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**“Climate Change Impacts and  
Adaptation for Coastal Transport  
Infrastructure in the Caribbean”**

**Climate Finance Issues**

**By**

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# Climate Finance and Coastal Transport Infrastructure

Radisson Aquatica Resort, Bridgetown, Barbados  
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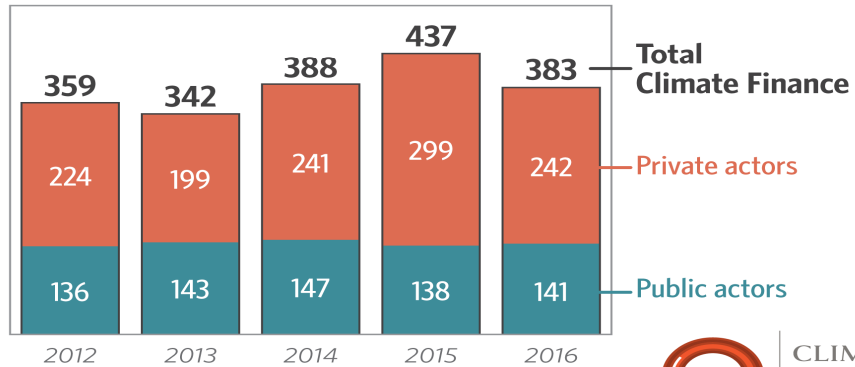
## Overview of Climate Finance

- **Climate Finance (CF):** The flow of funds toward activities that *reduce greenhouse gas emissions* or *help society adapt* to climate change's impacts.
- **Sources of Funding:** public, private and public/private (PPPs), and intermediaries (bilateral and multilateral financial institutions).
- **Funding Instruments:** loans, grants, equity and guarantees (other innovative instruments such as green bonds).
- **Use of Funds:** mitigation, adaptation and cross-cutting.



## Global Climate Finance Landscape

**Global climate finance surged to \$437 billion in 2015, before falling 12% to \$383 billion in 2016 (USD billion)**



CLIMATE POLICY INITIATIVE



## Uses of Climate Financing

2015/2016

93% mitigation

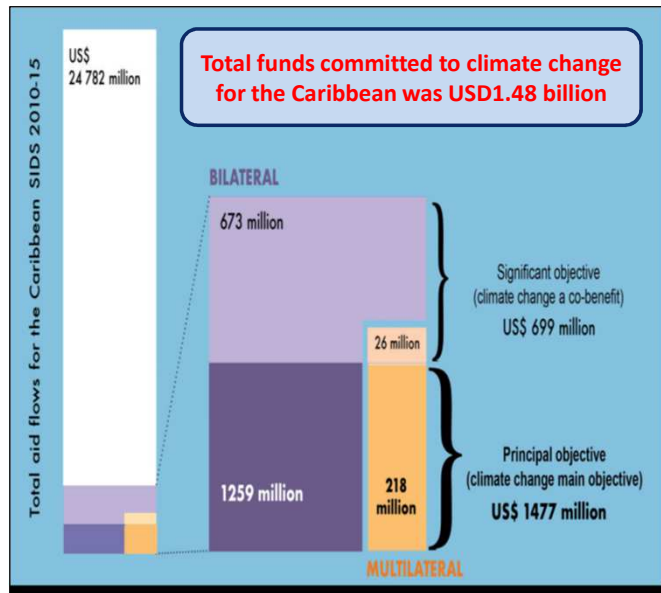
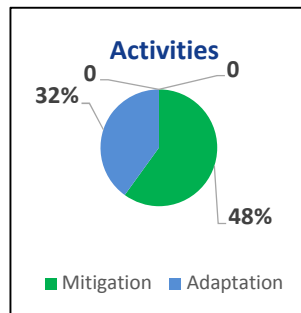
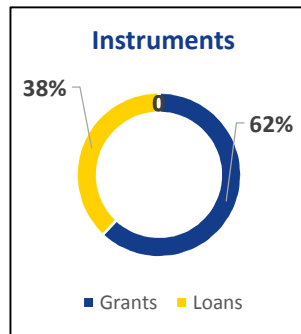
- Renewable energy generation
- Energy efficiency in industry and buildings
- Sustainable transport
- AFOLU & livestock management

16% adaptation

- Water and waste water management
- Climate-resilient infrastructure
- Coastal protection
- Disaster Risk Reduction
- Agriculture, Forestry & Natural Resource Management



## CF Flows to the Region



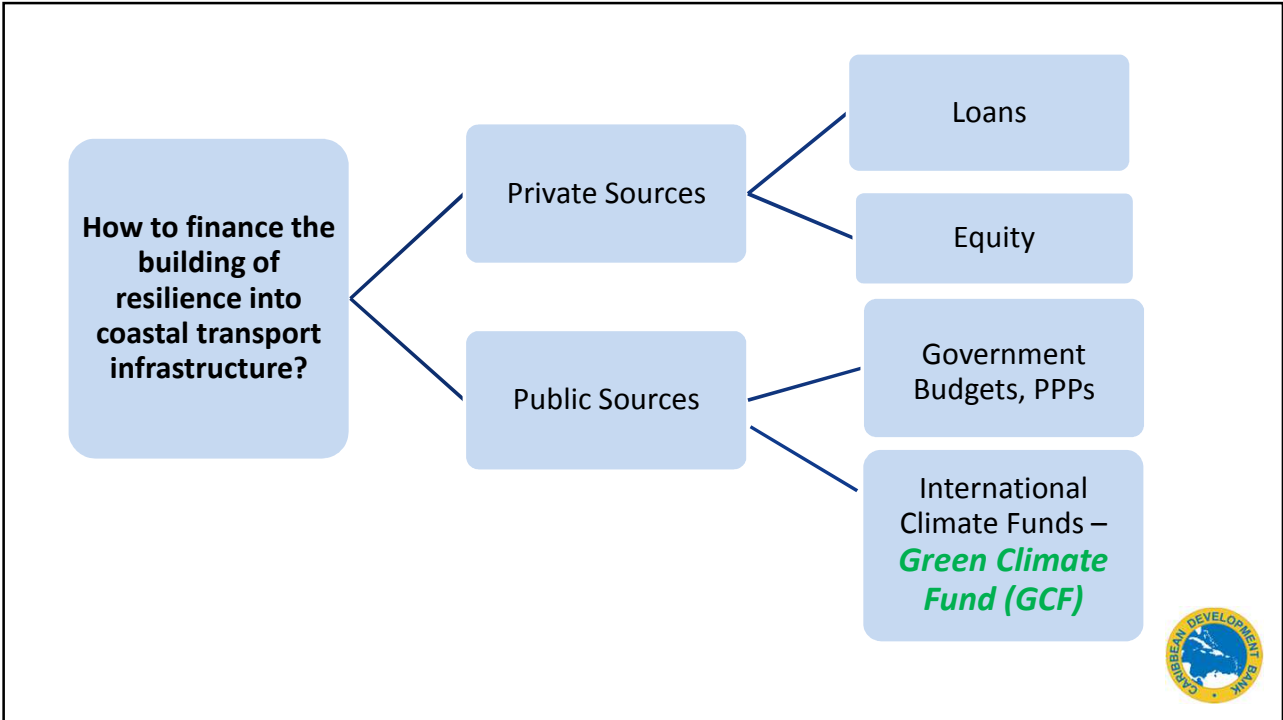
Source: Stockholm Environment Institute (SEI) Working Paper 2017



## CF flows to the Region

- The data shows that the region's **transportation and storage sector** received the second largest share of CF (USD200mn).
- In the case of CDB, the Bank has provided significant support to its BMCs in the **built environment and infrastructure sector (over USD8.0mn between 2011 and 2016)**.






**Exploring CF Options: Accessing the GCF**

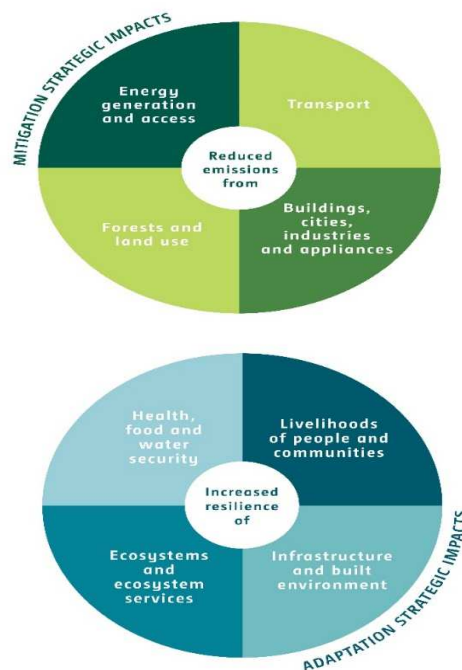
### Green Climate Fund (GCF)

1. The Green Climate Fund (GCF) is seen as the financial mechanism of the UN Framework Convention on Climate Change (UNFCCC).
2. Started operations in 2015, the GCF aims to contribute to attaining the mitigation and adaptation goals of the international community (UNFCCC).
3. The Fund is governed by a 24 member Board, comprising equal number of persons from developed and developing countries.
4. **CDB is accredited to the GCF since 2016 for small scale projects (USD10 to 50mn).**



## Accessing GCF Funds

- The GCF **supports low-emission and climate resilient projects** and programmes in developing countries.
- The Fund has identified **four (4) mitigation and adaptation results areas** each for financing projects and programmes (*diagrams*).
- In addition there are **five (5) crosscutting investment areas**, namely - forestry, sustainable agriculture, resilience, climate compatible cities and energy generation and access.
- GCF will support projects using financing instruments such as - **concessional loans, grants, equity and guarantees.**



## Getting GCF Funds to Flow

### GCF Investment (Project Selection) Criteria:

1. **Impact potential:** Potential to achieve the Fund's objectives and results areas (*shift to low emission or increase climate resilience*).
2. **Paradigm shift potential:** Impact beyond a one-off project/programme investment (*potential for scale up, knowledge*).
3. **Sustainable development potential:** Wider benefits and priorities, including environmental, social, economic and gender-sensitive development impact (*benefits and co-benefits*).
4. **Needs of the recipient:** Vulnerability and financing need of the beneficiary country and population (*including vulnerable groups*).
5. **Country ownership:** In line with national climate and other policies and have the support of relevant stakeholders.
6. **Efficiency and effectiveness:** Economic and financial soundness of the proposed projects/programmes (cost-effectiveness, co-financing, etc.).





## Accessing GCF Funds – Example of a Coastal Project

### GCF Approval of a Coastal Project:

#### Tuvalu GCF Coastal Adaptation Project

- Under the **Tuvalu Coastal Adaptation Project (TCAP)** the Government of Tuvalu is implementing measures to reduce the impacts of climate-induced sea level rise and intensifying storm events on key infrastructure.
- **Key Project Output:** Reducing the vulnerability of key coastal infrastructure, including home, schools, hospitals and other assets, against wave induced damage.
- **Total Project Cost – USD 38.9m** (US\$36.0 million Grant – GCF).



## Challenge for the Region

*A. How to address the significant risk to major seaport and airport infrastructure from CC.*

- ❖ In The Bahamas sea level rise put at risk 36 percent of tourism property, **38 percent of airports**, and **90 percent of sea ports** Turner-Jones (IDB,2017).

*B. The impact from Hurricane Irma and Maria shows the need for greater resilience, especially in coastal infrastructure:*

- ❖ **Dominica** - Losses to infrastructure and capital stock have been estimated at 200% of GDP or US\$1 billion.
- ❖ **Barbuda** – Damages of EC\$4.15mn to air and sea infrastructure.
- ❖ **St. Maarten** - significant damage to air transport facility.



## Leveraging CF for Coastal Infrastructure

### How to leverage GCF financing for coastal transport infrastructure projects?

- Need to have clarity as to how the project will lead to change – **“the paradigm shift to sustainable climate resilience development”**.
- Projects must demonstrate a difference from that of the normal development project – **it must be climate focused and built with this in mind.**
- The need for data and supporting information and studies to build the climate case – **GCF funding proposals are highly evidence base.**
- Including the private sector is important for GCF – **using GCF funds to leverage private resources.**



## Project Design

- Start with project concept or idea.
- Identify climate risk - **e.g. sea level rise, stronger storms and hurricanes.**

- Design project components to be climate proof - **building in resilience.**
- Define the climate change direct benefits - **avoiding CC impacts and co-benefits (reducing pollution, improving health etc.).**

- Project reviewed by funding entity – **e.g. GCF**





## How CDB Can Support

- CDB via its Strategic Plan 2015-2019 is working to incorporate **climate resilience** and **disaster risk management** into all operations.
- The Bank is providing loans and grants to fund **climate resilience projects** in infrastructure.
- In addition to its own resources the Bank can access **other special funds**, mainly from – *the French Development Agency (AFD)*; and *the European Investment Bank (EIB-CALC)*.



## How CDB Can Support

- As an **accredited entity to the GCF**, the Bank can work with its *borrowing members* and the *private sector* to develop bankable projects for funding.
- The Bank will also support PPPs arrangements.



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## How CDB Can Support

### Also:

- Under its **ACP-EU-CDB Project**, the Bank is providing support to its BMCs in developing tools to strengthen resilience in infrastructure - *road transport and water sectors*.
- Also, it is strengthening early warning systems, which are critical to reducing risk in vulnerable sectors and communities.
- All the Bank's investment projects are now being screened and risks effectively managed.



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## Conclusion

- Climate finance is an important source but projects must be climate focused and well designed (*this speaks to the need for capacity building and addressing data deficiencies*).
- Access to climate finance requires country ownership hence *building resilience into policies and operations* is important.
- Need to be creative, combining mitigation into adaptation projects can strengthen access to funding – *using renewable energy to power seaport operations*.
- The Bank will work with member countries and the private sector to prepare bankable projects to access CF – *e.g. GCF*



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**Thank You**

