



# Water and Livelihoods in Meghalaya

JAL KAUSHAL: WATER, LIVES, AND LIVELIHOODS

Nidhi Batra and Apoorva Dhingra

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STATE REPORT

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## Abbreviations

ADC	Autonomous District Council
CLLMP	Community-led Landscape Management Project
DPMU	District Project Management Unit
FTK	Field testing kit
GP	Gram Panchayat
IBDLP	Integrated Basin Development and Livelihoods Promotion Programme
IWMP	Integrated Water Management Programme
JJM	Jal Jeevan Mission
JJN	JustJobs Network
MBDA	Meghalaya Basin Development Authority
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
NRLM	National Rural Livelihoods Mission
PHED	Public Health and Engineering Department
PIM	Participatory Irrigation Management
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
VCF	Village Community Facilitator
VNRMC	Village Natural Resources Management Committee
VWSC	Village Water and Sanitation Committee
WUA	Water User Association

## Executive Summary

In India, the world's largest user of groundwater, there are several government and civil society interventions that promote water management with the goal of making India's villages water secure.<sup>1</sup> Most interventions, whether initiated by state and central governments or by civil society, are decentralised, emphasising the role of community members in their implementation and management.<sup>2</sup> They build on the understanding that water is an essential component of rural economies and is necessary to create and maintain jobs across sectors.<sup>3</sup> Integrated water management, which includes managing the source, infrastructure, and water services, is both a job creator as well as a job enabler.

However, despite the understanding that water and water management are job creators and enablers, there is little record of community members' or frontline workers' tasks, responsibilities, training, skills, remuneration, and working conditions. This is further complicated by the fact that water management work at the local level is often part-time, voluntary, or unpaid. Thus, despite consensus that community members perform critical water management tasks, there remains a gap in knowledge about the work they do and the conditions they work in.

To address this, JustJobs Network (JJN) and Arghyam launched Jal Kaushal, a project that examines the jobs-tasks-skills nexus of rural water management. The study hypothesises that an investigation and understanding of livelihoods engendered by the sector can enhance the sustainability and success of water management. This project draws from both

secondary and primary research conducted in five states of focus.

A state-level report of Meghalaya, one of the five states studied as part of the Jal Kaushal project, this report maps the "who" of the water management sector. It also helps examine whether jobs, tasks, and skills in the water management sector align with aspirations and the perceived value of employment in the sector.

Split into three sections, this report provides information about how water is managed and the people who manage it; the jobs and tasks this sector creates and does not create; and JJN's recommendations, which can help ensure sustainable and integrated management of water while also creating sustainable livelihoods. Based on secondary research, JJN found the following:

- Meghalaya has a unique governance system, with village level traditional institutions having always played an integral role in the community-led management of natural resources. However, there has been a divergence between various state departments, Autonomous Development Councils (ADCs), and tribal institutions. Meghalaya has recognised the role of community resource persons or first-mile cadre actors to bridge this gap as seen through the role of village community facilitators (VCFs), green volunteers, water volunteers, etc.

- Crucial “bridge” institutions like the ADCs, intended to function as an intermediary between traditional and state institutions, especially relevant to water management, are under-resourced or sidelined.
- The state recognises the conditions of ecosystem fragility and climate change impact, and has adopted an integrated lens to address rural water management. Forest, soil and water management are together addressed through “natural resource management” and NRM initiatives are linked with jobs, livelihood and entrepreneurship opportunities.
- Although the state’s Water Policy is a forward-looking document, it requires implementation in true spirit to address rural water management.
- There is a paucity of integrated water management approaches; while there is great institutional diversity in terms of departments that deal with water, coordination and collaboration between institutions is likely to be a stumbling point.
- The Village Community Facilitators model has proven to be successful, so much so that they carry out the functions of other departments and have received mentions in party poll manifestos; however, their presence alone is insufficient to address various water governance issues.
- Key livelihood schemes that can be leveraged for water jobs, such as sub-schemes under the NRLM, are underutilised.

# Chapter 1: Introduction

Meghalaya is a forest-rich, predominantly tribal state in the northeastern region of India. It is estimated that over 70 percent of Meghalaya's population depends on agriculture and natural resources, resulting in an economy heavily reliant on natural resources.<sup>4</sup> Its unique geoeology also makes it highly vulnerable to climate change.

The population of Meghalaya is predominantly tribal; the main tribes are Khasi, Jaintia and Garo. It is also predominantly rural, and up to 80 percent of the population depends largely on agriculture and manual casual labour for their livelihoods.<sup>5</sup> Traditional shifting agriculture – or Jhum cultivation – is a major feature of agriculture in the state. Owing to it being home to a significant tribal presence, Meghalaya has a complex governance structure. The responsibility of governance and service delivery falls under the ambit of three centres of authority: (i) the State; (ii) the Autonomous District Councils (ADCs); and, (iii) grassroots indigenous “tribal” institutions.<sup>6</sup>

## Governance in Meghalaya

Currently, there are three ADCs in the state: Khasi, Jaintia and Garo. With executive, financial, legislative, and judicial powers afforded to them under the Sixth Schedule of the Indian Constitution, ADCs are responsible for the implementation of development and welfare activities. Grassroots institutions such as the Dorbar Shnong, or the village council, undertake development works at the village level and manage assets such as water supply infrastructure.<sup>8</sup> This tribal

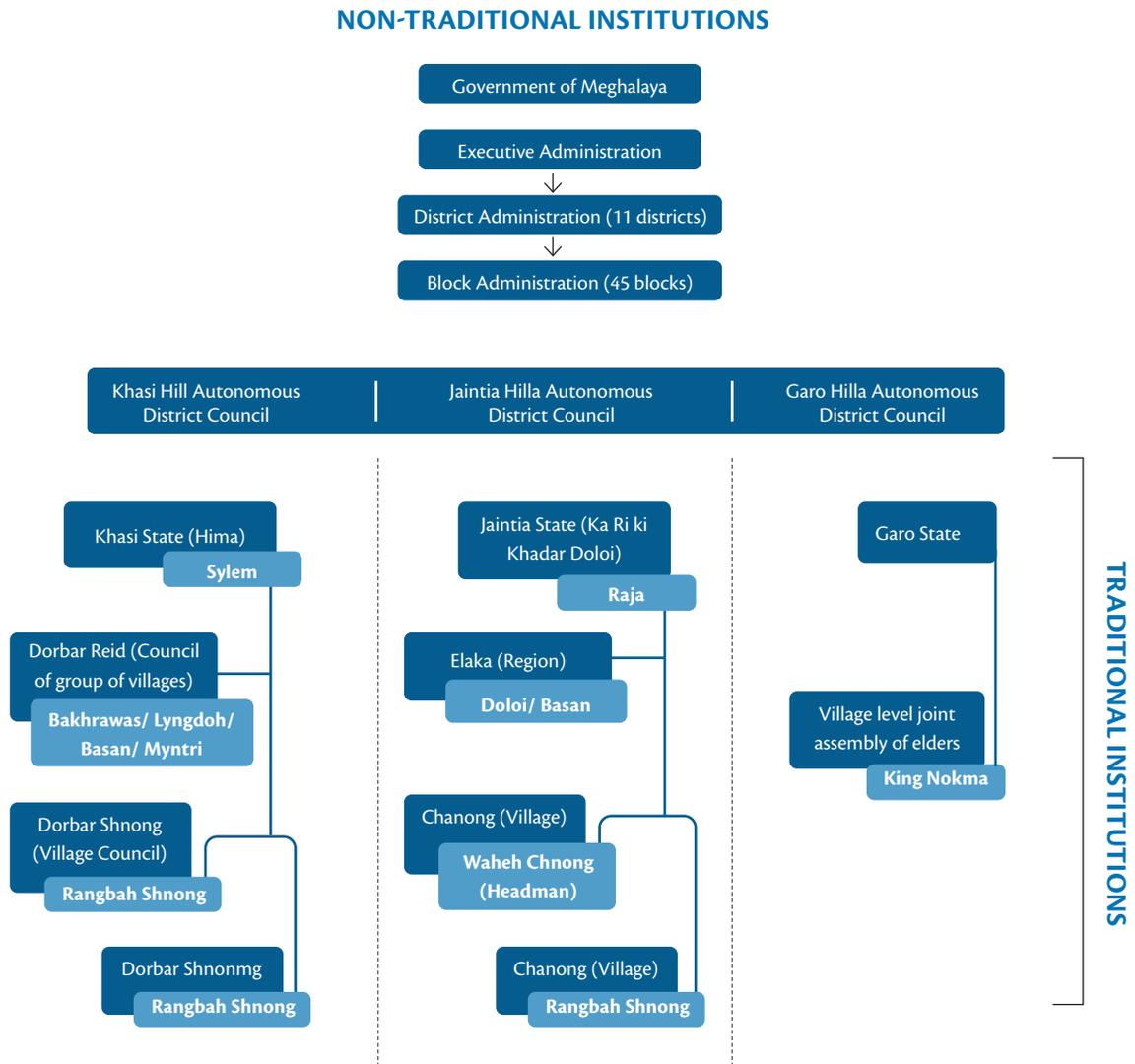
structure exists in parallel to the state's governance structure, which includes districts, blocks, and Gram Sevak Circles. Their parallel existence has huge implications for water management in the state. To this end, researchers studying governance in Meghalaya make two opposing claims: tribal institutions are barriers to the GoM's development; and formal institutions of the GoM hamper tribal-led development.<sup>9</sup> What is certain, however, is that this tussle leads to ineffective implementation of schemes, marred by poor monitoring and unaccountable spending.

Over the years, however, attempts have been made to reconcile these differences at the village-level through village level committees and community level resource persons, who are thought to be able to bridge the disconnect between state schemes and the community. In the case of Meghalaya's Community-led Landscape Management Project (CLLMP), which is supported by the World Bank, Village Natural Resource Management Councils (VNRMC) are established in acknowledgement of the matrilineal structures of Meghalaya's tribes. They promote and propagate pre-existing tribal knowledge on natural resource management.<sup>10</sup>

Rivers, reservoirs, tanks and ponds constitute the state's major water resources. Ground water is generally extracted through dugwells and springs (or seepage wells in valley areas/topographic depressions), and bore wells. Nearly all the 6500 plus villages have access to spring water for household and irrigation use. While water demand is on the rise,

Figure 1

Traditional and non-traditional governance institutions in Meghalaya<sup>2</sup>



supply is declining due to human activity and forces of climate change. A sample survey of 1100 springs revealed that over 54 percent of the springs have either dried up or are contaminated.

Known for being the wettest state in India, Meghalaya has a fragile ecosystem with its forests and soil under threat. Despite heavy rainfall, most villages face water scarcity due to poor groundwater infiltration and surface run off. Unscientific mining has adversely affected water sources, causing acid mine drainage. Unsustainable agriculture and economic practices have caused the state to witness a significant deterioration of its water, forests and soil cover.

It should be highlighted that over the years, the state has adopted an integrated approach to address rural water management. It uses the lens of natural resource management (NRM), which operates on the basis of the close links between forests, soil and water and the acknowledgment that sustainable management also provides opportunities for the creation of sustainable

livelihoods.

In 2016, the state adopted a Problem-Driven Iterative Adaptation (PDIA) process of participatory planning at the village level, and directed a fixed percentage of MGNREGS resources towards the water scarcity problem and other NRM interventions. Following this, in July 2019, Meghalaya became the first state in India to follow an integrated approach to solving water problems and brought about the state water policy. To implement the policy, all Village Executive Councils (VECs) that were instituted to implement the MGNREGS were notified as Village Water Resource Councils (VWRCs).

On the state's end, there are several departments engaged in water management and allied fields which are highlighted in the table below. The table lists departments that are directly and indirectly linked with water management.

Table 1

State Departments Involved in Rural Water Management

S No	State Departments	Dimensions of Rural Water Management		
		Source	Infrastructure	Services
1	<b>Community and Rural Development Department</b>			
	This department implements MGNREGS and NRLM.			
2	<b>Public Health Engineering Department</b>			
	This department implements the Jal Jeevan Mission in Meghalaya			
3	<b>Soil and Water Conservation Department (S&amp;WC)</b>			
	This department handles soil conservation and watershed management by co-implementing PMKSY-Har Khet ko Pani and PMKSY-IWMP.			
4	<b>Agriculture and Farmers' Welfare Department</b>			
	This department co-implements the Pradhan Mantri Kisan Sinchayee Yojana (PMKSY)-Har Khet ko Pani.			
5	<b>Department of Water Resources</b>			
	This department determines the state's water policy, enforces the water action plan, and regulates and manages irrigation			
6	<b>Meghalaya Basin Development Authority (MBDA)</b>			
	Sustainably develop the river basin resources, which will ultimately lead to promoting sustainable livelihoods; anchors the IBDLP (Integrated Basin Development and Livelihood Promotion Programme), through two sub-institutes - MIE (Meghalaya Institute of Entrepreneurship), MIG (Meghalaya Institute of Governance) and MINR (Meghalaya Institute of Natural Resources).			
7	<b>Meghalaya Basin Management Agency (MBMA)</b>			
	Is a not-for-profit company under the Planning Department of the Government of Meghalaya, focuses on promoting integrated NRM-focused livelihoods through enterprise development, market access and linkage, and knowledge services by leveraging investments from State and Central Government, UN organisations, multilateral institutions, and other stakeholders.			
8	<b>NRM Centre of Excellence (COE)</b>			
	Bring new thinking, tools, expertise, and capabilities to strengthen the capacities of people and institutions for the integration of natural resource management (NRM) and livelihood initiatives in the state.			

Following the above birds-eye view of the state, the next sections of this report focus on water management for household use and irrigation.

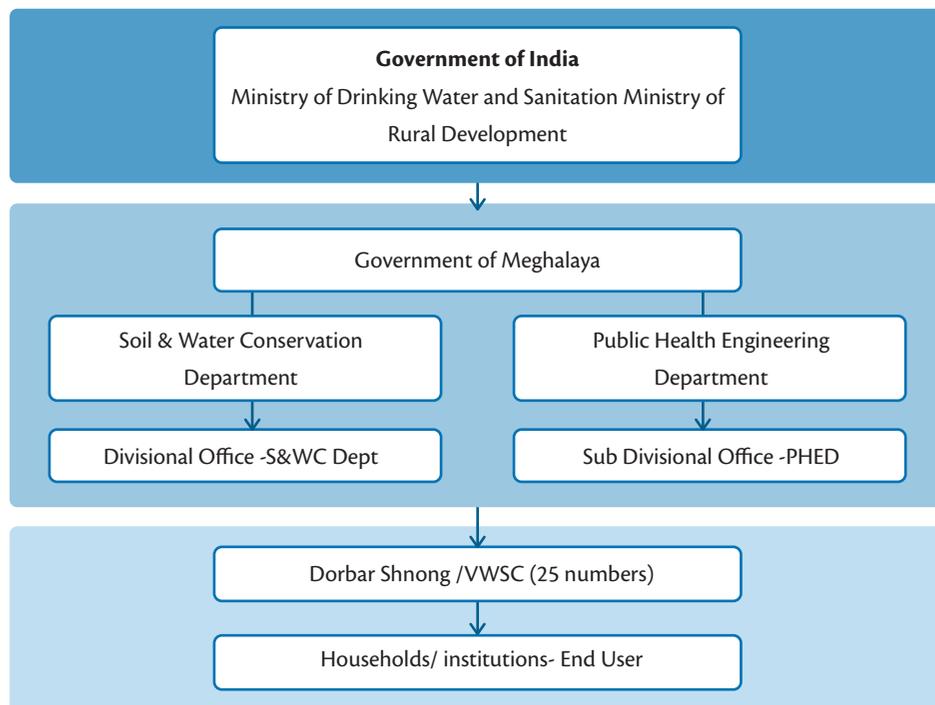
## Household Water Management

Household water delivery in Meghalaya is provided by the Public Health Engineering Department (PHED) and the Soil and Water Conservation Department. The physical infrastructure of water supply is handled by the former while the latter addresses drinking water issues in a more holistic fashion.

Since 2019, functional household tap connections (FHTCs) in Meghalaya have been provided through the JJM. While the JJM has helped 44.5 percent households in the state receive FHTCs, household water delivery was locally enabled through springs, common standpipes, ponds, and shallow wells. Meghalaya is rich in water resources – villages may have 10 or more water bodies, with springs being the major source of household water.

However, household water delivery in Meghalaya, especially from the state's end, is complicated by the structure of landholding in the state. According to the State Water Policy, while PHED and the Soil and

**Figure 2**  
**Institutions enabling household water management in Meghalaya<sup>12</sup>**



Water Conservation Department are responsible for providing household water, both are severely restricted by the fact that almost all land in the state is owned by the people.<sup>11</sup> Additionally, since the state has no land records and since customary laws are not codified, there exist no reliable and comprehensive records on water resources.

To this end, Dorbars, the traditional equivalent of Village Water and Sanitation Committees (VWSCs), handle the on-ground implementation, operation, and maintenance of household water supply. As a traditional institution, Dorbars wield tremendous authority in the community and motivate village residents to regard water sources with great care.

## Irrigation Management

The Department of Water Resources in Meghalaya oversees all irrigation-related matters in the state. Its functions include promoting water harvesting by renovating existing structures and creating jalkunds; rejuvenating springs to promote micro irrigation security; preparing an irrigation master plan for the state; and supporting and developing water user associations (WUAs) in rural Meghalaya.<sup>13</sup> As per the State Water Policy 2019, WUAs are tasked with significant responsibilities such as managing water allocations, establishing and collecting water tax, and maintaining the distribution systems.<sup>14</sup> WUAs were beginning to be established in 2015, though current data on their prevalence and effectiveness remains lacking.

### Box 1

#### Meghalaya Water Policy 2019

In an article about the launch of the Meghalaya Water Policy 2019, Sampath Kumar, the then-Commissioner and Secretary to the Community and Rural Development and Water Resources Departments in the state, stated that the issue of water security was now greater than that of livelihoods. “In our surveys, we realised that water security has become more important than joblessness as a concern... The springs are drying up and there is deforestation. Traditional knowledge is fading away due to modernisation. The communities are desperate to have their water security concerns fixed... So we are creating a cadre of community professionals or resource persons through training and capacity building to help them fix their own problems,” Kumar told *Mongabay* (Ghosh, 2019).

A key component includes payment for environmental services (PES), which is to be adopted and implemented by upstream and downstream communities to conserve water resources. The scheme is intended to “support villages, communities, clans or individuals that commit to conserve and protect Natural Forests for a minimum period of 30 years” (Ghosh, 2019).

Participatory Irrigation Management (PIM) in Meghalaya is also undertaken through other schemes and missions such as MGNREGS and the Integrated Basin Development and Livelihoods Promotion Programme (IBDLP). Under both, semi-skilled workers are leveraged to create water bodies, canal embankments, jalkunds, and other irrigation facilities.<sup>15</sup>

## Integrated Water Management

Meghalaya's tribal communities have historically afforded great care towards water resources in the state with source, infrastructure, and service management being intrinsic features of community management. Despite friction between traditional and non-traditional governance institutions, this underlying positive regard for water resources means that integrated water management in the state is far more advanced than in other states across the country.

This is reinforced by the Meghalaya Integrated Water Resource Management Bill, 2015, which consolidates enactments and provisions to harmonise all water-related laws.<sup>16</sup> It also acknowledges that the conventional top-down approach to water management "limits the scope of evolving a more robust, equitable, and decentralised community-driven integrated approach to water resource management, which is quintessential in the unique community context of the state of Meghalaya".<sup>17</sup>

The Bill is also progressive in its acknowledgement of women's participation in water management. It states that gender-responsive initiatives are critical

because women are the centre of water management and are disproportionately affected by the ineffective management of water. This clause also acknowledges the matrilineal structure of Meghalaya's tribes.

Additionally, as previously highlighted, Meghalaya approaches water management not just through an integrated lens of natural resource management but also links it with livelihood, entrepreneurship, and ecosystem services programmes. Some of these are:

- The Integrated Basin Development Livelihood Promotion Programme (IBDLP) which was launched by the government in 2012. The programme aims to develop a platform for sustainable and inclusive natural resource-based entrepreneurship focused on employment generation and livelihood elevation through the sustainable use of the state's natural resources. There are nine missions under IBDLP, one of which is the water mission, where water resource management works have been carried out by the community and converging support from other schemes.
- In the green Meghalaya mission, a community cadre through volunteers has been created for natural resource management.
- Under MNREGS, NRM works with maximum focus on water management works have been undertaken. VECs were notified as Village Water Resource Councils (VWRCs) and two Water Volunteers (WVs) were identified in each VEC. The communities also undertook a "water resolution" to act upon realising their goal to solve the water crisis while taking part in other NRM interventions.

- The Climate Change Reversal Project was launched in December 2020. Under the project, natural rural management committees (NRMCCs) will be formed as subcommittees within VECs, and existing VWRCs will be strengthened. The project also has the ambitious goal of creating a large social capital of Community Conservation Corps (CCCs), a cadre of natural resource management volunteers in each of the 6500 villages across the state. Each CCC is trained and empowered to integrate traditional knowledge and modern technology towards solving the problems of climate change.
- Payment for ecosystem services (PES), launched in 2022, is meant to support villages, communities, clans or individuals that commit to conserve and protect a minimum of two hectares of natural forests, and undertake soil and water conservation for a minimum period of 30 years through financial incentive.
- The spring shed development programme was undertaken from 2016-21, and mapped spring sheds and strengthened the capacity of village stakeholders in community-led management of the springs.
- The Meghalaya Community Led Landscape Management Project (MCLLMP) was established for community led management of natural resources – forest, soil and water. This has been elaborated on in the next chapter.

In line with Jal Kaushal's objectives, the next chapter identifies and maps in greater detail the actors involved in rural water management in the state.

## Chapter 2: Water Management – whose responsibility?

Meghalaya adopts a holistic approach towards natural resource management, which includes water management as a core component. This is enabled by a variety of interventions, namely CLLMP, MBDA's field-level leadership programme, and MGNREGS, among others. All of these interventions involve frontline workers and village-level institutions, demonstrating a state-wide push to engage communities and offer adequate skilling opportunities to ensure their engagement is effective. The table below lists village-level actors and their roles in various interventions.

Most notable of these is CLLMP, which is supported by the World Bank and relies primarily on the Khasi, Garo, and Jaintia tribes to manage water, forests and other natural resources through customary laws.<sup>18</sup> This builds on common property ownership of resources such as springs, rivers, and other waterbodies and folds traditional knowledge of natural resource management into its processes. To this end, CLLMP convenes the Village Natural Resources Management Committee (VNRMC) which carries out the day-to-day activities of the project, identifies NRM services providers, engages village youth, and establishes nurseries among other things.<sup>19</sup> To conduct these activities, each VNRMC is provided with INR 30,000 from the DPMU and is trained to create a plan to implement this project.<sup>20</sup>

In addition to these committees, CLLMP, in collaboration with the S&WC Department, also identified and trained over 20,000 Village Community

Facilitators (VCFs) on natural resource management. These VCFs guide, support and assist communities in formulating plans for their respective villages, so that they can manage their natural resources locally and sustainably.<sup>21</sup> This frontline cadre is based on the success of MBDA's field-level leaders, also known as green volunteers, who were convened in 2015-16 but were inadequately utilised. The VCFs' role includes multi-skilled tasks such as: creating a village resource map; identifying and prioritising problems across forests/water/land; analysing the problem and using a digital tool to plan an intervention; and preparing for the implementation of the intervention. All VCFs attend a three-day training program and between six and eight weekly virtual sessions. Additionally, VCFs are also trained in using the Composite Landscape Assessment and Restoration Tool,<sup>22</sup> a geographic information system (GIS)-based tool that aids in the planning and implementation of NRM interventions in the state. This mobile application provides crucial advisory support and aids target communities in planning actions to effect maximum impact. This has allowed decentralisation and democratisation of the planning process, thus enabling scale in the least amount of time and cost. VCFs are paid INR 3,000 initially, which may be revised via performance-based incentives and could go up to INR 4,500.

The programme has also created a professional cadre of Master Trainers (MTs) to support the village committees to create and implement Community Natural Resource Management Plans (CNRMPs).

Table 2

Community Involvement in Water Management Initiatives

Mission/Scheme/ Resolution/ Acts	Relevant purpose	Community's role	Village-level actors
Mahatma Gandhi National Rural Employment Guarantee Scheme	100 days of guaranteed employment per household	Natural resource management (NRM) asset construction including ponds, dug wells, check dams, embankments, farm ponds, soak pits, and compost pits	MGNREGS workers, Village Employment Council, Area Employment Council, two water volunteers in each VEC
CLLMP in 400 villages and other villages leveraging CLLMP Approach	Natural resource management	Planning, implementation, management, procurement	Village Natural Resource Management Committee (VNRMC), SHGs, Village Community Facilitators (VCFs)
PMKSY-IWMP	Capture rainwater to supplement irrigation and create employment opportunities for semi-skilled workers	Implementation	MGNREGS workers, SHGs
Jal Jeevan Mission (JJM)	FHTC provision	Planning, implementation, operation and maintenance	Dorbar Shnong/VWSC, Village residents

Unlike project-based interventions in other states, CLLMP has a long-term vision for the VCFs, its frontline cadre. With the support of several departments and agencies as well as organisations such as Arghyam, VCFs will be empanelled in the state's Centre of Excellence, which will enable a continuation of their services beyond CLLMP. The GoM is also looking to accredit these VCFs through the National Skill Development Corporation.<sup>23</sup>

By converging with other departments and offering sustained and timely skilling opportunities to its frontline workers, CLLMP offers an authoritative model of community-led natural resource management. But while successful, it is important to note that this is enabled by conditions uniquely present in Meghalaya, such as a large indigenous population and historic community ownership and management of resources, conditions rarely present in other parts of the country.

That this is a characteristic unique to Meghalaya is evident in other instances too. For example, according to a 2016 survey of four villages, water sources are cleaned as part of the overall cleaning of the village every four to six months; this is a voluntary activity coordinated by the Dorbar, the traditional village institution. Small contributions, of around INR 20 per household in 2016, may be sought but are not explicitly seen as payment for the water-related services (source). These activities may be difficult to carry out in other parts of the country, where the sense of community is not as authoritative and community institutions rarely exist.

Village Executive Councils (VEC) instituted to implement MGNREGS in the absence of Panchayati

Raj Institutions are another unique feature of Meghalaya's governance. These were notified as the Village Water Resource Councils (VWRCs) and nearly 75 percent of the work they engage in are activities that directly improve water security and water conservation efforts. In some cases, VECs also comprise Water Volunteers, as per State Water Policy 2019, individuals responsible for galvanising the community.

These examples demonstrate the existence of a sophisticated network of frontline water workers in Meghalaya, more so than in any of the other states surveyed as part of the Jal Kaushal project. Annexure 1 provides further details on the rural water management jobs landscape in the state.

#### Box 2

##### The Mawsynram Declaration

The Mawsynram Declaration represents a unique moment of convergence across schemes towards integrated natural resource management. Various VECs (under the MGNREGS) came together to sign a declaration stating that each village would designate **community land solely dedicated to the construction and maintenance of water harvesting structures**. Where community lands were available, VECs signed memoranda with their Dorbars to allocate the land; VECs purchased land in villages without community land.<sup>24</sup>

## Chapter 3: Findings and Call to Action

Meghalaya represents certain unique challenges and approaches to water management, perhaps more so than in other Jal Kaushal states. Intentions to strengthen traditional institutions and support indigenous methods abound in the policy documents of Meghalaya. The IBDLP intended to provide “encouragement to and improvement in traditional methods of rainwater harvesting and storage.” On paper at least, there already exists a fairly strong emphasis on community involvement in natural resource management in Meghalaya.

However, there is a clear need to move beyond project-based, one-off engagements. The Water Policy represents an encouraging move towards a holistic approach. There is potential for the goals stated in Meghalaya’s State Water Policy to be realised with careful implementation, institutional capacity-building, and the creation of mechanisms to ensure continuity across projects.

The figure of the VCF has found mention in party manifestos in the state’s 2023 Assembly Elections as valued frontline workers and beacons of job creation opportunities. However, as with other Jal Kaushal states, shortcomings in job security, ongoing training, and career growth hinder this vital job profile. Meghalaya’s VCFs also seem to be a diffused, unconsolidated, if sizable workforce: assuming an average of two resource persons for each of Meghalaya’s roughly 6,500 villages, an estimated state-wide cadre of around 12,000 community resource persons specifically dedicated to water already exists. Further, the CLLMP project looks to identify and

train up to 20,000 VCFs. This workforce must be consolidated in order to enable skill development and growth beyond individual project mandates, as well as to ensure fair work conditions.

Meghalaya, however, is exploring innovative techniques such as payment for ecosystem services, which can be leveraged to make financially sustainable the front-line/first-mile cadre at the village level – such as the VCFs, or even the proposed climate corps. Technology has also been recognised as an important tool for water management, and relevant training is being provided to this front-line cadre. The state has been using various technological applications, such as the Composite Landscape Assessment and Restoration Tool (CLART) for planning, Participatory Digital Attestations for capacity building,<sup>25</sup> Airtable for content repository, and virtual platforms for training and guided mentoring sessions, among others.

Even outside the role of the VCF, plenty of opportunities exist for water-linked jobs that could address the state’s water resource management issues. At the village level, JJM implementation statistics offer some clues to where gaps exist. For example, only 34 percent of villages had either a VWSC/Pani Samiti or pump operator trained to use field test kits to measure water quality. East Garo Hills reported only 3 percent.<sup>26</sup> Skilling in this area represents the potential for employment generation.

An FHTC assessment in Meghalaya under the JJM found that 32 percent of villages in the state reported

having available field test kits, and that over one-third reported having either a VWSC, Pani Samiti, or a pump operator trained to use such field test kits to test water quality.<sup>27</sup> The same report also found that 73 percent of villages in the state reported having a VWSC or a Pani Samiti, of which 28 percent had more than 50 percent women members. Strikingly, only 28 percent of villages reported having identified skilled manpower for operations and maintenance of pumped water schemes. This represents a clear opportunity for skilling and training. In the state, 32 percent villages that had VWSC/Pani Samiti reported being responsible for operation and maintenance of PWS. Less than 10 percent villages having VWSC/Pani Samiti in East Jaintia Hills reported being responsible for O&M of PWS schemes. This also represents a clear lacuna in water skilling. The Public Health Engineering Department (PHED) in Meghalaya, for example, could aid in strengthening the community cadre in the areas of executing water supply schemes, water quality testing and sanitary facilities in the rural areas.

Also of note is that DDU-GKY is underutilised in the state. The Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY), with a stated aim of skilling poor rural youth into jobs with above-minimum-wage payment, is an initiative under the NRLM.<sup>28</sup> While the central government has a list of typical roles under “plumbing”, these will need to be customised and reimagined for Meghalaya’s unique socio-hydrology.<sup>29</sup> According to the State Performance Report 2021-22, as of March 2022, only 232 candidates have been trained, against a target of skilling of 1255 candidates under DDU-GKY, and 100 of those placed.

To that end, we suggest the following measures:

- Strengthen the community-led rural water management by professionalising the decentralised water cadre that is being created.
- Avoid duplicity of such cadres, with every scheme nurturing a new set of volunteers such as water volunteers under MGNREGS, VCFs under CLLMP, and Community Conservation Corps (CCCs) under Climate Change Reversal Project. A digital repository of such cadres would help in continuity, both in respect to works and skills being maintained. The Meghalaya Centre of Excellence for Sustainable Natural Resource Management and Livelihoods has initiated such an effort. This can be strengthened further by encouraging the use of technologies such as the Participatory Digital Attestation (PDA) platform across all schemes and initiatives.
- Convergence between departments, schemes and state level institutes and village level traditional institutes is necessary. Front-line cadre of workers can be a valuable resource for this convergence, with clear reporting to relevant departments, which would be scheme/programme agnostic.
- While the VCFs under CLLMP are being remunerated with a minimum honorarium, other volunteers in non-CLLMP villages are not financially supported. Other departments and schemes, also seeing great value in this network of first mile cadre, are exploring incentive-based payment to these workers in providing implementation support for other schemes and projects as well. While this recognition of VCFs is encouraged, it should not dilute the focus on water management.

- Build on existing systems and traditions by encouraging cross-pollination between state and traditional institutions and knowledge systems. Meghalaya has a unique tradition of community-led management of natural resources, including water, which needs to be recognised and strengthened. The traditional governance institutions need to be capacitated with technological advancements, while traditional knowledge of resource management needs to be recognised in new schemes by the state, such as PES.
- At the village level, there are opportunities to create a skilled cadre for roles such as para-hydrologists and water quality monitors. Only 18 percent of villages in the state reported to have community level monitoring of water wastage according to the JJM. This represents an avenue for skilling. Other potential areas of job creation in the water sector are spring shed management, rainwater harvesting, water quality control and management.

## ANNEXURE 1: Jobs and Tasks in Water Management

Table 3

Technical Water Jobs

S No	Job/Role	Formal/ Informal	Paid/ Unpaid	Work hours	Tasks	Skills and Training
DISTRICT LEVEL						
1	DPMU members	Formal	Paid	8 hours/full day work		
VILLAGE LEVEL						
1	Village Community Facilitator	Formal	Paid		<ul style="list-style-type: none"> <li>• Formulating natural resource plans</li> <li>• Creating a village resource map</li> <li>• Identifying and prioritising problems across forests, water, land</li> <li>• Facilitating implementation through CLART</li> </ul>	None

Table 4

Supporting Water Jobs

S No	Job/Role	Formal/ Informal	Paid/ Unpaid	Work hours	Tasks	Skills and Training
BLOCK LEVEL						
1	WUA members	Formal	Unpaid		<ul style="list-style-type: none"> <li>Collecting water charges</li> <li>Managing water allocation</li> <li>Maintaining distribution systems</li> </ul>	
2	Block Resource Development Council members	Formal	Unpaid		<ul style="list-style-type: none"> <li>Overseeing implementation</li> <li>Ensuring convergence</li> </ul>	
VILLAGE LEVEL						
1	Dorbar Shnong (Village Council) members	Informal	Unpaid		<ul style="list-style-type: none"> <li>Managing natural resource assets such as water resources</li> </ul>	
2	Village Employment Council members	Informal	Unpaid		<ul style="list-style-type: none"> <li>Implementing MGNREGS as a GP would</li> </ul>	
3	Village Natural Resource Management Committee members	Informal	Unpaid			
4	Water Volunteers	Informal	Unpaid		<ul style="list-style-type: none"> <li>Part of VECs; support with galvanising communities</li> </ul>	

Table 5

Institutional/Administrative Jobs

S No	Job/Role	Formal/ Informal	Paid/ Unpaid	Work hours	Tasks	Skills and Training
DISTRICT LEVEL						
1	Autonomous District Council members	Informal	Unpaid		<ul style="list-style-type: none"> <li>Implementation of development and welfare activities</li> </ul>	

## Notes

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- <sup>5</sup> Ibid.
- <sup>6</sup> Meghalaya Basin Development Authority, "Understanding the Linkages between Governance and Service Delivery in Meghalaya: A Literature Review," (MBDA Working Draft) <https://mbda.gov.in/sites/default/files/publication-3.pdf>.
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- <sup>8</sup> Ibid.
- <sup>9</sup> Ibid.
- <sup>10</sup> Meghalaya Basin Management Agency and the World Bank, *Meghalaya Community Led Landscape Management Project (MCLLMP) Report 2020*. [https://coenrm.megplanning.gov.in/wp-content/uploads/2021/06/20200717\\_Baseline-Report\\_Final\\_CLL-MP-1.pdf](https://coenrm.megplanning.gov.in/wp-content/uploads/2021/06/20200717_Baseline-Report_Final_CLL-MP-1.pdf)
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- <sup>14</sup> Government of Meghalaya, <https://meghalaya.gov.in/>.
- <sup>15</sup> Meghalaya Basin Development Authority, *Integrated Basin Development and Livelihoods Promotion Programme 'A report to Citizens December 2012'*, MDBA. <https://mbda.gov.in/sites/default/files/publication-41.pdf>.
- <sup>16</sup> Government of Meghalaya, <https://meghalaya.gov.in/>.
- <sup>17</sup> Government of Meghalaya, <https://meghalaya.gov.in/>.
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- <sup>21</sup> James T Kharkongor, "Managing natural resources at scale in Meghalaya," India Water Portal, May 20, 2021, <https://www.indiawaterportal.org/articles/managing-natural-resources-scale-meghalaya>.
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