6GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project
TYPE OF TRUST FUND:Capacity Building Initiative for Transparency

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PART I: PROJECT INFORMATION

Project Title:	Enhancing and bridging knowledge gaps in Sri Lanka's NDC implementation of AFOLU sector for Enhanced Transparency Framework (ETF)		
Country(ies):	Sri Lanka	GEF Project ID:[1]	
GEF Agency(ies):	FAO (select) (select)	GEF Agency Project ID:	648843
Other Executing Partner(s):	Ministry of Mahaweli Development and Environment, (Climate Change Secretariat); Ministry of Sustainable Development and Tourism; Ministry of Agriculture and Ministry of Land	Submission Date:	7 May 2018
GEF Focal Area(s):	Climate change (CBIT)	Project Duration (Months)	24 months
Integrated Approach Pilot	IAP-Cities ☐ IAP-Commodities ☐ IAP-Food Security ☐	Corporate Program: SGP ☐	
Name of parent program:	[if applicable]	Agency Fee ($)	82,008

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	**Trust Fund**	**(in $)**	
		GEF Project Financing	**Co-financing**
(select) (select) CBIT OI 3: MRV systems for emissions reductions in place and reporting verified data.	CBIT	431,621	**898,000**
(select) (select) CBIT OI 7: Number of countries meeting Convention reporting requirements and including mitigation contributions.	CBIT	431,621	**898,000**
Total Project Cost		863,242	**1,796,000**

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: By 2020, Sri Lanka is preparing reports to the UNFCCC under the Paris Agreement Enhanced Transparency Framework (ETF) covering all components identified in Sri Lanka's Nationally-Determined Contribution (NDC), including strengthened agriculture and land use sector components, inventories of emissions sources and sinks and information necessary to track progress against priority actions in the NDC.

Project Components	**Financing Type[3]**	**Project Outcomes**	**Project Outputs**	**Trust Fund**	**(in $)**	
					GEF Project Financing	**Co-financing**
Component 1. Institutional arrangements to coordinate preparation of ETF reports for agriculture, land-use	TA	1.1 Institutional arrangements coordinating information and data collection from the agriculture and land use sectors into ETF	1.1.1 Coordination mechanism established/strengthened integrating relevant authorities from the agriculture and land use sector	CBIT	309,765	900,000

[1] Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.
[2] When completing Table A, refer to the excerpts on GEF 6 Results Frameworks for GETF, LDCF and SCCF and CBIT guidelines.
[3] Financing type can be either investment or technical assistance.

and other relevant sectors enhanced.		processes and reports enhanced.	into national UNFCCC reporting processes. 1.1.2. Assessment prepared to assess institutional, data collection, analysis and reporting capacity gas and needs for meeting ETF requirements with specific focus on the priority NDC actions for the agriculture and land-use sectors. 1.1.3. National ETF monitoring and reporting roadmap for the agriculture and land-use sectors prepared and adopted. 1.1.4. Capacity developed to clarify measurement and reporting of key NDC information (baselines, Business-As-Usual targets) and support provided for ETF reporting in the agriculture and land-use sectors. 1.1.5. Sri Lanka's engagement strengthened in the agriculture and land-use sectors with international transparency-related processes under the UNFCCC.			
		1.2 Best practices on ETF reporting processes, information gathering, system infrastructure, methodologies in the agriculture and land-use sectors disseminated to relevant priority sectors (e.g. energy,	1.2.1 Multi-sectoral coordination mechanism strengthened integrating relevant authorities into national UNFCCC reporting processes. 1.2.2 ETF lessons learned from			

		industry/trade, transportation).	agriculture and land-use sectors monitored, captured, scaled up and shared to enhance wider national reporting. 1.2.3 Peer exchange program on transparency activities established for relevant priority sectors.			
Component 2. Capacity to assess and report emissions and removals from agriculture and land-use sectors and to design and monitor related emission reduction activities strengthened	TA	2.1 2.1. Reporting on inventories of emissions sources and sinks and mitigation activities from agriculture and land-use sectors strengthened	2.1.1. Regular and systematic documentation and archiving process established to ensure accuracy and sustainability of the inventory, including quality assurance and quality control, in the agriculture and land-use sectors 2.1.2. GHG Information Management System (IMS) and infrastructure for agriculture and land-use sectors upgraded (interface w/ 3.1.3) 2.1.3. Capacity and system hardware developed for relevant institutions at different levels to adopt and mainstream latest tools and methodologies to develop country-specific emission factors (EFs), improve activity data (AD) and better quantify the impact of mitigation policy measures in the agriculture and land-use sectors (inter-face w/ 3.1.4). 2.1.4. National/sectoral reports prepared and	CBIT	237,500	310,000

			submitted on inventory of emissions sources and sinks and emissions reduction activities from agriculture and land-use sectors consistent with latest UNFCCC guidance			
Component 3. Capacity to implement, monitor and report *adaptation* activities and actions in agriculture and land-use sectors strengthened	TA	3.1 Monitoring and reporting of NDC priority adaptation actions in the agriculture and land-use sectors strengthened	3.1.1. Assessment prepared of relevant good practice methodologies and frameworks for monitoring and reporting NDC priority adaptation actions in the agriculture and land-use sectors 3.1.2. National/sectoral appropriate indicators and monitoring and reporting framework developed for NDC priority adaptation actions in the agriculture and land-use sectors 3.1.3. Adaptation Information Management System (IMS) and system infrastructure for agriculture and land-use sectors upgraded (interface w/ 2.1.2) 3.1.4. Capacity and system infrastructure developed supporting relevant institutions at different levels to adopt and mainstream monitoring and reporting processes for NDC priority adaptation actions in the agriculture and land-use sectors (interface w/ 2.1.3). 3.1.5. National reports prepared and submitted on priority	CBIT	237,500	586,000

			adaptation activities in the agriculture and land-use sectors consistent with latest UNFCCC guidance			
				Subtotal	784,765	1,796,000
				Project Management Cost (PMC)[4]	CBIT	78,477	
				Total Project Cost	863,242	1,796,000

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: (N/A)

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Recipient Government	Ministry of Mahaweli Development and Environment, (Source of co-financing of component -1 is ESCAMP project (paragraph 38), and co-finance 2 and 3 are forest department expenditure)	In-kind	1,596,000
GEF Agency	FAO	Cash	200,000
Total Co-financing			1,796,000

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS [a)]

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee (b)[b)]	Total (c)=a+b
FAO	CBIT	Sri Lanka	Climate Change	Cross-Cutting Capacity	863,242	82,008	945,250
Total GEF Resources					863,242	82,008	945,250

a) Refer to the Fee Policy for GEF Partner Agencies.

E. PROJECT PREPARATION GRANT (PPG)[5]

Is Project Preparation Grant requested? Yes ☒ No ☐ If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

Project Preparation Grant amount requested: $50,000					PPG Agency Fee: 4,750		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in $)		
					PPG (a)	Agency Fee[6] (b)	Total c = a + b
FAO	CBIT	Sri Lanka	Climate Change	Cross-Cutting Capac	50,000	4,750	54,750
Total PPG Amount					50,000	4,750	54,750

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

[5] PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to $50k for PF up to$2m (for MSP); up to $100k for PF up to $3m; $150k for PF up to $6m; $200k for PF up to $10m; and $300k for PF above $10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

[6] PPG fee %age follows the %age of the Agency fee over the GEF Project Financing amount requested.

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS[7]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*Hectares*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*Hectares*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	*Number of freshwater basins*
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*% of fisheries, by volume*
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO_{2e} mitigated (include both direct and indirect)	*metric tons*
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	*metric tons*
	Reduction of 1000 tons of Mercury	*metric tons*
	Phase-out of 303.44 tons of ODP (HCFC)	*ODP tons*
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	*Number of Countries: 1*
	Functional environmental information systems are established to support decision-making in at least 10 countries	*Number of Countries: 1*

PART II: PROJECT JUSTIFICATION

1. *Project Description.* Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area[8] strategies, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and co-financing; 5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

- *Problem, root causes and barriers to be addressed.*

1. *Economic Development*: Economic development policies are promoting the development of private sector-led, export-oriented industries with sufficient diversification in relation to both products and geographical location. Post-conflict optimism has lifted economic growth to around 8% in 2010, the highest since economic liberalisation in 1977 (CB, 2011)[18]. This was due to growth in all sectors, and earnings from exports increased by 17.3%. The government has plans to turn Sri Lanka into an important economic hub. The government is also committed to increase trade, external competitiveness, create an enabling environment for private sector investment, and to

[7] Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF, SCCF or CBIT.

[8] For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which Aichi Target(s) the project will directly contribute to achieving.

facilitate infrastructure and reconstruction development projects that are considered vital to sustain the momentum for economic growth. It has plans to expand tourism infrastructure to build capacity for 2.5 million visitors per year by 2016. All of these factors are also expected to influence the agriculture sector and the state of forests in the country.

2. *Agriculture Sector Overview:* Over the past few decades, the importance of the agricultural sector has declined. In year 2015, it was estimated that agriculture, forestry and fishing contributed only 7.8% (11.9% in year 2010) to the country's GDP, against 26.2% (28.7% in year 2010) from industry and 56.6% (59.3% in year 2010) from the service sector.[9] However, over 30% %of Sri Lankans are employed in the agricultural sector.

3. Sri Lanka is a fertile tropical land with the potential for the cultivation and processing of a variety of crops. Sri Lanka's primary food crop is rice. Rice is cultivated during two seasons. Tea is cultivated in the central highlands and is a major source of foreign exchange. Vegetables, fruits and oilseed crops are also cultivated in the country. One of the main objectives of the Sri Lanka's National Agriculture Policy is to enhance agriculture production and ensure sustainable growth.

4. *Crops and Agriculture Intensification:* The best land for agriculture in Sri Lanka is under considerable pressure as industrialization and urban sprawl have absorbed arable land from cropping. This means that increasing quantities of food need to be produced from a shrinking land base and from marginal soils of suboptimal lands. Currently, most key food crops (given in table 1) are grown on the island. The Ministry of Agriculture Development & Agrarian Services has made agriculture intensification core to the national agriculture policy[10] highlighting to increase domestic agriculture production to ensure food and nutrition security of the nation and to enhance agriculture productivity and ensure sustainable growth as 1st and 2nd for the period respectively.*Farm chemicals:* Use of chemical fertilizers and pesticides is growing in parallel with crop production. The World Bank has found that increased use of urea and other types of chemical fertilizers is particularly common for rice and vegetable production and expected to grow in the future while also expanding to other crops (Table 5). While increased application of chemical inputs has been linked to flow-on issues including soil acidification, low soil fertility, and increased GHG emissions, the current capacity of government to monitor the purchase and use of farm chemicals remains limited.

Table 1: Fertilizer consumption (kilograms per hectare of arable land)

Country Name	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sri Lanka	304.56	259.18	287.01	255.29	291.31	288.52	311.71	281.37	229.04	257.31	199.57	161.60	245.19

5. *Livestock:* The livestock sector of Sri Lanka recorded 8% growth during 2015 with 0.6% contribution to GDP at present. The main livestock categories related to GHG emissions are buffalo, cattle, goats and swine. In year 2015 cattle population increased by 10% while buffalo population increased by 2% compared to 2014. Goat production is still recognized as a traditional form of livestock production among farmers especially in the dry zone. However, marked growth in both the population and number of farms were noted in 2015. Out of the total (358,233) goat population main part is concentrated in the dry and intermediate zones. The highest population (95,259) reported in Northern Province and 63% of total goat population is located in Eastern, Northern and North Western provinces. Swine production is mainly concentrated in western coastal belt of Sri Lanka. Total pig population has increased in 2015 by 32% while new farm registration does show a marginal growth. Out of total population (94,612) 83% of pigs are reared by farmers in Western and North Western provinces of the country.

6. *Fisheries:* The fisheries sector plays a key role in Sri Lanka's social and economic life. Fish products are an important source of animal protein for the population and the sector contributes about 2 % to GDP. Exports of fish and fishery products was 13 680 t and valued US$ 94.3 million) in 2004, while imports of fish products (mostly dried and canned) amounted to 67 284 t, valued at US$ 59.4 million. From an economic viewpoint, there is significant scope for increasing the level of contribution from the sector through increased output, exploiting the potential for value addition and import substitution. The fisheries sector of Sri Lanka consists of three main

[9] CB (2011 and 2016). Central Bank of Sri Lanka, Annual Report.
[10] MADAS,

subsectors, namely coastal; offshore and deep sea; and inland and aquaculture. These three subsectors employ around 250 000 active fishers and another 100 000 in support services. This workforce represents a population of some one million people.

7. On 26 December 2004, the fisheries sector was severely affected by tsunami tidal waves that hit two-thirds of the coastline of the island. It is estimated that nearly 80 % of active fishers were affected and more than 75 % of the fishing fleet was destroyed or damaged by the tsunami. In addition, a large number of small-scale fishing craft and fishing gear were destroyed. Of the 12 fishing harbours, 10 were severely damaged, including breakwaters, shore facilities, buildings, machinery and equipment. In addition, public and private utilities, such as ice plants, landing ports, markets and the homes of the fishing community were destroyed. Recovery of the fishing industry since the tsunami, and the changing patterns of practice in the fisheries industry in terms of the balance between offshore fisheries and onshore aquaculture (often in association with mangrove areas, or clearance of mangroves) are of significant relevance to the impact of the sector on both climate change mitigation and adaptive capacity of a significant proportion of the population.

8. *Forestry:* The total dense and open forest cover of the island (excluding forest plantations and other forms of vegetation) was estimated at 1.9 million ha in 2010 [11]. This includes 16,037 ha of mangroves. In addition, there are 79,941 ha of forest plantations. Based on the facts given in Sri Lanka Forestry Outlook, year 2009, the demand for wood and wood products is mainly met from home gardens, rubber, coconut and tea plantations, and privately held woodlots, considerably reducing the pressure on natural forests. Major challenges in the forest mapping and GHG inventory are lack of emission factors for major group of tree species. Still Sri Lanka is using Tier-1 emission factors, which needs to be improved. Unpublished data from the UN-REDD Programme suggests that total emission of from Sri Lanka's deforestation, is estimated at 4378 $MtCO_2$ eq per year., whereas carbon sequestration is estimated to be only 72 $MtCO_2$ eq.

9. Sri Lanka's forests are also important biodiversity hotspots. The importance of Sri Lanka's forests at the global level is apparent by the presence of four International Biosphere Reserves (i.e. the Sinharaja forest, Hurulu Forest Reserve, Kanneliya-Dediyagala-Nakiyadeniya Forest Reserve Complex and the Bundala National Park) and two Natural World Heritage Sites (Sinharaja forest and the Central Highlands Serial World Heritage Site comprising, Knuckles Conservation Forest (KCF), Peak Wilderness Protected Area (PWPA), and Horton Plains National Park (HPNP). High biodiversity and endemism of the Wet Zone forests,[12] is also partly why Sri Lanka (together with the Western Ghats of India) is ranked among the world's 34 biodiversity hotspots[13].

10. *Water resources:* There are three different climatic zones in the country: wet, intermediate, and dry. Annual rainfall for each climate zone is over 2,000 mm/year for wet zones, between 1,500-2,000 mm for intermediate zones and 1,500 mm/year for dry zones (IGES 2007). These different climatic zones constitute a unique natural feature of the country. These wet zone rivers carry approximately half the surface water flow, and as such, there is a large variation of surface water availability among wet zone and dry zone rivers. The rivers entirely in the dry zone receive rainfall mainly in one monsoon and one inter-monsoon period and usually the demand exceeds the supply of water in that zone.

11. There are 103 natural river basins in Sri Lanka, with a total length of about 4,500km (UNESCO and MoAIMD 2006). The largest river is the Mahaweli River with the size 335km long and 10,448 km2 (MENR and UNEP 2009). In addition, there are a significant number of reservoirs including ancient irrigation reservoirs and recently constructed multi-purpose reservoirs with a total area of 169,941 hectares. Groundwater resources in the country are estimated at about 7,800 million m^3 per year (IGES 2007; MENR and UNEP 2009; Nandalal 2010). Groundwater is the major source of water especially in rural areas, and it is estimated that about 72% of the rural population relies on groundwater for domestic use (Nandalal 2010). It is difficult to comprehend the trend of water quality in public water bodies due to lack of monitoring data. However, the Sri Lanka National Water Development Report (2006) pointed out a variety of quality concerns in Sri Lanka, including contamination by nitrate and

[11] FD unpublished provisional data from the recent forest cover mapping exercise.

[12] GOSL (2008). Nomination of the Central Highlands of Sri Lanka: its cultural and natural heritage for inscription in the world heritage list. Submitted to UNESCO by the Government of the Democratic Socialist Republic of Sri Lanka.

13 Mittermeier RA, Valladares-Pádua CB, Rylands AB, Eudey AA, Butynski TM, Ganzhorn J , Kormos, R , Aguiar, J , Walker, S. 2006. Most Endangered Primates 2004-2006. Conservation International 20:1-28.

bacteria in underground and surface waters mainly due to poor sanitation and untreated wastewater or insufficient wastewater treatment, toxic chemicals from industrial and agricultural activities, and eutrophication in lakes/reservoirs (UNESCO and MoAIMD 2006). Watershed management, both upstream and downstream, is therefore a major concern.

12. *Land tenure:* Land tenure study conducted by UN-REDD Programme provided an analysis of the tenure-related risks and benefits associated with potential policies and measures (PAMs) in the land use sector, with reference to internationally accepted definitions and standards including the Voluntary Guidelines on Governance of Tenure (VGGT), the World Bank safeguards and Cancun Safeguards for REDD+. The analysis reveals a range of tenure related risks and benefits that could result from PAM implementation. Some of the risks include: conflicts, political divisions, involuntary resettlement cases to be dealt with, loss of tenure rights with negative livelihood implications, failure to comply with the Cancun safeguards, confusion over jurisdiction, intensifying competition over resources, lack of sustainability of efforts and wasted resources. On the other hand, benefits could include enhanced carbon sequestration, better informed and equipped officers better able to perform their duties, more sustainable and productive land use, better recognition of tenure rights in development planning, more informed and engaged stakeholders, more accurate data for decision making, deterrence of encroachment, more allies among indigenous communities in efforts to protect forests, livelihood improvements, more effective enforcement and incentivized forest stewards.

13. *Land Degradation:* Land degradation occurs mainly in Sri Lanka's Dry Zone, which is conventionally defined as the area receiving less than 1900 mm of rainfall annually, where the ratio of annual rainfall to potential evaporation falls within the range 0.05 to 0.65 during a major part of the year, and with low water holding capacity of the soils. Land degradation, however, is a severe problem in the Wet Zone as well, especially mid-country where steep slopes, high intensity rainfall and inappropriate land uses have led to high rates of soil erosion and landslides. Land degradation therefore has to be treated as a problem that is widespread, occurring in all of the agro-climatic zones at varying intensities.[14]. Direct causes of degradation are deforestation, overcutting of vegetation, shifting cultivation without adequate fallow periods, overgrazing, non-adoption of soil conservation and management practices, improper crop rotations and unbalanced use of fertilizers. These direct and indirect causes must be studied scientifically for better addressing land degradation issues.

14. *Agriculture as a driver of climate change:* According to the second national communication of Sri Lanka, total CO_2 equivalent emission from agriculture is 4709 Mt comprising 3888 $MtCO_2e$ of CH_4 and 821 $MtCO_2eof\ N_2O$. Rice cultivation is the major contributor while enteric fermentation, soil, manure management and residue burning are also significant sources of these emissions. In Sri Lanka, about 71% of agricultural land holdings are less than one hectare (Department of Census and Statistics, 2004), while 66% of cropland is rain-fed (Biradar et al., 2009) and therefore increasingly vulnerable to impacts of climate variability and extremes. In 2009, agricultural sector growth was stifled by the impact of drought and delayed monsoon rains on the production of two principal crops paddy and tea (Central Bank of Sri Lanka, 2010).

15. *Climate Change vulnerabilities in the agriculture sector.* Being an island with a mountainous central-region, Sri Lanka has been historically affected by floods, droughts, landslides, coastal storms and erosion, cyclones and storm surges. Changes in rainfall distribution is clearly manifest in a higher number of intense/heavy rainfall incidents leading to floods and longer periods of consecutive dry days leading to deeper periods of drought during the dry season. Climate change will undoubtedly trigger serious impacts on the country's food insecurity and vulnerability patterns. This has been highlighted in the recent study of ESCAP (2010), with Sri Lanka identified as one of the potential hotspots of food insecurity in the Asia-Pacific region. Climate change in Sri Lanka is manifest through a slow but steadily rising temperature and erratic and unpredictable rainfall seasons. A number of meteorological studies point to a clear warming trend with both day-time maximum and night time minimum air temperatures showing increased trend at most meteorological stations in the country. Change in the temporal distribution of rainfall across these four seasons (mentioned in table 6) is already observable. Data show increased variability in three out of four monsoons, but especially pronounced during the north-east monsoon which supports agriculture in the Dry zone, especially the staple crop, rice. This spatial and intra-annual variability of rainfall has dramatically

[14] National Report on Desertification/Land Degradation in Sri Lanka, 2000

affected seasonal cropping patterns, irrigation potential and hydropower generation. Sri Lanka is affected by a number of climatic hazards and extreme events, and these are projected to worsen with climate change.

16. Sri Lanka's agriculture outside the plantation sector is dominated by farmers having small land holdings. More than 90% of the farmers have land extents less than 2 ha. Therefore, it is evident that a substantial portion of their produce is consumed domestically and output from the farms have a substantial impact of domestic food security.

17. *Sri Lanka's Nationally Determined Contribution* – Sri Lanka's NDCs comprise of following four areas;

    a. **Mitigation** - Reducing the GHG emissions against the Business-As-Usual (BAU) scenarios in the sectors of energy (electricity generation), transportation, industry, waste and **forestry**. The key contributors to GHG are Carbon Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O).

    b. **Adaptation** - Building resilience in most vulnerable communities, sectors and areas to adverse effects of climate change. Adaptation will focus on human health, food security (**agriculture, livestock and fisheries**), water and irrigation, coastal and marine, biodiversity, urban infrastructure and human settlement, tourism and recreation. Adaptation initiatives that derive mitigation co-benefits will be prioritized.

    c. **Loss and Damage** - In order to address issues related to losses and damages resulting from extreme weather events, a local mechanism will be developed in accordance with the Warsaw International Mechanism for Loss and Damage.

    d. **Means of Implementation**- External support for Finance, Technology Development and Transfer, and Capacity Building for the above sectors are considered in the implementation process of the NDCs of Sri Lanka.

18. Sri Lanka's Agriculture sector NDC: The following NDC priorities have been identified for the agriculture sectors in Sri Lanka's NDC;

    - Promote/introduce/develop Integrated Pest Management (IPM) practices to minimize pest damages to improve environmental impacts and health
      - Introduce environmentally friendly bio-degradable pesticides for IPM.
      - Introduce /promote/develop suitable bio pesticides and bio control agents for IPM.
      - Introduce/promote/develop post-harvest management with environmentally friendly technology packages.
    - Develop/introduce varieties resistant/tolerance to biotic and abiotic stresses arising from climate change
      - Introduce/promote/develop heat, draught, flood and salt tolerant varieties
      - Develop and promote mature varieties
    - Re-demarcating Agro-Ecological Regions (AERS) maps of Sri Lanka with current climate and future climate, and recommend appropriate crops for different areas to reduce vulnerability to climate change impacts.
    - Introduce suitable land and water management practices for central highlands and other marginal areas to minimize land degradation and to improve land and water productivity.

19. Sri Lanka's Livestock sector NDC: Livestock is an integral part of agricultural economy in Sri Lanka and it ensures food security, helps in reducing malnutrition and poverty. There are approximately 560,000 families directly engaged in livestock sector, i.e. dairy, poultry, goat, swine and other livestock. Dairy industry is earmarked as the priority area for investment and development in the livestock sector. The development programs launched by the Ministry of Rural Economic Affairs enabled the country to reach 42% self-sufficiency in local milk production in 2015. A major driving factor of livestock dynamics in Sri Lanka appears to be climatic variability. The rising temperature and uncertainties in rainfall associated with global warming are likely to increase the frequency and magnitude of climate variability and extremes.

20. Furthermore, changes in climate would also increase the risk of unexpected changes in nature and environment. The key risks from climate change to livestock are increased incidence of drought, flood and heat. In this context, Sri Lanka identified the following NDCs for the livestock sector in order to build resilience in the livestock sector to meet adverse impacts of climate change.

    - Identification of vulnerability in the livestock sector, with relation to the following variables:

- livestock species; agro-climate areas; farming communities; production systems; processing pathways
- Introduction of adoptive measures to avoid or minimize the adverse effects of technological innovations on animal production systems and traditional knowledge and practices, through collection and dissemination of information, capacity building and technical skills development
- Introduction of alternative measures to minimize adverse effects of climate change
- Identification of potential clean and renewable energy sources for livestock related activities
- Adaptation of integrated waste management systems
- Promotion of responsible consumption and sustainable production through promotion of green livestock procedures & processing techniques, and consumption of green livestock products
- Enhancement of education, awareness, knowledge exchange and capacity building on emerging green technologies in livestock and agriculture sectors

21. Sri Lanka's Forestry sector NDC: Proposed NDC priorities in this sector directly or indirectly influence in reduction of GHG emission by increasing the forest cover in the country to a healthy level, managing deforestation and enriching usage by introducing perennial crops during the period 2020-2030. The NDC of forestry sector of Sri Lanka are increasing the forest cover of Sri Lanka from 29.7% to 32% by 2030; identify land for reforestation/afforestation by conducting land use planning at national scale; improving quality of growing stock of natural forests and forest plantations by forest boundary demarcation and development of plantation management plans for sustainable forest management practices for productive and protective purposes; restoring degraded forests and hilltops (shrubs, grasslands and state lands); improving river basin management for major rivers of Sri Lanka through catchment-level multi-hazard prioritization; preparation of catchment management plans; demarcation and protection of riverine vegetation; afforestation of underutilized private lands and marginal tea lands, including piloting of Payment for Ecosystem Services (PES) mechanism; urban forestry (roadside planting, urban parks and other state lands); establishing a functional National Forest Monitoring System (NFMS); and promoting investment of private and public-sector companies in environmental conservation projects through Corporate Social Responsibility (CSR) programs.

22. The implementation of the above actions requires improved institutional coordination and a robust system for capturing precise data and information that is accurate and credible in reporting on GHG estimates (e.g. by sources and sinks). This requires that Sri Lanka have systems in place to track progress in achieving NDCs across priorities covering both mitigation and adaptation actions, as well as a wide range of sectors (e.g. AFOLU, energy, transport) and related sub-sectors (e.g. livestock, field crops, water and forestry).

- ***Baseline scenario and associated baseline projects***

23. At a global scale, a fundamental challenge for the successful implementation of the Paris Agreement is ensuring that the Parties can meet the reporting requirements of the Enhanced Transparency Framework (ETF) outlined in Article 13 of the Agreement. Specifically, countries are required to provide a national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases using good practice methodologies; and information necessary to track progress made in implementing and achieving NDC contributions for both mitigation and adaptation.

24. The Ministry of Mahaweli Development and Environment (MMDE) in Sri Lanka, as the National Focal Point to the United Nations Framework Convention on Climate Change (UNFCCC), submitted its Nationally Determined Contributions (NDCs) in accordance with Decision 1/CP.21 of the 21st session of the Conference of the Parties to the UNFCCC. The NDCs have been formulated based on previously submitted INDCs following the principle of common but differentiated responsibilities and respective capabilities. The information presented in the NDC is based on the data available at the time of preparation.

25. In response to challenges posed by climate change, Sri Lanka has taken several positive steps by introducing national policies, strategies and actions in order to address climate change induced impacts, amongst which are the National Climate Change Policy of Sri Lanka, National Climate Change Adaptation Strategy for Sri Lanka in 2010, the Climate Change Vulnerability Profiles; Water, Health, Agriculture and Fisheries, Urban Development, Human Settlements and Economic Infrastructure in 2010, the Technology Needs Assessment and Technology Action Plans

for Climate Change Adaptation and Mitigation in 2014, the National Action Plan for Haritha Lanka Programme in 2009 and Urban Transport Master Plan 2032 based on the National Transport Policy in 2009.

26. Further, National Adaptation Plan (NAP) for Climate Change Impacts in Sri Lanka has been developed, Nationally Appropriate Mitigation Action (NAMA) on Energy Generation and End Use Sectors is being implemented, and the NAMA on Transportation is being prepared. In addition to the aforementioned, the Long Term Electricity Generation Expansion Plan 2015- 2032 and the National Solid Waste Management Strategy 2000, the Corporate Plan 2014-2018 by the Central Environmental Authority and various legal amendments made by government entities related to environment are being implemented. In addition, Forestry Sector Master Plan 1995-2020, National REDD+ Strategy are two important initiatives towards enhancing the forest sector in the country.

27. As a small island in the Indian Ocean, the coastal region of Sri Lanka is susceptible to changes in sea level. The 2004 tsunami has indicated that low-lying plains in the coastal zone are vulnerable to any future rise in sea level and important sectors of the economy such as tourism and fisheries could be affected badly due to impacts of sea level rise. A significant population of the country is dependent on livelihoods connected to agriculture. Studies show that the food security of the nation can also be adversely affected due to impacts of climate change. Besides, a substantial share of the foreign income is generated through export crops which are highly sensitive to fluctuations of weather.

28. Emerging evidence from various sources suggest that climate change could alter natural systems connected to the water cycle, the ecosystems and the biodiversity of the country. This could lead to decline of various ecosystem services which are indispensable for the welfare of human population. In addition, impacts of climate change appear to have significant repercussions on health of the citizens and human settlements of the country.

29. Sri Lanka has taken several steps to strengthen the country's capabilities to face the challenges of climate change, especially by formulating overarching policies, national level plans and strategies. In order to address the issues in climate change a separate dedicated institution titled the Climate Change Secretariat (CCS) was created in 2008. In order to implement NDCs, a National Climate Change Commission will be established.

30. A number of projects have been implemented in support of these sector specific plans to try and improve monitoring and reporting of mitigation and adaptation outcomes in the sector. A project grant for "Preparation of Sri Lanka's Third National Communication (TNC) to the UNFCCC" was awarded in 2016. This project aims at capacity development and preparation and updating of reports on National Circumstances of Sri Lanka, Sri Lanka's National Inventory of GHG Emissions, Vulnerability and Adaptation Mitigation actions and Monitoring and Evaluation protocols. The proposed CBIT project will be coordinated with and build upon the efforts to prepare Sri Lanka's TNC under this programme. The CBIT project will provide capacity with regards to GHG emissions reductions and needs to specifically and more accurately target agriculture, land use sector components and supports received from UNFCCC to Sri Lanka since the submission of the Second National Communication (SNC).

31. Forest Department of Ministry of Mahaweli Development and Environment and Department of Wildlife Conservation of Ministry of Sustainable Development and Wildlife through project "Ecosystem Conservation and Management", P156021 (2016 to 2021) aims at improving the management of ecosystems in selected locations in Sri Lanka for conservation and community benefits. The project comprises pilot landscape planning and management, sustainable use of natural resources and human elephant co-existence and protected area management and institutional capacity building. CBIT project will also add value in streamlining and capacity building in current on-going initiatives.

32. Under the Sri Lanka UN-REDD National Programme (2013-2017) the Sri Lanka Government, in partnership with FAO, UNDP and UN Environment, has been working to establish effective National Management Systems for the REDD+ Readiness process and stakeholder engagement. As part of these programmes a national Forest Reference Emissions Level (FREL) and National Forest Monitoring System (NFMS) has been developed. This CBIT project will build upon REDD+ capacity needs assessments at national and regional levels and expand to other land-use types with a particular focus on agriculture. In doing so the proposed CBIT project will work to strengthen knowledge and institutional arrangements for data collection, storage and reporting for a range of land-uses.

Experiences accumulated by FAO and partners in developing REDD+ MRV systems and FREL will be used as the basis for designing and implementing MRV systems for agriculture activities identified in Sri Lanka's NDC.

33. Rehabilitation of degraded agricultural lands in Kandy, Badulla and Nuwara Eliya Districts in the Central Highlands GCP/SRL/063/GFF (2015 to 2019) is being implemented by the MMDE. This project is focused on maintaining and improving the flow of agro-ecosystem services to sustain livelihoods of local communities and reducing pressure on natural resources from competing land uses in the wider landscape.

34. Management of Risks Associated with Pesticide Use in Agriculture in Sri Lanka, TCP/SRL/3402, (2013 to 2015), project aimed to enhance the judicious use of pesticides by vegetable and paddy farmers in the Central, North Central, North Western and Western Provinces of Sri Lanka with regular pesticide residue monitoring system in place, minimizing environmental pollution threats from empty pesticide containers and enhancing the use of bio-pesticides in agriculture and overall promotion of good agriculture practices and provision of safe and healthy food.

35. Promoting Sustainable Biomass Production and the Modern Bio-Energy Technologies, GCP/SRL/048/GEF, (2014 to 2017) was implemented by the Ministry of Power and Energy and the MMDE. The primary goal of the project was to reduce greenhouse gas emissions from the use of fossil fuel for thermal energy generation in the Sri Lankan industrial sector, byremoving obstacles to the realization of sustainable biomass plantation, increase of market share of biomass energy generation and adoption of biomass- based energy technologies in Sri Lanka.

36. The Agro-Economic Development Project, GCP/SRL/069/CAN, funded by the Government of Canada, is a three-year Project aimed at improving the livelihood opportunities of the target communities in the North, with a focus on ensuring a greater role and engagement of women as beneficiaries, suppliers and members within producer groups and its bodies of decision-makers in the districts of Jaffna, Killinochchi and Mullaitivu in Sri Lanka. This Project, which began in December 2014, will aim to develop the sustainable Agro-Economic development in the North and will be oriented to identify livelihood support interventions beyond subsistence levels, supporting value-addition, market linkages and private sector partnerships and creating enabling environment for socio-economic recovery through the restoration of physical infrastructure and community institutions. The implementing agency is Ministry of Agriculture.

37. European Union Support to District Development Programme (EU-SDDP), GCP/SRL/062/EC (2012 to 2017) funded by the European Union is a 60-month Programme aimed at assisting Sri Lanka to make the transition from post-conflict assistance to reconstruction and development. The programme has six implementing agencies, namely, the United Nations Children's Fund (UNICEF), the International Labour Organisation (ILO), the United Nations Office for Project Services (UNOPS), the Food and Agricultural Organisation (FAO) and International Finance Corporation (IFC) and the United Nations Development Programme (UNDP). National partners are Department of Agriculture, Department of Animal Production & Health, Department of Fisheries, NAQDA and Department of Irrigation. FAO, together with UNDP, under three intervention areas is working to 'Improve sustainable livelihoods', 'Improve productive infrastructure' and 'Strengthen capacity of local producer organisations' by supporting organisations involved in key sectors of dairy, food processing, handicrafts and decorative items, commercial agriculture, fisheries, palmyrah and coir-based products. Through this collaboration, assistance is being provided to improve production, marketing and local processing activities of over 12,000 small to medium-scale producers which will ultimately contribute towards the local economic development of the respective Districts.

38. The Climate Resilient Integrated Water Management Project (CRIWMP) is a seven-year project (2017-2024) aimed at strengthening the resilience of Smallholder Farmers in Sri Lanka's Dry Zone to climate variability and extreme events. The project targets poor and vulnerable households in three river basins -the Malwathu, Mi, and Yan (rivers)- which flow through the northern part of the Dry Zone. These river basins are among the most vulnerable to the vagaries of the climate, have a high presence of village irrigation systems and cascade systems on which poor and vulnerable farming populations depend for their livelihoods, and are in areas that significantly lack safe drinking water, which pose a high risk of kidney disease. The project pioneers a holistic approach to enhancing Dry Zone water security and agricultural productivity, and for the first time in a project in Sri Lanka, will include climate smart initiatives designed to combat the effects of extreme weather events on the continuity of irrigation and drinking water supplies.

39. The MMDE, in collaboration with UNDP, developed a five-year pilot project, jointly funded by the GEF and the Government of Sri Lanka to improve the country capacity to manage Environmentally Sensitive Areas. The pilot project will be implemented in North Central and North Western provinces in the Kala Oya and Wilpattu region and the project sites include Kakirawa, Ipalogama, Palagala, Galnawa and Vanathawilluwa. Whilst several government policies and legislations provide for the creation of ESAs, there is an unmet need to operationalise them. Following the ecosystem approach and using a land use planning and management framework, the project will pilot multiple land management techniques in a coordinated and compatible manner. This project will use the necessary governance framework at the national level, including enforcement systems and will demonstrate ESA creation and management for the Kala Oya river basin. The project, launched on the on the 28th January 2016, will look at sustainable utilization of sensitive ecosystems and ensure structural long term sustainable development of the biological diversity of Sri Lanka.

40. "Strengthening capacity to control the introduction and spread of alien invasive species in Sri Lanka, GEF Project ID – 2472 (2011-2016)" will have a positive impact both at the local and global level on biodiversity conservation and human well-being. One of the major positive impacts would be the sustenance of the livelihood of those communities that rely on healthy ecosystems. Globally too, the conservation of Sri Lanka's unique biodiversity, will see positive results, such as reducing the risk to species and areas that are unique to the island and also are facing any threat. It is also anticipated that the project will be able to reduce the threats to biodiversity in other parts of the world by controlling the export of IAS from Sri Lanka.

41. Despite the past and ongoing projects to build monitoring and reporting capacity for GHG inventories and mitigation and adaptation actions, Sri Lanka's SNC prepared in 2011 indicated that insufficient technical and financial resources are still major constraints to the preparation of national communications on a continuous basis. Based on a synthesis (year 2012) of the SNC findings regarding capacity and ongoing national consultations and stocktaking exercises with responsible ETF stakeholders in Sri Lanka, a number of specific constraints for effective preparation of GHG inventories and monitoring and reporting mitigation and adaptation activities were identified (see table 7).

TABLE 2: BARRIERS AND CONSTRAINTS FOR MEETING ETF REQUIREMENTS IN SRI LANKA WITH A FOCUS ON THE AGRICULTURE AND LAND-USE SECTORS[15]

Requirements for national implementation of the ETF	Current Barriers and Constraints – Sri Lanka
Awareness and understanding of ETF reporting requirements.	• Lack of awareness regarding the Paris Agreement, the ETF and the need for enhanced transparency in monitoring and reporting of mitigation and adaptation activities.
Clear and robust ***institutional arrangements*** for coordinating sector specific information for ETF monitoring and reporting exercises	• Lack of coordination amongst relevant Ministries in the gathering of data and information needed to report progress against NDC actions in the agriculture and land-use sectors
Regular and comprehensive reporting of anthropogenic emissions ***inventories*** by sources and removals prepared using good practice methodologies accepted by IPCC and agreed upon by the Parties to the Paris Agreement.	• Lack of activity data and local emission factors. • Reliance on outdated IPCC methodologies for measurement and monitoring of emissions from the agriculture sectors. • Data classification is different from IPCC Guideline categories; particularly for LUCF. • Insufficient financial support for regular inventory preparation. • Lack of national experts for GHG inventory preparation. • Lack of harmonized, national verification processes.
Information necessary to track progress made in implementing and achieving ***mitigation*** contributions in the agriculture and land-use sectors	• Limited experience with measuring, reporting and verification (MRV) systems for emissions from the agriculture and land-use sectors • Insufficient short-term and long-term planning information and data for all sectors to conduct mitigation analysis and projections of national emissions.

[15] Technology Needs Assessment and Technology Action Plans for Climate Change Adaptation and Mitigation, Government of Sri Lanka. http://www.climatechange.lk/TNA/tna_index.html

Requirements for national implementation of the ETF	Current Barriers and Constraints – Sri Lanka
	• Financial constraints for mitigation analysis and the implementation of identified options. • Shortage of technical experts capable of conducting MRV in the agriculture and land-use sectors. • Absence of quality assurance or control mechanisms in the preparation and reporting of emissions inventories and emissions reduction activities.
Information necessary to track progress made in implementing and achieving ***adaptation*** contributions in the agriculture and land-use sectors	• Lack of harmonized indicator and monitoring systems for adaptation based on national priorities. • Weak capacity to implement monitor and evaluate field-level projects and activities in the agriculture and land-use sectors • Insufficient relevant data and information to conduct an assessment for immediate climate change adaptation action in Sri Lanka under the conditions of increased likelihood of floods and droughts. • Limited research conducted for related sectoral impact to climate change. • Shortage of capable technical experts and financial resources for adaptation activities and accompanying monitoring exercises.
Clarity on ***support received*** including information on	• Lack of financial management mechanisms to effectively implement the adaptation and mitigation options. • Lack of information on activities, projects and other information related to climate-friendly technology development and transfer.

42. Agriculture was indicated in SNC and NDC as the country's most vulnerable sector as well as the most important due to its role in providing livelihoods for the majority of the population. It was noted that coordination, knowledge and access to information among agricultural communities at a rural, provincial and national level are limited, and that targeted interventions targeting the sector could strengthen capacity to better manage climate risks.

TABLE 3: ASSESSMENT OF SRI LANKA'S BASELINE CAPACITY FOR MRV AND TRANSPARENCY BASED ON THE GEF-6 CBIT INDICATOR AND RATING SYSTEM

Indicators	Scale	Rating	Comment
Quality of MRV systems tracking results related to low-GHG development and GHG emissions mitigation.	1-10	**3**	Refer to assessment in **Table 4.** Measurement systems are in place but data is of poor quality and/or methodologies are not robust. Reporting is done only on request or to a limited audience or only partially. Verification is not practiced.
Institutional capacity for transparency related activities	1-4	**2-3**	CCS is the designated transparency institution and has some staff with some capacity to coordinate and implement transparency activities under Article 13 of the Paris Agreement. CCS has authority or mandate to coordinate transparency activities under Article 13. Lack of awareness and coordination with relevant authorities at Ministry of Mahaweli Development and Environment, Ministry of Agriculture, Ministry of Land and with provincial level authorities responsible for monitoring agriculture and land-use sector activities. Activities are not integrated into national planning or budgeting activities. Limited financial resources to carry out transparency related activities.

43. Utilizing the GEF-6 CBIT rating system outlined in the Programming Directions for CBIT, the assessment of Sri Lanka's current performance against each indicator is presented in Table 3:. This assessment indicates that the baseline capacity of Sri Lankan Government agencies to meet ETF requirements using current systems and processes is weak.

TABLE 4 ASSESSMENT OF THE QUALITY OF MRV SYSTEMS IN SRI LANKA WITH PARTICULAR FOCUS ON AGRICULTURE AND LAND-USE ACTIVITIES

	Measurement	Reporting	Verification
What	**Is what is being measured clearly defined? Are indicators associated with actions appropriate?**	**What is being reported? In what form? Is it complete information?**	**What is the process for verification?**
Sri Lanka Assessment	*Inventory is being reported using IPCC 1996 Revised Guidelines for agriculture and LULUCF.*	*Mitigation activities are not being reported in a systematic way. National REDD+ program has developed forest reference level and NFMS for future reporting of activity based changes to emissions sources and sinks; particularly with respect to forestry.*	*There is currently no verification process for mitigation activities.*
How	**Are methodologies for measurement robust? How cost effective/ efficient is it?**	**What are the reporting pathways/ formats? Accessible to how many? How cost effective is it?**	**Are methodologies for verification standard accepted? How cost effective is it?**
Sri Lanka Assessment	*Lack of reliable activity data and context specific emissions factors; particularly for agriculture. Improving activity data and developing context specific emissions factors requires investment in capacity building, hardware and systems.*	*CCS is responsible for coordinating inventory and mitigation reporting at the national level. No BUR has been submitted. Mitigation is reported on a project/activity basis and is not reported in a coordinated manner.*	*There is currently no verification process for mitigation activities.*
Who	**Who is doing the measurement? Collating the information? Analyzing it?**	**Who is responsible for reporting the information? To whom?**	**Who is doing the verification?**
Sri Lanka Assessment	*Analysis of GHG inventories and mitigation is coordinated and prepared by CCS using Tier 1 emissions factors.*	*There is currently no systematic process for actors involved in mitigation activities to register or report their activities to CCS.*	*There is currently no verification process for mitigation activities.*
When	**Is there a standard measurement cycle? Is it periodic or one-time only (eg. Project based)?**	**When is the reporting done? Does reporting match key milestones / monitoring periods (CIF reporting, Convention reporting etc)?**	**When is verification done? As a standard or only on demand for specific indicators**
Sri Lanka Assessment	*There is no standard measurement cycle. There is no systematic monitoring of mitigation projects or activities in Sri Lanka.*	*There is no standard measurement cycle for mitigation reporting. No BUR has been submitted.*	*There is currently no verification process for mitigation activities.*

44. The assessment presented above suggests that Sri Lanka is behind schedule in making tangible progress against much of the action plan presented in the **National Capacity Self-Assessment (NCSA) prepared by Ministry of Mahaweli Development and Environment in year 2006-7** for the CBD, UNFCCC and UNCCD particularly as it related to capacity to prepare GHG inventories and mitigation and adaptation monitoring and reporting systems. This project was carried out by the MMDE. The National Capacity Needs Self Assessment Project (NCSA) resulted in preparation of the NCSA Action Plan based on a thematic assessment of existing capacity to address climate change, biodiversity conservation and land degradation by the Ministry of Environment and Natural Resources (Now MMDE). Priority actions identified under the NCSA for reporting to the UNFCCC that would benefit from additional support to the agriculture and land-use sectors under CBIT are detailed in Table 5.

TABLE 5 SRI LANKA NCSA PRIORITY ACTIONS AND RELATED SECTOR-SPECIFIC GAPS/NEEDS THAT CAN BE ADDRESSED BY CBIT[16]

NCSA Priority Action No.	Description	Related sector-specific gaps/needs that can be addressed by CBIT	Relevant Project Outputs in alternate CBIT scenario
Part I - Cross Cutting Capacity Development Needs			
2	Enhance capacity for communication, education and public awareness on conservation and sustainable use of natural resources	• Capacity to enhance mitigation and adaptation outcomes of target NDC interventions	Output 1.2.1
3	Enhance capacity to integrate (mainstream) environment concerns into sectoral and cross-sectoral policies and programmes of public agencies.	• Knowledge and resources to better inform Sri Lanka's involvement in UNFCCC processes regarding transparency and sector-based target setting exercises • Support to engage in sub-national, national, regional and global peer-to-peer exchange on ETF reporting requirements	Output 1.1.4 Output 1.1.1 Output 1.2.2
6	Strengthen capacity for information management and information sharing.	• Establishment of inter departmental information sharing mechanism	Output 1.1.2
7	Enhance capacity to negotiate effectively at COPs and other global forums to fulfill national needs and interests	• Capacity to enhance mitigation and adaptation outcomes of target NDC interventions • Capacity building about GHG emission potential of proposed interventions	Output 1.1.2 Output 1.1.3 Output 1.1.4 Output 1.1.5
8	Harmonize authority and responsibility for policy determination and implementation between the central and provincial authorities	• Establishment of inter departmental information sharing mechanism • Identification of overlap areas and establishing harmonized approach for inclusivity in approach across departments • Capacity to understand national climate-risk scenarios and adjust national sector-specific adaptation planning processes accordingly	Output 1.2.1 Output 1.2.2 Output 1.2.3
9	Strengthen capacity of institutions to carry out research in relevant areas of biodiversity, climate change and land degradation.	• Capacity development of biodiversity and climate change survey	Output 1.2.3
Part II- Thematic Area Capacity Development Needs			
2	Enhance capacity to provide technology for conservation and sustainable use of land and water resources.	• Provide technology and training on (i) economical and environmentally favourable use of land and water (ii) maintaining quality of surface and ground water, and (iii) controlling soil erosion.	Output 2.1.1 Output 2. 1.3

[16] Ministry of Mahaweli Development and Environment (then Ministry of Environment and Natural Resources) National Capacity Needs Self-Assessment for Global Environmental Management, report of the NCSA Sri Lanka, UNDP / GEF, 2007

NCSA Priority Action No.	Description	Related sector-specific gaps/needs that can be addressed by CBIT	Relevant Project Outputs in alternate CBIT scenario
		• Institute systems and methods to develop and manage land, based on scientific land use principles.	
4	Improve capacity of authorities concerned to forecast and warn of adverse climatic situations. • Enhance the national climatological, meteorological and hydrological capability and means to provide early warning of drought by (i) using compatible standards and systems, (ii) encompassing a wide network of data stations, including remote areas, (iii) using modern technology for data collection, transmission and assessment, and (iv) using, as appropriate, local and traditional knowledge.	• Capacity to assess and adjust NDC ambition levels to attract international support • Capacity to monitor and report donor contributions to actions to tackle climate change drivers and impacts	Output 2.1.2 Output 2.1.3 Output 2.1.4
5	Enhance the capacity for vulnerability assessments and measures for adaptation to climate change. *Capacity enhancement required: expertise, training, linkages with external resource centres, and regular financial provisions for R and D and for payment of incentives and acquiring of technology.*	• Preparation of national sector specific adaptation indicators and systems capable of measuring progress against NDC adaptation priorities • Preparation of systems to aggregate adaptation monitoring and reporting to capture progress toward NDC adaptation priorities • Development of sector specific adaptation data management systems • Capacity to understand national climate-risk scenarios and adjust national sector-specific adaptation planning processes accordingly	Output 1.1.2 Output 1.1.3
6	Improve and extend the operation of CDM.	• Capacity to enhance mitigation and adaptation outcomes of target NDC interventions	Output 2.1.4
7	Enhance institutional capacity for multi stakeholder participation to promote conservation, management, recovery of threatened species and sustainable use of commercially important species.	• Capacity development of biodiversity survey • Completion of NCR study and harmonization with previous data	Output 2.1.2
8	Implement a multi-institutional coordinated programme to identify, design and establish a rational network of areas needing protection in accordance with the ecosystem approach.	• Capacity development of biodiversity survey	Output 2.1.2
11	Establish an effective inter institutional mechanism to identify and monitor critical components of biodiversity and threats to biodiversity	• Training on biodiversity monitoring and • Permanent sample plot design in NFI sites	Output 2.1.2

45. Without intervention by the GEF through CBIT, the Government will continue to have underdeveloped capacity to meet the enhanced transparency requirements for reporting against NDC actions and related national plans -- most notably in the agriculture and land-use sectors. As these sectors are particularly important to the development trajectory and emissions profile of Sri Lanka, focused attention on improving transparency systems and processes in these sectors need to be prioritized. However, lessons learned from action in these sectors will also be relevant to other relevant Sri Lankan sectors (e.g. industry, construction, transportation), which will be engaged with and informed by the activities of this project. It is likely that without intervention, emissions from the sector will be measured using outdated methodologies, and technology reports will be produced without proper quality assurance mechanisms and adaptation actions will be poorly monitored and reported. The continuation of this baseline scenario would be inconsistent with the spirit of the Paris Agreement, the ETF and the establishment of the CBIT.

- *The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the project*

46. The GEF alternative scenario is to develop and implement a capacity building program that will draw upon the CBIT fund to ensure that by 2020 Sri Lanka is preparing reports from the agriculture and land use sectors consistent with the requirements of the ETF, including more up-to-date inventories of emissions sources and sinks using advanced IPCC guidance and information necessary to track progress against priority actions identified in Sri Lanka's NDC. This program will target capacity building activities under three components, and in three key areas:

47. ***Component 1. Institutional arrangements for transparency***: Activities under this component will address barriers associated with institutional coordination and awareness to ensure that information and data from the agriculture and land-use sectors is coordinated and integrated into national ETF processes and reports. Activities implemented under this component will be closely coordinated with other relevant activities on mitigation and adaptation M&E and knowledge management being implemented under the implementation of Sri Lanka's National REDD+ Investment Framework and Action Plan (NRIFAP). During Sri Lanka UN-REDD Programme, REDD+ Advisory and Coordination Board (RACB) was established comprising 12 Ministries, 15 State agencies, 2 Civil Society Organizations, 2 IPs & Local groups, 2 private sector representatives and 2 academics, totaling 35 members. The RACB is chaired by the Secretary to the Ministry of Mahaweli Development & Environment. The RACB was responsible for ensuring the efficient and transparent decision-making over the implementation of the National REDD+ Investment Framework Action Plan (NRIFAP) and for the overall strategic coordination of all REDD+ PAMs, supported by various development partners and national institutions. The RACB ensured greater coherence of efforts by the GoSL to implement the NRIFAP and provided regular and timely information on its execution. The RACB was supported by the REDD+ Technical Secretariat (REDD+ TS) for the day-to-day operation and coordination of the NRIFAP implementation. CBIT will support RACB in organizing regular meeting (twice a year) to discuss policy decisions and way forwards. In addition, CBIT will also support institutional mechanism for NDC implementation, TNC development and National Steering Committee, Advisory Board and Planning and Regulatory Committee of UNDP lead NAMA project which has three pilot projects and has already started developing data base for Transport and Energy MRV system.

48. Outcome 1.1. will support coordination, education and capacity building activities that include: establishment of institutional coordination mechanisms for ETF reporting in the agriculture and land-use sectors *(Output 1.1.1)*; preparation of a detailed capacity gaps and needs assessment for transparency based upon Sri Lanka's NDC priority actions (*Output 1.1.2*); and formulation of a national roadmap for enhanced transparency (*Output 1.1.3*). Activities will also provide support for using available activity data to establish more robust baseline scenarios and benchmarking processes to facilitate tracking of progress in achieving NDC targets for the agriculture and land-use sectors and, eventually, improved capacity for periodically changing ambition levels associated with activity targets (*Output 1.1.4*). Under this Outcome support will also be provided to relevant agencies to engage in global capacity building efforts in the lead up to the Paris Agreement commitment period.

49. As noted above, some lessons learned have already been developed through the MRV/accounting systems and process established between 2013-7 under the Sri Lanka UN-REDD National Programme, and follow-up actions

to this work have been elaborated in the NRIFAP, approved by MMDE in May 2017. The proposed CBIT project activities will leverage these experiences to incrementally build capacity amongst agriculture sector stakeholders and then expand out by engaging with other sectors through a national program of capacity building with Outcome 1.2. Activities under the Outcome specifically targets and informs other important national sectors, and a multi-sectoral, national level coordination mechanism will be strengthened to integrate relevant authorities into UNFCCC reporting processes (i.e. including industry/trade, construction, energy and transportation, and other sectors to be determined).

50. Existing multi-sectoral coordination mechanisms established via parallel programs will be used as platforms to disseminate lessons learned and relevant tools from the agriculture and land-use sectors under the proposed CBIT project (*Outputs 1.2.1 and 1.2.2*). A core delivery method for capacity building will be a series of peer-to-peer exchanges with relevant agencies at the national level responsible for NDC priorities in other sectors (*Output 1.2.3*).

51. ***Component 2: Transparency for monitoring and reporting emissions and emissions reductions***: Under this component, activities will be designed to address barriers for improved reporting of GHG emissions and removals from the agriculture and land-use sectors and establish more advanced measurement, monitoring and reporting systems for priority NDC emissions reduction actions in these sectors.

52. Under Outcome 2.1 the proposed CBIT project will work towards regular, reliable and systematic archiving processes, including quality assurance and control for data and information produced and reported for sector-specific inventories of GHG source and sinks (*Output 2.1.1*). These processes will also underpin more effective measurement, monitoring and reporting of mitigation activities in the agriculture and land-use sectors.

53. A dedicated information management system (MIS) for agriculture and land-use activities involving investment in basic but critical IT hardware and system infrastructure to store and manage existing and projected GHG emissions data and information requirements and drawing together data and information from relevant agencies and projects in the agriculture and land-use sectors will be established. These investments will be supplemented with training and capacity building activities for system administrators and agency focal points to enable staff to adhere to reporting protocols and data standards (*Output 2.1.2*). Systems and protocols will also be established to better monitor contributions from donors and other sources to support implementation of NDC mitigation contributions in the agriculture and land-use sectors. Capacity building activities will include establishing processes to ensure the reliability and sustainability of the inventory monitoring, including quality assurance and quality control, in the agriculture and land-use sectors.

54. Through investment in capacity building and measurement technology at local universities and research institutions, the proposed CBIT project will also enable the adoption of improved GHG inventory standards in the agriculture and land-use sectors and enable enhanced field-level GHG monitoring systems (*Output 2.1.3*). Targeted investments in mobile data collection hardware and applications will be applied to expand geographical coverage. Activities will also include training and support for national institutions to develop context-specific emissions factors for key sector activities and to incrementally move from reporting inventories, emissions and removals using the IPCC Revised 1996 Guidelines (Agriculture and Land-use, Land-use Change and Forestry) to the later IPCC 2006 Guidelines (Agriculture, Forestry and Other Land-use). Extension agents will be provided with training and hardware where required to generate data from the field using fit-for-purpose measurement and monitoring equipment and systems that will interface with MIS nodes at sub-national and national levels. These activities are planned to be coordinated with and build upon the efforts to prepare Sri Lanka's TNC to the UNFCCC.

55. The activities under this Output of the proposed CBIT project will directly benefit from the MRV systems developed under the Sri Lanka UN-REDD National Programme including potential to adapt and utilize existing data management platforms, tools and methodologies for GHG estimates and measurements. These systems will then be applied to key activities in the agriculture and land-use sectors relevant to existing or potential future NDC priority mitigation actions including reducing emissions from rice production, livestock, fertilizer application, biomass burning, etc. The final output under this Outcome will be agriculture and land-use sector contributions to national communications and biennial update reports consistent with latest UNFCCC guidance *(Output 2.1.4)*.

56. ***Component 3. Transparency for monitoring and reporting adaptation***: Under this component, activities will be designed to establish the basic frameworks and infrastructure for enhanced monitoring and reporting adaptation activities in agriculture and land-use sectors.

57. Activities under Outcome 3.1 will be designed to address barriers for adaptation monitoring and reporting of priority NDC *adaptation actions* in the agriculture and land-use sectors. Based on a review of the NDC priorities and relevant planning documents, sector specific indicators, methodologies, frameworks and interventions will be identified (*Outputs 3.1.1 and 3.1.2*). These activities will build upon relevant sector-specific experiences from the various climate change adaptation and mitigation projects and programmes in Sri Lanka and be designed to interface with national reporting. Efforts will be focused on the potential to aggregate reporting on field level adaptation activities into broader outcome level indicator reporting necessary for Sri Lanka's NAP monitoring and reporting processes.

58. In tandem with activities under component 2 to establish MIS for GHG inventories from the agriculture and land-use sectors and for enhanced monitoring and reporting mitigation activities, complimentary systems will be developed and utilized to store and manage existing and projected data and information on adaptation initiatives in support of the NDC (*Output 3.1.3*). Parallel Investments in data collection hardware will be made to enhance the monitoring capacity of national and local authorities at the field level (*Output 3.1.4 – linked with Output 2.1.3*). As with Output 2.1.3, these systems will be designed to interface with and—where possible—enhance existing systems for field monitoring and data collection. Systems and protocols will also be established to better monitor contributions from donors and other sources to support implementation of NDC adaptation contributions in the agriculture and land-use sectors. Capacity building activities will include assessment of good practices and methodologies for monitoring NDC priority adaptation actions; training on adaptation monitoring and reporting at different administrative levels and aggregating indicators to develop reporting for national level NDC achievements with respect to adaptation. The final output under this Outcome will be agriculture and land-use sector contributions to national communications consistent with latest UNFCCC guidance on reporting adaptation contributions (*Output 3.1.5*).

59. As the implementing entity of the proposed CBIT project, FAO will draw upon its deep technical understanding of the agriculture and land-use sectors and wide range of tools and methods for development of emissions inventories, measuring and monitoring emissions from agriculture, land-use and land-use change, agriculture and land-use MRV systems, quality assurance protocols and adaptation planning and monitoring.

- *Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF, CBIT and co-financing:*

60. *Without the CBIT project,* necessary conditions for meeting the Paris ETF are not met in Sri Lanka. Although good inroads have been made on the REDD+ sub-sector, necessary activity data and emission factors using latest IPCC guidelines are not available for all AFOLU sectors for compiling national GHG inventory. Technical rigor of the National Communications has also been inconsistent for the agriculture and land-use sectors and a Biennial Update Report (BUR) has not been submitted to date.

61. At the moment, with the assistance of GEF support Sri Lanka is preparing their Third National Communication which is expected to be submitted in 2019. Sri Lanka has been collecting a range of activity data on GHG emissions reductions from sectors, however -- apart from the REDD+ sub sector -- no efforts have been made on the further improving available information on emission reductions and on the activities of climate adaptation actions from the agriculture and land-use sectors.

62. Furthermore, through its NDC submission, Sri Lanka has prioritized emissions reductions and adaptation actions in the agriculture and land-use sectors that will need to be monitored and reported under the Paris Enhanced Transparency Framework.

63. *With the CBIT project*, Sri Lanka's national capacity to track progress of priority actions on climate adaptation from AFOLU sectors as identified in the NDC will be strengthened, and the information on climate adaptation will be collected in a systematic manner to fulfill both Paris ETF requirements. Secondly, with the support of the project, Sri Lanka will improve the quality and coverage of data collected and reported on GHG emissions from AFOLU sectors by transitioning from IPCC 1996 to 2006, and from Tier 1 to Tier 2 emission factors where possible and practical.

64. Lastly, the project intervention will enhance Sri Lanka's long-term vision for climate change reporting and transparency improvement over time through enhanced institutional capacity and arrangements targeting wider/national sector emissions and adaptation accounting.

- *Global environmental benefits (GEFTF), and adaptation benefits (LDCF/SCCF)*

65. The global environmental benefits targeted by this proposed capacity building program will flow from the improved coordination and capacity to monitor and report action to address the drivers and impacts of climate change in a transparent manner.

66. In the near term the project will support the upgrading and establishment of systems to provide an evidence-base for more effective mitigation and adaptation in the agriculture and land-use sectors. Over time the systems supported by the project will allow policy makers and planners at national and provincial levels to design interventions to address climate change drivers and impacts based upon a more complete understanding of what works. In the longer-term the improved understanding of mitigation and adaptation potentials made possible through the project will provide Government of Sri Lanka with greater opportunity to increase levels of ambition for both mitigation and adaptation in future iterations of Sri Lanka's NDC and better articulate the magnitude and types of financial and technical support required to meet national priorities.

67. The project directly supports Sri Lanka to adopt transformational shifts towards low-emission and resilient development. As a result, global environmental benefits can also be expected in the form of enhanced contributions from Sri Lanka to collective global efforts to work towards aggregate emission pathways consistent with holding the increase in the global average temperature to well below 2 °C above pre-industrial levels. The number of tons of CO_2e to be mitigated (including both direct and indirect) and direct and indirect environmental and ecosystem benefits will be determined during the PPG phase.

- *Innovation, sustainability and potential for scaling up:*

Innovation:

68. The proposed CBIT project will facilitate scientific innovation through investment in infrastructure and systems to update and modernize the measurement and monitoring capacities of Government and local technical and research institutions. The project will facilitate investment and technology transfer for new and updated equipment at local universities and labs to measure and monitor emissions from a wide range of agriculture and land-use activities. The project will also facilitate investment in dedicated knowledge management information systems and IT hardware for the more effective management and reporting of data and information related to transparency of both mitigation and adaptation actions. Field monitoring systems will be overhauled under the project through the upgrading of data collection processes with the wider application of mobile telecommunications, app-based data collection platforms and cloud-based data storage and transfer services where appropriate.

69. These systems will be designed to benefit from recent advances and tools for estimating GHG emissions from the crops, livestock and forestry sectors. FAO, with partners, has developed or is currently developing a suite of tools for standardizing emissions monitoring and reporting at Tier 2 levels. For example, the Global Livestock Environment Assessment Model (GLEAM) establishes baselines and assesses the impacts of different mitigation and adaptation scenarios at local and national scale. Based on IPCC Tier 2 methodology and GIS based modeling

of livestock distribution, GLEAM allows the assessments of all major GHG emissions from livestock and the impacts of all actions to reduce emissions from the sector. Similar tools are under development for field crops based on projects including a global program on Mitigating Agricultural Greenhouse Gases (MAGHG) and support for countries in Southeast Asia to prepare Nationally Appropriate Mitigation Actions for different field crops.

70. With the application of GHG estimation tools such as GLEAM and those developed under MAGHG, national institutions will have enhanced capacity to measure progress toward NDC priorities in agriculture and land-use sectors. At global level, evidence tested and compiled in Sri Lanka will facilitate the improvement of scientific knowledge of GHG emissions reduction potential from AFOLU sectors, consequently improving our knowledge to estimate global environmental benefits. These systems once implemented and operational will support the potential for improved understanding of mitigation and adaptation potentials and the possibility for increased levels of ambition and quantification of support required in future iterations of Sri Lanka's NDC in the lead up to and during the commitment period of the Paris Agreement.

71. In addition, the project adopts an innovative approach that integrates extensive stakeholder consultations and assessments of capacity needs and baseline activities for monitoring the progress. The project interventions have been formulated by taking into account the need to enhance national capacity in monitoring mitigation and adaptation actions for AFOLU and relevant sectors as a whole emerging from the representatives of line ministries in Sri Lanka.

Sustainability:

72. With the project support, Sri Lanka will be able to articulate a clear plan of action with regards to national reporting of its NDC, utilizing the monitoring and reporting roadmap, coordination mechanisms, and technical guidelines prepared by the project. All stakeholders will be empowered to access, archive, analyze, and monitor the necessary information and activities with regards to agriculture and land-use sectors, as well as to inform processes by lessons learned in other sectors.

73. Through the capacity building activities, the capacities of technical and policy focal points from participating ministries as well as the capacities of relevant national institutions will be improved. The soft skills and knowledge acquired will be retained through the systematic support put in place through the establishment of climate change transparency database, Management Information System (MIS).

74. The core outcome of the project is to *establish an enabling institutional coordination mechanisms to ensure greater collaboration among line ministries.* During the project life cycle, at least one Agriculture and LULUCF or AFOLU chapter within country NDC reporting will be facilitated and improved by the government with technical supervision of FAO. This experience and institutional memory will better prepare the government of Sri Lanka to fully take-over the reporting processes in the next reporting cycle from 2020 onwards. Furthermore, the transfer of GHG measurement and estimation technologies supported through improved national capacity in AFOLU sectors is expected/will potentially help Sri Lanka to improve its ambitions by including reductions in GHG emissions from AFOLU into its NDC emissions reductions targets.

Potential for scaling-up:

75. The project specifically embeds opportunities to scale-out and scale-up the measures implemented. The information management systems and infrastructure for monitoring and reporting mitigation and adaptation actions in the agriculture and land-use sectors established under the project will be designed in way to allow for easy replication and adoption by other sectors.

76. Hardware, capacity building and training provided to national and local level stakeholders will be developed as modules that they can be adapted to improve data collection methods and analysis across all sectors. By working through and strengthening the institutional mechanisms in place for transparency of climate change actions the

project will be able to better facilitate this process of scaling out project-developed systems and processes. The enhanced capacity provided by the project will enable regular national reporting of actions to address climate change drivers and impacts as envisioned under Paris Agreement Article 13.

77. Outcome 1 of the project will also facilitate Sri Lanka's engagement in international transparency-related processes under the UNFCCC. With the enhanced institutional capacity and engagement with international process, the government of Sri Lanka will be capacitated to identify potential partners to further develop scaling-up actions and investment opportunities for further improving transparency over time, as well as to benefit other countries in the region to develop more transparent, accurate, complete, consistent and comparable monitoring and reporting systems.

78. The government will use a combination of national budget, and planned international support for fulfilling its reporting requirements to the Convention and ensure continued application and sustainability of the transparency systems and infrastructure for the other sectors.

2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society organizations (yes ☒ /no☐) and indigenous peoples (yes ☐ /no☐)? If yes, identify key stakeholders and briefly describe how they will be engaged in project preparation.

79. The project will be implemented in close cooperation with relevant stakeholders at the national, provincial and district levels. Key executing entities will include:

TABLE 6 CBIT PROJECT STAKEHOLDERS AND ROLES

Agency	Role or mandate	Involvement in CBIT Project
Climate Change Secretariat under Ministry of Mahaweli Development and Environment	In order to address the cross sectoral nature of major environmental challenges caused by climate change, and to fulfill the commitments under the United Nations Framework Convention on Climate Change (UNFCCC) & Kyoto Protocol, the MMDE, which is the National Focal Point for the UNFCCC and Kyoto Protocol has taken the initiative to establish a Climate Change Secretariat under its purview. Major roles and responsibilities of CCS are described at http://www.climatechange.lk/About_us.html	• Lead agency for all coordination and decision-making on ETF issues. • Overall lead agency of CBIT project activities and integrating CBIT project learning into ETF activities of other relevant sectors.
Forest Department under Ministry of Mahaweli Development and Environment	Forest Department is responsible for sustainably managing Sri Lanka's forest and tree resources for providing environmental services meeting timber needs for the country while contributing to the national economy and well-being of the people.	• Lead agency for engaging on technical issues related forestry and REDD+ and within REDD+ task forces. • Will provide support for capacity building activities; particularly sharing experiences with REDD+, forest reference levels and MRV.
Department of Wildlife Conservation under Ministry of Sustainable Development and Tourism	Responsible for managing 40% of forest lands and wildlife, this department will play major role in GHG inventory from forestry sector.	
Ministry of Agriculture		• Lead agency for engaging and coordinating with agriculture stakeholders at national and provincial levels; and providing, data, information and technical advice with respect to the agriculture and land-use sectors.

		• Lead agency for engaging on technical issues related to agriculture sector adaptation measures identified in the NDC.
Ministry of Land and Parliamentary Reforms	This ministry is responsible for effective and Efficient Management of the Land Resource while contributing to the Socio – Economic Development of the Country, at the Maximum Level. Major objectives of this ministry are • Establishment of a National Land Policy. • Preservation of the environment for the future generation. • Preparation of Land Use Policies. • Sound management and development of the State Lands and distribution of suitable Lands among Landless people. • Allocation of Lands for development projects and other essential purposes. • Registration of Title of all the Lands, ensuring ownership.	• Activity data preparation
Department of Census and Statistics	The main mission of this department is to make contribution to the socio-economic development of the country by providing accurate timely statistics, more effectively by means of new technology and utilizing the services of the dedicated staff under strategic leadership to become prosperous nation in a globalized environment. This department is custodian of all statistical information.	• Activity data preparation
Ministry of Agriculture	The main objective of this ministry is to achieve globally competitive production, processing and marketing enterprises through socially acceptable, innovative and commercially-oriented agriculture, through sustainable management of natural resources of the country.	• Main stakeholder for strengthening agriculture sector adaptation capacity.
Ministry of Irrigation and Water Resources Management	This ministry's vision is sustainable water resource management and development. The details of ministries roles are given at http://irrigationmin.gov.lk/	• Main stakeholder for watershed conservation and development.
Ministry of Megapolis and Western Development	This ministry aims at providing an island metropolis with continental potential. The roles and responsibilities are given at https://megapolis.gov.lk/	• Data on land development and change
Ministry of Power and Renewable Energy	This ministry works for energy security of the nation while providing quality, reliable, sustainable and affordable energy for economic prosperity of the nations.	• MRV system development for energy sector emission

80. In addition, specialized national and provincial agencies will be engaged to enhance data and information collection and coordination with the two ministries, MMDE and Ministry of Agriculture and other relevant sectors as prioritized in the Sri Lanka's NDC.

81. Civil society organizations (CSOs) and research institutions have and will continue to be engaged in the design and implementation of the project, including the baseline assessment and stocktaking of the existing activities and

systems. The institutional and coordination structure will consider including dissemination strategies for effective data management and reporting processes.

3. Gender Equality and Women's Empowerment. Are issues on gender equality and women's empowerment taken into account? (yes ☒ /no☐). If yes, briefly describe how it will be mainstreamed into project preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

82. The project will ensure the preparation of the necessary documentation and publications in which principle of gender sensitive and specific data and information are included. Gender concepts, gender equity and issues in agriculture and climate change will be mainstreamed during the implementation, making sure a better participation of women in the project activities. Through cooperation with the government partners, the project intervention will be in line with the existing policy and strategy in the country. The project will ensure that women's specific needs are met, that women enjoy equal access to project activities and that women benefit equitably from the project's activities.

83. In terms of overall socio-economic benefits, the project will benefit Sri Lankan society and economy by supporting the Sri Lankan Government in advancing its NDC implementation, monitoring progress of national mitigation and adaptation priority activities in the NDC. An appropriate transparency framework can generate multiple social, economic and environmental co-benefits such as human capacity, local and national institutions, cost-effective national budgeting and planning, reduced vulnerability of its food systems, and the national resources and ecosystems that the food systems depend upon. Through improved and more transparent data, the project also supports improved and better targeted local, regional and national investment and decision making.

4 Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable).

TABLE 7 RISKS TO CBIT PROJECT IMPLEMENTATION AND MEASRUES TO ADDRESS THEM

No.	Description of risks	Types of risks	Probability and Impact (Scale 1-5)	Measures to address the risks
1	Lack of coordination among concerned ministries and local government authorities	Organizational	P=3 I=4	To address risks associated with coordination the project will work through existing coordination mechanisms established under the UN-REDD Programme. That will help in ensuring smooth functioning of activities.
2	Limited cooperation on data and information sharing among stakeholders	Organizational	P=3 I=5	To address risks associated with data management consultation and data system assessments will be crucial elements of activities under Outputs 2.1.2 and 3.1.3. The project will also build on existing systems where possible developed for REDD+ with respect to mitigation and for NAP. Clear data sharing agreement of the stakeholders to collect and hand over required data and information.
3	Inability for the government to fund the ETF related activities beyond the project cycle	Financial	P=4 I=4	The proposed CBIT project will include measures to mainstream ETF activities into government budgetary and extra-budgetary processes. It will be proposed that ETF reporting be incorporated into current and future CPAP processes.
4	Gender mainstreaming hindered by resistance from local and national stakeholders	Cultural	P=3 I=3	Clear initial communication on gender equality as one of the key monitoring element for tracking progress of the project – particularly

No.	Description of risks	Types of risks	Probability and Impact (Scale 1-5)	Measures to address the risks
				with respect to adaptation monitoring and reporting and co-benefits.
5	Transparency related work loses momentum as the Paris Agreement is not adopted	Political	P=1 I=4	To address this issue CBIT project activities will focus on the potential positive externalities associated with improved data collection, monitoring and reporting of agriculture and land-use sector mitigation and adaptation activities. These could include more effective targeting of initiatives to improve farm and land-use efficiency and strengthen rural resilience. This 'no-regrets' approach will aim to highlight the need for and benefits of this transparency work that will go beyond the lifetime of the Paris Agreement.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives.

84. The proposed CBIT project will complement past, ongoing and pipeline activities to support the Government of Sri Lanka to enhance management and monitoring practices in the agriculture and land-use sectors (Table 8).

TABLE 8 OTHER INITIATIVES THAT WILL BE COORDINATED WITH UNDER PROPOSED CBIT PROJECT IN SRI LANKA

Other Ongoing and Pipeline Initiatives	Areas of complementarity with the proposed CBIT Project
UNJP/SRL/064/UNJ Under the Reducing Emissions from Deforestation and Degradation (UN-REDD) Sri Lanka National Programme (2013-2017) Sri Lanka Government in partnership with FAO, UNDP, UNEP has been working to establish effective National Management Systems for the REDD+ Readiness process and stakeholder engagement. As part of these programmes a national Forest Reference Emissions Level (FREL) and National Forest Monitoring System (NFMS) has been developed. This CBIT project will build upon REDD+ capacity needs assessments at national and regional levels and expand to other land-use types with a particular focus on agriculture. In doing so the proposed CBIT project will work to strengthen knowledge and institutional arrangements for data collection, storage and reporting for a range of land-uses. Experiences accumulated by FAO and partners in developing REDD+ MRV systems including Forest Reference Emission Levels (FREL) will be used as the basis for designing and implementing MRV systems for agriculture activities identified in Sri Lanka's NDC.	This project has laid down foundation for GHG emission inventory form forestry and land use sector both in terms of technical capacity development as well as providing hardware and software for mapping and monitoring activities. All four objectives a) development of national REDD+ strategy, b) NFMS, c) FRL and d) SIS development were completed. The proposed CBIT will ensure coordination to ensure contributing to enhance transparency-related processes; and building upon the existing capacity available through this programme. The horizon of GHG inventory will be expended to agriculture, livestock and other relevant sectors to enable Sri Lanka to report in its National Communications.
Implementation of National REDD+ Investment Framework and Action Plan (NRIFAP) (in pipeline, expected to start in year 2018, for 5 years) UNDP has submitted this project to GCF and expected to be cleared in early 2018. Through the NRIFAP, the GoSL expects to deliver carbon emission reductions of 8,367,809 tCO_2e over 5 years and 20,940,985 tCO_2eq over 10 years, with approximately 160,000 ha of currently degraded forests put under protection and sustainable forest management regimes. As a direct result of the project, the country will achieve an approximate 45% reduction in current annual deforestation rates and a 56% contribution towards achieving Sri Lanka's national forest cover target (32% by 2030), as described in its NDC.	Building upon the National REDD+ strategy (NRIFAP), the CBIT will ensure better coordination among implementing agencies, strengthening institutional capacity as well as knowledge transfer in cross cutting agencies. The implementation of NRIFAP will be carried out by various stakeholders ensuring broad framework of knowledge transfer among line ministries and CSOs. The CBIT will have added advantage to fill the gaps created due to delay in implementation of NRIFAP after completion of UN-REDD programme.

GCP/SRL/063/GFF, Rehabilitation of degraded agricultural lands in Kandy, Badulla and Nuwara Eliya Districts in the Central Highlands (2015 to 2019) This project is being implemented by MMDE. This project is focused on maintaining and improving flow of agro-ecosystem services to sustain livelihoods of local communities and reducing pressure on natural resources from competing land uses in the wider landscape.	The proposed CBIT project will ensure smooth institutional coordination and capacity development on new initiatives and systems and models to be developed by the project while the existing project will complement to a better data collection and reporting.
GCP/SRL/048/GEF, Promoting Sustainable Biomass Production and the Modern Bio-Energy Technologies, (2014 to 2017). The implementing agency is Ministry of Power and Energy and MMDE. The primary goal of the project is to reduce greenhouse gas emissions from the use of fossil fuel for thermal energy generation in the Sri Lankan industrial sector. The goal will be reached by means of removing obstacles to the realization of sustainable biomass plantation, increase of market share of biomass energy generation and adoption of biomass- based energy technologies in Sri Lanka.	The proposed CBIT will help in transfer of knowledge for GHG inventory to set baseline for future monitoring and reporting purposes.
GCP/SRL/069/CAN, Agro-Economic Development Project, (2015 to 2017). Funded by the Government of Canada, it is a three-year Project aimed at improving the livelihood opportunities of the target communities in the North, with a focus on ensuring a greater role and engagement of women as beneficiaries, suppliers and members within producer groups and its bodies of decision-makers in the districts of Jaffna, Killinochchi and Mullaitivu in Sri Lanka. This Project, which began in December 2014, will aim to develop the sustainable Agro-Economic development in the North and will be oriented to identify livelihood support interventions beyond subsistence levels, supporting value-addition, market linkages and private sector partnerships and creating enabling environment for socio-economic recovery through the restoration of physical infrastructure and community institutions. The implementing agency is Ministry of Agriculture.	The larger objective of this project is to develop sustainable agro-economic model which will play a vital role in reducing pressure on forestry sector leading to reduced GHG emission and enhanced sequestration. Through CBIT better accountability of emission reduction targets can be set by technology transfer (Example EX-ACT).
GEF Project ID: 9169, To assist Sri Lanka in the preparation of its Third National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), 2016 to present. A project grant for "Preparation of Sri Lanka's Third National Communication (TNC) to the UNFCCC" was awarded in 2016. This project aims at capacity development and preparation and updating of reports on National Circumstances of Sri Lanka, Sri Lanka's National Inventory of GHG Emissions, Vulnerability and Adaptation Mitigation actions and Monitoring and Evaluation protocols.	The proposed CBIT project will be coordinated with and build upon the efforts to prepare Sri Lanka's TNC under this programme. The CBIT project will provide technical capacity with regards to GHG emissions reductions and adaptation needs.

6. Consistency with National Priorities. Is the project consistent with the National strategies and plans or reports and assessements under relevant conventions? (yes ☒ /no☐). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, NDCs, etc.

85. The proposed capacity building program is drawn directly from the priorities outlined in Sri Lanka's NDC, which is based upon existing national laws, regulations, and policies on issues related to climate change and the agriculture and land-use sectors. These policies such as the CCCSP and CPAP were outlined in the baseline section. The proposed CBIT project will also contribute to and build upon additional policies related to sustainable development in the agriculture and land-use sectors.

TABLE 9 RELEVANT POLICY FRAMEWORKS FOR CBIT SRI LANKA

Policy Framework	Relevance
National Forest Policy	The first National Forest Policy was adopted in 1929 - to emphasize the importance of soil and water conservation and the preservation of indigenous fauna and flora. The Forest Policy has since then been updated and amended; the most recent being the Forest Policy of 1995.

	The policy acknowledges that the natural forests are heavily depleted, and expresses concern for safeguarding the remaining natural forests for posterity in order to conserve biodiversity, soil and water resources. Several of the objectives and strategies outlined in the policy clearly have a bearing on combating land degradation.
National Policy Framework - Ministry of Agriculture Lands and Forests-1995	The National Policy Framework was prepared to realize policy objectives spelt out in the election manifesto of the People's Alliance prior to the General Election held in 1994. Eight management issues pertaining to land were identified, i.e. Land use, land administration, land tenure, land allocation, land alienation, encroachments under-utilized agricultural land and land deposition, and policy recommendations, and an implementation strategy was also included. The main land use issue that was addressed was the degradation of land resources due to overuse, mismanagement and their negative impacts on sustaining agriculture. It was felt that this issue should be addressed through a National land Use Policy which must provide a framework for land use to meet the country's social' and economic needs.
National Land Use Policy (draft) - 2002	This Draft policy was prepared by the Land Use Policy Planning Division. The goal of the policy is the rational utilization of lands as a resource, in the national interest, while ensuring a high quality of life, equity and ecological sustainability. The draft policy is presented under three broad themes; agriculture and food security, land and people, and land and nature. The policy is quite comprehensive, and when adopted and implemented would have a great impact on land resources management and in resolving land degradation problems in the country.
National Water Resources Policy - 2000	The National Water Resources Policy is a statement of the government's intentions regarding the management of the country's inland water. The policy adopts an "integrated" approach which recognizes natural linkages. Emphasis is placed on water resource management within river basins and aquifers, including both upstream and downstream water users, government and other stakeholders.
National Environmental Policy and Strategies - 2003	The National Environmental Policy endorses the commitment of government, in partnership with the people, to effectively manage the environment for the benefit of present and future generations. The aim of this policy is to ensure sound environmental management within a framework of sustainable development in Sri Lanka. This Policy is supported by many other policies and strategies developed for other sectors. The National Environmental Policy provides the direction and framework for managing and caring for the environment.
National Watershed Management Policy – 2004	The NWMP was formulated by the Ministry of Environment & Natural Resources. The goal of the policy is accruing sustained and equitable economic and social benefits to the people and other life forms within the watersheds … while ensuring the long term protection of the natural functions of the watersheds. Its policy statements address all aspects of watershed management including land and water management in critical watersheds.
National Policy on Agriculture and Livestock - 2003	National Policy on Agriculture and Livestock was formulated and presented in 2003 by the Ministry of Agriculture and Livestock for the period of 2003 to 2010. The policy was basically formulated to provide appropriate policy directions to mobilize investments and guide human efforts to use the full potential of the agricultural resource base for achieving national goals. Of the eighteen policy statements, the policy statement No 10 outlined the policy for land, water and inputs. The major part of the policy in relation to the

	land degradation issue is to mobilize resources to conserve highlands and catchments, making soil conservation on cultivated highlands and slopes compulsory, mobilizing farmers for conservation and protection. The policy also highlights the judicious use of chemical fertilizer and agro chemicals for agriculture, and use of biological and bio- technical methods as far as possible to protect soil fertility.
National Agricultural Research Plan - 1999	A NARP was prepared in 1988 with the intention of promoting agricultural sustainability and increasing efficiency in food production. This was followed by a second plan, which covered the period 2000-2008. This plan has proposed many research initiatives that would promote sustainable agriculture in the country. The future research trends are expected to give weight to a greater understanding of natural resources, the environment and resource sustainability, soil and land management and developing appropriate partnerships both nationally and internationally.
National Conservation Strategy (NCS) in 1988	Sri Lanka was one of the first countries in Asia to prepare a National Conservation Strategy. This comprised a preliminary strategy to deal with problems of environmental degradation in the country.
National Environmental Action Plans	The first NEAP was prepared in 1991. Since then, there have been several revisions of the NEAP as warranted by the NEA. The current NEAP is termed "Caring for The Environment: National Agenda for Sustainable Development 2003-2007" (CFE). It gives priority, among others, towards resolving land degradation issues in the country. It recommends legislative and institutional support, and provincial level interventions in resolving land degradation. The CFE contains the National Environmental Policy.
Forestry Sector Master Plan	The FSMP of 1995 emphasizes on forest management, soil and water conservation, conservation of environmentally sensitive areas and peoples participation in forestry development activities.
National Coastal Zone Management Plan	The policies, strategies and actions to address issues in the coastal areas are addressed by the CZMP. This is periodically updated and revised by the Coast Conservation Department (CCD), as mandated under the Coast Conservation Act (CCA) of 1981. The first CZMP was approved in 1990. The latest is the CZMP of 2004. The CZMP outlines interventions to reduce coastal erosion, minimize depletion and degradation of coastal habitats.
National Biodiversity Conservation Action Plan - 1998	The BCAP outlines the principles in biodiversity conservation, and includes proposed action in areas such as forests, wetlands, coastal and marine areas and agricultural systems.
Natural Disaster Management Action Plan	The NDMAP of 1999 provides for effective disaster management, which includes mitigation, preparedness, response, and recovery.
Wildlife Policy	Sri Lanka's first Wildlife Policy was developed in 1990, and revised again in 2000. The National Wildlife Policy of 2000 emphasizes state commitment to conserve wildlife resources for the benefit of present and future generations.
National Physical Planning Policy	A policy has been prepared and is awaiting government approval.

86. As a result, the proposed capacity building program is highly consistent with the national priorities of Sri Lanka with respect to efforts to tackle the drivers and impacts of climate change.

7. Knowledge Management. Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

87. The project adopts two core knowledge management approaches: 1) Dissemination and maintenance of on-line based database and learning forums; and 2) Promotion of knowledge sharing culture and coordination. To successfully implement these approaches, the project plans to employ a national communication specialist who will produce key knowledge products in locally acceptable formats using electronic materials for webpage, ICT, radios, paper, or other appropriate means. Knowledge products will be fully translated into local languages for better dissemination and integration. Secondly, project aims to promote knowledge sharing culture and coordination for data collection and analysis in Sri Lanka. This includes an enhanced coordination among line ministries, local governments, and grass root actors working together towards improved transparency in climate change related data for the agriculture and land-use sectors. Under the CBIT project coordination will be facilitated primarily under Component 1 and activities to design the integrated sector roadmap for transparency and peer-to-peer exchanges.

88. Cost effectiveness is developed in this, and where the intervention draws upon the latest tools and methodologies with regards to GHG emissions measurements/estimation and analytical frameworks for assessing the impacts of adaptation actions for AFOLU sectors that have already been developed by FAO and applied to larger national contexts.

89. The institutional mechanisms for UNFCCC reporting will build on existing national structures and political processes instituted by CCS rather than creating new systems. Intuitional and technical capacities developed through component 1 to 3 will build on existing national efforts up to date based on comprehensive capacity needs assessment to avoid overlaps. The coordination mechanism will largely depend on existing networks that consist of stakeholders who hold some capacities in climate-related transparency work. Online platforms and MIS will be facilitated to further assist sharing and systematic management of knowledge and information. Although in-person trainings will be conducted in some places, the project aims to increase the use of on-line trainings and e-learning platforms for long-term education purpose. Such archiving, communication, and capacity building efforts will help the project reach out to broader stakeholders and partners with minimal cost.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

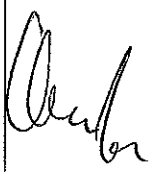
A. RECORD OF ENDORSEMENT[17] OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Mr. Anura Dissanayake	Secretary of Mahaweli Development and Environment	Mahaweli Development and Environment	**03/09/2018**

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies[18] and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date *(MM/dd/yyyy)*	Project Contact Person	Telephone	Email
Alexander Jones, Director, Climate Change and Environment Division		7 May 2018	Brandstrup, Nina (Ms.) FAO Representative of Sri Lanka and Maldives UN Compound, 202, Bauddhaloka Mawatha, Colombo 7, Sri Lanka.	+94-11-2580798	Nina.Brandstrup@fao.org
Jeffrey Griffin FAO Senior GEF Coordinator Jeffrey.Griffin@fao.org Tel: +390657055680			Yurie Naito Programme Officer, GEF Unit	+3906570 53172	Yurie.Naito@fao.org

C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)

For newly accredited GEF Project Agencies, please download and fill up the required **GEF Project Agency Certification of Ceiling Information Template** to be attached as an annex to the PIF.

[17] For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

[18] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT