

# Concept Note

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## **An Integrated Water and Coastal Management Framework for Urban Areas in Dominica**

Ministry Of Finance| Dominica

12th August 2017



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# Concept Note

**The Green Climate Fund (GCF) is seeking high-quality projects or programmes.**

The Accredited Entity is encouraged to submit a concept note, in consultation with the National Designated Authority, to present a project or programme idea and receive early feedback and recommendation.

Project/Programme Title: **An Integrated Water and Coastal Management Framework for Urban Areas in Dominica**

Country(ies): Commonwealth of Dominica

National Designated Authority(ies) (NDA): Ministry Of Finance

Accredited Entity(ies) (AE): CCCCC

Date of first submission/  
version number: [YYYY-MM-DD] [V.0]

Date of current submission/  
version number [YYYY-MM-DD] [V.0]



**Notes**

- The maximum number of pages should **not exceed 12 pages**, excluding annexes. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days.
- As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential.
- The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt.
- NDA can also submit the concept note directly with or without an identified accredited entity at this stage. In this case, they can leave blank the section related to the accredited entity. The Secretariat will inform the accredited entity(ies) nominated by the NDA, if any.
- Accredited Entities and/or NDAs are encouraged to submit a Concept Note before making a request for project preparation support from the Project Preparation Facility (PPF).
- Further information on GCF concept note preparation can be found on GCF website [Funding Projects Fine Print](#).

A. Project / Programme Information (max. 1 page)			
<b>A.1. Project or programme</b>	<input checked="" type="checkbox"/> Project <input type="checkbox"/> Programme	<b>A.2. Public or private sector</b>	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
<b>A.3. Is the CN submitted in response to an RFP?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, specify the RFP: _____	<b>A.4. Confidentiality<sup>1</sup></b>	<input type="checkbox"/> Confidential <input type="checkbox"/> Not confidential
<b>A.5. Indicate the result areas for the project/programme</b>	<u>Mitigation:</u> Reduced emissions from: <ul style="list-style-type: none"> <li><input type="checkbox"/> Energy access and power generation</li> <li><input type="checkbox"/> Low emission transport</li> <li><input type="checkbox"/> Buildings, cities and industries and appliances</li> <li><input checked="" type="checkbox"/> Forestry and land use</li> </ul> <u>Adaptation:</u> Increased resilience of: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Most vulnerable people and communities</li> <li><input checked="" type="checkbox"/> Health and well-being, and food and water security</li> <li><input checked="" type="checkbox"/> Infrastructure and built environment</li> <li><input checked="" type="checkbox"/> Ecosystem and ecosystem services</li> </ul>		
<b>A.6. Estimated mitigation impact (tCO<sub>2</sub>eq over lifespan)</b>	The rehabilitation of forest in water catchment areas will produce a mitigation impact which will be ascertained by subsequent studies	<b>A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)</b>	At least sixty seven percent 67% of the Dominican population will be impacted
<b>A.8. Indicative total project cost (GCF + co-finance)</b>	Amount: USD\$70,700,000	<b>A.9. Indicative GCF funding requested</b>	Amount: USD\$50,000,000
<b>A.10. Mark the type of financial instrument requested for the GCF funding</b>	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Reimbursable grant <input type="checkbox"/> Guarantees <input type="checkbox"/> Equity <input type="checkbox"/> Subordinated loan <input type="checkbox"/> Senior Loan <input type="checkbox"/> Other: specify _____		
<b>A.11. Estimated duration of project/ programme:</b>	a) disbursement period: 5 years b) repayment period, if applicable:	<b>A.12. Estimated project/ Programme lifespan</b>	This refers to the total period over which the disbursement schedule.
<b>A.13. Is funding from the Project Preparation Facility requested?<sup>2</sup></b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other support received <input checked="" type="checkbox"/> If so, by who: TNC	<b>A.14. ESS category<sup>3</sup></b>	<input type="checkbox"/> A or I-1 <input type="checkbox"/> B or I-2 <input checked="" type="checkbox"/> C or I-5
<b>A.15. Is the CN aligned with your accreditation standard?</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>	<b>A.16. Has the CN been shared with the NDA?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>A.17. AMA signed (if submitted by AE)</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If no, specify the status of AMA negotiations and expected date of signing:	<b>A.18. Is the CN included in the Entity Work Programme?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)</b>	<p>The extensive devastation caused by Hurricane Maria has further underscored the need for the development of resilience in the Dominica's Urban Water and Coastal Management systems. Even more foreboding is the fact that the climate models for Dominica predict a future of more of the same. Lessons from the current impact point to the need for the implementation a holistic ridge to reef approach in resilience enhancement. The implementation partners are two accredited entities viz the Caribbean Community Climate Change Centre (CCCCC) and the Caribbean Development Bank (CDB) working along with The Nature Conservancy (TNC). Collectively they provide the requisite experience and expertise to implement the program.</p>		

<sup>1</sup> Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](#)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](#)).

<sup>2</sup> See [here](#) for access to project preparation support request template and guidelines

<sup>3</sup> Refer to the Fund's environmental and social safeguards ([Decision B.07/02](#))

**B. Project / Programme details (max. 8 pages)**

**B.1. Context and Baseline (max. 2 pages)**

*Describe the climate vulnerabilities and impacts, GHG emissions profile, and mitigation and adaptation needs that the prospective intervention is envisaged to address.*

A combination of geography, geology, hydrology and topography makes Dominica highly vulnerable to natural disasters and extreme weather events in particular, the negative impacts of climate change. Several important studies have delineated the specific risks to Dominica. Firstly, in an analysis titled Dominica Climate Trends and Projections, 2008 Prof Michael A. Taylor, Climate Studies Group, Mona. University of the West Indies provided a summary of the findings as follows:

**(i)** There is evidence to suggest that the climate of Dominica is changing. Both maximum and minimum temperatures have increased in the recent past. **(ii)** The warming trend is expected to continue. The country is projected to be warmer by up to 1.3°C by the 2050s and between 2 and 3 degrees by the end of the century. **(iii)** Winter months will see marginally larger increases in temperature than summer months. **(iv)** The frequency of very hot days and nights will increase, while the number of very cool days and nights will decrease. **(v)** The country is likely to be drier in the mean. Projections are for up to 20% drier by mid-century and up to 50% drier by 2100. **(vi)** July-August will likely be drier **(vii)** The seasonality of Dominica will be largely unchanged. The cooler (with respect to late season temperatures) dry early months and wet hotter late months will still prevail. **(viii)** Hurricane intensity is likely to increase (as indicated by stronger peak winds and more rainfall) but not necessarily hurricane frequency. Caribbean Sea levels are projected to rise by up to 0.24 m by mid-century. **(ix)** Sea surface temperatures in the Caribbean are projected to warm up to approximately 2°C by the end of the century. **(x)** The El Nino Southern Oscillation (ENSO's impact on Dominican rainfall (early and late season) will likely continue, given projections of the phenomenon's continued occurrence in the future.

Dominica's recent experiences already appear to reflect the anticipated impacts from the warming of the oceans. On September 18, 2017 Dominica was devastated by Hurricane Maria continuing a trend that has seen the island decimated by recent storms and hurricanes in the last five (5) years. These have compromised all infrastructures including the Water and Coastal management systems in the three (3) major Urban Centres, Roseau, Portsmouth, and Canefield and in a fourth proposed centre at La Plain in the east. A series of reports capture the destructive impact of these extreme climatic events: *DREF Final Report, Dominica Tropical Storm Ophelia IFRC May 2012, GFDRR Report 104251, Rapid Damage Needs Assessment Report UNDP 2015, Rapid Damage and Impact Assessment Tropical Storm Erica August 27, 2015 A Report by the Government of Dominica September 25, 2015.*

In addition to the increasing intensity of storms and hurricanes the climate models also predict increase in drought conditions. Dominica and the wider Caribbean suffered a very significant drought in 2009/2010 which compromised Dominica's water supply and sewage system. (see *2009/2010 Caribbean Drought: A case Study Everson J Peter 2015*). In fact in 2015, Dominica was in the midst of another major drought when Tropical Storm Erica struck in August of 2015. The excessively dry soil conditions at that time might have exacerbated the resultant flooding. Also beach loss and other destructive impacts as a consequence of rises in sea levels as predicted by the climate models has been documented in Dominica via The CARIBSAVE Climate Change Risk Atlas (CCCRA) Phase I, funded by the UK Department for International Development (DFID/UKaid) and the Australian Agency for International Development (AusAID) 2011. Modelling for additional beach loss due to increases in sea levels from 0.5m to 3m indicate beach loss in the range from 15% to 100% in the Portsmouth area, which have the potential to wipe out tourism business which is the sector of greatest importance in this region.

## GHG EMISSIONS

An assessment of Dominica's GHG emissions (*Greenhouse Gas Mitigation Assessment For Dominica*) Final Report, Claude Davis & Associates 2010, was undertaken as part of its second national communication under United Nations Framework Convention on Climate Change (UNFCCC). This current report provides the greenhouse gas mitigation assessment for the Commonwealth of Dominica. The assessment covers the period 2000 to 2030 and uses historical data for the period 2000 (the base year) to 2008 in order to calibrate where feasible, the bases for the projections for 2009 to 2030. The GHG emissions for 2000 to 2005 show that CO<sub>2</sub> dominated the emissions (383) Gg). Most CO<sub>2</sub> emissions were from the energy sector. Emissions of Methane (CH<sub>4</sub>) were 1.6 Gg or 33.6 Gg CO<sub>2</sub> equivalents (CO<sub>2e</sub>) when the global warming potential for CH<sub>4</sub> is taken into account. CH<sub>4</sub> emissions are from agriculture (50%), the waste sector (43%) and the remainder from forestry and energy sectors. In 2015 Dominica comprised approximately (62%) forest cover (*Global Forest Resources Assessment 2015 FAO*), and functioned ostensibly as a net carbon sink. Precise carbon sequestration measurements are to be undertaken as part of an ongoing pilot Disaster Vulnerability Reduction Project (DVRP) a part of the Climate Investment Fund project.

**Dominica's Low Carbon Climate Resilience Development** Strategy (forms its INDC/NDC) and Dominica's **National Biodiversity Strategy and Action Plan** identifies the need for an Integrated Water and Coastal Management Framework as key in building resilience to climate change. Following Hurricane Maria new baseline research data will be required to design, formulate and implement new modeling criteria in order to achieve the required resilience.

## **B.2. Project / Programme description (max. 3 pages)**

*Describe the expected set of components and activities to address the above barriers identified that will lead to the expected outcomes.*

The program will target four (4) urban areas; three (3) areas on the west coast; Portsmouth, Roseau and Canefield and one (1) area La Plain in the East (**See Annex 1 and 2**). Dominica's *National Land Use Plan* and *National Land Use Policy* have identified required adaptation measures and actions to address national risks and vulnerabilities in these areas as a consequence of which, an **Integrated Water and Coastal Management Framework for Urban Areas must be developed**. The components of the program are as follows:

### **Component 1**

- Reforestation of watersheds devastated by Hurricane Maria. (*Reference to Governments preliminary damage assessment report when issued*)
- Develop climate resilience in water supply and distribution systems

### **Component 2**

- Develop climate resilient sewage systems (*Reference to Governments preliminary damage assessment report when issued*)
- Develop demand and supply side efficiencies in the provision of water supply and sewage services.
- Beach rehabilitation and protection

*In terms of rationale, please describe the theory of change and provide information on how it serves to shift the development pathway toward a more low-emissions and/or climate resilient direction, in line with the Fund's goals and objectives.*

## **THEORY OF CHANGE**

1. The program addresses the problem of increasing number and frequency of extreme climatic events being experienced by Dominica and their severe and the devastating impacts on water and coastal management in four (4) urban areas in Dominica.
2. The primary drivers for this problem is the increasing emission of greenhouse gases (as a result of human activity) has generated climatic changes which create conditions favourable for (i) the formation of more and violent

- hurricanes, increasing drought, and rising sea levels. Latent heat from higher sea temperatures provides the requisite fuel for the development of these adverse weather conditions and the need to avert/reduce the deleterious impacts from these extreme events which are anticipated to continue in future has assumed greater national urgency) (ii) Drier climatic conditions resulting in increasing drought which threaten water supply and sewage services and (iii) rising sea levels which threaten to completely erode existing beaches in critical areas.
3. Given the climate models for Dominica developing ***an Integrated Water and Coastal Management Framework for Urban areas*** is now a national imperative to build resilience to extreme climatic events.
  4. The initial feasibility and related studies required for the full development of this initiative will be supported via a Preparatory Funding Request application to the GCF, from which will be obtained recommendations, design etc. for the system. At the project development stage, when a full application will be submitted to the GCF, the following actions will be required:
    - **Implementation Plan:** This plan will comprehensively detail all aspects that are required for the successful implementation of the program.
    - **Actions of implementation.** The plan will detail all the actions which will be undertaken and the intended results, responsibility for specific actions and times lines for delivery.
    - **Monitoring and evaluation framework:** This will detail a clear methodology to factitively monitor and detail progress, setbacks and other issues.

### **Impact**

- Restoration of damaged water catchment areas in urban areas
- Enhancing reliability of supplies of water
- Rehabilitation of forest in water catchment areas
- Capacity development of local entities to sustainably manage these integrated frameworks
- Reduction of beach erosion in designated areas
- Enhanced coastal and marine resilience to climate change via the implementation of tertiary environmentally friendly sewage disposal systems in urban areas.
- Enhancement of demand and supply side efficiencies
- Beach enhancement and enhanced protection from storm surges

### **Component 1**

1. **Outcome** – by 2020 Heightened public awareness
2. **Outcome-** by 2022 SRO to facilitate Integrated Management Framework
3. **Outcome** – by 2020 first phase of Management Capacity Development completed
4. **Outcome** – by 2022 (70) %percent of urban communities engaged in the implementation of demand side water efficiency measures.
5. **Outcome** - by 2022, rehabilitation of water catchment. Resilience of forest in catchment areas and disaster risk reduction is improved and mainstreamed at local level
6. **Outcome** - by 2022 Climate proofing water supply systems including resilience flood protection adaptation measures.

## Component 2

1. **Outcome** – by 2020 Heightened public awareness
2. **Outcome** – by 2022 final phase of Management Capacity Development completed
3. **Outcome** – by 2022 (80) %percent of urban communities engaged in the implementation of standardized efficient domestic sewage disposal measures.
4. **Outcome** - by 2022 completion of rehabilitation of built efficient supply side sewage disposal systems. This to include resilience flood protection adaptation measures
5. **Outcome** -by 2022 completion of the deployment of beach enhance program

## Output

- Annual Working Plan and Budget
- Annual Report
- Communication and Knowledge Management Strategy and its implementation
- database of needs and interventions
- Mid Term Review Report
- Terminal Evaluation Report

*Describe how activities in the proposal are consistent with national regulatory and legal framework, if applicable.*

Presented here are a sampling of relevant legislation and regulations consistent with the program: **The Forest Act, Stewart Hall Catchment Rules, The Forestry and Wildlife Act, The Water and Sewerage Act Environmental Health Services Act.** A more comprehensive listing will be submitted with the full project proposal.

*Describe in what way the Accredited Entity (ies) is well placed to undertake the planned activities and what will be the implementation arrangements with the executing entity(ies) and implementing partners.*

The Caribbean Community Climate Change Centre (CCCCC) 5Cs.and the Caribbean Development Bank are the accredited entities. The implementing entities are The Nature Conservancy and the Ministry of Planning Economic Development and Investment, The **CCCCC** is the archive and clearing house for regional Climate Change data and documentation in the Caribbean and has an in-house Communications Specialist, thus making it uniquely positioned to share in issues of lessons learned from adaptation and mitigation interventions which can be scaled-up to other Caribbean territories. **The Nature Conservancy** is a global organisation that partners with governments, local communities and private corporations to conserve and protect the environment. These include protecting and restore drinking watersheds, and upstream land management that improves water quality for downstream water users. TNC operates in seventy-two (72) countries and has diversified staff including approximately six hundred (600) scientists. Dominica has a long association with TNC as the organisation was instrumental in the setting up of the Mort Trios Piton National Park.

*Please provide a brief overview of the key financial and operational risks and any mitigation measures identified at this stage.*

The key operational risks are political change including change of governments and social instability. This will be mitigated via (i) a national awareness campaign and national stakeholder consultation process including the different political interests and (ii) capacity development to support the development of a sustainable management framework. The economic viability is a key financial risk which will be mitigated through financial underwriting to ensure sufficient grant and concessional financing.

## **B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)**

*The GCF is directed to make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change, and promoting the paradigm shift towards low-emission and climate-resilient development pathways by limiting or reducing greenhouse gas emissions and adapting to the impacts of climate change.*

*Provide an estimate of the expected impacts aligned with the GCF investment criteria: paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness*

### **Paradigm Shift**

Reflecting an Integrated Management Framework, the program will introduce **an innovative administrative and management arrangement**; characterised by the inclusion of multi sectors, private and public (in contrast to current management by singular entity, Dominica Water And Sewage Company (DOWASCO)). A novel ridge to reef approach in the administrative and management arrangements for urban water catchment areas, coastal zones, waters supply and sewage disposal will be implemented. It will holistically incorporate all environmental and human impacts. Of critical importance here are; (i) the rehabilitation of forest resources in catchment areas and beach enhancement and rehabilitation, (ii) the measures of efficiency and effectiveness to reduce, lost, wastage and, leakages both on the demand and supply side, for water supply and sewage disposal. The former being an important component in reducing the impacts of floods and sea swells. These components will provide guarantees of a long term sustainable management framework and enhanced resilience. The program will be applied in urban areas of Dominica, with the **future potential of scaling** up to cover the entire country. In addition, in the context of the wider Caribbean region it will provide an opportunity for the **sharing of knowledge** with regards to other regional urban areas. Learning acquired both during implementation and after in regards to effective and efficient management practices.

### **Sustainable development Potential**

This project is design to be aligned with several Sustainable Development Goals (SDGs) including: clean water and sanitation, affordable and clean energy, Sustainable Cities and Communities, Climate Action and Life on Land. It is also aligned with the country's climate strategy, which identifies climate change as a significant threat to the country's water resources. In conceptualizing this project consideration was given to the possible risks associated with climate change, identified in the country's climate strategy, across various sectors and possible mitigation and adaptation methods.

### **Economic, environmental, gender co benefits**

The programme by its implementation will support marine and national forestry and marine ecosystems protection and conservation. This by extension will support the livelihoods of local communities; including fisher folk among those the indigenous Kalinago for whom fishing remains a primary source of livelihood. The program in its impact will reach the overwhelming number of Dominica population eighty (80) percent. The improvement in security of water supplies and healthy disposal of sewage will impact child and women health. Improvement in waste water disposal will improve the marine environment by enhancing water quality which will lead to increasing the prospects of the vital tourism industry.

### **Country Ownership**

This program reflects national policy. It emanates from Dominica's framework engagement document with the GCF, the (Low Carbon Climate Resilient Development Strategy. (LCCRDS) which was approved by Cabinet in 2012. The National Designated Authority (the Ministry of Finance, The Ministry of Planning Economic Development and Investment have directly requested the participation of the accredited entities in this endeavour.

### **Responsiveness to needs of recipients**

Consultations will be held with all residents and entities served by the water catchments and coastal areas coastal areas, all relevant government regulatory agencies, and Ministries. The availability of reliable, clean and safe drinking water is an essential requirement. Consequently, a national policy document has mandated the development of Integrated Management Framework to ensure the aforesaid. The destruction caused by Hurricane Maria has made the development of this framework a matter of increased urgency.

### **Efficiency And Effectiveness**

The program places a significant emphasis on the implementation of efficient and effective measures. In regards to the built component; key features are demand and supply side interventions to reduce waste. The new management framework being integrated and holistic accompanied with requisite personnel capacity development is design to deliver effectiveness and efficiency.

**C.1. Financing by components (max ½ page)**

*Please provide an estimate of the total cost per component and disaggregate by source of financing.*

Component	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Component 1	\$37,050,000	\$27,050,000	Grant	\$10 Loan	Concessionary loan financing	Bilateral partners
Component 2	\$33,650,000	\$23,650,000	Grant	\$10 Loan	Concessionary loan financing	Bilateral partners
<b>Indicative total cost (USD)</b>	US70,700,000					

**Component 1**

1. **USD \$150,000** Heightened public awareness, of the need for conservation, preservation the application of resilience measures in domestic water systems

2. **(USD \$500,000)** Management Capacity development. (The provision of requisite training and equipment to enable local stakeholders to effectively deploy and manage a holistic and integrated management framework

3. **(USD \$4,500,000)** (50) %percent of urban communities engaged in the implementation of demand side water efficiency measures ( (i) The replacement of inefficient existing water and sewage systems in homes and cost incurred in the transitioning from septic tanks )

4. **(USD \$4,400,000):** rehabilitation of water catchment. Resilience of forest in catchment areas and disaster risk reduction is improved and mainstreamed at local level

5. **(USD \$27,500,000)** Climate proofing water supply systems including resilience flood protection adaptation measures.

**Component 2**

1. **(USD \$150,000)** Heightened public awareness

2. **(USD \$500,000)** Management Capacity Development.

3 **(USD \$5,500,000)** *On the demand side* (80) %percent of urban communities engaged in the implementation of standardized efficient domestic sewage disposal measures.

4 **(USD \$25,000,000)** *On the supply side*, the completion and rehabilitation of built efficient supply side sewage disposal systems and resilience flood protection adaptation measures.

5 **(USD) \$2,500,000** completion of the deployment of beach restoration, rehabilitation and enhancement program

**C.2. Justification of GCF funding request (max 1 page)**

*Explain why the Project/ Programme requires GCF funding, i.e. explaining why this is not financed by the public and/ or private sector(s) of the country.*

*Describe alternative funding options for the same activities being proposed in the Concept Note, including an analysis of the barriers for the potential beneficiaries to access to finance and the constraints of public and private sources of funding.*

*Justify the rationale and level of concessionality of the GCF financial instrument(s) as well as how this will be passed on to the end-users and beneficiaries. Justify why this is the minimum required to make the investment viable and most efficient considering the incremental cost or risk premium of the Project/ Programme (refer to Decisions B.12/17; B.10/03; and B.09/04 for more details). The justification for grants and reimbursable grants is mandatory.*

*In the case of private sector proposal, concessional terms should be minimized and justified as per the Guiding principles applicable to the private sector operations (Decision B.05/07).*

The Commonwealth of Dominica has experienced two (2) recent national disasters which has brought in economic ruin; the first is Tropical Storm Erica, which destroyed ninety-five (95) percent of the country's GDP. In 2017, still in recovery mode from Erica, Dominica suffered the most complete and wide spread devastation of the country in recorded memory, which destroyed more than 90% of the island's infrastructure and wiped out agricultural production. (See reports referenced in section B1) These disasters have compromised the fiscal space of both the Government of Dominica and local financial institutions, and their ability to undertake the re-building of the country including being able to finance reconstruction that is more climate resilient. A release from CariCRIS (Caribbean Information & Credit Rating Services Limited) on September 29, 2017, has placed Dominica's sole Development Bank, Dominica Agricultural and Industrial Development Bank on Rating Watch Negative;

"This Rating, Action is based on the significant infrastructural damage sustained by Dominica on September 19, 2017, as a result of the passage of Hurricane Maria which may likely result in further deterioration in DAID's asset quality and overall financial performance".

These disasters have resulted in a significant deterioration in the fiscal situation in the Commonwealth of Dominica, and the consequential reduced financial ability of the Government to meet rehabilitation, debt, social and other resilience measures. This request to the GCF reflects an understanding and appreciation that GCF has the flexibility to assist Dominica to re-build better, utilizing more climate resilient modalities in a post disaster scenario. In addition, net rates of return on the marginal revenue generating components of the proposed programme is not anticipated to be more than 4%. A proper evaluation will be made in the project preparation stage and the outcome of this will be reflected in the full funding proposal request.

Therefore the grant loan ratio presented reflect a number of issues:

1. The need for significant infrastructural adaptation work in order to achieve the resilience outcomes which are a matter of urgent and utmost necessity.
2. Low anticipated rates of return on the revenue components of the program
3. Constraints in revenue generation for this program given population size, income and market.
4. The unattractive nature of this project to independently capture traditional international finance given their need to obtain prime rates of return.

### **C.3. Sustainability and replicability of the project (exit strategy) (max. 1 page)**

*Please explain how the project/programme sustainability will be ensured in the long run and how this will be monitored, after the project/programme is implemented with support from the GCF and other sources.*

*For non-grant instruments, explain how the capital invested will be repaid and over what duration of time*

The Management Capacity Development support which is a key outcome of the project is designed to ensure sustainability of the program. This will include the development of a maintenance and operational framework and long term capital investment plan to address emergencies and other issues. Key factors, that lay a foundation for program sustainability are as follows:

1. National and local community buy in and participation into the conservation and preservation aspects.
2. Appropriate staff training and incentivising
3. Grant funding to cover adaptation infrastructure, since it is highly unlikely that revenues will recover sufficiently in the short to medium term to permit local financing of this aspect of the investment
4. Savings on maintenance and operations expenditure as a result of outcomes #3, 4 and 5 in component 1 and outcomes #2 and 3 in component 2.

5. Implementation of a Long term capital investment plan – fifteen (15%) of gross revenues received on an annual basis to be placed in an expenditure fund. The assumption is that significant restoration work will not be required in the short term allowing for the fund accumulation.

#### C.4 Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

*Please describe how engagement among the NDA, AE and/or other relevant stakeholders in the country has taken place and what further engagement will be undertaken as the concept is developed into a funding proposal.*

The need for an Integrated Water Catchment, Water Supply, Sewage Treatment and coastal Management Framework was born out of a comprehensive national consultative process for the creation of a Dominica Low Carbon Climate Resilient Development Strategy. Representation from private and public sectors, the indigenous people the Kalinago, farmers, small businesses, NGOs and other civil society organisations were well represented as part of that process. In the development of the concept note there has been a thorough engagement with the CCCCC. To date we have gone through several iterations of the submission. This has been reinforced by mutual engagement during GCF sponsored events in Belize in October of 2016, and recently in Trinidad and Tobago [October 2017] by the Caribbean Development Bank, where additional clarity was provided on GCF requirements and expectations. The Nature Conservancy is an eager and willing partner in this endeavour, the organisation's vast experience and reach is recognised and appreciated by all parties, and for Dominica it is the continuation of a long relationship with a global partner in conservation and preservation for which Dominica is well known for.

Once the concept note is approved and preparatory Funding Received, the stakeholder engagement process will be initiated as outlined in the Low Carbon Climate Resilience Development Strategy document. The consultations will be held under the auspices of the National Climate Change Steering Committee (made up of national representative stakeholder organisations including the National Women's organisation and the indigenous Kalinago people) It will also engage A Technical Working Group (TWG), which will be set up as part of the GCF Readiness support programme. The TWG will include relevant Permanent Secretaries from representatives Ministries.

#### D. Supporting documents submitted (OPTIONAL)

- Map indicating the location of the project/programme
- Diagram of the theory of change
- Financial Model
- Pre-feasibility Study
- Evaluation Report of previous project

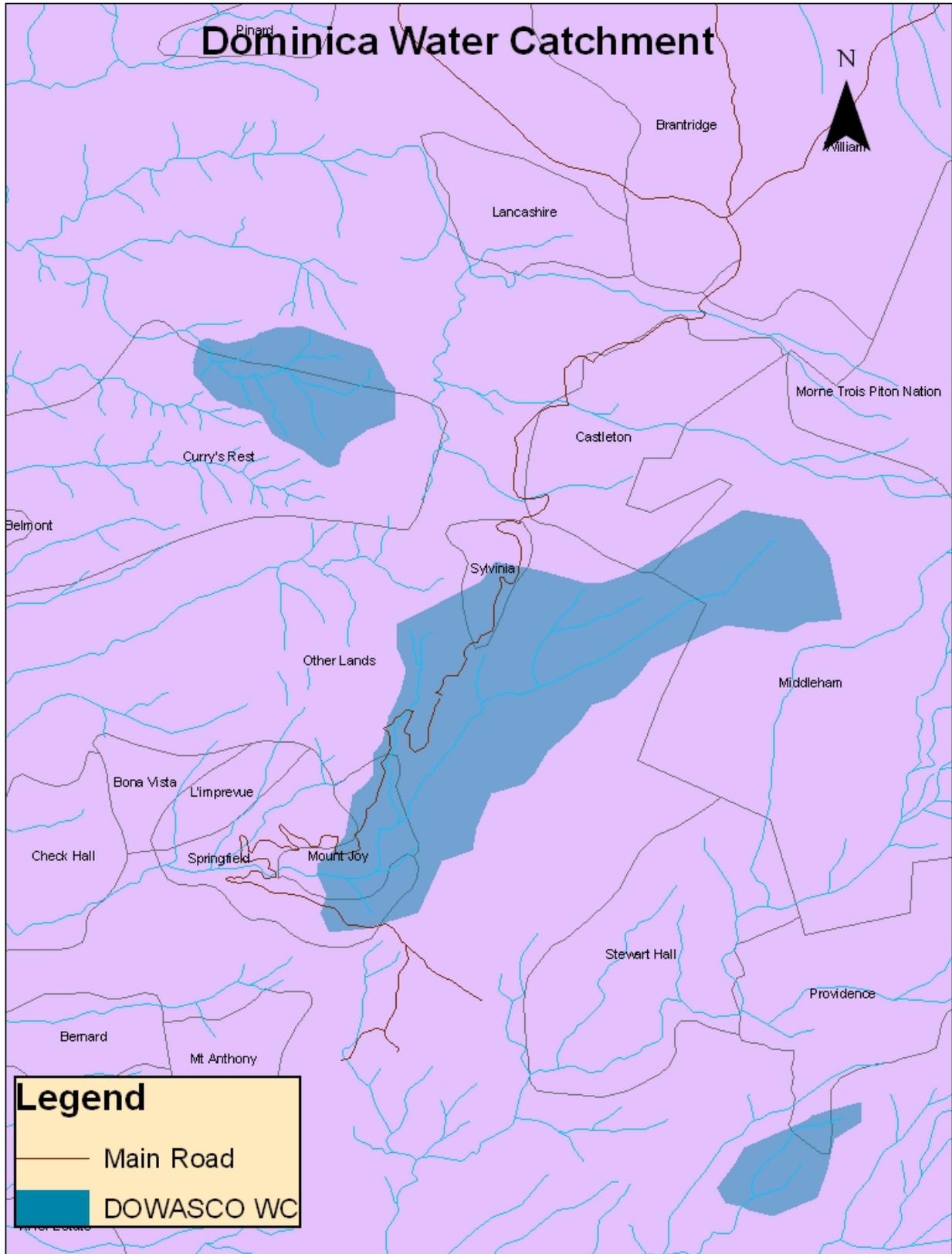
#### Self-awareness check boxes

- Are you aware that the full Funding Proposal and Annexes will require these documents? Yes  No
- Feasibility Study
  - Environmental and social impact assessment or environmental and social management framework
  - Stakeholder consultations at national and project level implementation including with indigenous people if relevant
  - Gender assessment and action plan
  - Operations and maintenance plan if relevant
  - Loan or grant operation manual as appropriate
  - Co-financing commitment letters

Are you aware that a funding proposal from an accredited entity without a signed AMA will be reviewed but not sent to the Board for consideration? Yes  No

ANNEX1

WATER CATCHMENT FOR ROSEAU AND CANEFIELD URBAN AREAS



ANNEX 2

**DOMINICA NATIONAL WATERSHED AREAS**



**WATERSHED MANAGEMENT UNIT**

- 1 Morne Aux Daibles complex
- 2 Blenheim\*
- 3 Hampstead\*
- 4 Salee
- 5 Woodford Hill complex
- 6 Eden
- 7 Clyde\*
- 8 Pagua\*
- 9 Morne la Source complex
- 10 Belle Fille
- 11 Good Hope complex
- 12 Rosalie
- 13 Ouayaneri-Morne Jaune complex
- 14 Sari-Sari
- 15 Boetica complex
- 16 Pt. Mulâtre
- 17 Petite Savanne complex
- 18 Stewart
- 19 Grand Bay complex
- 20 Soufriere-Scotts Head complex
- 21 Sibouli\*
- 22 Roseau
- 23 Boeri\*
- 24 Massacre-Mahaut complex
- 25 Belfast\*
- 26 Layou
- 27 Macoucheri complex
- 28 Batali
- 29 Coulibistri complex
- 30 Colihaut\*
- 31 Dublanc\*
- 32 Jargie\*
- 33 Picard
- 34 Indian
- 35 Cabrits/Douglas Bay complex

**NOTES:**

Watershed management unit complexes are an amalgamation of more than one watershed basin. Watershed areas of less than 500 ha were amalgamated to form complexes

\* Watershed management units dominated by a main drainage basin but amalgamated with a small adjacent basin

GIS Spatial analysis by C. Cox, 2005