Country	Kyrgyz Republic
Request ID#	2026000003
Title	Development of an Integrated Waste Management and Circular Economy Roadmap for the Kyrgyz Republic (2025–2030), including the Conceptual Design of a Pilot Deposit-Return System
NDE	Aibek Asanov Director Climate Finance Center under the Cabinet of Ministers of the Kyrgyz Republic info@cfc.gov.kg, esendjamalov@gmail.com, aibekasanovm@gmail.com
Proponent	Aibek Asanov Director Climate Finance Center under the Cabinet of Ministers of the Kyrgyz Republic info@cfc.gov.kg, esendjamalov@gmail.com, aibekasanovm@gmail.com

Summary of the CTCN technical assistance

The Kyrgyz Republic is facing growing climate, environmental, and public health pressures associated with an inefficient and fragmented waste management system. Municipal solid waste generation is increasing, while the overwhelming majority of waste continues to be disposed of in outdated landfills and unmanaged dumpsites that lack basic environmental protection measures. This contributes to methane emissions, recurrent landfill fires, soil and groundwater contamination, leakage of waste into waterways, and wider ecosystem degradation. Packaging waste, especially PET bottles and aluminum cans, represents a particularly urgent challenge, while organic waste, WEEE, construction waste, and sludge remain insufficiently managed.

This CTCN technical assistance will support the Kyrgyz Republic in establishing the analytical, regulatory, technical-design, and institutional foundation for a climate-aligned transition toward integrated waste management and circular economy practices. Over an 18-month period, the technical assistance will assess major waste streams, infrastructure, institutional and regulatory gaps, and technology needs; prepare an Integrated Waste Management and Circular Economy Roadmap for 2025–2030; develop a national concept for a Deposit-Return System (DRS); prepare conceptual designs for future pilot initiatives in Bishkek and other priority areas; strengthen stakeholder capacity; and define the conceptual architecture of a national digital monitoring and MRV system. No procurement, installation, or physical deployment of equipment or facilities will take place under this technical assistance. Nevertheless, the technical assistance may explore options for small-scale demonstration of selected components of the Deposit-Return System (DRS), such as reverse vending machines, at a conceptual and feasibility level, including potential implementation modalities, budget considerations, and partnership opportunities. This would support piloting readiness, stakeholder engagement, and preparation for future investment and implementation.

The expected outcome is improved national capacity and evidence-based decision-making for low-emission and climate-resilient waste sector transformation in the Kyrgyz Republic. The technical assistance will provide the country with a validated roadmap, a draft regulatory and operational package for DRS and EPR operationalization, conceptual designs for future pilot initiatives,

stronger stakeholder coordination, improved gender-responsive and inclusive capacity, and clearer pathways for follow-up investment, financing mobilization, and phased implementation.
The technical assistance also will prepare a detailed DRS concept and a package of project materials that the Kyrgyz Republic can directly use to develop attractive and bankable investment proposals for pilot implementation (e.g., with the Green Climate Fund or development partners). As part of the final phase, CTCN, in collaboration with the implementing partner and subject to appropriateness and availability, will organize a dedicated dialogue with relevant financial institutions to support green resource mobilization.

Agreement:

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

National Designated Entity to the UNFCCC Technology Mechanism
Name: Aibek Asanov
Title: Director

Date: 21.04.2026

Signature:

Proponent (signature of the Proponent is optional)
Name: Aibek Asanov
Title: Director

Date: 21.04.2026

Signature:

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

Date: 27.04.2026

Signature:

1. Background and context

The Kyrgyz Republic is increasingly exposed to climate-related risks, including rising temperatures, more frequent extreme heat events, drought cycles, intensified rainfall events, and growing stress on urban and environmental infrastructure. Within this context, weaknesses in waste management are becoming a significant climate and development challenge. The country generates an estimated 1.3–1.8 million tons of municipal solid waste annually, while more than 90% of waste is still disposed of in over 400 outdated landfills and uncontrolled dumpsites. Most of these sites lack engineered liners, leachate control, methane capture, controlled compaction, or adequate fire prevention measures. As a result, they contribute to greenhouse gas emissions, contamination of soils and water resources, local air pollution, and long-term public health risks.

The climate relevance of the waste sector is increasing. Recurrent landfill fires and uncontrolled decomposition generate substantial methane and CO2-equivalent emissions, while plastic leakage and microplastic pollution place additional pressure on ecosystems already under climate stress. Packaging waste, particularly PET bottles and aluminum cans, represents a major lost opportunity for material recovery and emissions reduction. Organic waste is also a critical concern due to its methane generation potential, while WEEE, construction waste, medical waste, and wastewater sludge continue to be handled with limited technological and institutional capacity.

The Kyrgyz Republic has taken some initial policy and practical steps to improve waste governance, including the introduction of Extended Producer Responsibility (EPR) provisions in legislation, isolated source-separation pilots, and limited growth of domestic recycling activity. However, these efforts remain fragmented. The country still lacks a coherent national strategy for integrated waste management and circular economy transition, a practical and operational DRS model, harmonized technical standards, a functioning national monitoring system, and an implementation-ready framework for scaling climate-aligned waste solutions.

This technical assistance responds to that need. It is designed to consolidate fragmented efforts into a coherent national framework that links policy, technology, operations, capacity building, and investment preparation. By focusing on integrated planning, DRS and EPR operationalization, conceptual pilot design, priority waste streams, and digital MRV architecture, the TA will help the Kyrgyz Republic move from a landfill-dependent model toward a more circular, low-emission, and climate-resilient waste sector.

2. Problem statement

The Kyrgyz Republic's transition toward climate-aligned and circular waste management is constrained by the absence of an integrated national framework that combines technical diagnostics, regulatory design, institutional coordination, operational models, and investment-oriented planning for priority waste streams and Deposit-Return System deployment.

Several interrelated barriers continue to hinder progress. First, the country's waste infrastructure remains outdated and technologically insufficient. Most landfills and dumpsites lack basic environmental protection and methane management systems, and municipalities have limited access to modern system designs for separate collection, sorting, grading, treatment, and environmentally sound disposal. Second, the country does not yet have an operational national model for DRS, including technical specifications, deposit-flow mechanisms, fraud-prevention protocols, logistics arrangements, and institutional responsibilities. Third, recycling industries face

limited access to clean and consistent material streams, while technologies for managing organic waste, WEEE, construction waste, and sludge remain underdeveloped. Fourth, digital monitoring and MRV systems for waste flows, recovery rates, and greenhouse gas reductions are largely absent. This constrains evidence-based planning, reduces transparency, and limits the country's ability to quantify climate benefits and support NDC implementation. Fifth, technical and institutional capacity gaps persist across municipalities, operators, regulators, and other stakeholders, slowing adoption of best available technologies and practical circular economy models. Finally, the lack of a fully operational EPR system and weak market-readiness conditions undermine the financing basis for long-term reform and scale-up.

Without targeted support to address these barriers, the Kyrgyz Republic risks continued growth in methane emissions, landfill dependence, plastic leakage, public health burdens, and missed opportunities for circular economy development, private-sector participation, and climate finance mobilization. The requested technical assistance will help address these constraints by producing a roadmap, regulatory package, DRS concept, conceptual pilot designs, capacity-building programme, and digital MRV architecture that can support future implementation and investment.

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: To support the Kyrgyz Republic in advancing climate-aligned integrated waste management and circular economy transition by developing the technical, regulatory, institutional, and investment-preparation foundation for separate collection, Deposit-Return System (DRS) deployment, Extended Producer Responsibility (EPR) operationalization, priority waste stream management, and digital monitoring of climate benefits.																		
Outcome: Improved national capacity and evidence-based decision-making in the Kyrgyz Republic for low-emission and climate-resilient waste sector transformation, resulting in a validated Integrated Waste Management and Circular Economy Roadmap, a national DRS concept and draft enabling package, conceptual designs for future pilot initiatives, stronger stakeholder coordination, improved gender-responsive capacity, stronger readiness for the development of bankable follow-up proposals, and clearer pathways for follow-up financing and phased implementation.																		
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]																				
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, subject to appropriateness and availability, 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, baseline, and waste system diagnostics completed This output will establish the analytical and coordination foundation for the technical assistance. It will validate the scope and methodology of the assignment, consolidate baseline information and data gaps, and produce a structured diagnostic of waste streams, infrastructure, institutional arrangements, and technology barriers relevant to climate-aligned waste sector transformation.																				
Activity 1.1: Inception, stakeholder alignment, and baseline assessment An inception workshop and targeted consultations will be conducted with key stakeholders, including the Climate Finance Center, relevant ministries and inspectorates, municipalities, waste operators, recyclers, civil																				

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

society, educational institutions, and development partners. These consultations will validate the scope, objectives, priority waste streams, data availability, implementation arrangements, and gender-responsive stakeholder engagement approach. A baseline assessment will review existing waste policies, institutional roles, pilot experiences, operational constraints, infrastructure conditions, and available data relevant to methane reduction, circularity, and climate resilience.																			
Activity 1.2: Waste stream diagnostics and technology gap assessment A comprehensive diagnostic of major waste streams shall be undertaken, covering municipal solid waste, packaging waste, organic waste, WEEE, construction waste, and sludge. The diagnostic will assess waste quantities and composition, collection and disposal practices, recycling and treatment capacity, landfill practices, climate-relevant inefficiencies, and priority technology gaps. It will also identify initial baseline indicators for future monitoring of resource recovery and greenhouse gas reduction.																			
Activity 1.3: Stakeholder mapping and data collection framework A stakeholder mapping and data collection framework will be prepared to support the subsequent workstreams. This will identify responsible institutions, data providers, consultation pathways, public and private stakeholders, and gender-responsive participation arrangements. It will also define information needs for roadmap development, DRS design, regulatory work, conceptual pilot design, capacity building, digital MRV system architecture, and future investment planning.																			
Deliverable 1: 1. Inception workshop and stakeholder alignment report 2. Baseline assessment report 3. Waste stream diagnostics and technology gap assessment report 4. Stakeholder mapping and data collection framework			X																
Output 2: National roadmap and enabling regulatory framework developed This output will generate the national strategic and regulatory foundation for future waste sector transformation in the Kyrgyz Republic. It will produce the Integrated Waste Management and Circular Economy Roadmap for 2025–2030 together with draft regulatory instruments, technical standards, and practical recommendations for EPR operationalization.																			
Activity 2.1: Development of the Integrated Waste Management and Circular Economy Roadmap (2025–2030) A national roadmap will be prepared to define strategic priorities, sequencing, institutional roles, implementation phases, and investment needs for the transition toward climate-aligned integrated waste management and circular economy practices. The roadmap will cover separate collection, recovery and recycling, organic waste management, WEEE, construction waste, sludge, landfill improvement priorities, municipal and national responsibilities, and linkages to NDC implementation and climate finance readiness.																			

Activity 2.2: Development of draft regulatory instruments and technical standards Draft regulatory instruments, technical standards, and model guidelines will be prepared for waste separation, sorting, collection logistics, composting, recycling, and environmentally sound handling of priority waste streams. The work will clarify institutional roles, technical requirements, compliance needs, and practical conditions for future rollout of modern waste management systems.																			
Activity 2.3: Recommendations for EPR operationalization This activity will identify the legal, institutional, operational, and financing measures required to move EPR from legislative provision to practical implementation. It will include recommendations on roles and responsibilities, compliance arrangements, financing flows, reporting obligations, and links between EPR and future DRS rollout.																			
Deliverable 2: 1. Integrated Waste Management and Circular Economy Roadmap (2025–2030) 2. Draft regulatory and technical standards package 3. EPR operationalization recommendations note							X												
Output 3: National DRS concept and conceptual pilot packages prepared This output will focus specifically on the design of the Deposit-Return System and on conceptual preparation for future pilot initiatives. Where feasible, the TA may assess the feasibility and implementation modalities of small-scale DRS demonstration elements, including indicative equipment needs, host-site options, partnership arrangements, potential co-financing, and operational considerations. Actual procurement, installation, and physical deployment are outside the scope of the present technical assistance.																			
Activity 3.1: Development of the national DRS concept A national DRS concept will be developed covering technical specifications for reverse vending machines and return points, operational models, deposit-flow and reimbursement mechanisms, fraud-prevention measures, quality-control procedures, institutional roles, data requirements, and phased rollout scenarios. The activity will also consider practical implementation conditions in the Kyrgyz context, including the roles of producers, retailers, municipalities, recyclers, and service providers.																			
Activity 3.2: Conceptual design of a DRS pilot for Bishkek A conceptual pilot design for Bishkek will be prepared, including siting criteria, logistics assumptions, financial and operational parameters, material-flow projections, stakeholder roles, risk assessment, and monitoring elements. The activity will provide a practical model that can be used for follow-up pilot preparation and investment discussions.																			
Activity 3.3: Conceptual design of pilots for priority waste streams Conceptual pilot packages will also be prepared for selected priority waste streams, including organic waste management, WEEE collection and dismantling, and construction waste recycling. For each pilot concept, the TA will define technical specifications, operational models, siting and logistics assumptions, risks, implementation steps, and replication guidance.																			

Deliverables 3: 1. National DRS concept document 2. Conceptual design package for a Bishkek DRS pilot 3. Conceptual pilot design package for selected priority waste streams												X							
Output 4: Capacity building, communication toolkit, and digital MRV architecture delivered This output will strengthen national and municipal readiness for future implementation by building technical and institutional capacity, supporting inclusive stakeholder engagement, and defining the conceptual architecture of a national digital monitoring and MRV system.																			
Activity 4.1: Capacity-building programme and training delivery Training materials and modules will be developed and delivered for municipalities, regulators, waste operators, recyclers, educational institutions, and other relevant stakeholders. Training topics will include integrated waste management planning, DRS operations, EPR implementation, separate collection and sorting systems, management of priority waste streams, data collection and reporting, and the climate relevance of circular economy practices. Training activities will integrate gender-responsive approaches and collect sex-disaggregated participation data.																			
Activity 4.2: Communication, awareness, and behaviour-change toolkit A practical communication toolkit will be prepared to support future public engagement and awareness efforts on separate collection, container return, recycling behaviour, waste minimization, and circular economy practices. The TA will not implement a nationwide campaign, but will develop messages, materials, audience segmentation approaches, and behaviour-change methodologies for later use by public institutions, municipalities, schools, and partners.																			
Activity 4.3: Conceptual architecture of a national digital MRV and monitoring system The TA will define the conceptual architecture of a national digital monitoring and MRV system for the waste sector. This will include system requirements, data standards, governance arrangements, reporting flows, prototype dashboard layouts, and an initial indicator framework for tracking waste flows, material recovery, separate collection performance, and greenhouse gas reductions. No digital system deployment will take place under the TA.																			
Deliverables 4: 1. Training package, including manuals, presentations, and facilitation materials 2. Training and workshop reports, including sex-disaggregated participation data 3. Communication and behaviour-change toolkit 4. Conceptual architecture and prototype dashboard package for national digital MRV and monitoring																	X		
Output 5: Scale-up roadmap, financing strategy, and follow-up investment package developed																			

This output will convert the analytical and design outputs of the TA into a practical pathway for follow-up investment and implementation. It will define the next steps, financing opportunities, and institutional arrangements needed for phased rollout after the TA ends.																				
Activity 5.1: Development of an implementation and scale-up roadmap A phased implementation roadmap will be prepared to identify short-, medium-, and long-term actions required to move from technical assistance outputs toward real-world implementation. This will include sequencing of further studies and engineering work, institutional roles, regulatory milestones, capacity needs, municipal adoption pathways, and replication options across additional cities and waste streams.																				
Activity 5.2: Financing and investment strategy A financing and investment strategy will be developed to identify realistic public, private, and climate-finance pathways for future implementation. This will include possible roles for government budgets, EPR financing mechanisms, municipalities, private operators, development partners, and other financiers. The strategy will also outiine the additional steps needed to prepare bankable investment proposals and implementation packages.																				
Activity 5.3: Draft follow-up concept note and final validation workshop A draft follow-up concept note will be prepared for engagement with development partners, climate finance institutions, and other potential supporters of future rollout and pilot implementation. A final validation workshop will present key TA results, discuss the roadmap and financing strategy, and build stakeholder consensus on next steps.																				
Deliverables 5: 1. Implementation and scale-up roadmap 2. Financing and investment strategy 3. Draft follow-up concept note 4. Final validation workshop report, including agreed next steps																				X

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). A maximum of 20% of the budget can be allocated to procurement (e.g. infrastructure purchase, technology piloting), 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.

The indicative expert days presented in the budget table are nominal and intended to provide guidance to prospective bidders during the tendering process. The selected implementing partner may propose a refined allocation of expert inputs in the detailed work plan, in consultation with the NDE and CTCN, provided that the overall level of effort remains within the agreed budget range and that all expected outputs and deliverables are achieved.

					Estimated cost

Activities and Outputs	**Input: Human Resources** *(Title, role, estimated number of days)*	**Input: Travel**[2] *(Purpose, national vs. international, number of days)*	**Input: Meetings/events**[3] *(Meeting title, number of participants, number of days)*	**Input: Equipment/Material** *(Item, purpose, buy/rent, quantity)*	*Please accumulate the costing (USD) at Activity and 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: Beginning of implementation B: Implementation C : End of 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, baseline, and waste system diagnostics completed					*44,415*	*49,350*
Activity 1.1: Inception, stakeholder alignment, and baseline assessment	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	International travel: 5 days	In-person workshop: 4 days	-	*27,405*	*30,450*
Activity 1.2: Waste stream diagnostics and	IE1: 7 days IE2: 7 days	-	-	-	*8,505*	*9,450*

[2] All budget values related to Daily Subsistence Allowance or logistical support for local participants shall remain as indicated.
[3] All budget values related to the organization of meetings and events shall remain as indicated.

technology gap assessment	IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days					
Activity 1.3: Stakeholder mapping and data collection framework	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	-	-	-	*8,505*	*9,450*
Output 2: National roadmap and enabling regulatory framework developed					*25,515*	*28,350*
Activity 2.1: Development of the Integrated Waste Management and Circular Economy Roadmap (2025–2030)	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: Development of draft regulatory instruments and technical standards	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	-	-	-	*8,505*	*9,450*
Activity 2.3: Recommendations for	IE1: 7 days IE2: 7 days	-	-	-	*8,505*	*9,450*

EPR operationalization	IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days					
Output 3: National DRS concept and conceptual pilot packages prepared					*44,415*	*49,350*
Activity 3.1: Development of the national DRS concept	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: Conceptual design of a DRS pilot for Bishkek	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	International travel: 5 days	In-person workshop: 4 days	-	*27,405*	*30,450*
Activity 3.3: Conceptual design of pilots for priority waste streams	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, communication toolkit, and digital					*44,415*	*49,350*

MRV architecture delivered						
Activity 4.1: Capacity-building programme and training delivery	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	International travel: 5 days	In-person workshop: 4 days	-	*27,405*	*30,450*
Activity 4.2: Communication, awareness, and behaviour-change toolkit	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	-	-	-	*8,505*	*9,450*
Activity 4.3: Conceptual architecture of a national digital MRV and monitoring system	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	-	-	-	*8,505*	*9,450*
Output 5: Scale-up roadmap, financing strategy, and follow-up investment package developed					*44,415*	*49,350*
Activity 5.1: Development of an implementation and scale-up roadmap	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days	-	-	-	*8,505*	*9,450*

	NE3: 7 days					
Activity 5.2: Financing and investment strategy	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	-	-	-	*8,505*	*9,450*
Activity 5.3: Draft follow-up concept note and final validation workshop	IE1: 7 days IE2: 7 days IE3: 7 days NE1: 7 days NE2: 7 days NE3: 7 days	International travel: 5 days	In-person workshop: 4 days	-	*27,405*	*30,450*
Estimated range of costing for the entire Response Plan					***211,680***	***235,200***

4. 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. Please note that an expert with experience in gender mainstreaming is required. The CTCN Gender and Climate Technology Expert Roster can help you identify a suitable expert: https://www.ctc-n.org/networking-and-collaboration/gender-and-climate-technology-expert-roster

Experts required	Brief description of required profile
International Experts	

Project Manager / Integrated Waste Management and Circular Economy Lead (IE1)	· Advanced university degree (Master's degree or equivalent) in environmental engineering, waste management, circular economy, climate policy, public policy, or a related field. A Bachelor's degree may be accepted in combination with at least 12 years of highly relevant professional experience. · Minimum 10 years of professional experience in managing and delivering complex technical assistance assignments related to integrated waste management, municipal environmental services, circular economy transition, climate technology deployment, or environmental infrastructure planning, preferably in developing countries. · Demonstrated experience in leading multi-stakeholder projects and coordinating technical, institutional, policy, and capacity-building workstreams. · Strong expertise in project management, quality assurance, monitoring and evaluation, stakeholder coordination, and engagement with public institutions, development partners, and private-sector actors is required. · Experience with UN agencies, CTCN, climate finance mechanisms, MDB-supported technical assistance, or similar international cooperation processes is highly desirable. · Excellent written and oral communication skills in English are required.
Waste Systems, DRS, and Recycling Infrastructure Expert (IE2)	· Advanced university degree (Master's degree or equivalent) in waste management engineering, environmental engineering, industrial ecology, urban services, recycling systems, logistics, or a related field. A Bachelor's degree may be accepted in combination with at least 9 years of highly relevant experience. · Minimum 7 years of professional experience in separate collection systems, packaging waste management, DRS design, material recovery systems, recycling operations, landfill improvement, organic waste management, WEEE systems, or related waste technologies. · Demonstrated experience in technical diagnostics, operational modelling, system design, infrastructure planning, and preparation of feasibility or pre-feasibility studies for waste sector interventions. · Experience with reverse vending systems, return logistics, material quality requirements, and pilot or rollout design is strongly desirable. · Experience in developing-country contexts and familiarity with circular economy transitions in emerging markets are advantages. · Strong technical reporting and analytical skills are required. · Excellent written and oral communication skills in English are required.

Policy, EPR, Financing, and Digital MRV Expert (IE3)	· Advanced university degree (Master's degree or equivalent) in economics, finance, public policy, environmental law, climate finance, information systems, or a related field. A Bachelor's degree may be accepted in combination with at least 9 years of highly relevant experience. · Minimum 7 years of professional experience in EPR systems, environmental regulation, policy design, investment planning, private-sector engagement, digital monitoring systems, MRV frameworks, or preparation of financing strategies and follow-up concept notes for climate-related or environmental projects. · Demonstrated experience in regulatory analysis, market creation, financing facilitation, institutional design, and development of digital governance or reporting systems. · Experience working on follow-up financing pathways involving development partners, climate finance institutions, or public-private models is highly desirable. · Experience in capacity-building design and stakeholder consultation processes is also required. · Excellent written and oral communication skills in English are required.
National Experts	
National Waste Management and Municipal Systems Expert (NE1)	· University degree (Bachelor's degree or higher) in environmental engineering, civil engineering, waste management, urban services, municipal infrastructure, or a related field. · Minimum 5 years of professional experience in the waste management sector of the Kyrgyz Republic, including municipal waste collection, landfill operations, recycling systems, environmental services, or related infrastructure and service-delivery arrangements. · Strong understanding of local institutional arrangements, infrastructure conditions, waste-service practices, and operational constraints is required. · Experience supporting technical data collection, field verification, stakeholder consultations, and review of engineering or system-planning materials is essential. · Fluency in Russian and/or Kyrgyz and good working knowledge of English are required.
National Legal, Institutional Coordination, and Stakeholder Engagement Expert (NE2)	· University degree (Bachelor's degree or higher) in law, public policy, environmental governance, economics, development studies, or a related field. · Minimum 5 years of relevant experience in policy analysis, regulatory processes, institutional coordination, and stakeholder engagement in the Kyrgyz Republic. · Strong familiarity with environmental governance, waste policy, municipal administration, and public-private dialogue processes is highly desirable. · Experience supporting workshops, interviews, multi-agency consultations, validation sessions, and synthesis of institutional and legal inputs is required. · Experience engaging with municipalities, central government entities, and business associations is an advantage. · Fluency in Russian and/or Kyrgyz and good working knowledge of English are required.

National Gender and Social Inclusion Expert (NE3)	· Relevant university degree (Bachelor's degree or higher) in gender studies, social sciences, sociology, development studies, or a related field. · Minimum 5 years of professional experience in gender mainstreaming and social inclusion in climate change, environmental management, waste management, municipal services, or development projects. · Demonstrated ability to conduct gender assessments, prepare Gender Action Plans, collect and analyse sex-disaggregated data, and support inclusive participation of women, youth, and underrepresented groups in consultations, training activities, and project monitoring. · Experience in the Kyrgyz Republic and familiarity with national gender and inclusion considerations are highly desirable. · Experience in integrating gender considerations into technical or infrastructure-related projects is an advantage. · Fluency in Russian and/or Kyrgyz and good working knowledge of English are required.

5. Intended contribution to impact over time

Short-term impact

In the short term, the technical assistance will provide the Kyrgyz Republic with a structured and credible evidence base for decision-making on integrated waste management, circular economy transition, DRS preparedness, and EPR operationalization. It will clarify technology and system options, identify institutional and regulatory priorities, strengthen stakeholder coordination, and improve national readiness for informed dialogue on waste sector reform, climate action, and investment planning.

Medium-term impact

In the medium term, the outputs of the technical assistance are expected to support policy and regulatory follow-up, more coordinated stakeholder action, and the development of investment-oriented next steps. The roadmap, regulatory package, DRS concept, pilot design packages, training materials, and financing strategy may be used by relevant ministries, municipalities, operators, recyclers, and financing partners to prepare phased implementation, mobilize additional support, and develop follow-up proposals for climate finance or public-private investment.

Long-term impact

In the long term, and subject to subsequent investment and implementation, the technical assistance could contribute to a broader transition toward low-emission, climate-resilient, and circular waste management in the Kyrgyz Republic. This includes reduced methane emissions, lower landfill dependence, increased material recovery and recycling, improved management of priority waste streams, stronger municipal environmental services, reduced pollution of waterways and soils, and enhanced national capacity to deploy modern waste management technologies and monitoring systems.

6. Relevance to NDCs and other national priorities

This technical assistance is strongly aligned with the Kyrgyz Republic's national climate, environmental, urban, and green growth priorities.

Alignment with the Nationally Determined Contribution (NDC 3.0) of the Kyrgyz Republic

The TA supports the country's climate mitigation and resilience objectives by addressing greenhouse gas emissions from the waste sector, especially methane, and by strengthening the planning basis for organic waste treatment, sludge processing, landfill improvement, and waste separation. It also supports more climate-resilient urban infrastructure and improved municipal environmental services.

Alignment with the National Development Program of the Kyrgyz Republic to 2030

The TA supports the priorities of green economic growth, modernization of public services, regional development, private-sector participation, and green job creation. By improving conditions for material recovery, recycling value chains, and circular economy transition, the TA contributes to sustainable economic modernization.

Alignment with the Programme for the Development of the Green Economy of the Kyrgyz Republic until 2029

The TA is aligned with the programme's emphasis on resource efficiency, reduction of environmental pressure, circular practices, and green investment mobilization. It contributes through integrated planning, improved resource-use efficiency, stronger institutions, and a clearer investment pipeline for future waste sector reforms.

Alignment with the Law of the Kyrgyz Republic "On Waste from Production and Consumption"
The TA directly supports operationalization of the law's EPR-related provisions by translating legislative intent into more practical recommendations for institutional arrangements, compliance, financing mechanisms, and implementation pathways. It also lays the foundation for future DRS deployment and more functional recycling systems.

Alignment with the GCF Country Programme of the Kyrgyz Republic (2024–2027)
The TA supports the priority areas of green and climate-resilient cities, municipal infrastructure, environmental health, institutional strengthening, and low-emission urban systems. Through the development of a roadmap, DRS concept, conceptual pilot packages, and digital MRV architecture, it also improves readiness for future climate finance engagement.

7. Linkages to relevant parallel on-going activities:

This technical assistance is designed to complement, rather than duplicate, existing and past efforts in the Kyrgyz Republic. Earlier actions have included legislative introduction of EPR provisions, isolated municipal source-separation pilots, limited private-sector recycling initiatives, and donor-supported awareness and capacity-building efforts related to waste and circular economy practices. These efforts have demonstrated interest and partial readiness, but they have not yet produced a coherent national roadmap, a practical DRS model, a harmonized regulatory package, or a digital MRV architecture for the waste sector.

The TA therefore acts as a bridging intervention between fragmented pilot experiences and future national implementation. It will consolidate earlier lessons, support stronger coordination among public and private actors, and provide a strategic and technical foundation that development partners, municipalities, and national institutions can use for follow-up investment and rollout. It may also create synergies with future climate finance, municipal modernization, and green investment initiatives that target low-emission and climate-resilient urban development.

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

Following completion of the technical assistance, the Kyrgyz Republic is expected to undertake a coordinated set of follow-up actions to move from planning and conceptual design toward phased implementation. These may include formal adoption or endorsement of the roadmap, refinement of DRS and EPR regulations, preparation of detailed engineering or operational studies, mobilization of investment for separate collection and recovery systems, and development of implementation arrangements among municipalities, producers, recyclers, and other actors.

Future follow-up may also include phased rollout of DRS, expansion of separate collection systems, development of initiatives on organic waste, WEEE, and construction waste, and deployment of digital monitoring tools based on the conceptual architecture developed under the TA. The follow-up concept note and financing strategy produced during the TA can support engagement with development partners, climate finance institutions, and other funders for implementation support.

More broadly, the methodologies, standards, and coordination mechanisms developed through this TA could help the Kyrgyz Republic institutionalize circular economy practices and improve the climate performance of the waste sector over time.

9. 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. A suitable expert can be identified through the CTCN Gender and Climate Technology Expert Roster: https://www.ctc-n.org/networking-and-collaboration/gender-and-climate-technology-expert-roster

Gender benefits embedded in the implementation and as a result of activities:	Gender equality and social inclusion will be systematically integrated into implementation. A gender assessment will be conducted during the inception phase to identify gender-related barriers, opportunities, and participation gaps in the waste sector, including in municipal services, recycling value chains, consultations, training, and future employment pathways related to DRS and circular economy activities. Based on this assessment, the implementer will prepare and apply a Gender Action Plan throughout the TA. The TA will promote the participation of women, youth, and underrepresented groups in consultations, training activities, technical review processes, and stakeholder dialogue. Where feasible, the TA will aim for meaningful participation of women in workshops, consultations, and validation events, and sex-disaggregated participation data will be collected and monitored. Training and communication materials will also reflect inclusive and gender-responsive design. As a result, the TA is expected to strengthen the visibility and participation of women in waste-sector governance and circular economy transition planning, improve institutional awareness of gender-responsive approaches in climate technology deployment, and help establish a more inclusive foundation for future implementation.
Other co-benefits embedded in the implementation and intended as result of the activities:	The TA is expected to generate environmental, health, economic, and institutional co-benefits. Environmentally, it will support better planning for methane reduction, waste diversion, resource recovery, and reduced pollution of waterways and soils. From a public health perspective, it can contribute to the future reduction of smoke, toxins, and unsanitary waste exposure associated with unmanaged dumpsites and landfill fires. Economically, it can help create stronger conditions for recycling markets, green jobs, and private-sector participation. Institutionally, it will strengthen coordination across ministries, municipalities, operators, and development partners, while improving the country's readiness for climate finance and evidence-based waste governance.

10. 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 Finance Center under the Cabinet of Ministers of the Kyrgyz Republic (NDE)	Overall national focal point and principal counterpart; ensures alignment with national climate

	priorities; coordinates institutions; validates major outputs.
Cabinet of Ministers	Provides high-level political support, facilitates inter-ministerial coordination, and reviews strategic outputs where relevant.
Environmental and Technical Safety Inspectorate / relevant ministry responsible for environment and natural resources	Provides input on environmental standards, compliance, regulatory development, and technical oversight considerations.
Municipal Governments, including Bishkek, Osh, and others as relevant	Provide municipal data and operational perspectives; support consultations; help validate roadmap priorities and conceptual pilot designs.
Municipal waste operators and landfill entities	Provide operational information on collection, disposal, logistics, and system constraints; contribute to pilot concept design discussions.
Private waste collection, sorting, and recycling companies	Provide market and operational input; contribute to assessment of material flows, logistics, quality requirements, and business viability.
Producers, retailers, and business associations	Participate in DRS and EPR consultations; provide practical input on return systems, producer responsibility, and market readiness.
Civil society organizations and NGOs	Support community perspectives, awareness methodology, inclusive participation, and outreach design.
Educational institutions and universities	Contribute to awareness and behaviour-change design; support knowledge dissemination and long-term capacity building.
Technology and software providers	Provide technical input on DRS system specifications, digital system requirements, and operational options.
Development partners and donors	Share relevant lessons from parallel activities and help identify opportunities for complementary support and follow-up finance.

11. 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	
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	
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	The TA supports more sustainable and climate-resilient urban services by preparing the strategic, regulatory, and operational basis for improved waste management and reduced landfill dependence.
12	Ensure sustainable consumption and production patterns	The TA advances circular economy practices by promoting separate collection, material recovery, DRS design, and improved conditions for EPR implementation.
13	Take urgent action to combat climate change and its impacts	The TA supports climate mitigation and resilience planning by addressing methane emissions, improving waste-sector monitoring, and developing pathways for low-emission waste system transformation.
	13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	
	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	

12. 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*

☐ 1. Decision-making tools and/or information provision	☐	☑
☐ 2. Sectoral roadmaps and strategies	☑	☐
☐ 3. Recommendations for law, policy and regulations	☐	☑
☐ 4. Financing facilitation	☐	☑
☐ 5. Private sector engagement and market creation	☐	☑
☐ 6. Research and development of technologies	☐	☐
☐ 7. Feasibility of technology options	☐	☑
☐ 8. Piloting and deployment of technologies in local conditions	☐	☐
☐ 9. Technology identification and prioritisation	☐	☐

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

13. 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.

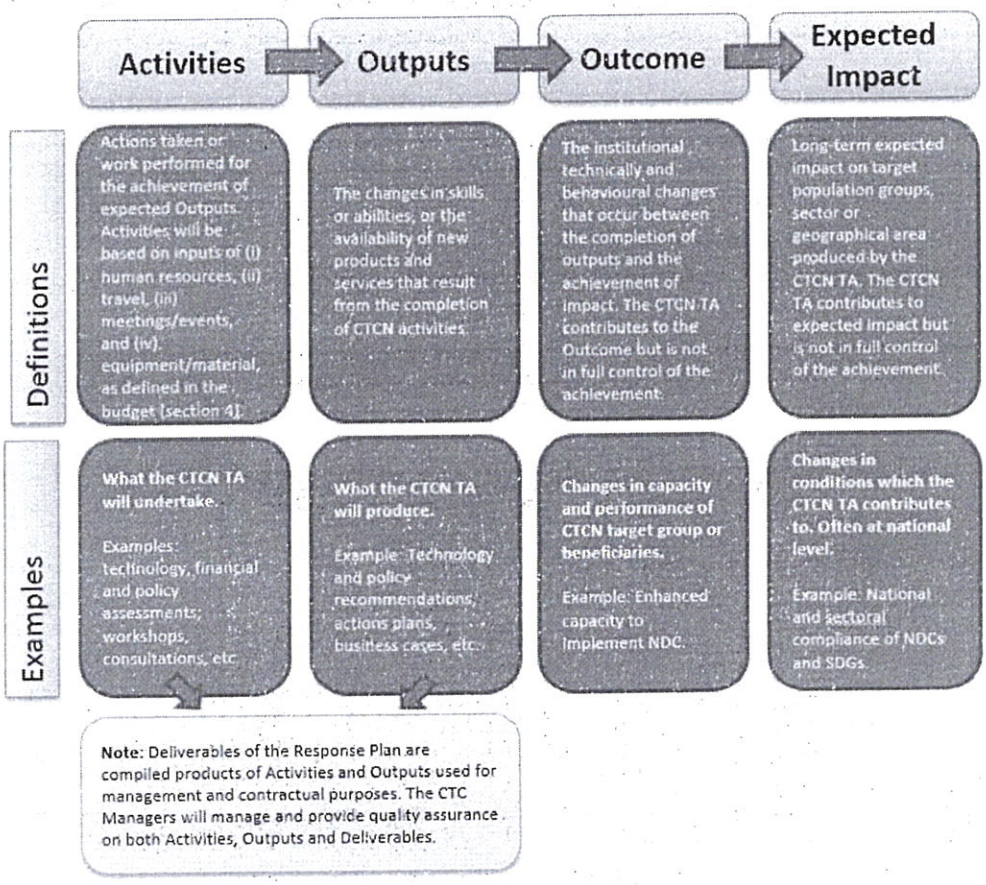
Annex 1: Guidance note for designing a Response Plan (to be deleted when submitting the Response Plan)

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.

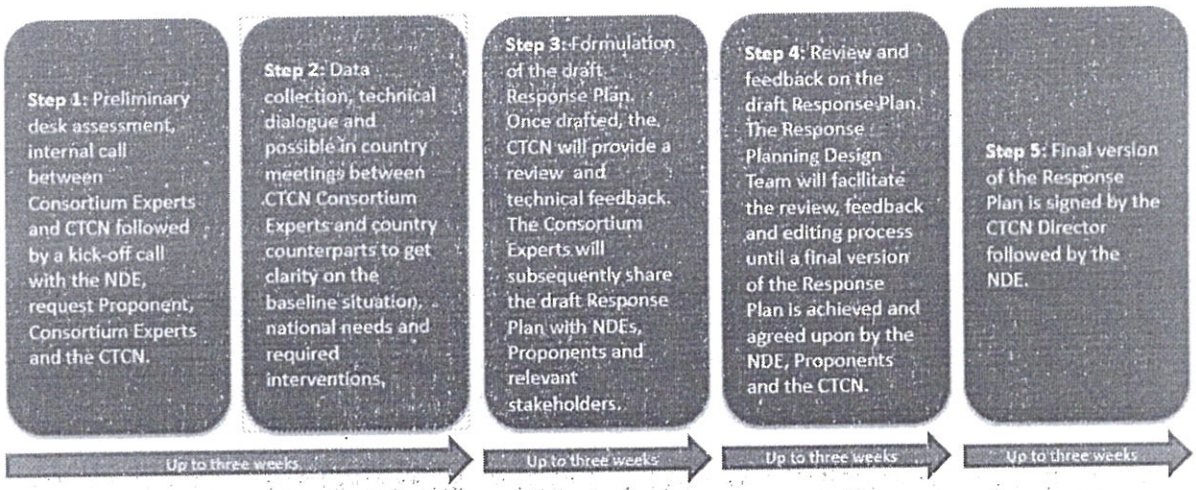
2. Results chain and Logical Framework Approach to be defined in the CTCN Response Plan

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. 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:



4. Design Considerations

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. For that purpose, a Gender Assessment and Action Plan (GAAP) template has been designed to be followed by the implementation partner.