SIDE EVENT 1

5th United Nations Ocean Forum

Climate-resilient ports for sustainable trade, tourism and disaster response and recovery

3 March 2025
4.30–5.15 p.m.

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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

5th UN Oceans Forum on Trade related aspects of SDG 14
Side event "Climate-resilient ports for sustainable trade, tourism and disaster response and recovery"

Climate adaptation, resilience-building and DRR for ports – key challenges and areas for accelerated ction

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Seaports: critical for global trade & development but at risk of climate change

Over **80% of volume** of world trade carried by sea (port-port)

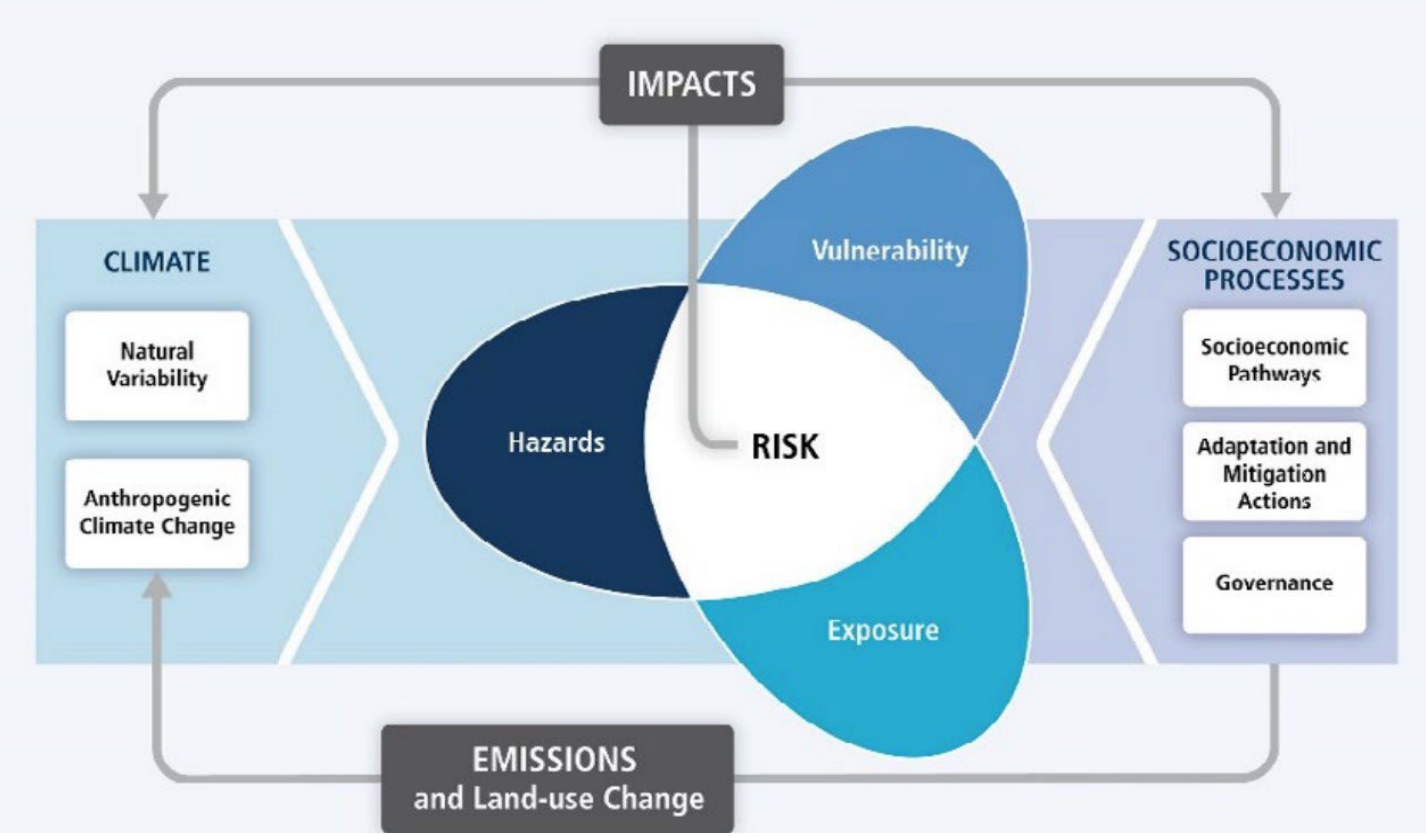
- **Ports:** key nodes in the network of closely interlinked international supply chains - **gateways to global markets and the blue economy** – lifelines for SIDS
- **Critical in the context of disaster response and recovery**

Climate hazards and weather extremes change will:

- affect port infrastructure and operations; hinterland transport; and the broader global supply-chain significant potential for damage, disruption and delay – extensive economic/trade related losses
- exacerbate transport-related challenges for SIDS and other vulnerable coastal economies; increase energy needs/costs
- pose a major threat to sustainable trade & development, particularly for the most vulnerable populations (see related UNCTAD work)

Climate change adaptation/resilience building for ports is of strategic economic importance – especially in the light of growing risks, cost of inaction and infrastructure lifespans

Port infrastructure risk of climate change impacts



IPCC, 2014

Port risk is a function of:

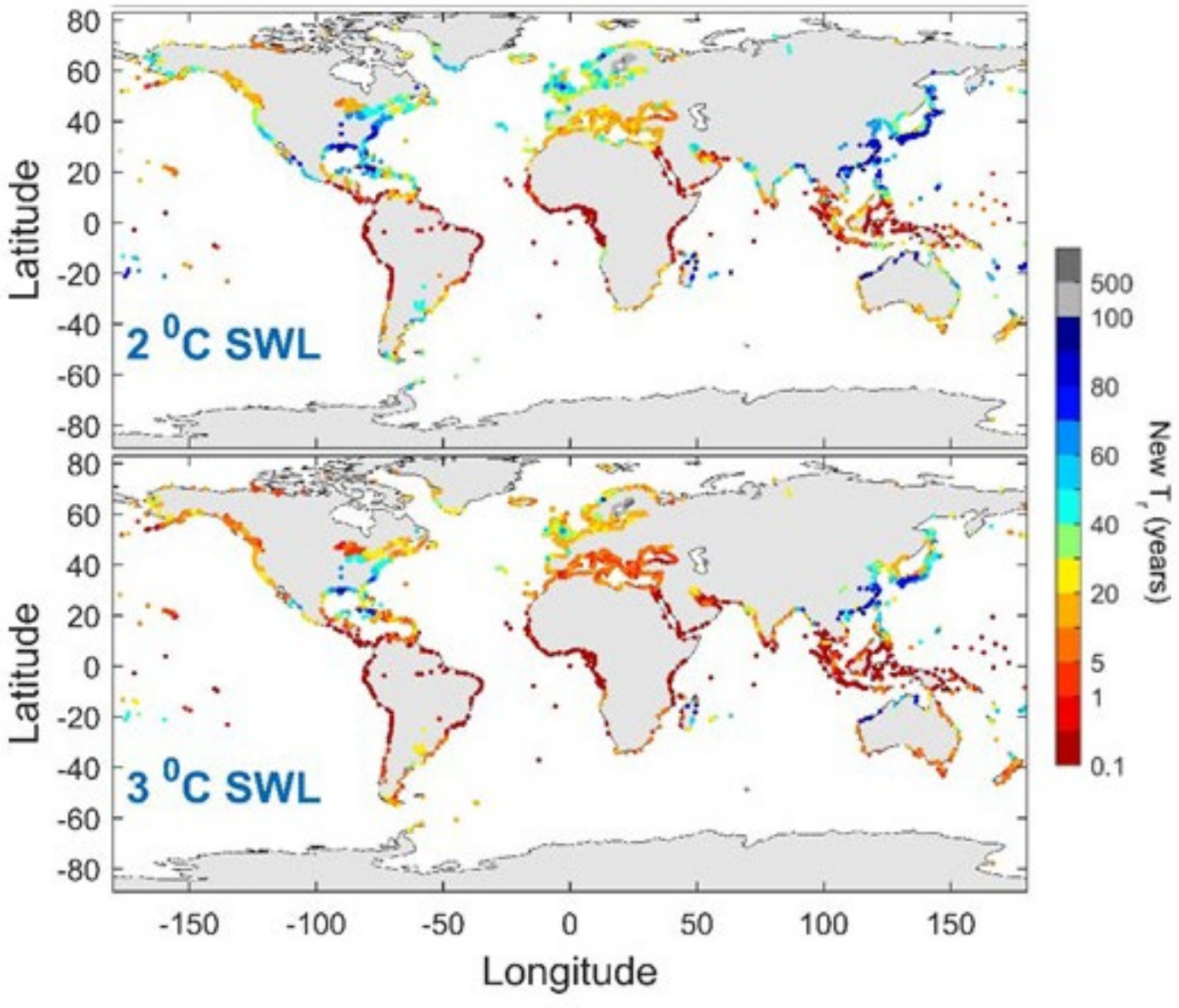
Hazard - changing climatic factors, dependent on climate scenario/ emissions

Exposure of infrastructure /operations to hazards

Vulnerability – depends on capacity to respond to factors that make infrastructure prone to damages/losses from hazards, e.g. availability of technologies and materials; human and financial resources; policy, legislation and management

Note: The IPCC risk definition differs from that of the Insurance Industry which defines risk as a function of the probability of the damaging event(s) and the magnitude of damages/losses: low probability events incurring large losses are high risks

Hazard projections for global ports under CV & C: Extreme sea level (ESL)



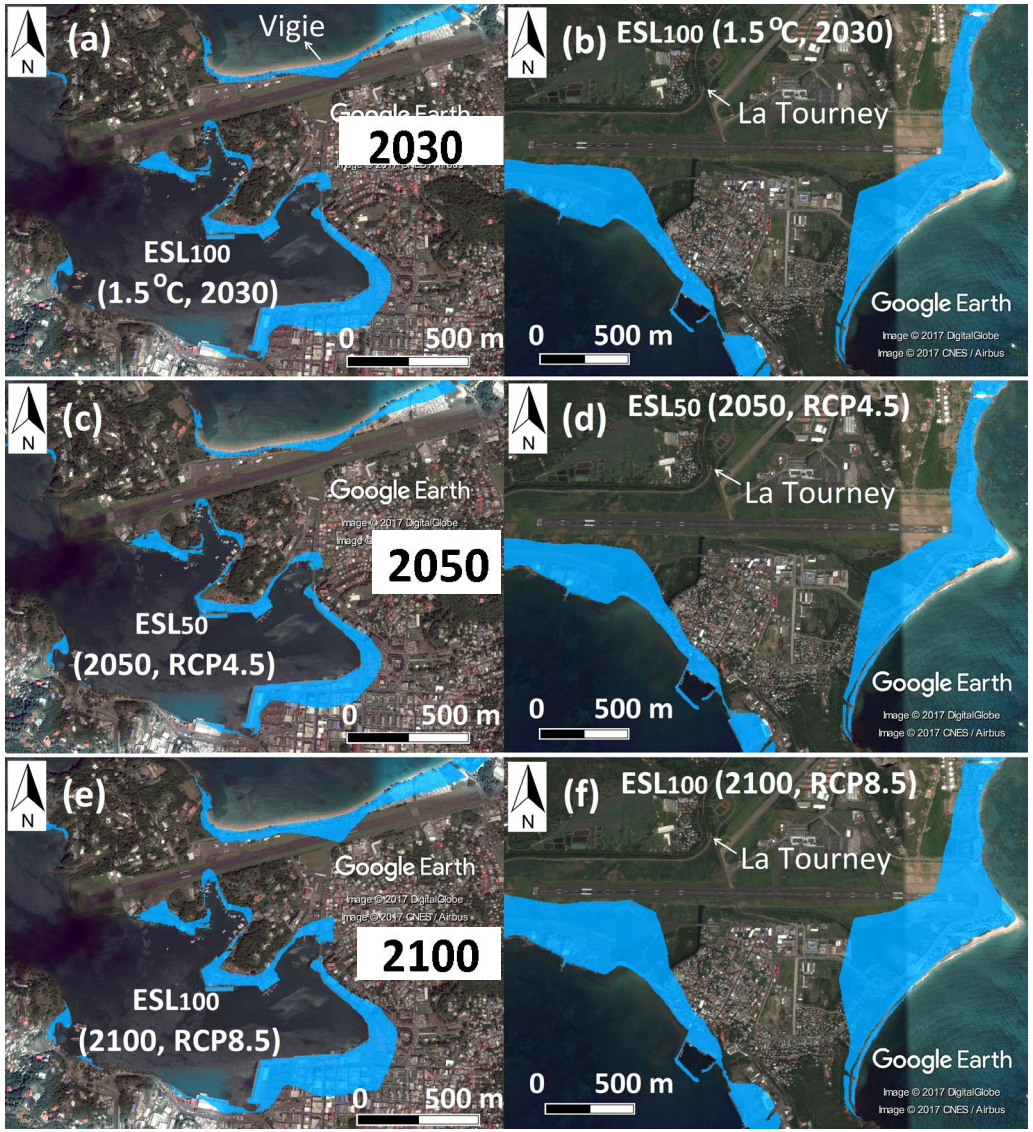
All global ports affected, with effects worsening with increasing SWL

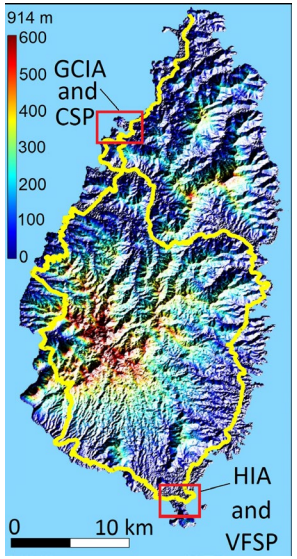
- Under a **2 °C SWL (2050s),** the return period of the **baseline 1-in-100 years ESL** will occur every **1-10 years** in many S. American, African, Gulf, SE Asian and Pacific ports
- Under a **3 °C SWL (2100?)**, many global ports will experience the **baseline 1-in-100 years ESL, several times per year**

Projected changes in the return period of the baseline (mean of 1986-2014)) 1-in-100 years ESL under CV &C for about 3700 global ports. *Key: SWL (Specific Warming Level) in °C above pre-industrial times. Tr (years) return period. Seaport location from World Port Index 2019. $ESLs_{100}$ projections for the global coastline from EC-JRC data collection (see also Vousdoukas et al. (2018). See UNCTAD (2021)*

Exposure - Coastal flooding projections under CV & C:

SIDSport-ClimateAdapt.unctad.org – 8 Ports and Airports in Jamaica and Saint Lucia





Exposure needs to be understood to adapt effectively

Requires risk assessment at local / facility level

All international transport assets (seaports/airports) of Saint Lucia are at high risk, under all scenarios, and from as early as 2030s

Marine flood maps: *(a, c, e) George Charles Int. Airport; Castries seaport; (b, d, f) Hewanorra Int. Airport; Vieux Fort seaport for the: 1-in-100 year extreme sea level event, ESL100 (1.5C SWL, 2030); 1-in-50 year extreme sea level event, ESL50 (2050, RCP4.5); ESL100 (2100, RCP8.5) (Monioudi et al, 2018, Reg Env Change; IPCC 2018; IPCC SROCC 2019)*

Climate resilience, adaptation and DRR for ports

Key to achievement of policy commitments/objectives/goals/targets

- **2030 Agenda** (SDG 1.5, 9, 13 [14]); **SFDRR** 2015-2030; and **EW4All** initiative
- **Bejing Statement** (para. 19h) – Outcome of 2nd UN Global Sustainable Transport Conference (2021)
- **2015 Paris Agreement**, Art. 7 (**Global Goal on Adaptation**) – note importance of **metrics/indicators**; Art. 8 (Averting, minimizing, addressing loss and damage)
- Sharm-El-Sheikh Adaptation Agenda (2022) includes Global 2030 Adaptation Outcome Target with focus on climate-resilient transport infrastructure
- UAE Framework for Global Climate Resilience (2023) targets:

(a) Impact, vulnerability and risk assessment: by 2030 all Parties have conducted **up-to-date assessments of climate hazards, impacts and exposure to risks and vulnerabilities; by 2027** all Parties have established **multi-hazard early warning systems, climate information services for risk reduction and systematic observation** to support improved climate-related data, information and services;

(b) Planning: by 2030 all Parties have in place country-driven ... **national adaptation plans**, **policy instruments**, and planning processes and/or strategies ..., and have **mainstreamed adaptation in all relevant strategies and plans**;

(c) Implementation: by 2030 all Parties have **progressed in implementing their national adaptation plans, policies and strategies and, as a result, have reduced the social and economic impacts of the key climate hazards identified in the assessments** ...

(d) Monitoring, evaluation and learning: by 2030 all Parties have designed, established and operationalized a system for monitoring, evaluation and learning for their national adaptation efforts and have built the required institutional capacity to fully implement the system

Action needed to adapt and build resilience

Accelerate action to ensure that by 2030 critical transport infrastructure is climate resilient to 2050 *(cf. MPGCA Milestones Transport')*

High-quality risk assessments based on the best available science/data to **develop effective adaptation measures, prioritize resources** and **avoid maladaptation**

- **Well designed & innovative technical solutions; improved data** collection/availability; **early planning; systems thinking;** integrate **ecosystem approaches**
- **Mainstream** CC considerations in port infrastructure planning/operations
- **Human capacity building and affordable finance/technology transfer urgently needed -** particularly for ports in developing countries (UNCTAD, 2022)
- Development and implement of strong **policy and legal frameworks** (see UNCTAD, 2020); as well as **standards** (eg ISO 14090; ISO 14091), technical **guidance** (eg PIANC 2020; 2022; EC, 2021), **methodological tools** (e.g UNCTAD, 2018; UNECE, 2024)
  - Compliance with EC technical guidance on climate-proofing of infrastructure (Art. 5 EU Climate Law) already required for new EU infrastructure & EU infrastructure funding
- Integrate considerations into **NAPs & NDCs**, Development, DRR, COVID-recovery policies / planning

Thank you

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