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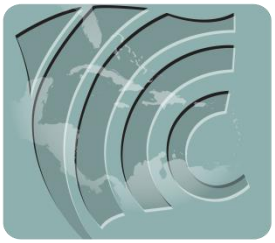

TERMS OF REFERENCE

PROJECT
ARUNDO DONAX RENEWABLE BIO-MASS FUEL FOR BELIZE

Consultancy Services

To Conduct of an Environmental and Social Impact Assessment (ESIA) and Preparation of an Environmental and Social Management Plan (ESMP) Contract# 09/2018/GCF/Belize/CCCCC

February 2018

Project:	Arundo Donax Renewable Bio-Mass Fuel for Belize
Funding/Donor:	Green Climate Fund - GCF
Implementing Agency:	Caribbean Community Climate Change Centre (CCCCC)
Name of Procurement Activity:	Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP), Belize
Contract Number:	09/2018/GCF/Belize/CCCCC
Consultancy	Team/Firm
Location of the Consultancy:	Belize
Duration:	6 months
Estimated Value of Services	US$120,000
Deadline for the Submission of Proposals	On or before 2:00pm (GMT-6), Friday 23rd March 2018
Indicative Start Date	April 2018

BACKGROUND

The Caribbean Community Climate Change Centre (5Cs) is in the process of developing a Funding Proposal [FP] for submission to the Green Climate Fund{GCF} seeking financing for investment in a bio-mass renewable energy project. This project will be based on the utilization of the indigenous fast growing C3 perennial rhizomatous grass - ***Arundo donax*** – currently available and to be cultivated widely on marginal lands in Belize. **The process of proposal submission and consideration of this project by the GCF requires inter alia the conduct of an Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP)**. This assessment and complementing management plan is necessary to ascertain the socio-economic and environmental implications of the proposed project on the society.

The conduct of the Environmental and Social Impact Assessment (ESIA) is consistent with the Government of Belize's (GoB) objective of responsibly expanding the utilization of biomass to meet some of the country's energy needs and achieve the dual aim of reducing the country's carbon footprint and adapting to climate change impacts.

The Caribbean Community Climate Change Centre ("5Cs") - the entity that is charged with coordinating the Caribbean's response to climate change - is spearheading the effort to mobilize resources for this major transformative project including overseeing the conduct of all precursor studies and analyses.

The Environmental and Social Impact Assessment (ESIA) and complementing Environmental and Social Management Plan (ESMP) are critical to the process of assessment and consideration of the merit and fundability of the proposal by the GCF. The Study will assess the environmental and social footprint of this potentially significant source of green energy for Belize, that can displace the costlier and more high polluting alternative imported fossil fuel, thus lessening the strain on an already heavily burdened national economy.

The services of a suitably qualified Consultancy Firm are being sought to undertake the following Tasks (the terms of which are defined below):

(i) The conduct of an Environmental and Social Screening of the proposed investment

(ii) **The conduct of an Environmental and Social Impact Assessment (ESIA) and**

(iii) The preparation of an Environmental and Social Management Plan (ESMP)

1.0 SPECIFIC OBJECTIVE

The main objective of this consultancy is to conduct an Environmental and Social Impact Assessment (ESIA) and develop an Environmental and Social Management Plan (ESMP) for the investment proposal entitled **Arundo donax Renewable Bio-mass Fuel for Belize** that will provide the decision makers in Belize, CCCCC and the GCF with sufficient information to justify acceptance, modification or rejection of the proposed project for financing and implementation.

3.0 SPECIFIC TASKS AND RESPONSIBILITIES

The indicative tasks to be undertaken to realize the expected objectives and output of this assignment shall include but is not limited to:

A. PRELIMINARY TASKS:

- Submit a detailed work-plan including a time schedule, budget, the names, professional status and biographic data of all professional staff to be deployed on this assignment, along with a description of the duties to be performed by each expert,
- Review all relevant documentation pertinent to the conduct of this assignment.
- Conduct wide ranging consultations with key stakeholder and other interested parties, and review relevant background information in order to gain an insight/understanding of the requirements of the assignment

B. PRINCIPAL TASKS

An indicative listing of the activities to be undertaken and issues to be studied and reported on, and recommended approaches [Methodology] to the conduct of this assignment shall include but is not limited to the issues listed hereunder.

Overall the Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) involves a detailed assessment of the institutional and managerial, regulatory and policy, environmental, socio-cultural and socio-economic implications of the proposed project/investment. This must necessarily encompass analysis of, and the presentation of findings/recommendations in respect of the subject areas listed in turn hereunder. Since the ultimate aim of the assignment is to develop a Funding Proposal seeking GCF funding for the investment, in formulating the proposal, particular attention has to be paid to demonstrating the extent to which any proposed future investment is aligned with the investment criteria that are defined in the GCF's investment framework. Moreover, The Consultant is obliged to ensure that the assignment is conducted in a manner that conduces to the preparation of the FP in a seamless manner.

DELIVERABLE I. ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST

Conduct a preliminary environmental and social screening/assessment of the expected environmental and social risks and impacts of activities[1] proposed as part of this investment programme. This ESS screening

[1] For the purposes of this document, "activities" shall refer to programmes, projects and subprojects.

must be conducted in accordance with GCF's **Guidelines for the Environmental and Social Screening of proposed Activities [see copy of guidelines attached].** The results of the screening form the basis for assigning the environmental and social risk category of activities and inform decisions on the extent and depth of environmental and social due diligence that will be undertaken. On the basis of the projected environmental and social footprint of the investment, the Consultant is required to undertake an ESIA and produce an ESMP as part of Deliverables II & III for which indicative activities are outlined below.

DELIVERABLE II. ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT [ESIA]-

Task 1 Programme Description, Diagnosis and Characterization

Program Description. Detailed description of any proposed infrastructure, if any, to be financed under the Project/Investment or to be rehabilitated or built as part of the Project/Investment, including, among other relevant aspects:

- Project/Investment activities including detailed scheduling and cost;
- Infrastructure (co-generation plant and roads) and lands (plantations) associated with the Project/Investment;
- Personnel to be hired temporarily and permanently during the stages of construction and operation of the Project/Investment; and,
- How and if "Sustainable Infrastructure" principles have been included in the Project/Investment with focus on: energy efficiency and use of renewable resources, conservation of resources such as water and energy, internal air quality, and community involvement.

Location. Where appropriate describe and present schematically, the administrative, political and geographical location of all envisaged infrastructural works of the Project/Investment, as well as the areas of both direct impact (DIA) and indirect (IDA). Provide definition and description of the Project/Investment area including associated facilities and activities

Environmental Characterization. Characterization of the area of influence where the Project/Investment will be carried out, describing the current environmental conditions, and detailing the characteristics of the area where the Project/Investment will be implemented. This characterization must include the appropriate definition of both the Area of Direct Influence (ADI) and the Area of Indirect Influence (AII) of the Project/Investment. This information should for the most part be based primarily on quantitative data. The factors to be considered should include inter alia:

- Land characteristics and use (i.e., topography, soil characteristics, terrain stability and susceptibility to erosion or landslip, existing land uses occurring at the proposed site, and existing surface characteristics of the surrounding area). Further, existing land uses occupying the surrounding area should be delineated; particularly for those land uses which would be sensitive to industrial development or other types of uses, and which could contribute to cumulative effects on local and regional resources.

- Landscape character and existing views (i.e., existing character of the landscape both on the development site and in the surrounding area; and views of the site from adjoining properties and public areas, particularly where these are sensitive, e.g., residential, recreational or tourist areas, etc.).

- Air quality including: (1) meteorological data, particularly on prevailing wind direction and speed, rainfall, and temperature; (2) occurrence of extreme weather events such as tropical storms and droughts, and their location and duration; (3) existing ambient air quality, particularly dust loading and existing sources of gaseous air emissions in the local and extended area of the Project/Investment; and (4) risk related to inversion conditions. Existing air quality cannot be determined with precision without sampling over an extended period. This may not be practicable, and a descriptive approach based on prevailing weather conditions and identification of the main local emission sources affecting air quality (e.g., traffic and heavy industries with multiple stacks) is often a better approach.
- Noise levels are relatively easy to measure, and this may be undertaken at the nearest sensitive receptor locations; e.g., residential areas or schools which are nearby the proposed Project/Investment, activity, or action. Existing sources of elevated noise levels, which might result in nuisance conditions even if they are located a considerable distance from the source, should be considered.
- Geology and soils-related information, with particular attention given to the presence of erodible soils and/or contaminated soils.
- Natural and Manmade hazards (seismic, faults, sink holes, flooding, hurricanes, chemicals or hazardous materials, etc.)
- Description of potential natural disasters on Project/Investment facilities including associated facilities.
- Description of prevailing waste management practices of the communities.
- Water, including hydrology, surface runoff, groundwater and water quality. Topics which should be addressed include: (1) existing drainage, including the location and capacity of sensitive receptors such as canals, drains and rivers; identification of areas prone to flash floods; and depth to groundwater; (2) surface water and groundwater movement patterns, including groundwater hydrology, the range of water levels and daily flushing regime in canals, drains and rivers, tidal ranges and wave climate in coastal areas and sediment transport processes; (3) the quality of waters, both surface water and groundwater; and (4) abstraction of waters including abstraction of groundwater, reservoirs and intakes of surface waters, the usage of the waters for irrigation, public water supply or watering of animals, industrial plant water supply, and the quantities abstracted, etc.
- Habitats – terrestrial and aquatic. As appropriate, two types of habitats may be relevant; namely, natural habitats and critical natural habitats.
- Flora (especially tropical rain forests, wetlands, or unique or sensitive habitats).
- Fauna
- If applicable, endangered and threatened species (including sensitive species, economically important species, and critical habitats).
- National parks or protected areas.
- Traffic flows and transport infrastructure aspects.

Social Characterization. An overview of the existing social and cultural conditions should be provided in order to place the Project/Investment in context. The baseline information considered important for the ESMP should be presented. This should include:

- Towns/communities surrounding the area, and their population and socioeconomic characterization by age, gender, ethnicity, language, literacy/education, income and occupation;
- Sources of livelihood (level/availability of employment by gender/occupation and income patterns);
- Land tenure/titling;
- Migration and settlement patterns;
- Health and education levels (including disease patterns and endemic diseases);
- Archeological/cultural sites and monuments, including sacred sites such as caves, lakes, quarries, etc.;
- Services and infrastructure (i.e., existing utility infrastructure including water supply, sewage, wastewater treatment works, power lines and transformer sub-stations; and existing capacity of and load on utilities infrastructure);
- Access to basic healthcare, education (i.e., existing clinics/hospitals, capacity of healthcare system; existing schools'/training centers, and daycare facilities);
- Social organizations and dynamics;
- Access to infrastructure/roads or network of existing transportation modes to/from the proposed development Project/Investment, activity, or action;
- Vulnerable populations (elderly, poor, disabled, and young);
- Identification and description indigenous peoples or communities that may be potentially affected by the Project/Investment; and
- Identification of any communities or households that will need to be resettled or compensated arising out of implementation of the investment.

Task 2 Legal and Institutional Framework

- Description of legislative and institutional norms, systems and environmental licensing requirements, and other necessary requirement for the implementation of the Project/Investment;
- Description of any specific and applicable local regulations and requirements relating to the energy sector and other pertinent sector/sub-sectors, and in respect of issues such as water and the food sector, solid waste, wastewater, air pollution, labor, and health and safety. In addition, the consultant will include a description of the requirements, which are applied for the activities of the Project/Investment, of other institutions such as the GCF, World Bank / IFC, World Health Organization, and other entities;
- Identify compliance required in accordance with the Environmental and Social Safeguards Policy of the CCCCC and GCF, and where applicable, compliance with policies of Access to Information, Disaster Risk Management, Gender in Development and Involuntary Resettlement;
- Identify international and regional legislation, policies, norms, standards, guidelines, and current initiatives relating to social and environmental impacts in the energy and related sectors, in Belize and the Caribbean, and ascertain how these legislative tools, policies, norms, standards, guidelines and initiatives relate and apply to the activities proposed/envisaged for the Project/Investment;

- Examine alignment with national and international strategies and plans including Intended Nationally Determined Contributions (INDCs) and Sustainable Development Goals (SDGs);
- Describe, if applicable, mechanisms of Public/Civic Participation and Consultation to include information related to public consultation processes and citizen participation as requirements for the construction and operation of the Project/Investment;
- Determine the applicability of any proposed activities within the context of GCF ESS Standards (IFC Standards);
- Examine the extent to which implementation of environmental safeguards and controls might be hindered (for example policy overlaps). This will provide an overview of the existing environmental management regimes and the extent to which these are applicable to this proposed undertaking;
- Assess the contractors and/or executing entities capacity to manage the safeguard requirements of the Project/Investment; and
- Assess the capacities of the stakeholders to support and carry out identified arrangements to deliver the envisioned benefits or mitigate negative impacts. Where constraints are identified and characterized, the ESIA shall describe measures to develop the capacities/capabilities of the stakeholders.

Task 3 Assessment of the Environmental and Social Impacts of the Project/Investment

- Identification and assessment of environmental and social impacts of the project/investment, including those impacts related to occupational safety and health in the stages of construction, operation and maintenance should be done. Consideration should be given to all potential direct and indirect negative impacts. The ESIA should:
    - Consider the supply chain impacts, especially, the supply of wood/ biomass needed to keep the plant running and the operations viable.
    - Outline how the project would comply with the AE's and GCF's ESS standards.
    - Address any national regulatory issues related to the environmental and social assessment of the project, for example, the license permits from the national regulator.
    - Identify, describe and assess all potential environmental and social, direct and indirect, short and long-term, temporary and permanent impacts, indicating their importance level and their probability of occurrence. The importance level may be assessed on the basis of the nature, extent, intensity and duration of the impact, as well as on the sensitivity of the concerned environmental and social components and perceptions of the public.
    - Highlight ALL impacts including irreversible or unavoidable impacts. Cumulative and scale effects shall also be addressed taking into account ALL planned activities or actions in the project area.
    - Identify, describe and assess impacts on the biodiversity of surrounding areas, including:
        - protected areas proximate to the plantation sites;
        - weed risk assessment, risk of genetic invasion and its impacts on the native vegetation, biodiversity and ecological services; and,
        - assess, against national and international standards, the air quality and emissions from stacks of the thermal power plant associated with combustion of Arundo donax.
- The identification and evaluation of socio-environmental impacts must be based on the characterization of the area of influence. This characterization outlines the general conditions of the area without the effects of the Project/Investment and constitutes the basis for analyzing how the Project/Investment will impact the area.

- The assessment of the environmental and social impacts should be done by identifying and describing impacts and overall impact by the proposed investment on the environment as a result of the interplay between the different stages and activities as well as with other projects and facilities.
- Describe the evaluation method used, indicating the criteria for assessment and pointing out its limitations, according to the environmental characteristics of the area of influence of the Project/Investment and its activities. Such assessment should have their respective categories so as to facilitate the qualitative and quantitative weighting of impacts.
- Recommend methodologies for the assessment of the risks and impacts and the significance criteria and definition.

Task 4 Assessment of Alternatives: identification of alternatives considered for the Project/Investment including sites, technologies, approaches, etc. With each alternative, assess the environmental implications, and social risks and potential impacts.

Task 5 Disaster Risk Assessment and Disaster Risk Management Plan [DRMP]

This must involve the identification and evaluation of potential natural and manmade Project/Investment risks that can occur in the context of the Project/Investment. This Disaster Risk Assessment (DRA) shall require the preparation a Disaster Risk Management Plan (DRMP) that will cover the management of the disaster risks identified in the Project/Investment design, construction and operation. This DRMP will be integrated into the Environmental and Social Management Plan. A detailed guideline for the preparation of the said DRMP is included (Annex 1).

DELIVERABLE III. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

Task 6 Environmental and Social Management Plan (ESMP)

The Consultant(s) is required to prepare an environmental and social management plan for the Project/Investment that includes the following components:

- Detailed description of all proposed environmental and social control and mitigation measures that are needed based on risks arising out of the Project/Investment as a whole, the type of activity undertaken or actions during construction (e.g., air quality management plan, and landscape management plans) and operation (e.g., hazardous materials and fuel management, transport and packing management, maintenance and site security plans, and emergency evacuation and contingency plans). The ESMP must:
    - Identify mitigation measures to prevent, minimize, mitigate or compensate for adverse environmental and/or social impacts.
    - Develop enhancement measures to improve project environmental and social performance.
    - Present initiatives proposed to complement the enhancement and mitigation measures.
    - Include a biodiversity management plan, if supplying the feedstock will involve growing out other plants.
- Detailed description of a planned environmental and social monitoring program for both construction and operation and a discussion of how the information will support management practices.
- Description of planned worker health and safety plan, procedures and controls.

- A management plan covering the transport, handling, storage and disposal, with associate management and reporting practices including preventive and contingency measures, in consultations with potential workers and communities (if applies). Include an annex of restricted toxic substances that may be an input or output of this project/investment, referencing international treaties such as Basel Convention, Rotterdam Convention, and others.
- Description of planned environmental contingency plan and procedures.
- Description of a proposed environmental, health and safety management system (including personnel, training, documentation, auditing, etc.).
- Where applicable Description of a plan to manage population influx into the Project/Investment site or controlled land use area (e.g., contracting requirements to manage potential worker expectations).
- Describe a plan to manage regeneration and cultivation of Arundo Donax to mitigate the spread to vulnerable habitats. The recommended actions and indicators should suit the Belizean context but must be guided by the IFC Performance Standard 6 on alien invasive species and the IFC guidance on biomass.
- Enhance, where necessary, the actions identified in the environment and risk management plan for piloting the cultivation of Arundo Donax in Northern Belize.
- Description of a plan/mechanism to receive and facilitate resolution of affected community concerns and grievances about the Project/Investment, activity, or action and its negative impacts. Develop a mechanism for project-level grievance redress including the Accredited Entity's (AE's) institutional level grievance redress mechanism. The mechanisms should provide a user friendly medium/process by which people affected by the project can bring their concerns to the attention of the AE.
- Description of a plan to protect, reduce, and manage the negative impacts on any sacred/archaeological and historic sites/monuments if applicable.
- Description of Project/Investment, activity, or action-specific supervision and evaluation actions to be implemented.
- Public awareness, communication and training programs for operational staff.
- Indicators of compliance with licensing and approval requirements.

For each component listed above, the proposed time schedule (i.e., when initiated, when completed, and frequency), responsibility (i.e., who will implement), and the estimated cost should be provided; As appropriate, this information should also be provided for the individual actions within a component.

More specifically, monitoring/evaluation parameters which may be relevant include:

- Performance indicators in relation to critical operational issues (i.e., water quality -- marine and freshwater, shoreline morphology and sediment budget, soils and sediments, noise and air quality, public health indicators, land surface and hydrology, flora and fauna, etc.).
- Waste management performance indicators in relation to recycling and reuse.
- Documentation of complaints received.
- Also, monitoring procedures should cover:
    - The key conditions that will be monitored and their criteria and reason for monitoring such as noise (low frequency, high frequency, and vibrations), dust (particulate matter),

air emissions (NO_2, SO_2, CO, CO_2, H_2O %, metals, etc.), wastewater (volume, suspended solids, pH, toxic substances, etc.), waste (solid waste and hazardous waste) and odor;

- The monitoring locations (air emission outlet: particulate matter, CO_2, NO_2, and SO_2; the property boundary: noise, odor, particulate matter, CO_2, NO_2, SO_2 and other relevant substances; outdoor storage areas for raw materials (dust fall from the areas), intervals and duration;
- Actions to be undertaken if the monitoring indicates a noncompliance condition or abnormality; and,
- Internal reporting and links to management practices and action plans.

- Reporting to relevant authorities and, if appropriate, to the consent authority or the community on matters such as reports on interruptions of operations, operational journals, list of used raw materials, protocol on stored raw materials, dustfall reports from the storage areas for raw materials, and noise documentation.
- Reports on odor and air pollutant emissions and ambient concentrations, CO_2 equivalent documentation reports for greenhouse gases, energy consumption reports, wastewater reports, etc.
- Grievance reports and complaints received, non-compliance reports.

4.0 RELEVANCE

This is to involve verification of the relevance of the proposed project in addressing existing problems/exploiting opportunity in economic, social and environmental terms.

An assessment/verification of the extent to which the proposed project is coherent with the country's macro-economic environment, and addresses economic or social demands through the examination of various options and alternatives is vital. Among other things this will involve an examination of:

- the nature and number of beneficiaries potentially affected by the proposed project;
- all organizations and agencies affected by or involved in the proposed project;
- all major problems/opportunities related to the proposed project, experienced by the beneficiaries and other parties involved, the causal inter-relationships of these problems/opportunities, and the inter-sectoral linkages;
- other interventions or priorities of ministries, agencies and donors which may affect or be affected by the proposed project/investment;
- information from previous studies and evaluations relevant to the proposed project/investment.
- Overall objectives: Why is the project important to the target groups and beneficiaries, the region and the Government? What is the desired economic, social and environmental development/impact, as possibly expressed in the Indicative Programme?
- Project purpose: Why do the target groups and beneficiaries need the project?
- Project results: What products and services will the project deliver to the target groups and beneficiaries? What assumptions are required to achieve the project purpose?
- Project activities: What is the precise scope of activities to be undertaken and what are the associated assumptions for achieving the project results. The project purpose and results should be measurable by indictors, and project activities should be quantified wherever possible.

5.0 SUSTAINABILITY

The consultants will assess the sustainability of the proposed initiative using applicable sustainability factors in that assessment including but not limited to:

- policy and coordination;
- demand and economic sustainability;
- financial sustainability;
- institutional and management sustainability;
- environmental and sociocultural sustainability;
- regulatory and operational sustainability.

6.0 PRE-REQUISITE CONDITIONS

The consultants will advise of any preconditions/pre-requisites for undertaking the investment that is imperative for project viability and sustainability.

The consultants are required to propose an efficient project organization and any phasing of project activities considered necessary for the success of the undertaking. Cost estimates are to be provided for all project activities.

The lists of issues set out above are not exhaustive. The consultants are required to use their professional judgement, experience and competence to review all relevant/pertinent factors and to table these for consideration in the conduct of the studies and the preparation of the FP.

7.0 OBLIGATIONS OF CCCCC

CCCCC commits to the following:

- Provide the Consultant with the latest draft of the PPF application proposal **Arundo donax Renewable Bio-mass Fuel for Belize**
- Provide the Consultant with a previous report entitled "Study of the Impacts of Climate Change on Vulnerable Groups in PPCR Participating Countries in the Caribbean" (Bynoe, 2014).
- Participate in structured dialogue(s) with the consultant to address any questions or concerns and to provide updates about progress made on the study.
- Review the draft report within a week of its submission, providing feedback to the consultant.

8.0 DELIVERABLES AND REPORTING REQUIREMENTS

1. **An Inception Report** to be submitted within one (1) week of contract signing that includes a Workplan with timelines for completing the assignment
2. **A report detailing the outcome of the Environmental and Social Screening Exercise to be produced within 1 month of the commencement of the assignment**
3. **A Draft Environmental and Social Impact Assessment (ESIA)** for the Proposed Project on Arundo donax Renewable Bio-mass Fuel for Belize.
4. **A Draft Environmental and Social Management Plan (ESMP)** for the Proposed Project on Arundo donax Renewable Bio-mass Fuel for Belize
5. **A Final Environmental and Social Impact Assessment (ESIA) Report and Environmental and Social Management Plan (ESMP)**, incorporating suggestions and feedback from the project core team during the review of the draft, and including an executive summary that highlights the most important findings (maximum 2 pages). This document is one of the principal output (s) of the Assignment and shall provide a basis for future decision making in respect of the project. It is required to be comprehensive and based on the scope of works and specific activities outlined and must conform to the following minimum requirements:

a. A document that can be used in non-technical discussions with potential partners, the wider society public and private sector officials, service providers and others to prove/provide evidence of the feasibility/viability of and obtain support for the development of the project.
b. It must/should contain a time-bound roadmap/blueprint for pursuing recommendations emanating from the assignment
c. Data and information in the report must be presented in an analytical manner and address the issues highlighted above
d. A draft copy of the Final report and plan must be prepared by the consultant and submitted to the CCCCC for approval and agreement prior to finalization.

9.0 QUALIFICATIONS AND KEY EXPERTISE

The Contractor is expected/required to propose a team of Consultants that should ideally comprise the following mix of competencies:

- Proven expertise and in-depth knowledge of sustainable energy and climate change policies and practices in the Latin America and the Caribbean context;
- Knowledge of the electricity industry in Belize and/or in the Caribbean and Latin American region especially in relation to matters such as: technical requirements, necessary permits and procedures for connection, etc.
- Knowledge of renewable energy, particularly in the field of bio-energy (biomass) and solar energy.
- Must have knowledge of the biomass market and the characteristics of available biomass in the Latin American region.
- Previous experience and qualifications with biomass based conversion technologies (gasification, direct combustion) exceeding 7 years and ideally with innovative technologies such as torrefaction and gasification.
- 10 years of experience conducting environmental impact assessments, environmental analyses or research in the field of environmental life cycle impacts and climate change.
- Track-record of participating in the engineering, execution, operation and/or maintenance aspects of at least 5 similar projects, and experience of biomass based systems of >1 MW. Experience with conducting prefeasibility and feasibility studies is an asset.
- Must have at least 10 years proven experience in renewable energy projects especially conducting Environmental and Social Impact Assessments at national, regional and international levels.
- Should hold advanced degrees in their respective areas of expertise (social sciences, engineering, energy, environmental sciences, energy law, environmental policy, sustainable development, or other relevant fields)
- Conversance with the GCF procedures and prior experience in preparing a GCF Funding proposal would be an asset.

The following indicative subject matter specialist are considered as a minimum requirement for the composition of the Consultancy team:

Expert I/Team Leader: Masters Degree or equivalent in Environmental and Social Impact Assessment Specialist with expertise preferably in the field of environmental sustainability, environmental science, environmental engineering, eco-system services management, environmental and social sciences or other field relevant to environmental sustainability and climate change.

Expert II: Masters Degree or equivalent in Mechanical, Civil Engineering, renewable energy (bio-mass) or related fields. 10 years' experience working in the areas of mechanical or civil engineering, renewable energy (bio-mass) or related fields.

Expert III: Masters Degree or equivalent in Agricultural Science, Agronomy Natural Resource Management, Agricultural Extension or related fields. 5 years' experience working in the areas of agriculture, agronomy natural resource management, agricultural extension or related fields.

10.0 LOCATION AND DURATION OF ASSIGNMENT

Location: Belize
Duration: 6 months

11.0 MANAGEMENT OF THE ASSIGNMENT

The consultancy will be commissioned by CCCCC who is the Contracting Authority for the purpose of the assignment. The Consultants will report directly to CCCCC for contractual and administrative purposes. CCCCC will constitute a project core team to provide additional technical advice and inputs, overall coordination and oversight for this assignment. The Consultants will liaise with everyone from the project core team but will ultimately report to CCCCC. Changes in the TORs can be made subject to and only after written mutual agreement between the Consultants and CCCCC

12.0 REFERENCES/APPENDICES

The Consultant is required to consult and review all the background information that has contributed to the evolution of this investment opportunity in its present form, as important reference data and information to inform the conduct of the assignment.

An indicative List of the previous studies conducted [not exhaustive] include:

1. Belize Bio-mass Project Opportunity – Clinton Foundation [Clinton Climate initiative] Caribbean Community Climate Change Centre
2. Environment and Risk Management Plan for Piloting the Cultivation of Arundo Donax in Northern Belize

13.0 EVALUATION CRITERIA

#	Description	Weighting
Main (Technical)criteria (70 marks total)		
A	**Expert I/Team Leader** : should possess at least a Masters Degree or equivalent ranging in environmental sustainability, environmental science, environmental engineering, eco-system services management, environmental and social sciences or other field relevant to environmental sustainability and climate change; **Expert II:** Masters Degree or equivalent ranging in Mechanical, Civil Engineering, renewable energy (bio-mass) or related fields; **Expert III**: Graduate qualifications/expertise in Agricultural Science, Agronomy Natural Resource Management, Agricultural Extension or related fields	15

	Experience - Experts	
B	**Expert I/Team Leader:** at least 10 years of experience conducting environmental impact assessments, environmental analyses or research in the field of environmental life cycle impacts and climate change at the national, regional and international levels. **Expert II:** 10 years' demonstrated experience working in the areas of mechanical or civil engineering, renewable energy (bio-mass) or related fields; **Expert III:** 5 years demonstrated experience working in the areas of agriculture, agronomy natural resource management, agricultural extension or related fields.	20
C	Proven expertise and in-depth knowledge of sustainable energy and climate change policies and practices in the Latin America and the Caribbean context.	5
D	Knowledge of the electricity industry in Belize and/or in the Caribbean and Latin American region especially in relation to matters such as: technical requirements, necessary permits and procedures for connection, etc.	5
E	Knowledge of renewable energy, particularly in the field of bio-energy (biomass) and solar energy. Must have knowledge of the biomass market and the characteristics of available biomass in the Latin American region.	5
F	Previous experience and qualifications with biomass based conversion technologies (gasification, direct combustion) exceeding 7 years and ideally with innovative technologies such as torrefaction and gasification.	5
H	Must demonstrate at least 10 years proven experience in renewable energy projects especially conducting Environmental and Social Impact Assessments at national, regional and international levels.	5
I	Track-record of participating in the engineering, execution, operation and/or maintenance aspects of at least 5 similar projects, and experience of biomass based systems of >1 MW. Experience with conducting prefeasibility and feasibility studies is an asset.	5
K	Conversance with the GCF procedures and prior experience in preparing a GCF Funding proposal would be an asset	5
Commercial criteria (30 marks total)		
G	Competitive fee rates and expenses in relation to the market and demonstration of Value for Money.	15
H	Clear and effective financial plan to deliver output based deliverables and key performance measures	5
I	Financial approach and methodology for ensuring the requirements will be delivered on time and in line with agreed costs, highlighting any financial risks.	10
	Total	**100**

14.0

APPLICATION PROCESS AND DEADLINE FOR SUBMISSION

Interested candidates are required to submit the documents listed in the Request for Proposal (RFP), Instruction to Consultants, 3.4 and 3.6 *(page 22)* before the deadline. **Submissions must be clearly marked Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP), Belize Contract# 09/2018/GCF/Belize/CCCCC**

Electronic Submission Permitted:

Technical Proposal and Financial Proposal must be submitted as two (2) separate PDF files **via email to: *procurement@caribbeanclimate.bz.* The deadline for the submission of proposals is on or before *2:00pm (GMT-6), Friday 23rd March 2018***

For queries regarding the Procurement documents and submission process, email:
awilliams@caribbeanclimate.bz
Attention: Ms. Allison Williams
Procurement Officer
Caribbean Community Climate Change Centre