Climate Smart Village Approach Design Document

(Bangladesh Context)

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Contents

1.0 Introduction - Climate Smart Village (CSV) Approach Assessment :

Climate change—driven largely by global warming—is intensifying and increasing the recurrence of multi-hazard events across Bangladesh's climate frontline communities. These compounded shocks are eroding livelihood assets, disrupting agricultural production, and deepening vulnerability. In this context, a systemic and sustainable Climate-Smart Village (CSV) approach, supported by a strengthened frontline climate governance mechanism, is essential to build resilient livelihoods and reduce climate risks.

Given Bangladesh's rich agroecological endowments and its deltaic geography and geomorphological setting—together with prevailing local agroclimatic conditions—the proposed FHB CSV concept and implementation approach must be explicitly aligned with Disaster Risk Reduction (DRR), Climate Change Adaptation (CCA), mitigation, and overall resilience building. The CSV model will enable integrated implementation of key components at household and community levels, including climate-smart agriculture, weather and climate information services, sustainable water management, low/zero-carbon practices, organic soil and nitrogen management, clean energy solutions, self-sufficient household cooking energy, and knowledge-smart schemes. Collectively, these interventions are intended to strengthen livelihoods, reduce risk, and boost household and village-level economies.

Bangladesh's frontline communities are experiencing increasingly frequent multi-hazard events as climate change accelerates, with livelihood assets among the hardest hit. A systemic and sustainable Climate-Smart Village (CSV) approach—anchored in strong local climate governance—is therefore necessary to build resilient livelihoods. Considering Bangladesh's agroecological diversity and deltaic geography, the proposed FHB CSV approach will be designed to advance DRR, CCA, mitigation, and resilience outcomes through integrated household- and community-level interventions (climate-smart agriculture, climate services, sustainable water management, low/zero-carbon solutions, organic soil and nitrogen management, clean energy and cooking energy self-sufficiency, and knowledge-smart schemes) that also strengthen local economies.

If you share the intended audience (donor proposal vs. policy brief vs. concept note), I can tune the tone further and align the paragraph to typical Bangladesh climate-program framing (e.g., loss and damage, anticipatory action, localization, LDCF/GCF language).

1.1 Understanding the assignment:

From this perspective, the Climate-Smart Village (CSV) approach—pioneered under the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and implemented with partner institutions—seeks to provide rural communities with an integrated package of support to advance climate resilience. This includes strengthened climate-resilient agriculture and associated livelihood opportunities, skills development and mass awareness, employment pathways, sustainable clean energy access, safe water and sanitation solutions, improved health and wellbeing services, women's empowerment, enhanced transportation and communication connectivity, and practical coping mechanisms to reduce losses from climate- and multi-hazard-induced impacts.

Building on this foundation, Consulting firm intends to customize and strengthen the CSV approach by harmonizing it more rigorously with Bangladesh's local context and settings. This will be achieved by institutionalizing an inclusive and locally led process, enabling proactive and continuous engagement with frontline actors and stakeholders, and establishing a fit-for-context CSV governance mechanism that supports local ownership, accountability, and sustainability.

The FHB CSV approach can be materialized through a structured sequence of conclusive assessments, participatory and technical consultations (with frontline communities, relevant actors, and stakeholders), recurrent reviews, and field-based site visits. These steps will inform the preparation of a detailed CSV Master

Plan for villages within the FHB intervention areas, followed by feasible implementation of CSV-centered actions, schemes, and projects aimed at strengthening the resilience of climate frontline livelihoods across Bangladesh.

The technical design of the CSV approach will be grounded in inclusive, locally led solutions, including: (i) sustainable utilization of local natural and agroecological resources; (ii) identification and institutionalization of best practices; (iii) promotion of sustainable and climate-resilient technologies; (iv) introduction of smart climate services (including weather and climate information services); and (v) meaningful engagement of frontline communities in informed local planning and decision-making. Collectively, these measures will enhance the capacity of frontline households to sustain their livelihoods under persistent climate risks and vulnerabilities.

By addressing climate risks while sustainably harnessing agroecological resources through inclusive village-level engagement, the proposed CSV approach offers a viable pathway to reduce poverty and strengthen long-term food, energy, water, and environmental security. Overall, the CSV concept represents a transformative shift from traditional and climate-exposed livelihood patterns toward more sustainable, climate-resilient, ecologically responsible, and socially inclusive livelihood systems—anchored in local resources and governance—capable of mitigating the persistent and increasingly severe climate risks faced by Bangladesh's frontline communities.

1.2 Objectives of the assessment of CSV approach:

From the above conceptual framing, the overall objective of this assignment is to assess the applicability of a Climate-Smart Village (CSV) approach within FHB Area Programs in Bangladesh and to propose a context-appropriate set of recommendations for CSV design and implementation. The recommendations will be informed by documented CSV experiences and lessons learned from initiatives implemented across Africa and Asia (including South Asia) and will focus on interventions and governance arrangements that can be feasibly adopted and sustained by smallholder farmers and farmer groups to strengthen climate resilience and adaptation.

If you want to present this as a standard ToR section, you can use the following structure:

Overall objective

Conduct a CSV approach assessment for FHB Area Programs in Bangladesh and develop implementable recommendations—grounded in global CSV practice—that improve smallholder farmers' and farmer organizations' resilience and adaptive capacity to climate change.

Specific objectives

- Review and synthesize relevant CSV models and implementation lessons from Africa and Asia (including South Asia).
- Assess climate risks, livelihood vulnerabilities, and service/market constraints in FHB program areas relevant to CSV design.
- Identify, prioritize, and package feasible CSA/CSV options (technology–service–institution bundles) suitable for smallholders and farmer groups.
- Propose a fit-for-context CSV governance and delivery mechanism (platforms, roles, accountability, inclusion).
- Develop actionable recommendations and a phased roadmap for piloting, learning, and scaling within FHB intervention areas.

Expected output

A concise CSV Assessment Report and an implementable recommendations package (including priority CSV components, governance model, and a phased implementation roadmap) tailored to FHB program geographies in Bangladesh..

2.0 Proposed scientific Methodology of assessment of CSV approach.

To materialize the CSV approach, the required assessment will be designed and conducted in a comprehensive and conclusive manner to ensure that all elements and components of the approach are systematically captured, analyzed, and clearly documented. In compliance with the agreed tools and process, the consulting firm will apply robust scientific methods alongside participatory consultations and structured field interactions across the FHB Area Programs (APs) to generate credible evidence and actionable recommendations.

2.1 Rationale of Consulting firm engagement with the assessment

a) The CSV approach encompasses a comprehensive technical structure and implementation process that must be operationalized through the lowest tiers of local government and community-level climate governance mechanisms. The consulting firm has demonstrated specialization in Bangladesh's local government system and possesses strong technical expertise in local service delivery—capabilities that are essential to institutionalizing CSV governance and implementation at Union and community levels.

b) The consulting firm has strong technical expertise in GIS (GPS and remote sensing)–based mapping and the application of geospatial technologies for rural/local assessments and evidence-based planning tool development. The firm's professionals have substantial experience supporting planning and engineering functions through the Local Government Engineering Department (LGED) and other international agencies, enabling high-quality spatial analysis and planning support for CSV site selection, risk profiling, and intervention design.

c) The consulting firm has professional knowledge and working experience with key sectoral departments operating at District, Upazila, and Union levels, including Agriculture, Fisheries, Livestock, Rural Communications and Infrastructure Development, Public Health Engineering and infrastructure, Rural Development and Cooperatives, Health and Family Planning, Water Resources Management, Forestry, and related services. The firm is experienced in conducting Climate and Environmental Risk and Vulnerability Assessments (CERVA), preparing Risk Reduction Action Plans (RRAP), supporting local budgeting and annual development planning processes, and facilitating implementation of local schemes and projects through government systems.

d) The consulting firm has proven experience in risk-informed, sector-integrated local development planning (LDP), including prioritization, budgeting, and implementation of community-level interventions. This includes facilitating participatory planning processes, aligning investments with local risk profiles, and ensuring inclusion and accountability in planning and delivery.

e) The consulting firm has professional experience in multi-hazard risk assessment and risk management, including early warning dissemination, impact-based forecasting applications, and broader disaster risk management (DRM) support. These competencies are directly relevant to CSV design, particularly where multi-hazard contexts require anticipatory action, preparedness planning, and integration of early warning with livelihood resilience measures..

2.2 Prepare CERVA tools for develop baseline climate/multi-hazards exposure, risk and vulnerability (CERVA) scenarios:

The core components of the Climate-Smart Village (CSV) approach are closely aligned with the Climate Change, Agriculture and Food Security (CCAFS) framework; therefore, tailor-made, CERVA-informed tools are essential for designing and implementing climate-smart actions, projects, and schemes at village level. To operationalize this, the consulting firm will apply strategic and evidence-based methods to capture CERVA scenarios and develop spatially interpreted GIS base maps for the FHB Area Programs (APs).

The CERVA process will be supported by GIS and remote sensing technologies, with primary data captured through GPS-enabled field surveys, KoBoToolbox (and other digital survey platforms), drone-based imagery (where appropriate), and relevant mobile data-collection applications. During consultations with local actors, stakeholders, and frontline communities—and through systematic field visits—the GIS base maps will be used to ground-truth and verify secondary-source CERVA layers and hazard/vulnerability maps. The firm will develop village-level GIS base maps and robust climate risk–informed planning tools to enable detailed CSV planning, including micro-level land use and land cover (LULC) characterization and settlement-level exposure mapping.

The consulting firm maintains an archive of Union-level GIS base maps that can be applied for CERVA purposes and further customized with essential geospatial elements, including physical infrastructure, communication and transport networks, and updated land use datasets compiled through remote sensing (including Google Earth Engine-based analysis where relevant), drone imagery, and other geospatial sources. These datasets will be consolidated into comprehensive GIS products capable of capturing climate and multi-hazard exposure, risks, and vulnerabilities at both household and community levels. Household- and community-level risk intelligence will be triangulated through FGDs, KIIs, transect walks, direct observation, and structured field verification.

2.2.1 CERVA database development (for most vulnerable/model village) :

To establish the base-case Climate-Smart Village (CSV) scenario, the consulting firm will develop a detailed, village-level CERVA database for one selected most vulnerable/model village. This database will compile and structure the full set of climate and multi-hazard risk, exposure, sensitivity, and adaptive capacity parameters—integrating geospatial layers and primary field data—to generate a robust evidence base for decision-making. The CERVA database will be used to inform and finalize the CSV Development Plan for the model village, including risk-informed prioritization of interventions, spatial targeting, and implementation sequencing.

2.3 Linking socioeconomic and statistical data with CERVA database:

The consulting firm needs to apply a robust and conclusive assessment mechanism to ensure that the evidence base required for inclusive, risk-informed CSV planning is comprehensively generated. The CSV approach is inherently multi-dimensional and will therefore be guided by a roadmap of testable hypotheses informed through multi-factor analytics, multi-indicator assessment, and composite decision-support tools. This will enable analytical recommendations and planning decisions that are grounded in both quantitative evidence and structured consultation processes.

The assessment will integrate: (i) residual and emerging CERVA scenarios; (ii) prevailing socioeconomic conditions and livelihood systems; (iii) analysis of interacting climatic and non-climatic risks and their combined impacts on livelihoods; (iv) assessment of locally endowed agroecological and natural resource potentials that can be sustainably harnessed; (v) review of enabling capacities of frontline households and institutions (including local government service delivery, extension systems, and market linkages); and (vi) examination of community-level collective mechanisms and local entrepreneurship pathways, including cooperative-based enterprise development and women-led green entrepreneurship. Collectively, these analytical streams will support the transformation of traditional villages toward climate-smart, inclusive, and green-growth-oriented “model” villages—with improved productivity, resilience, and livelihood diversification.

To operationalize this approach, the consulting firm will develop a CERVA repository database using a hybrid evidence base, combining secondary data and geospatial datasets with primary field data and participatory consultations. The repository will be validated through community engagement and stakeholder consultations to ensure local relevance, accuracy, and ownership, and it will serve as a core decision-support input for the CSV development plan and prioritized action packages.

2.4 Geospatial platform for tailormade informed tools for CSV governance :

The consulting firm proposes to establish an ICT-driven, evidence-based geospatial service platform—built on open-source technologies—to enable inclusive Climate-Smart Village (CSV) planning, scheme design, and implementation support across the FHB Area Programs.

Proposed statement (proposal/ToR-ready)

To facilitate ICT-driven, evidence-based geospatial services, the consulting firm intends to design, develop, and operationalize an online, open-source geospatial platform that supports inclusive CSV-level planning and decision-making. The platform will consolidate validated CERVA datasets, village GIS base maps, and multi-hazard exposure and vulnerability layers into a user-friendly planning environment, enabling local actors and frontline communities to jointly prioritize interventions, design schemes, and monitor implementation progress.
Purpose and use-cases

- Inclusive CSV planning: participatory prioritization using risk hotspot maps and resource potential layers
- Scheme design and targeting: spatial siting of demonstrations, infrastructure, and services based on exposure and vulnerability profiles
- Implementation support: tracking scheme locations, beneficiaries, and progress through map-based dashboards
- Evidence products: automated map outputs for Master Plans, union/upazila plans, and donor reporting

Core functional modules

1. Data repository: CERVA database (tabular + spatial), metadata, version control, and standardized indicators
2. Interactive web maps: hazard layers (flood, salinity, erosion, drought/heat, cyclone/storm surge as relevant), exposure, vulnerability, adaptive capacity
3. Planning tools: prioritization matrices, scoring overlays, intervention suitability mapping, and scenario comparisons
4. Field verification integration: GPS/KoBo/other survey app ingestion, photo points, transect/FGD geotagging
5. Reporting dashboards: progress and results visualization (coverage, adoption, infrastructure/service delivery footprint)

Open-source technical stack (illustrative, adaptable)

- Web GIS and services: GeoServer / MapServer, PostGIS, QGIS workflows
- Web front-end: Leaflet / OpenLayers, dashboard layer (as needed)
- Data collection integration: KoBoToolbox, GPS mobile apps, drone orthomosaics (where applicable)
- Optional processing: Google Earth Engine outputs incorporated as layers (not dependent on platform runtime)

Governance, access, and sustainability

- Role-based access: public-facing layers (where appropriate) and restricted planning layers for partners/local government
- Data stewardship: clear ownership and update protocols; standardized metadata and QA/QC procedures
- Capacity building: training for local government and CSV platform members to use maps in planning and monitoring
- Handover plan: administrator training, documentation, and hosting/maintenance options aligned to FHB systems

Deliverables

- Deployed online geospatial platform (prototype → operational version)
- Village/Union GIS base map library integrated with CERVA layers
- Planning toolkit embedded in the platform (risk hotspot maps, suitability maps, prioritization overlays)

- User manual, administrator guide, and training package

2.5 Conducting Consultation with relevant stakeholders for identifying strategy/recommendations:

2.5.1 Identify governing structure and process:

SL	CSV components	Consultation method	Participants
•	Review the stakeholder mapping and engagement strategies and charter of responsibilities for promoting CSV governance	Conduct FGD/KII	Conduct consultation with following TWGs at Upazila level; **Upazila-level TWGs / Standing Committees (consultation participants)** • Upazila **Communication and Physical Infrastructure Development** Committee • Upazila **Agriculture and Irrigation** Committee • Upazila **Primary and Mass Education** Committee • Upazila **Health and Family Planning** Committee • Upazila **Youth and Sports** Committee • Upazila **Women and Children Development** Committee • Upazila **Social Welfare** Committee • Upazila **Market Price Observation, Monitoring and Control** Committee • Upazila **Finance, Budget Planning, and Local Resource-Based Revenue** Committee • Upazila **Public Health, Sanitation, and Safe Drinking Water Supply** Committee • Upazila **Forest Department** (relevant focal person/representative) • Upazila **Cooperative Department** (relevant focal person/representative) **Union / community-level stakeholders (KIIs / FGDs as appropriate)** • Union Parishad (UP) members (Chair/Member as relevant) • Department of Agricultural Extension (DAE) staff / lead farmers • Lead fish farmers / aquaculture representatives • Poultry farmers • Livestock farmers • Commercial vegetable growers • Medium landowners / tenant farmer representatives (as relevant) • Agricultural input suppliers/dealers and stockists • SMEs / rural enterprise representatives • Rice mill owners / processors

SL	CSV components	Consultation method	Participants
			• Business community representatives (traders, wholesalers, market committee members) • Other relevant local actors identified through stakeholder mapping **Educated community group (FGD/KII)** • Conduct FGD/KII with educated community members (e.g., teachers, students/youth leaders, local professionals) to assess: • Understanding of rural development planning processes • Awareness of climate risks and governance responsibilities • Practical expectations regarding delegation of activities and institutional roles within CSV governance • ,

	Participation, coordination, and logistical support (CSV planning and delivery)	**Consultation method:**
		FGD/KII
			Participants:
			• NGO-led Income Generating Activity (IGA) groups
			• Union Parishad (UP) members
			• Lead farmers and farmer group leaders
			• Community-based organizations/cooperatives (where present)
			• Relevant local service providers (as appropriate)
			Key consultation themes (to be assessed and documented):
			• Participatory and inclusive coordination mechanisms for CSV implementation
			• Cooperative and group-based approaches for climate-smart agriculture and risk reduction
			• Existing "risk culture" and local coping/response practices
			• Good agricultural and natural resource management practices, including:
			  ○ Livestock and integrated farming systems
			  ○ **IFM** (Integrated Farm/Farming Management, as locally defined)
			  ○ **IPM** (Integrated Pest Management)
			  ○ **INM** (Integrated Nutrient Management)
			  ○ **FYM** (Farmyard Manure / organic manure management)
			  ○ **IWRM** (Integrated Water Resources Management)
			  ○ Other organic and climate-smart production practices
			• Incentives and financing mechanisms needed for adoption (e.g., input access, revolving funds, microcredit, savings groups)

SL	CSV components	Consultation method	Participants
			• Credit facilities and enabling conditions for individual and group-based green entrepreneurs (including women-led enterprises)
•	Determine climate smart village governance:	Conduct FGD/KII	**Consultation participants (SL 1)** **1) Local government and value-chain / livelihood stakeholders (KII/FGD as appropriate):** • Union Parishad (UP) members • Department of Agricultural Extension (DAE) staff and lead farmers • Lead fish farmers / aquaculture representatives • Medium landowners / farmer representatives • Poultry farmers • Livestock farmers • Commercial vegetable growers • Agricultural input suppliers/dealers and stockists • SMEs / rural enterprise representatives • Rice mill owners / processors • Business community representatives (traders and wholesalers) • Other relevant stakeholders identified through stakeholder mapping **2) Educated community group (FGD/KII):** Conduct FGD/KII with educated community members (e.g., teachers, students/youth leaders, local professionals) to assess: • Understanding of rural development planning processes • Clarity on delegation of roles and responsibilities • Participation and coordination mechanisms • Logistical support requirements for planning and implementation **3) NGO-led IGA groups and community producer groups (FGD/KII):** Conduct FGD/KII with NGO-led Income Generating Activity (IGA) groups, UP member–supported farmer groups, and lead farmers to explore: • Participatory, inclusive, and cooperative approaches to agriculture and livelihood development • Local "risk culture" (perceptions of risk, coping practices, and behavioral drivers) • Climate-smart/organic production practices, including livestock and integrated farming practices and: o **IPM** (Integrated Pest Management) o **INM** (Integrated Nutrient Management)

SL	CSV components	Consultation method	Participants
			○ **FYM** (Farmyard Manure / organic manure management) ○ **IWRM** (Integrated Water Resources Management) ○ **IFM** (as locally defined—Integrated Farm/Farming Management) • Incentive needs and access to finance/credit facilities for individual and group-based entrepreneurs (including women-led green enterprises)
•	**Identify the scope of promoting Innovative digital CSV governance:** • Scope of Participatory cooperativeled entrepreneurship development • Scope of Utilization of Digital inclusive finance from the financial institutions/credit operators • Scope of vertical and horizontal access to external finance	Conduct FGD/KII	Consultation with participants outlined on SL 1
•	**Determine Participatory streeting structures** (completely non-political and unbiased)	Conduct FGD/KII	UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, commercial vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**CSV Component/thematic area based Technical Working Group (TWG)**	Conduct FGD/KII	• Conduct FGD/KII with educated people and identify the understanding level of rural development planning, delegation of activities, participation and coordination and logistic supports. • UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, commercial vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	Cooperative mannered fund raising and budgeting system:	Conduct FGD/KII	• Local Banks, Digital Finance System outlets(mobile banking), SMEs, NGO running credit facility, insurance,
			SME loan, agricultural loan, DAE subsidies/loan, Digital finance system (DFS), • UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

SL	CSV components	Consultation method	Participants
•	**Rivew rural energy supply and utilization pattern** • Review rural household sources of cooking • Level of firewood uses. • Level of indoor air pollution • Review the sources of biomass potentials • Review RE and Energy efficiency options	Conduct FGD/KII	Participants outlined in point 1
•	**Climate smart homestead vegetable gardening technologies:** • Stack layer, vine, intercropping, intensify cropping density, multiple cropping , sustainable uses of homestead land. • Smart technology for integrated livestock farming, Agro-forestry technology development	Conduct FGD/KII	Participants outlined in point 1
•	**Conduct survey for sustainable landcover map:** • Existing land cover • Current land use practices • Identify the climate risks and vulnerabilities	Conduct FGD/KII	Participants outlined in point 1
•	**Improve climate smart agricultural governance and food security and agricultural value chain (AVC) at local level.** • Village level sustainable agricultural policy, planning, practices inclusivity (complying government rules /regulations) • Transformation of traditional knowledge and practice based less yielding agricultural to climate adaptive/resilient sustainable agriculture by sustainable/optimally uses agroecological and environmental resources. • Market accessibility, market promotion,		Participants outlined in point 1
	• Climate tolerant seedling, sapling, cold storage facilities, agricultural input supplies • Green Entrepreneurship development		

SL	CSV components	Consultation method	Participants
•	**Uses of climate-smart agricultural technologies and practices** • Climate smart IFM (combined organic farming, fish culture, livestock), Integrated Pest management (IPM) , integrated nutrition management, farmyard manure production(FYM) INM, FYM, for boosting agricultural yields and villagers food security. • Organic agriculture, intercropping, increasing cropping intensity, High Yielding Variety (HYV), High Value Cropping (HVC). • Judicial uses of water resources, rainwater harvesting, water retention, sustainable irrigation practices (AWD, Modular Drip system), less water and high value cropping. • Round the year seedling, sapling, agricultural with green shed and climate adaptive agricultural practices • Green technology based storage facilities (CSD/Silos)		Participants outlined in point 1
•	**Transforming tradition sources of household energy by harnessing sustainable renewable energy sources** • Solar Home Living System, Solar Water Pumping (automatic) • Biogas digester and uses slurry to homestead organic farming. • Rainwater harvesting at household level (Barguna, other coastal areas) • Uses of improved and efficient cook stoves for reducing indoor pollution		Participants outlined in point 1
•	**Green entrepreneurship development**		Participants outlined in point 1

SL	CSV components	Consultation method	Participants
	• Promoting Women headed green entrepreneurships and cooperatives with financial inclusion to create ideal and women friendly smart agricultural community. • Promoting youth green entrepreneurships • Disseminate modern farming knowledge, technologies among female farmers to create ideal and women friendly smart agricultural community. • Promoting local fiscal facilities for encouraging entrepreneurships development, access to green finances and green credit facility for marginal farmers.		
•	**Explore Climate information service** • sector specific operational forecasting, • community based multi-hazard early warning, • weather alerts FM, AM Radio , SMS, Cell Broadcast, IVR etc		Participants outlined in point 1
•	**Dissemination of tools, technical, ideas, best practices** • Social networking group • Climate kiosk • Community Radio • Geospatial web portal		Participants outlined in point 1

2.5.2 Identify the level of climate / multi-hazard risk & vulnerability perception and conducting CREVA and planning tools development.

SL	CREVA Perception of CSV stakeholders	Consultation method	Participants
•	Level of understandability/perception/indigenous knowledge of Climate and Multi-hazard exposure, risk, vulnerability and sensitivity to food and livelihood sector elements	Conduct FGD/KII	UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	Persistent Climate and Multi-hazard exposure, risk, vulnerability and sensitivity	Conduct FGD/KII	UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

SL	CREVA Perception of CSV stakeholders	Consultation method	Participants
•	Community indigenous knowledge on copping capacity and risk reduction strategy	Conduct FGD/KII	UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

2.5.3 Identify the level of climate smart subsistence farming:

SL	CREVA Perception of CSV stakeholders	Consultation method	Participants
•	**Knowledge/practices on Climate Smart Agriculture :** Understandability of design the applicability of natural protection/fruit trees surrounding canopies to climate sensitive vegetables gardens (round the year) homestead/orchard for protecting weather stress	Conduct FGD/KII	• Conduct consultation with SMEs, engaging rural development sectors, rural market promoter, business entities, small holder farmers, local NGO credit supported women headed IGA groups, household IGA groups, local cooperative societies, fisheries communities, fish pond owner, Union/Upazila land office, Union/Upazila 17 local government sector departments (Agriculture, Fisheries, livestock, LGED, DPHE, Rural development & Cooperatives, Health and Family Planning, • LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Access to agroclimatic, agricultural operational forecasts, weather warning/alerts :** Review the information tools, disseminations tools and knowledge level of villagers/farmers.	Conduct FGD/KII	LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Water smart:** Sustainable Water harvesting techniques and judicial management of water resources.	Conduct FGD/KII	LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers
•	**Carbon smart AVC:** Low Carbon/Methane emission from agriculture,	Conduct FGD/KII	Union DAE-SAAO, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

•	**Nitrogen smart:** Enriching soil nitrogen with changing cropping patterns, nitrogen fixing cropping.	Conduct FGD/KII	Union DAE-SAAO, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Energy smart:** Potentially to harness clean energy (Renewable energies e.g., biogas/biomass standalone windmill, Solar PV etc.) and reducing indoor air pollution from traditional cooking using	Conduct FGD/KII	Upazila PIO, LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply
SL	**CREVA Perception of CSV stakeholders**	**Consultation method**	**Participants**
	firewood/coal/dung cake/agricultural residues)		dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Knowledge smart:** Enhance marginal farmers knowledge on IFM, IOM, INM, FYM	Conduct FGD/KII	Upazila PIO, Union DAE-SAAO, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders, energy & electronics equipment/accessories traders.
•	**CSV Component/thematic area based Technical Working Group (TWG)**	Conduct FGD/KII	UP member, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

2.5.4 Identify Village level disaster management mechanism, copping capacity, emergency response and recovery capacity

SL	CREVA Perception of CSV stakeholders	Consultation method	Participants
•	Level of understandability/perception/indigenous knowledge of Climate and Multihazard exposure, risk, vulnerability and sensitivity to food and livelihood sector elements	Conduct FGD/KII	Conduct consultation with Disaster Management Committees: Union Disaster Management Committee (UDMC), Ward Disaster Management Committee (WDMC) member and NGO servicemen, volunteer groups, frontlines, local actors/stakeholders/group, village level cooperatives, NGO running cooperatives, green entrepreneurs, women headed entrepreneurs.
•	DRR/DRM activities, community built structures, DRR related schemes etc.		Upazila PIO, LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

3 Conduct Assessment for AVC components wise Planning process, scheme design and implementation :

SL	CREVA Perception of CSV stakeholders	Consultation method	Participants
•	**Land cover plan (GIS tools supported) : Detailed** village GIS base map to be developed to show the current land cover status which would be supportive for CERVA. With this tool the CSV would have convincing and negotiation power with Upazila/Union Land Office for accessing agroecological and other khash landbased resources to be sustainably used by the villagers.	Conduct FGD/KII	• Conduct consultation with SMEs, engaging rural development sectors, rural market promoter, business entities, small holder farmers, local NGO credit supported women headed IGA groups, household IGA groups, local cooperative societies, fisheries communities, fish pond owner, Union/Upazila land office, Union/Upazila 17 local government sector departments (Agriculture, Fisheries, livestock, LGED, DPHE, Rural development & Cooperatives, Health and Family Planning,
			• LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Agricultural and land use management plan (GIS tools supported):** Agricultural cropping plan (GIS tools supported) : Detailed plans to be developed based on Village GIS based map(plot) showing Where and what type of cropping are appropriate to which land. Detailed multihazard/season and livelihood IGA based calendars and soil suitable crop selection.	Conduct FGD/KII	LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Agricultural crop management plan (GIS tools supported):** Detailed village GIS base map on cropping to be developed (showing Agri plots) to show what type & location for seedling, sapling, type of crops are suitable to which plots considering agro-climate, impeding nature & types of multi-hazards, agroecology, agrotechnology, cropping season, less water consuming factors, high market value (ahead of season) etc. Selection of intercropping agri-plots, one/tow/multi-season cropping etc.	Conduct FGD/KII	Union DAE-SAAO, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

•	**Agriculture horticulture development plan (GIS tools supported):** Suitable site selection for developing permanent horticulture for supplying round the year seedling, sapling etc. Site selection for climate Protective Greenhouse development for round the year cropping. Selection of suitable location for IFM, IPM, INM, Stack-layer faring, road-side slope, fellow land, barren land, river/canal side etc.	Conduct FGD/KII	Union DAE-SAAO, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**Water Resources Management Plans (GIS tools supported) :** Detailed village water resource GIS map(plot) based to be prepared showing the waterbodies, wetlands, catchment, rainwater harvesting ponds, water retention ponds, dentification of proposed irrigation access point, drainage facility, wire structure over the drainage network, river tributaries, canals etc, for integrated surface water resource management(IWRM) planning so that the village to be well adapted to climate changing climates.	Conduct FGD/KII	Upazila PIO, LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

2.5.6 Assessment of developing climate resilient business model.

SL	CREVA Perception of CSV stakeholders	Consultation method	Participants
•	**Northern agricultural drought prone areas :** Organic Agriculture (IFM, IPM, INM, Stacker agriculture, and other agriculture to fellow lands), soil health improvements etc.	Conduct FGD/KII	• Conduct consultation with SMEs, engaging rural development sectors, rural market promoter, business entities, small holder farmers, local NGO credit supported women headed IGA groups, household IGA groups, local cooperative societies, fisheries communities, fish pond owner, Union/Upazila land office, Union/Upazila 17 local government sector departments (Agriculture, Fisheries, livestock, LGED, DPHE, Rural development & Cooperatives, Health and Family Planning, • LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.

•	**Flood and river-bank erosions prone areas :** Identify the scope of developing inclusive growth centric entrepreneurships ; • Women/marginal cooperative group based Green entrepreneurship development, business scope and market potential, • Sustainable agricultural management Climate resilient AVC, Livestock Value Chain, Fisheries Value Chain, SME Value chain, green entrepreneurship value chain	Conduct FGD/KII	LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers, agricultural input supply dealers, stocker, SMEs, rice mill owner, business community, wholesaler, and other stakeholders.
•	**CSV entrepreneurship scope over the Costal fragile landscape :** • The scope of villagers Promoting ecotourism at village level • Scope of the developing permanent shed for smart seedling /sapling • How to develop greenhouse for round the year vegetable production • Ecotourism development	Conduct FGD/KII	LGED/BMDA SAE, DAE-SAAO, DPHE SAE/Technicians, DAE lead farmer, Lead fish farmer, middle class landowner, poultry farmer, livestock farmer, vegetable growers

2.6 Consultation Process for the TOR Indicated queries :

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
1)	Identify the climate smart (indigenous and technological) agriculture practice in different agroecological zones of Bangladesh in terms of yield increases, efficiency, environmental benefits, soil quality and consideration of gender-responsive technology etc.	Typically, Bangladesh divining into 30 micro-agroecological zones. 1) Tanore AP, Rajshahi district falling under falling under high Ganges river flood plain AEZ 2) Godagari AP, Chapai Nawabganj district falling high Barind track 3) Chapai Nawabganj AP, Chapai Nawabganj district falling under high Ganges River flood plain 4) Ukhiya AP, Cox's Bazar district falling under Chittagong Coastal Plain 5) Patuakhali & Barguna Coastal AP falling under Ganges tidal floodplain.	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	• Review SRDI, BARC, BAMIS tools, process • Conduct KII	• Bangladesh Agricultural Research Council (BARC) • Soil Resource Development Institute SRDI • Bangladesh Agro-Meteorological Information Service (BAMIS) • Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Local agro-input supplier/dealer

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
2)	Identify policy gaps and barriers in promotion of climate smart agriculture in Bangladesh.	• DAE CERVA tools, risk gathering techniques, informed-tools development process. • Identify DAE local level agriculture extension policy and programs and project barriers. • Identify the limitation of DAE agro-met services agri-based operation weather forecasting process. • Climate sensitive cropping calendar, water management calendar • Multi-hazard calendar, impending weather risk, vulnerability, exposure, sensitivity to seasonal agricultural cropping • Level of implementation of Index based crop-agriculture, livestock and fisheries farming. • Financial inclusion to small-holder farming, financial package for lead/marginal/ cooperative and individual farmers (Crop agriculture, Livestock, Fisheries) • DAE perception/understandability to standing crop's exposure risk, vulnerability, sensitivity to sudden on-set multi-hazards (flash *flooding , waterlogging, tidal floods, landslide, agricultural droughts, high winds, high temperature/heat spell,*	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Bangladesh Agricultural Research Council (BARC) • Soil Resource Development Institute SRDI • Bangladesh Agro-Meteorological Information Service (BAMIS) • Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
		high humidity, dry spell, high dense fogging, hailstorm, nor waster, tornadoes, level of damage, recovery option. • Upazila level DAE CSA scheme planning and implementation gaps • Level of barriers to CSA local-level planning being induced by in place environmental laws, land management laws, ecosystem, surface waterbody management policy/laws. Level of DAE led negotiation and conflict resolution process. • Barriers of community access to the local agroecological resources, open waterbody(large), fellow(khash) land for sustainable farming, roadside slop, government khans canal (Coastal area), khash pond, khash wetland, khash barren land for sustainable farming.			

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
3)	Identify crops that can be grown as alternatives to the most impacted crops based on the environmental conditions, farmer livelihoods, and future climate scenarios.	The methodologies include. a) Consulting firm intended to develop a baseline scenarios agroecological resource endowment, harness able renewable and environmental resources (khash water canals at coastal areas, open waterbody in northern aeras) on climate change exposure, risk and vulnerabilities using GIS & Remote Sensing (RS) technology by conducting CERVA over the FHB Program Areas (AP) b) In consultation with DAE officials, Lead farmers, marginal farmers, AVC operators, input suppliers, DAE/Private horticulture, commercial seedling/sapling producers identify the following factors affecting crops-agriculture. o Identify the current traditional cropping patters, determine estimation from gross traditional crop yields, identify scope of less water consuming high-value cropping (based on soil condition), determine sudden-onset multi-hazards impact over the standing crops varieties. o Summarizing the recommendations on the effectiveness and yielding of climate stress tolerant crop varieties. o Identify the market demand of the early yielding varieties, round-the-year vegetable/fruits production (with makeshift model greenhouse) , new crop varieties suitable to agroecology,	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan (ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects
		o Identify the future climate risks over the round- the-year seedling/sapling and climate stress tolerant cropping. o Identify the less nursing intensive and easily nursing vaties of cropping (homestead crop gardening, roadside, river side, lakeside, vine over the canal/pond/khash pond etc.			

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
4)	Assess which amongst the climatesmart village approaches (weathersmart, water smart, carbon smart, nitrogen smart, energy smart, and knowledge smart) would be most appropriate to be implemented in the FH Bangladesh Area Programs.	Develop Sample survey questionnaires/FGD/KII template on each thematic area and conduct assessment/consultation. a) **Weather-smart:** Define/design the applicability of natural protection/fruit trees surrounding canopies to climate sensitive vegetables gardens (round the year) homestead/orchard for protecting weather stress. b) **Water smart:** Sustainable Water harvesting techniques and judicial management of water resources. c) **Carbon smart AVC:** Low Carbon/Methane emission from agriculture, d) **Nitrogen smart:** Enriching soil nitrogen with changing cropping patterns, nitrogen fixing cropping. e) **Energy smart:** Potentially to harness clean energy (Renewable energies e.g., biogas/biomass standalone windmill, Solar PV etc.) and reducing indoor air pollution from traditional cooking using firewood/coal/dung cake/agricultural residues) f) **Knowledge smart:** ○ Enhance marginal farmers knowledge on IFM, IOM, INM, FYM ○ Gap identification and strategy /tools development for enhancing knowledge on CSV, its components, practices etc. ○ Traditional means of livelihood option	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects
5)	Propose specific climate-smart agricultural technologies and practices, under the aforementioned CSV approaches, for smallholder farmers/farmers' groups in the assessment areas aimed at productivity improvement, as well as adaptation	Develop Sample survey questionnaires/FGD/KII template on aforementioned key thematic components of CSV and conduct assessment/consultation to solidify the findings over the following CSV components. a) Local consultation and strategy development on village based participatory local climate governance (mini constituency/governing body) • Develop governance body/stakeholder map. • Inclusive participatory mechanism for planning decision	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer
	to and/or mitigation of the effects of climate change.	• Ensure legal access to local government owned agroecological resources (khash properties) and land tenure mechanism.			• Number of farmers receiving agriculture

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
		• Ensure improved access to local government technical and utility services, • How community will have increased knowledge in climate/multi-hazard risk-informed sustainable livelihood practices. b) Identify the options for developing Technical Working Group (TWG) for Union Disaster Management Committee (UDMC), Ward Level Disaster Management Committee, Village level disaster management committee (VDMC) would be mandated to implement village level standing orders on disaster (SoD) , DRM activities, risk reduction action plan (RRAP) • Conducting CREVA • Conducting Post Disaster Damage, Loss and Needs Assessment (PDNA) • Disaster Response and recovery c) Identify the scope of developing CSA and interventions, climate adaptive/resilient model households and households' centric adaptive activities. d) How the household would be self-sufficient in harnessing renewable energies (cooking, home lighting) e) Sefl-sufficient CSV on climate smart agriculture f) Agroecology based adaptive agriculture Over the village administrative areas. g) How to implement IFM, IPM, INM, FYM stack layer farming, floating agriculture, h) Conducting CERVA capacity by CSV TWGs i) Identify the scope of local agroecology based adaptive options. j) Following through above conclusive assessments, Consulting firm intended to identify the CSA affordable suitable technology, new innovation, sustainable indigenous			package/subsidies/benefits • No of crop diversification projects

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
		tools/practices, best practices and advocating for the model CSV approaches.			
		k) Develop query formats to identify the climate smart strategies on the components CSV approaches. l) Identify all value chain approaches (AVC, Fisheries, Livestock etc.)			
6)	Develop feasibility of climate-smart village and climate-smart agriculture analyzing existing climate-vulnerability and future trends of climatic risks.	Conducting above assessment and develop findings	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects
7)	Assess farmer needs (access to inputs, trainings, etc.) to adopt climate-smart agricultural technologies and practices.	• Discussed above	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
8)	Assess the present climate information service (CIS) system in Bangladesh to promote climate-smart village and its effectiveness, best effective and viable solution	• sector specific operational forecasting, • community based multi-hazard early warning, • weather alerts FM, AM Radio , SMS, Cell Broadcast, IVR etc	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services.
	for eart warbubg message (EWM) dissemination.			budgets, annual scheme budgets, number	• Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
9)	Assess backward and forward linkage of the small farmer's/farmers groups' in the assessment Identify appropriate and efficient stakeholders (local/national/international) to assist climate smart village approach.	Discussed above	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects
10)	Identify appropriate and efficient stakeholders (local/national/international) to assist climate smart village approach.	Discussed above	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, field demonstration schemes, annual plan(ADP), ADP budgets, annual scheme budgets, number	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant breeding services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects

SL	ToR Indicated Queries	FGD/KII Questionnaires	Consultation Tools	Consultation Process	Target Audiences/ Stakeholders
11)	Assess the environmental and social (including a gender and youth perspective) impacts of implementing the proposed climate-smart agricultural practices.	Discussed above	• GIS Google Map • GIS Base Map of Area Programs • FGD/KII field query Template • CERVA Questionnaire Template • AEZ Maps of the AP	Review DAE plans, projects, demonstration schemes, plan(ADP), budgets, scheme number field annual ADP annual budgets,	• Uapzila level DAE Offices • Union level SAAO • DAE Local Horticulture and Plant Breeding Services • NGO led agro services. • Lead farmer, fish culture farms, livestock farms, poultry farms, • Local agro-input supplier/dealer • Number of farmers receiving agriculture package/subsidies/benefits • No of crop diversification projects
12)	Disseminate modern farming knowledge and technologies among female farmers to create an ideal and women-friendly smart agricultural community.	Discussed above			
13)	Provide a feasible climate-smart village model, considering environmental, ecological, and climate change legislation and policies of Bangladesh.	• Sample assessment Survey being followed by field visits to agroecology (Tanore , Godagari, Chapai Nawabganj, Barguna, Patuakhali, Ukhiya) • A detailed assessment is being conducted to FHB AP locations to contextualize the CSV model based on			

3.0 Deliverables and Timeline:

Deliverable	Timeline												Completion data
	Dec 2023				Jan 2024				Feb 2024				
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	
Plan with the explanation of how the tasks will be undertaken, including detailed methodology for all tasks and their indicative timelines													10th Dec 2023
Develop set of questionnaires for survey, KII, FGD													20th Dec-2023
Evaluation of the selected deliverables (takes into account evaluation tools of the Methodology)													5th Jan 2024
Draft assessment report, which reflects on key items of the assessment as pointed out in the scope of work, developed and submitted													10th Jan 2024
Final assessment report, which addresses comments and additions from the FH, submitted													20th Feb 2024