



GEF-6 PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE: Medium-sized Project
TYPE OF TRUST FUND: Capacity Building Initiative for Transparency

PART I: PROJECT INFORMATION

Project Title:	Strengthening the Capacity of Institutions in Uganda to comply with the Transparency Requirements of the Paris Agreement		
Country(ies):	Uganda	GEF Project ID:¹	9814
GEF Agency(ies):	Conservation International	GEF Agency Project ID:	
Other Executing Partner(s):	Ministry of Water and Environment, Uganda, Africa Innovations Institute/Vital Signs	Submission Date:	04/27/2017
GEF Focal Area(s):	Climate Change	Project Duration (Months)	18 months
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>		Corporate Program: SGP <input type="checkbox"/>
Name of parent program:	[if applicable]	Agency Fee (\$)	99,000

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
CBIT	CBIT	1,100,000	450,000
(select) (select) (select)	(select)		
(select) (select) (select)	(select)		
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(select) (select) (select)	(select)		
Total Project Cost		1,100,000	450,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To support Institutions in Uganda to respond to the Transparency Requirements of the Paris Agreement						
Project Components	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
Component 1: Establishing & strengthening the institutional arrangements for	TA	Outcome 1.1 Institutional arrangements for data collection and processing in the 4 key	Output 1.1.1 Focal points in each of the 4 key sectors strengthened institutionalized and	CBIT	100,000	50,000

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.

robust GHG emission inventory and MRV system.		sectors agriculture and land use, energy, transport and waste) strengthened	<p>functioning as hubs of data collection and processing</p> <p>Output 1.1.2 Gender focal points on climate change in the key institutions strengthened</p> <p>Output 1.1.3 Data collecting, processing and sharing arrangements formalized and operational</p> <p>Output 1.1.4 Linkages between the hubs and the MWE established and strengthened</p> <p>Output 1.1.5 A framework for inter-ministerial coordination strengthened, and formal cooperation between government, CSOs private sector and academia defined and institutionalized</p>			
<u>Component 2:</u> Building capacity of key stakeholders to collect, process and feed gender disaggregated data into the GHG emissions inventory and MRV system.	TA	Outcome 2.1 Capacity of stakeholders built on data collection and processing protocols; and procurement of state-of-the art equipment and tools	<p>Output 2.1.1 Field data teams from the key emission sectors (agriculture and land use, energy, transport, industries and waste sectors) convened and trained in collection, processing and transmission of GHG data</p> <p>Output 2.1.2 Fifteen (TBC at PPG) people (from the Hubs and MWE) trained in domestic MRV systems, tracking NDCs, enhancement of GHG inventories and emission</p>	CBIT	450,000	200,000

			projections Output 2.1.3 Lessons learned and best practices scaled out through peer exchange programs for stakeholders on transparency activities			
Component 3: Testing and piloting the GHG emission inventory and MRV system	TA	Outcome 3.1 GHG inventory and MRV system functional	Output 3.1.1. Data for GHG inventory and MRV system collected and fed into the Global CBIT Coordination Platform Output 3.1.2 National inventory of greenhouse gas emissions (by sources) and removals (by sinks) in place Output 3.1.3 National inventory of greenhouse gas emissions (by sources) and removals (by sinks) made publically available	CBIT	450,000	200,000
Subtotal					1,000,000	450,000
Project Management Cost (PMC) ⁴				CBIT	100,000	
Total Project Cost					1,100,000	450,000

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: ()

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 (\$)
GEF Agency	Conservation International	In-kind	100,000
Recipient Government	Ministry of Water and Environment (MWE)	In-kind	350,000
Total Co-financing			450,000

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

GEF	Trust	Country/	Focal Area	Programming	(in \$)
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⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% 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.

Agency	Fund	Regional/ Global		of Funds	GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
CI	CBIT	Uganda	Climate Change	CBIT	1,100,000	99,000	1,199,000
Total GEF Resources							

E. PROJECT PREPARATION GRANT (PPG)

Is Project Preparation Grant requested? Yes X 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: \$4,500		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁵ (b)	Total c = a + b
CI	CBIT	Uganda	Climate Change	(select as applicable)	50,000	4,500	54,500
Total PPG Amount							

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS

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	<i>Hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>Hectares</i>
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;	<i>Number of freshwater basins</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
	750 million tons of CO ₂ e mitigated (include both direct and indirect)	<i>metric tons</i>
4. Support to transformational shifts towards a low-emission and resilient development path	250 million tons of CO ₂ e mitigated (include both direct and indirect)	<i>Metric tons of CO₂e mitigated.</i>
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)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>

⁵ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

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 area⁶ 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.*

1) The global environmental problems, root causes and barriers that need to be addressed:

1. In Uganda, like elsewhere in the developing world, the call for climate action has overwhelmingly increased amidst increasing pressure on the natural resource base of the economy. The impact of global warming is being felt across ecosystems in Uganda, evidenced by the glacial retreat of the Rwenzori Mountains, from 7.5 square kilometers in the year 1906 to 1.5 square kilometers in the year 2006. Climate projections developed for Uganda using the models used in the IPCC Fifth Assessment Report (IPCC AR5) indicate an increase in near-surface temperature for the country in the order of +2°C in the next 50 years, and in the order of +2.5°C in the next 80 years under Representative Concentration Pathway (RCP) 4.5; and in the order of +2.5°C in the next 50 years, and in the order of +4.5°C in the next 80 years under RCP 8.5. They also predict a slight decrease in total annual rainfall in most of the country, with slightly wetter conditions over the west and north-west under both RCP 4.5 and RCP 8.5. Rainfall totals might drop significantly over Lake Victoria (-20% from present). There is already clear evidence of the effect of climate change and associated socio-economic losses in all the key regions, notably: the Lake Victoria Crescent; the Eastern and South Western Highlands; the cattle corridor; and the arid and semi-arid areas of Northern and North Eastern Uganda.
2. The recent economic assessment of the impact of climate change in Uganda further demonstrates the gravity of the situation. Estimates of damage due to climate change in the sectors of Agriculture, Water Infrastructure and Energy collectively amount to 2 - 4 % of the country's Gross Domestic Product (GDP) for the period between 2010 and 2050. Although the cost of adaptation is high (estimated at US \$ 644 million for the period 2021 to 2025, and US \$ 596 million for the period 2026 -2 030), the cost of inaction (estimated at US \$ 3.1 to 5.9 billion a year by 2025) is 24 - 46 times greater.
3. According to Uganda's Second National Communication to the UNFCCC, Agriculture, at 57.4%, is the leading contributor to GHG emissions followed by LULUCF at 28.7%. It is expected that emissions from the agricultural sector will increase because of increased food demand and increased prioritization of rice, meat and dairy production. The report also cites major constraints in GHG inventory as data-related barriers and human capacity shortcomings. It emphasizes a need to coordinate the creation of an inventory database system covering all aspects of the inventory; from activity data to emission factors, and institutionalization of continuous research into improvements in the databases. The report also highlights the need to strengthen capacity by conducting training of personnel in the collection and management of GHG and related data, including data interpretation, storage and updating of databases.

⁶ 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.

4. Uganda's Intended Nationally Determined Contribution (INDC) includes both mitigation and adaptation measures that will be undertaken by the Government. The overall target is a 22% reduction of national GHG arising from mitigation measures by 2030. Specific goals include the following:
 - a. Achieve a total of at least 3,200 Mega Watts renewable electricity generation capacity by 2030, up from 729 Mega Watts in 2013. Intended technologies include hydro, solar, biomass and geothermal energy. The mitigation impact is forecast to be between 2.7 and 3.7 Million tons Carbon dioxide equivalent per year (MtCO₂e/a).
 - b. Reverse deforestation trend to increase forest cover to 21% in by 2030, from approximately 14% in 2013; through forest protection, afforestation and sustainable biomass production measures. The estimated range of net emission reductions in 2030 compared to business-as-usual is between 16.9 and 22.2 Million tons Carbon dioxide equivalent per year.
 - c. Increase wetland coverage to 12% by 2030, from approximately 10.9% in 2014, through demarcation, gazettement and restoration of degraded wetlands. The proposed measures for wetland restoration will result in approximately 260,000 hectares of new or restored wetlands. Due to the uncertainty about the potential methane emissions, the annual mitigation impact could be between 0.8 MtCO₂e, and net zero. For the aggregated indication, a mid-point value of 0.4 MtCO₂e is taken.
 - d. Adopt climate smart agricultural techniques. This will result into approximately 2.7 MtCO₂e/a by 2030, (0.33-0.35 tCO₂e/ha) (Smith et al 2008); Livestock breeding research and manure management practices have a 4% economic potential for emission reduction in East Africa, (Smith et al 2008),
5. Article 13 of the 2015 Paris Agreement establishes the Enhanced Transparency Framework (UNFCCC 2015). The framework was established to enable the tracking, comparing and understanding of national commitments worldwide to fight climate change. The "transparency framework" requires countries to regularly provide: (i) A national inventory of greenhouse gas emissions (by sources) and removals (by sinks) (ii) Information necessary to track progress toward achieving their Nationally Determined Contribution (NDC) (iii) Information related to climate change impacts and adaptation (iv) information on financial, technology transfer and capacity building support needed and received and (v) information on any support they provide to developing countries.
6. The Paris Agreement requested the GEF to support the establishment and operation of the Capacity-building Initiative for Transparency (CBIT) to assist developing countries in meeting the enhanced transparency requirements of the agreement in both the pre- and post-2020 period. The CBIT is to enable countries to establish or strengthen their in-house capacity to track progress on national commitments made under the Paris Agreement and also to produce more comprehensive and accurate reports capturing their implementation in the medium to long-term. The CBIT also supports countries to build capacity to enhance the level of ambition under the Paris Agreement, including by enhancing capacities for the generation of more accurate and updated data on emissions in all sectors as well as in the impacts of adaptation measures in increasing resilience of communities and ecosystems.
7. Uganda, as a signatory to the Paris Agreement will need to provide necessary information to track progress towards implementing and achieving NDCs and on reducing GHG emissions. Uganda will also need to demonstrate good practices, and highlight needs and gaps to provide inputs to the five-yearly Global Stocktake. Information submitted by countries will undergo a technical expert review. This process is intended to be facilitative and will include assistance to developing countries to identify capacity-building needs. The Paris Agreement also encourages other stakeholders, including civil society and the private sector, to participate in efforts to address and respond to climate change. This means that land use sector information will be needed for quantifying and tracking progress made at the local, national and global levels, as well as for guiding local mitigation planning and implementation of land use activities, and the accountability of actions and stakeholders (i.e. for tracking corporate 'zero deforestation' commitments).

2) The baseline scenario and any associated baseline project:

8. The Government of Uganda with funding of about US\$ 672,000 from the European Union and the United Nations Development Programme (UNDP) implemented a programme from 2011 to 2015 to strengthen technical and institutional capacity in Green House Gas (GHG) inventory systems and Nationally Appropriate Mitigation Actions (NAMAs) with in-built Measuring, Reporting and verification (MRV) systems. The programme has three major outputs which are; (i) A robust national system for preparation of GHG emission inventories established at a national

level; (ii) NAMAs formulated within the national development context; and (iii)MRV systems designed to support implementation and evaluation of NAMAs. The project has made progress in the following areas:

- a) **Green House Gas Inventory:-** The need for compiling a national GHG inventory first as an international obligation by the country has been affirmed. In this regard, the government will take the responsibility to ensure that it is conducted according to international norms and requirements. The system for measuring GHGs with built-in MRVs was commissioned at the Climate Change Department (CCD) in November 2016 and a focal point for data collection in compliance with the Paris agreement was established. However this system remains nonfunctional as the department lacks the capacity to collect and feed data into it.
- b) **The NAMAs;** The project through the Climate Change Department Ministry of Water and Environment has already selected eight priority NAMAs per sector out of a long list; these have been identified as priorities for Uganda's efforts in Climate change mitigation. The prioritized NAMAs in the four sectors include;

AGRICULTURE SECTOR:

- **Promotion of Upland Rice;** The purpose of the NAMA is to promote the cultivation of high yielding upland rice combined with a reduction in total acreage under paddy rice. It seeks to increase rice production in Uganda for both domestic and export markets by promoting the cultivation of high yielding upland rice combined with a reduction in total acreage under paddy rice.
- **Livestock Mitigation;** This NAMA seeks to develop methods to reduce GHG gas emissions from livestock production in Uganda. Livestock numbers have increased across all types: cattle, sheep, goats, poultry and others. Present estimates show that the national cattle herd stood at 11.4m in 2008.

ENERGY SECTOR:

- **Institutional Stoves in Educational Institutions;** This NAMA is intended to promote the use of energy efficient institutional stoves in primary, secondary and tertiary educational institutions. The use of efficient stoves will reduce the rate of consumption of wood fuel, which will reduce greenhouse gases emissions and ultimately lead to a decrease in the rate of deforestation.
- **Vehicle Fuel Efficiency;** The purpose of this NAMA is to reduce greenhouse gas emissions and promote sustainable development in the transport sector through the implementation of a fuel efficiency initiative that includes the development of policies and regulations that will promote the use of more efficient vehicles. It will help to address the government's goal of meeting the energy needs of Uganda's population for social and economic development in an environmentally sustainable manner.

TRANSPORT SECTOR

- **Bus Rapid Transit for Kampala;** This mitigation priority is intended to improve efficiency of public transport while saving and reducing emissions associated with public transportation in the Kampala metropolitan region. This NAMA is important in Uganda as urbanization increases and more towns and urban centres are growing. Implementing this NAMA will be a platform for subsequent rollout to other city regions developing in the country extending it beyond Kampala city and making it nationally relevant and important for efficient public transportation.
- **Enforce periodic vehicle inspection for emissions and roadworthiness;** This is geared towards reducing emissions from vehicles. This is a policy NAMA important due to the type, age and condition of imported vehicles in Uganda. The NAMA will also target operation and use through the lifecycle of the vehicles. This policy is needed in Uganda because of the high possibility for economic growth and prosperity that will lead to increased vehicle importation and use.

WASTE SECTOR

- **Municipal Solid Waste Compost for Smaller Urban Areas;** The purpose of the NAMA is to extend a successful municipal solid waste compost programme to smaller urban areas where organic waste is the most dominant waste. The goal of NAMA is to avoid methane emissions from municipal waste landfills not targeted by the Clean Development Mechanism (CDM) Programme of Activities (PoA) by recovering the organic matter from municipal solid waste as compost and avoid methane emissions through a municipal waste compost programme. The NAMA will extend mitigation actions to as many parts of the

country as possible, improve waste management, increase utilization of agricultural waste for compost manure, and create jobs.

- **Integrated Waste Water treatment;** This NAMA will encourage GHG remission reductions from agro-industry wastewater. The aim is to reduce GHG releases from waste water, reduce pollution load from waste water on Lake Victoria basin, safeguard fisheries livelihoods, reduce health risks, and reduce the cost of water treatment from the more polluted water abstraction points.
- Additionally, the project has produced a report on Uganda’s NAMA Status for Uganda as well as the Low Emission Development Strategy.

9. The Government of Uganda is also benefitting from a Clean Development Mechanism capacity building project; aimed at supporting Uganda to strengthen technical capacity in CDM project formulation and awareness of investment opportunities under the CDM created among government institutions, project developers, including financing institutions.

10. Last but not least, Uganda is a beneficiary of the United Nations Climate Change Learn Pilot project aimed at strengthening human resources and skills development to address climate change and foster low carbon and green climate change resilient development. Under this project, national climate change learning strategy has been developed. The Strategy will be implemented through the institutional mechanism that has been set up under the National Climate Change Policy of Uganda.

Uganda’s Minister of Water and Environment launched the National Strategy and Action Plan to Strengthen Human Resources and Skills to Advance Green Low Emission and Climate Resilient Development for 2013-2022 in June 2013, in Kampala, Uganda. The Strategy includes a number of key recommendations to strengthen climate change learning in Uganda over the next decade, including:

- Build capacity and strengthen the UNFCCC National Focal Point for Uganda (Climate Change Unit, MWE).
- Strengthen human resources and skills in the Department of Meteorology for climate change monitoring.
- Strengthen skills for mainstreaming climate change in other key sectors such as agriculture, water, and energy.
- Support on-going efforts to integrate climate change learning in curricula from the primary to the tertiary level.
- Assess the impacts of climate change learning.
- Harmonize climate change learning among different institutions and levels.

Barriers that need to be addressed

11. Despite the above project baseline, there are still some barriers that need to be addressed.

Barrier	Elaboration
Inadequate institutional coordination for reporting	<p>Achieving unbiased estimates of emissions requires a combination of different data sources that are not always fully compatible, and considerable effort is needed in the coordination of its collection and reporting. Today, a variety of stakeholders in Uganda (governments, private sector, land managers, etc.) lack reliable information, ready to-use methods and open-source solutions that would allow them to assess the state, dynamics and drivers of change regarding land resources, livelihoods, social protections and equity indicators.</p> <p>A considerable amount of independent, publicly available, comprehensive, spatial information on land cover, land emissions, land use, their dynamics and the associated carbon stocks and flows has become available but they still exist in silos and largely inaccessible to the public.</p> <p>Sectoral focal points for climate change data were identified within Uganda’s government institutions but the process for reporting remains unclear. There are government institutions, CSOs, and private sector that are all engaged in</p>

Barrier	Elaboration
	<p>different and uncoordinated initiatives. The coordination of these initiatives will be vital to not only avoid duplication of efforts but guide efforts towards critical areas of need.</p> <p>Many tools allow users to contribute to improving estimates. These tools vary in sophistication and need to take into account the different levels of users' abilities. In as much as levels of capacities might vary from institution to institution, a collective management and coordination of the process will result in collective strength and increased transparency. In Uganda, as in many countries, there is also need for simplifying and streamlining the dialogue between data users and producers, as well as 'data bridging' rather than imposing a one-size-fits-all system. Clear reporting and communication channels will meet this critical need.</p>
<p>Inadequate capacity to operationalize and use the existing MRV Inventory system.</p>	<p>The use of data and tools for independent monitoring requires skilled professionals that are capable of interpreting data for national purposes. Currently there are no ready-to-use datasets for such national level comparisons in Uganda.</p> <p>And yet Uganda needs to account for anthropogenic emissions and removals from the AFOLU sector in a manner that promotes environmental integrity, transparency, accuracy, completeness, comparability and consistency. This is especially problematic since monitoring capacities remain low, and the need for and potential of mitigation in the AFOLU sector is high). In this context, Uganda's NDCs will only be effective if contributions from the land sector are quantifiable and progress can be tracked unambiguously. Willingness to participate, capacities and mechanisms to engage in land-use mitigation activities, and tracking of those activities is limited by the technical complexities of monitoring.</p> <p>Even though an MRV system was installed as part of the EU funded LECB project, there is inadequate resident capacity to fully operationalize it. The system is currently operated by one technical staff instead of one-staff for each for the five sectors. The project relied almost exclusively on external consultants inputs. There is also inadequate data for the system; and even where it exists, it is not fully disaggregated to fit the needs of the software which requires disaggregated data. Institutional capacity to access, interpret and use this information is needed. The information will greatly assist with addressing some of the monitoring, reporting and verification challenges in the AFOLU sector.</p> <p>Uganda will need to establish and maintain institutional capacity capable of analysing and interpreting independent data as reference or input for national estimations, and link local monitoring and reporting on mitigation activities with national estimations. A Capacity needs assessment will be carried out during the PPG phase.</p>
<p>Discrepancies in data access, Tools and Methodologies:</p>	<p>One major challenge is low access to complete and quality data. The MRV system that was installed, for instance, assumed that the data was already available and waiting to be fed into the system. However this is not the case. There are draft data collection protocols for all the sectors but the data remains uncollected. The draft protocols need to be validated. Training is needed to collect disaggregated data to feed into the system.</p> <p>Another challenge is integration of biophysical information, obtained by field</p>

Barrier	Elaboration
	<p>inventories and remote sensing, with survey and census data on livelihoods, social protection and equity indicators to better understand land use dynamics. Development of targeted services and datasets that are able to serve the various land-use sector stakeholders on local, national and global scales is important. Facilitating barrier-free uptake of data and information is essential.</p> <p>Uganda does not have its own emission factors. The IPCC emission factors are currently used and they need to be customized to the country needs, in order to be accurate. Secondly, emissions from land use change are generally hard to quantify. Discrepancies of estimates due to different conceptual and methodological approaches, inappropriate scales, uncertainty on data continuity, lack of data on uncertainties, and limited guidance on how to and how not to use such information limit their usefulness, and will likely raise questions regarding the legitimacy of the reports. Global comparisons of AFOLU emissions have shown differences of up to 25% highlighting the urgency of improved understanding of the reasons behind these differences. A comparison of AFOLU emissions datasets and estimates given in the IPCC Fifth Assessment Report for the tropics (including Uganda) in 2000–2005 found that the forest sector showed the largest differences mainly due to estimates from forest degradation and particularly fire. Agricultural emissions were more homogeneous, especially livestock, while croplands were the most diverse. Carbon dioxide (CO₂) estimates had the largest differences in estimates among datasets, while nitrous oxide and methane estimates were more homogenous.</p> <p>A better dialogue between the carbon (CO₂) and the AFOLU (multi-gas) communities is therefore needed to reduce discrepancies between land-use estimates.</p>

3) The proposed alternative scenario with the proposed project, with a brief description of the expected outcomes and components of the project:

12. Component 1: Establishing institutional arrangements (government, CSOs, private sector etc.) for a robust national system for GHG emission inventories and MRV systems: The lead institution, Uganda’s Ministry of Water and Environment will be supported to lead, plan, coordinate, implement, monitor, and evaluate policies, strategies, and programs to enhance transparency, including identification and dissemination of best/good practices for institutional strengthening and national network of practitioners. Through the Climate Change Department, the MWE will then enhance institutional effectiveness in data collection on emissions, and coordination of mitigation actions and support. This component will strengthen Institutional arrangements for data collection and processing in the 4 key sectors of agriculture and land use, energy, transport and waste). This will result in the establishment of an inter-ministerial coordination framework and focal points in each of the 4 key sectors, which will ensure that established capacity is more sustainable in the long term by avoiding that changes in one ministry would undo or negatively impact the established/strengthened capacity resulting from this project. Inter-ministerial coordination will also ensure that project results and NDC tracking information is higher up on the agenda of other ministries, and help raise awareness on potential GHG mitigation options in those ministries. This coordination framework will be strengthened, institutionalized and will function as hubs for data collection and processing. Linkages between the hubs and the centre will be strengthened; and information and knowledge management structures will be enhanced to meet Article 13 so as to efficiently compile data and information in reports and inventories for international review or analysis. This component will also strengthen gender focal points on climate change in the key institutions. Data collecting, processing and sharing arrangements will be formalized and operational and linkages between the hubs and the MWE established and strengthened. Formal cooperation between government, CSOs, private sector and academia will also be defined and institutionalized.

13. Component 2: Building capacity of key stakeholders to collect, process and feed data into the GHG emissions inventory system: Uganda’s Second National Communication to the UNFCCC highlights the need to strengthen capacity by conducting training of personnel in the collection and management of GHG and related data, including data interpretation, storage and updating of databases. This component will build the capacity of stakeholders on data collection and processing protocols; and procurement of state-of-the art equipment and tools for data collection. Field data teams from the key emission sectors (agriculture and land use, energy, transport, industries and waste sectors) will be convened and trained in collection, processing and transmission of GHG data. Fifteen people (from the Hubs and MWE) will also be trained in domestic MRV systems, tracking NDCs, enhancement of GHG inventories and emission projections and clarify the need to feed information into the CBIT Global Coordination platform. Lessons learned and best practices will be scaled out with peer exchange programs for stakeholders on transparency activities. Through training for stakeholder and information sharing meetings, the CBIT funds will support the strengthening of capacity and mechanisms for data collection and reporting, and key NDC information will be clarified to stakeholders e.g. baseline projections including business-as-usual targets, and reporting progress towards achieving Uganda’s NDCs. This will increase the quality and quantity of data collected for reporting and monitoring of progress towards achievement of NDCs.

14. Component 3: Testing and piloting the GHG emission inventory and MRV system: This component will support testing and piloting of an integrated system for collecting, processing, reporting, using and sharing data and information generated from the system. Data for GHG inventory and MRV system will be collected, and the national inventory of greenhouse gas emissions (by sources) and removals (by sinks) will be established, and made publicly available, and also ensure that information is included into the CBIT Global Coordination Platform. Other activities will include: establishing domestic MRV systems, tracking nationally determined contributions (NDCs), enhancement of greenhouse gas (GHG) inventories and economic and emission projections. This component will support the review of methodological approaches, strategies and mechanisms for data collection and data management, adaptation monitoring, evaluation, and communication measures. This project will also provide assistance to national institutions in quantifying and reporting impact of policy measures. The cumulative impact of the policies and measures from Uganda’s mitigation contribution will be approximately 22% reduction of overall national GHG emissions in 2030, including Land Use, Land Use Change and Forestry, compared to the business-as-usual projection. The business-as-usual emissions projection for Uganda, including Land Use, Land Use Change and Forestry, is 77.3 Million tons of carbon dioxide equivalent per year (MtCO₂eq/yr) in 2030. Total emissions in 2000 were 36.5 Million tons of carbon dioxide equivalent per year (MtCO₂eq/yr). Integration of enhanced MRV capacity into policy and decision-making processes will help identify the most cost-efficient GHG mitigation options and support acceleration of the achievement of the NDCs. The interministerial coordination mechanism will provide a platform through which data and information gained by the enhanced MRV capacity will be used to influence policy and decision-making processes in the relevant ministries and government agencies including parliament, district and lower level local councils, CSOs and academia.

4) Incremental/additional cost reasoning and expected contributions to the baseline:

Business as Usual (without project)	Incremental Benefits (with project –contributions to the baseline)
<p>Poor institutional coordination in reporting resulting in reports that lack integrity and may not pass peer review</p> <p>MRV system remains installed but will not be fully operational due to little or no capacity.</p> <p>Multiple reporting tools used but no system in place to harmonise and make reporting easier for all stakeholders.</p>	<p>This project will strengthen the capacity of the Climate Change Department to coordinate, lead, plan, implement, monitor, and evaluate programs, strategies and policies to enhance transparency.</p> <p>The project will also promote a diversity of approaches and initiatives with the purpose of increasing transparency and broadening stakeholder participation and confidence by providing free and open methods, data, and tools that are complementary to mandated reporting by national governments.</p> <p>The reporting system will be guided by the following principles:</p> <ul style="list-style-type: none"> • transparency in data sources, definitions, methodologies and assumptions; • free and open methods, data, and tools, which are truly “barrier free” to all stakeholders; • increased participation and accountability of stakeholders;

	<ul style="list-style-type: none"> • complementarity to mandated reporting by countries; • promotion of accuracy, consistency, completeness and comparability of greenhouse gas (GHG) emission estimates. • harmonized reference data and modalities for transparency and accountability in the land-use sector. that acknowledge the abundance of available data and tools. • Good practice guidelines will be updated to reflect the availability of information derived from high- resolution global remote sensing images that can be used to complement national and local monitoring efforts for mitigation purposes. • Given the diversity of methods, data and definitions, specific attention will be given to safeguarding interoperability between approaches to enable convergence toward common estimates (such as actual emission reductions to be compensated for). • Datasets and services will be compatible with definitions and standards used in Intergovernmental Panel on Climate Change (IPCC) GHG accounting, and resulting uncertainties will be quantified and reduced by comparing datasets and harmonizing definitions. • Multiple sources and types of monitoring and reporting (i.e. national forest monitoring system, independent monitoring, private sector commitment tracking) will co-exist and be integrated into a multi-level, flexible and diverse system. • The project will promote a transdisciplinary approach which will lead to much-needed transformational changes to realize the full potential of the Paris Agreement, and beyond. • Knowledge sharing platforms will be established including development of expert community-consensus guidance and training materials to make the best use of available data and information sources. This will increase opportunities for participation, transparency and stakeholder maturity. • A continuous data user–producer dialog will be established to improve independent monitoring practices. • A framework for assessing and communicating the readiness levels of monitoring methods will be developed to track progress and inform countries on maturity, characteristics (precision, accuracy) and trade-offs of technologies.
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5) Global environmental benefits:

15. Global Environmental Benefits will be delivered by supporting the Government of Uganda to implement and report on its INDC and REDD plus targets; specifically a mitigation impact of between 2.7 and 3.7 Million tons Carbon dioxide equivalent per year (MtCO₂e/a) through renewable energy; net emission reductions of between 16.9 and 22.2 Million tons Carbon dioxide equivalent per year through reversing deforestation; 260,000 hectares of new or restored wetlands. with an annual mitigation impact of between 0.8 MtCO₂e, and net zero.

6) Innovativeness, sustainability and potential for scaling up:

16. **Innovativeness:** Through this project, Uganda will implement an integrated monitoring and reporting system. Rather than report on each sector emissions separately, the project funds will put in place in one platform. This platform will have the ability to integrate data sets from various sources including external ones. Transparency in data sources, definitions, methodologies and assumptions will build trust among countries and stakeholders. Data sources, definitions, methodologies and assumptions will be clearly documented to facilitate replication and assessment. Free and open access to methods, data, and tools with detailed documentation on data processing and creation will create many opportunities to

provide better AFOLU data for various stakeholders. State of the art science in monitoring and new technologies (e.g. machine learning, remote sensing) to realise higher efficiencies will be introduced. Independent monitoring will be allowed for support – but will not be a substitute for – countries’ mitigation planning and implementation. Independent monitoring provides an opportunity to integrate independent datasets to fill data gaps and encourage continuous improvements. Data integration approaches will reduce bias at the local level, by combining independent reference data with regional and global datasets. Independent monitoring will also build trust with donors and the general public, to stimulate and compensate for mitigation actions at local, national and landscape scales.

17. Sustainability: The increased participation and accountability of multiple stakeholders (e.g. the private sector, local communities, non-government organizations) in land-use mitigation actions, decision-making and monitoring will ensure sustainability. Secondly, the MRV system has been installed in the Climate Change Department (CCD), with one staff recruited to run the system. The Government is in the process of formulating the climate change policy, which will turn the CCD into an authority. Under this arrangement, the MRV system will be an integral component with adequate staff, and a budget. The interventions under this project will help build a case for sustained government investment in sustaining this system, facilitating full integration of this system into the national planning and budgeting process. The draft climate change law has provisions which will compel other stakeholders (focal points) to submit data to the central MRV system regularly. The current intervention will justify the value added through enhanced institutional linkages- improved and consistent flow of high quality data as well as feedback, use and data reporting.

18. Potential for scaling up: The increasing emissions from deforestation and degradation is a regional problem, and measurement of compliance with the Paris agreement is a critical need in many African countries. An increased capacity for and lessons learnt in the implementation of this project in Uganda will provide important information for future projects. This project will also offer an opportunity to improve existing data protocols and the Government of Uganda’s MRV approaches, tools and capacity, and to support adoption of green economy interventions for sustainable development. Due to the similarity between Uganda’s challenges and its regional neighbours, important lessons learnt during implementation will support scaling up. The engagement of partners with global and regional presence like Vital Signs will also enhance opportunities for scaling up of these interventions.

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

Name of Institution	Role
Ministry of Water and Environment	Uganda’s Ministry of Water and Environment through the Climate Change Unit will lead and coordinate the implementation of this project. They will support the establishment of institutional arrangements (government, CSOs, private sector etc.) for a robust national system for GHG emission inventories and MRV systems. They will manage the daily implementation as well as planning, budgeting, monitoring and evaluation, and reporting of strategies and programs to enhance transparency. The Climate Change Unit will also carry out identification and dissemination of best/good practices for institutional strengthening and national network of practitioners. This project will hold quarterly meetings to develop work plans and report and monitor implementation.
Africa Innovations Institute	Building capacity in collecting, processing and use of data; testing and piloting
Ministry of Agriculture, Animal Industry & Fisheries	Crop production data collection and attribution
Ministry of Local Government, and District Local Governments	Collection and aggregation of district level data
Ministry of Gender	Data collection and mainstreaming of gender
National Planning Authority	National planning aligned data collection and integration of Climate Change into national plans

Kampala City Council Authority	Kampala emission data collection
National Forestry Resources Research Institute	Tree growth modeling
National Forestry Authority	Natural and plantation data collection
National Environment Management Authority	Data collection on wetlands
Makerere University	Research and Geo-spatial data collection and mapping
Gulu University	Crops data collection, research and crop growth modeling
Busitema University	Soil carbon data collection
Regional Centre of Mapping of Resources for Development	Development of Land cover (change) maps
Department of Surveys and Mapping	Authentication and publishing of Maps
National Crops Resources Research Institute	Crop growth and soil carbon data collection and modeling
Vital Signs Monitoring Systems, /Africa Innovations Institute	Will use their existing data integration tools to support the testing, piloting and adoption of an integrated system for collecting, processing, and reporting on transparency related data. VS will also share data and information generated from its system including soil nutrients, forest cover, and soil carbon. In addition, VS will support institutional strengthening and regional capacity building to collect, process and feed data into the GHG emissions inventory system, and help establishing knowledge sharing platforms for scaling-out lessons learnt and best practices:

3 Gender Equality and Women's Empowerment. Are issues on [gender equality](#) and women's empowerment taken into account? (yes X/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.

19. The Uganda Gender Policy is an integral part of the national development process and provides a firm foundation for the National Development Plan to be based on gender responsive strategies. This project will leverage the advancement that Uganda has made in gender equality and empowerment of women in political, economic and social spheres. It will continue this through promotion of affirmative action and non-discrimination in the treatment and enjoyment of human rights irrespective of gender and age while promoting public awareness and acceptance of the equal opportunities and gender equality and treatment in employment and occupation. COP 22 reaffirmed the need to give gender issues visibility from the composition of the COP teams, staffing of the national institutions, and local actions. With emphasis on analysis and disaggregation of impacts, beneficiaries and interventions by gender. This project will support capacity building of the focal points in collecting and disseminating gender disaggregated data. This project will also be cognizant of and use the Uganda Gender Policy in the development of cooperation partnerships, and establish appropriate institutional coordination mechanisms for ensuring gender responsiveness during implementation.

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).

Risk	Mitigation
Political risks because of changes in governance, security, and/or government decisions	<ul style="list-style-type: none"> This is a high risk but acceptable as mitigation measures are limited. Uganda is subject to frequent political disruptions that often affect government programs. However, the country has enjoyed relative stability for over 3 decades and major political turmoil is unlikely. The CCD, the lead implementer is in the process of being elevated into a semi-autonomous commission. Under this framework interministerial coordination is enhanced. As a

	<p>result, it is unlikely that the project will suffer from political and governance issues. This will help ensure that established capacity is more sustainable in the long term by avoiding the possibility that changes in one ministry could undo or negatively impact the established/strengthened capacity resulting from this project. It will also ensure that project results and NDC tracking information is higher up on the agenda of other ministries, which might be helpful in raising awareness on potential GHG mitigation options in those ministries.</p> <ul style="list-style-type: none"> • Continuous awareness and dialogue with stakeholders will also ensure minimal impacts of any political changes on the project.
Climate Change: Uganda, as with many developing countries suffer greatly from effects of climate change with frequent floods, storms, droughts affecting infrastructure and disrupting services	<ul style="list-style-type: none"> • Procurement and installation of climate proof equipment and technology • Integration and implementation of climate sensitive activities and green technologies • Raising awareness on risks of climate change on the project • Development of climate risk mitigation strategies
Inadequate participation of all stakeholders and partners, poor cooperation between participating institutions, and stakeholders remain engaged and supportive of the program	<ul style="list-style-type: none"> • Participating institutions will be actively involved from the beginning in design, implementation and management decisions • Roles and responsibilities will be explicit and participants allowed to transparently implement while sharing regular updates on progress • Continuous engagement of institutions, regular reporting, monitoring of progress, and acknowledgement of efforts and achievements by each institution • Communication plans and stakeholder requirements and expected outputs fully developed • Regular progress and monitoring meetings will be held
Insufficient resources are made available by Ugandan government, and other partners to support implementation of the project	<ul style="list-style-type: none"> • Development of a future of action for sustaining financial resources for the project • Efficient and effective expenditure to attract more support and donor interest

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

20. The Ministry of Water and Environment, through the Climate Change Department will lead and coordinate the implementation of this project. They will also support the establishment of institutional arrangements (government, CSOs, private sector etc.) for a robust national system for GHG emission inventories and MRV systems. The Climate Change Department will run the day-to-day implementation, administration, and monitoring. The department will also hold meetings, communications and information flow among partner institutions and other stakeholders. The Ministry of Water and Environment will also coordinate implementing partners including government institutions and departments, and research institutions and universities who will participate in data collection and information sharing to feed into the MRV system. Each of the 4 priority sectors will also have a focal point for data collection. These will comprise up to 15 people who will be trained from different key sectors in domestic MRV systems, tracking NDCs, enhancement of GHG inventories and emission projections.

21. The Vital Signs Monitoring System (www.vitalsigns.org), designed by Conservation International (CI), collects and integrates data using standardized protocols and methods including household surveys, vegetation plot measurements, and remote sensing. The Vital Signs system aims to provide near real-time decision support tools to policy makers to influence development in a way that protects the environment, while also improving human livelihoods in the face of climate change and associated uncertainties. As one integrated monitoring system with an integrated set of data, Vital signs is well placed to provide a cost effective integrated approach for monitoring GHG emissions in Uganda. In this project, Vital Signs will

provide relevant data from its platform and support institutional strengthening and regional capacity building and promotion of a community of practice for scaling-out lessons learnt and best practices. Vital signs will also share its knowledge and data integration tools and adapt it to the needs of this project in collecting, processing, and reporting on transparency related data.

22. Finally, this project will feed into the CBIT Global Coordination Platform. During the PPG phase, the project will design the linkages with the Platform. We expect that on a minimum lessons learned, data and information from modelling derived from the MRV system based on the data integration tools will be shared with the Global Coordination Platform.

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

23. **National Development Plan:**-Uganda's **Vision 2040** intends to transform the country from a peasant to a modern society in 30 years. The National Development Plan II endeavors to strengthen Uganda's competitiveness for sustainable wealth creation, employment and inclusive growth. Uganda has several Clean Development Mechanism Projects (CDM) within Renewable Energy even though the number is still low. In its mitigation efforts, the government of Uganda has also prioritized Forest and Landscape Restoration (FLR) in its Vision 2040, National Development Plan II, and National Forestry and Tree Planting Act (2013). In 2015, the country also launched the Uganda National Climate Change Policy. It has also developed a performance measurement framework to fast track the implementation of the policy. Under this policy, Uganda intends to implement strategies, plans and actions for low green house gas emission development in the context of its development goals. The priorities of the National Climate Change Policy have been integrated in the Second National Development Plan. Uganda aims to restore its forest cover to the 1990 levels by 2040. This is translated to the country's Bonn Challenge pledge to restore 2.5 million hectares of degraded and deforested land using the Forest and Landscape Restoration approach by 2040. Renewable Energy is the most important source of energy in Uganda's energy production, and by 2017, it is hoped that it will provide up to 67% of Uganda's energy demand. Uganda now has on-going projects within geothermal energy, wind, hydro, solar and bioenergy. Uganda is also a party to the implementation of the East Africa Community Climate Change Policy, which requires member states to initiate and develop consistent and harmonized policies and plans to address climate change. In the long term, Uganda intends to follow a climate-resilient and low carbon development path linked to green growth and broader sustainable development goals.

24. Efforts by Government of Uganda to comply with the Paris agreement and Agenda 2030 are integrated in actions plans and policies such as Uganda's Vision 2040, the National Development Plan II, the National Forestry and Tree Planting Act (2013), Uganda National Climate Change Policy, and the Green Growth Policy. This project will accelerate these action plans by strengthening capacity for transparency and generating data to guide decisions and actions, to identify and track critical areas and needs, and to coordinate efforts to achieve efficient and effective deployment of resources. This project will also rally interest and action from different sectors (government institutions, CSOs, private sector, and academia), donors, policy makers and the public for a greater awareness and response to critical environment issues in the country such as deforestation and degradation.

25. Paris agreement: Uganda is a signatory to the Paris agreement and is bound to implement its objectives and aims. Uganda is also a signatory and ratified both the United Nations Framework Convention on Climate Change (UNFCCC) and a number of Multilateral Environmental Agreements that have strong links with climate change. Uganda submitted its first national communication to the UNFCCC on October 2nd, 2002 and the second on December 2nd, 2014. The second communication states that experience during the compilation of GHG inventories suggests that there is need to improve the organization process of compilation of future inventories through a formal and institutionalized framework and planned process. It also mentions the need for use of appropriate rules of procedure and manual(s) for inventory preparation and a robust archiving system that could further facilitate future compilations. In preparation of the third communication, Uganda has accessed \$500,000 for the project, *Enabling Preparation of Uganda's Third National Communication (TNC) to the UNFCCC*. The project is expected to end in March, 2018. The CBIT funds will therefore be timely and will help strengthen capacity and mechanisms for data collection and reporting required for the TNC and the Biennial Update Reports (BUR), since the GHG inventory is a common component of the BUR and TNC. This project will also help fast track the GHG inventory system and BUR through the MRV system in order to meet the first BUR international reporting deadline of December 2017.

26. **Uganda's Nationally Determined Contributions** focuses on implementation of a series of policies and measures in the energy supply, forestry and wetland sectors. In the business-as-usual (BAU) scenario the estimated emissions in 2030 will be 77.3 Million tons of carbon dioxide equivalent per year (MtCO₂eq/yr). The estimated potential cumulative impact of the policies and measures could result in approximately 22% reduction of national green house gas emissions in 2030 compared to business-as-usual. Uganda has thus committed itself to the adoption and implementation of policies and measures designed to mitigate climate change and adapt to its impacts. This project will therefore create and strengthen an enabling policy environment and support the implementation of measures to adapt to, and mitigate climate change. In addition, the project will provide data to update the GHG inventory system which will be used by other sectors such as forestry wetlands, energy, agriculture, transport in the implementation of the NDCs. Currently, these data are scanty and the requisite data management systems are inadequate.


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

A. RECORD OF ENDORSEMENT⁷ 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)
Patrick Ocailap	Deputy Secretary to the Treasury/GEF Operational Focal Point	MINISTRY OF FINANCE, PLANNING & ECONOMIC DEVELOPMENT.	12/07/2016

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies⁸ 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
Miguel Morales		04/04/2017	Orissa Samaroo	7033412550	osamaroo@conservation.org

⁷ 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.

⁸ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT

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.