CTCN
CLIMATE TECHNOLOGY CENTRE & NETWORK

Technical Assistance Response Plan – Terms of Reference

Country	**Belize, Central America**
Request ID#	**2818000005**
Title	**Development of an integrated and comprehensive agroforestry policy for Belize**
NDE	**Lennox Gladden (PhD)**, Chief Climate Change Officer. **National Climate Change Office, Ministry of** Agriculture, **Fisheries, Forestry, the Environment, Sustainable Development**, and Immigration. Market Square, Belmopan, Belize Email address: coord.cc@Environment.gov.bz Phone Number: (501) 828-5962
Proponent	**Percival Cho (PhD)**, Chief Executive Officer, **Ministry of** Agriculture, **Fisheries, Forestry, the Environment, Sustainable Development**, and Immigration Market Square, Belmopan, Belize Email address: ceo@environment.gov.bz Phone Number: (501)828-5977

Summary of the CTCN technical assistance

Belize's agriculture is sensitive to climatic variations and could be one of the most affected sectors as a result of climate change. The agriculture and food sector in one of the main pillars of the Belizean economy, contributing approximately $590 million annually to the economic output, representing 80% of domestic exports and directly employs 17.9% of the Belizean population. Moreover, it is a major foreign exchange earner, maintains a vibrant rural population and ensures food and nutrition security for the country. A vulnerability assessment for agriculture and food security in Belize projected yield effects for three staple crops—rice, maize, and beans. The models projected shorter growing seasons for all three crops as well as decreases in yields of 10% to 20% across the various scenarios. These three staple crops are important to Belize's food security as well as for export income, and reductions in yield for these crops alone would represent BZ$13-18 million in lost revenue. In Belize, the importance of agroforestry (AF) is well known amongst stakeholders, but implementation is fragmented. A major drawback for widespread diffusion is the lack of a policy specifically for AF[1]. A policy will set out a clear roadmap for mainstreaming AF in small and large-scale farms, build research capacity and the establishment of new AF projects countrywide. The mitigation section in the National Determined Contribution places great emphasis on sustainable forest management and one way to achieve this is through AF. This technical assistance will inform the development of a national agroforestry policy (NAP) expected to take place in the next 1.5 years and will directly involve the National Climate Change Office, along with the Ministry of Fisheries, Forestry, Environment, and Sustainable Development and many NGOs and farming groups. So far, most efforts carried out to strengthen technical capacity of the Government of Belize (GOB) to develop the NAP have been scattered and lacked institutional coordination. This technical assistance by CTCN will provide practical knowledge and skills to the national team to understand and use a tested and successful process to develop a NAP of Belize. It is also expected that CTCN in collaboration with key national actors will help the GOB by 1) assessing the current state of agroforestry countrywide including up to date statistics, and, 2) gathering crucial information/data regarding benefits and services provided by several agroforestry systems and promoting their diffusion to mainstream AF. The developed national policy is expected to facilitate and support the

[1] Kongsager, R. 2017. Barriers to the Adoption of Alley Cropping as a Climate-Smart Agriculture Practice: Lessons from Maize Cultivation among the Maya in Southern Belize. *Forests* **2017**, *8*, 260; doi:10.3390/f8070260

mitigation and adaptation to climate change and guide Belize towards a more sustainable and resilient agriculture.

Agreement:

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

National Designated Entity to the UNFCCC Technology Mechanism
Name: Lennox Gladden
Title: Chief Climate Change Officer
Date: 31/01/2019
Signature: Gladden

Proponent (signature of the Proponent is optional)
Name:
Title:
Date:
Signature:

UNFCCC Climate Technology Centre and Network (CTCN)

Name: Jukka Uosukainen
Title: CTCN Director
Date: 30/01/2019
Signature:

1. Background and context

Belize has committed itself to developing, adopting and implementing policies and measures to mitigate the adverse effects of climate change on key productive sectors as well as on social and economic development of the country. The Government of Belize (GOB) addressed, to some extent, the vulnerabilities of the agricultural sector to climate change throughout the National Climate Change Policy, Strategy and Action Plan. This policy aims to facilitate the conservation and sustainable use of the forest resources while ensuring the establishment of climate resilient cropping/livestock agricultural systems across sectors. In addition, the National Forest Policy (2015) recognizes the need for agroforestry (AF), as does the National Food and Agriculture Policy, which states that the government will promote AF as an alternative land use in agricultural land to increase tree cover and provide incomes for rural families. It is evident from these efforts that government and non-governmental sectors acknowledge the importance of AF in providing alternative livelihoods, increasing food production, security, and diversification, and decreasing deforestation and reducing GHG emissions. The GOB also recognizes that, although the country has a high percentage of forest cover remaining (about 60%), these are under threat from deforestation and agricultural expansion. In 2014, the GOB granted and agreed co-management of 379 ha AF concession to Ya'axché Conservation Trust (YCT), which is the first AF concession to be granted in a protected area. The program has focused on cacao farming, but other crops are also grown (i.e. plantains, honey, and vegetables). This establishes YCT as a leader in the field and its AF models can be used, with support from the GOB and NGOs, as an example in other protected areas to mainstream AF. The Growth and Sustainable Development Strategy 2016 – 2019 of Belize places emphasis on promoting sustainable livelihood programs in ecologically sensitive areas. AF programs can be developed in several communities with concepts for sustainable production, especially in forest buffer communities, to teach farmers sustainable management methods and move away from traditional farming. This response plan was developed to set a comprehensive and integrated AF policy based on several stakeholders voicing the importance of AF to increase resilience against climate change. Many NGOs and farming groups have proven that AF can be successful in Belize.

2. Problem statement

In Belize, about 0.8 million ha, or 38% of the land area, are suitable for agriculture, and about 15% of this land is under farming every year. It is estimated that 24, 000 ha is cultivated with sugar cane, 19,000 ha are citrus plantations, 15 000 ha are corn fields and 61,000 ha are under grazing pasture by some 80,000 head of cattle (FAO 2012). Agroforestry (AF), in Belize has not been addressed sufficiently in policy formulation, nor has it been integrated into land-use planning or rural development programmes. Thus, the potential of AF to enrich farmers, communities and, by extension, the national economy has not been fully exploited. Other listed barriers are: 1) AF is practiced mostly by small-scale farmers, 2) lack of knowledge about the benefits of AF as compared to traditional production systems, 3) most local AF initiatives implemented has taken place in isolation, thus, great efforts are needed for national execution, 4) limited capacity to collect, produce and multiply tree quality planting material and 5) trainings in AF have not targeted a wide range of stakeholders. An AF policy will set out a clear roadmap for mainstreaming AF, encourage research capacity development and the establishment of new AF projects. It was estimated in 2002 that 92% of greenhouse gas emissions (GHG) in Belize came from land-use change and forestry, and the figures for this sector went from 2 up to 12.3 megatons of carbon from 1994 till 2000[2]. AF poses part of the solution to curve deforestation, increase on-farm tree cover, reduce GHG emissions, and to promote sustainable and climate smart agriculture countrywide.

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[2] Government of Belize. *Second National Communication (Belize) to the United Nations Framework on Climate Change*; Government of Belize: Belmopan, Belize, 2011.
Emch, M. The human ecology of Mayan cacao farming in Belize. *Hum. Ecol.* **2003**, *31*, 111–131.

3. Logical Framework for the CTCN Technical Assistance:

Objective: Develop an integrated and comprehensive agroforestry policy that will aid in mainstreaming this form of land use countrywide.												
Output 1: ***Development of implementation planning and communication documents***												
Activity 1: *All implementers must undertake the following activities at the beginning and at the end of the CTCN technical assistance.* i) 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; ii) Based on the work plan, a monitoring and evaluation 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); iii) A two-page CTCN Impact Description formulated in the beginning of the technical assistance and update/revised once the technical assistance is fully delivered (a template will be provided); iv) A Closure and Data Collection report completed at the end of the technical assistance (a template will be provided).												
Deliverables 1: i) Detailed work plan ii) Monitoring and evaluation plan iii) CTCN Impact Description iv) Closure and Data Collection report												
Outcome: National authorities have a legal framework that will eliminate the hurdles and regulations on planting, felling, and transporting trees on non-forest lands and support agroforestry development projects.												
	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Output 2: ***National assessment of the current state of agroforestry by sector (base line study)***	X											
Activity 2.1: Review/Collection of data/statistics on tree cover and agroforestry systems by districts/sector. The NDE will assign an expert/focal point to coordinate the collection of data on Belize side. A kick-off mission to meet with Belize's NDE and support team would also be part of this activity.	X	X										
Activity 2.2: Review of current permits/procedures for harvesting/transport/trade of timber produced on farms. The NDE will assign an expert/focal point to coordinate the collection of data on Belize side, also making the link with the FAO project on the development of the Belize Agriculture Management Information System (BAIMS) which is now being populated via the Agricultural Census 2018.		X	X									

Activity 2.3: Organize a South-South exchange mission for 3-5 staff from the NDE to a neighbouring country (Guatemala, Honduras or Costa Rica) for national capacity building in policy formulation. This trip will facilitate close interactions with relevant Central American policy makers who were involved in development of Agroforestry policy and are currently responsible for its implementation. The selection of the country will be done with the NDE and based on the advancement and successfulness of their national agroforestry policy.						X						
Deliverables 2: i) A base line study and updated statistics on agroforestry systems by districts/sector. ii) Document summarizing permits and procedures for harvesting/transport/trade of timber produced on farms. iii) Report on the South-South exchange mission with relevant stakeholders including pictures.					X							
Output 3: ***Inter-ministerial coordination and review of the current legal framework to identify gaps and opportunities for policy development.***				X								
Activity 3.1: Identify main/key actors by sector (farmers, private industry, public sector, NGO's, academia, etc) involved in promotion/management of agroforestry systems (AF) in Belize.												
Activity 3.2: Gather and review of existing environmental and forestry laws to identify changes/adjudgments needed to align the potential AF policy with the current national framework. The NDE will assign an expert/focal point to coordinate the collection of data on Belize side.				X	X							
Activity 3.3: Review study cases (technical and scientific literature, experts' opinion and similar experiences) to identify lesson learned which can aid in developing the agroforestry policy, including from the CTCN technical assistance in Nepal[3]. This review will also include an analysis on gender mainstreaming in agroforestry policies.					X	X						
Deliverables 3: i) List of main actors/roles involved in AF in Belize ii) A policy brief summarizing the scope, findings, limitations and recommendations for implementing agroforestry in Belize. iii) A technical report highlighting successful cases and lessons learned on agroforestry development regionally.							X					
Output 4: ***Identification of mechanisms for promotion/diffusion of agroforestry and mainstream women participation in agroforestry.***						X	X					
Activity 4.1: By visiting agroforestry farms and interview with stakeholders, review existing barriers to the adoption of agroforestry policy and actions needed to overcome them.						X						
Activity 4.2: Review existing and potential incentives/activities to be included in the national agroforestry policy for mainstreaming women/youth participation.						X	X					
Activity 4.3: Identify existing and potential activities to mainstream women/youth participation in agroforestry.							X	X				
Deliverables 4:								X	X			

[3] https://www.ctc-n.org/technical-assistance/projects/technical-support-formulate-national-agroforestry-policy-nepal

i) A technical document containing key information on agroforestry systems related to benefits, services, barriers and incentives to mainstream agroforestry. ii) At least two fact sheets highlighting the benefits and services provided by agroforestry incentives/schemes. A technical report documenting the analysis of gender mainstreaming in agroforestry policies.												
Output 5: ***National coordination and preparation of the draft of the national agroforestry policy.***									X			
Activity 5.1: Encourage the formation of a national task force to oversee the agroforestry formulation process.									X	X		
Activity 5.2: Schedule regular intersectoral /meetings for better policy coherence and synergies.										X		
Activity 5.3: Elaborate a first draft of the national agroforestry policy in coordination with related states authorities and key stakeholders.										X	X	
Deliverables 5: i) Technical guidelines to set up and articulate a national task force to mainstream agroforestry. ii) Report on meetings with relevant stakeholders. iii) First draft of the agroforestry policy.											X	
Output 6: ***Consultation meeting of the first draft of the agroforestry policy conducted by district.***										X	X	
Activity 6.1: Organize consultation meetings with key stakeholders across the country: three events (according to its representation in terms of agroforestry coverage) for a total of 30-40 participants (10-12 per event) seeking for feedback on the draft of the policy).										X	X	
Activity 6.2: Consolidated draft (final draft) of the agroforestry policy based on outcomes from activity 6.1.									X	X		
Activity 6.3: Organize an intermediate consulting workshop with the national task force to share the consolidated policy draft.									X	X		
Deliverables 6: i) Report on consultation meetings including photos and media coverage (if any). ii) Report on the intermediate consulting workshop with the national task force. iii) Final draft of the agroforestry policy.										X	X	
Output 7: ***Preparation and presentation of the final draft of the national agroforestry policy.***										X	X	
Activity 7.1: Organize a national workshop to present the agroforestry policy to several stakeholders (maximum 30 participants).											X	
Deliverables 7: i) Report on the national workshop, including pictures and communication materials (including an online bulletin to share among stakeholders).												X

4. Resources required and itemized budget:

Please provide an indicative overview of the resources required and itemized budget required to implement the CTCN technical assistance, including for M&E-related activities, using the table below. 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**	
					Minimum	**Maximum**
Output 1: ***Development of implementation planning and communication documents.***	*Monitoring and Evaluation Scientist (1-2-man days). Agroforestry expert (1-2 man days). Gender expert (1-2 work days). Policy impact expert (1-2 man days) (for the Monitoring and Evaluation plan, the Closure and Data collection report, and the reviewing of relevant deliverables).*	*Desk job, gathering of existing data, review of current documentation*	*N/A*	*N/A*	*US$ 2,800*	*US$ 3,200*
Output 2: ***National assessment of the current state of agroforestry by sector (base line study)***	*Agroforestry expert (30-man days). Monitoring and Evaluation Specialist (5-man days). Climate Change Specialist (5-man days). Rural development (10-man days).*	*One field trip to the country (max. 5 days) to participate to the kick off meeting. One mission to the region*	*Meetings with relevant decision makers. Educational trip to gain insights on policy development (5 participants within Central America (3 days trip)*	*Car rental (5 days). Plane tickets (10 tickets). Accommodation for 4 days and meals for participants.*	*US$25000*	*US$29850*
Output 3: ***Inter-ministerial coordination and Review of the current legal framework to identify gaps and opportunities for policy development.***	*Policy/Impact specialist (20-man days). Climate Change Senior Specialist (5-man days). Gender expert (10-man days). Rural development (5-man days)*	*Desk job, gathering of existing data, review of current documentation.*	*Online interviews with key stakeholders and/or targeted surveys as needed.*	*N/A*	*US$10300*	*US$14800*

Output 4: ***Identification of mechanisms for promotion/diffusion of agroforestry and mainstream women participation in agroforestry.***	*Gender expert (15-man days). Agroforestry expert (10-man days). Monitoring and Evaluation Specialist (5-man days). Climate Change Senior Specialist (5-man days).*	*One mission: 10 days visiting agroforestry farms and interviews with stakeholders.*	*At least 6 on-farm experiences are documented, and lessons learned presented in deliverable 4 (as fact sheets). At least one online bulletin regarding women participation in agroforestry is published.*	*Car rental (10 days). Editing and publishing services for the bulletin and documented experiences.*	*US$22000*	*US$27100*
Output 5: ***National coordination and preparation of the draft of the national agroforestry policy.***	*Agroforestry expert (15-man days). Rural development (10-man days). Tropical agriculture expert (10-man days). Gender expert (10-man days).*	*1 mission (5 days max)*	*Meetings with private sector, organized farmers, NGOs and authorities.*	*Car rental (5 days). Plane ticket for 5 persons integrating the official mission to Belize.*	*US$14800*	*US$17400*
Output 6: ***Consultation meetings of the first draft of the agroforestry policy conducted by district.***	*Tropical Agriculture expert (5-man days). Rural development expert (5-man days). Gender expert (5-man days). Monitoring and Evaluation Specialist (5-man days). Agroforestry expert (5-man days).*	*Six consultation meetings with stakeholders (one event per district for a total six days). One post-consultation meetings with decision makers to address feedback*	*Six workshops (10-12 participants per workshop), at least 40 stakeholders will be consulted. Each workshop 1-day maximum. One workshop with at least 10 participants*	*Venue cost and refreshments.* *Venue cost and refreshments*	*US$21650*	*US$27500*
Output 7: Preparation and presentation of the final draft of the national agroforestry policy.	*Climate Change Senior Specialist (5-man days). Agroforestry specialist (5-man days). Policy/Impact specialist (10-man days).*	*1 sharing event.*	*Sharing event for maximum 30 participants*	*Venue cost and meals*	*US$7150*	*US$8700*
Estimated range of costing for the entire Response Plan					***US$103700***	***US$128550***

5. Profile and experience of experts

Experts required	Brief description of required profile
Agroforestry Expert/Specialist	Robust background and expertise in research, innovation, experimentation and development of Agroforestry plans/ strategies with a climate change angle; at least 10 years working with agroforestry/forestry in Central America; knowledgeable of the agricultural context in Belize; fluent in both English and Spanish; strong writing and presentation skills; competent user of statistical software. (Expected workload: 60-man days).
Policy and Impact Specialist	Solid background in forestry management and tree plantation, with a climate change angle; experience of at least 5 years working with forestry/agroforestry policy definition and development; knowledgeable of environmental laws in Belize; fluent in both English and Spanish. (Expected workload: 30-man days).
Monitoring and Evaluation Scientist	Working experience in Planning, Monitoring and Evaluation in climate projects; at least 5 years relevant experience and knowledge of monitoring and evaluation with good knowledge of rural development and challenges in Central America and Belize, particularly in the areas of implementation, project management, information technology and agroforestry development programmes, as well as agriculture; experience in monitoring, evaluation, research and learning, including participatory planning. (Expected workload: 15-man days)
Climate Change Senior Specialist	Strong background and expertise in conservation and climate change related projects; experience of at least 10 years working with environmental legislation/decision making processes in Central America; knowledgeable of the environmental legal framework of Belize; fluent in both English and Spanish; strong writing and presentation skills. (Expected workload: 20-man days).
Rural Development Expert	Strong expertise in rural development and land use planning; experience of at least 5 years working with NGOs and national organizationl; knowledgeable of participative land planning; fluent in both English and Spanish. (Expected workload: 25-man days).
Tropical Agriculture Expert	Solid knowledge in both traditional and commercial agriculture, including Climate-smart agriculture technologies; experience of at least 5 years working with agriculture/livestock projects; knowledgeable of the agricultural context in Belizefluent in both English and Spanish. (Expected workload: 15-man days).
Gender expert/Specialist	In-depth knowledge in social development and gender theory, policy and practice; at least 10 years of experience in poverty and social analysis; general knowledge of rural development in Central America and Belize; knowledge on key cross-cutting issues including gender, equality, and right based approach; understanding of Belize's government ministries/departments and other stakeholders in agriculture and forestry sectors including their capacity, strengths and weaknesses; fluent in both English and Spanish. (Expected workload: 30-man days).

6. Intended contribution to impact over time

Overall, the national agroforestry policy (NAP) will 1) lead to identification of suitable agroforestry systems and promote the deployment in Belize, 2) Increased tree cover promoted by the NAP will increase carbon sequestration level, 3) Increased tree cover promoted by the NAP is expected to reduce the climate vulnerability and 4) the NAP will facilitate increased funding by both the Government and private sector to use agroforestry for mitigation and adaptation to climate change. It is estimated that agricultural land could store on average 56.5 tC/ha (>75% in trees)[4], therefore implementing agroforestry on 0.8 million ha of agricultural land in Belize (or 38% of the land area) will potentially store 45 million tC. It is estimated that 24 000 ha is sugar cane, 19 000 ha in citrus, 15 000 ha is corn and 61 000 ha in pasture grazed by some 80,000 head of cattle (FAO 2011). The NAP (its benefits/incentives) will target the agriculture sector in Belize, which is characterized by three main sub-sectors: a) a well-organized traditional export sector for sugar, banana, citrus and marine products, b) a more traditional small-scale farm sector, producing food mainly for local consumption and, c) a well-integrated large-scale commercial sector. The NAP will also benefit over half the country's population living in rural Belize (about 161,226 inhabitants) since trees on farms can generate family benefit of USD 544 ha^{-1} $year^{-1}$ of which, 86% or USD 469 ha^{-1} represents on-farm consumption. Farms also produce USD 6000 ha^{-1} of standing timber and USD 850 ha^{-1} of firewood[5]. Fruit trees will provide a steady monthly supply of fruits for consumption and sale year-round. Mainstreaming agroforestry in Belize will aid the GOB in addressing food security, poverty alleviation and enhance the adaptive capacity and mitigation potential of agricultural landscapes.

7. Relevance to NDCs and other national priorities

The request was developed by the National Climate Change Office, along with the National Designated Entity, considering the needs of farmers and relevant stakeholders and the need for a policy to mainstream agroforestry countrywide. The CEO of the Ministry of Fisheries, Forestry, the Environment, and Sustainable Development sees agroforestry as a crucial step in conserving forests and in building resilience against climate change. The technical assistance requested is in line with the following national priorities: 1) Nationally Determined Contribution (NDC) – 2016, the NDC places great emphasis on sustainable forest management and one way to achieve this is through agroforestry. This can be found in Section 3, Mitigation, on page 4, under the activity "reserves and sustainable forest management.'' Agriculture and forestry are also both identified as priorities, emphasizing sustainable management of resources and increasing resilience against climate change, in Section 4, Adaptation, under "Priority Sectors" on pages 12 and 13. 2) TNA – Mitigation – September 2017: Agroforestry was identified as a prioritized sector in the preparation of the TNA Mitigation Report. It is discussed throughout the report. 3) TNA – Adaptation – June 2017: Agroforestry was also identified as a prioritized technology for the adaptation of the agriculture sector to climate change in the TNA Adaptation Report. It is discussed throughout the report. 4) National Forest Policy - 2015: The policy identifies the importance of developing the capacity of individuals in agroforestry for sustainable management of private lands and forests in buffer communities. 5) National Food and Agriculture Policy – 2002 – 2020 (NFAP): The NFAP states that the Agriculture Department will promote agroforestry to farmers and businessmen. 6) Third National Communication (TNC) – 2016: The TNC emphasize the importance of agroforestry for the country's development. 7) National Climate Change Policy Strategy and Action Plan: Page 95 of the policy states the main objective of interventions in the agriculture sector while page 98 states the objectives for interventions for the forestry sector. Several government officials in the Ministry of Fisheries, Forestry, the Environment and Sustainable Development, as well as other line ministries, have also expressed the importance of implementing agroforestry to ensure sustainable

[4] Zomer, R. J., Neufeldt, H., Xu, J., Ahrends, A., Bossio, D., Trabucco, A., . . . Wang, M. (2016). Global Tree Cover and Biomass Carbon on Agricultural Land: The contribution of agroforestry to global and national carbon budgets. *Sci Rep, 6*, 29987. doi:10.1038/srep29987

[5] Cerda, R., Deheuvels, O., Calvache, D., Niehaus, L., Saenz, Y., Kent, J., . . . Somarriba, E. (2014). Contribution of cocoa agroforestry systems to family income and domestic consumption: looking toward intensification. *Agrof Syst., 88*(6), 957-981. doi:10.1007/s10457-014-9691-

management of Belize's resources. Many NGOs and farming groups have proven that agroforestry can be successful in Belize (refer to section 1).

8. Linkages to relevant parallel on-going activities:

This CTCN request is aligned with various ongoing agroforestry projects/programs including: 1) the Ya'axché Conservation Trust (YCT)[6], which has been leading a program focused on cacao farming, honey and vegetables production. In June 2016, YCT partnered with the University of Missouri and the University of Belize – Environmental Research Institute to host a three-day training workshop on agroforestry, 2) the Belize Foundation for Research and Environmental Education (BFREE) also has a successful model, they have developed over 13 acres of certified organic shade grown cacao and coffee for their Belize Cacao-based Agroforestry Project (The 5-year project began in October 2012), 3) the Caribbean Agriculture Research and Development Institute (CARDI)[7] which carries out teaching, research and development functions in rural Belize, 4) Friends for Conservation and Development which conducts preservation and outreach actions in partnerships with local groups and NGOs, 5) the Belize Livestock producers association[8], which recently signed a 2-year collaboration agreement with CATIE to support climate smart livestock practices among 250 cattle farmers. The project implements sustainable best practices and intensive climate-smart production technologies for small and medium cattle farmers in Belize, aimed at increasing their productivity and reducing both their climate change vulnerability and CO_2 emissions. New green finance loans tailored to the sector will allow producers to adopt such technologies; 6) the organized private sector (i.e sugar and orange growers associations) to channel efforts and funds to run a wide consultation process and maximize future policy benefits. Finally, this request will collaborate with the Food and Agriculture Organization (FAO) which will provide technical assistance and expertise during the agroforestry assessment and review of current legal framework. Currently, FAO provides guidance to the Government of Belize to establish the Belize Agriculture Information Management System (BAIMS) and the 2018 National Agricultural Census (NAC)[9]. This project was funded by the Interamerican Development bank and the Ministry of Agriculture. The NAC (begun on August 6, 2018 will end on June 14, 2019), represents a unique opportunity to gather accurate, timely and reliable information regarding the contribution of agroforestry and agriculture to the socioeconomic development of Belize and support evidence-based decision making by the Ministry.

[6] https://yaaxche.org/
[7] http://www.cardi.org/country-offices/belize/
[8] http://www.belizelivestock.org/
[9] https://www.agriculture.gov.bz/2018-belize-national-agriculture-census/

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

Once the National Agroforestry Policy (NAP) has been developed and approved the following activities can be pursued: 1) the government of Belize (GOB) will strengthen national authorities to oversee agroforestry implementation/diffusion. This task force will provide a multi-layered and multi-stakeholder consultation platform to get the inputs from all concerned, and to ensure stakeholder participation from the beginning in such processes, 2) building a comprehensive and integrated NAP itself will enhance and update capacity of the national authorities regarding policy development and implementation, 3) regulators and users of the NAP will be able to identify contradictory and prohibitive regulations through analysis of existing policies of agriculture and forestry sectors that hamper the mainstreaming of agroforestry, and to use the information for tackling those hurdles by articulating the solutions in the NAP, 4) the contribution of agroforestry systems to store carbon and consequently to mitigate GHG emissions will be known and could be accounted in national carbon budget, 5) research findings and experimental work conducted will be published and made available for use by practitioners and farmers to improve the design and management of agroforestry systems, 6) simplified but effective legal procedures to plant, manage, harvest and trade timber from agricultural fields will set a roadmap to curve illegal logging from protected areas and will reduce pressure on remaining forests, 7) the NAP will support implementation of more agroforestry projects, 8) mainstreaming women and youth participation in agroforestry training/research/experimentation will create an avenue to better engage them in decision-making activities, 9) One of the recommendations in the NAP document will be to establish a National Agroforestry Fund to promote nationwide expansion of agroforestry and 10) the NAP will facilitate a friendly environment to increase funding by both the GOB and private sector to use agroforestry for mitigation and adaptation to climate change, 10) continuous research and development into obtaining access to inputs needed for agroforestry, such as seed and germplasm, land tenure, water resources, capital, 11) formation of partnerships locally to internationally for the proper implementation of the policy and to enhance the practice and impact of agroforestry.

10. Gender and co-benefits:

Imbedded in design of the activities:	The development of a national agroforestry policy (NAP) will identify and promote both the role of women and youth in mainstreaming agroforestry (Output 4, Activity 4.1). Specific spaces/business models and entrepreneurships opportunities will be identified, and incentives will be fostered to create an avenue for women and youth engagement (Output 4, Activity 4.2). The role and potential involvement of women in establishing nurseries, production of quality planting material; and in production, collection, and distribution/sale of tree seeds and other products will be promoted and strengthened (Output 4, Activity 4.3).
Gender and co-benefits intended as result of the activities:	Despite their crucial role in agriculture, women in Belize remain disadvantaged due to cultural, social and economic factors. These factors usually include limited access to resources and restricted participation in household decision making. An increased participation of women and youth in agroforestry research/experimentation and innovation will increase the availability and foster the employability of qualified human resources. Through such activities, women will play a pivotal role in increasing tree cover and enhancing the climate resilience of communities in particular and of Belize in general. In this regard, several agroforestry systems are proposed for each district to foster women's participation, increase tree cover and curve deforestation at a national scale:

System	Districts					
	Toledo	Stand Creek	Cayo	Belize	O. Walk	Corozal
Existing						
Home gardens	X	X	X	X	X	X
Live fencing			X			
Pasture with trees	X		X	X	X	
"Milpa" cultivation	X	X	X	X	X	
Taungya		X	X			
Orchards with crops	X					
Cacao with shade trees	X					
New						
Fodder banks	X		X	X	X	X
Short fallow systems	X	X	X			
Mixed intercropping	X		X	X	X	X
Multi-strata combinations		X		X	X	
Cover crops with perennials		X				

11. Main in-country stakeholders in implementation of the technical assistance activities:

In country stakeholder	Role in implementation of the technical assistance
National Climate Change Office, Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development, and Immigration.	NDE. Review of deliverables and assignments of one expert to coordinate the activities with implementer and provide access to data on legal framework, ongoing Agriculture Census, 2018, as well as on FAO project progress. Oversight, planning and coordination of all activities being implemented.
Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development, and Immigration	Providing oversight, direction and coordination to all activities. Ensuring that the deliverables of the project have widespread government support.
Agriculture Department	Technical and logistical assistance, provision of information and resources.
Forest Department	Technical and logistical assistance, provision of information and resources
Center for Research and Innovation, University of Belize	Assessment of the agroforestry sector (base line study)
The Belize Foundation for Research and Environmental Education.	Capacity building, consultation and dissemination
Ya'axché Conservation Trust (YCT)	Capacity building, consultation and dissemination
Friends for Conservation and Development (FCD)	Capacity building and country consultation
Caribbean Agriculture Research and Development Institute (CARDI)	Capacity building and country consultation
Belize Sugar Cane Farmers Association	Country consultation
Belize Livestock Farmers Association	Country consultation
Belize Orange Farmers Association	Country consultation

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	Improve family nutrition and food security from increased crop production and yields

		and diversified forest products; hunger alleviation; promote sustainable management practices
3	Ensure healthy lives and promote well-being for all at all ages	N/A
4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	N/A
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	N/A
	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix	N/A
	7.3 - By 2030, double the global rate of improvement in energy efficiency	N/A
	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	N/A
	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	N/A
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	Tool for climate change adaptation and mitigation; reduce impact of climate change by storing carbon through agroforestry activities; increased resilience of farmers
	13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	The agroforestry policy will seek, strengthen and encourage private-public partnerships to foster sustainable management of natural resources.
	13.2 - Integrate climate change measures into national policies, strategies and planning	Develop a comprehensive and integrated agroforestry policy to reduce pressure on remaining forests.
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Benefits and environmental services provided by agroforestry are highlighted and known by key stakeholders; trainings are executed for capacity building; continuous community outreach.
	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	Protection of forests through increased production of forest products and environmental services outside forested areas.
	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	Findings/recommendations/lessons learned from ongoing agroforestry projects/research will serve as corner stone to scale up climate-smart agriculture.
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 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	☐	☐

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.