Country	Mongolia
Request ID#	2024000037
Title	Reducing smallholder vegetable farmers' vulnerability to climate change impacts including water scarcity in Mongolia through EbA and digitalized risk mitigation insurance solutions
NDE	Ms. Narangaravuu Altangerel Senior Analyst, International Cooperation Department, The Ministry of Environment and Climate Change (MECC) narangaravuu@mecc.gov.mn Government Building 12, Builder's Square, Khoroo 4, Chingeltei District, Ulaanbaatar, Mongolia
Proponent	Mr. Munkhzul Kharnuden Director-General, Integrated Policy Planning Department The Ministry of Environment and Climate Change (MECC) munkhzul.kh@mecc.gov.mn Government Building 12, Builder's Square, Khoroo 4, Chingeltei District, Ulaanbaatar, Mongolia

Summary of the CTCN technical assistance

Smallholder vegetable farmers in Mongolia, particularly in the Dundgobi and Uvurkhangai provinces, face significant challenges due to climate change impacts such as water scarcity, extreme temperatures, and increased frequency of extreme weather events. These challenges threaten food security and livelihoods, as traditional farming practices are no longer sustainable under changing climatic conditions. The proposed CTCN technical assistance aims to reduce these farmers' vulnerability by developing and implementing an integrated ecosystem-based adaptation (EbA) solution. This includes identifying and promoting appropriate technologies like solar-powered irrigation systems, durable greenhouses, and agroforestry practices, as well as developing a digitalized crop insurance product to mitigate financial risks. The project will focus on policy framework development, technology assessment, financing structures, and capacity building over an 18-month period. Key national actors involved are the Ministry of Environment and Tourism and the Ministry of Food, Agriculture, and Light Industry of Mongolia. The initiative seeks to enhance climate resilience, improve livelihoods, and contribute to Mongolia's national goals for sustainable agriculture and food security.

Agreement:

(If possible, please use electronic signatures in Microsoft Word file format)

National Designated Entity to the UNFCCC Technology Mechanism
Name: Narangaravuu Altangerel
Title: Senior Analyst, International Cooperation Department

Proponent (signature of the Proponent is optional)
Name: Munkhzul Kharnuden
Title: Director General, Integrated Policy Planning Department

Date: 11 April 2025

Signature:

UNFCCC Climate Technology Centre and Network (CTCN)
Name: Ariesta Ningrum
Title: Director, CTCN

Date: 20.05.2025

Signature:

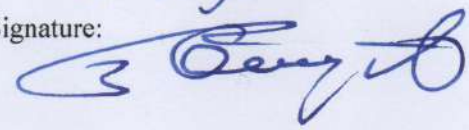
Date: 11 April 2025

Signature:

Designated Authority to the Adaptation Fund

Name: Batjargal Zamba
Title: National Focal Point, Adaptation Fund
Date: 02 May, 2025

Signature:



1. Background and context

Mongolia is highly vulnerable to climate change, experiencing significant temperature increases. Country's average temperatures have risen by 2.2°C since 1940, triple the global average. Decreased annual precipitation and increased frequency of extreme weather events like drought and dzud (severe winter conditions) exacerbate the situation. The agriculture sector, contributing about 20.6% of Mongolia's GDP, is particularly affected. Vegetable farming, accounting for less than 2% of planted land, faces challenges due to harsh climates, short growing seasons, and lack of irrigation infrastructure, leading to food insecurity and dependence on imports.

The Dundgobi and Uvurkhangai provinces are especially vulnerable, with high levels of climate change impacts negatively affecting vegetable farming. Farmers in these regions grapple with dryness, soil moisture deficits, extreme temperature variations, strong winds, and increased frequency of extreme weather events, leading to reduced yields and deteriorated product quality. The lack of modern irrigation systems, durable greenhouses, and agroforestry practices further exacerbates these issues.

Smallholder farmers lack access to financial risk mitigation instruments like insurance products, leaving them exposed to climate-induced losses. Efforts by the Government of Mongolia to boost vegetable production, such as the Policy on Food and Agriculture (2015), national incentive schemes, and the ongoing "Billion Tree" reforestation campaign, have not yet yielded a fully integrated, sustainable solution. With limited financing and inadequate risk-transfer mechanisms (insurance), vulnerable households lack the resources to modernize and climate-proof their farming activities.

The proposed technical assistance responds to these challenges by focusing on integrated solutions that combine appropriate technologies, policy development, financing structures, and capacity building. This approach aims to enhance the resilience of smallholder vegetable farmers to climate change impacts, improve food security, and support sustainable development in Mongolia.

2. Problem statement

Smallholder vegetable farmers in Mongolia, particularly in Dundgobi and Uvurkhangai provinces, are highly vulnerable to climate change impacts such as water scarcity, extreme temperatures, and increased frequency of extreme weather events. These challenges result in reduced agricultural productivity, threatening food security and livelihoods. The main barriers hindering adaptation include lack of access to appropriate climate-resilient technologies (e.g., solar-powered irrigation, durable greenhouses, agroforestry practices), insufficient financial mechanisms to support investment in these technologies, absence of risk mitigation instruments like crop insurance, limited knowledge and capacity among farmers, and inadequate policy frameworks to promote and standardize these technologies. Addressing these barriers is critical to enhancing the resilience of smallholder farmers, increasing vegetable production, and achieving national goals for sustainable agriculture and climate adaptation.

3. Logical Framework for the CTCN Technical Assistance:

(Guidance: Please note that multiple activities lead to one Output, and multiple Outputs lead to one Outcome. There can be several Outputs, but only one Outcome description capturing the CTCN technical assistance. Deliverables are the products or services to be delivered to the NDE/Proponent/CTCN based on the Activities and the Outputs.)

	Month																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Objective: The main objective of this technical assistance is to support vegetable smallholder farmers in two provinces in Mongolia to adapt to climate change by providing a bankable proof of technology concept for solar-powered irrigation and agroforestry as an ecosystem-based approach for better water resource management. To support this solution, a digital-based crop insurance product will be developed for smallholders to fill the current gap for damage protection and financial instruments for investment risk mitigation.																		
Outcome: A strengthened enabling environment for smallholder vegetable farming in Mongolia, resulting in improved adaptation to climate change through integrated solar-powered irrigation, greenhouse, and agroforestry solutions supported by a digitalized insurance product and sustainable financing.																		
Mandatory Output: Project management *All implementers must undertake the following project management activities at the beginning of, during and at the end of the CTCN technical assistance.*																		
Activity A: Pre-implementation A detailed work plan of all activities, deliveries, outputs, deadlines and responsible persons/organisations and detailed budget to implement the Response Plan. The detailed work plan and budget must be based directly on this Response Plan; Based on the work plan, a monitoring and evaluation (M&E) plan with specific, measurable, achievable, relevant, and time-bound indicators used to monitor and evaluate the timeliness and appropriateness of the implementation. The monitoring and evaluation plan should apply selected indicators from the Closure and Data Collection report template and enable the lead implementer to complete the CTCN Closure and Data collection report at the end of the assignment (please refer to item iv below and section 14 in the Response Plan). This M&E plan also includes a CTCN Impact Description formulated in the beginning of the technical assistance which will be revised in the Closure and Data Collection report once the technical assistance is fully delivered (templates will be provided). Furthermore, a gender evaluation and gender action plan (GAP) will be prepared and followed throughout the technical assistance (a template will be provided).[1]																		

[1] Additional information is available under Section 10 of the response plan.

Activity B: Implementation A project steering committee will be formed, consisting of the implementing team (international and local consultants), the NDE, the project proponent(s), and CTCN. This project steering committee will meet at least on a bi-annual basis in order to report project progress and discuss any questions and challenges.																			
Activity C: Post-implementation A Closure and Data Collection report completed at the end of the technical assistance (a template will be provided). Project-end communication and dissemination activities will be conducted in collaboration with the CTCN Secretariat, which will include: • Development of a press release • Delivery of a knowledge sharing webinar • Organization of a dialogue with financial institutions for potential follow-on support																			
Mandatory deliverables: Deliverable A: Detailed work plan; M&E plan; gender assessment and gender action plan Deliverable B: Project Steering Committee meeting reports Deliverable C: Closure and Data Collection report; press release, webinar, dialogue with financial institutions	X X						X						X						X X
Output 1: Inception workshop and technology options Identify the most suitable and cost-effective climate adaptation technology options for smallholder vegetable farmers, ensuring water resource sustainability and resilience to climate extremes.																			
Activity 1.1: Inception workshop A multi-stakeholder inception workshop will be organised to inform stakeholders of the start of the project and ensure their active participation throughout the implementation process. This meeting will be held in person. Consultative meetings will be held with each member of the Steering Committee to understand previous initiatives and discussions. It is advisable to extend invitations to the GCF NDA, AF Designated Authority and GEF focal person in order to explore potential opportunities for scaling up.																			

1. Establishing contact with stakeholders and determining contact persons from each entity 2. Confirming the outline of this technical assistance project including project outcome, outputs, activities, deliverables, and time schedule																		
Activity 1.2: Conduct feasibility studies on solar-powered irrigation, greenhouse solutions, and agroforestry practices in Dundgobi and Uvurkhangai. • **1.2.1. Site Assessments**: Undertake field visits and stakeholder consultations in the two pilot provinces (Dundgobi and Uvurkhangai) to gather baseline data on land use, water availability, soil profiles, climate risks, and existing farming practices. • **1.2.2. Technology Review**: Review global best practices, including case studies from comparable arid/semi-arid regions, for solar-powered irrigation, protected agriculture (greenhouses), and agroforestry-based systems. • **1.2.3. Stakeholder Engagement**: Conduct focus group discussions and interviews with smallholder farmers, women-led cooperatives, private technology suppliers, and government extension officers to identify user needs, preferences, and capacity gaps. • **1.2.4. Preliminary Technical Recommendations**: Based on findings, propose preliminary technical options best suited for local conditions (e.g. scale of solar pumps, drip irrigation capacity, greenhouse design types, suitable tree species for forest strips).																		
Activity 1.3: Perform cost-benefit analysis for each technology option, including water resource assessments to prevent maladaptation (over-abstraction). • **1.3.1. Cost-Benefit Data Collection**: Gather detailed information on capital and operational costs for each potential technology option—solar-powered irrigation equipment, drip lines, greenhouse materials, seeds/seedlings, and agroforestry inputs. • **1.3.2. Water Resource Appraisal**: Conduct hydrogeological surveys (or desk-based studies if field data are limited) to assess sustainable water withdrawal limits under current and projected climate scenarios. Identify areas with risk of over-extraction. • **1.3.3. Socio-Economic Analysis**: Evaluate potential yield improvements, income gains, labor requirements, and maintenance needs for each technology. Where possible, include intangible benefits (e.g., ecosystem services from agroforestry). • **1.3.4. Risk of Maladaptation**: Identify risks linked to overuse of groundwater or misapplication of solar irrigation. Provide guidance on usage thresholds and monitoring.																		

• **1.3.5. Consolidated CBA Report**: Develop a report detailing the net present value (NPV), internal rate of return (IRR), and payback periods for the recommended technology packages, disaggregated by farm size and socio-economic conditions.																		
Activity 1.4: Consolidate a "technology menu" with recommendations on climate-resilient farming techniques, greenhouse designs, and potential agroforestry models. • **1.4.1. Synthesis of Findings**: Compile results from feasibility assessments and cost-benefit analyses into a user-friendly "menu" of technology options—detailing function, cost ranges, required conditions, and pros/cons. • **1.4.2. Technical Specifications**: Develop simple technology fact sheets or guidelines (in Mongolian and English), covering solar pump capacity, drip irrigation layouts, greenhouse structural designs, recommended tree species, and accompanying agronomic practices. • **1.4.3. Dissemination**: Circulate the technology menu through government extension services, local cooperatives, and digital channels (where feasible) to ensure broad access. • **1.4.4. Stakeholder Validation**: Organize stakeholder validation workshops to finalize the technology menu, incorporating local feedback and aligning with policy requirements.																		
Deliverable 1: 1. Inception workshop report including the list of stakeholders, meeting minutes with the list of participants, disaggregated by gender, materials used for the workshops and photos of the event. 2. Feasibility study report (solar irrigation, greenhouses, agroforestry). 3. Cost-benefit analysis report (including water resource assessment and maladaptation risk management). 4. Technology menu (catalogue/fact sheets) with practical guidelines for farmers.			X															
Output 2: Policy and Legislative Framework for Standards Establish or enhance national guidelines and certification standards to ensure quality, sustainability, and safe deployment of solar-powered irrigation, greenhouse infrastructure, and agroforestry practices.																		
Activity 2.1: Review existing policies and standards for irrigation, agroforestry, and greenhouse infrastructure. • **2.1.1. Policy Mapping**: Collect and review relevant national and provincial laws, regulations, and guidelines related to agriculture, environment, forestry, and water resources. • **2.1.2. Gap Analysis**: Identify gaps in existing policy frameworks regarding solar irrigation, water pumping limits, greenhouse standards, and agroforestry guidelines.																		

• **2.1.3. Stakeholder Consultations**: Engage policymakers, regulatory bodies (e.g., Ministry of Environment and Climate Change, Ministry of Food, Agriculture and Light Industry), and private sector stakeholders to understand policy bottlenecks.																			
Activity 2.2: Develop a national guideline and certification standards for solar-powered irrigation, including thresholds for sustainable water usage. • **2.2.1. Guideline Drafting**: Based on the Activity 2.1 findings and water assessments from Output 1, draft new or updated guidelines/regulations specifying technical standards (e.g., pump efficiency, maximum pumping rates) and environmental safeguards. • **2.2.2. Certification Scheme**: Propose a certification framework for technology providers covering product quality, after-sales service, and adherence to sustainability criteria (e.g., drip irrigation design, water metering). • **2.2.3. Consultative Workshops**: Organize technical working groups or consultative sessions to refine and align proposed guidelines with ministries and other regulatory agencies.																			
Activity 2.3: Propose updates to incorporate agroforestry guidelines into relevant policies or standards. • **2.3.1. Existing Forestry/Agroforestry Policies**: Evaluate existing reforestation, afforestation, and agroforestry guidelines, including those from the "Billion Tree" initiative, to see how smallholder farmers could be better integrated. • **2.3.2. Draft Amendments & Guidelines**: Develop proposed amendments or standalone policy briefs to integrate agroforestry (e.g., recommended species, spacing, windbreak design) into agricultural land management policies. • **2.3.3. Submission & Advocacy**: Present proposed changes to relevant government authorities for review and potential adoption.																			
Deliverable 2: 1. Policy review report detailing gaps in current frameworks. 2. National guidelines and certification standards for solar-powered irrigation, incorporating water usage thresholds. 3. Recommendations for integrating agroforestry standards into policy frameworks.							X												
Output 3: Financing Structure and Digitalized Insurance Scheme Develop a sustainable blended finance facility and a digitalized insurance product to facilitate smallholder access to capital, manage climate-related risks, and de-risk private sector investments.																			
Activity 3.1: Engage financial institutions to design a blended finance facility for smallholders, leveraging public and private funding.																			

• **3.1.1. Financial Landscape Analysis**: Map out existing commercial banks, microfinance institutions (MFIs), non-bank financial institutions (NBFIs), and government funds (e.g., Agriculture Support Fund). Assess their lending terms, risk appetites, and capacity for climate lending. • **3.1.2. Blended Finance Model Design**: In collaboration with key financial stakeholders, design a financing mechanism that combines grants, concessional loans, guarantees, and commercial capital. • **3.1.3. Term Sheets and Agreements**: Draft indicative term sheets, interest rates, risk-sharing arrangements, and potential involvement of donors or international climate funds. • **3.1.4. Pilot Roll-Out Plan**: Outline how the financing facility will be piloted in the two target provinces, including eligibility criteria, loan disbursement processes, and evaluation metrics.																	
Activity 3.2: Assess and design a digitalized insurance product tailored for smallholder vegetable farmers, exploring AI, remote sensing, or picture-based approaches. • **3.2.1. Insurance Market Scan**: Review existing insurance products (e.g., livestock index insurance, wheat insurance) to identify lessons learned, coverage gaps, underwriting processes, and operational challenges. • **3.2.2. Digital Tool Feasibility**: Evaluate multiple digital options such as remote sensing/satellite, AI-based risk modeling, picture-based insurance (PBI), or blockchain for data collection, underwriting, and claims settlement. • **3.2.3. Scheme Design Workshop**: Work with insurance providers (Mongolian Re, Tenger Insurance) to co-create a crop insurance scheme specifically tailored for small-scale vegetable farming under Mongolian climatic conditions. • **3.2.4. Product Prototype & Business Model**: Develop a prototype insurance product with proposed premium rates, trigger mechanisms (for index or hybrid products), distribution channels (e.g., mobile apps), and risk-sharing with reinsurers.																	
Activity 3.3: Identify partnership and risk-sharing structures (e.g. guarantee funds, reinsurance) to lower premiums and expand coverage. • **3.3.1. Stakeholder Engagement**: Facilitate discussions between local insurers, reinsurers, guarantee funds (e.g., Credit Guarantee Fund of Mongolia), and banks to establish roles and responsibilities. • **3.3.2. Risk Layering Approach**: Propose a tiered approach to risk—combining public sector funds (for catastrophic layers) with commercial insurance (for moderate risk layers) to make premiums more affordable for farmers. • **3.3.3. Legal & Regulatory Alignment**: Work with the Ministry of Finance and other relevant authorities to clarify any legal prerequisites (e.g., crop insurance law), ensuring long-term viability of the scheme.																	

Deliverables 3: 1. Blended finance facility proposal (structure, term sheets, risk-sharing mechanisms). 2. Digital crop insurance product concept note with an operational roadmap (coverage, premium ranges, distribution). 3. Partnership & risk-mitigation framework (agreements, MOUs, or draft legal documents).												X						
Output 4: Capacity Building and Training Enhance the skills and knowledge of key stakeholders including smallholder farmers, government officials, financial institutions, and insurance providers on the design, operation, and maintenance of climate-resilient farming systems, as well as the digital insurance scheme.																		
Activity 4.1: Develop training curricula on climate-resilient farming (irrigation, agroforestry, greenhouse management), digital tools, and insurance literacy. • **4.1.1. Curriculum Design**: Co-develop modules on: o Solar-powered irrigation systems (installation, operation, maintenance). o Drip irrigation techniques and water-efficient practices. o Greenhouse design, management, and best practices for year-round vegetable production. o Agroforestry basics (forest strip establishment, maintenance, species selection). o Digital insurance: how to enroll, how claims are processed, data collection tools (e.g., PBI). • **4.1.2. Gender and Inclusion**: Integrate gender-responsive components (e.g., women's leadership, financial inclusion for women-led SMEs, childcare considerations during trainings).																	
Activity 4.2: In-person workshop including "train-the-trainers" sessions in each pilot province. • **4.2.1. In-person workshop:** Prepare presentation materials and compile previous deliverable reports into a final, publicly available report for the country. The Implementing Partner will organize an in-person workshop to deliver the final project presentation and disseminate materials. During this final workshop, relevant financing organisations, including MDBs, international organisations, government institutions, NGOs and private sector companies, will be identified and invited. Additionally, the GCF NDA, AF Designated Authority and GEF focal points need to be invited to explore opportunities for scaling up after the conclusion of this project. • **4.2.2. Knowledge Transfer**: Conduct hands-on demonstrations (if possible) for solar-powered irrigation units, greenhouse assemblies, and agroforestry site planning. • **4.2.3. Train-the-Trainers**: Select key participants (e.g., cooperative leads, extension officers, local women's groups) and provide specialized instruction so they can replicate trainings in other communities. • **4.2.4. Insurance Literacy Sessions**: Partner with the selected insurance providers to explain policy coverage, claims filing, and premium payment processes, ideally via mobile or digital channels.																	

Activity 4.3: Establish or strengthen at least one center of excellence/training hub per province. • **4.3.1. Institutional Arrangement**: Collaborate with local universities (e.g., Mongolian University of Life Sciences) or existing agricultural extension centers to serve as hubs for ongoing training and demonstration. • **4.3.2. Demonstration Sites**: Equip centers with demonstration plots, small-scale solar irrigation units, and greenhouse prototypes. • **4.3.3. Sustainability Strategy**: Develop a plan for continuous operation of the hubs, ensuring they are funded and managed by local stakeholders (government, private sector, or farmer associations).																	
Deliverables 4: 1. Training materials and curricula (in local language and English), including user manuals and guidelines. 2. Training workshops completed in each target province, with participant lists disaggregated by gender. 3. Train-the-Trainers Program documented with follow-up plans. 4. Centers of excellence established or upgraded in Dundgobi and Uvurkhangai provinces. 5: Final workshop report and in-person presentations.															X		
Output 5: Implementation Roadmap and Sustainability Financing Strategy, including two Scale-up Project Concept Notes Provide a clear strategy for rolling out, scaling up, and financing the recommended technology solutions and insurance product, ensuring long-term sustainability and replicability beyond the project scope.																	
Activity 5.1: Consolidate findings from all outputs to develop a multi-year implementation roadmap for scaling climate-resilient vegetable farming nationwide. • **5.1.1. Synthesis of Outputs**: Gather outputs 1–4 (technology menu, policy guidelines, financing facility design, insurance scheme, training results). • **5.1.2. Roadmap Drafting**: Create a phased implementation plan—short-term (1–2 years), medium-term (3–5 years), and long-term (5+ years)—addressing technology deployment, policy adoption, financing scale-up, and capacity-building. • **5.1.3. Cost Estimates & Resource Needs**: Provide high-level budget projections for expanding the interventions to additional provinces, incorporating potential donor and private sector contributions.																	
Activity 5.2: Sustainable financing strategy, including two scale-up project concept notes.																	

• **5.2.1. Institutional Roles**: Clarify how government ministries, local authorities, financial institutions, insurance providers, technology suppliers, and farmer associations will coordinate and fund post-project activities. • **5.2.2. Mechanisms for Scale-Up**: Explore partnerships (e.g., public-private partnerships, co-financing with international funds, involvement of corporate CSR initiatives under "Billion Tree" programs). • **5.2.3. Scale-up Project Concept Notes**: Provide two concept notes for scale-up projects after concluding this TA project with the best available data and information generated from this project. Therefore, the guidelines to prepare this concept note are to be considered throughout all the activities listed above for better alignment of the deliverables with the requirements of the concept note. The concept note should also serve as a successful case for the other countries in the region to replicate the approach. • **5.2.4. Monitoring & Evaluation (M&E) Plan**: Recommend key indicators (e.g., number of farmers adopting technologies, total hectares under agroforestry, insurance uptake) and responsibilities for ongoing monitoring.																			
Deliverables 5: 1. Implementation roadmap document with short-, medium-, and long-term actions. 2. Sustainable financing strategy, including two scale-up project concept notes with the package of supporting documents. 3. Final report and in-person presentations. Final compiled deliverable, combining deliverables 1, 2, 3, 4 and 5 into a final report.																			X

4. Resources required and itemized budget:

Please provide an indicative overview of the resources required and itemized budget required to implement the CTCN technical assistance, including for M&E-related activities, using the table below. Important to note that minimum 5% of the budget should explicitly target gender specific activities related to the technical assistance (please see section 10 for further information on gender). Once the Response Plan is completed, a Response Implementation partner(s) will be selected by the Climate Technology Centre (CTC). A detailed activity-based budget for the CTCN assistance will be finalized by the CTCN and selected Implementer.

Activities and Outputs	**Input: Human Resources**	**Input: Travel**	**Inputs: Meetings/events**	**Input: Equipment/Material**	**Estimated cost** *Please accumulate the costing at Activity and*

	(Title, role, estimated number of days)	*(Purpose, national vs. international, number of days)*	*(Meeting title, number of participants, number of days)*	*(Item, purpose, buy/rent, quantity)*	*Output level and provide an estimated costing range for each activity and the total Response Plan*	
					Minimum	**Maximum**
Mandatory Output: Project Management					*USD 8,505*	*USD 9,450*
Mandatory Activities: A: Pre-implementation B: Implementation C: Post-implementation	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Output 1: Inception workshop and technology options					*48,870*	*54,300*
Activity 1.1: Inception workshop	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	International travel: 4 days	In-person workshop: 3 days		*23,355*	*25,950*
Activity 1.2: Conduct feasibility studies on solar-powered irrigation, greenhouse solutions, and agroforestry practices in Dundgobi and Uvurkhangai.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*

Activity 1.3: Perform cost-benefit analysis for each technology option, including water resource assessments to prevent maladaptation (over-abstraction).	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Activity 1.4: Consolidate a "technology menu" with recommendations on climate-resilient farming techniques, greenhouse designs, and potential agroforestry models.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Output 2: Policy and Legislative Framework for Standards					*25,515*	*28,350*
Activity 2.1: Review existing policies and standards for irrigation, agroforestry, and greenhouse infrastructure.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Activity 2.2: Develop a national guideline	IE1: 7 days IE2: 7 days				*8,505*	*9,450*

and certification standards for solar-powered irrigation, including thresholds for sustainable water usage.	IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days					
Activity 2.3: Propose updates to incorporate agroforestry guidelines into relevant policies or standards.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Output 3: Financing Structure and Digitalized Insurance Scheme					*25,515*	*28,350*
Activity 3.1: Engage financial institutions to design a blended finance facility for smallholders, leveraging public and private funding.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Activity 3.2: Assess and design a digitalized insurance product tailored for smallholder vegetable farmers, exploring AI, remote sensing, or	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*

picture-based approaches.						
Activity 3.3: Identify partnership and risk-sharing structures (e.g. guarantee funds, reinsurance) to lower premiums and expand coverage.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Output 4: Capacity Building and Training					*55,215*	*61,350*
Activity 4.1: Develop training curricula on climate-resilient farming (irrigation, agroforestry, greenhouse management), digital tools, and insurance literacy.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Activity 4.2: In-person workshop including "train-the-trainers" sessions in each pilot province.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	International travel #1: 4 days International travel #2: 4 days	In-person workshop #1: 3 days In-person workshop #2: 3 days		*38,205*	*42,450*
Activity 4.3: Establish or strengthen at least one center of	IE1: 7 days IE2: 7 days IE3: 7 days				*8,505*	*9,450*

excellence/training hub per province.	NE1: 7 days NE2: 7 days NE3: 7 days					
Output 5: Implementation Roadmap and Sustainability Financing Strategy, including two Scale-up Project Concept Notes					*17,010*	*18,900*
Activity 5.1: Consolidate findings from all outputs to develop a multi-year implementation roadmap for scaling climate-resilient vegetable farming nationwide.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Activity 5.2: Sustainable financing strategy, including two scale-up project concept notes.	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days				*8,505*	*9,450*
Estimated range of costing for the entire Response Plan					*180,630*	*200,700*

5. Profile and experience of experts

Based on the required Human Resources identified in section 4 (Resources required and itemized budget) please provide a description of the required profile of all involved experts for the implementation of the CTCN Response Plan.

Experts required	Brief description of required profile
International Experts	
Project Manager (Team Leader) (IE1)	▪ Relevant master's degree in Environmental Studies, Climate Change, Agriculture, or a related field with a focus on similar issues in a developing country context. ▪ A minimum of 10 years of relevant work experience in managing large-scale climate change adaptation or development projects, preferably in developing countries. ▪ At least 5 demonstrated experiences as a project manager/leader in the area of climate technology. ▪ Proven track record in coordinating multi-stakeholder initiatives involving government, private sector, and civil society. ▪ Experience in results-based project management, Monitoring & Evaluation (M&E), and resource mobilization (including donor engagement). ▪ Familiarity with UN processes, CTCN modalities, or other international development frameworks is an advantage. ▪ Proficiency in written and communication skills in English.
Climate Finance & Insurance Expert (IE2)	▪ Relevant master's degree in Finance, Economics, Actuarial Science, or a related field with a focus on the field of similar issues in a developing country context. ▪ A minimum of 7 years of relevant work experience designing and implementing blended finance mechanisms and/or agricultural insurance products in developing/emerging markets. ▪ At least 3 demonstrated experiences in the area of climate finance and insurance. ▪ Solid understanding of digital technologies for insurance (e.g., remote sensing, parametric/index-based schemes, AI-driven solutions). ▪ Familiarity with climate adaptation financing instruments, risk-sharing facilities, and public-private partnerships. ▪ Experience working with international climate funds (GCF, GEF) or development banks (ADB, WB) is highly desirable. ▪ Excellent written and communication skills in English.

Agroforestry Expert (IE3)	l Relevant master's degree in Forestry, Agroforestry, Agronomy, or a closely related field with a focus on the field of similar issues in a developing country context. l A minimum of 7 years of hands-on experience in designing and implementing agroforestry or ecosystem-based adaptation (EbA) programs, ideally in semi-arid or cold-climate regions. l At least 3 demonstrated experiences in the area of agroforestry. l Experience with technical feasibility assessments, including species selection, land-use planning, and integrating agroforestry with agricultural production. l Knowledge of voluntary carbon markets and carbon-credit mechanisms is an asset. l Strong record of capacity-building and policy advisory for forestry or agroforestry interventions. l Proficiency in written and communication skills in English.
National Experts	
Irrigation & Greenhouse Expert (NE1)	l Relevant master's degree in Agricultural Engineering, Irrigation Technology, Horticulture, or a related field with a focus on the field of similar issues in a developing country context. l A minimum of 5 years of practical experience with local agricultural systems in Mongolia, including designing or operating irrigation schemes and greenhouses. l At least 3 demonstrated experiences in the area of irrigation and greenhouse. l Familiarity with solar-powered irrigation solutions, drip irrigation technology, and protected agriculture practices in the Mongolian context. l Strong connections with local farmer cooperatives, extension services, and technology suppliers. l Presence in Mongolia desired or availability to travel frequently and for long periods. l Proficiency in written and communication skills in English.
Policy & Legislative Expert (NE3)	l Relevant master's degree in Law, Public Policy, Environmental Policy, or a related discipline with a focus on the field of similar issues in a developing country context. l A minimum of 5 years of experience in drafting or reviewing national/regional legislation, regulations, or standards related to agriculture, environment, or climate change in Mongolia. l At least 3 demonstrated experiences in the area of policy and legislative support. l Good knowledge of Mongolia's institutional frameworks, government structures, and policy processes. l Proven track record working with ministries (Environment, Agriculture, Finance) on policy reforms or standard-setting. l Presence in Mongolia desired or availability to travel frequently and for long periods. l Proficiency in written and communication skills in English.

Gender & Social Inclusion expert (NE3)	ı Relevant master's degree in Social Sciences, Gender Studies, Development Studies, or a related field. ı At least 5 years of experience conducting gender and social inclusion assessments in rural development or agricultural projects in Mongolia. ı At least 3 demonstrated experiences in the area of gender and social inclusion. ı Knowledge and experience of gender mainstreaming in climate change adaptation and mitigation. ı Familiarity with national gender policies, women's entrepreneurship support programs, and key socio-economic barriers faced by women in agriculture. ı Strong skills in stakeholder engagement, focus group facilitation, and capacity-building for marginalized groups. ı Presence in Mongolia desired or availability to travel frequently and for long periods. ı Proficiency in written and communication skills in English.

6. Intended contribution to impact over time

The technical assistance aims to enhance the resilience of approximately 150,000 smallholder vegetable farmers in Mongolia by enabling the adoption of climate-resilient technologies and practices. Over time, this will lead to increased agricultural productivity, improved food security, and enhanced livelihoods for vulnerable communities. By integrating solar-powered irrigation, greenhouses, and agroforestry practices, the project contributes to sustainable water and land management, reducing soil degradation and conserving water resources. The development of a digitalized crop insurance product will mitigate financial risks, encouraging investment in agriculture. Collectively, these interventions will support Mongolia's goals to reduce dependence on food imports, enhance the agricultural sector's contribution to GDP (currently at 20.6%), and contribute to national efforts in climate change adaptation and mitigation. The project also aligns with national reforestation initiatives, potentially contributing to carbon sequestration through increased tree planting.

7. Relevance to NDCs and other national priorities

The proposed technical assistance directly aligns with Mongolia's Nationally Determined Contribution (NDC), emphasizing the need to overcome negative impacts of climate change and strengthen resilience of ecosystems and socioeconomic sectors, particularly in agriculture, water, and forestry management. The NDC identifies the introduction of drip and permeation irrigation technologies in vegetable production as a priority adaptation measure.

The proposed interventions align with Mongolia’s Technology Needs Assessment (TNA), which identifies drip irrigation and forest-strip protection of agricultural lands as priority measures. Agroforestry is noted to increase vegetable yields by 50–70%. The concept also aligns with the government’s “Vision-2050” strategy and the “Green Development Policy,” both of which encourage reforestation, sustainable land use, and climate-resilient agriculture.

Additionally, the technical assistance aligns with Mongolia's National Adaptation Plan (NAP) guidelines, recommending the adoption of eco-friendly and resilient technologies in agriculture to prevent and reduce climate risks. The project supports goals outlined in "Vision-2050" and the "New Revival Policy," focusing on green development, soil fertility protection, land degradation prevention, and sustainable water resource management.

Furthermore, the project builds on the Government of Mongolia’s goal to meet 100% of domestic vegetable needs by 2025, as articulated in the Policy on Food and Agriculture (2015). By enhancing smallholder farmers' capacity to adapt to climate change through the adoption of climate-resilient technologies, the project contributes to national priorities for food security, economic diversification, and rural development. It also supports the government's initiative to expand irrigated land and increase vegetable production to meet domestic demand, reducing dependence on imports.

Furthermore, the project aligns with the "One Billion Trees" national reforestation movement, contributing to afforestation efforts and ecosystem-based adaptation through agroforestry practices. By integrating these practices, the project enhances biodiversity, combats desertification, and supports national commitments under the United Nations Sustainable Development Goals (SDGs).

8. Linkages to relevant parallel on-going activities:

The technical assistance will build on and complement several ongoing initiatives in Mongolia:

- Asian Development Bank (ADB) Programs: The ADB's Community Vegetable Farming for Livelihood Improvement project introduces community farming models with improved climate-resilient practices, including greenhouses and irrigation. The technical assistance aims to integrate and scale up such models by linking them with proposed financial mechanisms and risk mitigation instruments.

- Food and Agriculture Organization (FAO) Projects: FAO is implementing a project to enhance vegetable production and market access, funded by USAID, which includes establishing energy-efficient greenhouses. Collaboration with FAO will leverage experiences, avoid duplication, and ensure cohesive efforts in promoting greenhouse farming.

- GERES Pilots: GERES has piloted passive solar greenhouse projects to increase food security. The technical assistance addresses the financial sustainability gap by developing sustainable financing structures and integrating these pilots into broader national strategies.

- Agriculture Support Fund: The fund provides loans and incentives for drip irrigation and agroforestry practices. The project will work closely with this fund to enhance financing options for smallholder farmers and ensure alignment with national policies.

- Insurance Initiatives: Lessons from the index-based livestock insurance scheme implemented by Mongolian Re will inform the development of a digitalized crop insurance product for vegetable farmers.

- Farmer Database Initiative: The Ministry of Food, Agriculture, and Light Industry's farmer database can be leveraged to support the digitalized insurance scheme and financial inclusion efforts.

- Green Banking Initiatives: Mongolian banks have adopted Green Banking Principles and are seeking climate adaptation investments. This TA will harness those frameworks to develop blended finance solutions.

- Billion Tree Initiative: Large mining companies (e.g., Erdenes Tavantolgoi) have pledged to plant millions of trees. The TA will explore integration of smallholder agroforestry to tap into reforestation commitments and potential carbon markets.

By engaging with these existing programs and stakeholders, the project aims to create synergies, avoid fragmentation, and ensure that efforts are complementary and mutually reinforcing. This integrated approach enhances the effectiveness of climate adaptation measures and supports scaling up successful models across Mongolia.

9. Anticipated follow up activities after this technical assistance is completed:

Upon completion of the technical assistance, the outputs and deliverables will serve as a foundation for scaling up and implementing the proposed climate-resilient technologies and practices across Mongolia:

- Policy Implementation: The Ministry of Environment and Climate Change and the Ministry of Food, Agriculture, and Light Industry will use the developed policy frameworks and guidelines to enact supportive legislation and standards, promoting widespread adoption of technologies like solar-powered irrigation and agroforestry practices.

- Financing Facility Operationalization: Stakeholders (Ministry of Environment and Climate Change, Ministry of Food, Agriculture and Light Industry, Agriculture Support Fund, participating banks) will formalize the blended finance structure, channeling funding to smallholder farmers for solar irrigation, greenhouses, and agroforestry.

- Launch of the Digitalized Insurance Product: Insurance companies (e.g., Mongolian Re, Tenger Insurance) will pilot and scale the digital insurance model across the two pilot provinces, with potential expansion to other regions.

- Capacity Building Continuation: The training programs and established centers of excellence will continue to build capacity among farmers, technology providers, and other stakeholders, ensuring sustainable knowledge transfer and skills development. These centers can become hubs for ongoing education and demonstration of new technologies.

- Private Sector Engagement: Technology suppliers and distributors will leverage market assessments to expand operations, improve supply chains, and increase accessibility of climate-resilient technologies to farmers.

- Scaling and Replication: The implementation roadmap and financing strategy will guide stakeholders in executing recommended actions, monitoring progress, and adjusting strategies. The project can serve as a model for replication in other provinces, with lessons learned informing future initiatives.

- Development Partner Collaboration: Donors and development partners may use the project's outcomes to identify areas for further support and investment, aligning programs with national priorities and leveraging established frameworks and partnerships.

Ultimately, the anticipated follow-up activities involve multi-stakeholder collaboration to scale up technology adoption, enhance policy implementation, expand financing and insurance offerings, and continue capacity-building efforts, contributing to long-term resilience and sustainable development in Mongolia.

10. Gender and co-benefits:

Each technical assistance must integrate gender mainstreaming activities and lead to gender and other co-benefits. At least 5% of the technical assistance budget need to be allocated to gender mainstreaming activities.

Imbedded in design of the activities:	A gender mainstreaming analysis is integrated into the technical assistance: • Analysis of Gender Disparities: Assess socio-economic and cultural factors affecting women's participation in agriculture, identify inequalities, and understand specific needs and constraints faced by women farmers. • Data Collection: Gather gender-disaggregated data to inform intervention design and ensure they address the needs of all genders. • Adaptive and Gender-responsive Design: Evaluate project activities to promote women's empowerment, ensure equal access to

	resources, technologies, and training, and eliminate barriers to participation. • Gender and Innovation Ecosystem: Promote women as entrepreneurs and leaders in adopting climate-resilient technologies, encouraging their involvement in decision-making processes. Specific Activities Include: • Targeted training programs for women farmers. • Support for women-led cooperatives and enterprises. • Ensuring women's representation in stakeholder consultations and policy development. The project will allocate at least 5% of the budget to gender-specific activities.
Gender and co-benefits intended as result of the activities:	The project will empower women and youth by creating opportunities in the agriculture sector, fostering gender equality, and promoting inclusive economic growth. The involvement of women and youth in the industry will drive socio-economic benefits for island communities, enhancing their resilience and sustainability. • Enhanced Economic Opportunities: Increase income for women-led households by supporting women entrepreneurs and smallholder farmers in adopting climate-resilient practices. • Empowerment and Inclusion: Promote gender equality and women's empowerment by involving women in leadership roles within the agricultural sector and ensuring their perspectives are incorporated into policy and project development. • Resilience & Empowerment: Digital insurance products tailored for women farmers, improving their risk management and financial credibility. • Co-Benefits: The project fosters environmental benefits (land restoration, sustainable water use), food security, and community resilience against climate shocks. • Social Benefits: Improve food security and livelihoods for vulnerable communities, contributing to broader social development goals.

11. Main in-country stakeholders in implementation of the technical assistance activities:
Using the table below, please list and describe the role of in-country stakeholders, participants and beneficiaries who will be involved in or directly consulted during implementation of the assistance.

In country stakeholder	Role in implementation of the technical assistance
Climate Change Research and Cooperation Center (CCRCC)	NDE of Mongolia. Key liaison for CTCN support and coordination. Lead government body overseeing the project.
Ministry of Environment and Climate Change (MECC)	Joint applicant, leading policy development, coordination, and ensuring alignment with national strategies.
Ministry of Food, Agriculture, and Light Industry	Project applicant. Providing expertise on agricultural practices, policies, and farmer engagement.
Local Government Agencies	Province and soum governor's offices supporting land issues and facilitating project operations at the local level.
Smallholder Farmers, Farmer Groups, and Associations	Main beneficiaries, providing feedback on solutions, participating in training, and adopting technologies.
Academic Institutions and Universities	Providing technical expertise, research support, and capacity-building opportunities in climate change adaptation (e.g., Mongolian University of Life Sciences).
Community Organizations and Civil Society	Representing local communities and facilitating participatory approaches in project implementation and decision-making processes. Engaging local citizens, organizing cul participation, and ensuring social inclusion.
Private Sector Including Technology Providers	Supplying equipment and services, participating in training, and collaborating on technology deployment.
Financial Institutions	Banks and microfinance institutions collaborating on financing mechanisms and providing credit to farmers.
Insurance Companies (Mongolian Re, Tenger Insurance)	Developing and offering crop insurance products to smallholder farmers.
Development Partners and Donor Programs (FAO, ADB, GIZ, etc.)	Collaborating to leverage existing initiatives, avoid duplication, and enhance impact.

12. SDG Contributions:

*Instructions: Please complete the grey section below for **a maximum of three SDGs** that will be advanced through this TA. A complete list of SDGs and their targets is available here: https://sustainabledevelopment.un.org/partnership/register/.*

Goal	Sustainable Development Goal	**Direct contribution from CTCN TA** (1 sentence for top 1-3 SDGs)
1	End poverty in all its forms everywhere	
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	By enhancing productivity and incomes of small-scale food producers through climate-smart agriculture, the project contributes directly to increasing food security.
3	Ensure healthy lives and promote well-being for all at all ages	
4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	
5	Achieve gender equality and empower all women and girls	Ensuring women's full and effective participation in agriculture by providing equitable financial tools, training, and technology.

6	Ensure availability and sustainable management of water and sanitation for all	
7	Ensure access to affordable, reliable, sustainable, and modern energy for all (consider adding targets for 7)	
	7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services	
	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix	
	7.3 - By 2030, double the global rate of improvement in energy efficiency	
	7.a - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	
	7.b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
10	Reduce inequality within and among countries	
11	Make cities and human settlements inclusive, safe, resilient and sustainable	
12	Ensure sustainable consumption and production patterns	
13	Take urgent action to combat climate change and its impacts	
	13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Strengthening resilience and adaptive capacity to climate-related hazards by introducing EbA practices, better water resource management, and climate risk insurance.
	13.2 - Integrate climate change measures into national policies, strategies and planning	
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	
	13.a - Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	
	13.b - Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	

13. Classification of technical assistance:

Please indicate primary type of technical assistance. Optional: If desired, indicate secondary type of technical assistance.

Please tick off the relevant boxes below	*Primary*	*Secondary*
δ 1. Decision-making tools and/or information provision	δ	X
δ 2. Sectoral roadmaps and strategies	X	δ
δ 3. Recommendations for law, policy and regulations	X	δ
δ 4. Financing facilitation	X	δ

δ 5. Private sector engagement and market creation	δ	X
δ 6. Research and development of technologies	δ	δ
δ 7. Feasibility of technology options	X	δ
δ 8. Piloting and deployment of technologies in local conditions	δ	δ
δ 9. Technology identification and prioritisation	X	δ

Please note that all CTCN technical assistance contributes to strengthening the capacity of in country actors.

14. Monitoring and Evaluation process

Upon contracting of the implementing partners to implement this Response Plan, the lead implementer will produce a monitoring and evaluation plan for the technical assistance. The monitoring and evaluation plan must include specific, measurable, achievable, relevant, and time-bound indicators that will be used to monitor and evaluate the timeliness and appropriateness of the implementation. The CTCN Technology Manager responsible for the technical assistance will monitor the timeliness and appropriateness of the Response Plan implementation. Upon completion of all activities and outputs, evaluation forms will be completed by the (i) NDE about overall satisfaction level with the technical assistance service provided; and (ii) the Lead Implementer about the knowledge and learning gained through delivery of technical assistance. Furthermore, the NDE together with the project proponent(s) will complete a periodic post-implementation form to track the impact of the activities beyond the technical assistance end date.

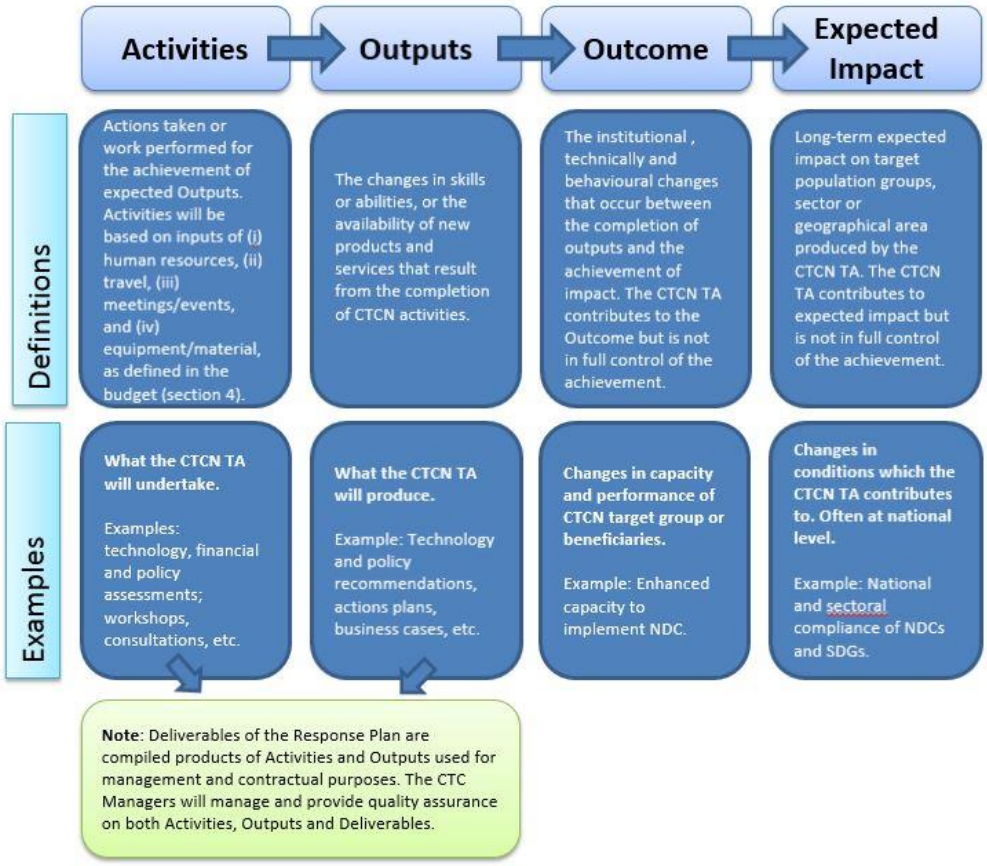
Annex 1: Guidance note for designing a Response Plan (to be deleted when submitting the Response Plan)

1. Objective of the Response Plan

The Response Plan is developed by CTCN specialists in response to a country request for technical assistance. It constitutes the Terms of Reference of the CTCN technical assistance that will be provided to the country and it provides the formulation of and subsequent basis for the monitoring and evaluation of the Response Plan implementation, as well as its expected outcomes and anticipated impacts.

2. Results chain and Logical Framework Approach to be defined in the CTCN Response Plan

The result chain is the causal sequence that stipulates the necessary flow of actions and processes to achieve desired objectives and results – beginning with inputs, moving through activities and outputs, and culminating in individual outcomes. The outcome will contribute to the desired impact in the society. The Logical Framework Approach is an analytical process used to support objectives-oriented project planning and management. It provides a set of pre-defined concepts which are used as part of an iterative process to aid structured and systematic analysis and management of the CTCN technical assistance.



3. Role of the Response Planning Design Team

The Response Planning Design Team is selected by the Climate Technology Centre (CTC). The composition of the team depends on each particular request but may include the National Designated Entity (NDE), the request Proponent, Climate Technology Manager of the CTCN, experts from the CTCN Consortium, UNIDO and UNEP experts from regional offices and other experts as needed.

The role of CTCN Consortium experts is to lead the design of the Response Plan. The NDE will provide overall guidance on national context and priorities whereas the request Proponent will provide more detailed information on the sector, barriers and requested assistance. The Climate Technology Manager of the CTCN will provide quality assurance of timeliness and appropriateness of the Response Plan.

The Response Planning Design Team will draft all sections of the Response Plan template building on the information contained in the CTCN Request, based on expertise on the given topic and potentially further data collection, as required. This will be done by the CTCN Consortium Experts in consultation with the NDE, request Proponent and relevant stakeholders. The Response Plan has to be agreed to and approved by the NDE and the CTCN Director. This Response Plan will serve as the basis to identify, select and engage an expert institution from the Climate Technology Network or Consortium to lead the implementation of the CTCN Response Plan in the requesting country.

To the extent possible, staff from UNEP and UNIDO Regional, Sub-Regional and/or National Offices should be involve in all stages of formulation of the Response Plan to maximize synergies and avoid overlap with ongoing initiatives, as well as ensure relevance to regional and national context.

4. Process for designing the Response Plan

The Response Planning process should be completed over a period of up to 60 working days (12 weeks). Indicative steps and related timelines are laid out below:

5. Design Considerations

Annex 1. Guidance Note for the Response Plan template

In order to maximize the impact of the technical assistance provided by the CTCN and provide an effective M&E process, the Response Plan should integrate as much as possible the considerations below:

Climate Technology focus: The Response Plan should have a clear focus on climate technologies, and identify activities that enable the identification, development, deployment or diffusion of one or several specific technologies (including equipment, techniques, knowledge and skills).

Barrier removal / Problem solving: The activities should contribute to address the specific problem statement identified in the Request. The barriers identified should be those hampering the identification, development, deployment or diffusion of one or several climate technologies or climate actions. Therefore, it may be necessary to limit the CTCN Response Plan to a set of activities for technical assistance commonly agreed with the NDE (and Proponent when needed) compared to the original request submitted. The CTCN will liaise with NDEs and Proponent in case the scope of the technical assistance deviates from the original request.

Use of the CTCN assistance by stakeholders: The Response Plan should identify clearly how the products of the CTCN assistance will be used in the short term once support is delivered, by who and when, to ensure it will lead to specific impacts in the country. The activities should engage the stakeholders that will use the concrete results of the assistance to deploy the technologies, including from the private sector, the public sector, research institutions, etc.

Within the scope of CTCN resources: The cost of the technical assistance provided by the CTCN cannot exceed USD 250,000 per Response Plan. Therefore, it may be necessary to prioritize activities and limit the CTCN Response Plan to a set of priority activities commonly agreed with the Proponent and the NDE to remain under this value. Under section 4 of the Response Plan template, an indicative activity based budget should be presented. The proposed budget is indicative and should present an estimated costing range per activity, output as well as a total costing range for the delivery of the Response Plan. Once the Response Plan is finalised and published for tendering, interested parties will provide competitive offer against the indicative budget.

CTCN activities and outputs should be linkable to monitoring and evaluation indicators: All proposed activities and outputs must be linkable to monitoring and evaluation indicators that are specific, measurable, achievable, relevant, and time-bound. The monitoring and evaluation process and corresponding indicators will be developed by the Lead Implementer as part of the work plan and will allow the CTCN technology Manager to monitor the timeliness and appropriateness of the implementation.

Synergies with existing efforts: The Response Plan should focus on activities that are not already being fully supported or that are in the process of being fully supported by another national, regional or international organization. Synergies and complementarity also require that the CTCN assistance is not duplicating past activities. It is possible in the Response Plan to indicate co-financing from the government, the Proponent or another stakeholder, that will maximize the effectiveness of the CTCN assistance.

Gender mainstreaming: The CTCN mission is to build or strengthen developing countries' capacities to identify technology needs, to facilitate the preparation and implementation of technology projects and strategies taking into account gender considerations. The Response Plan must therefore describe how gender considerations will be included and monitored within the proposed activities, and any gender co-benefits that will be gained as a result of implementing the CTCN technical assistance.