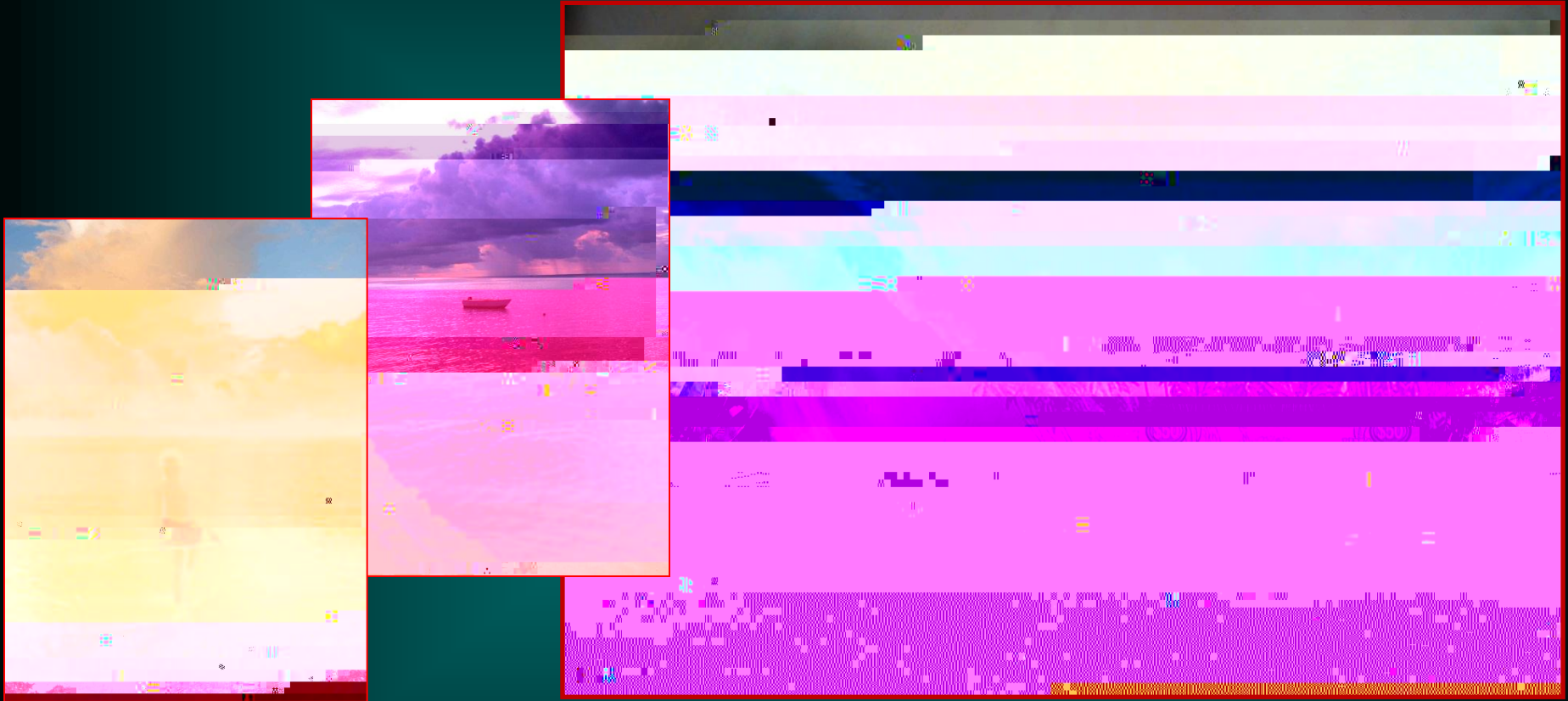


Climate Change and Natural Disasters in Small Island Developing States



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1. The Key Challenges

A high exposure to natural disasters....

Compounded by development trends....

A High Exposure to Natural Hazards

In the Pacific Island Region



US\$112 billion
*Value of infrastructure,
buildings and cash crops
at risk from natural
disasters*

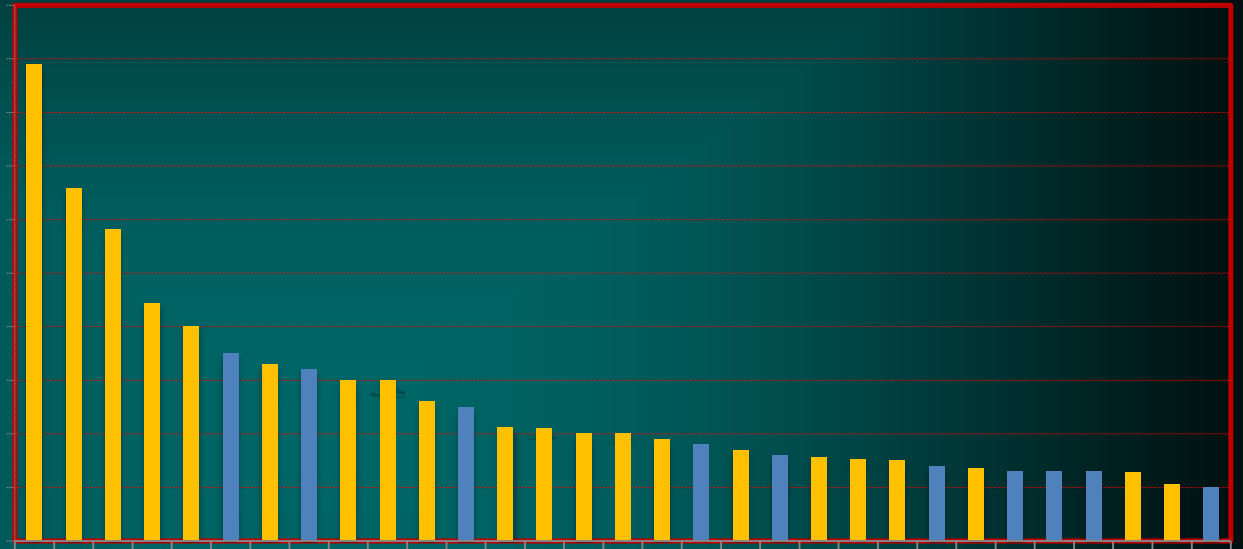
A High Exposure to Natural Hazards

In the Caribbean



Annual damages to infrastructure from natural disasters estimated at **US\$0.5-1 billion/year**

Recurrent disasters contribute to high levels of debt



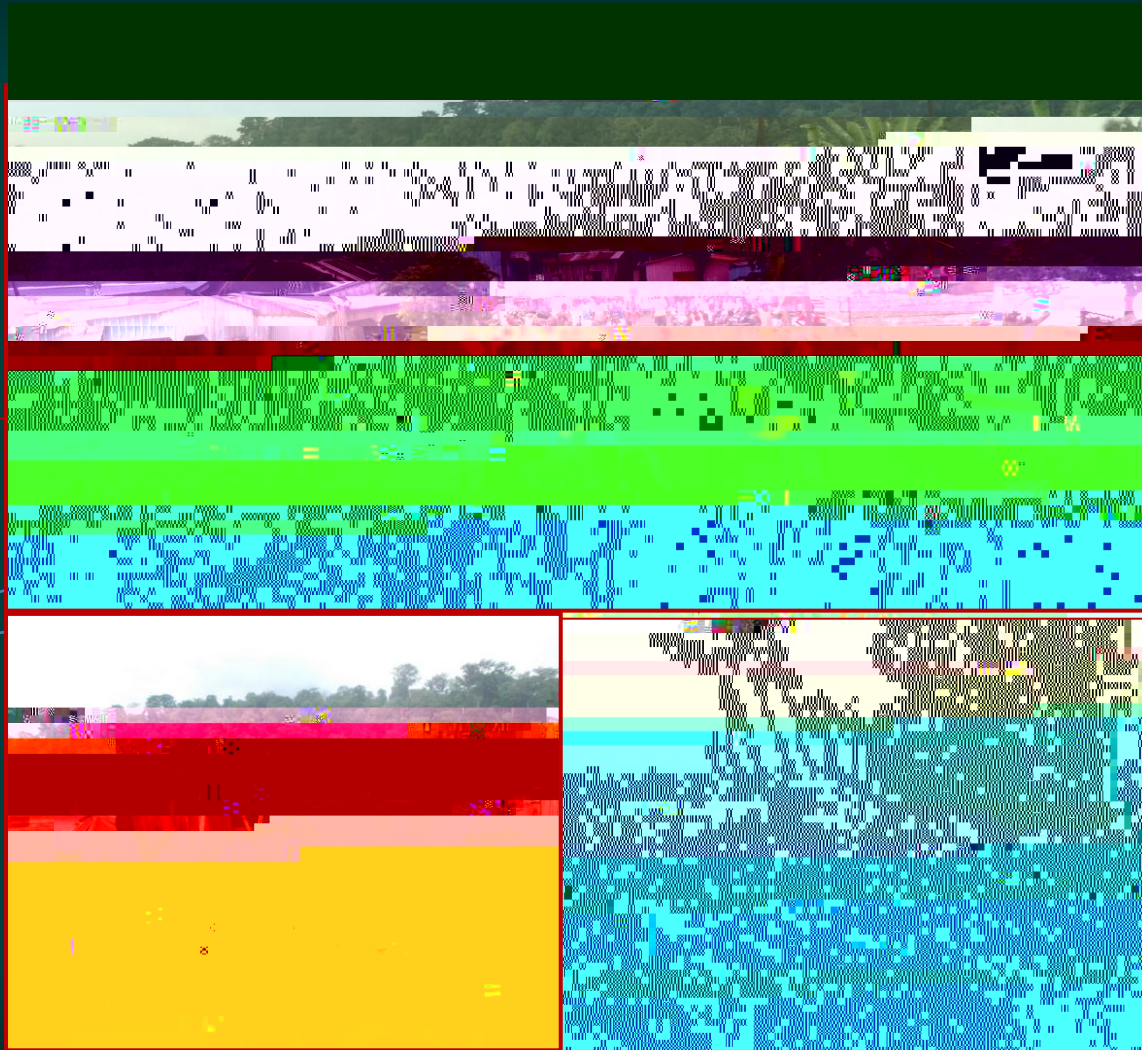
Compounded by Development Trends

*Current
settlement
(2010)*

*Original
settlement
(1950)*

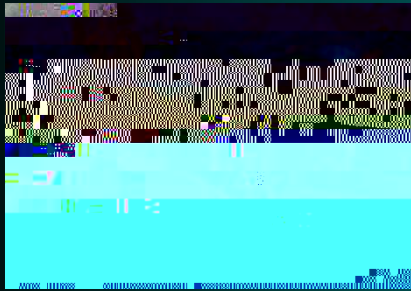
*Loss of
coastline*

*Area at risk
from sea
storms and
river flooding*

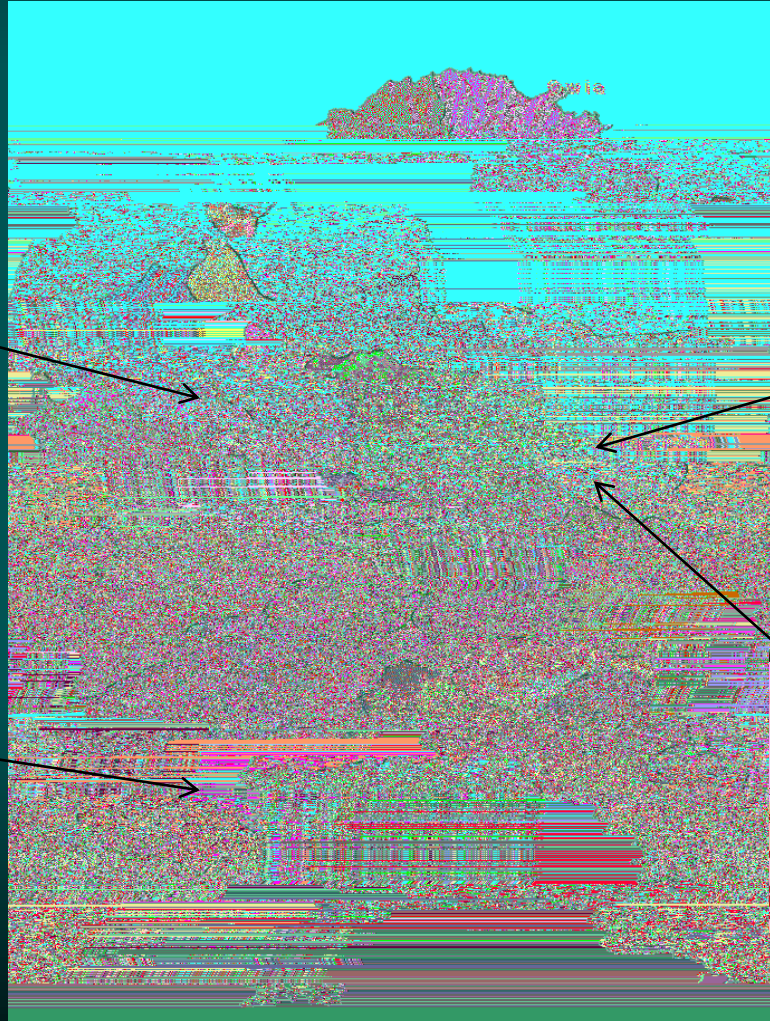


São Tomé and Príncipe

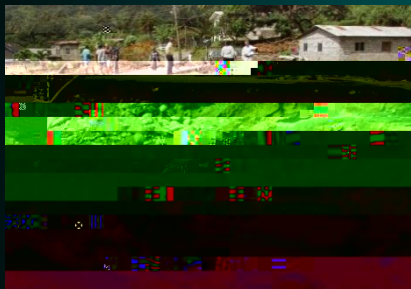
Caribbean countries spend about US\$1 billion a year on infrastructure maintenance just to keep their 75,000 km road network open



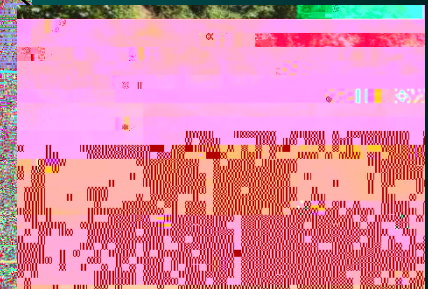
Chateaubelair



Georgetown

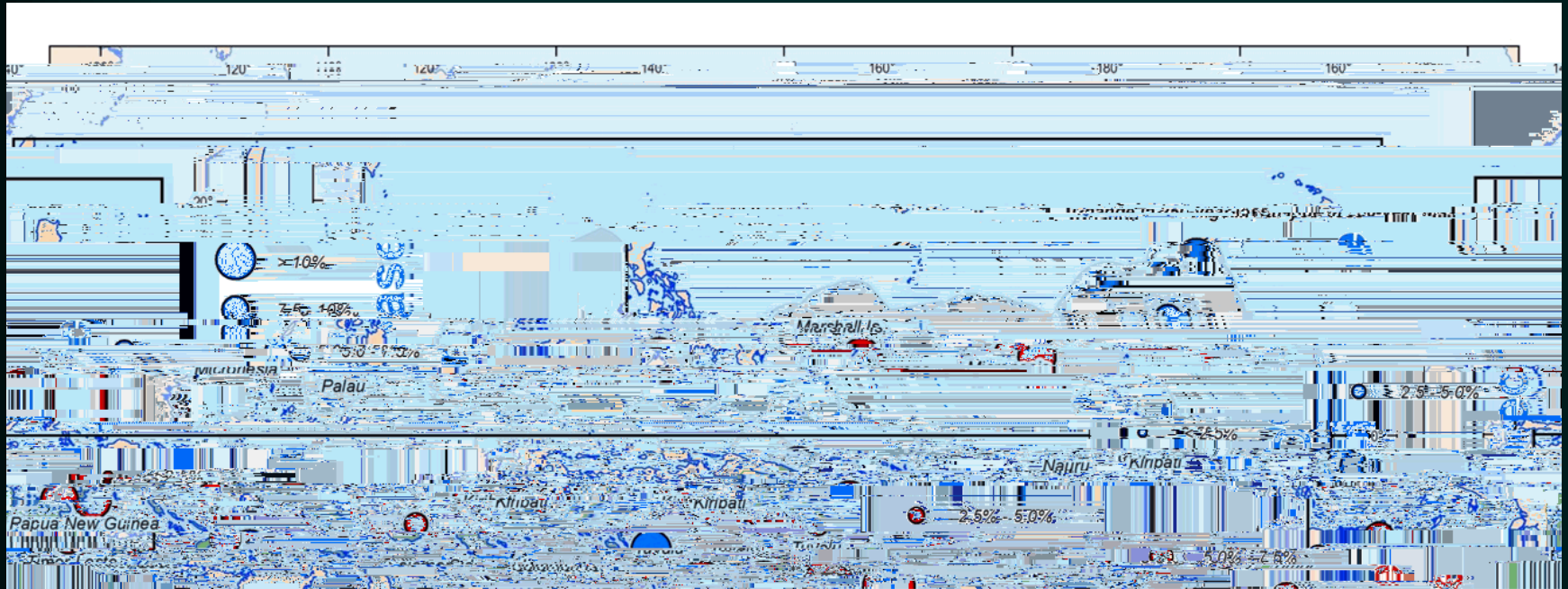


Buccament



Congo Valley

And Exacerbated by Climate Change

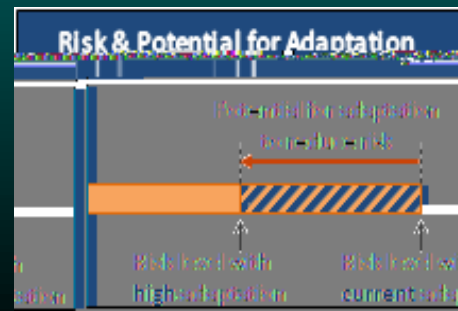


Estimated future increase in probable losses due to climate change, in the Pacific Island Region

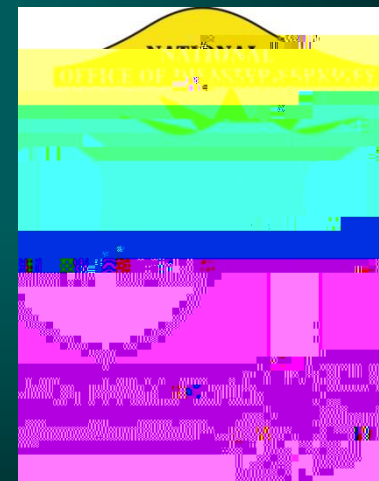
Exacerbated by Climate Change

The longer the wait, the less the opportunity for adaptation to reduce risk...

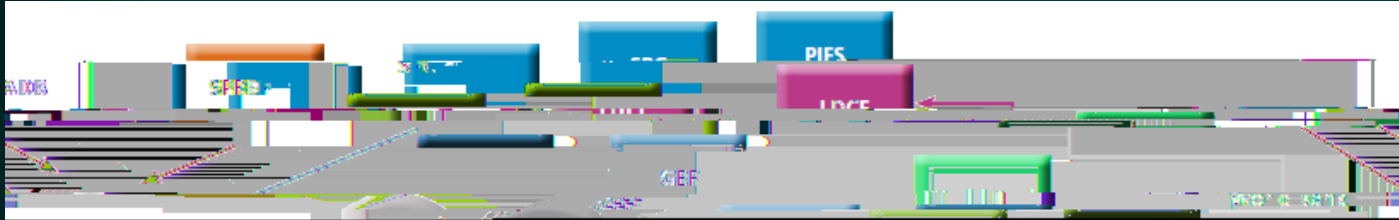
Source: IPCC Working Group II, Chapter 29, Small Islands



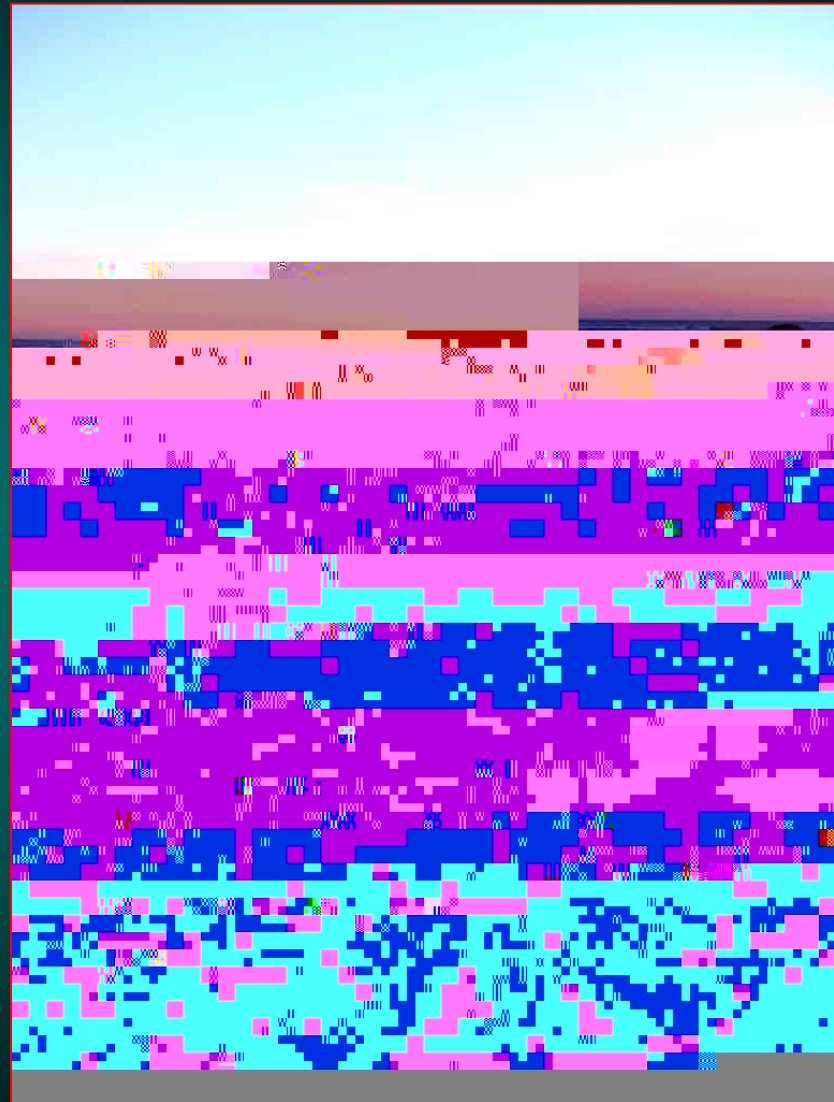
Institutional Incentives



- Coordination



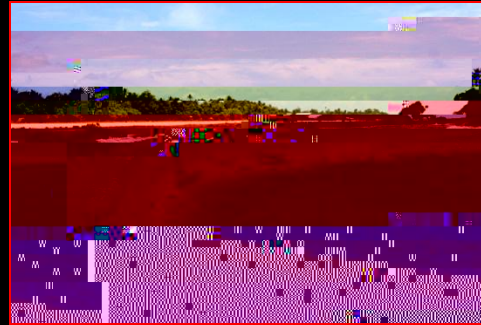
2. The Opportunities



Tabwea Teitiniman in Tarawa

by the Kiriti

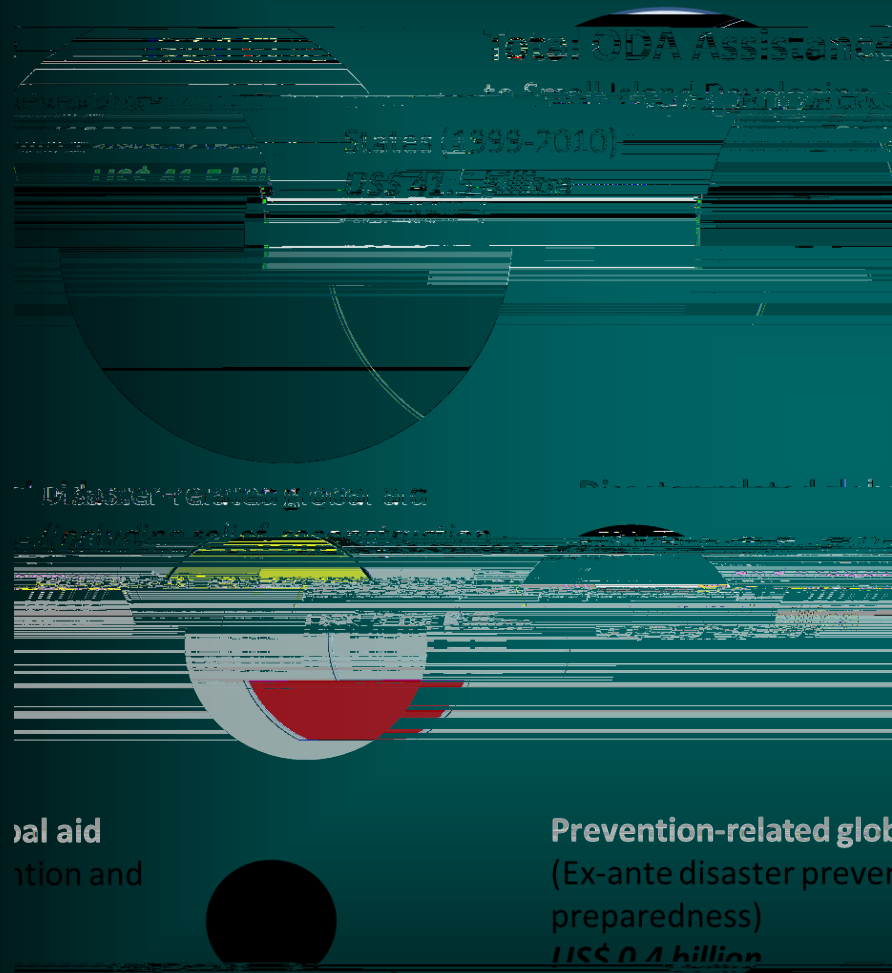
Recognize that Prevention



Sector	Building Back Better Factor
Housing	1.10-1.35
Schools	1.10-1.50
Hospitals	1.10-1.50
Agriculture/Livestock and Fisheries Infrastructure	1.10-1.40
Industrial Facilities	1.10-1.40
Commerce and Trade	1.10-1.35
Water and Sanitation	>1.00*
Transport	>1.00*
Electricity	>1.00*
Communications	>1.00*

Disaster assessment experience suggests it costs 10-50% more to build back better after a disaster. For infrastructure sectors, building or moving infrastructure to more resilient standards can be even higher

And more resources towards prevention



*Of the total disaster-related global aid to SIDS in 1999-2010, **only 10 percent** went towards prevention and preparedness...*

Assessing Risks



Example: the Pacific Catastrophe Risk Assessment and Financing Initiative (PICRAFI) mapped more than 2 million buildings.

Being small is a key advantage, as progress can be monitored in SIDS – e.g. decrease in % of population and km of roads at high risk

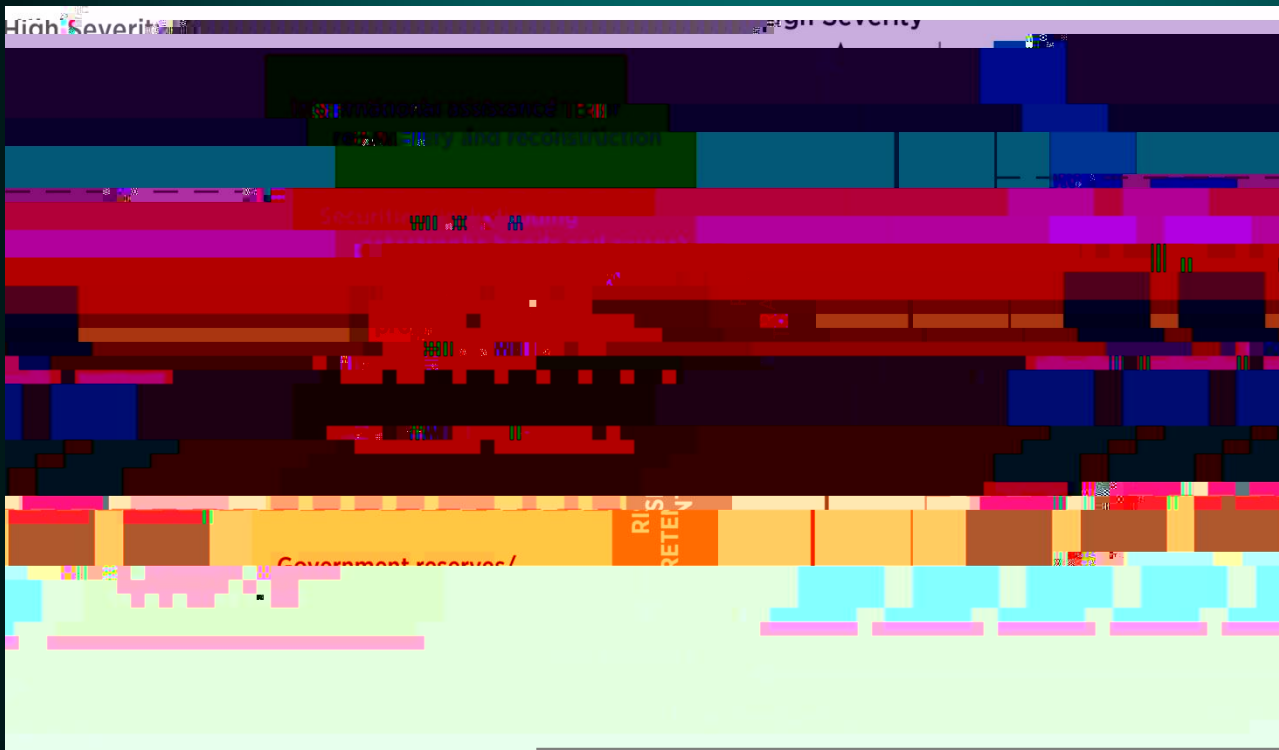


Managing Residual Risks

Tonga, St. Lucia and St. Vincent received emergency funds from the Crisis Response Window in 2014.

Seychelles is considering a Catastrophic Deferred Drawdown Option (CAT-DDO)

Managing residual risk can also involve better contingency and operation and maintenance funds.



Building Institutional Capacity

1. Strengthening fiduciary capacity of a central unit

Central coordinating unit (at Ministries of Finance/Planning or Office of President) prepared for direct access to global funds

2. Using resilience as an integrator for island-wide development

National Adaptation Plans as a process rather than a stand-alone document

3. Learning by doing

Combining capacity building with

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