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TITLE:

**-DISASTERS AFTER DISASTERS-
SHORT RECOVERY INTERVALS & LARGE FINANCIAL GAPS
IN SMALL ISLANDS DEVELOPING STATES**



Figure 1. Scenes from Abaco Island, Bahamas, after Hurricane Dorian (category 5) in 2019. UN Photo

The year 2020 or the Perfect Storm

The internationally agreed Declaration of the Small Island Developing States (SIDS) Accelerated Modalities of Action, the so-called S.A.M.O.A Pathway, recognizes that SIDS remain a special case for sustainable development in view of their unique and particular vulnerabilities. Due to their specific common development challenges, SIDS are on the frontline of the multiple climate and nature crises which are now being amplified by the global COVID-19 pandemic and subsequent economic shutdown. All the ingredients for a “perfect storm” had been in play in SIDS in 2020 and most still remain active in 2021.

Global decline in international travels, in commodity prices as well as the overall disruptions in worldwide trade and supply chains directly resulting from the pandemic are hitting SIDS disproportionately in a multitude of sectors: health system, tourism revenues, remittance flows, food security, commodities, trade as well as the existing debt situation. With tourism representing 80 per cent of total export revenues in SIDS, globally, exceptional reduction in this sector due to the pandemic severely decreased external income in SIDS ("[Financing for Sustainable Development](#)", [UNDESA, 2021](#)). Data on tourism arrivals for the second quarter of 2020 in the Pacific Islands for example, shows that the arrival number had dropped by 99.3% as compared to 2019 for the same period ([Secretariat of Pacific Community, 8 December 2020](#)). Also, the escalating debt service (median debt service is of about 30 per cent of revenue in SIDS) is rerouting public expenditure and foreign currency from the COVID-19 recovery, and from investments in resilience. Furthermore, recent studies show that SIDS with higher GNI per capita levels are not more resilient to face the present crisis ("[Mapping the Economic Consequences of Covid-19 in Small Island Developing States](#)" [OECD, 2020](#)).

In addition to this unprecedented health crisis, 2020 was also a record-breaking Atlantic hurricane season according to the [U.S. National Oceanic and Atmospheric Administration](#). Indeed, with a total of 30 active tropical storms, 2020 surpassed the year 2005 which recorded the second-greatest number of hurricanes (28). This trend is also confirmed in the Pacific region which has experienced the most destructive cyclones on record in its territory. Tropical Cyclone category 5 Yasa in December 2020 for example was the second-strongest cyclone on record to make landfall in Fiji.

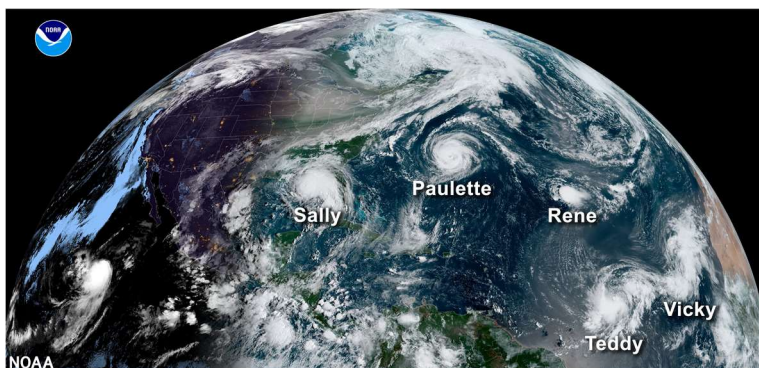


Figure 2. On September 14th, 2020, this satellite image captured 5 tropical systems (2 Hurricanes and 3 Tropical storms) in the Atlantic Ocean at the same time. September 2020 experienced the formation of a total of 10 named storms – the highest number for any month on record according to NOAA.

The 38 SIDS represent over 30% of countries with the highest relative annual losses due to disasters ([OECD 2016](#)). According to the [World Bank](#), annual damages to infrastructure from natural disasters in the Caribbean region are estimated at US\$0.5-1 billion/year. In the Pacific Islands, the value of infrastructure and cash crops at risk from natural disasters are estimated at US\$112 billion ([World Bank, 2013](#)). The [2019 Global Assessment Report on Disaster Risk Reduction](#) points out that while Jamaica's economy has grown up to 0.8% annually over the past 4 decades, it would have grown by about 4% without the economic losses and damage cause by tropical cyclones. Some other examples: In 2015, cyclone Pam impacted Vanuatu with 449.4 million USD reported in losses for an economy with a GDP of 758 million USD (Post-Disaster Needs Assessment in Vanuatu 2015); In 2016, cyclone Winston resulted in losses of more than one third of Fiji GDP (Government of Fiji, 2016); In 2017, hurricane Maria caused total damages estimated at 226% of Dominica GDP (Post-Disaster Needs Assessment for Dominica, 2017); In 2018, cyclone Gita hit Tonga and resulted in 165 million USD of losses for a national GDP of 461 million USD (Government of Tonga, 2018). For SIDS, due to their small geographic size and small economies, what were one-off events with contained impacts are now having significant systemic implications across sectors with lasting macro-economic impacts.

Such devastating trajectory for SIDS is set to continue in the years to come as climate change is making these disasters more frequent and intense. [The 2019 IPCC Special Report on the Ocean](#) underlines that low-lying geologies, narrow ecological conditions, climate sensitive ecosystems, as well as growing anthropogenic pressures are disproportionately putting SIDS in higher risks regarding hydrometeorological

disasters for instance. With more than 80% of small island residents living near the coast, the rise of sea level combined with storm surges, tides and waves for example is of extreme concern. In Tuvalu, the length of the coastline compared to the landmass is one of highest ratio in the world. Disaster losses are not only severely threatening the achievement of the SDGs but represent an existential threat for many SIDS.

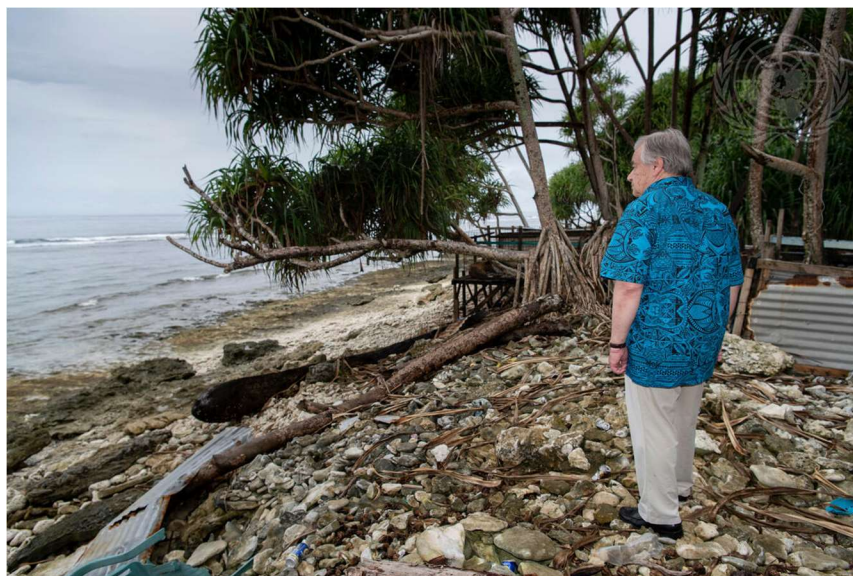


Figure 3. Secretary-General António Guterres looks out over the ocean in Tuvalu (2019). UN Photo/Mark Garten

The Case of Vanuatu: The Impossible Equation

The case of Vanuatu in 2020 is a clear example of the constant and complex challenges faced by SIDS. It shows how SIDS are dealing with multiple crises at the same time and how COVID-19 has particularly exposed SIDS' extreme and interlinked vulnerabilities. On one side, with cyclone Pam (2015) and Harold (2020), Vanuatu has experienced two major cyclones category 5 – the highest measurement on the cyclone intensity scale- in less than 5 years. On the other side, the country has faced the paralyzing circumstances and economic insecurity brought on by the COVID-19 pandemic.

In April 2020, Cyclone Harold compounded the already adverse economic impacts of COVID-19, by lashing four Pacific Island nations -Solomon Islands, Fiji, Vanuatu, and Tonga- leaving destruction in its wake. As a matter of fact, the combined effects of the climate hazard and COVID-19 intensified the magnitude, and widened the scope of the social, economic and environmental impacts. According to the [Cyclone Harold and COVID-19 Post Disaster Needs Assessment](#) (PDNA) conducted in Vanuatu (2020), the overall physical damage and economic losses caused by both shocks correspond approximately to 61 per cent of the Gross Domestic Product (GDP) in 2020. This alarming figure does not even factor the disaster effects on the environment sector on which Islands intrinsically depend for transformative recovery and sustainable development. The 2020 PDNA estimated the total cost of the recovery and reconstruction activities in Vanuatu at 36 percent of the 2020 GDP.

Even though a disaster-prone country like Vanuatu has been preparing for major cyclones, preparedness, relief and recovery efforts have been particularly challenged by COVID-19. Facing two large-scale emergencies at the same time, Vanuatu had to take difficult and sometimes counter-productive but legitimate decisions to address the very complex situation. On one hand, the immediate closing of international borders was a vital decision to prevent the COVID-19 contamination spread and manage the absorption capacity of national health facilities. On the other hand, these pandemic related travel restrictions (together with damaged supply routes by the cyclone) have significantly obstructed the post-cyclone humanitarian response and jeopardized national economy. In addition, traditional relief support in the form of remittances for example have also been considerably limited due to pandemic related unemployment and resultant financial constraint among family members abroad.

The case of Vanuatu is not an exception. In July 2020, in the middle of the pandemic, the Mauritius Government declared a state of environmental emergency following a devastating oil spill impacting the country's southeast coast with the potential of resulting widespread impacts. As the case for the majority of SIDS, Mauritius depends on its coast for food and livelihoods. National nature-tourism accounts for 36% of the country's GDP and generates about USD 4.3 billion a year ([UNEP, August 2020](#)). Again, the example of Mauritius shows how SIDS are often battling on several fronts with significant financial implications.

Short recovery intervals and large financial gaps

In order to support countries with a concerted approach for an inclusive, and government-led assessment of post-disaster damages, losses, and recovery needs, as well as the development of a comprehensive recovery plan, the European Commission, the World Bank and the United Nations adopted the Post Disaster Needs Assessment (PDNA) process in 2008. Since 2009 and as mentioned above, several PDNAs have been conducted in SIDS. One of the latest PDNA conducted was actually the one in Vanuatu (October 2020).

From a lesson learned perspective and using [World Bank data](#), it is interesting to note the large financial gaps between the planned recovery needs estimated in PDNAs and the actual financial resources mobilized to support SIDS in implementing the PDNA based recovery plans. Official PDNA recovery needs for Haiti (2016), Fiji (2016) and Vanuatu (2020) amount to USD 2.7 billion, USD 1.9 billion and USD 358 million, respectively (cf. Respective PDNAs). Regarding the Haiti PDNA recovery needs (2016), only 3.16% of financial resources have been mobilized. In Fiji (2016), only 8.03% have been raised. In Vanuatu (2015), 27.74% have been mobilized ([World Bank, 2018](#)).



Figure 4. Disaster relief in Haiti in the aftermath of Hurricane Matthew which struck the Southern region of the country on October 4th, 2016. UN Photo.

In some cases, such as Vanuatu and Haiti, political transitions in the middle of disasters have undermined the intended translation of PDNA recommendations into effective recovery outcomes. Even if the above percentages are not exhaustive, they still provide an interesting order of magnitude and indicate the large financial recovery gaps that feed the “vulnerability trap” and the short versus long-term objectives dilemma which SIDS development agenda is often subject to. Indeed, without predictable, secure and robust fiscal revenues, domestic savings, and sufficient contingency funds, SIDS governments often need to reduce already limited public investments in critical socio-economic development and environmental sustainability in order to address direct disaster-related needs.

Another aspect that is of concern is the repeated disasters at short intervals hitting the same SIDS combined with lack of time and resources for effective post-disaster recovery processes. Not only recurrent disasters contribute to high debt levels over time but non-addressed issues by too short and unfunded recovery processes will accumulate and gradually deepen vulnerabilities, amplify risk profiles, affect policy coherence and social cohesion at national and regional levels with risks for domestic and regional stability. According to [ECLAC 2019](#), between 1990 and 2017, Jamaica experienced 26 natural disasters, making it the hardest hit nation in the English-speaking Caribbean. Cyclone Harold (2020) hit Vanuatu only five years after Cyclone Pam (2015) which had only mobilized less than 30% of the financial resources required for recovery. Only 5 years after the devastating Category 5 Cyclone Winston, the tropical Cyclone category 5 Yasa struck Fiji in December 2020 and was followed by Tropical Cyclone Ana which pummeled Fiji's northern islands. Being the 2nd in a month, Cyclone Ana is "leaving behind a difficult recovery", Fiji's ambassador to the United Nations, Satyendra Prasad told [The Guardian](#) in January 2021.

Both the frequency and magnitude of those disasters poses major concerns for the leaving no one behind principle; humanitarian support to the most vulnerable and marginalized communities as well as recovery dimensions related to health, social services or the environment per se is being challenged at an alarming scale and rate within these extremely short and limited "recuperation" phases.

SIDS natural capital and disasters: interlinkages, challenges and opportunities

With 50% of the Caribbean population living within 2 kilometers from the sea for instance, the high level of exposure resulted in record economic losses during the 2017 catastrophic hurricane season. Considering the importance of natural capital in SIDS, the threefold disaster-environment nexus is particularly pronounced in SIDS:

- a) Natural hazards can alter critical ecosystems services by increasing the vulnerability level of the populations relying on nature.
- b) A well-managed and healthy environment can prevent and control natural hazards by building natural protection against natural disasters.
- c) Resilient economic growth depends on the sustainable use of natural resources by enhancing nature-based livelihoods and creating green jobs.

The need for strategic risk-informed sustainable finance & investments in resilience



Figure 5. A small island along the Southern coast of Haiti. The community living on the island relies mainly on ocean resources, already overexploited, for livelihoods. Access to social services is a challenge. While early warning systems need to be strengthened, a one-km barrier reef located near the island is currently the only natural protection mechanism against wave surge and hurricanes. Photo by Maximilien Pardo.

As stipulated in the UN Secretary General's 2020 report on the Implementation of the Sendai Framework, the current approach to funding disaster risk reduction is lagging behind the alarming rate of formation and increasing complexity of disaster risk. Disaster financing focusing on preparedness, response and risk transfer is simply insufficient to deal with the increasing economic, social, and environmental impacts of disasters in SIDS. The large financial gaps during short term recovery intervals in SIDS demonstrate how exorbitant is the cost of absence of preventive measures. SIDS cannot afford inaction and the current disaster financing approach is inappropriate for the execution of multi-hazard, prevention-oriented disaster risk reduction plans and strategies.

In order to break the cycle of disaster-response-disaster in SIDS, and in view to address the underlying social, economic, and environmental drivers of risk, a new approach to financing is urgently needed; an approach that focuses on disaster prevention and risk reduction. Data shows that it is more cost effective to invest in prevention than paying for reconstruction. Indeed, the costs of recovery generally includes replacement costs plus quality enhancements and technological innovation (to build back better), plus relocation to safer areas (if required), plus disaster risk reduction standards and plus multiannual inflation ([World Bank, 2013](#)). As pointed out by the Global Commission on Adaptation (2019)¹ for example, returns on investment in climate resilience have projected benefit-cost ratios going from 2:1 to up to 10:1 for investments in early warning systems. Also, benefits of investing in disaster risk reduction cost up to four times less than possible recovery cost (Mechler, R. 2016²). In Dominica for example, after the impact of Hurricane David, 4.2% of the original cost for the construction of the Seaport was used to repair it; had mitigation measures been considered during the initial construction, for an additional 1.9% of the original cost, the losses could have been avoided. ([ODI and GFDRR, 2013](#)). Similarly, the economic and social costs resulting from COVID-19 could have been considerably reduced with relatively small and targeted investment in prevention and preparedness.

Financing for disaster risk reduction and public and private risk-informed investments across all sectors represent not only an urgent economic necessity but also offer substantial environmental and social co-benefits. As the pandemic underlined and the climate crisis as long foretold, development pathways that are not risk-informed are neither sustainable nor inclusive. Indeed, considering that over 55% of the Pacific SIDS population lives in less than 1 km from the sea for example, investing in multi-hazard risk assessments for example are of paramount importance to discourage businesses from investing in locations that provide short-term gains but expose them to medium- or long-term disaster risks.

Despite those facts, the [World Bank](#) reports that from 1999 to 2010, only 10% of the total disaster-related global aid to SIDS went towards prevention and preparedness. Approximately US\$1 billion a year is spent by Caribbean countries to maintain operational their disaster-prone 75,000 km road network for example. According to the [Financing for Sustainable Development \(UNDESA, 2021\)](#), climate finance to SIDS has firmly increased between 2016 and 2018 but represent only 2 per cent of total climate flows. The [2020 Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in SIDS](#) highlights critical set of implementation barriers drawing attention on adaptation finance needs for SIDS. Also, how much climate finance contributes to debt sustainability, a key challenge in SIDS, very much depends on how much the investments contribute to SIDS' growth and sustainable development.

In the Outcome Document of the 2021 ECOSOC Forum on Financing for Development, Member States called to urgently reverse the balance from financing for disaster response towards financing for resilience, prevention and risk reduction.

¹ *Global Commission on Adaptation. 2019. Act Now: A Global Call for Leadership on Climate Resilience. Global Center on Adaptation and World Resources Institute.*

² *Mechler, R. 2016. Reviewing estimates of the economic efficiency of disaster risk management: opportunities and limitations of using risk-based cost– benefit analysis. Natural Hazards, 81(3), 2121-2147.*



Figure 6. Aerial view of one islet along the coastline of Southern Haiti. It shows the high exposure of a community living without protection at sea level. Photo by Antonio Perera.

Recommendations and Conclusion

COVID-19 and the climate, nature and economic crises highlight the systemic characteristic of risk and the potential for spill-over effects across systems and borders. They reiterate the importance of developing and implementing multi-hazard national and local disaster risk reduction strategies and the need to reinforce SIDS capacity to better understand systemic risk and to apply risk information in policy and investment decisions in all sectors.



Figure 7. Aerial picture of Haiti's Southern Peninsula. Photo by Antonio Perera

Despite the disproportionate challenges they face due to their unique features, SIDS have shown an extraordinary leadership in focusing on prevention and building resilience to move away from their unique slow growth and high vulnerability spiral. Following cyclone Winston, Fiji has extended the use of its 2016 PDNA data to complete a multiyear strategic national development plan that was being developed when the disaster struck. After Hurricane Pam in 2015, Vanuatu built on its PDNA analysis to improve national disaster preparedness policies. However, it is also important to note that in some countries like in Haiti, the lack of monitoring mechanism to track in a systematic manner PDNA recovery financial flows is an issue ([World Bank, 2018](#)). Following recent national post-disaster financing gaps assessments in Caribbean countries (e.g. [Jamaica](#), [Grenada](#) and [Saint Lucia](#)), the development of comprehensive Disaster financing strategies is underway. [The Government of Jamaica](#) for instance has recently embarked in the development of a Policy on National Disaster Risk Financing.

Many other risk-informed sustainable finance initiatives led by SIDS are ongoing. In a nutshell and in view to bridge the financial gaps faced by SIDS, it is important to further encourage initiatives aiming at:

- (i) Integrating disaster risk in economic and development policy and in public and private investment decisions in all sectors to build resilience to future shocks and crises, integrating climate and disaster risk into national planning and budgeting and providing predictable and more programmatic funding. International support measures must also be aligned with national disaster risk reduction strategies. Integrated National Financing Framework (INFFs) could play a major role in this context. Currently INFFs is being implemented through UN support in Cabo Verde, Comoros, Barbados, Haiti, Jamaica, Suriname, Fiji and Timor-Leste.
- (ii) Facilitating access to innovative financing -e.g. blue bonds- and risk transfer systems. It is worth mentioning that Seychelles has launched in 2018 the world's first sovereign "blue bond". Seychelles' Sovereign Blue Bond mobilizes resources for empowering local communities and businesses in achieving a transition to sustainable fisheries and ocean conservation.
- (iii) Promoting financing instruments assisting SIDS at risk of debt distress to improve risk-informed debt management and the overall debt situation through e.g. debt swap for climate resilience.

On the later, the Economic Commission for Latin American and the Caribbean (ECLAC) has proposed a Caribbean Resilience Fund under its Debt for Climate Adaptation Swap initiative. The idea behind this option is that instead of debt-service payments, countries would make payments into the resilience fund.

As ultimate bearer of risks, Governments need to ensure sufficient investments in prevention, strengthening social protection systems, risk reduction, build resilience into public budgets and play a central role in shaping the risk landscapes for investors. However, it is equally important that private investors in SIDS not only further consider climate risks with appropriate long investment time horizon but also routinely measure other SDG-related risks (e.g. threats to ocean and land resources - SDGs 14 and 15), often underestimated for short-term opportunities in SIDS (e.g. mangrove clearance for construction). Under these perspectives, policies and regulations that incentivize the private sector to factor those SDG related risks (that do not directly affect their short-term financial returns) are essential.

Finally, in accordance with the mandate given to UNDESA by the General Assembly and complementary of ongoing efforts by SIDS countries, UNDESA in close cooperation with governments and partners will be, in 2021, assessing the current disaster-related funding landscape for SIDS. This is with a view to the possible establishment of a targeted voluntary disaster fund or financial instrument, coordinated with existing mechanisms to assist SIDS in managing disaster risk and building back better after disasters. The work is underway and the United Nations General Assembly will consider the findings in September 2021.



Figure 8. Secretary-General António Guterres looks out over the islands of Tuvalu from the back of the plane during his flight there in 2019. UN Photo/Mark Garten

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If you have any questions about the article, please contact [Mr. Maximilien Pardo](#), Inter-Regional Advisor for SIDS at UN DESA