INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: ISDSC742

Date ISDS Prepared/Updated: 21-Jun-2012

I. BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country:</th>
<th>Jamaica</th>
<th>Project ID:</th>
<th>P129633</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name:</td>
<td>Improving Climate Data and Information Management (P129633)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Team Leader:</td>
<td>Enos E. Esikuri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated Appraisal Date:</td>
<td>00-undefined-0000</td>
<td>Estimated Board Date:</td>
<td>18-Nov-2011</td>
</tr>
<tr>
<td>Managing Unit:</td>
<td>LCSEN</td>
<td>Lending Instrument:</td>
<td>Specific Investment Loan</td>
</tr>
</tbody>
</table>

| Sector:           | Public administration- Information and communications (100%) |
| Theme:            | Climate change (80%), Natural disaster management (15%), Vulnerability assessment and monitoring (5%) |

Financing (In USD Million)

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrower</td>
<td>0.00</td>
</tr>
<tr>
<td>Climate Investment Funds</td>
<td>7.10</td>
</tr>
<tr>
<td>Total</td>
<td>7.10</td>
</tr>
</tbody>
</table>

| Environmental Category: | B - Partial Assessment |

| Is this a Repeater project? | No |

B. Project Objectives

The project development objective is to improve the quality and use of climate related information for effective planning and action at local and national levels.

C. Project Description

The Project has components that deal with the supply of climate information and its demand. It draws lessons of development from elsewhere which reveal that the mere supply of data does not automatically induce its use. There is thus a need to both provide information and demonstrate its utility for building climate resilience. On the supply side two components are involved with the generation of data and climate information and on the demand side there are components that deal with the use of this information in priority areas. These are the prerequisites to building climate resilience in the economy.
Component 1 ($3.8 million): Upgrading of the data collection, processing and forecasting system of the Meteorological Services

The current hydro-meteorological system is outdated, obsolete and unsuited to the task of providing timely information of (predictable) weather hazards. This component aims at improving the delivery and quality of climate information. This will be achieved by: (i) replacing the current obsolete RADAR system including the associated hardware, spare parts and software, as well as installation, calibration and training of technicians and engineers; (ii) replacing over 40 manually read rain-gauges with automatic recording systems fitted with satellite interface or data transmission modems capable of transmitting data in real time into newly installed CliData archiving system; (iii) installing/upgrading the hydrological stations; (iv) identifying and supporting innovative ICT-enabled tools including mobile and geo-referenced applications to engage citizens and stakeholders in the production and consumption of climate data and information; (v) review and update the technical expertise of key personnel and formulate strategies for greater sustainability and more effective customer service products that can assist in building climate resilience. This includes better forecasting and early warning systems with advice on preferred precautionary strategies for those at risk.

This component will also support the development of climate change scenarios and the development of risk and adaptation profiles. Without accurate scenarios of future risks it is impossible to know what to adapt to and how to plan for climate change. Current scenarios are based on global and regional models which do not accurately reflect Jamaica’s climate conditions and specific vulnerabilities. Downscaling is especially challenging for Jamaica due to its hilly topography and will involve the use of meteorological data collected in Component 1 of this Project. This will be an iterative process that will need constant refinement. This component would support developing: (i) high resolution climate change scenarios at the national and sectoral levels by downscaling regional climate data models; (ii) sector specific methodologies (guideline documents and manuals) for climate resilient planning and design; (iii) the capacity of professionals to apply the scenarios in development planning.

Component 2 ($1.2 million): Risk Information Platform and Vulnerability Assessment:

This component will demonstrate use of the information generated in component 1. It will conduct vulnerability assessments using climate scenarios to analyze the expected consequences of climate change for 3 priority sectors. These assessments will enable the convergence of socio-economic data and climate data to more meaningfully devise adaptations strategies. It will use model information as well as historical trends to assess impacts on two ecosystems of high economic value – the marine ecosystem and agronomic ecosystems in the island hinterlands.

Especially vulnerable are the coral reefs that face multiple pressures from rising temperatures, ocean acidification and contamination (sewage and chemicals). There is a need to develop strategies that would address the avoidable problems and help build ecosystem resilience.

Over 70 percent of farms in Jamaica are engaged in rainfed agriculture. With the projected increased variability of rainfall there is a need to enhance crop resilience and assist farmers adapt to the inevitable. Information from downscaled models will be used to assess vulnerabilities to agriculture in different parts of the island as a first step in promoting adaptation.
Finally, it will also conduct a detailed vulnerability assessment of risks of losses in the health sector with the costed plan of actions necessary to make key health facilities more climate resilient. Low cost but critical actions to enhance resilience in pilot facilities will be implemented.

This component will develop a risk information platform, as an accessible information hub about climate change data, knowledge and good practices. The platform will also provide guidance to decision-makers and planners and will be based on intensive assessments of end-user needs and updated climate scenarios. It will allow users access to information and data related to crop suitability projections, adaptation practices and climate change sectoral and spatial impacts on agriculture, water resources, coastal and marine ecosystems. The figure below provides a stylized example of a possible climate information platform.

Component 3 ($1.2 million): Climate Change Education and Awareness:

There have been some successes but significant gaps remain in mainstreaming climate change issues into planning as well as in helping Jamaicans adapt to the impacts. Capacity and awareness remains limited among critical groups and there is limited sharing of information. The public needs more information on how to identify, cope with and respond to climate risks. Information is of limited utility unless it is used and there is wide awareness and hence this component will focus on developing a national climate change communication strategy. This component would support (i) review of climate/hydro-meteorological information and determining current and future user needs; (ii) carrying out consultations with stakeholders and sectors consuming meteorological, climatic and hydrological information to determine, among others, how best to communicate targeted information to users and how to build and strengthen in-country ownership of hydromet services; and (iii) conducting capacity and institutional strengthening, including training for the staff of the MSJ and associated key agencies to enhance service delivery. It will also develop and implement modules on climate change awareness and education activities which will include the use of demonstration projects, as well as the scaling up of “Voices For Climate Change”, an innovative climate change awareness and education project, which was successfully implemented in selected communities across Jamaica. Moreover, during project preparation a social assessment will be prepared by the client in order to inform the design of this component to reflect cultural, gender, and socio-economic realities. This assessment will build upon existing experience and information from ongoing programs.

Component 4 ($0.6 million): Project Management

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The Project activities will be country-wide, helping to create the enabling conditions for building climate resilience by improving the quality of climate related information throughout Jamaica.

E. Borrowers Institutional Capacity for Safeguard Policies

The PIOJ will be responsible for overall execution of the Project. PIOJ is the focal point for the PPCR and has also been formally accredited by the Adaptation Fund of the UNFCCC as the National Implementing Entity. PIOJ has knowledge and experience in applying the social and environmental safeguards policies of the Bank through a number of Bank-financed projects.

Day to day coordination will be maintained with the executing agencies through a Project Management Unit (PMU). The PMU would be supported by a Management Committee drawn from
the various stakeholders in the area of hydromet (Meteorological Services Jamaica; Climate Studies Group of Physics Department and Computer Sciences Department of University of West Indies; Office of Disaster Preparedness and Emergency Management; Ministry of Agriculture and Fisheries (MOAF); Ministry of Health; PANOS – an organization dedicated to amplifying the voices of poor and marginalized through the media; Ministry of Housing, Water and Environment (MHEW), National Environment and Planning Agency (NEPA), Caribbean Institute for Media and a number of NGOs, CBOs and Parish Councils).

F. Environmental and Social Safeguards Specialists on the Team

Anjali Acharya (LCSEN)
Kimberly Vilar (LCSSO)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
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<tbody>
<tr>
<td>Environmental Assessment OP/ BP 4.01</td>
<td>Yes</td>
<td>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 an Environmental and Social Management Framework (ESMF) laying out the applicable policies and guidelines will be prepared, discussed in Jamaica and disclosed.</td>
</tr>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>TBD</td>
<td>Project activities are not expected to affect natural habitats. However, as some meteorological stations may be located in protected areas and the exact locations and potential impact are yet unknown, a screening criterion to avoid negative impacts in Natural Habitats and /or outside of protected areas will be included in the ESMF. The ESMF will exclude the opening of any new, permanent roads inside of protected areas.</td>
</tr>
<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
<td>Projects activities will not include forest management or result in changes to the utilization, or protection of any forested areas. Therefore, this policy is not triggered.</td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
<td>The project will not support the procurement or use of pesticides or other agricultural chemicals, or lead to the increased use of such chemicals</td>
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</table>
### Physical Cultural Resources OP/BP 4.11

Yes  
The project includes construction works in unknown locations. The team will thus include in the ESMF: (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.

### Indigenous Peoples OP/BP 4.10

No  
Indigenous peoples with the four characteristics described in the Policy are not present within the Project area.

### Involuntary Resettlement OP/BP 4.12

TBD  
This Policy will remain TBD and, during preparation, it will be defined whether the proposed investments, especially works related to installing and upgrading hydrological stations, will require the taking of land. If specific or potential impacts are identified, the appropriate instrument will be prepared and disclosed by appraisal, in accordance with OP 4.12.

### Safety of Dams OP/BP 4.37

No  
The project will not finance the construction of new, or rehabilitation of existing, dams. No project investments will rely on the operation of existing dams

### Projects on International Waterways OP/BP 7.50

No  
The project will not support activities which affect international waterways as defined under the policy. Therefore the policy is not triggered.

### Projects in Disputed Areas OP/BP 7.60

No  
The project will not be implemented in areas known to involve disputed areas as defined in the policy. Therefore the policy is not triggered.

### III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 19-Nov-2012

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the PAD-stage ISDS:

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the PAD-stage ISDS.

### IV. APPROVALS

<table>
<thead>
<tr>
<th>Task Team Leader:</th>
<th>Name: Enos E. Esikuri</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved By:</td>
<td>Name: Francis V. Fragano (RSA)</td>
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1 Reminder: The Bank’s Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.