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

**Adaptation/DRR portfolio of UNDP Barbados and  
the OECS in the Eastern Caribbean**

**By**

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# Adaptation/DRR portfolio of UNDP Barbados and the OECS in the Eastern Caribbean

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## Outline

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- UNDP Barbados and the OECS
- Our adaptation/DRR portfolio
  1. JCCCP
  2. ICCAS
  3. EWS
  4. DREAM
- Contact information

\* Disclaimer

## UNDP Sub-regional Office for Barbados and the OECS



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### • **Partner countries:**

Barbados and 9 OECS member states (Anguilla, Antigua & Barbuda, British Virgin Islands, Dominica, Grenada, Montserrat, Saint Lucia, St. Kitts & Nevis, and St. Vincent & the Grenadines)

### • **Strategic focus:**

UN Multi-Country Sustainable Development Framework in the Caribbean (MSDF) 2017-2021 for wider Caribbean, with 4 priority areas:

- 1) An inclusive, equitable, and prosperous Caribbean
- 2) A healthy Caribbean
- 3) A cohesive, safe, and just Caribbean
- 4) A sustainable and resilient Caribbean

## 1. Japan Caribbean Climate Change Partnership (JCCCP)



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- Timeframe: January 2016 to December 2018
- Funding: Government of Japan
- Budget: Approx. USD 15 million
- Beneficiary countries: Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St. Vincent and the Grenadines, and Suriname

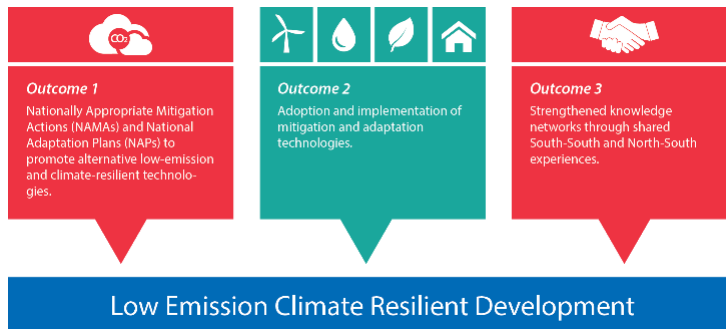




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## 1-1. JCCCP Objective & Outcomes

Objective: To support countries in advancing the process of inclusive **low emission climate resilient development** by improving energy security and integrating medium to long-term planning for adaptation to climate change, within, or aligned with, improved development planning and budgeting processes



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## 1-2. JCCCP Progress

### Outcome 1: Development of NAPs and NAMAs



- Development processes for NAPs and NAMAs initiated by 4 and 5 countries respectively
- Ongoing stakeholder consultations
- Partnership with the NAP Global Network and the NAP Global Support Programme to conduct NAPs training workshops



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## 1-3. JCCCP Progress

### Outcome 2: Pilot projects



- 41 pilot project proposals submitted (as of 31 March 2017)

Focus Area	No.
Water resources management	11
Sustainable agriculture	21
Community-based climate resilient infrastructure	4
Renewable energy and energy efficiency	5

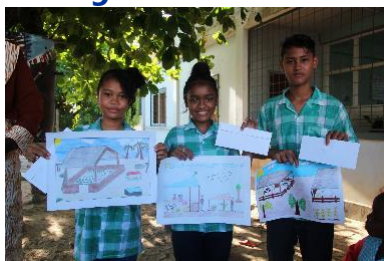
- 10 approved (4 in Jamaica, 3 in St. Vincent and 3 in Suriname)
- 3 commenced (3 in St. Vincent)



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## 1-4. JCCCP Progress

### Outcome 3: Knowledge networks strengthened



- Communication strategies completed for the 8 countries; communication campaigns commenced in 3 countries
- Needs assessment for knowledge transfer completed; Study tour to Japan planned for early 2018
- Partnership building with relevant entities and projects, including for South-South cooperation

## 2. Programme on Integrated Climate Change Adaptation (ICCAS)



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- Timeframe: July 2013 to July 2017
- Funding: German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMUB)
- Budget: Approx. USD 3.2 million
- Partner: Ministry of Education, Human Resource Development and the Environment



### 2-1. ICCAS Components



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- Component 1: Mainstreaming adaptation considerations into national development planning through institutional reforms (GIZ)
- Component 2: Improved planning, management and use of water and coastal zone resources through the development of Coastal Zone Policy and Management Plan and capacity development in water and coastal zone management (GIZ)
- Component 3: Increased adaptive capacity of communities through the implementation of concrete community-based adaptation activities in the islands of Grenada, Carriacou and Petit Martinique (UNDP)
- Component 4: Measures to enable Grenada to access climate finance for adaptation in the long term (GIZ) and raise awareness and knowledge of climate risks (UNDP)



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## 2-2. ICCAS Component 3

### Community Climate Change Adaptation Fund (CCCAF)

- A USD 1.3 million fund
- Supporting 29 community projects (of 162 proposals received from CBOs/NGOs), involving 67 communities benefiting over 50,000 people
- Focus areas include research into climate resilient crops, youth-led adaptation initiatives, livelihood adaptation initiatives (inc. climate smart agriculture) and water resource management
- More info on: <https://undp-adaptation.exposure.co/integration-and-action>



## 2-3. CCCAF Community project 1

### Rainwater Harvesting Project: Grenada School for Special Education (USD 44,000)



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- Proposed by Grenada School for Special Education
- Background: Grand Anse driest area of the country; frequent droughts; lack of irrigation infrastructure; community-wide economic losses due to damage on crops, interrupted planting, and un(under)-utilised lands
- Provided a 20,000 gallon concrete tank, a drip irrigation system and a solar pump for gardening and agricultural production during the dry season
- Resulted in increased water availability for the school



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## **2-4. CCCAF Community project 2**

### **Top Hill Cistern Revitalisation (USD 50,000)**



- Proposed by Top Hill Senior Citizens' Home
- Background: No river in Carriacou; dependence on rainwater harvesting; extensive rainwater storage systems on the island; the Top Hill Public Cistern needs rehabilitation
- Revitalised cistern provided water not only for the senior citizens home but also local farmers and their families; potential for greater agricultural productivity in the dry season
- Reduced the need for trucking water for local hotels, guest houses, and restaurants; significant cost saving



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## **3. Strengthening resilience and coping capacities in the Caribbean through integrated early warning systems (EWS)**

- Timeframe: May 2015 to February 2017
- Funding: Disaster Preparedness Programme of the European Commission's Humanitarian Aid and Civil Protection Department (DIPECHO)
- Budget: Approx. USD 0.65 million
- Beneficiary countries: Barbados, Dominica, Saint Lucia, St. Vincent & the Grenadines
- Partner agencies: National Disaster Offices, Caribbean Disaster Emergency Management Agency (CDEMA), Caribbean Institute for Meteorology and Hydrology (CIMH), Red Cross Caribbean Disaster Risk Management Reference Centre, International Federation of the Red Cross and Red Crescent Societies, National Red Cross Societies, Community-based organisations





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### 3-1. EWS Outputs

- Outputs 1: Regional harmonization and knowledge sharing for EWS
- Outcome 2: Knowledge of risk and vulnerability enhanced in communities to improve preparedness and response
- Outcome 3: Framework for Common Alerting Protocol (CAP)-compliant all-hazard early warning systems integrated at national and community levels



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### 3-2. EWS: Infrastructure development

- **Common Alerting Protocol (CAP) servers** installed in the beneficiary countries
- 3 alert mechanisms (email notification, cap smartphone app, and radio interrupt) operational
- **7 rain gauges** and **8 water level monitoring stations** installed and functional





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### 3-3. EWS: Public awareness and education

- Knowledge of risks in 6 communities improved through completion of Vulnerability and Capacity Assessment
- Current level of knowledge on hazards faced assessed in 7 communities through Knowledge, Attitude, and Perception (KAP) Baseline survey
- Level of change measured through end-line surveys in communities
- Database of vulnerable persons created
- Four school emergency operation plans developed and approved by the Ministry of Education (Dominica)
- Tsunami Smart Sign unveiled (Barbados)



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### 3-4. EWS: Capacity development and training

- Capacities built in the EWS through training in the use of the system. Approximately 35 persons were trained primarily at first responder agencies in the beneficiary countries.





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### 3-5. Recommendations from EWS

- Need for continuous training to manage the systems installed for a long period of time
- Need for more full scale simulation exercises involving all key agencies



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### 4. Disaster Risk and Energy Access Management (DREAM)



- Timeframe: July 2015 to June 2018
- Funding: GEF
- Budget: Approx. USD 1.7 million
- Beneficiary country: Barbados
- DRR benefits:
  - Installation of solar-PV panels at community development centres, polyclinics and schools
  - Provision of auxiliary power to these facilities during a natural hazard or emergency, which act as emergency shelters, relief distribution points, and medical centres



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## Contacts

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