

# SMALL ISLAND STATES RESILIENCE INITIATIVE

Small Islands, Big Challenges

## What We Do

SISRI is helping small island states build larger pipelines of resilience investments to withstand the impacts of climate change – from safeguarding coastal areas to building safety nets that protect citizens after disaster strikes.

It offers just-in-time, expert assistance on flood and landslide risk assessment, safer infrastructure, social and financial safety nets, and implementation capacity.

Through a global community of practice, SISRI links island practitioners with one another, and with global knowledge on building resilience.

Small island states face some of the greatest vulnerabilities of any nations due to climate change and natural disasters – but the threats can be reduced through adequate investment, technical expertise and hands-on support. Through its Small Island States Resilience Initiative (SISRI), GFDRR is helping step up the rate of progress to safeguard these unique environments from climate impacts such as sea-level rise, storm events and droughts. SISRI is providing technical support, building a community of practice, and helping island nations harness predictable and long-term funding to ensure their resilience.

**OVER 60%**

of countries with the highest losses from disaster events are small island states – with damages of up to **9% of GDP**.

**\$3 BILLION**

in damages and **9 million people** affected by natural disasters in the Pacific Islands in the last half century.

**35**

or more resilience projects underway in some island nations, most valued at \$200,000 or less. Reducing fragmentation and boosting efficiency can build resilience.

# APPROACH

## EFFICIENT INVESTMENT FLOWS

SISRI is helping small island states map the complex landscape of climate finance assistance and increase both the scale and efficiency of their investments. A joint SISRI-Organization for Economic Co-operation and Development (OECD) analysis found that, though concessional donor funding for resilience nearly doubled from 2011 to 2014, reaching \$1.01 billion, it remained highly fragmented with high transaction costs. SISRI is helping small island states to scale up and consolidate their resilience investments, moving from less significant, isolated projects toward national programs that deliver results at scale.

## TECHNICAL AND OPERATIONAL SUPPORT

SISRI provides on-the-ground support by drawing on an expanded GFDRR and World Bank team. This expert community is deployed on a just-in-time basis to help

island nations address project bottlenecks and start new investments. For example, SISRI is helping the Marshall Islands, Jamaica, and São Tomé and Príncipe to safeguard vulnerable coastal zones through optimally combining “gray” coastal defense structures, such as sea-walls, with “green” interventions, such as mangrove restoration.

## KNOWLEDGE EXCHANGE

SISRI is bringing leading practitioners from island nations together to share experiences that worked in their countries. Face-to-face dialogues, such as the first SISRI Workshop in May 2016 that brought together leading practitioners from 22 countries, are complemented by a Knowledge Notes series that captures project insights (see box).

# Sharing Expertise and Good Practice: SISRI Knowledge Notes

SISRI Knowledge Notes provide practical insights on the key building blocks for resilience in small island states. The notes draw on the expertise of technical specialists at the World Bank, as well as partner institutions such as Deltares, University of Tokyo, and the OECD (see right).

### SISRI'S KNOWLEDGE NOTES

Technical Specialist  
Expertise

Partner  
Institutions



# Pioneering Analysis to Track Funding to Small Island States

Small island states face a complex and fragmented landscape of climate financing, which frequently proves hard to access. Mapping out the availability of these resources is critical to reducing administrative burden, cutting transaction costs, and achieving more per dollar.

A new report from GFDRR and the OECD, titled *Climate and Disaster Resilience Financing in Small Island Developing States*, found that financing is dominated by infrastructure projects in a handful of upper middle-income countries. The remainder is divided across a large number of projects that reduce efficiency and overstretch the countries' limited administrative capacity.

Those valued at \$200,000 or less comprised more than half of the total projects, yet contributed only 2% of total funding. This proliferation of small initiatives is

widespread, with some countries managing 35 or more resilience projects in a given year. Between 2011 and 2014, climate and disaster resilience was financed through a total of 1,715 projects.

The report highlights potential actions by donors to de-fragment their assistance, as well as positive steps that small island states are increasingly taking – from greater use of country systems to pooling resources behind national resilience programs. The findings were discussed at the World Bank Small States Forum and are expected to contribute to OECD discussion on the aid architecture for small island states.



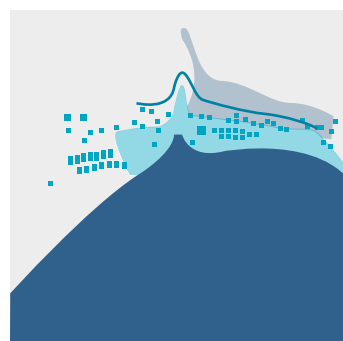
# Securing Communities in São Tomé

Located off the Western coast of Africa, São Tomé and Príncipe has a population of nearly 200,000, most of which lives in coastal areas. Uncontrolled expansion of housing near beachfronts has exacerbated the vulnerability of communities as climate change drives increased flooding and coastal erosion.

In response, SISRI is supporting a government effort to manage a voluntary population retreat to safer, higher ground. The first step was determining the pattern of coastline change by comparing maps of the area from the 1950s to high-resolution satellite images from today.

The coastline was shown to have receded more than 100 meters in 60 years, with new coastal areas at imminent risk. The community was engaged to determine the priorities for voluntary relocation to safer areas.

The government created expansion zones that converted rural land into housing lots, schools and health centers. The safe areas are adjacent to the original communities, helping



COMBINED RISK MAP, SHOWING FOOTPRINTS OF BUILDINGS, THE ESTIMATED EFFECT OF THE STORM SURGE AND RIVER FLOODING BY 2050 FOR MALANZA, SÃO TOMÉ

■ BUILDINGS ■ RIVER FLOODING ■ ESTIMATED EFFECT

to preserve their livelihoods and traditional attachment to the sea, while benefiting from formal land titles.

In addition to raising awareness and monitoring progress, the communities have endorsed a prohibition of future housing in high-risk coastal areas. One waterfront has been transformed into a promenade with free Wi-Fi to encourage people to view the area as a public space.

# ACTIVE ENGAGEMENTS



GFDRR has engaged in 19 small island states, with **\$43 MILLION+** provided through 93 grants.

BELIZE

HAITI

JAMAICA

DOMINICA

SAINT LUCIA

GRENADA

SISRI leverages a World Bank portfolio of resilience investments in small island states that averages **\$180 MILLION PER YEAR** across 23 countries.



Practitioners from 22 small island states have exchanged project experiences through SISRI's **face-to-face community of practice**, which is complemented by an online platform ([SISRIPractitionersNetwork@worldbank.org](mailto:SISRIPractitionersNetwork@worldbank.org)).

● SEYCHELLES

● MADAGASCAR

● MARSHALL ISLANDS

● KIRIBATI

● SOLOMON ISLANDS

● SAMOA

VANUATU

● FIJI

● TONGA

## Measuring Impact

SISRI will help small island states to measurably **REDUCE CLIMATE AND DISASTER RISKS** to their economies, ecosystems and communities.

Hands-on assistance in between **20 AND 24 SMALL ISLAND STATES WILL IMPROVE RESULTS MEASUREMENT, STRENGTHEN POLICIES AND INSTITUTIONS, AND INTRODUCE INNOVATIVE INSTRUMENTS** such as debt-for-resilience swaps.

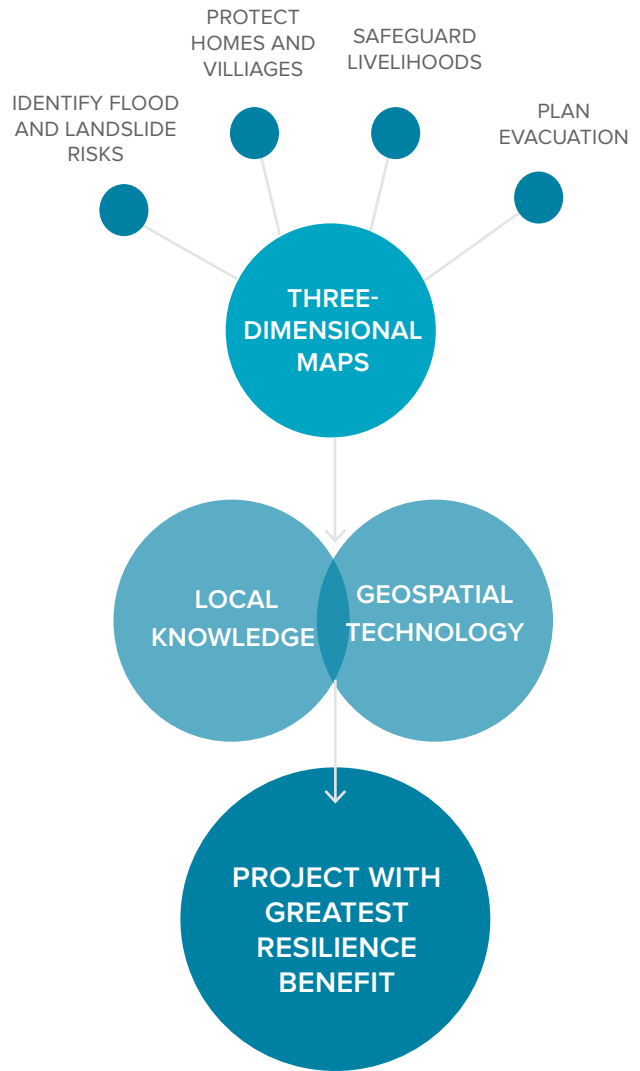
Between 2016 and 2020, SISRI will support small island states to **INCREASE RESILIENCE INVESTMENTS BY AT LEAST 25%** over baseline levels.

# Community-Driven Resilience in Samoa

Coastal areas of Samoa have suffered multiple cyclones and storms in recent years, hitting farms and communities hard. SISRI has supported the government to address climate vulnerability in these areas through a community-driven approach.

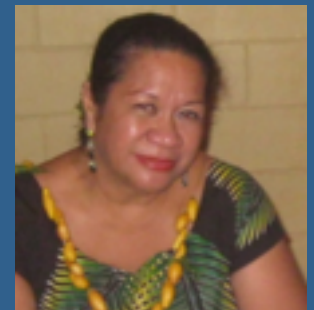
When villagers gathered on a roadside overlooking the ocean recently, examining maps on an iPad, they were not using regular cartography. With support from the World Bank and SISRI, the government of Samoa is harnessing LiDAR technology which relies on laser imaging mounted on an aircraft.

Communities were able to examine the three-dimensional maps to identify flood and landslide risks, protect homes and villages, safeguard livelihoods, and plan evacuation. The community-driven approach allows village leaders to combine local knowledge with high technology in deciding which local projects to fund for the greatest resilience benefit.



“It’s something that really brought the community together. The whole village worked together to make sure each family had a water tank. The people are very happy and grateful to get the assistance.”

– Ms. Lusia Sefo  
Aopo village, northern Samoa



# Scaling Up Implementation in the Eastern Caribbean

Experience with resilience projects in Organisation of Eastern Caribbean States (OECS) countries shows the value that hands-on operational support can deliver.

During the 2000s, most OECD countries managed small adaptation and disaster management projects of \$1-5 million each. A decade later, eight of these countries (Belize, Dominica, Dominican Republic, Grenada, Jamaica, Haiti, Saint Vincent and Saint Lucia) were directly managing resilience programs of **\$20-70 MILLION EACH.**

The higher investment volumes reflect intense implementation support to central coordinating units, many under Ministries of Planning or Finance. Training sessions and more frequent implementation support missions helped build capacity in procurement, financial management, geospatial data, landslide risk reduction and other disciplines.

This gradual building of capacity through a learning-by-doing approach enabled Caribbean countries to channel resilience funds to where they were most needed.

The World Bank assisted the government in Belize to assess flood risk to the transport network. The results were incorporated into a National Climate Resilience Investment Plan with target funding of \$430 million. By 2014, the government combined multiple sources of financing to close its investment gap. This approach enables nations to handle progressively larger projects and achieve results at scale.



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**GFDRR THEMATIC INITIATIVE: SMALL ISLANDS RESILIENCE INITIATIVE**  
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