

# Addressing Risk, Harnessing Opportunity: Building Disaster Resilience in SIDS

## UNISDR & OHRLS JOINT ISSUE PAPER

*This joint paper, prepared by the United Nations Office for Disaster Risk Reduction (UNISDR) and the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (OHRLS), draws on the findings of the 2013 Global Assessment Report on Disaster Risk Reduction<sup>1</sup> and the SIDS Featured Event at the Global Platform for Disaster Risk Reduction 'Strengthening Partnerships Towards Disaster Risk Reduction for Small Island Developing States', held in Geneva, Switzerland on 21 May 2013.*

### I. Recognising the challenges

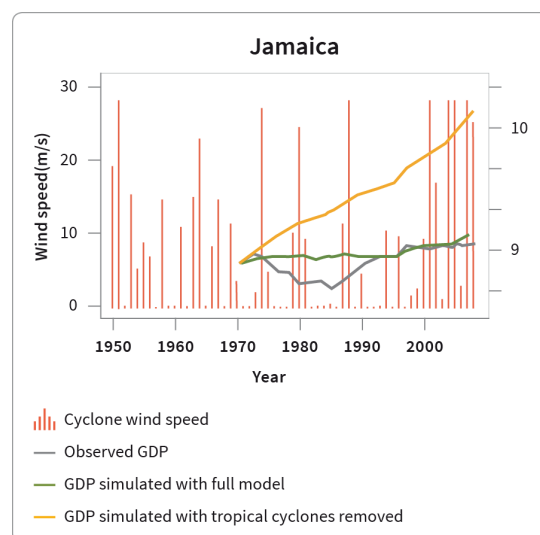
Small island developing States (SIDS) represent less than one per cent of the world's total population. Scattered across three regions, SIDS are a highly diverse group both in terms of their unique social and cultural identity but equally in their economic and political development. Despite this, all SIDS share a common reality. SIDS are located among the most vulnerable regions in the world in relation to the intensity and frequency of natural hazards. SIDS face high levels of disaster risk, have comparatively low economic resilience and have high or extreme levels of environmental vulnerability.

Between 2000 and 2011 it is conservatively estimated that over 110 and 187 disasters caused by various hazards affected the Pacific and Caribbean regions, respectively.<sup>2</sup> While the death toll and economic losses may appear low in comparison to 'mega disasters' elsewhere, the local-level impact on communities and the economic impact to the affected countries are enormous, eclipsing disasters in other parts of the world which often receive much greater global attention.

Scaling the economic impact of disasters provides a clearer picture on how development in SIDS is affected by disasters. For example Cyclone Ivan in 2004 resulted in estimated direct losses of \$900 million in Grenada, more than twice the country's GDP. Cyclone Evan, which hit the South Pacific in 2012, resulted in total losses equivalent to one third of Samoa's annual economic output. Similarly, losses associated with the 2010 earthquake in Haiti are estimated to have exceeded 15 per cent of GDP. Given their small size, individual hazard events like cyclones may affect an entire territory and economy. As such disasters can destroy decades of capital investment and hard-fought development gains, often followed by slow and costly recovery.<sup>3</sup> The increased indebtedness and constrained fiscal space can have long-term developmental consequences.

Given their small size, the expected annual average losses from earthquakes and tropical cyclone wind damage in SIDS represent respectively only 2 per cent and 1.4 per cent of the global total. However, precisely because they are small, 8 of the 10 countries that would lose the largest proportion of the value of their produced capital stock in a one-in-250 year earthquake are SIDS. In the case of a one-in-250 year cyclone, SIDS comprise 6 of the 10 countries most at risk.<sup>4</sup>

Countries with low levels of investment and high average annual losses are less likely to be able to absorb losses, even from more frequent, less severe events. Jamaica observed annual average losses between 1991 and 2011 equivalent to 2.6 per cent of its average annual investment. This contributed to its sluggish growth over this period.<sup>5</sup> Similarly, Vanuatu and Tonga are estimated to sustain average annualised losses at 6.6 and 4.4 per cent, respectively.<sup>6</sup>



<sup>1</sup> UNISDR (2013) From Shared Risk to Shared Value – The Business Case for Disaster Risk Reduction. Global Assessment Report on Disaster Risk Reduction. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNISDR).

<sup>2</sup> EM-DAT <http://www.emdat.be/>

<sup>3</sup> UNISDR (2009) Risk and Poverty in a Changing Climate. Global Assessment Report on Disaster Risk Reduction. Geneva: Switzerland: United Nations Office for Disaster Risk Reduction (UNISDR).

<sup>4</sup> UNISDR (2013) From Shared Risk to Shared Value – The Business Case for Disaster Risk Reduction.

SIDS are among the countries that contribute least to climate change, with less than one per cent of total carbon dioxide emissions, yet stand to suffer most from its negative impacts. Climate change is likely to disproportionately magnify disaster risk in SIDS, due to sea level rise and associated flood and storm surge hazard, increasing cyclonic wind intensity, coastal erosion, saltwater intrusion into coastal aquifers and worsening water scarcity and drought. In the Caribbean, changes in annual hurricane frequency and intensity could result in additional annual losses of \$446 million by 2080, incurred mainly from business interruption to the tourism sector.

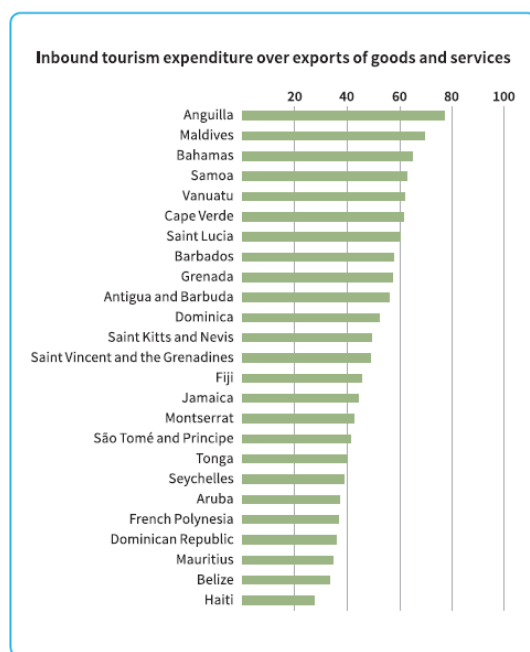
*Projected changes in climate extremes for SIDS*

| Example   | Changes in climate extremes projected (to 2100)  |
|---|--|
| Inundation related to extreme sea levels in tropical small island developing States | <b>Very likely</b> that mean sea level rise will contribute to upward trends in extreme coastal high water levels. (Observed changes since 1950 show a <b>likely increase</b> in extreme coastal high water worldwide related to increases in mean sea level).<br><br><b>High confidence</b> that locations currently experiencing coastal erosion and inundation will continue to do so due to increasing sea level, in the absence of changes in other contributing factors. |
| Increasing losses from cyclones   | <b>Likely increase</b> in average tropical cyclones maximum wind speed, although increase may not occur in all ocean basins. Coupled with the very likely sea level rise, <b>the likely increase</b> in tropical cyclone maximum wind speed is a specific issue for tropical small islands States.<br><br>Heavy rainfall associated with tropical cyclones <b>likely to increase</b> .   |

Source: adapted from Mahon et al., 2012 (based on IPCC, 2012)

With small and undiversified economies, many SIDS are severely constrained to participate in the global economy. Geographic distance, lower trade and transport volumes, limited access to ports and weak infrastructure resulting in high costs undermines SIDS competitiveness. The exception is in the tourism sector, where SIDS have been highly successful in developing and leveraging beachfront and coastal locations with sought-after marine and land-based leisure opportunities. In 2007, international tourism receipts accounted for 51 per cent of total value of exports of SIDS, in comparison to less than 10 per cent in other developing countries. According to the UNWTO, tourism was the driving factor behind the economic growth in the Maldives and Cape Verde which led them to graduate from their Least Developed Country (LDC) status.

Figure 10 Contribution of tourism to exports of goods and services in SIDS, annual average 2006–2010 (in percent)



(Source: UNISDR, based on data from UNCTAD, 2011<sup>5</sup>)

However, with the significant opportunities, and economic growth derived from the tourism sector comes considerable risk. Both in terms of the economic dependency SIDS have on tourism, as the main provider of economic activity, but also in the economic risk that accumulates from assets held, and investments being made, in areas with high levels of disaster risk.

In the tourism sector, business investment and public promotion and regulation of the industry in SIDS represent both an opportunity and a risk. Incentives via appropriate policies on corporate tax breaks or adequate pricing of risk by the insurance market, for example, can greatly increase the opportunities available to encourage disaster resilient investments. Investments in resilient communities, environmental protection and local culture are already on the agenda of large hotel chains, airlines and tour operators.<sup>7</sup> Integrating risk neutral behaviour into the agenda of tourism destinations and operators could increase the sustainability of both SIDS and the tourism investments that they attract.

<sup>5</sup> UNISDR (2013) From Shared Risk to Shared Value – The Business Case for Disaster Risk Reduction.

<sup>6</sup> Jha, Abbas K.; Stanton-Geddes, Zuzana. 2013. Strong, safe, and resilient: a strategic policy guide for disaster risk management in East Asia and the Pacific. Directions in development; environment and sustainable development. Washington D.C., The World Bank.

<sup>7</sup> UNWTO, 2011: Compendium of Tourism Statistics Data, 2006-2010. 2011. Madrid: UNWTO.

## **II. SIDS: a special case**

The 'special case' of SIDS was first formally recognised over 20 years ago at the 1992 Earth Summit, held in Rio de Janeiro, Brazil. In 1994, the Barbados Programme of Action (BPoA) set a course for the sustainable development of SIDS, with the means to support this programme. Subsequent reviews of the BPoA, the World Summit on Sustainable Development in 2002, the Mauritius Strategy of Implementation in 2005 and the UN Conference of Sustainable Development (Rio+20) in 2012 have continued to advance the development of SIDS, as a special case given their unique and particular vulnerabilities *inter alia* a large range of impacts from climate change and potentially more frequent and intense disasters. Rio+20 stressed the need for continued and enhanced efforts to assist SIDS in implementing the BPoA and Mauritius Strategy of Implementation.

Over the same period, the international community has continued to develop and advance its understanding of disaster risk reduction vis-à-vis sustainable development. Rio+20 firmly placed disaster risk reduction on the sustainable development agenda. Specifically, the international community "stress[ed] the importance of stronger inter-linkages among disaster risk reduction, recovery and long-term development planning, and call for more coordinated and comprehensive strategies that integrate disaster risk reduction and climate change adaptation considerations into public and private investment, decision-making and the planning of humanitarian and development actions, in order to reduce risk, increase resilience and provide a smoother transition between relief, recovery and development."<sup>8</sup>

At the centre of this growing momentum towards addressing disaster risk within the sustainable development agenda is the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA). The midterm review of the HFA highlighted that while many countries are making progress in life saving activities, through improved early warning and response mechanisms, disaster risk is not being adequately factored into investment and development decisions. Public planning and investment decisions are largely unconnected to policies and strategies to manage and reduce disaster risks. While at the same time, countries report difficulties in bringing legislation and policy to bear on the ground. Weak capacities in many local governments and ineffective mechanisms of accountability mean that even where countries have developed policies, legislative and institutional systems for disaster risk reduction, they are challenged to address risk accumulation on the ground.

As the international community considers a successor instrument to the HFA, which is expected to be adopted at the World Conference for Disaster Risk Reduction in Sendai, Japan in 2015, perspectives from SIDS, including the integration of climate change issues through joint development plans, the critical role of the private sector, technology transfer and the custodian role SIDS have in the management of oceans, have already emerged.<sup>9</sup>

## **III. Building partnerships for resilience**

The value of regional partnerships for SIDS is established. A number of existing initiatives, such as the tsunami early warning systems in the Indian Ocean or the multi-country insurance instruments in the Caribbean and Pacific, highlight the benefits of regionally-led and owned initiatives, supported by development partners. These initiatives are generally providing more effective services and better value for money than if standalone initiatives were to be established.

Given the high levels of disaster risk, low levels of economic resilience and limits to competitiveness, regional approaches offer clear and tangible benefits in reducing risks and sharing burdens. There are a number of additional sectors where a regional approach could add value in the areas of disaster risk reduction and resilience building. This includes a joint framework promoting sustainable tourism, leveraging the opportunities for island-to-island and region-to-region technical assistance, expanding early warning and strengthening regional preparedness, and building national and regional capacity to support evidence-based decision-making and implementing disaster risk reduction programmes and frameworks.

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<sup>8</sup> Par. 188 of the Rio+ 20 outcome document "The Future We Want"

<sup>9</sup> UNISDR (2013) Synthesis Report: Consultations of a Post-2015 Framework on Disaster Risk Reduction (HFA2). Geneva: Switzerland: United Nations Office for Disaster Risk Reduction (UNISDR).

## **SELECTED DISASTER RISK REDUCTION REFERENCES IN MAJOR SUSTAINABLE DEVELOPMENT AND OTHER DEVELOPMENT RELATED OUTCOME DOCUMENTS**

### **Hyogo Framework for Action (2005-2015): Building Resilience of Nations and Communities to Disasters January 2005, Kobe, Japan**

25. The Mauritius Strategy for the further implementation of the Barbados Programme of Action for Small Island Developing States underscores that small island developing States are located among the most vulnerable regions in the world in relation to the intensity and frequency of natural and environmental disasters and their increasing impact, and face disproportionately high economic, social and environmental consequences. Small island developing states have undertaken to strengthen their respective national frameworks for more effective disaster management and are committed, with the necessary support of the international community, to improve national disaster mitigation, preparedness and early-warning capacity, increase public awareness about disaster reduction, stimulate interdisciplinary and inter-sectoral partnerships, mainstream risk management into their national planning process, address issues relating to insurance and reinsurance arrangements, and augment their capacity to predict and respond to emergency situations, including those affecting human settlements stemming from natural and environmental disasters.

### **The Future We Want, United Nations Conference on Sustainable Development-Rio+20 June 2012, Rio de Janeiro, Brazil**

178. We reaffirm that small island developing States (SIDS) remain a special case for sustainable development in view of their unique and particular vulnerabilities, including their small size, remoteness, narrow resource and export base, and exposure to global environmental challenges and external economic shocks, including to a large range of impacts from climate change and potentially more frequent and intense natural disasters. We note with concern that the outcome of the 5-year review of the Mauritius Strategy for Implementation (MSI+5) concluded that SIDS have made less progress than most other groupings, or even regressed, in economic terms, especially in terms of poverty reduction and debt sustainability. Sea-level rise and other adverse impacts of climate change continue to pose a significant risk to SIDS and their efforts to achieve sustainable development and for many represent the gravest of threats to their survival and viability, including for some through the loss of territory. We also remain concerned that, while SIDS have progressed in the areas of gender, health, education and the environment, their overall progress towards achieving the Millennium Development Goals has been uneven.

### **Outcome document of the High-level Review Meeting on the Implementation of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States October 2010. Mauritius**

12. Also recognize the need to enhance and establish, if necessary, means and tools at the international level aimed at implementing a preventive approach for natural disasters in small island developing States, reducing risks and properly integrating risk management into development policies and programmes, including through the further implementation of the internationally agreed framework for disaster risk reduction, the Hyogo Framework for Action 2005–2015. We call upon the international community to continue to support small island developing States in enhancing their efforts to strengthen regional and national efforts in disaster risk reduction, management and coordination, including creating or strengthening insurance mechanisms, where appropriate, for natural and environmental disasters in small island developing States;

### **Keeping the promise: United to achieve the Millennium Development Goals September 2010. New York**

35. We acknowledge that disaster risk reduction and increasing resilience to all types of natural hazards, including geological and hydro-meteorological hazards, in developing countries, in line with the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, can have multiplier effects and accelerate achievement of the Millennium Development Goals. Reducing vulnerabilities to these hazards is therefore a high priority for developing countries. We recognize that small island developing States continue to grapple with natural disasters, some of increased intensity, including as a result of the effects of climate change, impeding progress towards sustainable development.

#### **For more information, please visit:**

- United Nations Office for Disaster Risk Reduction: [www.unisdr.org](http://www.unisdr.org)
- Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States: [www.un.org/ohrlis/](http://www.un.org/ohrlis/)