CTCN
CLIMATE TECHNOLOGY CENTRE & NETWORK

Technical Assistance Response Plan – Terms of Reference

Country	**Sri Lanka**
Request ID#	**2020000034**
Title	Technology adaptation programme for farmers to minimise the impacts of climate change on coconut lands in Puttalam district in Sri Lanka
NDE	*Please add name, position, organization, email and address* K. N. Kumudini Vidyalankara Director, Climate Change Secretariat Ministry of Environment kumudiniimex@gmail.com No. 416/C/1, 'Sobadam Piyasa', Robert Gunawardana Mawatha, Battaramulla, Sri Lanka
Proponent	*Please add name, position, organization, email and address* C. S. Ranasinghe Director, Coconut Research Institute, sanathanie_ranasinghe@yahoo.com Bandirippuwa Estate, Lunuwila, Sri Lanka

Summary of the CTCN technical assistance

The summary should provide a brief description of the problem (barrier to climate technology deployment) and how the technical assistance will address it (brief summary of outputs and activities). Please also briefly indicate national actors involved and the anticipated timeline. Please note this summary will be used for public communication purposes so it is important that it is well written. (maximum 1250 characters including spaces)

Puttalam district contributes to the economy of Sri Lanka through exporting coconut and related products. Agriculture which is the most dominant source of livelihoods in this area has endured endless periods of drought and turbulent rainfall. Decrease in annual rainfall, leading to drought conditions, could increase evapotranspiration from soil and plants and deplete soil moisture reserves. Without appropriate measures in Puttalam district, coconut cultivation and productivity would be significantly affected by extreme climate events.

The technical assistance (TA) aims to develop an action plan and associated strategies to sustain and strengthen coconut production in Puttalam district in response to climate change. Through implementation of the programmes designed by this TA, capacity of coconut growers and other stakeholders in Puttalam district is expected to be enhanced with regards to the use of climate technologies in coconut cultivation. This will result in increasing coconut productivity in the area, contributing to achieving annual coconut production target in Sri Lanka.

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Agreement:

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

National Designated Entity to the UNFCCC Technology Mechanism
Name: K. N. Kumudini Vidyalankara
Title: Director, Climate Change Secretariat
Date: 28/09/2021
Signature:

K. N. Kumudini Vidyalankara
Director (Climate Change)
Ministry of Environment
"Sobadam Piyasa"
No. 416/C/1, Robert Gunawardhana Mawatha,
Battaramulla.

Proponent (signature of the Proponent is optional)
Name: C. S. Ranasinghe
Title: Director
Date: 17/09/2021
Signature:

Dr. (Mrs.) Sanathanie Ranasinghe
Director
Coconut Research Institute

UNFCCC Climate Technology Centre and Network (CTCN)

Name: Rose Mwebaza
Title: CTCN Director
Date: 29/09/2021
Signature:

1. Background and context

Please provide a brief description of the background and context for the CTCN Response Plan. Please include national and sectoral information using recognized and publicly available sources. (maximum 2500 characters including spaces).

Sri Lanka is one of the largest coconut producing countries in the world with the annual average production of 2,800 million nuts between 2010 and 2019[1]. Coconut is one of the most important agricultural commodities in export agriculture sector in Sri Lanka and contributed to 0.7% of the GDP in the country in 2019[2].

Coconut grows well under a mean annual temperature of 27-29 degree of Celsius and rainfall of 1,250-2,500 mm/year[3]. As a result of climate change, however, Sri Lanka faces problems, such as increased temperatures, prolong drought and water scarcity, which affects production of coconut in the country. Nut setting is reduced due to heat stress and long dry periods mostly in the dry-intermediate and dry zones.

Puttalam district immensely contributes to the economy of Sri Lanka through earning gains from exporting coconut and related products. Agriculture which is the most dominant source of livelihoods in the area has endured endless periods of drought and turbulent rainfall. Decrease in annual rainfall, leading to drought conditions, could increase evapotranspiration from soil and plants and deplete soil moisture reserves. Soils in the coastal area of Puttalam district is sandy in nature, very low organic matter content with low moisture and nutrient retention.

The majority of coconuts are produced at Coconut Triangle in Sri Lanka, including Puttalam, Kurunegala and Gampaha districts. More than half of the coconut lands at Coconut Triangle experience insufficient rainfall which results in relatively low productivity of coconut, especially in Puttalam district. In Kurunegala and Gampaha districts, further expansion of coconut cultivation is difficult due to high demand for human settlements and urbanisation. Therefore, productivity improvement of coconut in Puttalam district is important to achieve annual coconut production target in Sri Lanka, and implementation of programmes and associated technologies to address problems encountered in Puttalam district, including climate change, is highly required.

2. Problem statement

Founded on the national and sectoral context as detailed in the section above, please include a brief problem statement clarifying the main problems and barriers for climate change mitigation and/or adaptation in terms of climate technologies that the CTCN Response Plan will address and overcome. (maximum 1250 characters including spaces).

Highest temperatures recorded in last four years in Puttalam district were 34.1, 36.5, 33.7 and 36.8 degree of Celsius, respectively, and annual rainfall in the same years was 1,664 mm, 939 mm, 818 mm and 1,419 mm, respectively. Without appropriate measures in Puttalam district, coconut cultivation and productivity would be heavily affected by extreme climate events.

[1] Central Bank of Sri Lanka (2020) Economic and social statistics of Sri Lanka 2020. Central Bank of Sri Lanka.
[2] Central Bank of Sri Lanka (2020) Economic and social statistics of Sri Lanka 2020. Central Bank of Sri Lanka.
[3] Liyanage M. De. S. (1999). A guide to scientific cultivation and management of coconut. Hitech Prints, Nugegoda.

Coconut Research Institute (CRI), the proponent of the technical assistance (TA), has tried to disseminate technologies and associated information to coconut growers, small and medium-sized enterprises and the general public to adapt and mitigate the effects of climate change. Despite its effort, coconut growers in Puttalam district have little or incomplete knowledge on the technologies to address the problems of climate change. Even though knowing the technologies, coconut growers could not use them properly due to limitation of background information or financial difficulties. Therefore, it is required to develop an action plan and associated strategies to effectively disseminate appropriate programmes and associated climate technologies to enhance the capacity of coconut growers and other stakeholders in Puttalam district to respond to climate change.

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											
Objective: Development of the action plan and associated strategies to enhance coconut cultivation in Puttalam district in response to climate change												
Outcome: Through implementation of the programmes designed by the TA, capacity of coconut growers and other stakeholders in Puttalam district is expected to be enhanced with regards to the use of climate technologies in coconut cultivation. This will result in increasing coconut productivity in the area, contributing to achieving annual coconut production target in Sri Lanka.												
	1	2	3	4	5	6	7	8	9	10	11	12
Output 1: Development of implementation planning and communication documents												
Activity 1: The lead implementer must undertake the following activities at the beginning and at the end of the CTCN TA. i) A detailed work plan of all activities, deliveries, outputs, deadlines and responsible persons/organisations and detailed budget to implement the Response Plan developed. The detailed work plan and budget must be based directly on this Response Plan; ii) Based on the work plan, a monitoring and evaluation (M&E) plan with specific, measurable, achievable, relevant and time-bound indicators provided and used to monitor and evaluate the timeliness and appropriateness of the implementation (a template will be provided). The M&E plan should apply selected indicators from the technical assistance closure report template and enable the lead implementer to complete the technical assistance closure report at the end of the assignment (please refer to item iv below and section 14 in the Response Plan); iii) Impact statement formulated at the beginning of the TA and updated/revised once the TA is fully delivered (a template will be provided); and iv) A technical assistance closure report completed at the end of the TA (a template will be provided).												
Deliverables 1: i) Detailed work plan ii) Monitoring & evaluation (M&E) plan and impact statement												

iii) Technical assistance closure report	■											■
Output 2: Establish Baseline: Identification of the best practices/ initiatives and climate technologies to be implemented for climate change response in coconut lands in Puttalam district		■	■	■	■	■	■					
Activity 2.1: Identification of key stakeholders and stakeholder consultations A kick-off meeting and consultations with stakeholders from national and local governments as well as non-government sectors and coconut growers in Puttalam district will be carried out (in-person or online[4]). Through this activity, the lead implementer will understand current situation and climate change-related issues as to coconut cultivation in the district. Moreover, key stakeholders and their capabilities to collaborate with during the implementation of the TA will be identified.		■										
Activity 2.2: Enumeration of the best practices/ initiatives and associated technologies and their impacts on coconut production for enhancing climate change response in coconut lands in Puttalam district The lead implementer will carry out literature review regarding the impact of climate change on coconut cultivation and productivity in Sri Lanka, in particular coconut lands in Puttalam district, as well as regarding previous and on-going efforts that national and local governments and the proponent (CRI) have conducted so far. Based on understanding of the coconut supply chain in Puttalam district, the lead implementer will then conduct the review of best practices/ initiatives and associated technologies that can be adopted in coconut cultivation in Puttalam district to adapt and mitigate the effects of climate change. A list of the appropriate best practices/ initiatives and associated technologies to enhance climate change response in coconut cultivation in Puttalam district will be identified in consultation with the NDE of Sri Lanka and associated national and local governments as well as the proponent and Coconut Cultivation Board (CCB).			■	■	■							
Activity 2.3: Selection of the most appropriate best practices/ initiatives and associated technologies					■	■	■					

[4] If the border lockdown is continued due to the COVID-19 pandemic, the lead implementer will take into account conducting the kick-off meeting and stakeholder consultations on an online basis with support from the national expert employed for the TA and the proponent.

The lead implementer will undertake Multicriteria Analysis on the technologies identified in Activity 2.2 to select 2-3 most appropriate technologies, best practices/ initiatives. Stakeholder consultations will be carried out to finalize the most appropriate technologies, best practices/ initiatives (in-person or online[5]). Afterwards, macro assessments of the impacts of the selected technology, best practice/ initiative will be conducted.												
Deliverables 2: i) Report on the identification of key stakeholders and stakeholder consultations ii) Report on the enumeration of the best practices/ initiatives and associated technologies and their impacts on coconut production iii) Report on the selection of most appropriate best practices/ initiatives and associated technologies												
Output 3: Provision of the action plan and associated strategies to implement the programmes and climate technologies in coconut lands in Puttalam district												
Activity 3.1: Development of the draft action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district The lead implementer will develop a draft action plan and associated strategies in consideration with the coconut supply chain in Puttalam district as well as the programmes and associated climate technologies identified in Activity 2.2. For each stage of the coconut supply chain, the main stakeholders and related partners will be ascertained, and a programme that can implement climate technologies in coconut lands in Puttalam district will be allocated in an associated strategy. Draft concept note of each programme will be designed by the lead implementer with support from the national expert. Moreover, for each programme, potential financing mechanisms or instruments that could be used to finance its implementation will be identified in the draft concept note. The lead implementer will carry out this activity in close collaboration with the NDE of Sri Lanka, the proponent and CCB.												
Activity 3.2: Organization of consultations with key stakeholders												

[5] If the border lockdown is continued due to the COVID-19 pandemic, the lead implementer will take into account conducting the stakeholder consultations on an online basis with support from the national expert employed for the TA and the proponent.

The lead implementer will hold consultations with key stakeholders engaged in different stages of the coconut supply chain, who are identified in Activity 2.1 (in-person or online[6]). The objective of the consultations is to share the draft action plan and associated strategies as well as the draft concept notes of the programmes with them and to receive their comments. Feedbacks from the key stakeholders will be used to revise the draft documents.												
Activity 3.3: Finalization of developing the action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district The lead implementer will amend the draft action plan and associated strategies as well as the draft concept notes of the programmes, based on support from the national expert. Moreover, in consideration with feedbacks from the key stakeholders, the programmes and associated climate technologies allocated in each strategy will be prioritized for effectively enhancing climate change response in Puttalam district. Prioritization of the programmes and associated climate technologies will be conducted by considering environmental, economic and social situations in Puttalam District. The lead implementer will carry out this activity in close collaboration with the NDE of Sri Lanka, the proponent and CCB.												
Activity 3.4: Development of the draft Green Climate Fund (GCF) concept note Based on findings from Activity 3.3, the lead implementer will develop a draft GCF concept note, supporting Sri Lanka to have financial opportunities for scaling up of the TA. The finalized concept notes of the prioritized programmes and associated climate technologies in Activity 3.3 will be adopted in developing the draft GCF concept note. The draft GCF concept note will be developed in accordance with the guidance and template provided by the GCF. The lead implementer will have consultations with the NDE of Sri Lanka (who is also the National Designated Authority (NDA) of Sri Lanka to the GCF), the proponent and CCB regarding the scope, objectives and beneficiaries of the draft GCF concept note as well as a preferable Accredited Entity (AE).												

[6] If the border lockdown is continued due to the COVID-19 pandemic, the lead implementer will take into account conducting the key stakeholder consultations on an online basis with support from the national expert employed for the TA and the proponent.

After completion of the TA implementation, the draft GCF concept note will be further revised, and the final version of the GCF concept note will be submitted to the GCF under the leadership of the NDE of Sri Lanka.													
Deliverables 3: i) Draft & final action plan and associated strategies ii) Draft & final concept notes of the programmes iii) Report on the key stakeholder consultations iv) Draft GCF concept note													
Output 4: Capacity enhancement for climate change response in coconut lands in Puttalam District													
Activity 4.1: Dissemination workshop on the action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district The lead implementer will organize and facilitate a 1-day dissemination workshop for national and local government officials as well as coconut growers and other stakeholders in Puttalam district. The action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district will be introduced to participants in the workshop. After the workshop, satisfaction survey from participants will be conducted to identify the level of their understanding regarding the action plan and associated strategies as well as the programmes and associated climate technologies to be implemented in Puttalam district.													
Deliverables 4: i) Report on the dissemination workshop (including results of the satisfaction survey) ii) Dissemination workshop materials													

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 1% 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** *(Title, role, estimated number of days)*	**Input: Travel** *(Purpose, national vs. international, number of days)*	**Inputs: Meetings/events** *(Meeting title, number of participants, number of days)*	**Input: Equipment/Material** *(Item, purpose, buy/rent, quantity)*	**Estimated cost** *Please accumulate the costing at Activity and Output level and provide an estimated costing range for each activity and the total Response Plan (USD)*	
					Minimum	**Maximum**
Output 1: Development of implementation planning and communication documents					***5,000***	***7,000***
Activity 1: i) Detailed work plan, ii) M&E plan and impact statement, iii) Technical assistance closure report	*IE1: 3 days* *IE2: 4 days* *IE3: 4 days* *NE1: 2 days* *NE2: 2 days*				*5,000*	*7,000*
Output 2: Establish Baseline: Identification of the best practices/ initiatives and climate technologies to be implemented for climate change response in coconut					***51,900***	***60,900***

lands in Puttalam district						
Activity 2.1: Identification of key stakeholders and stakeholder consultations	*IE1: 8 days* *IE2: 10 days* *IE3: 10 days* *NE1: 5 days* *NE2: 10 days*	*International flights of 3 experts for the duration of 5 days each for the kick-off meeting, stakeholder consultations and field visit*	*Kick-off meeting, 10 participants, 1 day* *Stakeholder consultations, 15 participants (including women's representative), 1 day*		*22,000*	*25,000*
Activity 2.2: Enumeration of the best practices/ initiatives and associated technologies and their impacts on coconut production for enhancing climate change response in coconut lands in Puttalam district	*IE1: 5 days* *IE2: 20 days* *IE3: 5 days* *NE1: 5 days* *NE2: 10 days*				*15,200*	*18,200*
Activity 2.3: Selection of the most appropriate best practices/ initiatives and associated technologies	*IE1: 5 days* *IE2: 15 days* *IE3: 5 days* *NE1: 3 days* *NE2: 5 days*	*International flights of 2 experts for the duration of 3 days each for the stakeholder consultations*	*Stakeholder consultations, 15 participants (including women's representative), 1 day*		*14,700*	*17,700*
Output 3: Provision of the					***75,300***	***87,300***

action plan and associated strategies to implement the programmes and climate technologies in coconut lands in Puttalam district						
Activity 3.1: Development of the draft action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district	*IE1: 15 days* *IE2: 20 days* *IE3: 20 days* *NE1: 5 days* *NE2: 20 days*				*30,100*	*33,100*
Activity 3.2: Organization of consultations with key stakeholders	*IE1: 5 days* *IE2: 7 days* *IE3: 7 days* *NE1: 3 days* *NE2: 7 days*	*International flights of 3 experts for the duration of 3 days each for the key stakeholder consultations*	*Key stakeholder consultations, 10 participants (including women's representative), 1 day*		*15,100*	*18,100*
Activity 3.3: Finalization of developing the action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district	*IE1: 10 days* *IE2: 10 days* *IE3: 10 days* *NE1: 5 days* *NE2: 10 days*				*16,700*	*19,700*
Activity 3.4:	*IE1: 5 days*				*13,400*	*16,400*

Development of the draft Green Climate Fund (GCF) concept note	*IE2: 10 days* *IE3: 10 days* *NE1: 5 days* *NE2: 10 days*					
Output 4: Capacity enhancement for climate change response in coconut lands in Puttalam District					***15,600***	***18,600***
Activity 4.1: Dissemination workshop on the action plan and associated strategies for enhancing climate change response in coconut lands in Puttalam district	*IE1: 5 days* *IE2: 7 days* *IE3: 7 days* *NE1: 3 days* *NE2: 7 days*	*International flights of 3 experts for the duration of 3 days each for the dissemination workshop*	*Dissemination workshop, 30 participants (including women's representative), 1 day*		*15,600*	*18,600*
Estimated range of costing for the entire Response Plan					***147,800***	***173,800***

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
Please use the same titles for all experts as applied in section 4.	*Please provide a short description of expertise and experience needed (education, sectors of expertise, years of experience, country experience, language requirements, etc.).*
Project Manager (IE1) (International expert)	The project manager shall have the following expertise and experience: • Master's degree or above (or equivalent experience) in agricultural technology and/or management, climate

	technology, climate change response or an affiliated major • Experience in leading and managing a project and a team of experts from different cultural background and fields of expertise • At least 10 years of experience in defining and developing strategies for climate change response in agriculture sector • At least 5 references demonstrating experience in the development of strategies for climate change response in agriculture sector in developing countries • Experience in developing GCF concept notes • Experience in organizing a workshop and/or a capacity building training • Fluency in English is required
Expert in climate technology (IE2) (International expert)	The expert in climate technology shall have the following expertise and experience: • Master's degree or above (or equivalent experience) in agricultural technology, climate technology or an affiliated major • At least 5 years of experience in identifying, evaluating, and/or deploying climate technologies in agriculture sector • At least 2 references demonstrating experience in the implementation of climate technologies in agriculture sector in developing countries in Asia region or other tropical countries • Experience in developing GCF concept notes • Experience in organizing a workshop and/or a capacity building training • Fluency in English is required
Expert in strategy for climate change response (IE3) (International expert)	The expert in strategy for climate change response shall have the following expertise and experience: • Master's degree or above (or equivalent experience) in climate change response or an affiliated major • At least 5 years of experience in defining and developing strategies for climate change response in agriculture sector • At least 2 references demonstrating experience in the development of strategies for climate change response in agriculture sector in developing countries • Experience in developing GCF concept notes • Experience in organizing a workshop and/or a capacity building training • Fluency in English is required

Gender expert (NE1) (National expert)	The gender expert shall have the following expertise and experience: • Bachelor's degree or above (or equivalent experience) in social science or an affiliated major • At least 8 years of experience in gender studies and/or management of equality policies • At least 2 references demonstrating experience in gender studies in agriculture sector in developing countries • Fluency in Sri Lankan language (e.g., Sinhala) and English is required
Expert in coconut cultivation (NE2) (National expert)	The expert in coconut cultivation shall have the following expertise and experience: • Master's degree or above (or equivalent experience) in agricultural technology and/or management or an affiliated major • At least 8 years of experience in working for coconut cultivation in Sri Lanka • Fluency in Sri Lankan languages (e.g., Sinhala) and English is required, and knowledge in Tamil is added advantage

6. Intended contribution to impact over time

Please provide a brief description of the intended contribution to impact over time of the outcome and outputs provided by this technical assistance on resilience to climate change and/or carbon abatement. To the extent possible, please quantify the intended impact contribution, for example by indicated estimated number of people potentially impacted over time, GDP contribution of the focus sector, carbon emissions by the focus sector, etc. This intended contribution to impact is what will happen if the objective (as articulated in section 3) is met. Please ensure relevant complementarity with text in sections 7 to 12. (maximum 1250 characters including spaces)

For the last two decades, coconut growers have faced many problems which have resulted in the reduction of coconut production and profitability of their plantations. Coconut production is affected by the agro-climatic conditions and soils where coconut is grown, and in recent years high variations of coconut yield have been observed, which are attributed to extreme event of extended droughts and floods due to climate change. Through the TA, awareness on impacts of climate change and adoption of appropriate adaptation and mitigation technologies would be enhanced among coconut growers and other stakeholders, which would result in reducing vulnerability of coconut farming to climate change in Puttalam district.

7. Relevance to NDCs and other national priorities

Please identify relevance and contribution from the technical assistance to the Nationally Intended Contributions (NDC) and other relevant national prioritized efforts (TNAs, TAPs, NAPs, NAMAs, etc.). (maximum 2500 characters including spaces)

The TA is in line with national strategies and plans of Sri Lanka for climate change response.

- **National Climate Change Adaptation Strategy for Sri Lanka (2011 - 2016):** *Strategic Thrust 4: Improve climate resilience of key economic drivers - Thematic Areas for Action: B. Minimize impacts of climate change on plantation sector - Priority Adaptation Measures (page 18)*
  - Research climate impacts and adaptive measures in plantation sub-sectors
  - Pilot test and scale-up sub-sector specific adaptation measures
  - Evaluate and exploit potential productivity benefits due to climate change

- **National Adaptation Plan for Climate Change Impacts in Sri Lanka (2016 - 2025):** *Export Agriculture Sector (focus: tea, rubber, coconut, coffee, cocoa, spices, cashew and sugar cane) - Table 13: Sector Action Plan – Export Agriculture Sector (page 86, 88)*
  - Enhance the resilience of export agricultural crops and agro-ecosystems against heat and water stress
  - Minimize the impact on export earnings due to erratic changes in precipitation

- **Nationally Determined Contributions:** *6. NDCs of adaptation to adverse effects of climate change – 6.2 Food security sector – 6.2.1 The NDCs of agriculture sector (page 15-16) & 6.4 Irrigation sector (page 19)*
  - NDC agriculture sector: Resilience building in agriculture sector is organized under NDCs including mainstreaming of climate change considerations into the sector, varietal improvement to address climate vulnerability, sustainable land and water management and enhanced early warning climate risk management.

8. Linkages to relevant parallel on-going activities:

Please identify relevant previous and ongoing public and private sector initiatives, projects or programmes that the CTCN assistance will specifically build on and contribute to. To the extent possible, please add practical and operational details on the linkages between existing activities and the CTCN assistance. (maximum 2500 characters including spaces)

The proponent (CRI) makes an effort to disseminate technologies and knowledge to the coconut growers in Sri Lanka and to provide a certificate course on coconut cultivation and value addition, training of trainer (ToT) programmes, research extension dialogues for coconut development officers and training programmes for stakeholders annually. Moreover, CRI is currently conducting numerous research activities on mitigation and adaptation of climate change including research on carbonised plant materials and alternative synthetic mulching materials for the soil and moisture conservation for future recommendations. CRI has been acquiring information on technology needs and production problems as well as evaluating the relevance, effectiveness, impact and affordability of technologies disseminated in coconut farmers and industry. Findings from the TA could be used to support activities that CRI is conducting in the country.

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

Please describe the expected future use of the outputs and deliveries produced by this technical assistance, after the CTCN implementation is completed, towards contributing to the anticipated impacts over time articulated in section 6. For example, what organizations or stakeholders will use the outputs of the technical assistance after it is completed, for what purpose, at what scale and scope the outputs and deliveries will be applied, when and what will be the next steps undertaken, etc. (maximum 2500 characters including spaces)

Once the TA is completed, the local government with support from the proponent (CRI) could implement the strategies and associated programmes included in the action plan to disseminate climate technologies in coconut lands in Puttalam district. Moreover, national governments, including Ministry of Environment and Ministry of Plantation, could replicate the activities applied in this TA to other districts at Coconut Triangle (Kurunegala and Gampaha districts). Based on support from CRI, they could identify technology needs for climate change response and develop action plans and associated strategies to disseminate climate technologies in coconut lands in Sri Lanka. Further proceeding of the funding proposal or investment proposal could be developed after the TA

10. Gender and co-benefits:

Imbedded in design of the activities:	*A gender mainstreaming analysis is mandatory to include for all technical assistances. A gender expert will be assigned to carry out an assessment and evaluation regarding gender mainstreaming during the implementation of the TA.* *In addition, please describe all support to gender aspects, women's equality and other co-benefits embedded into the Response Plan (please include a reference to the actual activities and outputs as described in section 3).* All activities of the TA are designed with an imbedded intention of gender

	mainstreaming and providing other co-benefits to vulnerable groups. The lead implementer will be requested to assign a gender expert to conduct the monitoring and evaluation of gender mainstreaming during the implementation of the TA.
Gender and co-benefits intended as result of the activities:	*Please describe all gender aspects, women's equality and other co-benefits expected as a result of the CTCN technical assistance.* High proportion of women have involved in coconut farming in Sri Lanka; however, they engage in activities requiring relatively lower skills due to the physical nature. Pathiraja et al. (2010)[7] indicated that skilled workers received higher payment in coconut cultivation at Coconut Triangle, including Puttalam district, compared to unskilled workers. Most of the major field activities are dominated by men due to their hard nature, and most of the unskilled works are generally carried out by women, which makes them economically less empowered than men in coconut farming in Puttalam district. The TA will give opportunities for women engaged in coconut industry to learn more about appropriate measures to climate change adaptation and mitigation, which makes them have more chances to participate in activities with higher skills as well as empower their roles in coconut industry.

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 Secretariat, Ministry of Environment *(National Designated Entity)*	- Support for coordination of the TA and facilitation of stakeholder engagement - Provision of overall feedback to the CTCN and the lead implementer during the implementation of the TA
Coconut Research Institute (CRI) *(TA Proponent)*	- Support for coordination of the TA and facilitation of stakeholder engagement - Provision of feedback (practical and technical components) to the CTCN and the lead implementer during the implementation of the TA - Support for access to baseline information and associated data during the implementation of the TA
Ministry of Plantation	- Support for coordination of the TA and facilitation of stakeholder engagement
Coconut Cultivation Board (CCB)	- Collaborating with CRI to support the implementation of the TA
Coconut Growers Association	- Support for identification of issues and proper strategies

[7] Pathiraja, P.M.E.K., Fernando, M.T.N., Abeysekara, A.W.A.D.R. and Subasinghe, S.D.J.N. (2010) An Assessment of Labour Availability in Major Coconut Growing Areas in Coconut Triangle. *COCOS*, 19, 13-26.

Coconut-based industries *(Beneficiaries)*	- Support for identification of issues and proper strategies
Plantation companies (Estate sector) *(Beneficiaries)*	- Support for identification of issues and proper strategies
Coconut growers (Small holder sector) *(Beneficiaries)*	- Support for identification of issues and proper strategies

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	This TA will contribute to enhancing capacities of coconut farmers and stakeholders for climate change response, which will result in increasing efficiency of coconut production against climate change.
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	This TA will support to empower women
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	
	13.2 - Integrate climate change measures into national policies, strategies and planning	This TA will provide action plans and associated strategies and identify adaptation/mitigation programmes and technologies that will be able to support coconut growers in Puttalam District.
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	This TA will strengthen the capacity of coconut growers and stakeholders in Puttalam District by making them understand and access appropriate adaptation and mitigation technologies that support to increase coconut production in response to climate change.

	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*
☐ 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.

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; (ii) the Lead Implementer about the knowledge and learning gained through delivery of technical assistance; and (iii) the CTCN Director about timeliness and appropriateness of the delivery of the activities and outputs.