meglife.in)
PMU Establishment	• Offices of SPMU/DPMU/BPMU established • 4 NGOs contract completed/ direct recruitment under process • PMC out of **212.88 MM** utilized out of 523 MM

Convergence under MegLIFE

Convergence under the MegLIFE Project focuses on integrating resources, expertise, and funding from multiple government and non-government initiatives to enhance sustainable forest management, water conservation, and livelihoods improvement. One of the key areas of convergence is in Springshed Management, where MegLIFE collaborates with various agencies to rejuvenate critical water sources.

The project also aligns with the Megh Aroma Mission, which has provided over 7 lakh Citronella saplings for plantation in degraded areas, particularly in lands affected by coal mining. Additionally, MegLIFE works closely with the Forests and Environment Department, MBDA, and Aaranyak on elephant corridor conservation, conducting genetic and geospatial assessments to ensure habitat connectivity.

Another significant area of convergence is the carbon credit initiative with ACORN, where MegLIFE plantation areas are registered for Carbon Removal Units (CRUs), with 80% of the revenue directly benefiting the community. Institutional collaboration also plays a key role in livelihood enhancement, with integrated village cooperative societies (IVCS) being strengthened through partnerships with financial and training institutions.

Overview

Activity	Remarks
Integrated Village Cooperative Societies	• **Community owned and managed cooperative societies** with support of **Cooperative Department** and the IFAD supported **Megha-LAMP** project • Technical support, value chain development and market linkage support from the state government via **Agriculture Department**
SALT	• First phase of implementation involving training of 1800+ farmers and seed grant support being provided via convergence with the World Bank funded **CLLMP**
Springshed Management	• **Multi-departmental coordination under the MSCCC&SD** headed by **Hon'ble Chief Minister**
Aroma Mission	• 14 hectares mine spoilt areas treated in convergence with **State Aroma Mission** • More than 1,00,000 saplings provided by the Mission • Area being expanded

Nurseries	•	Collaboration with **Forest Dept., Soil and Water Conservation Dept.** and District **Councils (KHADC and JHADC)** • Hi Tech nurseries and Agar nurseries being created in convergence with F**orest Department**
Elephant Corridor	•	Being done through a collaboration between MBDA, **Forest Dept.** and **Aaranyak**
Carbon Financing	•	Implemented in collaboration with **Rabobank's Acorn platform** and I**ora Ecological Solutions** • More than **1,340 Hectares** already onboarded
Payment for Eco-system Services	•	Payment being given through **CLLMP** project
Forest Management Plan	•	Piloted under the **CLLMP** project • Now being implemented in MegLIFE in convergence with the **Centre of Excellence for Natural Resource Management and Sustainable Livelihoods**

Forest Management Plans

Forests not only provide essential resources but also serve as vital carbon sinks. The project aims to bring community and private forests in the state under scientific management while promoting sustainable livelihood opportunities. Key areas of focus include forest demarcation, improving fire control, afforestation and reforestation, establishing food forest nurseries, and implementing soil and water conservation measures.

Outputs:

Forest Management Plans (FMP) are being prepared for all MegLIFE villages, with 100 FMPs already in progress. These will eventually be converted into Working Schemes to ensure long-term forest sustainability.

Forest conservation and restoration in Meghalaya towards a sustainable Green Economy

A collaboration between MBDA, IORA, and Acorn-Rabobank is supporting forest plantations across Meghalaya, covering 50,000 hectares of existing plantations (2019–2023) and 100,000 hectares of new plantations. All MegLIFE plantation areas will be registered with ACORN for carbon credits, with Carbon Removal Unit (CRU) tokens issued for each registered plantation area.

Of the total revenue generated, 80% will be directly shared with the community. In cases where Acorn provides the initial investment, 50% of the revenue will be shared with the community. Currently, 1,340 hectares have been onboarded, 853 hectares are in process, and 264 beneficiaries have been onboarded, with 118 more in process.

Livelihood under the MegLIFE Project

The livelihood enhancement initiatives under Component 3 of the MegLIFE Project aim to improve economic opportunities for local communities while ensuring sustainable resource management. A key strategy involves strengthening Integrated Village Cooperative Societies (IVCS), which serve as platforms for community-driven economic activities and skill development.

Beyond agri-based livelihoods, the project also extends its support to on-farm produce, ensuring a diverse and resilient economic foundation for communities. To sustain IVCS, the project integrates Self-Help Groups (SHGs), establishing new ones where needed based on a community livelihood cluster approach. By aligning with the specific agricultural, on-farm, and forest-based produce that thrives in each cluster, the project aims to build a robust and sustainable supply chain for livelihood activities. Strengthening the linkages between SHGs and IVCS will further reinforce the value chain, improving market access and fostering long-term economic resilience.

Approach:

Long-term Vision: Community-Driven Cooperatives – A Strategic Shift Toward Sustainable Livelihoods

The MegLIFE Project envisions a transformative approach to rural livelihoods by promoting community-driven cooperatives as a pathway to long-term sustainability. While traditional SHG-based models—such as those successfully demonstrated under DAY-NRLM—have laid a strong foundation for social mobilization and empowerment, this evolved model takes a step further by embedding a business-oriented mindset within the cooperative structure.

These cooperatives not only uphold the values of community engagement and exclusivity but also emphasize strategic planning, enterprise management, and economic foresight. This integrated approach allows communities to engage in livelihood activities with more precision, sustainability, and entrepreneurial confidence.

To operationalize this vision, the project adopts a Hub-and-Spoke model as a key strategy for community empowerment. As engagement deepens and key activities are identified at the grassroots level, attention is given to nurturing specific entrepreneurial skills or sectors with high potential. Select IVCS (Integrated Village Cooperative Societies) demonstrating strong business acumen and leadership in a particular product or sector are supported to evolve into Hubs—centers of excellence that embody the success of our approach.

Integrated Village Cooperative Societies (IVCS)

IVCS are designed to be professionally-run, member-based and self-sustaining cooperative institutions, registered under the Meghalaya State Co-operative Societies [MSCS] Act, 2015. IVCS will be a community-based organisation which would primarily carry out thrift and credit activities as also other financial services to its members. It would also engage in other activities, like selling inputs and other essential requirements, marketing of outputs produced by members, etc., for the benefit of its members. The broad range of services to be provided by the IVCS shall include, but not limited to:

1. Providing access to financial services, especially savings and credit, to its members;
2. Selling inputs, other essential requirements, etc., to both members and non-members;
3. Engaging in aggregation of crops/ products of members with a view to marketing the same advantageously to improve price realization [and if necessary, to engage in processing activities as well];
4. Acting as a service provider for different entities that would like to reach the village households through the medium of the IVCS for variety of objectives such as marketing of products, as well as function as service agency of other financial and non-financial bodies;

5. Acting as a service provider for NGOs, Government and / or other entities that might choose to operate through the IVCS for delivery of their technical and non-technical services;
6. Helping the village community and households to receive, handle and account for money received under different programmes, viz., NRLM, MGNREGS, watershed, forestry, etc.

Profile

The IVCS are formally recognized as Primary Agricultural Credit Society (PACS) vide Government of Meghalaya, Cooperation Department Notification No.COD.12/2015/69 dated Shillong, the 2nd February, 2021.
IVCS will be a legal entity registered under the MSCS Act, 2015. The area of operation of the IVCS shall be a village or a group of adjoining villages. IVCS will be governed by the bye-laws to be framed for the purpose under the tenets of MSCS Act, 2015. IVCS shall be a member-owned cooperative institution which would be run professionally. While the dividend pay-out on shares held by members will be kept to minimum, all members of the IVCS will be entitled to patronage-based rewards which will be in direct proportion to either their weighted average savings and/ or loans and/ or business volumes with the IVCS.

Who can become a member of IVCS?

a. Membership in an IVCS will be open to anyone above the age of 18 and lives in the village(s) covered by the IVCS.
b. A maximum of 2 (two) individuals from each household can become members of the IVCS.
c. While mobilising membership it has to be ensured that minimum 50% of them are women.
d. The following categories may also be encouraged to become members –
    i. Members of Self-Help Groups, Producer Groups;
    ii. Entrepreneurs engaged in existing businesses;
    iii. Other community-based institutions

Currently the IVCS have come up with a Business Plan which ranges from various activities that include Potato aggregation, Piggery Breeding, Black Pepper aggregation and Apple Cashew Wine making to many more. WIth such business plan, IVCS are proposing that these activities be funded either from institutional institutions or any program that can support the same.

While the Business Plan needs funding these Societies capacity needs to be built at the same time. From all of these Business plans IVCS and SHG are being trained according to their Business plan requirement. Partnering with other institutes and projects available in the state can be collaborated for the same.

Self Help Groups under MegLife

Under the project a total of 1000 SHGs is mandated for taking up IGAs under the livelihood component. These SHGs are either adopted from the existing SHGs under NRLM or newly established. With common intention our community are made of SHG which inturn support the sustainability of the Societies by having these group support this chain. To welcome these SHGs acros the state the project will conduct a gradation process with the community using the criteria following the principle of 'Panchasutras'. As on date, a total 878 SHGs graded under 'A' and 'B' have been engaged in the project for the Livelihood component. 642 SHGs have been sanctioned with the revolving fund amounting to INR 1,00,000 each.

With the Same approach these IVCS, SHG and community member are the learning on different training which are going to be their business plan.

The Project has received numerous Business Plan ranging from Livestock business such as Piggery, Poultry gaotary and not limited to this but you can get Honey, Fish farming to all the way as unique as Wine making and Pickle making. While looking at agriculture produce we can see vegetable farming to Ginger, Turmeric and Wild Corriendar, this list will keep on going.

Scope of Livelihood Intervention

With 75 IVCS established and already engaged in Income Generating Activities, the project is supporting the institution becoming the points of convergence. Table below shows the detailed block wise distribution of IVCS under the project.

Income generating activities can be looked at as a canvas in which the project is trying to explore from what are the existing activities across the state. The project will try to explore opportunities and identify future ventures which can contribute additional income for the community.

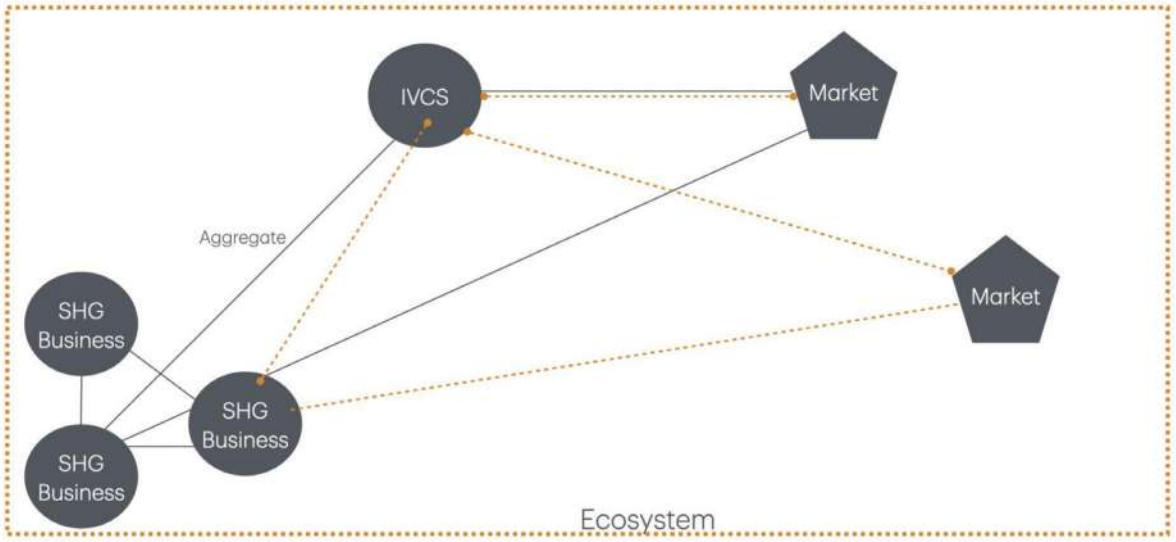
Strengthening the existing and explore alternatives based on community demands inline with markets driven. The current status of IGA activities, Include Mobilisation and formation of Institutions, capacity building of institutions with relation to basic management and operation and also support on Business Plan preparation.

But what is that approach ?

The community need to move from a single /solo business mindset to being a part of the Chain. The entire business that our community is driven by demand and supply which in this entire chain being a part of that ecosystem and empowering the ecosystem will eventually help the over all development growth of the community. The project approach would be for a more susatinble and long term approach making sure that community business capacity at individual level are supported and vis-a-vis marketing linkage and over all ecosystem elastic needs to be supported by bring in partner from across the sectors.
MBDA with that experience work closely with different line Departmnet and among different project of the state to make sure such convergence and leveraging efforts can contribute for the same.

One such convergence that the project has just initiated is SELCO Foundation support on livelihood ecosystem support. SELCO Foundation, aims to strengthen the livelihoods of Self-Help Groups (SHGs) in the Ri-Bhoi and East Khasi Hills districts by promoting sustainable and collective livelihood practices. As part of this initiative, SELCO Foundation has organized exposure visits to introduce SHG members to successful collective livelihood models. Ri-Bhoi and East Khasi Hills have been selected for the pilot phase to evaluate the impact and effectiveness of these visits.

Under this initiative, SHGs within the MegLIFE project have been identified based on the Five Panchasutra principles and are required to develop business plans for their chosen activities.



Selected SHGs and Proposed Interventions

Based on the assessment, the following SHGs have been selected to participate in the exposure visits:

- Kyntiewlang SHG, Pashang (10 members) – Engaged in potato, cabbage, broom grass, and millet farming.
  - » Proposed intervention: Millet processing unit
- Lamlynti SHG, Pashang (12 members) – Focused on potato, cabbage, broom grass, and millet farming.
  - » Proposed intervention: Millet processing unit
- Iatyllilang SHG, Laitmynsang (10 members) – Specializing in potato, cabbage, broom grass, and millet farming.
  - » Proposed intervention: Millet processing unit
- Iengskhem SHG, Laitdiengsai (8 members) – Engaged in potato, cabbage, and mushroom cultivation.
  - » Proposed intervention: Mushroom processing unit

Assessment Findings and Capacity-Building Needs

The assessment revealed that all SHG members are actively engaged in farming, primarily cultivating potatoes, cabbage, broom grass, millet, and mushrooms. However, they currently operate individually, selling their produce in isolation at local markets.

Additionally, they have limited exposure to advanced livelihood enhancement strategies and require substantial capacity-building efforts before technology interventions can be effectively introduced.

Exposure Visit to Bangaluru on Millet:

The exposure visit to SELCO Foundation in Bengaluru on March 17–18, 2025, provided SHG members from Kyntiewlang SHG (Pashang), Lamlynti SHG (Pashang), and Iatyllilang SHG (Laitmynsang) with valuable insights into millet production, solar-powered food processing, and sustainable agricultural practices. Participants learned about drought-resistant millet farming, papad and biscuit making using solar-powered machines, and the economic potential of millet-based products.

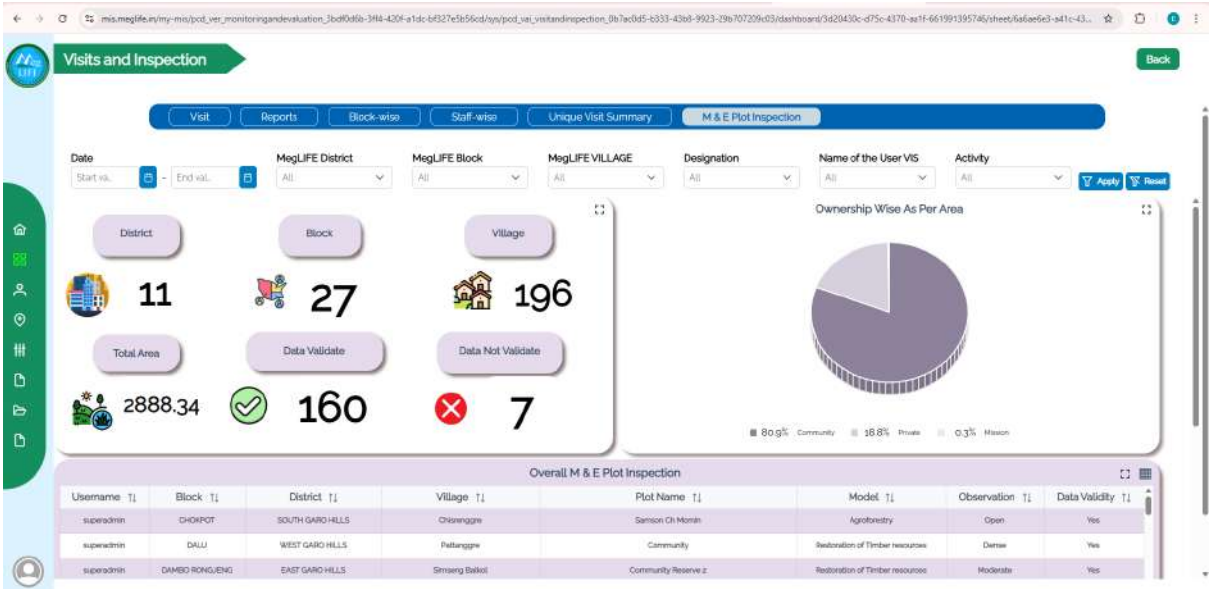
Key discussions focused on the feasibility of solar-powered processing units, market linkages, and collaboration among SHGs to enhance productivity and profitability. The visit highlighted SELCO's role in promoting sustainable energy solutions, reducing costs, and empowering small- scale farmers. Recommendations included implementing solar-powered processing units, capacity building, and expanding solar solutions for irrigation and storage. The experience reinforced the importance of integrating solar energy into agriculture, paving the way for self-reliant, market-driven enterprises that ensure economic resilience and environmental sustainability.

2nd Group: The exposure visit to Baksa, Assam (March 16–18, 2025), provided SHG members from Kyntiewlang SHG (Pashang), Lamlynti SHG (Pashang), and Iatyllilang SHG (Laitmynsang) with hands-on training in mushroom cultivation, poultry farming, silk production, and solar- powered agricultural processing. Organized in collaboration with SANJOG and SELCO, the visit showcased successful rural enterprises across five villages. Participants learned advanced techniques in mushroom farming and value addition in Barjar, organic king chili cultivation in Agsia, solar-powered poultry farming in Hatirtari, silkworm rearing in Dihira, and solar-powered grain processing in Debachara. The visit emphasized sustainable farming practices, renewable energyintegration, and market-driven production. Key takeaways included the potential for SHGs to adopt mushroom and silk production, implement organic farming, leverage solar-powered solutions, and strengthen market linkages. By applying these insights, SHGs can enhance income opportunities, improve productivity, and build self-sustaining rural enterprises.

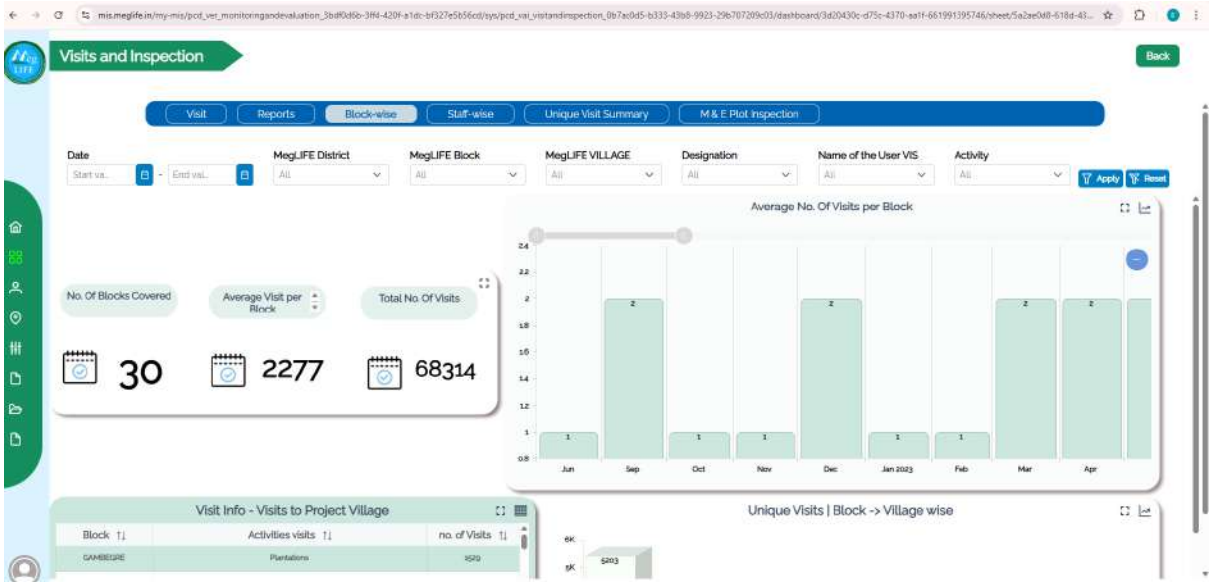
Digital Monitoring and MIS System

The MegLIFE MIS platform (https://mis.meglife.in) is being used for real-time data collection and project monitoring. Field staff have been provided with tablets for offline data entry, ensuring smooth reporting from grassroots levels. The system enables web-based monitoring from block-level offices to state-level agencies, with weekly reviews conducted to maintain data accuracy. The MIS dashboards track multiple project aspects, including plantations, SWC works, capacity building, social inclusion, and community procurement.

MegLIFE MIS System Features



Feature	Description
Data Collection	Tablet-based offline data entry for field staff
Monitoring	Web-based real-time project tracking from block level to state level
Weekly Review	Conducted at SPMU to ensure data integrity
Dashboards Track	Plantations, SWC works, SALT progress, springshed management, social inclusion, community procurement



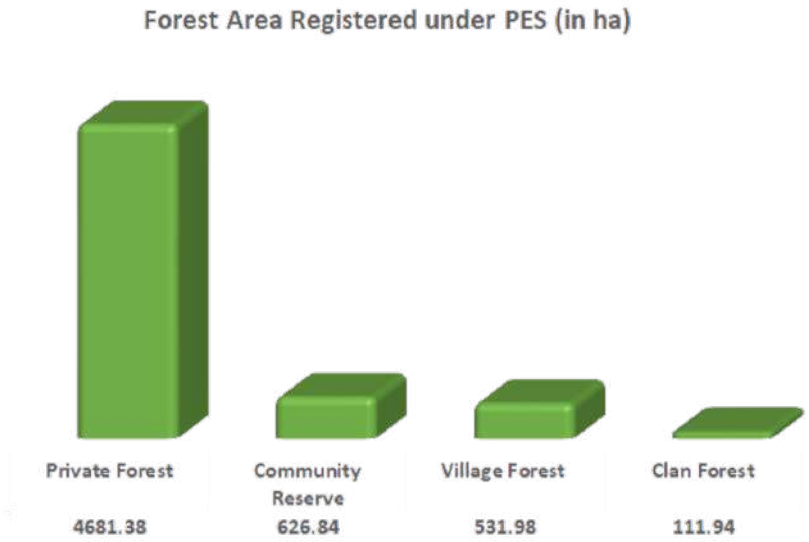
Payments for Ecosystem Services (PES)

The PES initiatied by CLLMP has since 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 incentivize those who have been proactively protecting natural forest.

Why PES for MegLIFE?

Supporting forests in good condition is one of the aims under MegLIFE Project, making Payment for Ecosystem Services (PES) an ideal mechanism for sustaining these efforts. Meghalaya's PES model is similar to Japan's, with adjustments to fit local economic conditions. PES is particularly suited for sustaining Group 2 villages, which are designed as model villages.
Over 5,900 hectares of MegLIFE forests are already covered under PES, supported by the now-closed World Bank-funded CLLMP project. These areas will need continued support in the coming years. Robust implementation and monitoring mechanisms are already in place, ensuring long-term commitment to forest conservation for at least 30 years. The system benefits from the full backing of the state government, strengthening its foundation for long-term success.

MegLIFE Forests are already part of PES with 5952 ha of forests under 379 MegLIFE villages registered.



New Activities Going Forward

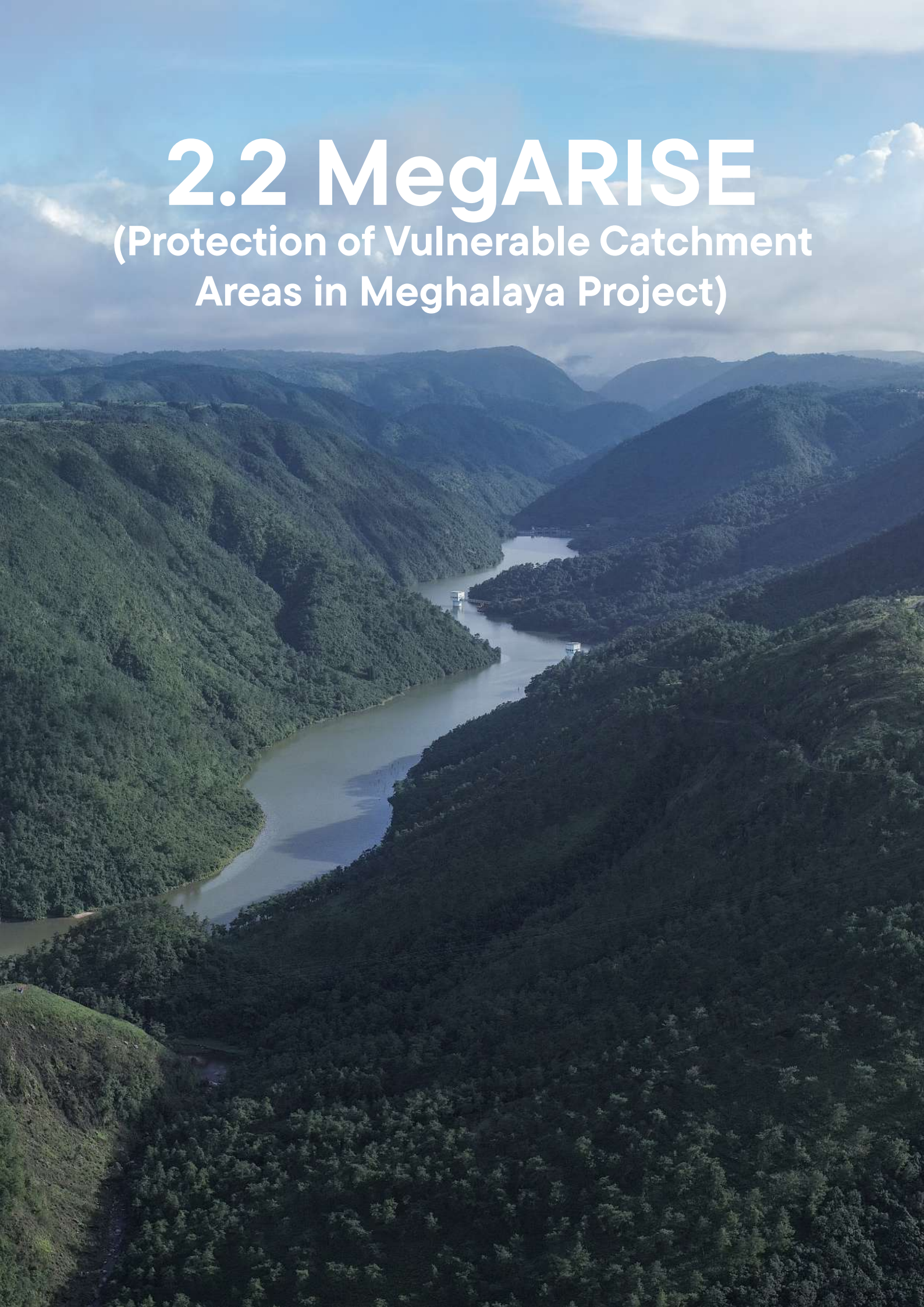
Proposal to onboard Additional Villages under MegLIFE Project

Project plantation target	22,500 Ha
Achieved to date	11,475 Ha
Balance	11,025 Ha
Remaining land available with project villages	6,000 Ha (including areca nut areas)
Additional area planned	5,025 Ha

To meet the remaining project targets, the proposal includes replacing villages that have dropped out or are anticipated to drop out of the MegLIFE Project. A total of 18 villages have already dropped out, with another 14 expected to withdraw, resulting in 32 villages needing replacement. To achieve the remaining project target, an average area of 160 hectares per village is planned if only the 32 replacement villages are onboarded. If 10 additional villages are included along with the 32 replacements, the target will reduce to 120 hectares per village. Further expanding to 20 new villages will bring the planned area down to 100 hectares per village.

2.2 MegARISE

(Protection of Vulnerable Catchment Areas in Meghalaya Project)



Introduction

Meghalaya is one of India's most climate-vulnerable states, facing environmental and economic threats that jeopardize its natural resources, food systems, water security, forest biodiversity, and community livelihoods. Shifting temperature and rainfall patterns, driven by climate change, pose major risks to critical sectors like agriculture, fisheries, and forestry.

The south-west monsoon (May–September) brings intense rainfall and flash floods, especially in low-lying areas bordering Assam and Bangladesh. These events lead to severe soil erosion, siltation of water bodies, infrastructure damage, and disruption of riverbanks and aquatic ecosystems. In contrast, the dry winter months cause acute water scarcity, further endangering vulnerable communities reliant on natural resources.

To combat these challenges and enhance rural livelihoods, the Governments of India and Germany have launched the "Protection of Vulnerable Catchment Areas in Meghalaya," also known as the "MegARISE" project—part of the broader "Programme on Climate Change Adaptation in the Himalaya Region." Following similar efforts in Manipur and Tripura, MegARISE is co-financed by the German government through KfW and promotes sustainable, climate-resilient, and community-driven management of natural resources.

The project focuses on two key catchments:

- Umiew Catchment in East Khasi Hills (EKH), as the Umiew River supplies water to Shillong
- Ganol Catchment in West Garo Hills (WGH), as the Ganol River supplies water to Tura

MegARISE emphasizes community-based forestry, soil and water conservation, and aligns with the Meghalaya State Action Plan on Climate Change (SAPCC)—reinforcing the state's long-term vision for sustainable development and climate resilience.

MegARISE- AT A GLANCE

Protection of Vulnerable Catchment Areas in Meghalaya Project

ABOUT US

The Protection of Vulnerable Catchment Areas in Meghalaya is a KfW funded project implemented in the state of Meghalaya. The objective of the project is to increase the climate resilience of treated ecosystems and watershed livelihoods in the selected project areas of Umiew and Ganol catchments.

PROJECT AIM

The "Protection of Vulnerable Catchment Areas in Meghalaya (MegARISE)" Project aims to increase the climate resilience of ecosystems and watershed in selected areas in the Umiew (East Khasi Hills District) and Ganol catchments (West Garo Hills District) in the State of Meghalaya. The Project will contribute to the implementation of the Indian National Action Plan on Climate Change (NAPCC) and is aligned to the priority areas of the Meghalaya State Action Plan on Climate Change (SAPCC).

PROJECT PERIOD

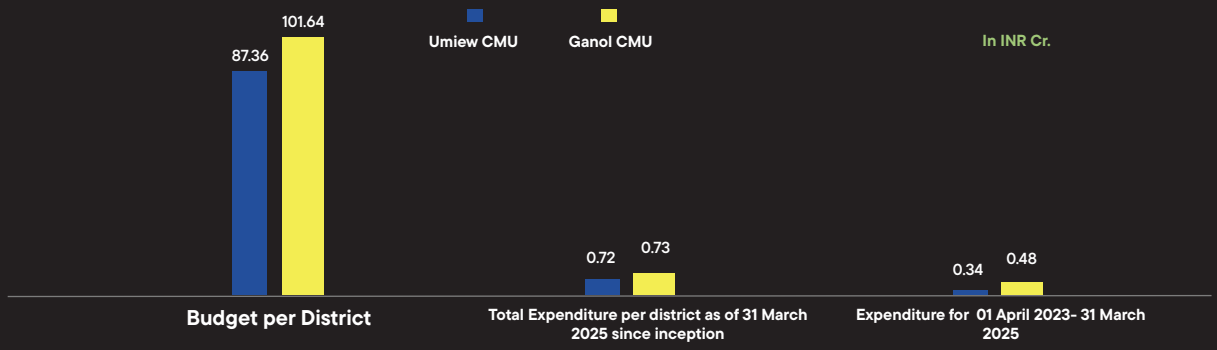
7 YEARS

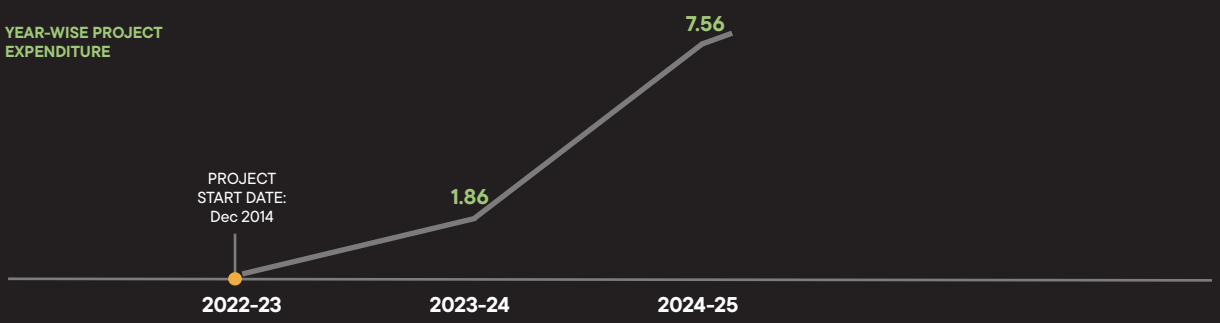
MegARISE – Costs and Expenditure

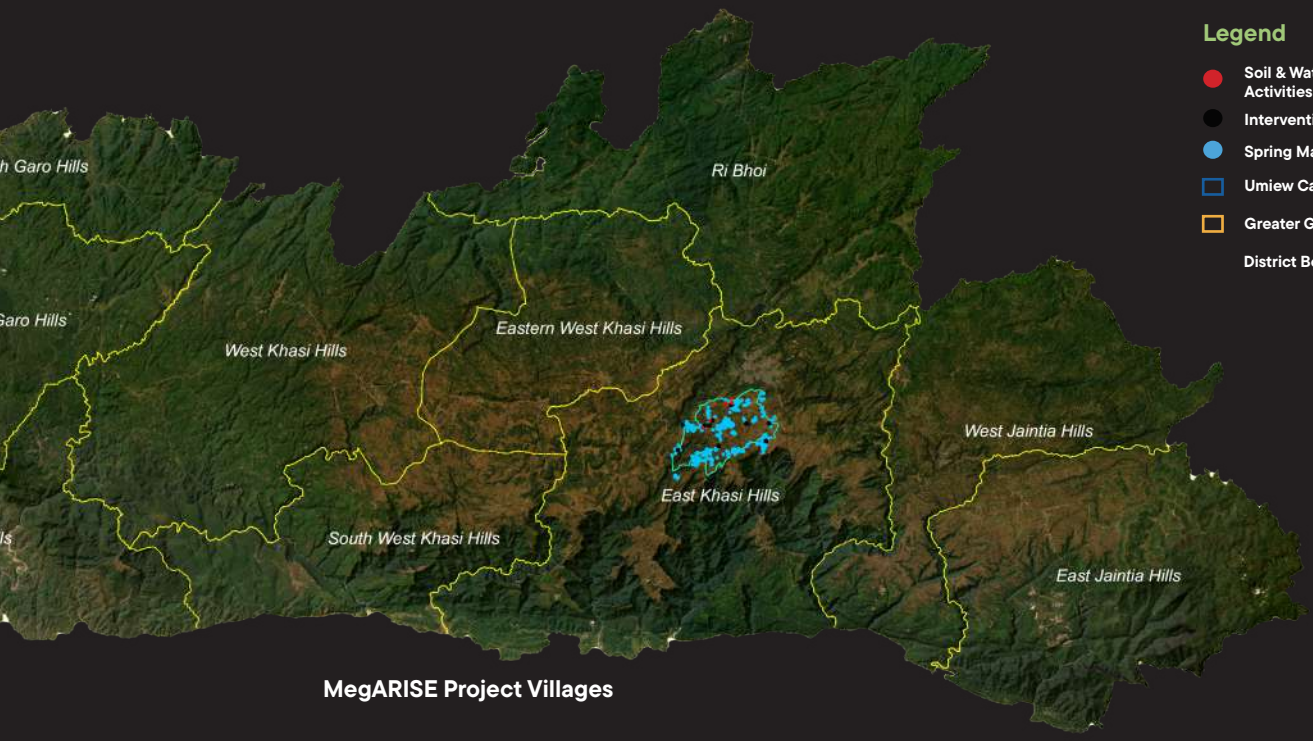
In INR Cr

Total Project Costs	INR 344.4 Crore
Total Expenditure from 1 April 2023 to 31 March 2025	INR 9.42 Crore
Total Expenditure of KfW Loan from 1 April 2023 to 31 March 2025	INR 3.92 Crore
Cumulative Expenditure from Project Inception to 31 March 2025	INR 9.42 Crore
Cumulative Expenditure of KfW Loan from Project Inception to 31 March 2025	INR 3.92 Crore

District-Wise Costs and Expenditure







MegARISE Project Villages

TARGET AREAS

225 Villages

10 Blocks

4 Districts

PROJECT COMPONENTS

1

Knowledge-based participatory planning and implementation and capacity building

Under this component, the Project aims to raise awareness and build the capacities of local communities within the catchment towards watershed management.

2

Forests and other ecosystems of the selected catchment areas are enhanced

The component aims to increase green cover for improving water regime, stabilizing slopes and drainage lines, linking of fragmented forests and improving biodiversity in the catchment.

3

Livelihoods of the vulnerable communities in the catchment areas improve

This component emphasizes on enhancing income and livelihoods of the communities through horticulture, agroforestry, Sloping Agriculture Land Technology (SALT).

4

Adoption of best-practice project management

This component covers administrative, human resource and physical asset management requirements of the project at different levels

Outputs/Components

Output 1

Knowledge-based participatory planning and implementation, and capacity building
The output focuses on building the capacities of both community members and project staff. It includes a Training Needs Assessment (TNA) to support targeted capacity development, the effective design of training programs, and the enhancement of knowledge management and communication in the project.

Output 2

Forests and other ecosystems of the selected catchment areas are enhanced
The purpose of this output is to conserve soil, enhance forest and green cover, and improve water availability on lands vulnerable to climate change. This will be achieved through participatory micro-planning approaches and effective implementation of various natural resource management (NRM) activities.

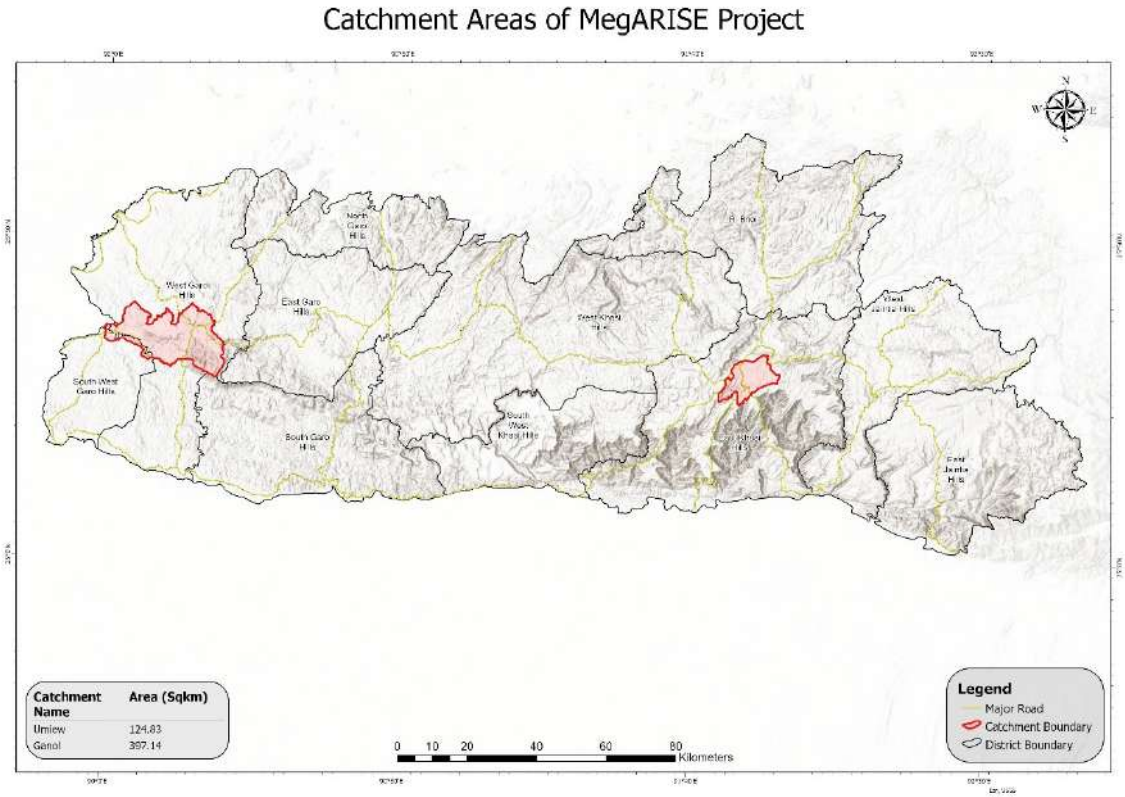
Output 3

Livelihoods of the vulnerable communities in the catchment areas improve
The output aims to improve community incomes and livelihoods through the promotion of horticulture, agroforestry, and Sloping Agricultural Land Technology (SALT). Additionally, water harvesting structures will be established to ensure water security for the dependent villages.

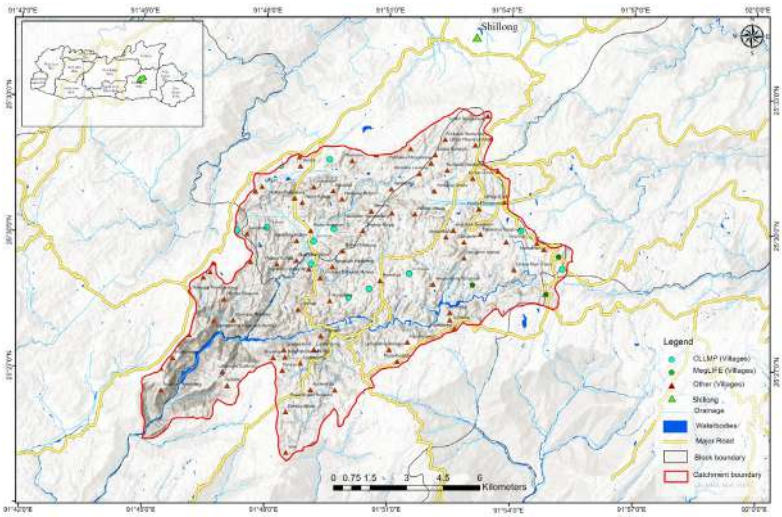
Output 4

Adoption of best-practice project management
The output focuses on developing effective institutional mechanisms for project implementation.

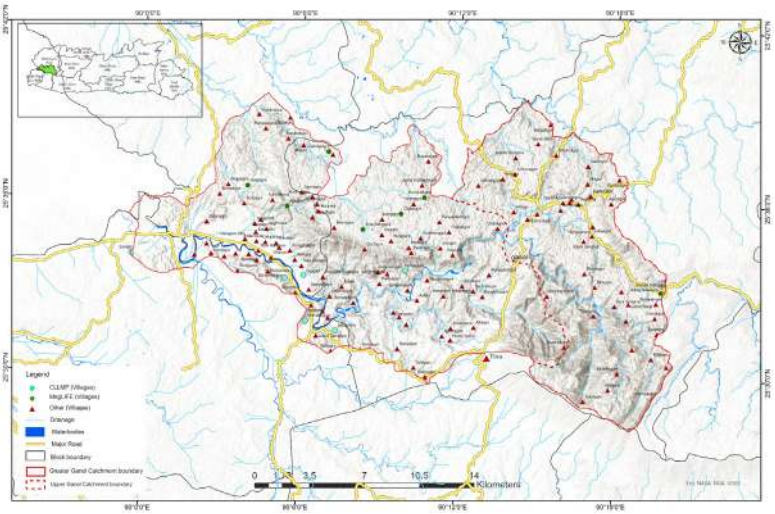
Location of the Project Villages in the Catchments



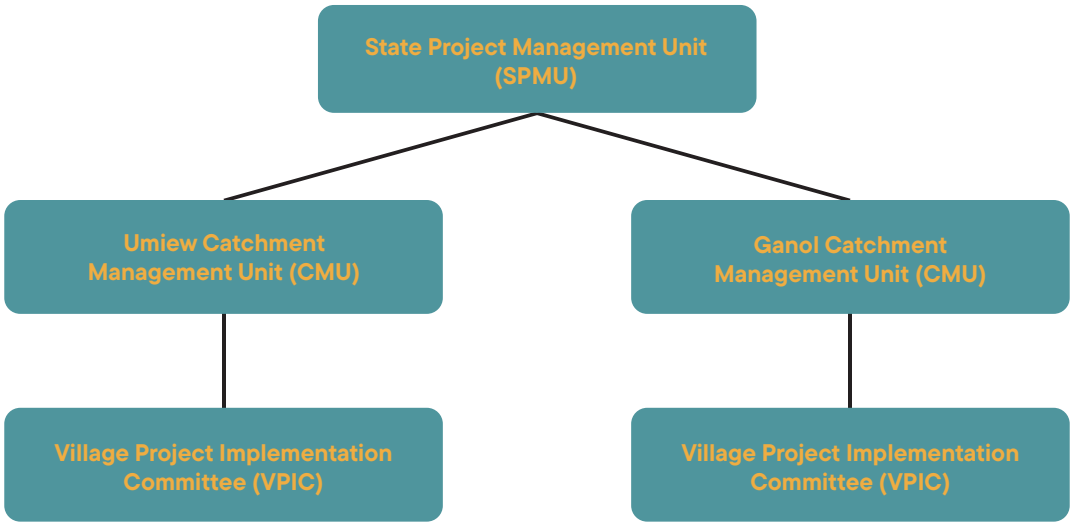
Umiew Catchment



Ganol Catchment



Implementation Structure



Project Outcomes

Forest cover is preserved by the project

Income of the beneficiary households (HH) through sustainable land use and Project interventions has increased

Water discharge of critical springs accessible for the Project villages has increased

Process for the **declaration of the Ganol and Umiew catchments as critical catchment areas** has been initiated and placed before the Government.

Innovative Approaches

In the MegARISE project, an innovative method known as the Financial Participatory Approach (FPA) is being implemented to foster community-led development. FPA leverages direct financial incentives, such as cooperative competitions and performance-based awards, to boost intrinsic motivation and empower communities to take charge of their progress. It is designed to encourage inclusive, participatory, and constructive development processes at multiple levels, including communities, villages, watersheds, and catchment areas.

At its core, FPA promotes experiential learning, knowledge sharing, and capacity building aligned with community priorities and the sustainable use of natural resources. The approach is rooted in a people-centered development model that emphasizes flexibility, adaptability, and meaningful, context-specific engagement. It combines traditional knowledge with innovative practices to effectively address local challenges while providing a dynamic and responsive framework for project implementation.

Key features of FPA include empowerment, transparency, and trust. Communities are actively involved in planning, executing, and evaluating project activities, ensuring that local knowledge is respected, and ownership is strengthened. Rules are transparently defined and maintained by the community, and trust is built through direct financial rewards and recognition for outstanding local initiatives. Through community-led contests, FPA fosters collaboration, creativity, and responsibility while promoting confidence, self-worth, and long-term engagement among participants. Its cost-effectiveness and participatory nature make it a powerful tool for driving sustainable, community-centered change.

As part of the FPA in MegARISE, three contests are being conducted in project villages to creatively engage community members: Contest 1 – Storytelling & Drawing, which allows individuals to express their perspectives through art and narrative; Contest 2 – Proposal Development on “Sustainable Livelihoods”, focusing on income-generating, eco-friendly activities; and Contest 3 – Proposal Development on “Community Infrastructure for Soil & Water Conservation (SWC) Measures”, which emphasizes resource management and environmental sustainability. These contests not only provide recognition through cash prizes and certificates but also help identify local talents, stimulate innovation, and encourage communities to develop detailed, feasible plans for addressing infrastructure and livelihood challenges. Participants are guided in preparing proposals that clearly outline costs, materials, timelines, and community contributions, with options for visual presentations using chalkboards or whiteboards to ensure clarity and inclusiveness.


KFW
german cooperation
VILLAGE LEVEL MICRO
ACTION PLAN
8TH March 2025
POMKANIEW

2.3 SVM
(Smart Village Movement)

Introduction

SVM is a facilitator that integrates technologies & services to bring opportunities & facilities closer to the villages

Overview

The Smart Village Movement (SVM) is a flagship rural transformation initiative of the Government of Meghalaya in collaboration with the University of California, Berkeley. Rooted in the principles of open innovation and the triple helix model (government-academia-industry), SVM serves as a convergence platform to design, pilot, and scale technology-enabled, enterprise-led, and community-driven solutions that tackle rural challenges holistically.

Launched in 2020 with pilots in 50 villages, SVM now operates across multiple districts. Through strategic partnerships with industry leaders, academic institutions, startups, and NGOs, SVM aims to build scalable and replicable models for rural development across four core verticals: Healthcare, Education, Infrastructure & Sustainability, and Agriculture & Livelihoods.

Vision

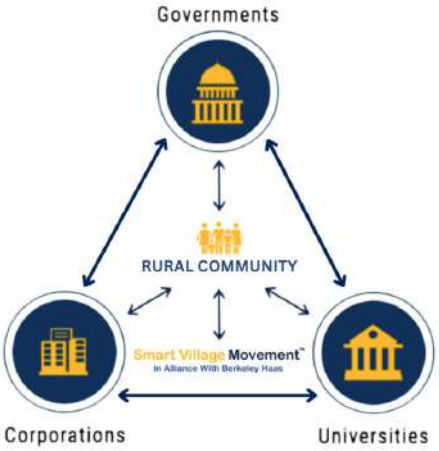
To Foster Sustainable Development and Independence in Rural Communities

Mission

Building Smart Villages by Empowering People

SVM
Smart Village Movement

Triple Helix Open-Innovation Model



SVM Areas of Intervention- Verticals and Key Projects

Agriculture & Livelihood

Education & Skills

Healthcare

Infrastructure & Sustainability

KEY IMPACT

350,000+
Lives Impacted

1150+
Villages with Access

1010+
Employment Opportunities

35
Innovative Projects Piloted

Verticals and Key Projects:

Healthcare Vertical

The healthcare vertical of SVM tackles the issue of limited access to quality healthcare in remote villages. Through strategic partnerships and technological interventions, SVM bridges the last-mile gap to provide timely, affordable, and preventive healthcare services.

Key Projects:

Apollo Digital Dispensaries (5 Centers): Reduced patient costs by 70% through remote consultations and diagnostics

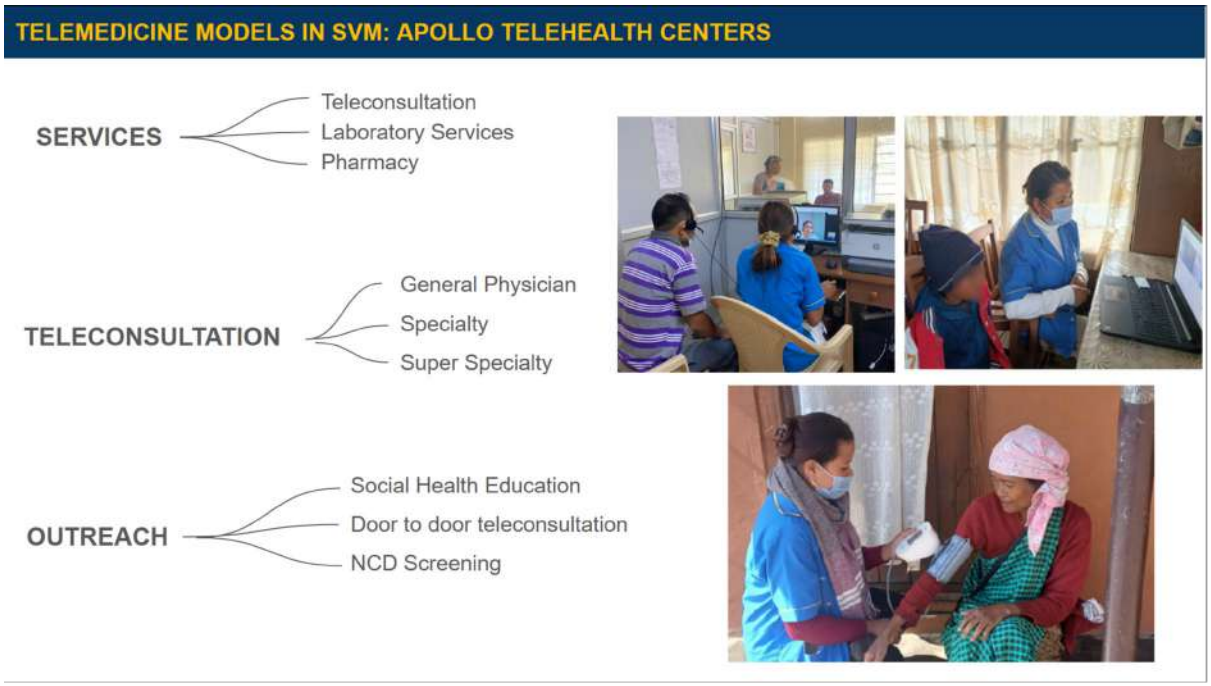
SVM partnered with Apollo Hospitals to operationalize five digital dispensaries that connect rural patients with qualified doctors via teleconsultation. These facilities are equipped with diagnostic tools, pharmacy support, and trained health workers. The model significantly reduced travel time and cost, with average savings exceeding 70% for patients.

Overview:

Total consultations: **21,036**
GP Consults: 9305, SP Consults: **11731**

- The total number of patients who availed laboratory services in all 5 centres since inception is 9,787
- The total number of patients who availed pharmacy services in all 5 centres since inception is 16,252
- The total number of awareness beneficiaries at the Meghalaya Digital Dispensary is 16,037
- A total of 12,081 beneficiaries were screened for NCDs

First Pilot: https://www.smartvillagemovement.org/apollo-telehealth-centre-touches-lives-in-meghalayas-rural-heartlands/



Gramin Healthcare Clinics (21 Units): Institutionalizing rural health care through digital health and last mile connectivity

With 21 polyclinics now active, this model offers a blend of in-person consultations, diagnostics, and digital follow-ups. These clinics provide telemedicine services for remote consultations, community health education programs, organize regular Village Health Camps and set up local pharmacies. This initiative brings quality medical services closer to rural residents, ensuring equitable access to healthcare.

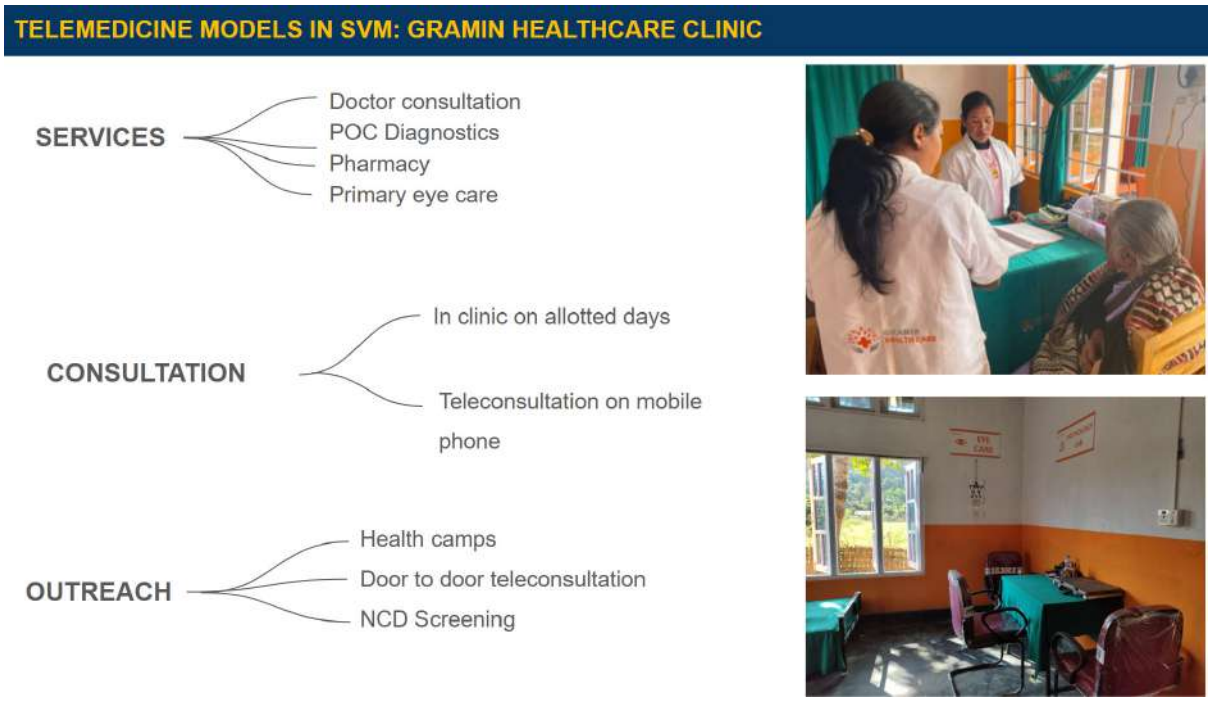
The clinics are present in 8 districts across Khasi, Jaintia and Garo Hills Region. The districts are West Garo Hills, North Garo Hills, South West Garo Hills, Eastern West Khasi Hills, East Khasi Hills, Ri Bhoi, East Jaintia Hills and West Khasi Hills.

Traction so far at Meghalaya (As on February 3, 2025)

Footfall	1,51,473
Consultation	1,51,083
Patients	92,597
Local employment	100+
Operational clinics	21 across Meghalaya

New Services Introduced

- Dental screening and ABO Blood Grouping have also been introduced at the Apollo Telehealth Centers.
- Eyecare screening & spectacles, high-end diagnostic tests in addition to point of care tests, 10 - Lead ECG have been introduced at the Gramin Healthcare Clinics



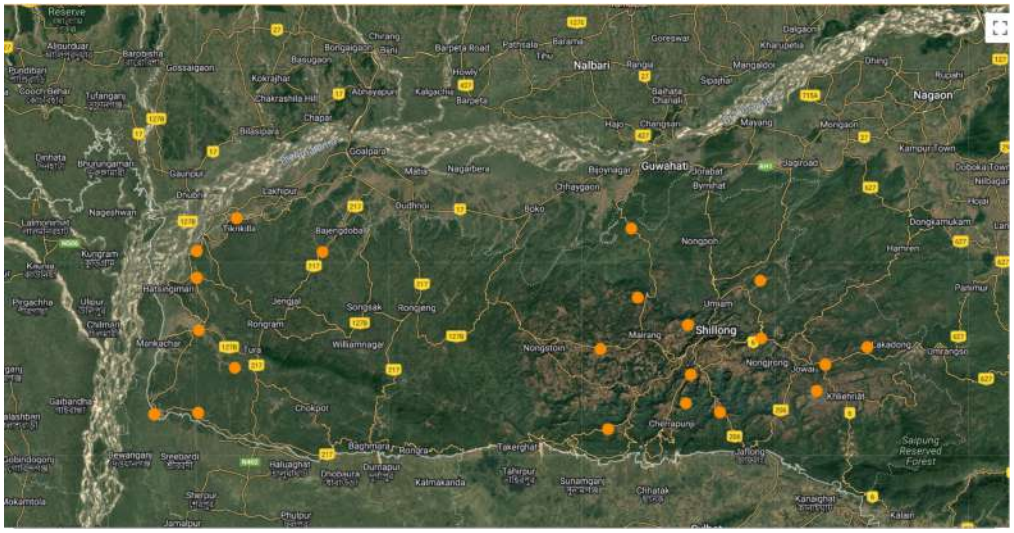
TESTIMONIAL:

"Bitoria, an 82-year-old woman from the small village of Sohrarim in rural Meghalaya, was facing a difficult situation when the COVID-19 pandemic hit. She had been diagnosed with an illness involving diabetes, high blood pressure, and thyroid, and her grandchild who would normally send her medication from the hospital in Shillong was unable to do so due to the lockdown. Fortunately, Bitoria learned about the Gramin Polyclinic that had recently opened in her area. This clinic provided a great relief for Bitoria and her family, who were worried about her health. She no longer had to travel to Shillong, which incurred transportation expenses, and the clinic was more affordable and convenient."

First Pilot:
https://www.smartvillagemovement.org/news/rural-healthcare-clinics-a-boon-for-villagers-travelers/

Scale Up:
https://www.smartvillagemovement.org/news/gramin-health-care-launches-20-tech-driven-primary-healthcare-clinics-in-meghalaya/

· Presence in 8 districts across Khasi, Jaintia and Garo Hills Region



Gramin Healthcare Clinic Locations In Orange Dots

Drone Based Delivery of Medicines

Reduced delivery time from 4 hours to 25 minutes

Piloted under the “Medicines from the Sky” initiative, drone deliveries dramatically reduced the time required to deliver critical medical supplies to remote PHCs and CHCs. Now integrated with the state’s Health Systems Strengthening Project, the intervention has improved medicine availability and emergency response. The project focuses on using drones to transport critical medical supplies, including blood, platelets, and time-sensitive medications.

First Pilot:
https://www.smartvillagemovement.org/smart-village-movement-logistical-solutions-drones-delivering-care-in-rural-india/
https://www.smartvillagemovement.org/news/3035-2/

Scale Up:
https://www.smartvillagemovement.org/news/launch-of-the-first-drone-delivery-network-in-india/

Positive Public Healthcare Management Program (PPHM): AI-enabled preventive health screening

Introducing Positive Population Healthcare Management (PPHM), an avant-garde initiative launched by Smart Village Movement in Meghalaya. This groundbreaking project, initiated in Bhoirymbong, Ri Bhoi District, aims to transform healthcare by focusing on preventive measures. Through strategic collaboration with the Department of Health and Family Welfare, Government of Meghalaya; Healthcare AI screening partner Maya MD; KRSNAA as the Diagnostics partner; and Martin Luther Christian University as the mobilization partner, PPHM is set to redefine healthcare delivery in rural Meghalaya.

Global Recognition:

Due to its significant social impact potential, PPHM gained global recognition and was invited to participate at the World Open Innovation Conference 2022 in Eindhoven, Netherlands.

https://www.smartvillagemovement.org/news/smart-village-movement-model-recognized-at-world-open-innovation-conference-2022/
https://www.smartvillagemovement.org/news/svm-receives-a-best-practice-award-at-woic-2023/
Berkeley White Paper :https://growthmarkets.berkeley.edu/wp-content/uploads/2023/09/PPHM-Impact-Assessment-_whitepaper_0723.pdf

First Pilot: https://www.smartvillagemovement.org/news/positive-public-healthcare-management-pphm-project-as-a-paradigm-shift/

Community Testimonials:
Sylliang, an Anganwadi Worker from Umroi Umdohbyrthih village, shares the transformative impact of PPHM on her community. The initiative not only provides health tests but also increases healthcare accessibility, making a significant difference in community health awareness and empowerment.

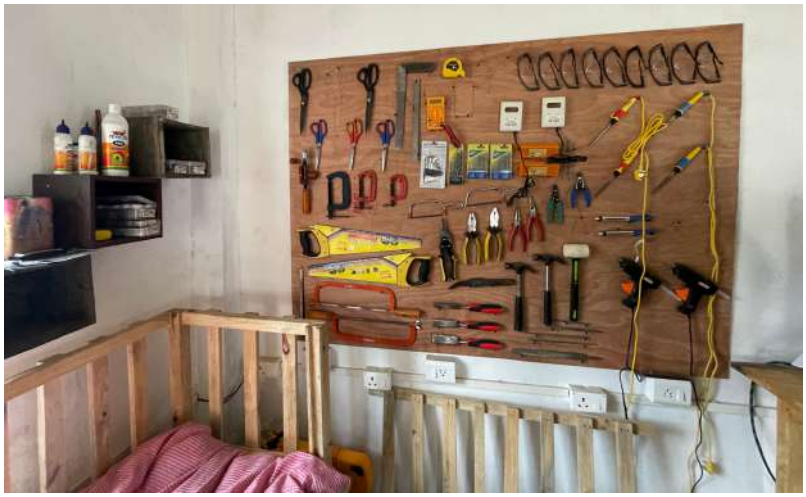
Testimonial: “PPHM has not only brought positive change but has also empowered our community to take charge of their health and well-being.”

2. Education Vertical

The Smart Village Movement runs multiple education-focused projects to empower rural communities. These include the Chief Minister's Youth Centres (CMYC), STEM Innovation Hubs, the Foundational Literacy & Numeracy Program, infrastructure development in schools, STEM Educational Lab supported by NECTAR, Aspire Leadership Program with Aspire Institute and MPOWER, two Python programming initiatives- one with IBM and another with NavGurukul.

Chief Minister's Youth Centres (CMYC) (22 Centres): Innovation and learning hubs for youth

Formerly Salesforce Trailblazer Labs, these 22 Community Learning Centres – are a sanctuary for alternative learning transcending boundaries of age, ethnicity, gender, and background. By introducing the Self-designed Alternative Community Learning Centre, the solution aims to provide an alternative learning approach that better resonates with individuals' unique talents, interests, and goals. It addresses the need for inclusivity and flexibility in education, offering a sanctuary where individuals can unlock their potential without being constrained by age, ethnicity, gender, or background.



Berkeley White Paper: https://growthmarkets.berkeley.edu/wp-content/uploads/2023/09/Trailblazer-Labs-Impact-Study-_-Whitepaper.pdf

First Pilot: https://www.smartvillagemovement.org/news/salesforce-lab-opening/

Second Pilot: https://www.smartvillagemovement.org/news/new-salesforce-trailblazer-lab-at-nongwah-welcomes-the-community/_

Scale Up: https://www.smartvillagemovement.org/news/chief-minister-youth-centres-a-catalyst-for-alternative-learning-and-skill-development-in-meghalaya/

STEM Innovation Hubs (2 Schools): Promote hands-on science, technology, engineering and mathematics education

The STEM Literacy project, funded by SVM, integrates Science, Technology, Engineering, and Mathematics (STEM) education into the school curriculum or as extra-curricular activities. It emphasizes hands-on learning, critical thinking, and problem-solving skills through interactive projects and workshops.

By bridging the gap between theoretical knowledge and practical application, the STEMInnovation Hubs cultivates a new generation of learners equipped with multidisciplinary skills essential for future careers in STEM fields and creative industries.

Hands-on labs in rural schools expose students to AI, Arduino, 3D printing, and robotics. Teachers receive specialized training to foster project-based learning. The initiative has benefited over 1,300 students and 100+ teachers.

"I never saw a computer in my life. I'm amazed with the possibility of this device. I never miss a day to come and learn in STEM Innovation Hub",
~Damelarisha

Damerisha climbs 1500 stairs steps to reach mainroad and walks another 2 km to reach the Innovation Hub

First Pilot in Meghalaya: https://www.smartvillagemovement.org/news/fueling-dreams-the-impact-of-sohrarims-innovation-hub/

Second Pilot in Meghalaya: https://www.smartvillagemovement.org/news/revolutionizing-education-in-meghalaya-launching-innovation-hubs-in-schools-for-next-generation-learning/

Foundational Literacy & Numeracy Program (Madhi Foundation):

https://www.smartvillagemovement.org/news/bridging-the-gap-in-foundational-literacy-and-numeracy-introducing-fln-model-with-madhi-foundation/

The FLIP (Foundational Learning Improvement Programme) helps improve early grade reading and numeracy in 100 schools. Over 270 teachers have been trained using tech-assisted monitoring and adaptive learning platforms. The FLN project emphasizes innovative teaching methods, a tailored curriculum, teacher training, and parental involvement to strengthen basic literacy and numeracy skills. By addressing these fundamental educational gaps, we aim to create a strong academic foundation that will empower students for future learning.

OSAAT and Infrastructure Development:

https://www.smartvillagemovement.org/news/smart-village-movement-svm-and-osaat-building-school-infrastructure-for-rural-communities/_

Through One School At A Time (OSAAT), SVM supports the physical transformation of schools—building sanitation units, classrooms, and providing safe and strong learning environments, increasing attendance and improving learning environments.

The initiative, launched in October 2023, focused on addressing critical infrastructure challenges in rural schools, such as dilapidated buildings, overcrowded classrooms, and insufficient facilities. With a shared goal of enhancing the quality of education, the partnership has led to the creation of modern, safe, and conducive learning environments for students at both schools, benefiting a total of 478 children across both institutions.

SVM, in collaboration with OSAAT, has provided essential upgrades to the classrooms, including the construction of new classrooms, improved sanitation and incorporation of Building as Learning Aid (BaLA) through educational wall paintings featuring alphabets, numbers, science concepts, and cultural themes. The project also included the provision of new furniture to ensure students have an optimal learning space. These improvements are not only aimed at fostering academic excellence but also nurturing creativity, curiosity, and a sense of security among the children.

STEM Open Educational Lab with NECTAR: High-tech facility with the aim to reach 100 schools across Meghalaya for advanced experiential learning

Smart Village Movement (SVM) in collaboration with NECTAR, Curiosity Gym, and IISER Pune, has inaugurated a STEM Education Lab at NECTAR Headquarters, Shillong. This initiative will provide hands-on learning in Electronics, Robotics, and 3D Printing to students from 100 schools, bridging the gap between theoretical knowledge and practical application. The lab has state-of-the-art tools, training modules, and year-round mentorship to ensure experiential learning for students and teachers.

https://www.smartvillagemovement.org/news/empowering-future-innovators-svm-launches-stem-educational-lab-in-shillong/

Aspire Leadership Program:To build youth leadership capacity

The Aspire Leaders Program, founded at Harvard University, is a global initiative that identifies and nurtures emerging leaders among first-generation learners. This program equips students with leadership training, global networking opportunities, and access to professional development resources. The free online leadership development opportunity for low-income, first-generation college students and recent graduates provides access to professional development workshops, interactive learning with Harvard and other world-class faculty, and ongoing alumni opportunities like grants and mentorship.

https://drive.google.com/file/d/1Da4zuZQittyuNeTQHsGbSIZYF-pXxZVI/view?usp=drive_link

Two Python Programming Initiatives: Equip students with essential coding skills for the digital economy

- IBM Python Coding Program: Online coding bootcamps for Python basics, data structures.Certificates are also issued to successful learners. The focus is on students aged 14–18.
- NavGurukul Programming: It is an intensive 6–12 month residential coding course. It teaches Python, spoken English, and touch typing. This programme prepares students for tech jobs or further education.

3. Infrastructure & Sustainability

This vertical seeks to close infrastructure gaps with sustainable, environmentally conscious solutions, promoting long-term resilience in rural communities.

Water Sanitation with AI Robotic Boat (Clearbot)

The Umiam Lake Clean-Up Project at Mawdun stands as a flagship initiative under the Smart Village Movement, with crucial funding support from Meghalayan Age Ltd. This project addresses the critical issue of waste accumulation in one of Meghalaya's most iconic water bodies by combining cutting-edge AI-powered robotic boats with active community participation and localized waste management infrastructure.

To date, over 38,000 kilograms of waste have been collected from the lake, with 40% identified as recyclable and 45% biodegradable. The robotic boats use AI vision systems to autonomously detect and collect floating waste, significantly reducing manual labor and increasing cleaning efficiency. A dedicated waste management unit in Mawdun further supports processing and segregation efforts, creating a closed-loop system of collection and disposal.

The project has far-reaching environmental and ecological benefits. By removing plastic and organic waste from the water, it helps restore aquatic ecosystems, protect native fish species, and improve water quality, which in turn supports biodiversity and marine health.

Beyond the ecological impact, the project supports local livelihoods by creating employment opportunities in waste collection, segregation, and environmental stewardship. It also boosts sustainable tourism potential — a cleaner lake environment enhances the appeal of Umiam as a destination for eco-tourism, boating, and recreation, benefitting nearby communities economically.

First Pilot:
https://www.smartvillagemovement.org/news/ai-integrated-marine-robotic-boat-showcased-for-waste-collection-technology-at-umiam-lake-meghalaya/

Second Pilot: https://www.smartvillagemovement.org/news/ai-capabilities-for-river-rejuvenation-in-nongstoin/

Peer-to-Peer Renewable Energy Sharing:

With Hygge Energy—supports a school and learning center, saves ₹1,35,000 annually

The Peer-to-Peer Energy Sharing Model Project emerges as a beacon of change. SVM, in collaboration with energy partner Hygge Energy, introduces a unique model that encourages communities to share and distribute locally generated energy. This initiative aims to create a sustainable and decentralized energy ecosystem, reducing dependency on traditional power sources. P2P energy sharing means sharing excess renewable energy with the local communities. Taking this initiative forward, by using the patented P2P trading mechanism of the renewable power and carbon trading system installed at the Smart Village Community Learning Centre in Sohrarim, Hygge transferred solar energy from the learning centre to a nearby school, Tirot Singh Syiem School which is about half a kilometre away. The school experiences regular power outages and it has impacted the students and their learning. Through this innovative concept, it has helped the school with consistent power supply without any interruptions.

Second Pilot: https://www.smartvillagemovement.org/news/smart-village-community-learning-centre-demonstrates-how-hygge-energys-technology-can-be-effectively-used-for-economic-growth/

EcoNest – Affordable Homestay Project to Boost EcoTourism :

Net Zero Energy Certified homestay built from local materials

SVM's EcoNest project represents a significant opportunity to enhance tourism infrastructure, while promoting sustainability and economic growth. By leveraging locally sourced and renewable materials, the EcoNest initiative in Meghalaya can create a model for affordable and eco-friendly homestays that benefit both tourists and the local community. The model eco-cottage is constructed using SAF (Sustainable Agrifiber) materials for walls and ceiling. The SAF Board is compressed from agricultural waste such as rice and wheat straw, reducing the burden on landfills and promoting a circular economy.

Recognized by the Global Network for Zero (GNFZ), the structure serves as a demonstration of sustainable rural tourism and resilient housing. In 2024, we achieved the Net Zero Energy Assessment Certificate, which marks the first milestone towards Net Zero cottage.

First Pilot in Meghalaya: https://www.smartvillagemovement.org/news/econest-a-remarkable-step-towards-sustainable-tourism-in-meghalaya/

Air-to-Water Technology

Smart Village Movement (SVM) is piloting a revolutionary air-to-water technology in National Health Mission (NHM) centers across Meghalaya. This innovative solution, which harnesses atmospheric moisture to generate potable water, is already being used and tested in Meghalaya's climatic conditions.

The project includes deploying three units: a 250-liter-per-day machine at the Health Complex, Shillong, and two 60-liter- per-day units at a Primary Health Centre (PHC) and a Sub-Centre. These systems use Atmospheric Water Generation (AWG) technology to extract humidity from the air, condense it into water, and purify it through a multi-stage filtration process, ensuring it meets the highest drinking water standards. The process includes dust and carbon filtration, UV purification to eliminate bacteria and viruses, and mineralization to enhance taste and nutrient content.

https://www.smartvillagemovement.org/news/smart-village-movement-deploys-air-to-water-technology-for-sustainable-drinking-water-in-meghalaya/

4. Agriculture & Livelihoods

SVM's agriculture initiatives are designed to enhance productivity, sustainability, and income through precision agriculture, collective action, and value chain linkages.

Drone-based Crop Monitoring and Yield Enhancement: Early pest and disease detection

Smart Village Movement, in collaboration with BharatRohan, is leveraging drone-based hyperspectral imaging and integrated agronomy support to transform agriculture in Meghalaya. This initiative supports over 341 farmers by providing early alerts on pest outbreaks and crop stress, enabling timely and targeted Integrated Pest Management (IPM) interventions.

In Ri Bhoi, a pilot project specifically focused on ginger farming introduced farmers to Good Agricultural Practices (GAP), early detection of soil-borne diseases, and the use of premium planting materials. A key intervention was the promotion of Trichoderma, a highly effective biological control agent that enhances soil health and plant resilience.

Through training workshops, village meetings, and access to critical biocontrol resources, this initiative empowers farmers to increase yields, reduce chemical inputs, and transition toward sustainable, climate-resilient farming systems.

a. Successful pilot testing demonstrating improved crop monitoring and resource management.
b. Positive feedback and testimonials from participating farmers and stakeholders.
c. Data-driven insights leading to tangible improvements in crop yield and sustainability metrics.

https://www.theweek.in/wire-updates/business/2023/08/08/dcm2-bharatrohan-airborne-innovations.html

https://www.smartvillagemovement.org/news/empowering-ri-bhoi-ginger-farmers-with-good-agricultural-practices/

Farmers' Hub

Serving as a one-stop center, earlier provisioned in West Jaintia Hills, however, the model was a challenge due to concentrating only on supplying agri inputs to boost productivity. Now, the hub in Sohiong C&RD Block provides access to quality inputs, storage, training, and buyer linkages. Targeting 295 farming households, the hub boosts collective bargaining power and rural entrepreneurship.

First Pilot: https://www.smartvillagemovement.org/news/4th-farmers-development-center-launched-in-west-jaintia-hills-meghalaya/

Ongoing Implementation & Expansion

SVM operates in a phased model across Meghalaya. Initial pilots are scaled based on impact metrics, community feedback, and government directives. Active districts include East Khasi Hills, West Garo Hills, Ri Bhoi, and others. Implementations are executed through Village Coordinators and field teams who monitor, coordinate, and report progress regularly.

Project Implementation Table:

	Project	Phase	Units
1	Gramin Healthcare Clinics	Scale-up	21 clinics
2	Apollo Telehealth Centers	Scale-up	5 centers
3	Positive Population Healthcare Management (PPHM)	Pilot	1 block
4	Drone Delivery of Medicines	Scale-up	1 Hub, 25 spokes
5	Air-to-Water Units	Pilot	3 locations
6	Peer to Peer Renewable Energy	Pilot	1 Location
7	Umiam Waste Cleaning	Scale-up	1 lake
8	EcoNest Cottage	Pilot	1 unit
9	Ginger Farming Project	Pilot	1 block
10	Farmers' Hub (Krang)	Pilot	1 block
11	STEM Labs	Scale-up	4 schools
12	FLN Program	Pilot	100 schools
13	CMYC Centres	Scale-up	22 centers
14	Improved School Infrastructure	Pilot	2 Schools
15	STEM Education Lab	Pilot	1 Center
16	Business Innovation and Analytics Course	Pilot	2 Batch

Monitoring, Partnerships & Governance

Each SVM project is co-designed with domain partners and reviewed by expert advisors from academia and industry. A robust M&E framework ensures timely reporting and adaptability. Government bodies, CSR arms of private companies, and educational institutions play a key role in co-implementation.

Conclusion

SVM demonstrates the power of convergence-based rural development. Through cross-sector partnerships, technology integration, and community-first solutions, the initiative is setting a new benchmark for holistic village development. Across all interventions, SVM places people at the center. The model prioritizes community ownership, capacity building, and local problem-solving to ensure solutions are sustainable and adaptable. The initiative continues to strengthen the state's alignment with the Sustainable Development Goals (SDGs) and paves the way for replicable models in other rural regions of India.

As SVM scales further, it does so with a growing ecosystem of partners, empowered village champions, and measurable impact that reaffirms the power of grassroots innovation. The journey from pilot to policy, from idea to impact, is ongoing—but the results are already reshaping what a "smart" village can truly be.

Success Stories and Media Coverage

India AI, August 28, 2023

The government of Meghalaya plans to use AI-powered robotic boat to clean Umiam Lake

The ANI News, January 19, 2024

Meghalaya Chief Minister attends CIPS Awards Ceremony 2023

E-pao News, January 19, 2024

Award Ceremony for Centre for Innovations in Public Systems (CIPS)

The Shillong Times , January 20, 2024

Two innovation honours for state

The Economic Times, Sept 03, 2023

Meghalaya uses AI-enabled tech to clean up tourist hotspot Umiam lake

The Meghalayan News, August 29, 2023

Sohrarim Nook division 'boon for community'

Ndtv News, Aug 27, 2023

Meghalaya Chief Minister Conrad K Sangma is monitoring the overall implementation of the project.

The Week, August 08, 2023

BharatRohan and Smart Village Movement Partner to Bring Drone Crop Monitoring to Ginger Farmers in Meghalaya

Wyrta, May 08, 2023

Yoh ka chnong Sohrarim da ka bordiñ wym thut

Highland Post, May 08, 2023

Rural school gets power boost with peer-to-peer energy tech

The Shillong Times, May 08, 2023

Sun powers school, homes in rain-soaked Sohrarim

The Meghalayan, April 25, 2023

Gramin Polyclinic brings relief in rural areas

AWARDS &

National Water Awards 2021

Aminda Simsanggre and Chambagre villages bagged 2nd & 3rd place respectively in the “Best Village Panchayat” category (North East Zone) at the 3rd National Water Awards 2021

National Water Awards 2022

Mawkyrdep Village won 3rd place in “Best Village Panchayat” Category 2022 at the 4th National Water Awards, 2022

Recognition at COP27

Living Root Bridge Community members participated at COP27

Geo for Good Impact Award from Google in 2023

Won by the MBMA’s GIS and UAV team for CLLMP Project.

RECOGNITIONS

Global Recognition at World Open Innovation Conference (WOIC), 2023

Smart Village Movement placed 3rd for Best Practice in Open Innovation
Presented in: Bilbao, Spain | November 9–10, 2023

In addition, the following initiatives were presented during the conference:

1. GIS and UAV under CLLMP
2. Land reclamation using Aromatic Plants under CLLMP
3. Transforming Rural Financing through Collectivization under MLAMP

FICCI National Geospatial Award

Won by GIS and UAV team in the category of Geospatial Excellence in Sustainability Development for CLLMP project in March 2023.

CIPS Innovation Awards 2023 – Government of Meghalaya

PPHM under the Smart Village Movement initiative was awarded for innovation in the Health Sector by Centre for Innovations in Public Systems, Hyderabad.

Earth Care Awards

CLLMP was awarded in the Community-Based Climate Action category at the 11th Earth Care Awards. The award applauds outstanding initiatives in climate mitigation and adaptation.

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