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**Climate Change Adaptation for Seaports
in Support of the 2030 Agenda
for Sustainable Development**

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**Climate Change, Seaports and the
Sustainable Development Goals: The
Case of the OECS**

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**Organisation of
Eastern Caribbean States**

Climate Change, Seaports and the Sustainable Development Goals: The Case of the OECS

UNCTAD Multiyear Expert Meeting on Transport, Trade logistics and Trade facilitation (8th session) Climate Change Adaptation for Seaports in Support of the 2030 Sustainable Development Agenda

28th October 2020

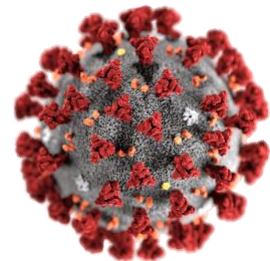
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Characteristics of SIDS (Selected)

- Geographic remoteness
- Location (in many instances) within regions prone to natural hazards
- Limited resilience to natural disasters
- High susceptibility to external shocks
- Small domestic markets and heavy dependence on a few external and remote markets;
- High energy, infrastructure, transportation, communication and servicing costs
- Long distances from export markets and import resources



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The OECS



•**The OECS (1981)**: an International Inter-governmental Organisation dedicated to economic harmonisation and integration, protection of human and legal rights and the encouragement of good governance among independent and non-independent countries in the Eastern Caribbean.

•**Comprises**: Anguilla, Antigua and Barbuda, British Virgin Islands, Commonwealth of Dominica, Grenada, Guadeloupe, Martinique, Montserrat, St. Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines.

•**Antigua and Barbuda, Commonwealth of Dominica, Grenada, Montserrat, St. Kitts and Nevis, Saint Lucia and St Vincent and The Grenadines** are full members.

•**Anguilla, British Virgin Islands, Guadeloupe and Martinique** are Associate Members

•**Anguilla, the British Virgin Islands, and Montserrat** remain overseas territories of the United Kingdom (UK) while Martinique continues to be an overseas department and region of France.

•**Saint-Martin (Fr.)** has recently gained Observer status to the OECS

•**Total population (2017)**: ±1.4 M



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Sea Ports in the OECS

Caribbean sea ports segregated into three categories:

- global hub ports,
- sub-regional hub ports
- service ports

All OECS (main) ports fall into the latter category
Several smaller ports, marinas and terminals serve, among others:

- yachts
- small fishing vessels
- ferries



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Importance of Sea Ports to Caribbean SIDS

Even with the advent of air transport, 90 percent of Caribbean imports and exports are carried by sea

- Goods import and export
- Goods storage
- Revenue collection (“35 vs <4”)
- Direct employment
- Support for key economic sectors, including: tourism, commerce, agriculture
- Support to FDI
- Support for food security
- A vital link to the outside world
- Not just goods but people! (The Caribbean accounts for 50% of global cruise traffic)



Photo: Phillip Cupid, OECS Commission



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OECS Sea Ports and Climate Change

Key hazards:

- Storms
- Sea Level Rise
- Coastal Flooding
- Elevated Temperatures
- Drought

Notes

- Many OECS sea ports constructed when CC was not a serious consideration
- Sea ports often heavily reliant on external utilities (water, electricity) which can be impacted by climate-related events.
- Roads and bridges connecting to airports are often themselves vulnerable
- Many airports are also exposed, by virtue of location, meaning that the entire international transport network is vulnerable.



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Climate Change and Caribbean SIDS

SIDS are recognised by the UN Framework Convention on Climate Change, and intergovernmental Panel on Climate Change (IPCC) as being particularly vulnerable to the impacts of Climate Change

The 2018 IPCC Report highlights some of the implications for SIDS of a 1.5-degree increase in average global temperature, e.g.:

•Tropical regions including small islands are expected to experience the largest increases in coastal flooding frequency, with the frequency of extreme water-level events in small islands projected to double by 2050

•...an eventual 1 m SLR* could partially or fully inundate 29% of 900 coastal resorts in 19 Caribbean countries, with a substantially higher proportion (49–60%) vulnerable to associated coastal erosion...

•In Jamaica and St Lucia, SLR and extreme sea levels are projected to threaten transport system infrastructure at 1.5°C unless further adaptation is undertaken

Projections indicate that at 1.5°C there will be ... substantial increases in the risk to critical transportation infrastructure from marine inundation (Monioudi et al., 2018).



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Climate Change and Caribbean SIDS

NAME	DURATION	SUSTAINED WIND SPEEDS	AREAS AFFECTED
Allen	Aug 5–9, 1980	190 mph (305 km/h)	The Caribbean, Yucatán Peninsula, Mexico, South Texas
Gilbert	Sep 13–14, 1988	185 mph (295 km/h)	Jamaica, Venezuela, Central America, Hispaniola, Mexico
Hugo	Sep 15, 1989	160 mph (260 km/h)	The Caribbean, United States East Coast
Andrew	Aug 23–24, 1992	175 mph (280 km/h)	The Bahamas, Florida, United States Gulf Coast
Isabel	Sep 11–14, 2003	165 mph (270 km/h)	Greater Antilles, Bahamas, Eastern United States, Ontario
Ivan	Sep 9–14, 2004	165 mph (270 km/h)	The Caribbean, Venezuela, United States Gulf Coast
Emily	Jul 16, 2005	160 mph (260 km/h)	Windward Islands, Jamaica, Mexico, Texas
Katrina	Aug 28–29, 2005	175 mph (280 km/h)	Bahamas, United States Gulf Coast
Rita	Sep 21–22, 2005	180 mph (285 km/h)	Cuba, United States Gulf Coast
Wilma	Oct 19, 2005	185 mph (295 km/h)	Greater Antilles, Central America, Florida
Dean	Aug 18–21, 2007	175 mph (280 km/h)	The Caribbean, Central America
Matthew	Oct 1, 2016	165 mph (270 km/h)	Antilles, Venezuela, Colombia United States East Coast, Atlantic Canada
Irma	Sep 5–9, 2017	180 mph (285 km/h)	Cape Verde, The Caribbean, British Virgin Islands U.S. Virgin Islands, Cuba, Florida
Maria	Sep 18–20, 2017	175 mph (280 km/h)	Lesser Antilles, Virgin Islands, Puerto Rico, Dominican Republic, Turks and Caicos Islands

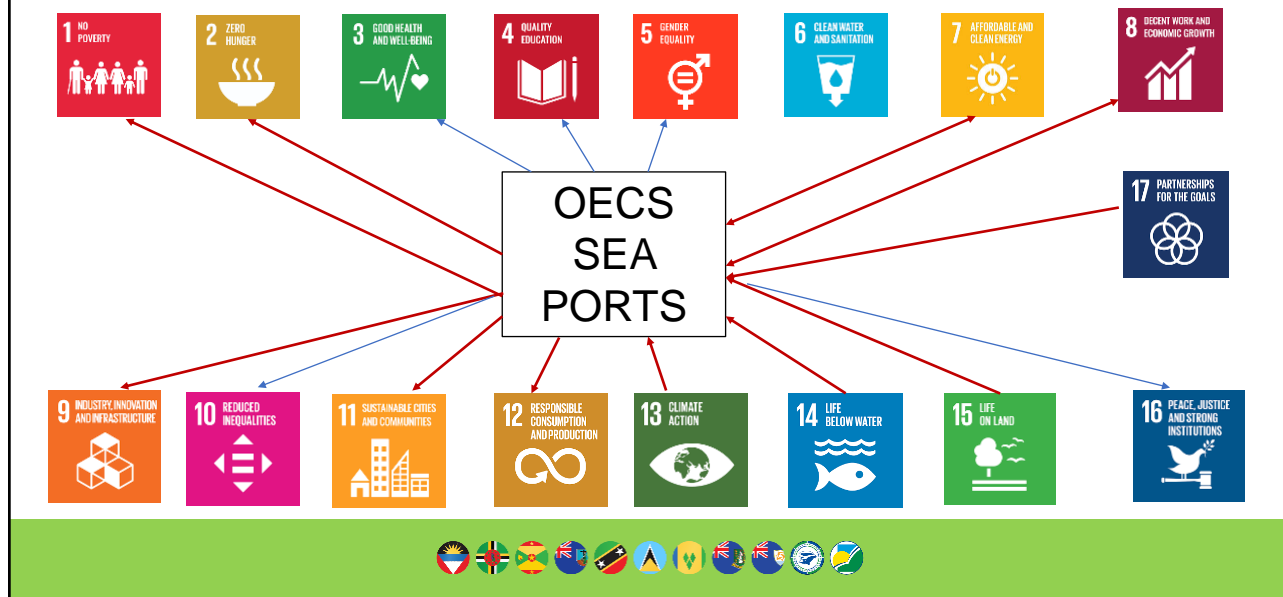


Photo: www.theguardian.com/Reuters



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Climate Change, OECS Seaports and the Sustainable Development Goals



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Key Considerations

- Climate Change is already affecting the Caribbean, which is a particularly vulnerable region
- Caribbean ports already face challenges, with climate change posing an additional layer
- Damage to ports and roads affects not only transport and trade but also entire national economies, which may often take long to recover
- Consecutive events can effectively cripple countries and impose severe fiscal strain.
- Climate change impacts on OECS SIDS seaports (and airports) will occur from many directions, with multifarious implications for regional societies and fulfilment of several SDGs.

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Building Resilience in OECS Ports

- Need to urgently factor climate change considerations into port development, redevelopment, operation and management
- The recent work by UNCTAD on Caribbean ports, which has been considered by the IPCC in the 1.5 Report, serves as a very useful basis for doing so
- Pressing need for work to be continued and deepened (research, multi-hazard assessments) and for the work by UNCTAD to be expanded, in collaboration with others, to assess risk for all ports and airports in the OECS to develop technical and policy solution to help build resilience, using a network approach
- Need for supportive policy action, e.g., integration into National Adaptation Plans
- Recognition that the impact of climate change will affect the fulfilment of several SDGs necessitates a multi-layered approach to building resilience.



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Thank You!



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