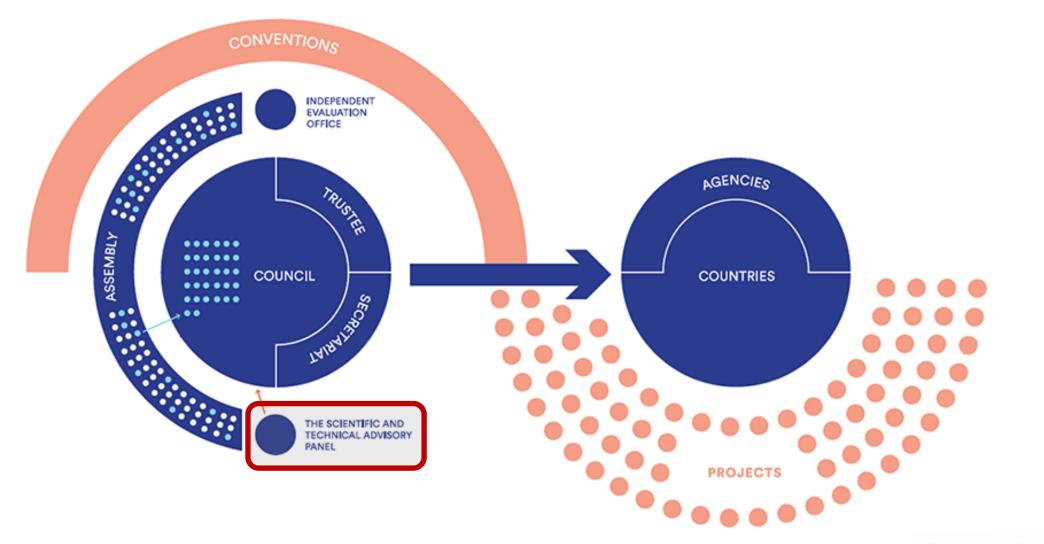
#### Regional Adaptation Programming and Strategy Workshop for Caribbean Small Island Developing States (SIDS)

#### Rosina Bierbaum Chair, Scientific and Technical Advisory Panel to the Global Environment Facility March 15, 2024

Photo: Tim Jackson, Rhincodon typus (Whale shark), Mexico, Caribbean coastline

## STAP in the GEF Partnership





## **Scientific and Technical Advisory Panel**



Rosina Bierbaum Chair



Christopher Whaley Advisor



Mark Stafford Smith Advisor



Blake Ratner Risk Appetite



**Climate Adaptation** 



Miriam Diamond Chemicals and Waste



John Donaldson Biodiversity



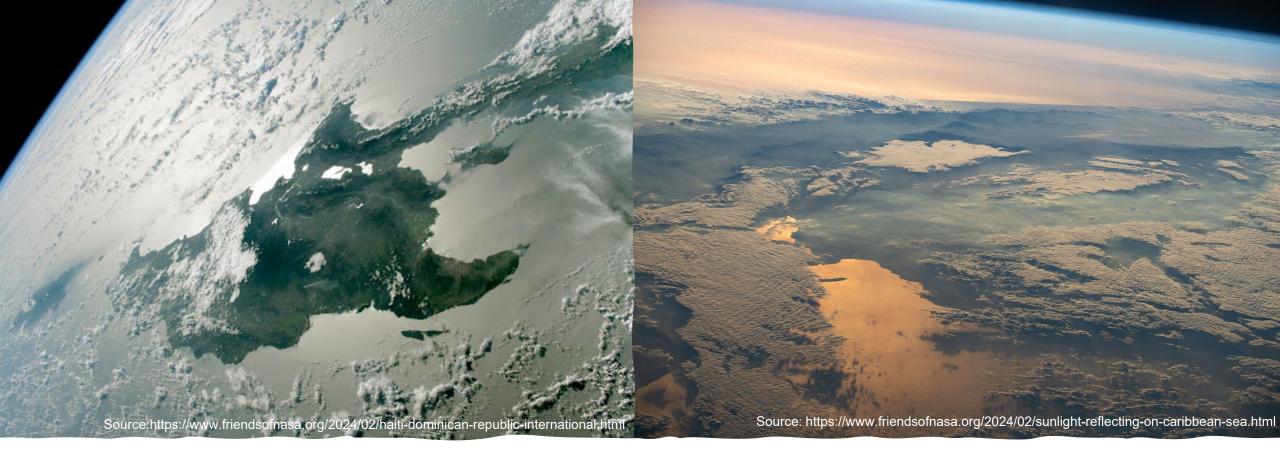
Susanne Schmeier International Waters



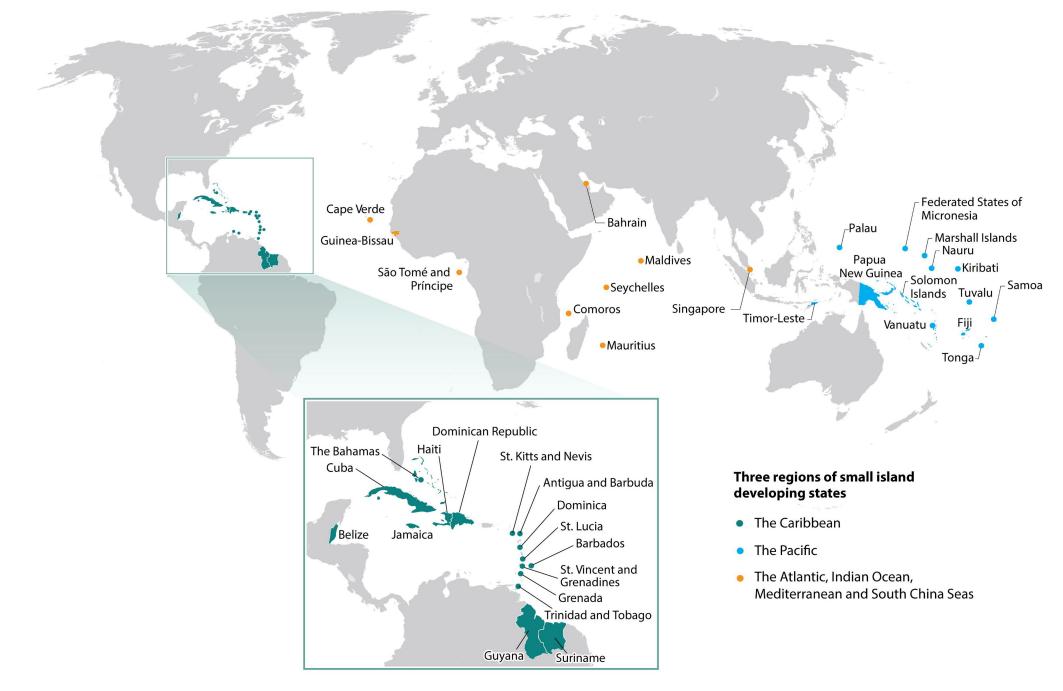
Ngonidzashe Chirinda Climate Mitigation



Graciela Metternicht Land Degradation

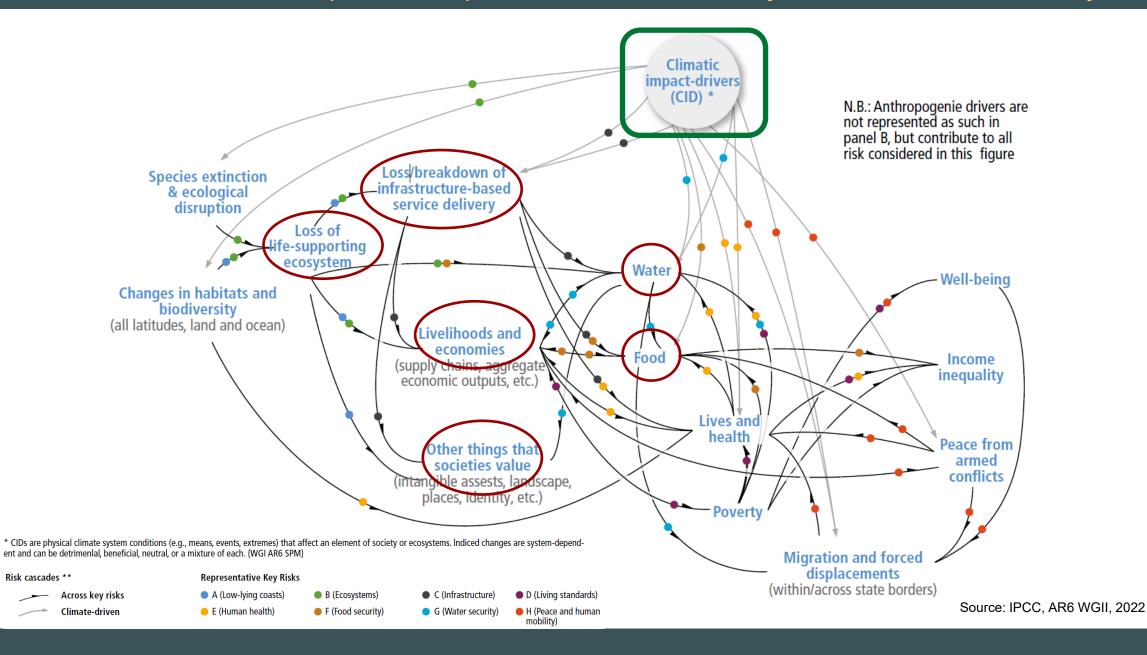


## The Caribbean



Thomas A, et al. 2020. Annu. Rev. Environ. Resour. 45:1–27

#### IPCC's 6<sup>th</sup> Assessment: Impacts, adaptation, and vulnerability, connections across key risks



## **IPCC: key risks in SIDS**



#### **Risks are interconnected!**

- Direct effects increased temperatures, changes in rainfall
- Indirect effects loss of biodiversity and ecosystem services
- Affect people and well-being



## IPCC: Climate change impacts and risks in SIDS

- Ecosystems: degradation of ecosystems affects vulnerability
- Food: extreme precipitation, increased aridity, contributes to food insecurity
- Cities and settlements: sea level rise affects infrastructure and economies
- Migration: climate change impacts may lead to increased migration
- Coral reefs: increased temperatures result in coral bleaching and decline
- Water: increased aridity affects water resources

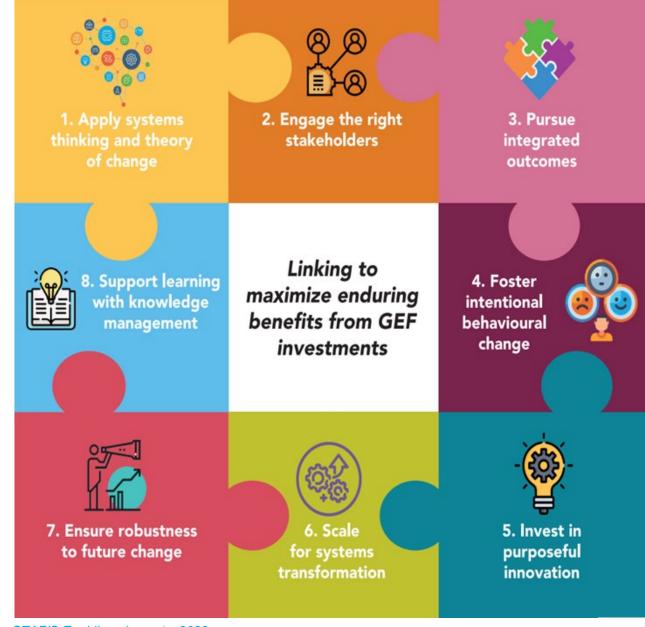
https://www.ipcc.ch/report/ar6/wg2/downloads/outreach/IPCC\_AR6\_WGII\_FactSheet\_SmallIslands.pdf



#### **Available Water** 4000 m³/capita/year 3000 2000 1000 0 Antieua and Barbuda Bahamas Batbados Dominica Grenada Jamaica and Nevis St. Lucia Bradines Dominica Grenada Jamaica and Nevis St. Lucia Fradines and Tobaso St. Wits and Grent and Grenadines Trinidad and Tobaso St. Vincent and Grent and Frinidad And Fr Natural Water Available Water Stress Absolute Water Scarcity Water Scarcity

Water resource sustainability: Challenges, opportunities and research gaps in the English-speaking Caribbean SIDS. 2024 https://doi.org/10.1371/journal.pwat.0000222

### STAP's 8 enabling elements



STAP'S Enabling elements, 2022.



## Evaluating adaptation benefits

- IPCC noted that adaptation projects were often **fragmented**
- Adaptation projects need a clear rationale:

reduce exposure

reduce sensitivity





Jamaican farmer watering lettuce in Sr. Elizabeth



## Adaptation Projects need a clear rationale

- STAP developed a 'decision tree' to aid projects with four main elements:
  - Decide whether adaptation is required Identify projects to meet a recognized need Ensure projects complement current efforts Maximize synergies/ minimize trade-offs



Local woman fetching water from a barrel on a Cuban farm.





• Caribbean SIDS (11412): Climate Change Resilience in Caribbean Fisheries

STAP advice: SIDS projects

- Dominican Republic (11402): Enhance climate resilience, reduce vulnerability to climate change, and achieve land degradation neutrality
- Caribbean SIDS (10895): Multi-country soil management initiative for Integrated Landscape Restoration and climate-resilient food systems





#### Take away messages from SIDS projects

- Adaptation requires attention to behavioral change cultural values, norms, other social issues
- Every GEF project must think about adaptation consequences key for **enduring** environmental and social benefits
- **Simple future narratives** of how key drivers (e.g. climate, population, demand) may play out help develop **robust** projects!
- Managing **knowledge and learning** is important for scaling best practices and influencing new policies, at every level.

#### Simple Future Narratives Brief and Primer

Why behavioral change matters to the GEF and what to do about it



# Thank you!

Photo: Jonny Greenstein, Aetobatus narinari (spotted eagle ray), Caribbean Sea