



ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

CONSTRUCTION OF STORAGE PLACE

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1. Executive Summary

The Chapahati Storage Facility is a sub-project implemented under the Sustainable Land Management (SLM) Project, funded by KfW Development Bank and executed by the Meghalaya Basin Management Agency (MBMA). Located within the Chapahati PRIME Hub in South West Garo Hills, Meghalaya, this sub-project aims to construct a 500-MT capacity warehouse for storing value-added agricultural commodities—particularly cashew nuts, arecanut, and paddy—to support income generation, reduce post-harvest losses, and promote climate-resilient livelihoods among tribal communities.

The sub-project is being implemented in close partnership with the Chapahati-1 Integrated Village Cooperative Society (IVCS), which has actively facilitated stakeholder consultations, land donation through Free, Prior and Informed Consent (FPIC), and site-level monitoring. The warehouse construction aligns with MBMA's larger vision of strengthening value chains and increasing the market competitiveness of tribal farmers, especially women and youth, through aggregation and value addition.

In compliance with KfW Sustainability Guidelines (2021) and IFC Performance Standards, an Environmental and Social Management Plan (ESMP) has been developed to identify, assess, and manage project-related risks and impacts across environmental, social, and occupational dimensions.

Key mitigation measures include:

- Installation of rainwater harvesting systems and water use monitoring tools
- Construction of drainage and soak pits for effective waste and runoff management
- Enforcement of occupational health and safety (OHS) protocols, including use of PPE and worker training
- Culturally appropriate stakeholder engagement and Free, Prior and Informed Consent (FPIC)
- Establishment of a Grievance Redress Mechanism (GRM) to address community concerns

The project is planned over a 12-month implementation timeline, with oversight by MBMA, the District Project Management Unit (DPMU), Chapahati IVCS, and technical experts. An ESMP budget of ₹4.25 lakhs has been allocated to ensure proper safeguard implementation, covering training, safety infrastructure, stakeholder engagement, and compliance monitoring.

The Chapahati Storage Facility will not only boost local incomes but also promote sustainable farming, responsible resource use, and gender-inclusive development. It aligns with the Government of India's efforts under the National Mission on Sustainable Agriculture, the Paris Agreement, and the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), positioning itself as a replicable model of climate-resilient rural enterprise.

1.1 Purpose of the Environmental and Social Management Plan (ESMP)

The ESMP for the Chapahati Storage Facility provides a structured approach to the identification, mitigation, and management of environmental, social, and climate-related risks. Prepared in accordance with the KfW Sustainability Guideline (2021), the plan ensures that the project upholds responsible development practices while promoting inclusivity, community ownership, and environmental protection.

Functions of the ESMP include:

1. Risk Identification and Impact Assessment

- Screening of E&S risks across all project stages: pre-construction, construction, and operation
- Key risks assessed include borewell water overuse, solid waste disposal, occupational hazards, and social exclusion

2. Mitigation and Management Planning

- Tailored mitigation measures for each identified risk
- Defined roles, performance indicators, and timelines to ensure accountability
- Focus on both environmental (e.g., dust suppression, pollution control) and social (e.g., gender equity, GBV prevention) aspects

3. Institutional Roles and Responsibilities

- Clearly defined roles for MBMA (PMU), DPMU, Chapahati-1 IVCS, and contractors
- Deployment of trained personnel for ESMP implementation and compliance monitoring
- Integration with local governance systems for effective community engagement

4. Safeguard Compliance and Legal Alignment

- Compliance with Indian environmental laws (e.g., Water Act, Solid Waste Rules) and labor codes (OSH, Minimum Wages Act)
- Adherence to KfW and IPC standards on human rights, climate resilience, and resource efficiency
- Alignment with relevant World Bank ESS and IFC Performance Standards

5. Transparency, Stakeholder Engagement, and Grievance Redress

- Continuous engagement through community meetings, awareness sessions, and FPIC processes
- Public display of grievance procedures and access to community-level redress mechanisms
- Documentation of consultations and stakeholder inputs for adaptive management

1.2 Risk Categorization (Moderate Risk – Category B)

Following the KfW Sustainability Guideline (2021), the Chapahati Storage Facility is classified as a Category B (Moderate Risk) sub-project. This classification is based on the presence of limited, site-specific, and reversible environmental and social impacts that can be mitigated with appropriate measures.

Basis for Moderate Risk Classification:

1. Medium-Scale Construction
 - Involves the construction of a single pre-engineered storage unit
 - Located within an existing Prime Hub campus, minimizing ecosystem disruption
2. Community-Contributed Land
 - No involuntary resettlement or displacement
 - Land donation through Chapahati IVCS with FPIC documentation
3. Water Usage
 - Reliance on borewell water for processing and construction
 - Potential risk of overuse; mitigated by supplementary rainwater harvesting
4. Solid Waste and Noise Pollution
 - Construction debris, packaging waste, and noise expected during peak periods
 - Mitigation through waste segregation, disposal protocols, and noise-control measures
5. Social Sensitivity in a Tribal Context
 - Located in a tribal-majority area with strong customary governance
 - Requires sustained engagement, gender inclusion, and cultural sensitivity

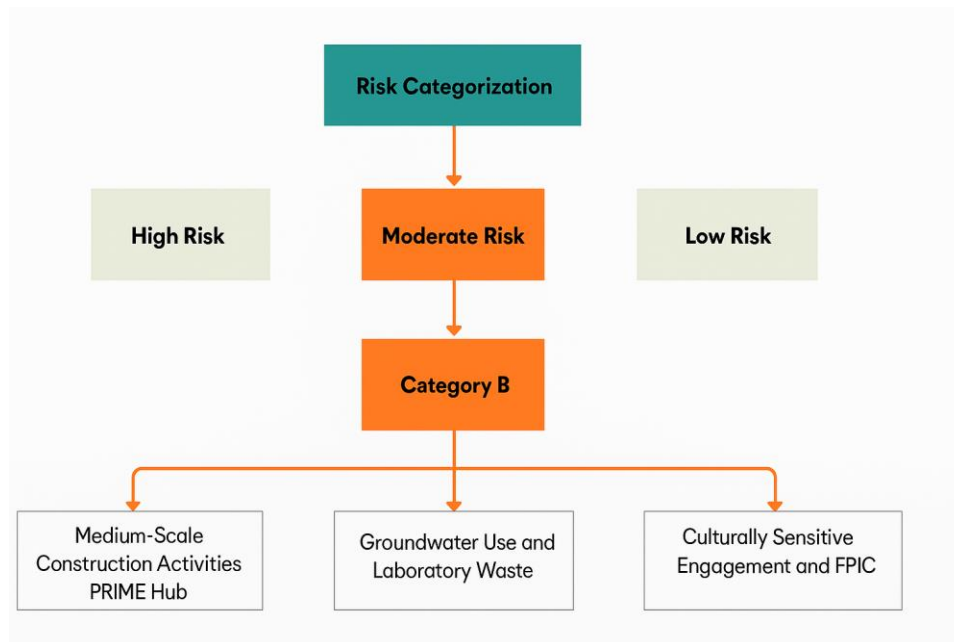


Figure 1: Risk Categorization for Construction of Storage Place in Chapahati

1.3 Summary of Key Environmental and Social Risks and Proposed Mitigation

One of the primary concerns is the potential overuse of the existing borewell, which is being relied upon for construction, processing, and irrigation activities. To mitigate this, the project will incorporate rainwater harvesting systems to supplement the water supply and reduce strain on groundwater. Additionally, water usage meters will be installed to monitor consumption and ensure sustainable usage levels.

The project is also expected to generate construction debris and packaging waste, which, if unmanaged, could lead to localized pollution. To address this, the ESMP includes measures for waste segregation at source, reuse of suitable debris, and the disposal of residual waste through authorized agencies, thereby promoting both safety and environmental responsibility.

Worker health and safety is another critical area of focus. The project mandates the provision of Personal Protective Equipment (PPE) such as gloves, helmets, and masks for all laborers. Workers will also undergo safety training, and the site will be equipped with appropriate signage and first aid kits to handle minor injuries and emergencies.

To promote gender and social inclusion, special efforts will be made to prioritize the recruitment of women and youth, especially from within the IVCS and surrounding communities. The construction site and future facility will include gender-sensitive infrastructure, such as separate sanitation facilities, to ensure dignity and safety for all workers.

Finally, to ensure transparency and local accountability, a Grievance Redress Mechanism (GRM) will be established on-site. A designated focal person will be appointed to receive, document, and escalate complaints or concerns raised by community members or workers, ensuring timely and effective resolution.

These mitigation measures are designed to minimize negative impacts, enhance project acceptance, and ensure alignment with both national safeguard regulations and the KfW Sustainability Guidelines.

2. Project Information

2.1 Background on SLM Project

Nature and environment protection, as an overall objective of the state, has a common social value, which will reflect in a relatively well-preserved and diverse environment, favorable species, habitat status, and environmental conditions for eco-friendly farming. Organic farming measures are designed to encourage farmers to protect and enhance the sustainability of their farmland. The project aims to balance agricultural production and the protection of the environment. To minimize the adverse impacts of modern agricultural practices dominated by inorganic fertilizers and pesticides, there is a need to address such diverse problems as pollution and degradation of agricultural land and soil, water pollution, and excessive use of pesticides and fertilizers.

Organic farming has the potential to address most of the issues described above relating to agriculture, environment, and land management. Besides reducing environmental pollution, impeding loss of agro-diversity, and improving farm and ground water quality, it reduces emission of ammonia and greenhouse gases such as methane, thus mitigating climate change and contributing towards sustainable land management.

2.1.1 Justification of the Project

Agriculture is crucial to Meghalaya's development as two-thirds of the working population in the state is employed in agriculture. Yet, the sector is beset by low productivity and income. Raising agricultural productivity and income from agriculture through effective market linkage are critical to poverty reduction and advancing the state's economic transformation.

Organic farming is the traditional way of farming in Meghalaya. This creates opportunities for local farmers, cooperatives, and other stakeholders along the value chain to come together to promote healthy, pesticide-free, sustainable organic agriculture to meet growing demand for safe food. However, the current practice of shifting cultivation or slash-and-burn agriculture in many parts of Meghalaya has become unsustainable due to ever-increasing population pressure on land, causing a decline in crop yield, soil fertility, biodiversity, and environmental degradation. In most urban and sub-urban areas of the state, the farmers have adopted modern agricultural practices and are applying excessive amounts of inorganic NPK fertilizers and pesticides, causing extensive environmental and health hazards. This emphasizes the need to facilitate a shift in farming practices by the farmers of the state, with a focus on small and marginal farmers, towards adopting a sustainable package of practices for natural/ organic farming.

Many farmers are heavily indebted due to low yields and low prices of the produce. They lack the money, knowledge, and training to obtain the third-party certification needed to label and market a product as officially organic. The farm households in Meghalaya have limited investment capacity and, in turn low level of risk-bearing ability. Thus, market risks associated with organic produce such as price variability, entry of products with lower prices in the market, etc. is a constraint for these farmers. Therefore, it is essential to establish an effective market linkage for the organic produces at regional (north-east India),

national and global levels. All these challenges do pose problems for farmers to switch over from production of non-certified produces to certified produces.

2.1.2 Project Objectives

The Meghalaya Sustainable Land Management (SLM) Project has two phases/components viz., (a) Pilot Phase (Phase I), and (b) Phase II, which includes a loan component from KfW.

The objective of Phase I is to promote agro-ecological, natural/organic farming practices among the rural farmer households and establish sustainable land management practices and value chains on a pilot basis through an efficient, functional support structure for roll-out at state level. Initiatives will include promoting organic farming, addressing certification challenges, empowering farmers through capacity building, and linking organic produce to remunerative global markets. It will also help the project's participating institutions to prepare for building a solid foundation for implementing scalable and replicable sustainable farming and value chain models, while ensuring sustainable natural resources management, productivity improvement, climate change mitigation, and creation of livelihood opportunities.

2.1.3 Project Components

The SLM project has four components as listed below:

Component 1. Organic Farming Production and Diversification: The focus of this component is to enhance organic farming competitiveness at the farm level by supporting access to knowledge, technology, and finance in order to increase long-term productivity and farm income.

Component 2. Value Addition & Upgradation of Aggregation Infrastructure: This component will enhance market access for farmers through value addition at the farm level, through improved post-harvest handling and processing of their organic produce, to meet the demands of high value organic markets, and support increased investment in the development of value chains, processing, marketing, and other field services.

Component 3. Establishing Effective Market Linkage: This component will prepare a market linkage strategy which will be designed to overcome existing constraints and increase the throughput volume of organic produce from Meghalaya that reaches wholesale markets, supermarkets, and other retailers, buyers, and distributors, and realizing better sale prices for farmers.

Component 4. Organic Certification for Premier Organic Markets: The objective of this component is to enhance the institutional capacities of the executing agency and implementing partners, and beneficiaries to facilitate the transition towards sustainable agricultural practices, ensure organic certification and the smooth delivery of the project.

2.1.4 Project Stakeholders

All the stakeholders will be involved in planning and implementation of the mitigation plan. The various stakeholders of the project include the directly affected persons and groups on the one hand and the executing agency, the line departments and the monitoring consultants on the other. The directly affected include all the affected persons and project beneficiaries; the landowners, crop and asset owners, vulnerable groups, SHGs and employees and labors of the CMCs and Hubs. The other set of stakeholders include the Meghalaya Basin Management Agency (MBMA), Directorate of Horticulture (DoH) under Department of Agriculture and Farmers' Welfare, the Bio-Resources Development Center (BRDC), and the Meghalaya State Rural Livelihoods Society (MSRLS), District Administration, Traders Associations, and the Monitoring and Supervision Consultants.

2.2 Sub-Project Description

2.2.1 Project Title and Location

The sub-project involves the construction of a multi-purpose storage facility at the Chapahati PRIME Hub, located in South West Garo Hills District, Meghalaya, as part of the Meghalaya Sustainable Land Management (SLM) Project, supported by KfW Development Bank and implemented by the Meghalaya Basin Management Agency (MBMA).

This initiative aligns with the SLM Project's Pilot Phase (Phase I), which promotes sustainable land management, organic agriculture, value chain strengthening, and rural enterprise development. The facility will directly support the cashew value chain, a major livelihood sector in the region.

2.2.2 Key Features of the Sub-Project:

- Storage Capacity: 500 Metric Tonnes (MT) for Raw Cashew Nuts (RCN), with 50 MT for processed nuts.
- Infrastructure: Construction of a Pre-Engineered Shed with S.M.A.R.T. (Solar Mounted Rooftop Technology) generating 50KW solar power.
- **Facilities Included:**
 - ✓ Grading, metal detection, cleaning, and packaging units.
 - ✓ Hygienic storage environment with pest control and temperature regulation.
 - ✓ Secure storage with product traceability and coded inventory.
 - ✓ Training space for workers in GMP (Good Manufacturing Practices).

2.2.3 Objectives:

- Enable safe and efficient post-harvest storage for cashew produce.
- Improve value addition, market access, and income generation.
- Promote climate-smart and cost-effective energy solutions.

- Build local capacity through IVCS-led operations and enterprise development.

2.2.4 Stakeholders and Community Involvement:

- Chapahati-1 Integrated Village Cooperative Society (IVCS) is the primary community stakeholder, managing operations, storage, and local employment.
- The project is built on land voluntarily contributed by the community, with Free, Prior, and Informed Consent (FPIC).
- Consultations were held and will continue monthly during construction and operations.
- A Grievance Redress Mechanism (GRM) will be maintained for addressing issues related to construction, labor, or resource use.

2.2.5 Environmental and Social Safeguards:

- Over-dependence on borewell water will be mitigated through rainwater harvesting systems and water usage monitoring.
- Construction and packaging waste will be managed through segregation, reuse, and disposal via licensed handlers.
- The site will implement occupational health and safety protocols, including PPE, safety signage, and worker training.
- Gender inclusion will be promoted by recruiting women and youth, and ensuring gender-sensitive facilities.

2.2.6 Project Timeline

Phase	Timeline	Key Activities
Planning & Procurement	Months 1–2	Site preparation, contractor mobilization, procurement
Civil Construction	Months 3–6	Shed erection, solar panel installation, utilities
Internal Fit-Out	Months 7–9	Equipment setup, flooring, ventilation, signage
Training & Commissioning	Months 10–12	Staff orientation, operations testing, handover

Table 1: Timeline with key activities

2.2.7 Implementing Partners

Implementing Partner	Role/Responsibility
Meghalaya Basin Management Agency (MBMA)	Overall project coordination, fund management, safeguard oversight
District Project Management Unit (DPMU), South West Garo Hills	Field supervision, stakeholder engagement, reporting
Chapahati -1 IVCS	Local ownership, post-construction operations, storage and labor management
Technical Contractors	Design, construction, and equipment installation
Department of Horticulture (DoH)	Technical input on storage and value chain systems
Meghalaya State Rural Livelihoods Society (MSRLS)	Capacity building and community mobilization
NGOs/CBOs	Training support, awareness on GRM and community safeguards

Table 2: Roles of Implementing Partners

3. Implementation: Organizations, Roles and Responsibilities

3.1 Institutional Arrangement

The Institutional arrangement for the implementation of the ESMP will rest with the PMU of MBMA, which will have a dedicated Environmental and Social Management Framework Specialist reporting to the Project Director, through the Additional Project Director. Successful implementation of the project requires strict compliance with the project ESMP and the applicable rules, regulations, Acts, and guidelines of the Government and the funding agency. Meghalaya Basin Management Agency (MBMA), a not-for-profit company under Section 8 of the Companies Act, 2013, incorporated under the Planning Department of the Government of Meghalaya, will be the project executing agency (PEA) and has the following responsibilities:

- Ensuring compliance with all relevant national legislation, as well as with the environmental controls and mitigation measures contained in this ESMP.
- Ensure that the design and planning follow national requirements and are aligned with international best practices.
- Monitoring the performance of contractors and sub-contractors used for providing workforce, supplies, and services.
- Acting as a point of contact for consultation and feedback for the stakeholders.
- Training of construction workers to raise awareness in the fields of E&S topics and in the general implementation of this ESMP.

The organizational arrangement for implementation of ESMP will be as per the chart below:

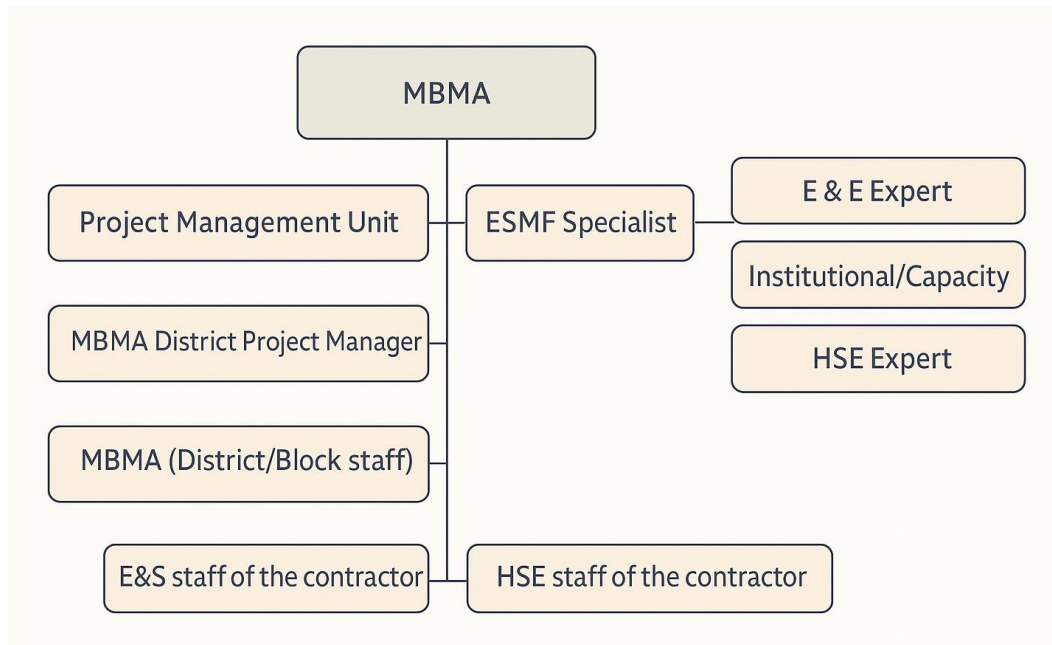


Fig 2: Organizational arrangement

3.2 The PMU

The overall responsibility of implementation of the ESMP lies with the PMU which will have dedicated staff to oversee the implementation as well as monitor the progress through regular monthly reports submitted by the contractors. Accordingly, it will be provided with staff on deputation from the MBMA, DOH, MSRLS, BRDC and other government departments; requisite contractual staff will be hired by the MBMA at PMU level. For effective implementation of sub-project specific ESMPs, dedicated E&S staff will be appointed at the PMU right from the start of the project and counterpart E&S staff will be appointed by the contractors. The PMU level E&S staff will be supported by the district/Block level staff of MBMA.

An ESMF Specialist (senior level officer) from GoM will be appointed to the PMU and will have the overall responsibility of successful implementation of GESI AP, implementation and compliance monitoring of all mitigation measures suggested in the sub-project specific ESMPs and as the focal point for grievance redressal. The ESMF specialist will be assisted by one experienced Environment & Social Expert, one Institutional/Capacity Building Expert and one HSE Expert.

The role of the Environment & Social Expert will be to monitor compliance with all environmental and social laws and regulations, permits and licenses and the labour and social security codes. He will also be responsible for conducting FPIC throughout the project life cycle as per the SEP. The Institutional/Capacity building Expert will be responsible for conducting TNA, preparing the training modules and imparting capacity building trainings to the project implementation staff of MBMA, BRDC, MSRLS and the contractor. He will also be responsible for imparting training to the WUA functionaries and maintain a record of all the training sessions. Trainings will be repeated as needed during the construction activities. The HSE Expert will monitor the safety aspects at work sites and labour camps and provide HSE training to the project implementation staff of MBMA, BRDC, MSRLS and the contractor.

3.3 Contractors

3.3.1 Contractors Role

The contractor is a key implementing partner responsible for the successful execution of all environmental and social safeguards during the construction phase of the Wahiajer Bio-Fertilizer and Bio-Pesticide Unit. In line with the ESMP and the KfW Sustainability Guidelines, each contractor must allocate dedicated personnel and adopt robust protocols to ensure full compliance with the mitigation measures outlined in the sub-project ESMP.

(i) Institutional Responsibility-

- A Counterpart Environment & Social Expert and an HSE (Health, Safety, and Environment) Expert shall be hired by the contractor and remain deployed at the site throughout the construction period.

- These experts will be responsible for the daily implementation of ESMP provisions, on-site risk management, and documentation.
- The contractor shall submit monthly compliance reports to the Project Management Unit (PMU) through the District Project Management Unit (DPMU)/block staff of MBMA.

(ii) Key Contractor Responsibilities Include-

- Conduct routine monitoring and on-site audits to verify ESMP implementation, and report findings to the PMU/PEA (Project Executing Agency).
- Immediately report any environmental or safety incidents to the PMU.
- Ensure that all sub-contractors and site personnel comply with the ESMP requirements.
- Provide or facilitate training and toolbox talks for construction workers on environmental and social topics, occupational health and safety, and gender-based safeguards.
- Comply with all applicable Indian labour laws, including the OSH Code (2020), Minimum Wages Act, and the Building and Other Construction Workers Act.
- Prevent the use of child labour or forced labour under any circumstances.

3.3.2 Contractor Code of Conduct

To formalize behavioral expectations and safeguard community interests, the contractor must adopt a Contractor Code of Conduct (CoC) for all site workers and sub-contractors.

(i) This Code is attached as Annexure 6 and must be-

- Disseminated to all workers in a language they understand.
- Signed upon induction by each employee as a condition of employment.
- Reinforced regularly through orientation sessions and refresher trainings.

(ii) The Contractor Code of Conduct covers the following areas-

- Zero tolerance for gender-based violence (GBV), sexual exploitation, and harassment
- Respect for local culture, tribal norms, and community institutions (Village Headman, IVCS)
- Non-discrimination and equal opportunity for workers regardless of gender, caste, tribe, or ability
- Prohibition of alcohol, drugs, and other disruptive behaviors at the worksite
- Mandatory use of personal protective equipment (PPE) and compliance with site safety procedures
- Whistleblower protections for any worker reporting abuse, misconduct, or unsafe conditions

Violations of the Code will result in disciplinary action, including removal from the project, reporting to authorities, and possible legal prosecution.

3.3.3 Monitoring of Contractor Compliance

The PMU and DPMU will monitor contractor performance through:

- Unannounced site visits and inspections
- Worker interviews and feedback collection
- Review of monthly ESMP implementation reports, including labour logs and incident records
- Engagement with IVCS and local governance institutions to ensure community feedback is incorporated

Any non-compliance or serious breach of the Code of Conduct will trigger enforcement actions as per contract conditions, including withholding of payments or termination.

3.4 Implementation Management Consultant

Shall provide support in designing all E&S related processes and documents including the ESMS and capacity building support to the PMU and beneficiaries and general operational support to the PMU vis à vis KfW, including procurement, disbursement and reporting matters, which also comprise financial and procurement audits and the verification of disbursement requests.

3.5 Non-Governmental Organizations (NGOs)

The NGOs will be responsible for the promotion of the Project to the private sector, relevant business organizations and other relevant parties to develop a pipeline of potential subprojects and to ensure the maximum feasible take up of project support. NGOs will also work with potential beneficiaries to prepare/refine financing and business plans and oversee the screening and selection of beneficiaries to ensure bank compliance with project guidelines and procedures.

3.6 Training and Capacity Building

Capacity building training of the project stakeholders is needed for effective implementation of ESMP. The training program will ensure that all concerned members of the team understand the following aspects:

- Purpose of management plan for the project activities
- Requirements of the management plan and specific action plans
- Understanding the sensitive environmental and social features within and surrounding the project areas, and
- Awareness about the potential risks from the Project activities.

The general environmental and social awareness will be increased, through trainings, among the project's team to encourage the implementation of environmentally and social sound practices and compliance requirements of the project activities. This will help in minimizing adverse environmental and social impacts, compliance with the applicable regulations and standards, and achieving performance beyond compliance. The same level of awareness and commitment will be imparted to the contractors and sub-contractors prior to the commencement of the project.

The PEA will provide Induction Training to all its employees and Contractor personnel working on the Project before early works start. This Induction Training shall be conducted for all new workers, as well as they who join the construction site later during construction activities.

Apart from induction training upon joining and regular project-wise trainings, the other major areas identified for training include, but are not limited to, the following:

- The mitigation measures included in this ESMP and how it will be implemented on site, including responsibilities.
- The sensitivities of the area (if any) in which the Project will be constructed and operated.
- Occupational Health and Safety (H&S) rules at the construction site (e.g. personal protective equipment, rules of conduct, first aid);
- The Project's Grievance Mechanism and the basic workers' rights.
- How to deal with enquiries/ questions/ grievances by the public/ local stakeholders.
- Interaction rules with the people living close to the construction site (Code of Conduct, including GBV) and how to deal with unauthorized visitors to the site.
- How to deal with unforeseen incidents/ emergency situations.
- The roles and responsibilities within the PEA, the Contractors, sub-Contractors, and workers with respect to environmental and social issues.

3.7 Contractor Management

The respective state and district-level project management and coordination committees will ensure that the ESMP is implemented by its contractors through contractual arrangements. General environmental and social awareness will be increased among the project's team through orientation training to encourage the implementation of environmentally and socially sound practices and compliance requirements of the project activities. The same level of awareness and commitment will be imparted to the contractors and sub-contractors prior to the commencement of the project. The project proponent will ensure that the job-specific training and EHS and Social Induction Training needs are identified based on the specific requirements of ESMP and the existing capacity of site and project personnel (including the Contractors and Sub-contractors) to undertake the required actions and monitoring activities. An environmental and social management training program will be conducted to ensure effective implementation of the management and control measures during construction and operation of the project.

The training program will ensure that all concerned members of the team understand the following aspects:

- Purpose of action plan for the project activities
- Requirements of the specific Action Plans
- Understanding of the sensitive environmental and social features within and surrounding the project areas; and
- Awareness of the potential risks from the project activities.

Occupational and health training program and specialty courses will be provided, as needed, to ensure that workers are oriented to the specific hazards of individual work assignments. Training to be provided to management, supervisors, workers, and occasional visitors to areas of risks and hazards. Workers with rescue and first-aid duties to receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their co-workers. Through appropriate contract specifications and monitoring, the employer to ensure that the service providers, as well as contracted and subcontracted labour, are trained adequately before assignments begin.

3.8 Management of Labour Influx

Within 30 days from the appointed date, the Concessionaire/Contractor shall prepare and submit 4 hard copies and 1 soft copy of Labour Influx and Worker's Camp Management Plan to [Executing Agency] that addresses specific activities that will be undertaken to minimize the impact on the local community, including elements such as worker codes of conduct, training programs on HIV/AIDS, etc. A Workers' Camp Management Plan addresses specific aspects of the establishment and operation of workers' camps.

The Labour Influx and Worker's Camp Management Plan will include:

- (i) Mandatory and repeated training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women.
- (ii) Informing workers about national laws that make sexual harassment and gender-based violence a punishable offence which is prosecuted.
- (iii) Introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., suspension and/or termination)
- (iv) Contractors adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
- (v) Training programs on HIV/AIDS and other communicable diseases,
- (vi) Workers' Camp Management Plan addressing specific aspects of the establishment and operation of workers' camps, and
- (vii) Establishing a Complaint and Grievance Handling Mechanism at the project level.

4. Legal and Institutional Framework

This sub-project is guided by a combination of national legal provisions, KfW Sustainability Guidelines, and IFC Performance Standards on Environmental and Social Sustainability. Together, these frameworks ensure that project planning and implementation are environmentally sound, socially inclusive, and aligned with international best practices.

4.1 Applicable National Environmental, Labor, and Social Laws

The project must comply with a wide range of Indian laws and Meghalaya-specific regulations, including:

4.1.1 Environmental laws:

Listed below are the central government Acts and Regulations applicable to the project and their key features.

Sl. No.	Relevant Act/ Rule	Key features
1	Environmental Protection Act (EPA), 1986	The EPA empowers the Centre to “take all such measures as it deems necessary” in the domain of environmental protection. Under the law, it can coordinate and execute nationwide programmes and plans to further environmental protection. It can mandate environmental quality standards, particularly those concerning the emission or discharge of environmental pollutants. This law can impose restrictions on the location of industries.
2	The Biological Diversity Act 2002	The Biological Diversity Act is the Act to preserve the biological diversity of India and provides for suitable mechanism for equitable sharing of benefits arising out of the use of traditional biological resources and knowledge. The Act’s main objective is to ensure the conservation of biological diversity, sustainable use of its components and fair usage of its resources in order to prevent overuse or eventual destruction of biodiversity.
3	Food Safety and Standards Act, 2006 (FSSA)	The Food Safety and Standards Act, 2006 (FSSA) is a comprehensive legislation that regulates the manufacture, storage, distribution, sale, and import of food products to ensure they are safe and suitable for human consumption. It mandates that any premises or facility involved in food-related activities, including storage units, cold chains, warehouses, or processing centers, must comply with specific hygiene and safety standards, obtain FSSAI registration or license, and follow protocols for cleanliness, pest

Sl. No.	Relevant Act/ Rule	Key features
		control, temperature regulation, and staff hygiene. <i>This Act replaced the Prevention of Food Adulteration Act, 1954.</i>
4	Hazardous and Other Waste (Management Handling and Trans boundary Movement) Rules 2016	The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 apply to any facility generating hazardous waste—such as used oil, paints, or chemical containers—by mandating proper storage, labeling, record-keeping, and disposal through authorized handlers to ensure environmental and human safety.
5	Solid Waste Management Rules, 2016	Solid Waste Management Rules, 2016 govern the segregation, collection, storage, and disposal of solid waste generated during both construction and operational phases, including organic waste, packaging materials, domestic waste from workers, and dry recyclables, requiring compliance with proper waste segregation, scientific disposal, and involvement of authorized waste handlers.
6	Air (Prevention and Control of Pollution) Act, 1981	The Air (Prevention and Control of Pollution) Act, 1981 empowers authorities to regulate and control air pollution by setting emission standards for industries, vehicles, and construction activities to ensure the maintenance of air quality. Encourage the use of Diesel Generator (DG) sets, and movement of vehicles at the site do not cause harmful air pollution, and by mandating measures like dust suppression, PUC-certified vehicles, and emission control to protect local air quality.
7	Water (Prevention and Control of Pollution) Act, 1974	The Water (Prevention and Control of Pollution) Act, 1974 regulates that any wastewater generated during construction or cleaning activities is properly treated or contained and not discharged untreated into nearby water bodies, thereby ensuring the protection of local water sources and compliance with environmental regulations.
8	Forest (Conservation) Act, 1980	While the Forest (Conservation) Act, 1980 typically governs state-owned forest lands, it may still be conditionally applicable in Chapahati if the community-owned land is classified as forest under legal or ecological definitions, requiring compliance for any non-forest use such as construction. Otherwise, traditional governance, customary land rights, and environmental good practices prevail.

Sl. No.	Relevant Act/ Rule	Key features
9	Noise Pollution Rules, 2000	The Noise Pollution (Regulation and Control) Rules, 2000 regulate ambient noise levels in public and private spaces by setting permissible limits for different zones and times of day, and controlling noise from sources like construction equipment, generators, and vehicles to protect public health and the environment.
10	Forest Rights Act, 2006	The Forest Rights Act, 2006 recognizes and secures the traditional rights of Scheduled Tribes and other forest-dwelling communities over forest land and resources, allowing them to live in, manage, and conserve these areas while protecting their livelihoods and cultural practices.
11	Construction and Demolition Waste Management Rules, 2016	The Construction and Demolition Waste Management Rules, 2016 apply to all construction activities by requiring the segregation, safe storage, reuse, and scientific disposal of waste materials like debris, bricks, concrete, and metal to prevent environmental pollution and promote recycling.
12	Agricultural Produce (Grading and Marking) Act, 1937	The Agricultural Produce (Grading and Marking) Act, 1937 provides for the grading and marking of agricultural and other allied commodities with the objectives of making available quality agricultural produce including horticulture and livestock produce to the consumers.
13	Rural Producers Companies Act, 2002	The Producer Companies provisions under the Companies Act, 2002 enable groups of farmers and rural producers to form a registered company that combines the benefits of a cooperative model with corporate governance, allowing them to collectively manage production, processing, storage, and marketing of agricultural produce while sharing profits among members.
14	Agriculture Produce and livestock Marketing (Promotion & Facilitation) Act 2017	The Agriculture Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017 promotes transparent and efficient marketing of agricultural and livestock products by enabling direct farmer-to-buyer transactions, encouraging private investment in infrastructure like warehouses and storage centers, and integrating digital platforms for fair price discovery.

Sl. No.	Relevant Act/ Rule	Key features
15	Panchayati Raj Act 1992	The Panchayati Raj Act, 1992 establishes a decentralized governance framework that empowers elected rural local bodies to oversee and participate in the planning, implementation, and monitoring of development projects, thereby making it applicable to initiatives like storage centers through their role in local land use approvals, community engagement, and participatory decision-making processes.
16	Panchayats (Extension to the Scheduled Areas) Act, 1996	In the context of Meghalaya, which is governed under the Sixth Schedule of the Constitution rather than the Fifth Schedule, the Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA Act) does not formally apply. However, the spirit of PESA—particularly its emphasis on community participation, local consent, and traditional governance structures—is relevant in areas like Chapahati, where tribal communities are predominant and local institutions such as the Village Dorbar or traditional councils play a vital role in approving and monitoring rural development activities, including infrastructure projects like the storage center.
17	Right to Fair Compensation and Transparency in Land Acquisition Act, 2013	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 ensures that land acquisition for public or private projects is carried out with the informed consent of affected families, and provides for fair compensation, rehabilitation, and resettlement to safeguard the rights of landowners and vulnerable communities.

Table 3: Environmental Laws

4.1.2 Labour Codes/Acts:

All the workers are governed by the relevant Indian labour laws as stated below. The Developer shall undertake the requisite license from Labour Commissioner prior to the initiation of any works onsite.

Sl. No.	New labour Codes	Key features
1	Labour Codes, 2020	The Labour Codes, 2020 consolidate 29 existing labour laws into four unified codes—covering wages, social security, occupational safety, and industrial relations—to streamline compliance, enhance worker welfare, and ensure safer, fairer working conditions across all sectors, including construction and infrastructure projects.

2	Code on Social Security 2020	The Code on Social Security, 2020 consolidates and streamlines multiple social welfare laws to extend social protection benefits—such as health insurance, maternity benefits, provident fund, pension, and gratuity—to all workers, including those in the unorganized and construction sectors, ensuring inclusive and equitable labor welfare.
3	Minimum Wages Act, 1948	The Minimum Wages Act, 1948 mandates that employers pay workers at least the government-prescribed minimum wage rates for their specific type of work and region, ensuring fair compensation and preventing exploitation, particularly in labor-intensive sectors like construction.
4	Sexual Harassment of Women at Workplace Act, 2013	The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 mandates that all workplaces, including construction sites and project offices, provide a safe, respectful, and harassment-free environment for women by establishing an Internal Complaints Committee (ICC), conducting awareness, and ensuring prompt redressal of complaints.
5	Building and Other Construction Workers Act, 1996	The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 aims to safeguard the rights and welfare of construction workers by ensuring their registration, safety, health, and access to welfare benefits such as housing, insurance, and maternity support during construction activities.
6	OSH Code (Occupational, Safety, Health and Working Conditions Code) - 2020	The Occupational Safety, Health and Working Conditions (OSH) Code, 2020 aims to ensure safe and healthy working environments by setting uniform standards for occupational safety, working conditions, welfare facilities, and employee rights across establishments, including construction sites and storage infrastructure projects.
7	Industrial Relations (IR) Code, 2020	By amalgamating 3 Labour Laws into the Industrial Relations Code the Central Government has taken steps for safeguarding the interests of Trade Unions as well as the workers. In this Code, all possible steps have been taken for industrial units and workers so that disputes do not arise in future.

Table 4: Labor Codes/ Acts

4.1.3 Social Law:

This table outlines key local and national social laws applicable to the Wahiajer project. It highlights legal provisions that ensure community rights, workplace safety, and inclusive development.

Sl. No	Name of Act / Rule	Key Features
1	Meghalaya Consumer Protection (Direct Selling) Rules 2021	These Rules shall apply to all goods and services bought or sold through direct selling. Direct selling entities will be liable for the grievances arising out of the sale of goods or services by its direct sellers.
2	Meghalaya Identification, Registration (Safety and Security) of Migrant Workers Rules 2020	To provide for the maintenance of public order and for the protection and safety of Migrant Workers in the State of Meghalaya, by identification and mandatory registration of all such workers in the State. And to prevent the commission of offences of harassment, intimidation, discrimination and such other act or omission that may affect the safety and security of Migrant Workers
3	Child Labour (Prohibition and Regulation) Amendment Act, 2016	An Act to prohibit the engagement of children in all occupations and to prohibit the engagement of adolescents in hazardous occupations and processes and the matters connected therewith or incidental thereto.” According to this amendment in the Act, the Government of India will provide stricter punishments for employers who violate the Act. It also makes the employer employing any child or adolescent in contravention of the Act cognizable.
4	The Equal Remuneration Rules 1976	It provides for Equal remuneration both men and women but does not override any special treatment provided to women in the country.
5	The Meghalaya Biological Diversity Rules 2010	Provide for creation of the Meghalaya Biodiversity Board and Biodiversity Management Committees which may perform the following functions: (i) Lay down the procedure and guidelines to govern the activities provided under Section 23 of the Act. (ii) Advise the State Government on many matters concerning conservation of biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge. (iii) Provide technical assistance and guidance to the departments of the State Government.

6	Meghalaya Transfer of Land Act, 1971	The Meghalaya Transfer of Land (Regulation) Act, 1971 regulates the transfer of land ownership in tribal areas, ensuring that land belonging to Scheduled Tribes cannot be sold or transferred to non-tribal individuals or entities without prior approval from the competent district or local authority, thereby protecting tribal land rights and customary ownership systems.
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Table 5: Social Laws

4.2 KfW Sustainability Guidelines and IFC Performance Standards Alignment

The Environmental and Social Management Plan (ESMP) for the Chapahati Storage Facility, part of the Sustainable Land Management (SLM) Project, is aligned with the KfW Sustainability Guidelines (2021) and the International Finance Corporation (IFC) Performance Standards. This alignment ensures the project is not only legally compliant with Indian and Meghalaya laws, but also environmentally and socially sustainable, and climate-resilient.

Standard	Relevance to Chapahati Project	Current Practices Adopted	Additional Compliance Recommended
IFC PS1 / KfW: Assessment and Management of E&S Risks	ESMP governs the planning, construction, and operational stages of the storage unit.	ESMP prepared, roles defined, and monitoring matrix included.	Strengthen site-level documentation and periodic third-party audits.
IFC PS2: Labour and Working Conditions	Ensures safe, fair, and inclusive work environment for laborers and IVCS workers.	Use of PPE, training, gender-sensitive hiring, safety signage, OHS monitoring.	Maintain worker registration, wage records, and labor license.
IFC PS3: Resource Efficiency and Pollution Prevention	Reduces environmental impact from water use, energy, and waste.	Rooftop solar (50KW), water meters, soak pits, solid waste segregation.	Tie-up with authorized waste handlers and install water-saving fixtures.
IFC PS4: Community Health, Safety, and Security	Safeguards against accidents, dust, noise, and construction risks to locals.	Dust suppression, emergency signage, awareness training.	Conduct mock drills; display emergency contact numbers at site.

IFC PS5: Land Acquisition and Involuntary Resettlement	Ensures no forced land acquisition or displacement.	Voluntary Land Donation (VLD) with FPIC process documented.	Maintain signed VLD forms and participatory consent records.
IFC PS6: Biodiversity Conservation	Prevents impact to local flora, fauna, and habitat.	Site not in ecologically sensitive area. Construction within PRIME Hub boundary.	Prepare post-construction landscaping and greenbelt plan.
IFC PS7: Indigenous Peoples	Recognizes rights and cultural sensitivity in tribal areas like Chapahati.	FPIC conducted through IVCS and traditional governance system.	Ongoing participatory monitoring and grievance handling through IVCS.
IFC PS8: Cultural Heritage	Protects archaeological or sacred sites during project activities.	Site screening confirms absence of known heritage assets. Chance Find Procedure included in ESMP.	Include procedure in contractor contracts with reporting protocol.
Cross-cutting Stakeholder Engagement and GRM	Ensures ongoing consultation, information disclosure, and grievance management.	Initial meeting held on 31 January 2025; GRM structure established with focal person.	Conduct monthly consultation updates and maintain grievance register on site.

Table 6: KfW Guidelines and IFC Performance Standards Alignment for Chapahati Sub-Project

4.2.1 Additional Compliance for IFC PS5 and PS8 – Specific to Chapahati

- **Land Acquisition (IFC PS5) :**
Land for the Chapahati Storage Facility was obtained through Voluntary Land Donation (VLD) by local community members. The process followed the principles of Free, Prior and Informed Consent (FPIC) and was facilitated by the Chapahati Integrated Village Cooperative Society (IVCS). Documentation includes:
 - VLD forms signed by landowners
 - Photographic and GPS evidence of the site
 - Community meeting resolutions
- **Cultural Heritage (IFC PS8) :**
No cultural monuments or protected heritage assets were found on-site. However, a Chance Find Procedure has been embedded in the ESMP. This mandates:

- Immediate suspension of work in case of discoveries
- Reporting to the local Headman and State Archaeological Department
- Clearance before resuming any construction

4.3 Alignment with International Conventions

International Instrument	Relevance to Chapahati Project
UN Declaration on the Rights of Indigenous Peoples (UNDRIP)	Upholds FPIC and tribal community rights—key for IVCS-led ownership and participation.
ILO Convention 169	Reinforces non-discrimination, labor welfare, and participatory decision-making in tribal areas.
Paris Agreement (2015)	Supports use of solar energy and sustainable resource use for climate mitigation.
Convention on Biological Diversity (CBD)	Emphasizes protection of biodiversity, which is respected through non-invasive infrastructure siting and green planning.

Table 7: International conventions relevant to the project

5. Baseline Environmental and Social Conditions

5.1. Local Context for Sustainable Development

This section presents a comprehensive overview of the existing environmental and social conditions of the sub-project site at Chapahati, which forms the foundation for assessing and managing the environmental, social, and climate-related risks associated with the construction and operation of the proposed storage facility. The baseline assessment is a critical component of the Environmental and Social Management Plan (ESMP) as it enables informed decision-making and ensures that mitigation measures are designed in response to actual, site-specific conditions rather than assumptions.

The information presented has been gathered through a combination of first-hand site inspections, community-level consultations (including the key consultation held on 31 January 2025), interviews with local stakeholders and IVCS leaders, and a review of district-level secondary data and project documentation. This multi-source approach ensures that both technical and community perspectives are incorporated.

The assessment has been conducted in alignment with the KfW Sustainability Guideline: Assessment and Management of Environmental, Social and Climate Aspects (2021), and in compliance with applicable national and state-level safeguard frameworks—including the Environmental Protection Act (1986), The Forest Rights Act (2006), The Occupational Safety, Health and Working Conditions Code (2020), and the Meghalaya Building Bye-laws, where applicable.

The sub-project is located within the secure boundary of the Chapahati PRIME Hub in South West Garo Hills District, where the land has been voluntarily contributed by the community through the Chapahati Integrated Village Cooperative Society (IVCS). The area is characterized by agricultural activity, with cashew cultivation being a predominant livelihood source. The social structure is tribal, cohesive, and participatory, offering a strong platform for community-led development initiatives.

The findings from this baseline analysis help in understanding the potential environmental sensitivities (e.g., water usage, soil quality, biodiversity), social dynamics (e.g., land tenure, livelihoods, inclusion), and cultural contexts (e.g., customary governance, indigenous identity). These insights are essential not only for ensuring project compliance but also for strengthening the project's long-term sustainability, social acceptance, and climate resilience.

5.2 Environmental Conditions

The environmental characteristics of the Chapahati sub-project site have been carefully assessed to inform design, construction, and operational planning for the storage facility. The conditions observed confirm that the site is largely suitable for the proposed infrastructure, with minimal ecological sensitivity and manageable environmental risks. The following parameters summarize the baseline environmental profile:

Parameter	Detailed Description
Location	The sub-project is located within the secured compound of the Chapahati PRIME Hub in South West Garo Hills District, Meghalaya. The site falls under rural tribal jurisdiction and is surrounded by agricultural land and village infrastructure. Its placement within an existing development zone ensures that no forestland or new greenfield site is being disturbed.
Topography	The terrain is gently sloping, which facilitates natural drainage and minimizes the need for significant earthwork or excavation. This topography is well-suited for constructing light infrastructure such as pre-engineered buildings and does not present any geotechnical instability risks.
Soil Type	The area consists of lateritic and sandy loam soils, which are moderately fertile and stable. This type of soil supports cashew and other plantation crops and is structurally appropriate for building foundations and general civil works. Soil tests during site selection confirmed its load-bearing capacity.
Water Source	A functioning borewell exists on-site and currently serves domestic and PRIME Hub activities. There are no natural surface water bodies such as streams or ponds in the immediate vicinity. While adequate for construction needs, rainwater harvesting structures are proposed to supplement groundwater and promote sustainability.
Air Quality	The ambient air quality in the area is good, with no recorded sources of industrial pollution or high vehicular emissions. The rural setting ensures minimal dust and particulate matter under normal conditions. However, during construction, temporary dust generation is expected and will be mitigated through water sprinkling and dust barriers.
Noise Levels	Baseline noise levels are low, consistent with a rural environment with agricultural activity and limited traffic. Construction-related machinery may temporarily elevate noise levels, but these are not expected to exceed permissible thresholds. Mitigation will include time-restricted work schedules and acoustic safety measures.
Flora and Fauna	The project site has no ecologically sensitive species, forest patches, or wildlife habitats. A walk-through and site inspection confirmed the absence of any protected or endangered flora and fauna. As the infrastructure is being developed within an existing compound, ecological disruption is minimal.
Waste Profile	At present, there is no pre-existing waste accumulation on-site. However, the construction phase will generate inert solid waste, including debris, metal, plastic packaging, and minor hazardous waste (paint, oil containers). A waste management

	plan has been prepared, involving source segregation and disposal via authorized agencies.
Energy Availability	The site is already connected to the Meghalaya State Power Distribution Corporation Ltd. (MePDCL) grid. Additionally, the project includes a planned installation of a 50KW rooftop solar system, which aligns with climate-smart infrastructure principles and enhances the reliability of power supply for storage operations.
Climate	The region experiences a subtropical climate with high humidity and seasonal monsoon rainfall between June and September. While beneficial for agriculture, heavy rains can cause waterlogging and runoff if not managed. The project will incorporate drainage channels and roof rainwater harvesting to control stormwater during and post-construction.

Table 8: Baseline environmental profile

The environmental baseline at the Chapahati PRIME Hub supports the development of the storage facility with low to moderate risk. Key considerations include sustainable groundwater use, management of construction waste, and dust and noise control during the construction phase. Integration of solar energy and rainwater harvesting further strengthens the project's alignment with environmental sustainability goals under KfW and national guidelines.

5.3 Social Conditions

The Chapahati sub-project is situated in a rural tribal community setting that demonstrates strong social cohesion, participatory governance, and active livelihood engagement. A detailed understanding of the social environment has been established through field visits, stakeholder consultations (notably on 31 January 2025), and discussions with the Chapahati Integrated Village Cooperative Society (IVCS). The following table presents an in-depth view of the key social parameters relevant to the project.

Parameter	Elaborated Description
Community Composition	The project area is inhabited predominantly by members of the Scheduled Tribe, specifically the Garo ethnic group, who have a rich cultural heritage and a communal lifestyle. The population primarily depends on agriculture, livestock, and natural resources for their livelihoods. The community structure is cohesive and supports cooperative initiatives like IVCS.
Land Ownership	The land identified for the storage facility has been voluntarily donated by local residents through a transparent and participatory process led by the IVCS, following the principle of Free, Prior, and Informed Consent (FPIC). There are no legal encumbrances or competing claims to the site.

Housing and Livelihoods	Households in Chapahati are predominantly agrarian, with most families cultivating cashew, arecanut, and paddy for subsistence and local market sales. Livelihoods are diversified through activities like poultry, piggy, and seasonal wage labor. The proposed storage facility is expected to improve income security by enhancing post-harvest handling and market access.
Gender Participation	Women in Chapahati are active participants in agriculture, home-based processing, and microfinance through self-help groups. The IVCS has an active women's wing, which ensures that gender perspectives are integrated into decision-making processes. The project is designed to promote women's employment during construction and operations.
Youth Engagement	There is a high level of youth interest in local development initiatives, especially in value chain activities and entrepreneurship. Many young people are members of the IVCS or involved in youth clubs and vocational groups. The storage facility is expected to create new employment and skilling opportunities for this demographic.
Education and Awareness	The literacy rate in the area is moderate, and community awareness about cooperative governance, hygiene, and sustainable farming is steadily growing. Local schools and awareness programs run by the IVCS and NGOs have contributed to improved participation in development activities.
Health and Sanitation	A government sub-health centre is located within 3–5 km of the project site, offering basic services like immunization and maternal care. Sanitation coverage is adequate, with most households having toilets. Health awareness, especially among women and youth, has improved due to NGO-led campaigns.
Access and Connectivity	The site is easily accessible via an all-weather rural road that connects to the village and nearby market centers. The storage facility location is within 500 meters of the main settlement, ensuring ease of access for farmers and IVCS members. Transport facilities are available for both construction materials and agricultural goods.
Conflict or Resettlement	There is no history of conflict, encroachment, or resettlement associated with the project site. Community members have expressed collective support for the sub-project, and no grievance has been recorded regarding land donation or implementation.
Cultural Aspects	The site has been screened for archaeological and religious significance, and no tangible or intangible cultural heritage has been identified. Nevertheless, a Chance Find Procedure will be followed to address any unexpected discoveries during construction, in alignment with IFC Performance Standard 8.

Table 9: Social environmental profile

The social baseline of Chapahati reflects a well-organized, cooperative, and development-oriented tribal community with strong local institutions. The voluntary nature of land contribution, active participation of women and youth, and absence of social conflict create a conducive environment for project success. The sub-project is expected to reinforce inclusive rural development by enhancing livelihood resilience, improving post-harvest systems, and strengthening local ownership through the IVCS.

5.4 Observations and Risk Indicators

Based on field-level assessments, stakeholder consultations, and technical review of the site, the following environmental and social observations have been recorded. These help in identifying potential risk factors that may arise during the lifecycle of the sub-project and inform the mitigation strategies outlined in the ESMP. While the overall risk level remains moderate, proactive attention to these indicators will be critical for maintaining sustainability, safety, and social inclusion.

Observation Area	Details	Risk Indicator	Recommended Action / Mitigation
Water Use	Borewell is the only available water source for construction and operation activities.	Risk of groundwater depletion during peak usage periods.	Install water meters, introduce rainwater harvesting, and promote conservation measures.
Construction Disruption	Minor construction activity expected to cause dust and noise near the settlement.	Temporary air and noise pollution are affecting community comfort.	Use dust suppression methods, restrict work to daytime hours, install signage and safety barriers.
Employment	15–20 locals expected to be employed through IVCS during construction and operation phases.	Potential for unsafe working conditions or unequal labor practices.	Provide PPE, register all workers, ensure fair wages, and maintain a grievance redress system.
Social Acceptance	Strong support from the community and IVCS; project aligns with local livelihood priorities.	Possible disengagement if community is not kept informed or involved.	Continue regular consultations, involve IVCS in decision-making, and share updates with inclusive communication.
Environmental Sensitivity	Site is not near any forest, wetland, or ecologically sensitive area; limited vegetation present.	Minor risk from unmanaged waste or stormwater runoff during construction.	Enforce waste management protocols, designate material storage areas, and build stormwater drainage with soak pits.

Table 10: Observation and risk indicators

6. Risk Categorization and Rationale

6.1 Risk Category: B – Moderate Risk

As per the KfW Sustainability Guideline – Assessment and Management of Environmental, Social, and Climate Aspects (2021), the Chapahati Storage Facility is categorized as a Category B (Moderate Risk) sub-project.

This classification reflects the fact that the project, while involving potential environmental and social risks, is:

- Site-specific in its impacts and does not extend beyond the immediate vicinity
- Associated with temporary and reversible risks
- Predictable and manageable through standard environmental and social measures
- Fully mitigable through locally available best practices and safeguards
-

The project does not involve any involuntary resettlement, ecologically sensitive areas, or high-risk activities. Identified risks such as groundwater extraction, construction-related disturbances, and minor waste generation are limited in scale and can be addressed through proactive planning and mitigation strategies.

In the tribal setting of Chapahati, cultural sensitivity and Free, Prior, and Informed Consent (FPIC) were prioritized. These were secured through consultations held on 31 January 2025 and through the leadership of the Chapahati IVCS, which facilitated community participation and ensured inclusive planning.

The Moderate Risk categorization under Category B ensures proportionate due diligence and compliance with both KfW safeguards and internationally accepted environmental and social performance standards, including IFC Performance Standards.

6.2 Justification for Moderate Risk Classification

Risk Factor	Details
Scale and Type of Construction	Medium-scale storage facility within an existing PRIME Hub compound
Land Use and Displacement	No displacement or land acquisition; land voluntarily contributed through IVCS (FPIC)
Resource Use	Reliance on existing borewell for water; mitigated through rainwater harvesting proposal

Waste Generation	Limited construction and packaging waste; to be managed through segregation and disposal
Social Context	Located in a tribal-majority village; high community ownership and participation
Labour and Safety	Local employment prioritized; occupational health and safety measures included

Table 11: Risk Factor Classification

6.3 Climate Co-Benefits and GHG Mitigation Potential

The Chapahati Storage Facility integrates climate-smart design and practices that align with KfW's Climate Strategy and India's Nationally Determined Contributions (NDCs). The project contributes to greenhouse gas (GHG) mitigation and promotes low-emission, resource-efficient rural infrastructure through the following interventions:

(i) Avoided Emissions from Renewable Energy Integration

The installation of a 50KW rooftop solar photovoltaic (PV) system offsets grid electricity consumption, which is largely coal-based in India. The estimated annual energy output from the solar system is 65,000–70,000 kWh.

- Emission factor (India): ~0.82 kg CO₂e/kWh
- Estimated GHG Avoidance:
 $70,000 \text{ kWh} \times 0.82 \text{ kg CO}_2\text{e/kWh} = 57.4 \text{ metric tons CO}_2\text{e/year}$

This contributes to emission reduction from warehouse lighting, cashew processing equipment, and water pumps.

(ii) Reduction in Transportation Emissions through Localized Storage

By enabling decentralized aggregation and storage at Chapahati, the project reduces the frequency and distance of produce transported to external storage hubs (previously 30–50 km away). This results in lower diesel consumption from vehicle movement.

- Estimated Savings:
 Assuming a reduction of 100 trips/year at 30 km average round-trip
 $= 3,000 \text{ km saved} \times 0.25 \text{ kg CO}_2\text{e/km (for small trucks)}$
 $= 0.75 \text{ metric tons CO}_2\text{e/year}$

(iii) Sustainable Building Materials and Energy-Efficient Infrastructure

The use of pre-engineered building (PEB) technology and natural ventilation minimizes cement and steel consumption, thereby reducing embedded carbon emissions. Reflective roofing and energy-efficient lighting further reduce operational energy demand.

(iv) Potential for Soil Carbon Retention through Storage-Linked Organic Farming

The storage facility indirectly supports the expansion of organic farming by reducing post-harvest losses and stabilizing prices for local farmers. This may incentivize reduced chemical input usage, enhancing soil organic carbon retention—a long-term GHG sink benefit.

6.4 Cumulative Impact Assessment (CIA)

The Cumulative Impact Assessment (CIA) evaluates whether the proposed Chapahati Storage Facility sub-project, in conjunction with other existing or foreseeable activities in the vicinity, could result in significant combined environmental or social impacts. Although the project is relatively modest in scale and site-specific in nature, the CIA is conducted to comply with KfW Sustainability Guidelines and IFC Performance Standard 1 on Environmental and Social Risk Management.

a) Methodology and Scope

The CIA has been carried out based on:

- A 2 km buffer radius around the Chapahati PRIME Hub.
- Field observations and consultations with community members, IVCS leaders, and DPMU staff.
- Review of village-level development plans and current infrastructure in the area.
- Screening for potential interactions with other rural projects funded under SLM or external agencies.

b) Key Findings

Aspect	Observation	Cumulative Risk Level
Water Use	Borewell is the only major water source. No other large water-intensive activities nearby. Rainwater harvesting proposed.	Negligible
Solid Waste Generation	Project generates construction and packaging waste. No adjoining commercial or industrial waste contributors identified.	Negligible
Air and Noise Pollution	Rural ambient environment; low vehicular and industrial activity. Temporary construction-related dust and noise only.	Negligible
Traffic and Transport	Project-related logistics expected to be light. No cumulative traffic burden identified.	Negligible
Community Pressure	No signs of in-migration, overcrowding, or resource conflicts due to project.	Negligible
Ecological Sensitivity	Project area is not located in or near protected areas, wildlife habitats, or wetlands.	Negligible

Table 12: Key findings

c) Summary of Cumulative Impact Assessment

The Chapahati Storage Facility is not part of a clustered infrastructure development or industrial zone that would amplify environmental or social impacts. The project is standalone and community-supported, situated within a designated PRIME Hub area with clear land use demarcation and FPIC-based governance.

No cumulative risks have been identified in relation to other rural development projects, infrastructure initiatives, or environmental stressors within the area of influence.

d) Recommendations

To maintain low cumulative risk:

- MBMA and DPMU should periodically review nearby developments or sectoral plans that could interact with the facility.
- CIA findings should be updated during project operation, especially if new infrastructure is introduced within the PRIME Hub or adjoining villages (e.g., Farmer's Markets, roads, agro-processing units).
- Stakeholder engagement should remain active to capture community perspectives on changing environmental or social dynamics.

6.5 Climate Vulnerability and Adaptation

The Chapahati Storage Facility sub-project has been screened for potential climate-related risks to ensure resilience and adaptive capacity, particularly in the context of Meghalaya's dynamic monsoon-driven environment. The screening was conducted using local meteorological data, site inspections, and consultations with the Chapahati community and IVCS representatives.

6.5.1 Identified Climate Risks

Climate Risk	Observed/Expected Impacts
Heavy Monsoon Rainfall	Risk of local flooding, waterlogging near the site, and disruption of transportation and storage activities.
Seasonal Temperature Variability	Potential impact on stored produce (cashew nuts) quality due to high humidity and heat.
Storm Events and Wind Gusts	Risk of roof damage, power outages, and safety hazards during intense weather events.
Groundwater Stress during Dry Season	Borewell reliance could lead to overuse and resource strain in summer months.

Table 13: Identified climate risks

6.5.2 Planned Adaptation and Resilience Measures

Adaptation Measure	Description
Stormwater Drainage System	Construction of soak pits and side drains to prevent water stagnation and control runoff.
Rooftop Solar Integration with Backup	Installation of a 50KW solar panel system with provision for battery backup to ensure uninterrupted power supply.
Rainwater Harvesting Structure	Supplementary water supply during dry periods to reduce pressure on groundwater sources.
Elevated Plinth and Sloped Roofing Design	Warehouse designed with elevation and slope to avoid rainwater ingress and protect produce.
Climate-Resilient Storage Materials and Ventilation	Use of heat-reflective roofing and cross-ventilation systems to maintain optimum temperature and humidity levels.
Weather-Resilient Construction Timeline Planning	Scheduling of civil works outside peak monsoon window to reduce weather-related delays.

Table 14: Adaptation measures

6.5.3 Monitoring and Review

- Climate resilience measures will be periodically reviewed by the DPMU and PMU, especially post-monsoon.
- Energy performance audits and water usage assessments will be conducted annually to validate sustainability goals.
- Stakeholder feedback on weather-related disruptions will be gathered through the IVCS to inform future planning.

7. Stakeholder Engagement and FPIC

7.1 FPIC Documentation

As the project is located in a Schedule VI tribal area, Free, Prior and Informed Consent (FPIC) was obtained in accordance with international standards (IFC PS7, UNDRIP) and local customary norms. Consent was secured through a participatory process that involved:

- Community consultations held in the local language *Garo* with the support of IVCS and traditional authorities (e.g., Headman, Village Council)
- Attendance of key community members, including women, youth, and elders, with an emphasis on inclusive representation
- Use of visual aids and translated materials to ensure clarity on project scope, risks, and benefits
- Agreement formalized through a village resolution passed by the Nokma/Village Council and/or signed minutes of the meeting, which are appended to this ESMP
- Community members were given sufficient time to reflect, ask questions, and express concerns before formal consent

The FPIC process will be ongoing, allowing for community feedback and withdrawal of consent if grievances are not addressed during implementation.

7.2 Stakeholder Engagement Objectives

The main objectives of stakeholder engagement for the Chapahati Storage Facility include:

- Strengthening collaboration and trust between MBMA, IVCS, and local stakeholders
- Ensuring two-way flow of information about project benefits, risks, and timelines
- Supporting continuous feedback and grievance redress
- Promoting gender equity and inclusion of marginalized groups
- Upholding transparency in decision-making and monitoring in line with KfW and IFC standards

7.3 Stakeholder Mapping

Stakeholder Category	Group/Agency	Role in Project
Primary (Directly Affected)	IVCS Members, Landowners, SHGs, Youth, Labourers	Project beneficiaries, local implementers, and affected households

Secondary (Supportive/Institutional)	MBMA, DPMU, Department of Agriculture, MSRLS, BRDC, Contractors	Technical, financial, regulatory, and implementation support
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Table 15: Stakeholder Mapping

7.4 Stakeholder Engagement Activities

Project Phase	Engagement Activity	Target Stakeholders	Tools/Methods	Frequency
Pre-Construction	Stakeholder Mapping & FPIC	IVCS, Women, Youth, Landowners	Meetings, signed consent forms	One-time
	Orientation & Awareness	IVCS, SHGs, Community Members	IEC materials, village meetings	Initial + ongoing
Construction	ESMP Monitoring & Feedback	Community, Contractors, DPMU	Joint visits, updates via IVCS	Monthly
	Grievance Awareness	All Stakeholders	Posters, helpdesks, contact cards	Continuous
	Inclusion & Gender Sessions	SHGs, Women, Youth	FGDs, awareness events	Quarterly
Operations	Storage Use Awareness	Farmers, SHGs, IVCS	Demonstrations, training sessions	Bi-annually
	Market Linkage Dialogues	Producers, Traders	Consultative meetings	Quarterly
	Satisfaction Surveys	End users	Surveys, IVCS facilitation	Half-yearly

Table 16: Stakeholder Engagement Activities

7.5 Information Disclosure Platforms

Key disclosure platforms for transparency and stakeholder awareness include:

- Notice Boards at IVCS Office and Community Halls: Construction updates, ESMP highlights, grievance contacts
- Community Meetings: Regularly convened by IVCS and DPMU for updates and feedback

- WhatsApp and Social Media Groups: Local updates shared by field staff
- MBMA Website: Hosting SEP, ESMP, and GRM details for public access

These platforms ensure inclusive and timely communication with all community members, especially vulnerable groups.

7.6 Stakeholder Feedback and Monitoring Plan

Activity	Description	Responsible Entity	Frequency
Feedback Collection	Grievances, consultations, focus group discussions	IVCS, Site Team	Ongoing
Documentation	Meeting minutes, grievance records	IVCS Secretary	Post-meeting
Review & Action	Evaluation and planning for issue resolution	DPMU, PMU	Monthly
Project Updates	Sharing of resolutions and project changes	IVCS, PMU	Quarterly
Effectiveness Review	Evaluation of grievance redress outcomes	Monitoring Team	Bi-annually

Table 17: Stakeholder Feedback and Monitoring Plan

7.7 Gender Action Plan (GAP)

The Gender Action Plan (GAP) for the Chapahati Storage Facility sub-project aims to ensure that women and marginalized gender groups are actively engaged, protected, and able to equitably benefit from project activities. It operationalizes commitments under IFC Performance Standard 2, the KfW Gender Strategy, and relevant national gender equity mandates.

Given that the project operates in a Scheduled Tribe-dominated rural area, where women are active in agricultural livelihoods but underrepresented in formal infrastructure projects, the GAP is designed to address existing inequalities while creating inclusive opportunities across the project lifecycle.

7.7.1 Objectives of the Gender Action Plan

- Promote gender equity in employment, training, and decision-making roles.
- Ensure safe and inclusive workspaces, free from harassment and discrimination.
- Increase participation of women and youth in construction, storage operations, and IVCS governance.

- Integrate gender-responsive infrastructure and grievance redress mechanisms.
- Raise awareness on health, sanitation, labor rights, and safety specific to women and young workers.

7.7.2 Key Commitments and Action Plan

Component	Actions/Targets
Recruitment and Employment	• Reserve 30% of non-technical roles (e.g., sorting, packaging) for local women. • Give preference to women-headed households and youth for skill-based jobs.
Capacity Building	• Organize hands-on training for women on sorting, grading, and digital inventory tracking. • Provide on-site OHS orientation including reproductive health and gender-based safety.
Safe Infrastructure	• Construct separate and well-lit sanitation units for women. • Provide gender-sensitive PPE (e.g., gloves in various sizes, breathable uniforms).
Grievance Redressal	• Include a gender-sensitive channel within the GRM. • Appoint a female focal point from the IVCS for addressing workplace issues.
Leadership and Governance	• Ensure at least one woman representative in all site-level and IVCS decision-making committees. • Rotate women/youth leaders in feedback and monitoring sessions.
Communication and Outreach	• Disseminate project updates using women's SHGs, village women's groups, and WhatsApp networks. • Use pictorial and oral IEC materials for semi-literate beneficiaries.

Table 18: Component's action plan

7.7.3 Implementation and Monitoring

- The IVCS will maintain gender-disaggregated records of participation and employment.
- DPMU will conduct quarterly gender inclusion audits and adjust implementation strategies based on community feedback.
- Gender outcomes will be included in ESMP progress reports and monitored by the PMU and KfW during supervision missions.

7.7.4 Linkages to Livelihood Promotion

To sustain gender equity beyond the construction phase, the project will:

- Promote women-led microenterprises (e.g., cashew nut packaging, storage bag stitching).

- Link interested women to credit, savings, and agri-business services facilitated by the IVCS and MSRLS.
- Encourage youth-led value chain activities, such as logistics support or digital inventory services.

8. Identified Environmental and Social Risks and Impacts

The Chapahati Storage Facility is classified as a Category B (Moderate Risk) sub-project under the KfW Sustainability Guidelines (2021). The categorization is based on a set of site-specific environmental and social risks that are predictable, reversible, and mitigable through established safeguards and monitoring frameworks.

Risk Category	Description	Proposed Mitigation/Management
Groundwater Overuse	Excessive reliance on borewell water for construction and operations, risking localized depletion.	Install water meters, promote rainwater harvesting, conduct awareness sessions.
Solid and Packaging Waste	Generation of construction debris and packaging waste during building and operational phases.	Segregation at source, reuse of debris, disposal via licensed vendors.
Dust and Noise Pollution	Air and noise pollution during site preparation and construction activities.	Sprinkling water, noise barriers, and timing construction to minimize nuisance.
Occupational Health and Safety (OHS)	Exposure to physical risks during construction, lifting, handling of materials, and lack of PPE.	Provision of PPE, OHS induction, fire safety preparedness, Safety Officer deployment.
Gender and Social Inclusion	Underrepresentation of women and youth in employment and training opportunities.	Preferential hiring, separate sanitation for women, inclusion in training and operations.
Grievance Redress and Worker Awareness	Low awareness among workers about rights, safety protocols, and absence of accessible grievance mechanisms.	Set up GRM, display grievance contact, organize worker sensitization workshops.
Cultural and Tribal Sensitivity	Location in a tribal area requiring culturally sensitive engagement and FPIC adherence.	Engage Dorbar Shnong, document FPIC, ensure continuous culturally appropriate consultations.
Climate Vulnerability and Flooding	Moderate flood risk due to monsoons and site topography, risking delays and asset damage.	Site drainage planning, raised plinths, seasonal work planning.
GHG Emissions and Energy Use	Energy use from grid power leading to GHG emissions; need for renewable alternatives.	Switch to solar power, optimize energy use, regular equipment checks.
Climate Co-Benefits	Rooftop solar system (50KW) reduces carbon footprint and ensures climate resilience.	Enhanced logistics, reduction in post-harvest losses, contribution to sustainable agriculture.

Table 19: Risk category with mitigation measures

9. Environmental and Social Management Plan Matrix

This section outlines the Environmental and Social Management Plan Matrix, detailing the potential E&S risks across different project phases, corresponding mitigation measures, responsible parties, monitoring indicators, and frequency of monitoring. A sub-section on Emergency Preparedness is also included as required under IFC PS4 and KfW guidelines.

Project Phase	E&S Risk / Impact	Mitigation Measure	Responsibility	Monitoring Indicator	Frequency
Pre-Construction	Lack of stakeholder awareness	Conduct IEC sessions and community meetings in local language	DPMU, IVCS	Attendance sheets, IEC materials distributed	Before construction
	Exclusion of vulnerable groups in planning	Ensure FPIC documentation and inclusive consultations with women, youth, and elders	IVCS, PMU Social Expert	List of participants, signed consent forms	Before construction
Construction	Dust and noise pollution during site development	Use water sprinkling, schedule work during daytime only	Contractor, DPMU Engineer	Dust level observations, work log timings	Weekly during construction
	Improper disposal of construction waste	Waste segregation, reuse debris, dispose via licensed agencies	Contractor	Waste disposal records, reuse documentation	Weekly during construction
	Occupational safety risks to workers	Provision of PPE, safety training, first-aid kits on site	Contractor, DPMU	Safety logbook, PPE inventory, training records	Daily during construction
Operation	Groundwater overuse for cleaning/storage maintenance	Install water meters, implement rainwater harvesting	IVCS, Contractor	Water usage logs, rainwater system installed	Monthly
	Exclusion of women/youth from employment opportunities	Ensure 30% local hiring includes women/youth, promote equal wages	IVCS, Contractor	Employment roster disaggregated by gender and age	Quarterly
	Inadequate grievance redressal and	Set up GRM committee, display contact	IVCS, DPMU	Grievance register, number of cases resolved	Monthly

	community feedback	info, regular meetings			
Construction & Operation	Emergency situations (fire, chemical spills, accidents)	Install fire extinguishers, spill kits, first-aid systems; conduct emergency drills; display emergency contacts	Contractor, IVCS, DPMU	Emergency equipment checklists, drill reports, contact display logs	Quarterly

Table 20: ESMP Matrix

10. Budget for ESMP Implementation

To ensure the effective implementation of environmental and social safeguards at the Chapahati Storage Facility, a dedicated Environmental and Social Management Plan (ESMP) budget has been developed. This budget supports a range of activities across the project lifecycle—spanning pre-construction, construction, and operational phases—to ensure compliance with KfW Sustainability Guidelines (2021), national safeguard regulations, and IFC Performance Standards.

Details of the budget allocation for various activities-

Sl. No.	Budget Component	Description	Estimated Cost (INR)
1	Training & Awareness	Capacity building for staff, IVCS, and community on E&S compliance	75000
2	Monitoring & Compliance	Regular monitoring of water use, waste disposal, safety standards	75000
3	Personal Protective Equipment (PPE)	Safety gear for workers (gloves, masks, boots, helmets, goggles)	75000
4	Waste Management Infrastructure	Construction of soak pit, waste bins, warning signage, disposal links	100000
5	Grievance Redress & Stakeholder Engagement	GRM setup, outreach materials, regular stakeholder consultations	50000
6	Documentation & Reporting Tools	Printing of ESMP/SEP tools, logbooks, photo records, reporting	50000
7	Contingency	Reserve for unforeseen E&S compliance-related costs	100000

Table 21: Budget for ESMP activities

11. ESMP Implementation and Responsibilities

The effective implementation of the Environmental and Social Management Plan (ESMP) requires clearly defined roles and responsibilities across all key stakeholders. The following table outlines the responsibilities of each institution involved in the Chapahati sub-project, in alignment with the KfW Sustainability Guidelines, ILO Core Labour Standards, and national regulatory frameworks.

Entity	Responsibility
Meghalaya Basin Management Agency (MBMA – PMU)	• Provide strategic oversight and coordination for ESMP implementation- Ensure alignment with KfW Sustainability Guidelines and national E&S standards • Review E&S progress reports and ensure timely corrective actions- Conduct capacity building and technical support for DPMU, IVCS, and contractors • Report serious incidents or non-compliance to KfW and guide resolution protocols
District Project Management Unit (DPMU)	• Daily monitoring of site activities and adherence to ESMP measures- Liaise with local community members, IVCS, and technical staff • Maintain documentation on grievances, safety observations, and stakeholder feedback • Ensure contractor compliance with labour laws, environmental permits, and OHS protocols • Coordinate with external bodies like Labour Department, Pollution Control Board, and Health Department for regulatory compliance
Contractor	• Implement all site-specific mitigation measures as per the ESMP • Appoint a Safety Officer and enforce PPE usage, sanitation, and emergency protocols- Maintain on-site EHS documentation including accident logs, inspection reports, and induction records • Respond to safety incidents immediately and participate in root cause analysis • Facilitate regular toolbox meetings and awareness sessions for workers
Integrated Village Cooperative Society (IVCS)	• Oversee sub-project operations post-construction, including maintenance of the storage unit • Monitor environmental performance such as waste disposal and water usage • Engage community in ESMP compliance, GRM operations, and participatory monitoring • Promote inclusive hiring, particularly of women and youth • Facilitate safety refresher trainings and maintain basic safety equipment at the facility

Table 22: ESMP Implementation and responsibilities

12. Grievance Redress Mechanism

12.1 Overview

The concept of a Grievance Redress Mechanism (GRM) is rooted in global development best practices and human rights frameworks that emphasize inclusive, participatory, and accountable governance. GRMs serve as structured processes to receive, evaluate, and address concerns and complaints raised by individuals or communities affected by development interventions. Their importance has been acknowledged across development agencies such as the World Bank, Asian Development Bank (ADB), International Funds for Agricultural Development (IFAD), and Kreditanstalt für Wiederaufbau (KfW), particularly for projects with potential environmental and social impacts.

At its core, the GRM aligns with the UN Guiding Principles on Business and Human Rights, which advocate for access to remedy and redress as a fundamental right. Similarly, under the Environmental and Social Safeguard Policies, multilateral institutions require a functional and culturally sensitive redress mechanism to be in place before project implementation.

Aligning with the MBMA GRM policies, the SLM Project's GRM builds upon these principles, ensuring:

- **Accessibility:** Multiple channels including phone, online, SMS, WhatsApp, in-person, and complaint boxes allow stakeholders—especially vulnerable groups such as indigenous people, women, and marginalized communities—to submit grievances in a manner convenient to them.
- **Transparency:** All grievances are registered, assigned a unique tracking number, and followed up systematically. Updates and resolutions are documented and communicated back to the complainant.
- **Inclusiveness:** The mechanism is designed to be gender responsive and socially inclusive, ensuring representation of women and IP communities in grievance committees, and safeguarding their rights and voices in decision-making processes.
- **No Obstruction to Legal Rights:** The GRM does not preclude access to judiciary or other state-level administrative redress mechanisms. Complainants may seek legal action if not satisfied at any stage of the GRM.

12.2 MBMA GRM Protocol:

During the implementation of the project, there are possibilities of instances where people are impacted by the project in an unwanted or undesired manner. To help resolve such grievances, SLM has created a mechanism by which aggrieved person(s) can get their concerns addressed.

If any person feels that he or she has been adversely affected by the project, they may submit their complaints or feedback by simply calling the following phone numbers. The processes of the GRM are indicated below.

12.3 Options to File Complaints:

1. Telephone Hotline - Call or WhatsApp
 - Garo Hills Region: 8880643108
 - Khasi Hills, Jaintia Hills, and Ri Bhoi Region: 8880643109Available from Monday to Friday, 10:00 AM to 6:00 PM.
2. On MBMA Website - <https://www.mbma.org.in/grievance/>
Stakeholders may also be able to submit their grievances via an online platform.
3. EMAIL (also available on MBMA website)
 - For general issues - mbma.mbda.grievance@gmail.com
 - For Procurement-related issues - procurementcomplaints.mbma@gmail.com
4. In-Person Submission
 - Complaints can be lodged directly at district offices or project sites where officials can register grievances on behalf of the complainant. The district offices should maintain a separate GRM register to note the grievances.
 - Wherever IVCS is operational under the project, the IVCS members can also file a complaint directly with the IVCS Secretary/ Chairman. Every IVCS should have the GRM register.

12.4 Complaint Flow Structure:

1. Complaints will be registered by the concerned official of the project and the complainant will be given a 'reference' number. They will be requested to keep the number safe with them for future reference.
2. Within 7 days from registration, they will be contacted by District office, who will provide a solution. If they are still not satisfied with the solution, they may inform their respective District Project Manager (DPM) or call again, and the issue will be escalated to the Project Management Unit (PMU).
3. A solution from the state level will be communicated to them within 10 days from the day of escalation of the grievance.
4. If they are still not satisfied with the solution offered, they may inform the District Project Manager or they can call again, and the issue will then be escalated to the Project Director who is the final appellate authority who will provide the final resolution within 20 working days.
5. After a resolution is provided, a closure report will be filed to document the actions taken and the outcome.

12.5 Flow of Complaint:

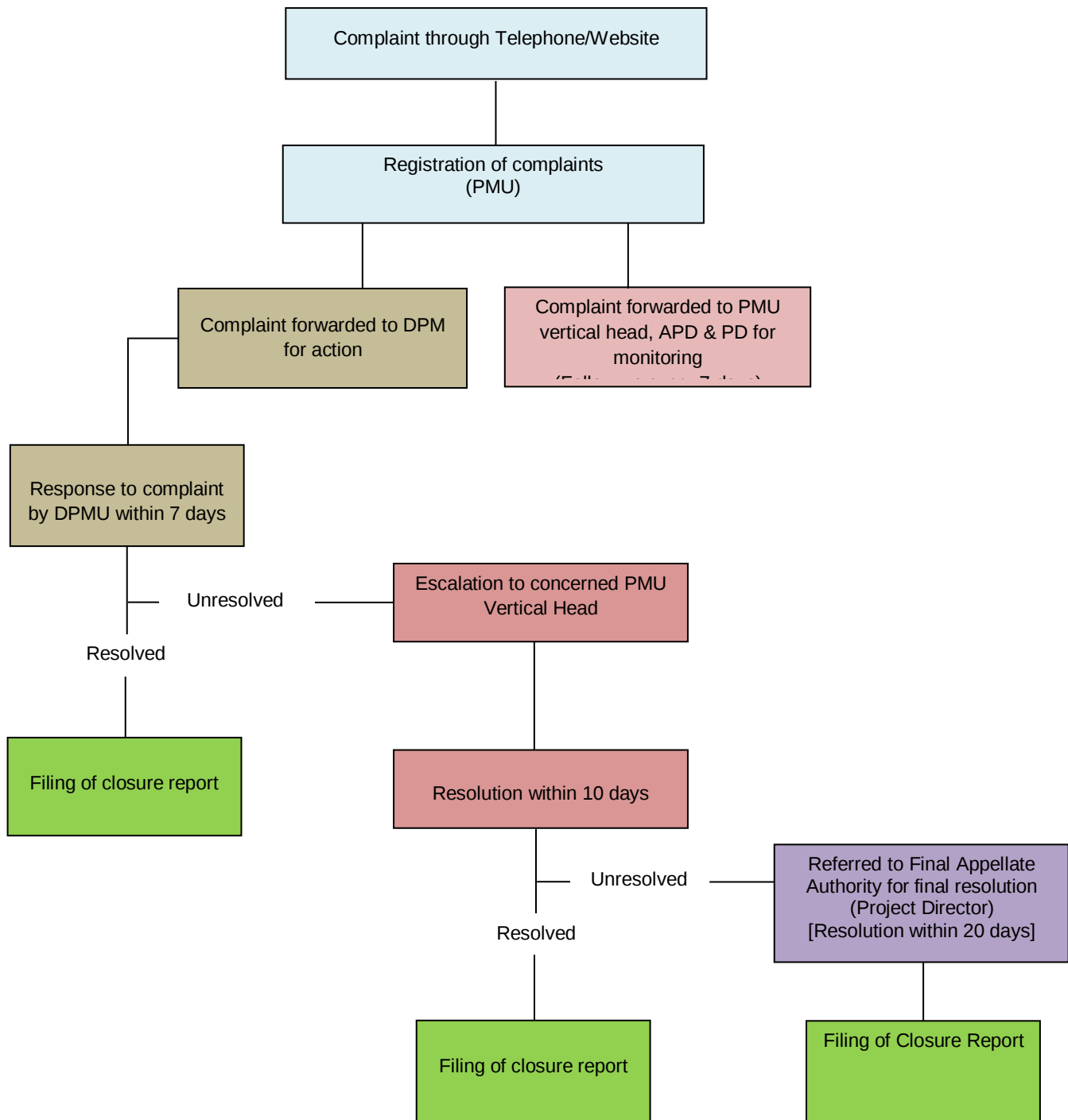


Fig 3: Flow of Complaint

13. Monitoring and Reporting Framework

To ensure the successful implementation of the Environmental and Social Management Plan (ESMP) for the Chapahati Storage Facility, a robust Monitoring and Reporting Framework has been developed. This framework supports continuous oversight of environmental, social, health, and safety compliance during the project's construction and operational phases.

Aligned with the KfW Sustainability Guideline (2021) and national safeguard regulations, the framework facilitates proactive monitoring by involving multiple stakeholders—including the Integrated Village Cooperative Society (IVCS), the District Project Management Unit (DPMU), and the Project Management Unit (PMU) at MBMA. Monitoring results will be used to inform corrective actions, strengthen implementation strategies, and maintain accountability.

Key Monitoring Parameters

Monitoring Activity	Indicator	Method	Frequency	Responsible Entity
Water usage monitoring	Volume of water used per month (litres)	Meter readings, logbook	Monthly	Lab In-charge / IVCS
Solid waste management	Amount of waste segregated and disposed (kg)	Visual inspection, disposal logs	Bi-weekly	Contractor / DPMU
Hazardous waste handling	Number of incidents of improper storage/disposal	Site inspection reports	Monthly	Contractor / MBMA
Worker health and safety	Number of safety trainings conducted, PPE usage rate	Attendance records, spot checks	Monthly	Contractor / DPMU
Grievance Redress Mechanism (GRM)	Number of grievances received and resolved	GRM log analysis	Quarterly	DPMU / PMU
Community consultations	Number of community meetings held	Meeting minutes	Quarterly	IVCS / DPMU
Gender inclusion in employment	Percentage of women/youth in workforce	Payroll / HR records	Quarterly	Contractor / IVCS

Air and noise pollution control	Dust suppression frequency; noise level readings (dB)	Visual checks; decibel meter	Monthly	Contractor
Biodiversity/vegetation preservation	Number of trees protected/planted	Field observation, planting log	Quarterly	DPMU / Contractor
Climate resilience adaptation actions	Number of drainage/ETP maintenance activities	Site logbook, photographic records	Monthly	Contractor / IVCS

Table 23: Monitoring framework

14. E&S Clauses in Bidding and Contractual Documents

To ensure full environmental and social compliance during the construction of the Chapahati Storage Facility, specific Environmental and Social (E&S) clauses will be integrated into all bidding documents and contractor agreements. These clauses serve as legally binding obligations that guide contractors in implementing the ESMP and align with the KfW Sustainability Guideline (2021) and relevant IFC Performance Standards.

These clauses will be enforced from the procurement stage through to post-construction monitoring, ensuring adherence to environmental best practices, labor standards, occupational health and safety (OHS), and community rights.

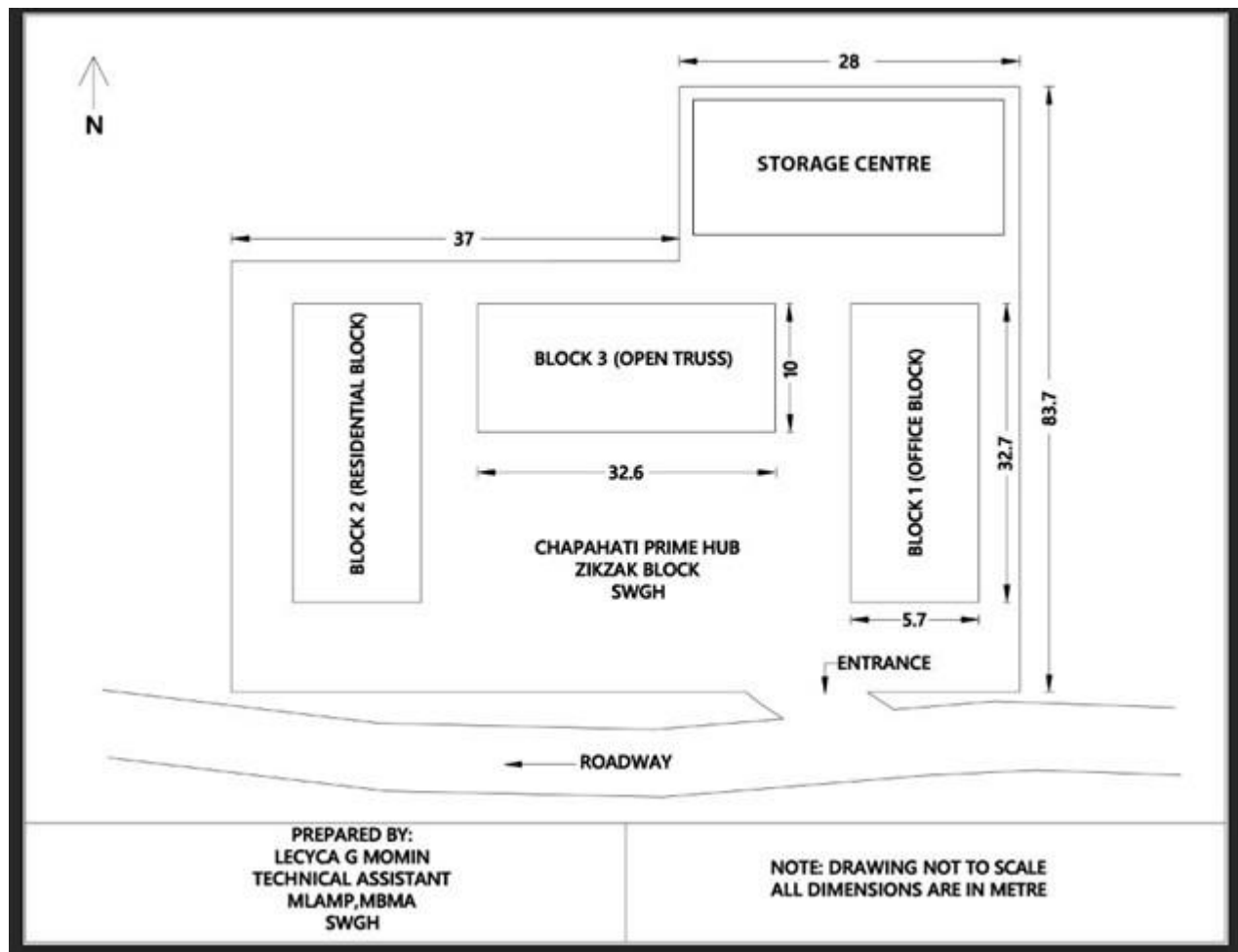
Component	Provision
Contractor Responsibilities under ESMP	Adherence to the approved ESMP and all recommended mitigation measures• Appointment of a site-level E&S and HSE Officer• Implementation of air/dust suppression, noise control, and proper solid waste management
Labor and Working Conditions	Compliance with India's labor codes and ILO core labor standards• Prohibition of child labor and forced labor• Fair wages, working hours, and non-discriminatory practices• Provision of PPE, first-aid, rest areas, and separate toilets for women workers
Cultural Sensitivity and Local Engagement	Respect for indigenous Garo traditions and institutions• Preference in hiring local workers, including women and youth from IVCS• No activity to disturb local religious or cultural sites
Code of Conduct and GBV Prevention	Mandatory signing of a Code of Conduct for all staff• Orientation on acceptable behavior and anti-harassment policies• Zero-tolerance for Gender-Based Violence (GBV) or Sexual Exploitation and Abuse (SEA)
Monitoring and Reporting	Monthly submission of compliance reports with photo evidence, attendance logs, and safety inspection checklists• Participation in monitoring visits by DPMU/PMU and third-party auditors
Enforcement and Penalties	Clear consequences for non-compliance: deduction from contractor payment, work stoppage orders, and contract termination for repeat violations• Environmental remediation and social redress measures in case of adverse impact
Grievance Redress Mechanism (GRM)	Setup of on-site GRM register with complaint submission box• Designation of a focal person to handle grievances• Display of grievance contact points (IVCS/PMU) in local language on notice boards at the construction site

Table 24: ESMP Clauses

Annexure 1: Frontal image of Chapahati PRIME Hub



Annexure 2: Blueprint of Chapahati PRIME Hub and the location showing where the Storage Centre will be built.



Annexure 3: Copy of the Minutes of Meeting

PRIME HUB KO JAKKALANI BIDINGO, CHAPAHATI SONGNI MANDERANG ARO CHAPAHATI – 1, IVCS LTD. - NI TOM-BIMONGANIO AGANGRIKANIKO SERIKANI

Prime Hub ko jakkalani bidingo, Chapahati -1 songni manderang aro Chapahati – 1, IVCS Ltd. - ni tom-bimonganiko 7th June 2025 tariko ong-ataha. Tom-aniko Smt. Priya N. Sangma, Chapahati – 1, IVCS Ltd. – ni President ka-dilangaha. Ua tom-bagipa sakantiko mandera-bee rimchaksoaha. Uni ja-mano ua Shri Rakseng D. Sangma na tom-ani katta bichongrangko parakatna cholko on-anaha. Tom-anio Nokma, IVCS ni memberrang aro songni gipin manderang bakko ra-aha.

Tom-anio chanchirimanirang :

Prime Hub ko rikani miksongani : Chapahati - 1 IVCS Ltd. ni ningo MBDA/MBMA ni gita Prime Hub ko rike on-aha. Ia Prime Hub o maidakgipa kamrangko ka-anggenchim, iani bidingo Chapahati – 1 IVCS ni Secretary songni aro IVCS o bakko ra-gipa manderangna agantalatangaha.

A-chik songo altue man-gipa bolam biterangko jekai, cashewnut, gue aro gipin bolam biterangko Prime Hub - o nambata bimango tarie, nambata damna palna miksonganikojinmana parakataha. Jinmaba ia kamko ka-na namnike pilakan jak songe ra-chaktokaha.

Machine-rangko donchakani biap : Cashewnutko tarina gita an-chingna adita machinerangko nanggen. Ua machinerangko donchakna namgipa nokkoba nanggen. Uni gimin SWGH, District Project Management Unit-ni DPM-na, MBDA/MBMA ni gita 500MT Storage Capacity Warehouse-ko Prime Hub-o rike on-china lekka see on-aniko dakode namgen ine tom-bagiparang ku-cholsan chanchirimaha aro namnike ra-chakaha.

Bore-well Tariani aro Jakkalani : Chapahati – 1 IVCS – ni Secretary Prime Hub ni ningo Borewell -ko tariani giminba bang-gija talate on-aniko dakangaha. Chongmotan, je borewell ko Prime Hub -o tariman-ahachim, uano da-o dipet mamungba neng-nikani gri chiko man-enga aro uko Prime Hub-ni ningo je kamrangko ka-genchim ua somoio chi nangode ia borewell-ni chiko jakkalna man-gen ine jinmana aganparakataha. Jekai, cashewnut-rangko tariani, Sustainable Land Management (SLM)/ Kreditanstalt für Wiederaufbau (KfW) Project -ni gita Warehouse rikanio, CMC -ni nokko rikanio, ge-a gamanirangna chi runa ba satna jakkalna man-gen aro ua indake dingtang dingtang nanganirangna ia borewell ni chiko jakkalanio darangba mamungba nengnikani ba namnikgijani dongjawa ine jinmaan namnikani chin gita jak songe ra-chakaha.

Labour : Chapahati Prime Hub-o Cashewnut-ko nambata gadango tarie palna gita adita kam ka-gipa dolrangkoba nanggen. Cashewnut ko ramna, ritna, basena, den-na, den-mangiminko siksikna aro ua indake dingtang dingtang kamrangko ka-na gita songni apaloni kam changgipa manderangko sakgni aro adita IVCSni ba songoni manderangko rakkina gita tik ka-aha. Je mandean Prime hub-ko rikna a-atangko jakkalna on-engachim uamangnaba dakchakskaani gita uni nokoni mande sakgnina kamko on-skaaha (Saksana Chawkidar aro sakgipin na Cleaner). Jinmaba iako namnike jakko songe ra-chaktokaha. Prime Hub-ona sawa ba mai dakgipa manderang napbaengachim uarango u-ie ma-sie ra-rikna aro napbaenggipa sakanti manderangni soirangko rikna gateo dongtimna mande (Security Guard) ko donnaba jinma namnike tik ka-angaha.

Bijolirangko Jakkalani : Prime Hub-o kamko a-bachengna gita bijolichi chalaigipa machinerangko jakkalna gita nanggen uni gimin phase III 150-200KVA bijoliko salna gitaba MeEPDCL na adita tangkarangko gammanaha ine jinmana parakataha. MeEPDCL departmentni manderangba bijoliko salanio adita kamrangko chu-sokataha aro dongkuenggipa kamrangko ka-angkuenga ine jinmana aganataha.

Jabolrangko Galani : Prime Hub-ni ran-gipa aro sosigipa jabolrangko galchakna gita nalarangko tarina aro a-kol cho-e jabol galna tik ka-aha.

Tom-aniko chanchirimani matchotman-o, saoba maikoba singani dongode singe u-ie ra-china jinmana somoiko on-angaha. Darangba mamungba sing-ani dongjani gimin changgipino tom-aniko ong-attaina ine tik ka-angaha aro songni Nokmachi Isolo Bi-e tom-aniko matchotataha.

Ka-mao Tom-anio Bakko Ra-giparangni Noksako Mesokatenga.



(Signature)
(Smart A. Sangma)

Pa.S.A.Sangma
Nokma II-22(10)
Chapahati A'king
South West Garo Hills
A.king Nokma
Shri. Smarth A Sangma

(Signature)
Secretary
Chapahati-1 IVCS Ltd.
Zikzak Block,
South West Garo Hills District.
Secretary
Chapahati IVCS Ltd.
Zikzak Dev. Block
South West Garo Hills

Awareness cum Village Community Meeting
with Chapahati-1 IVCS Ltd. Dated: 14th June 2025

Sl. No.	Name	Designation	Ph. No.	Sign.
1	Rakhang Sangma	Secretary	6009552959	RK
2	Juious Sangma		9263298320	Juious
3	Manash ch marak		6009774476	Manash
4	Meghat Sangma			Meghat
5	Chonteta ch. marak		9366960153	Ch. Ch. marak
6	Selbitha ch. marak		7005806890	Selbitha
7	Priya N Sangma	Chairman	6009200749	Priya N Sangma
8	Emmy R Sangma	Manager, Prime Hub	9889554638	Emmy
9	Mingame Chiora A Sangma	Prime Hub, Manager	9362180566	Mingame
10	Klenidila Sangma			K. Sangma
11	Nomitha ch. marak			Nomitha
12	Yigida ch marak			Yigida
13	Marans S. Sangma	President AFPA	87874157048	Marans
14	Gmail H. Marak		7002272400	Gmail
15	Sengrin ch. Marak			Sengrin
16	Powen N Sangma			Powen
17	Rabin R. marak			Rabin
18	Arthin Marak	Member IVCS		Arthin
19	Uding Marak	IVCS Member		Uding
20	Thangreth ch. marak	A. King - Hoka		Thangreth
21		Secretary Chapahati 1 IVCS Ltd. Zikzak Dev. Block South West Garo Hills		

(Signature A. Sangma)
Pa.S.A. Sangma
Nokma II-22(10)
Chapahati A'king
South West Garo Hills

No.	Name	Designation	Ph. No.	Signature
	Artwin Marak	IVCS member	6009502047	A.M.
	Uday Marak	IVCS member	7005806890	Uday
	Beto Marak	IVCS Member	7005872822	B
	Milling Marak	IVCS Member	9862168911	M. Marak
	Pinler D Sangma	IVCS member	8257006312	P.Sg.
	Lulu Marak	IVCS member	8787457048	Lulu M.
	Mina ch. Marak	IVCS member	6909452276	M. ch. M.
	Tonin ch Marak	IVCS Member	8257809946	T. ch. M.
	Binda Sangma	IVCS Member	8787783108	B.S.
	Sabillon Marak	IVCS member	7005212673	S. Marak
	Joel C Marak	IVCS member		J. Marak
	Chengnie D Marak	IVCS member		C.D. Marak
	Kajia Marak	IVCS member	8787825557	K. Marak
	Prebelha D Marak	IVCS member	9089621019	P.D. Marak

Secretary
Chapahati II IVCS Ltd.
Zikzak Dev. Block
South West Garo Hills

(Shunati A. Sg.)

Pa.S.A.Sangma
Nokma II-22(10)
Chapahati A'king
South West Garo Hills

Annexure 4: No Objection Letter from Village Head



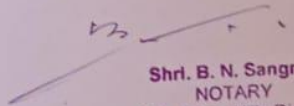
To Whom It May Concern

I, Smt. Babitha D Sangma of village Chapahati -1, P.O. Chapahati – 1, South West Garo Hills District, Meghalaya, do hereby declare that I gave my sole-owned immovable property of approximate 2.5 Bigha, to the society known by the name as Am-beng Farmers' Producer Association for operating and conducting their business from Prime Hub, Chapahati – 1, Zikzak Block, South West Garo Hills, Meghalaya.

I, further state that I have no objection if Am-beng Farmers' Producer Association uses the address of the said premises as their mailing address.

Babitha D Sangma
Signature

Date : 21/03/2025


Shri. B. N. Sangma
NOTARY
West Garo Hills District
Tura, Meghalaya.



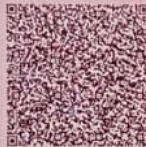
सत्यमेव जयते

INDIA NON JUDICIAL

Government of Meghalaya

e-Stamp

Certificate No. : IN-ML07825486985666X
Certificate Issued Date : 21-Mar-2025 10:42 AM
Account Reference : CSCACC (GV)/ mlcsceg07/ ML-WGHTEN0026/ ML-WGH
Unique Doc. Reference : SUBIN-MLMLCSCEG0713777261475172X
Purchased by : BABITHA D SANGMA
Description of Document : Article 5 Agreement or Memorandum of an Agreement
Property Description : NO OBJECTION CERTIFICATE
Consideration Price (Rs.) : 0
(Zero)
First Party : AMBENG FARMERS PRODUCER ASSOCIATION
Second Party : BABITHA D SANGMA
Stamp Duty Paid By : BABITHA D SANGMA
Stamp Duty Amount(Rs.) : 20
(Twenty only)



To Whom It May Concern

Please write or type below this line

I, Smt. Babitha D. Sangma of village Chapahati -1, P.O. Chapahati - 1, South West Garo Hills District, Meghalaya, do hereby declare that I gave my sole-owned immovable property of approximate 2.5 Bigha to the society known by the name as Am-beng Farmers' Producer Association for operating and conducting their business from Prime Hub, Chapahati-1, Zikzak Block, South West Garo Hills, Meghalaya.

I further state that I have no objection if Am-beng Farmers' Producer Association uses the address of the said premises as their mailing address.

Babitha d sangma
Signature

Date : 21/03/2025

Shri. B. N. Sangma
NOTARY
West Garo Hills District
Tura, Meghalaya.



0026062636

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

SI / Instrument No. 1204
Date 17-4-25

Annexure 5: GRM form on MBMA website (www.mbma.org.in)

MBMA

Meghalaya Building Material Manufacturers Association

HOME

WHO WE ARE

WHAT WE DO

KNOWLEDGE PORTAL

ADVERTISEMENT

BLOG

GREEN MEGHALAYA (PES)

MEGHALAYA COLLECTIVES

Home

Grievance Redressal

For grievances from the Khasi Hills and Ri Bhoi Region please call – +91880643109 and from the Garo Hills Region please call – +91880643108 between 10:00 am and 6:00 pm, Monday to Friday. For procurement-related grievances, please send an email to procurementcomplaints.mbma@gmail.com

Contact Method	Information
General Enquiries Form	Use the form on the right for general enquiries
Address	C/o Meghalaya State Housing Financing Cooperative Society, Nongrim Hills, behind Bethany Hospital, Shillong, East Khasi Hills District, Meghalaya 793003
Landline	+91-364-2522921
Email Id	mbma.mbdg.grievance@gmail.com

SEND QUERY / FEEDBACK

First name

Email

Subject

Message

Enter CAPTCHA

Refresh CAPTCHA

Send

Page | 64

Annexure 6: Environmental and Social Monitoring Checklist

This ready-to-fill monitoring checklist is designed to assist MBMA, DPMU, contractors, and external monitors in tracking the implementation of ESMP measures for the Wahiajer Bio-Fertilizer Unit. It includes key indicators across environmental, health, safety, and social dimensions. Monitoring should be conducted regularly and documented using this template.

Monitoring Aspect	Indicator/Parameter	Method of Verification	Frequency	Remarks/Status
Water Usage	Meter readings, records	Meter inspection, usage logs	Monthly	
Solid Waste Disposal	Proper segregation and disposal	Visual inspection, disposal logs	Bi-weekly	
Worker Safety	Use of PPE, safety briefings	On-site inspection, training logs	Monthly	
Site Cleanliness	No scattered debris or waste	Site walkthrough	Weekly	
Community Feedback	No major grievances	Consultations, feedback register	Quarterly	
GRM Performance	Timely resolution of complaints	Grievance log review	Bi-annually	
GHG/Climate Measures	Adoption of rainwater harvesting, organic inputs	Observation, lab records	Quarterly	
Gender Inclusion	Women's participation in operations	Staff lists, field interviews	Quarterly	

Annexure 7: Sample Environmental and Social Clauses for Bidding Documents

This annexure provides sample Environmental and Social (E&S) clauses to be incorporated into bidding and contract documents. These clauses ensure contractors are legally bound to comply with the Environmental and Social Management Plan (ESMP), national laws, and KfW Sustainability Guidelines throughout the project lifecycle.

Clause Title	Sample Text
Environmental Compliance	The Contractor shall ensure that all construction activities are conducted in compliance with the Environmental and Social Management Plan (ESMP), including pollution prevention, waste management, and site restoration requirements.
Health and Safety (OHS)	The Contractor shall provide appropriate Personal Protective Equipment (PPE), conduct safety training, maintain accident logs, and follow national safety codes to ensure worker health and safety.
Waste Management	The Contractor shall segregate, store, and dispose of solid and liquid waste generated at the site through authorized disposal agencies, as per applicable environmental norms.
Labour and Working Conditions	The Contractor shall comply with national labor laws, ensure fair wages, and prohibit the use of child or forced labor. Separate sanitation facilities for male and female workers shall be provided.
Grievance Redressal	The Contractor shall cooperate with the project-level Grievance Redress Mechanism (GRM) and display grievance contact information at the site.
Gender and Social Inclusion	The Contractor shall encourage employment of local community members, including women and youth, and provide gender-sensitive facilities at the worksite.
Biodiversity and Vegetation	The Contractor shall not damage or fell trees unnecessarily and shall take measures to protect flora and fauna in the vicinity of the project site.
Monitoring and Reporting	The Contractor shall maintain daily site logs and submit monthly E&S compliance reports to the Project Management Unit (PMU)/District Project Management Unit (DPMU).
Penalties for Non-compliance	Failure to comply with the E&S obligations will result in penalties or termination of the contract, as deemed appropriate by the Employer.