

# Southwest Indian Ocean

## Risk Assessment and Financing Initiative (SWIO RAFI)



**GFDRR**  
Global Facility for Disaster Reduction and Recovery



**THE WORLD BANK**

### ACP-EU Natural Disaster Risk Reduction Program

An initiative of the African, Caribbean and Pacific Group, funded by the European Union and managed by GFDRR

# THE PURPOSE

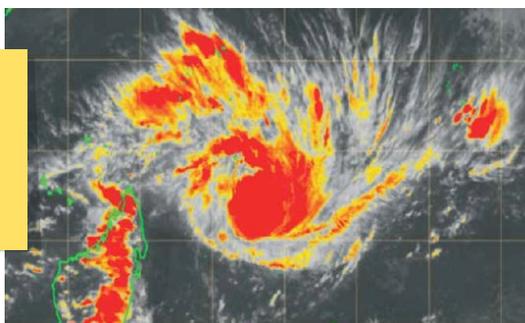
The Southwest Indian Ocean Island States are more vulnerable than ever to disaster losses from catastrophes such as cyclones, floods, earthquakes and tsunamis. These threats are exacerbated by the effects of climate change, a growing population and increased economic exposure.

The question remains on whether individual or joint solutions can be found to increase the financial resilience of the Island States against natural hazards.

The Southwest Indian Ocean Risk Assessment and Financing Initiative (SWIO RAFI) seeks to answer this question, providing a solid basis for the future implementation of disaster risk financing by improving the understanding of disaster risks and risk financing solutions of participating island nations.

This initiative supports the Indian Ocean Commission (IOC) ISLANDS project, which is also supported by the European Union (EU), the United Nations Office for Disaster Reduction (UNISDR) and the Agence Française de Développement (AFD). The initiative will be implemented with financial support from the EU in the framework of the ACP-EU Natural Disaster Risk Reduction Program, managed by the Global Facility for Disaster Reduction and Recovery (GFDRR).

The 2013–2014 cyclone season saw 15 tropical disturbances, 5 of which sustained winds above 178km/h



“Implementing the SWIO RAFI will not only assist in preventing devastating disasters within these Island States, but will also help to predict future risks. As an ongoing initiative, the goal is to consistently improve the lives of those residing in areas prone to such hazards using a combination of research and a myriad of assessment tools.”

—**Doekle Wielinga**, Sr. Disaster Risk Management Specialist, the World Bank

# THE PROJECT

This project is the first phase whereby existing and new hazard and exposure data will be collected, collated and shared and catastrophic risk profiles developed for **The Comoros, Madagascar, Mauritius, Seychelles and Zanzibar.**

Based on the extensive research that will be conducted, regional and national catastrophe risk financing options will be assessed, a regional open data platform will be established and preliminary national disaster risk financing strategies developed.

Institutional capacity building will form an essential component of all of these efforts.

During an envisaged second phase, the preliminary catastrophe risk financing strategies selected by the Island States will be further developed and made operational.



# THE RELEVANCE

SWIO RAFI complements the ongoing work of the IOC to reduce vulnerability to natural disasters in accordance with the Mauritius Strategy for the Further Implementation of the Program of Action for the Sustainable Development of Small Island Developing States (SIDS) 2005–2015.

More broadly, this initiative offers support to long-term, core economic and social development objectives. For example, disaster risk financing and insurance strategies can:

- Increase a country's response capacity post disaster
- Increase stability in the fiscal budget (including protection of development investment budgets)
- Prevent reversion to expensive/sub-optimal financing sources that may be sought in a post-disaster situation to avert a liquidity crunch

# THE ACTIVITIES

- Data collection and management of disaster risk information
- Catastrophe risk modeling and fiscal risk profiling
- Quantitative and qualitative evaluation of options for financing disaster losses
- Development of evidence-based national disaster risk financing strategies
- Policy dialogue and monitoring and evaluation

Linkages to Ongoing and Future Activities  
and Sequencing of the Project Activities

# Layered Strategy for Financing Disaster Losses



Source: World Bank Disaster Risk Financing and Insurance Program

## EXPECTED OUTCOMES

- Improved ability to measure, maintain and apply disaster risk data for enhanced resilience to disasters
- Establishment of robust catastrophe risk profiling of Island States
- Establishment of preliminary national disaster risk financing strategies based on quantitative and qualitative assessment of the following: probable losses, financing gaps and costs and benefits of available financing options

Sequencing ▼	UNISDR disaster risk data and loss profiling exercise for Indian Ocean Islands	Country-specific catastrophe risk models for tropical cyclone (wind and storm surge), flood, and earthquake and tsunami developed under this initiative. Geospatial risk information platform will be developed in parallel.	Review of existing budgetary arrangements for financing disaster losses at the fiscal level, including examination of types of historical expenditure undertaken under this initiative
	Geospatial risk information platform		
	Fiscal risk profiles and identification of funding gaps		
	Preliminary national disaster risk financing strategies and regional options for disaster risk financing		
	Future Project: Implementation of disaster risk financing strategies and re-purposing of hazard, exposure and risk information produced under the first phase for other DRM applications such as preparedness and prioritizing of risk reduction investments		

# PARTNERS

- World Bank SIDS (Small Island Developing States)
- This initiative is in partnership with the Ministries of Finance, National Disaster Risk Management Offices and Insurance sector representatives from The Comoros, Madagascar, Mauritius, Seychelles and Zanzibar.
- This initiative is carried out in coordination with:
  - Indian Ocean Commission (IOC) ISLANDS Project
  - United Nations Office for Disaster Risk Reduction (UNISDR)
  - French Development Agency (AFD)



"The sole responsibility for this publication lies with the author. The European Union is not responsible for any use that may be made of the information contained therein."

---

# CONTACTS

In Washington, DC:

**Doekle Wielinga** • Sr. Disaster Risk Management Specialist  
[dwielinga@worldbank.org](mailto:dwielinga@worldbank.org)

**Alanna Simpson** • Sr. Disaster Risk Assessment Specialist  
[asimpson1@worldbank.org](mailto:asimpson1@worldbank.org)

In London:

**Emily White** • Disaster Risk Financing Specialist  
[ewhite3@worldbank.org](mailto:ewhite3@worldbank.org)

In Antananarivo:

**Noro Aina Andriamihaja** • Economist  
[nandriamihaja@worldbank.org](mailto:nandriamihaja@worldbank.org)

---

## ACP-EU Natural Disaster Risk Reduction Program

An initiative of the African, Caribbean and Pacific Group, funded by the European Union and managed by GFDRR