

JAMAICA

Terms of Reference (TOR)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) SPECIALIST INVESTMENT PROJECT 1 STRATEGIC PROGRAMME FOR CLIMATE RESILIENCE

I. BACKGROUND

Jamaica, a small island developing state, is particularly vulnerable to climate change. Approximately two-thirds of the population of about 2.7 million people lives in coastal towns and communities, located that is, within 2 km of the coast. In addition, the coastal zone contains an estimated 75% of industries and service sectors and is responsible for generating some 90% of GDP. Over the ten year period 2001-2010, hydro-meteorological hazards have caused damage and losses estimated at \$111.8 billion. On average over this ten year period, the damage and loss suffered due to these hydro-meteorological events, amounted to approximately 2% of Jamaica's GDP.

Based on the most recent projections for climate change, countries like Jamaica will be severely threatened by the direct and indirect impacts of climate change, most of which are projected to accelerate in the coming decades. In fact, data from climate models downscaled under Phase I of the PPCR have indicated that the country will experience significant changes in temperature, precipitation and sea-level rise (SLR) by 2050. In addition to the changes projected, the models have also indicated increased climate variability to result in:

- decrease in the length of the rainy season by 7-8 per cent
- increase in the length of the dry season by 6-8 per cent
- a potential increase in the frequency of intense rains

Given these projections, Jamaica's vulnerability to changing climatic conditions is likely to increase with sectors such as water, agriculture and tourism being severely impacted. For this reason, adaptation to climate change is critical for Jamaica, as failure to implement adaptation measures will likely retard the achievement of the country's sustainable development goals under Vision 2030 Jamaica National Development Plan.

Jamaica is therefore implementing a number of initiatives to mitigate disasters and address climate change resilience building particularly in the priority sectors - human health, tourism, agriculture and food security, water resources, coastal resources and human settlement - outlined in Jamaica's Second National Communication to the UNFCCC. Among the funding facilities being accessed in support of the national

efforts is the Pilot Programme for Climate Resilience (PPCR)¹ under the Global Climate Investment Funds (CIF) Program. The programme was designed to pilot and demonstrate ways to integrate climate risks and resilience into core development planning among developing countries. Jamaica is one of six regional countries which are participating in the Caribbean regional PPCR.

Under Phase I of the PPCR, Jamaica has completed four critical technical studies to inform initiatives to address climate change, undertaken institutional strengthening and developed a Strategic Programme for Climate Resilience (SPCR) approved in November 2011. The SPCR is a multi-sectoral programme to be implemented as Phase II of the PPCR. It is being executed by the PIOJ and implemented across several agencies, namely; the Meteorological Services, Ministry of Health, Ministry of Agriculture and Fisheries, Rural Agricultural Development Agency, Water Resources Authority, Ministry of Water, Land, Environment and Climate Change, University of the West Indies, and PANOS Caribbean.

Along with the sectoral focus of the SPCR, key crosscutting themes will be addressed. These relate to climate change knowledge and awareness building; mainstreaming; risk information; and data collection and management. The SPCR will be implemented through three investment projects, Investment Project 1 – Climate Data & Information Management; Investment Project 2 - Institutional Mainstreaming and Sectoral Adaptation; and Investment Project 3 - Climate Change Adaptation & Disaster Risk Reduction Financing.

Financing for the investment projects is being channeled through two multi-lateral development banks (MDBs), the IDB and World Bank. To access funding for these, the project concepts must be developed into fully-fledged costed proposals for submission to the PPCR Review Committee and the Board of the respective MDB. The design of Investment Project 1 is being led by The World Bank and that of Investment Projects 2 and 3 by the PIOJ with technical assistance from the IDB.

Investment Project 1 which is the subject of this assignment specifically targets improved quality climate information for effective planning and action at local and national levels. Its objectives are to:

- a. strengthen Jamaica's meteorological observation and data collection systems; and,
- b. develop updated climate change scenarios specific to Jamaica and using them to assess expected consequences of climate change on priority sectors.

¹ The other Caribbean countries participating in the PPCR are Haiti, St Lucia, Grenada, Dominica and St. Vincent and the Grenadines. The PPCR is being implemented by The World Bank (WB), the Inter-American Development Bank (IDB), and other multilateral organizations and involves both public and private sector entities and Non-Governmental Organizations.

The activities in Component 1 will involve physical works with the potential for environmental impacts, namely the replacement of the currently obsolete RADAR system, the replacement or retrofitting of manually-read rain gauges with automatic recording systems linked to satellite or other real-time transmission systems, and the installation and/or upgrading of hydrologic data collection stations. Detailed information on the specific locations, materials, access, equipment, and other factors are not yet known for specific subprojects. It is known, however, that these activities may involve civil works such as the rehabilitation of buildings and upgrading of their potable water and back-up electricity supplies, improvements of access to instrumentation sites, or selection of new sites with installation and emplacement of metering towers or soil moisture pads, rain gages, or stream gages. These works may involve the demolition and removal of structures and obsolete monitoring equipment, disposal of wastes or materials. Accordingly, the goal of these TOR is to provide the environmental and social management instruments to minimize and mitigate these potential impacts.

Under Components 2 and 3 the following activities are contemplated:

- c. conduct vulnerability assessment of the health sector;
- d. develop a comprehensive risk/climate change information platform; and
- e. improve climate change knowledge, attitudes and practices nationally.

The activities related to Components 2 and 3 have socially relevant implications, for which reason these TOR also include stakeholder consultations and the elements of a social assessment.

II. SCOPE OF WORK

1. In carrying out the assignment, the Consultant is required to employ a collaborative approach in ensuring that inputs are obtained from a wide cross section of stakeholders and from the consultants that relate to the investment. The investment proposal developed will establish linkages with planned and on-going climate change programmes to facilitate complementarities and reduce potential for duplication. The proposal will be formulated in keeping with the required format, content and quality required by the PPCR Sub-Committee; and the loans and grants documents of the World Bank.
2. Specifically, the Consultant is required to develop an ESMF (Environmental and Social Management Framework) which includes the following tasks and addresses the following factors:

- a. Review relevant documentation and literature² related to the project so that the appropriate plans and social and environmental management instruments can be developed and elaborated upon, ensuring that particular attention is given to meeting the objectives of the investment concepts;
- b. Develop a stakeholder analysis to identify knowledge gaps and the needs of key national and local stakeholders based on the results of the recently completed Climate Change Knowledge, Attitude and Practices Survey;
- c. Prepare a stakeholder participation plan including roles and responsibilities and incorporating gender and special needs, and define specific activities so that women and special groups benefit from participation in project implementation;
- d. Develop a screening procedure to identify potential environmental and social effects of specific activities, and to determine whether effects are relatively minor and can be summarily addressed and managed; or whether there are any potentially significant effects upon natural habitats, physical or cultural resources at particular project works sites, which would require further and separate analysis due to these complexities;
- e. Create a checklist and suite of mitigation measures suitable for incorporation into project contract documents and the Operations Manual. Examples of screening checklists and contract clauses are provided in Annex A for reference, but should be adjusted by the consultant to meet the specific needs of the project;
- f. Identify both the positive and adverse environmental and social impacts of the project and recommend effective measures to mitigate the adverse impacts through the development of an Environmental Management Plan (EMP) containing detailed descriptions of the mitigation measures, suitable for incorporation into project contract documents and the Operations Manual;
- g. Assess the potential environmental and impacts of proposed project activities. This will specifically include carrying out social and environmental analyses to ensure that the Project complies with the World Bank's environmental and social management frameworks. The consultant will specifically look at whether the following safeguard issues apply to any of the specific subproject activities proposed by the project by developing a screening methodology for the following items:

² Relevant literature and documentation includes, but is not limited to: the Strategic Programme for Climate Resilience; Jamaica's Second National Communication to the UNFCCC; the PPCR template for detailed investment proposals; World Bank project profile template for loans and grants; PPCR programme documents including approved investment projects; project documents of recently implemented and on-going climate change projects; related Government of Jamaica (GOJ) policies, strategies, and plans including Vision 2030 Jamaica – National Development Plan, relevant sector plans, and the like.

- i. **Environmental Assessment OP/BP 4.01:** The project activities are expected to have largely positive environmental and social impacts as improving weather and climate information and forecasting will contribute to increase productivity, strengthen disaster risk management and reduce vulnerability. However, as there are some works involved (replacement of radar; upgrading monitoring stations), there may be some minor and reversible environmental impacts from construction activities. To ensure that these impacts are adequately assessed and managed, the Environmental and Social Management Framework (ESMF) (suitable for inclusion in contracting documents and the Operations Manual) laying out the applicable policies and guidelines will be prepared, discussed and disclosed, including an EMP (Environmental Management Plan) with a list or matrix of specific measures for relatively simple projects to minimize and mitigate the potential environmental impacts, which satisfies the environmental management and mitigation objective of the policy. However, if the screening procedure identifies more complex projects with potentially significant environmental and social impacts requiring further assessment, these would be identified through the checklist procedure and in such cases would require the preparation of a subproject-specific EA (Environmental Assessment) in accordance with the Policy, as would be determined by the proper application of the screening procedure developed by the consultant.
- ii. **Natural Habitats OP/BP 4.04:** The consultant will assess whether the installations will affect natural habitats since it is possible that there will be construction of works in regions or areas where natural habitats may be affected, which would then trigger this safeguard policy. While project activities are not expected to affect natural habitats, some meteorological stations may be located in protected or sensitive areas and the exact locations and potential impact are not yet known; therefore a screening criterion to avoid negative impacts in Natural Habitats and /or protected areas will be included in the ESMF, for example a prohibition on the construction of new, permanent access roads within protected or sensitive areas, as these would require additional detailed studies as described above.
- iii. **Physical Cultural Resources OP/BP 4.11:** The project includes minor construction works in locations to be identified where physical cultural resources could be affected during earthworks. The consultant will thus include the following: (a) screening procedures to ensure that construction sites are assessed for the presence of physical cultural resources and that no works will affect known cultural sites, and (b) chance find procedures, consistent with the

requirements of this policy, to be followed during site preparation and construction, in the EMP mitigation measures.

- iv. **Involuntary Resettlement OP/BP 4.12:** The consultant will determine whether this safeguard policy will be triggered, and define whether the proposed investments, especially works related to installing and upgrading hydrological stations, will require the taking of land or the involuntary restricting of access, in such case requiring the preparation of a Resettlement Policy Framework in accordance with the Policy.

- h. Assist in the preparation of the Project Operational Manual as needed, which will likely require that data gathered be fed into the manual while ensuring that everything put in to the manual is properly costed and captured;

- i. The ESMF should also include institutional arrangements and information on the agency or agencies responsible for supervising project impacts; on the monitoring of the contractor performance by the implementing agency or agencies; and on the reporting of environmental matters to the relevant agencies and administrations.

- j. Disclose the draft ESMF to all interested stakeholders and invite their feedback and suggestions on the scope and adequacy of the proposed assessment, mitigation and benefit enhancement measures.

- k. Outline the requirements of the vulnerability assessment of the health sector ; and

- l. Assist in ad hoc tasks required to complete the project preparation; and

- m. Work with other consultants to revise the draft project document to incorporate stakeholder feedback and prepare draft final for review and input by the PPCR Sub Committee and the World Bank

III. EXPECTED DELIVERABLES

The expected deliverables of this assignment are:

1. An inception report inclusive of a detailed work plan, five days after the signing of the contract;
2. Stakeholders consultation plan;
3. Coordination mechanism among various institutions for SFM, SLM, biodiversity conservation, climate change mitigation/adaptation following broad stakeholder consultations to be incorporated in the Operational Manual;

4. Draft ESMF including: (i) a summary of all findings from the stakeholder analysis, and the impact assessment of the project according to World Bank guidelines; (ii) recommendations of mitigation measures for adverse impacts; (iii) a stakeholder involvement plan that is agreed by key stakeholders in the country; and (iv) screening procedures and an EMP as described in the Scope of Work.
5. Final ESMF incorporating stakeholder feedback; and
6. Three copies of the final report in digital form and hard copy.

IV. SPECIFICATIONS OF THE CONSULTANCY

1. Type: The type of consultancy is an individual consultant.
2. Duration: The entire consultancy will be for a maximum of 25 days over an elapsed period of 3 months
3. Location: The consultant will work at the consultant's place of residence and the Planning Institute of Jamaica (PIOJ).
4. Qualifications: Candidates should have a post-graduate degree in Development Studies, Environmental Management or related discipline, and at least 5 years' proven experience in the conduct of social and environmental assessments.

The candidate should also have:

- Excellent knowledge of the English language (both spoken and written) and excellent communication skills;
- Knowledge and/or familiarity with the social dynamics in Jamaica and/or of rural communities such as those where the works may be located;
- Ability to work well with Government officials and community personnel; and
- Experience in implementing international social safeguards policies/standards (e.g. World Bank, IFC or IADB) would be considered an advantage

The candidate should be able to legally work in Jamaica.

V. REPORTING/ COORDINATION

The consultant will work under the supervision of Director, Sustainable Development and Regional Planning, Planning Institute of Jamaica or her nominee and in close collaboration with the other consultants engaged to prepare Investment Project 1. He/she will also coordinate with the consultants working on Investment Projects 2 and 3 with the counterparts designated by the PIOJ.

The consultant will work closely with the World Bank Social and Environmental Safeguard teams, including Michael Darr (mjdarr@nmia.com).

ANNEX A. EMP Checklist for Small Works Activities

General Guidelines for use of EMP checklist:

The EMP checklist-type format attempts to cover typical core mitigation approaches to civil works contracts with small, localized impacts. It is accepted that this format provides the key elements of an Environmental Management Plan (EMP) or Environmental Management Framework (EMF) to meet World Bank Environmental Assessment requirements under OP 4.01. The intention of this checklist is that it would be applicable as guidelines for the small works contractors and constitute an integral part of bidding documents for contractors carrying out small civil works under Bank-financed projects such as the Climate Data Management Project Component 1.

The checklist has three sections:

Part A includes a descriptive part that characterizes the project and specifies in terms the institutional and legislative aspects, the technical project content, the potential need for capacity building program and description of the public consultation process. This section could be up to two pages long. Attachments for additional information can be supplemented when needed.

Part B includes an environmental and social screening checklist, where activities and potential environmental issues can be checked in a simple Yes/No format. If any given activity/issue is triggered by checking “yes”, a reference is made to the appropriate section in the following table, which contains clearly formulated management and mitigation measures.

Part C represents the mitigation plan for activities during project construction and implementation. It retains the same format required for EMPs proposed under normal Bank requirements for Category B projects. It is the intent of this checklist that Part 2 and Part 3 be included into the bidding documents for contractors, priced during the bidding process and diligent implementation supervised during works execution.

CONTENTS

- A) **General Project and Site Information**
- B) **Safeguards Information**
- C) **Mitigation Measures**

PART 1: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE				
Country				
Project title				
Scope of project and activity				
Institutional arrangements (Name and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location			Attachment 1: Site Map []Y [] N	
Who owns the land?				
Description of geographic, physical, biological, geological, hydrographic and socio-economic context				
Locations and distance for material sourcing, especially aggregates, water, stones?				
LEGISLATION				

Identify national & local legislation & permits that apply to project activity	
PUBLIC CONSULTATION	
Identify when / where the public consultation process took place	
INSTITUTIONAL CAPACITY BUILDING	
Will there be any capacity building?	[] N or []Y if Yes, Attachment 2 includes the capacity building program

PART 2: SAFEGUARDS INFORMATION

ENVIRONMENTAL /SOCIAL SCREENING			
	Activity	Status	Triggered Actions
Will the site activity include/involve any of the following??	A. Building rehabilitation	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	B. Minor new construction	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section B below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input type="checkbox"/> No ??	See Section C below
	E. Acquisition of land ³	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section D below
	F. Hazardous or toxic materials ⁴	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section E below
	G. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section F below
	H. Traffic and Pedestrian Safety	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section G below

³ Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

⁴ Toxic / hazardous material includes but is not limited to mercury, batteries, asbestos, toxic paints, noxious solvents, removal of lead paint, etc.

PART 3: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
O. General Conditions	Notification and Worker Safety	<ul style="list-style-type: none"> (a) The local construction and environment inspectorates and communities have been notified of upcoming activities (b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works) (c) All legally required permits have been acquired for construction and/or rehabilitation (d) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) (f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
A. General Rehabilitation and /or Construction Activities	Air Quality	<ul style="list-style-type: none"> (a) During interior demolition debris-chutes shall be used above the first floor (b) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust (c) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site (d) The surrounding environment (side walks, roads) shall be kept free of debris to minimize dust (e) There will be no open burning of construction / waste material at the site (f) There will be no excessive idling of construction vehicles at sites
	Noise	<ul style="list-style-type: none"> (a) Construction noise will be limited to restricted times agreed to in the permit (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible
	Water Quality	<ul style="list-style-type: none"> (a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	<ul style="list-style-type: none"> (a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. (b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. (c) Construction waste will be collected and disposed properly by licensed collectors (d) The records of waste disposal will be maintained as proof for proper management as designed. (e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
B. Individual wastewater treatment system	Water Quality	<ul style="list-style-type: none"> (a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities (b) Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater

		<p>treatment</p> <p>(c) Monitoring of new wastewater systems (before/after) will be carried out</p> <p>(d) Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies.</p>
C. Historic building(s)	Cultural Heritage	<p>(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notification shall be made and approvals/permits be obtained from local authorities and all construction activities planned and carried out in line with local and national legislation.</p> <p>(b) It shall be ensured that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted and registered, responsible officials contacted, and works activities delayed or modified to account for such finds.</p> <p>(c) If any work affecting Historic Structures are being considered, the Policy on Physical Cultural Resources OP/BP 4.11 would be triggered and applicable actions in the ESMF must be followed.</p>

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
D. Acquisition of land	Land Acquisition Plan/Framework	<p>(a) If expropriation of land was not expected but is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the Bank’s Task Team Leader shall be immediately consulted.</p> <p>(b) The approved Land Acquisition Plan/Framework (if required by the project) will be implemented.</p> <p>(c) If any involuntary land acquisition is being considered, the World Bank Policy on Involuntary Resettlement OP/BP 4.12 would be triggered and applicable actions in the ESMF must be followed.</p>
E. Toxic Materials	Asbestos management	<p>(a) If asbestos is located on the project site, it shall be marked clearly as hazardous material</p> <p>(b) When possible the asbestos will be appropriately contained and sealed to minimize exposure</p> <p>(c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust</p> <p>(d) Asbestos will be handled and disposed by skilled & experienced professionals</p> <p>(e) If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site.</p> <p>(f) The removed asbestos will not be reused</p>
	Toxic / hazardous waste management	<p>(a) Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information</p> <p>(b) The containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching</p> <p>(c) The wastes shall be transported by specially licensed carriers and disposed in a licensed facility.</p> <p>(d) Paints with toxic ingredients or solvents or lead-based paints will not be used</p>
F. Affected forests, wetlands and/or protected areas	Protection	<p>(a) All recognized natural habitats, wetlands and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities.</p> <p>(b) A survey and an inventory shall be made of large trees in the vicinity of the construction activity, large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees</p>

		<p>avoided</p> <p>(c) Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control feature to include by not limited to hay bales and silt fences</p> <p>(d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.</p> <p>(e) If any work in a Protected Area is being considered, the Policy on Natural Habitats OP/BP 4.04 would be triggered and applicable actions in the ESMF must be followed.</p>
G Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	<p>(a) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to</p> <ul style="list-style-type: none"> ▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. ▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. ▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.