



ECLAC SUBREGIONAL HEADQUARTERS FOR THE CARIBBEAN

# FOCUS

Magazine of the Caribbean Development and Cooperation Committee (CDCC)

## CARIBBEAN SAMOA PATHWAY PRIORITIZED

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## ABOUT ECLAC/CDCC

The Economic Commission for Latin America and the Caribbean (ECLAC) is one of five regional commissions of the United Nations Economic and Social Council (ECOSOC). It was established in 1948 to support Latin American governments in the economic and social development of that region. Subsequently, in 1966, the Commission (ECLA, at that time) established the subregional headquarters for the Caribbean in Port of Spain to serve all countries of the insular Caribbean, as well as Belize, Guyana and Suriname, making it the largest United Nations body in the subregion.

At its sixteenth session in 1975, the Commission agreed to create the Caribbean Development and Cooperation Committee (CDCC) as a permanent subsidiary body, which would function within the ECLA structure to promote development cooperation among Caribbean countries. Secretariat services to the CDCC would be provided by the subregional headquarters for the Caribbean. Nine years later, the Commission's widened role was officially acknowledged when the Economic Commission for Latin America (ECLA) modified its title to the Economic Commission for Latin America and the Caribbean (ECLAC).

### Key Areas of Activity

The ECLAC subregional headquarters for the Caribbean (ECLAC/CDCC secretariat) functions as a subregional think-tank and facilitates increased contact and cooperation among its membership. Complementing the ECLAC/CDCC work programme framework, are the broader directives issued by the United Nations General Assembly when in session, which constitute the Organisation's mandate. At present, the overarching articulation of this mandate is the Millennium Declaration, which outlines the Millennium Development Goals.

Towards meeting these objectives, the Secretariat conducts research; provides technical advice to governments, upon request; organizes intergovernmental and expert group meetings; helps to formulate and articulate a regional perspective within global forums; and introduces global concerns at the regional and subregional levels.

Areas of specialization include trade, statistics, social development, science and technology, and sustainable development, while actual operational activities extend to economic and development planning, demography, economic surveys, assessment of the socio-economic impacts of natural disasters, climate change, data collection and analysis, training, and assistance with the management of national economies.

The ECLAC subregional headquarters for the Caribbean also functions as the Secretariat for coordinating the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The scope of ECLAC/CDCC activities is documented in the wide range of publications produced by the subregional headquarters in Port of Spain.

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## DIRECTOR'S DESK: CARIBBEAN SAMOA PATHWAY PRIORITIZED

2019 is an important year for Small Island Developing States (SIDS) as the UN General Assembly will convene a one-day high level review of the progress made in implementation the SIDS Accelerated Modalities of Action (SAMOA) Pathway in September of this year.

**T**his issue of FOCUS aims at refocusing international attention to the urgent sustainable development needs of Caribbean SIDS. We will explore, in particular, these opportunities from five distinct angles: the benefits of supporting synergies between the SAMOA Pathway and other global sustainable development agendas; the need to build resilience while mitigating risk and uncertainty; the perspectives that renewable energy (RE) technologies offer open for Caribbean SIDS to address energy security challenges; the value of our intangible cultural heritage to Caribbean SIDS development and the importance of an effective regional governance mechanism for the transboundary marine resources of the Wider Caribbean Region (WRC).

The responses to the sustainable development challenges which SIDS face are consistent with the objectives and purpose of several UN mandates.<sup>1</sup> Supporting the purpose of having a comprehensive sustainable development strategy and drawing on recent decisions of the Caribbean Development and Cooperation Committee we will argue for coherency and consistency in policy plus monitoring and reporting across agendas. While disasters can undermine the

sustainable development progress, their frequency and impact vary significantly among the SIDS geographical regions. We will therefore offer an analysis of disaster trends and effects in these three SIDS regions. This analysis will also conclude that the Caribbean SIDS-region is more vulnerable to disasters relative to other regions.

Another area of focus is the need for sustainable energy sources among Caribbean SIDS. The sub-region's high dependence on imported fossil fuel has, over time, exposed these small open economies to the vagaries of international energy markets, through price and supply shocks. While climate change and its impacts may have exacerbated these concerns, rapidly evolving renewable energy (RE) technologies offer new opportunities for Caribbean SIDS to address their energy security needs by satisfying the energy demands of key economic sectors.

Another issue discussed is the importance of the Intangible Cultural Heritage (ICH) to development. The SAMOA Pathway enlists ICH as a priority for supporting the sustainable development priorities of SIDS. In this context we investigate the opportunities that exist to create the drive

for protecting, investing, promoting and growing the region's creative industries.

The FOCUS also examines the importance of healthy coastal and ocean ecosystems which are essential for a thriving ocean-based economy and the continued well-being of Caribbean people. These ecosystems provide food, employment, energy and recreation, and are part of our Caribbean SIDS culture. We discuss the need for a multi-country, regional cooperative approach to marine and ocean resource management for the Caribbean region.

As the global community prepares for the mid-term review of SAMOA Pathway implementation, I hope that this edition contributes to focusing the attention of the international community in the very real challenges that the Caribbean SIDS continue to confront.

Yours in Focus

Diane Quarless

<sup>1</sup> Transforming our world: the 2030 Agenda for Sustainable Development, (cited February 15, 2019) available at: [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)





# IMPLEMENTATION OF THE SAMOA PATHWAY<sup>1</sup> IN SYNERGY WITH OTHER SUSTAINABLE DEVELOPMENT AGENDAS

Artie Dubrie\*

The SAMOA Pathway (2014)<sup>1</sup> is an agreed global platform that focuses on the economic, social and environment sustainable development priorities and challenges of Small Island Developing States (SIDS)<sup>2</sup> and gives coherence to the response to SIDS issues in United Nations (UN) processes at the national, regional and global levels.<sup>3</sup>

It is to be noted that the objectives of the SAMOA Pathway are congruent with such global sustainable development agendas as the 2030 Sustainable Development Agenda and its 17 goals (Agenda 2030), the Sendai Framework for Disaster Risk Reduction (2015); the Addis Ababa Action Agenda (2015); the Paris Agreement (2015) and the New Urban Agenda (2015). To address these simultaneously, the implementation of the sustainable development agendas will require institutional approaches that are cross-cutting, multi-sectoral and integrated.

In the Caribbean region, member countries and intergovernmental bodies have developed institutional and other mechanisms for the management of sustainable development portfolios.<sup>4</sup> Supporting this progressive approach, the recent 2018 UN report, noted that many countries have reported on the coordinated involvement of ministries, such as ministries of planning, finance, in the mainstreaming of the Agenda 2030 - Sustainable Development Goals (SDGs) into sectoral/line ministries, as

well as the integration of SDG targets within national development plans and policies. In keeping with a multi-stakeholder approach to implement the SDGs, countries have also reported efforts to engage several partners including civil society, academia and private sectors.<sup>5</sup> These coordinated institutional arrangements support evidence-based decision-making, policies making, reporting and in the reviews of progress in the drive towards sustainable development.<sup>6</sup>

Cognizant of the requirements for building synergies across agendas, Table 1 below provides an example of a mapping of the SAMOA Pathway priorities against the 17- SDG of Agenda 2030.

The purpose of pursuing multisectoral and institutionally coordinated approaches in the implementation of the SIDS sustainable development agendas are further addressed in such regional platforms as the Caribbean Development Cooperation Committee - Regional Coordinating Mechanism for Sustainable Development (CDCC-RCM)<sup>7</sup> and the

United Nations Caribbean Multi-country Sustainable Development Framework (UN Caribbean MSDF, 2017-2021).<sup>8</sup>

The CDCC-RCM was established in 2006 as a regional coordinating mechanism for sustainable development activities in the Caribbean.<sup>9</sup> Recent intergovernmental meetings have sought to revitalise and give renewed purpose to the role of the CDCC RCM. The Twenty-seventh session of the Caribbean Development and Cooperation Committee (CDCC, April 2018)<sup>10</sup> in its Resolution 100 (XXVII) reaffirms its commitment to fully operationalize the CDCC- RCM and with a view to monitoring and supporting its role in the implementation of the SAMOA Pathway and the 2030 Agenda. At the Caribbean Midterm Review of the SAMOA Pathway (San Pedro, August 2018),<sup>11</sup> the recommendation was taken that the CDCC-RCM once fully functional, can serve as a natural institutional home for the monitoring, reviewing and reassessment of priorities in the implementation of SIDS sustainable development agendas. In fact, the San Pedro meeting called for the

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<sup>1</sup> Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway).

SAMOA Pathway document available at: [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/CONF.223/10&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/CONF.223/10&Lang=E)

<sup>2</sup> The SIDS Agenda comprises the Barbados Programme of Action (BPoA), the Mauritius Strategy for Implementation of the BPoA and the SAMOA Pathway

<sup>3</sup> SAMOA Pathway (November 2014), paragraph 120.

<sup>4</sup> Caribbean Midterm review report in the implementation of the SAMOA Pathway (cited February 19, 2019), available at [https://sustainabledevelopment.un.org/content/documents/20949Caribbean\\_SAMOA\\_Pathway\\_Midterm\\_report\\_18\\_Oct.2018\\_final\\_draft1.pdf](https://sustainabledevelopment.un.org/content/documents/20949Caribbean_SAMOA_Pathway_Midterm_report_18_Oct.2018_final_draft1.pdf)

<sup>5</sup> SDG Synthesis report (2018), pp19, available at: <https://unhabitat.org/sdg-11-synthesis-report/>

<sup>6</sup> ECLAC Subregional Headquarters for the Caribbean Focus Magazine CDCC, sourced February 19, 2019) available at <http://repositorio.cepal.org/bitstream/handle/11362/44294/1/FOCUSIssue2Apr-Jun2018.pdf>

<sup>7</sup> The RCM was established in 2006, pursuant to resolution 65(XXI), adopted by CDCC at its twenty-first session in 2006, the CDCC RCM calls that the member countries set up a regional coordinating mechanism for sustainable development activities in the Caribbean (March 2019), available at: <https://www.cepal.org/en/headquarters-and-offices/eclac-caribbean/committees>

<sup>8</sup> The UN Caribbean Multi-country Sustainable Development Framework (cited March 2019) <http://www.2030caribbean.org/content/unct/caribbean/en/home/MSDF/overview.html>

<sup>9</sup> Further details on the establishment of the CDCC RCM (cited March 2019) available at: <https://www.cepal.org/en/headquarters-and-offices/eclac-caribbean/committees>

<sup>10</sup> Twenty-Seventh Session of CDCC, Resolution 100 (XXVII) Ensuring Synergy in The Implementation of The Sustainable Development Goals of the 2030 Agenda for Sustainable Development and The Small Islands Developing States Accelerated Modalities of Action in The Caribbean Subregion (April, 2018), available at: [https://www.cepal.org/sites/default/files/events/files/lcar2018\\_02.pdf](https://www.cepal.org/sites/default/files/events/files/lcar2018_02.pdf)

<sup>11</sup> SAN PEDRO DECLARATION Caribbean Regional Preparatory Meeting, San Pedro, Belize, (August 2018) available at: [https://sustainabledevelopment.un.org/content/documents/20630San\\_Pedro\\_Declaration\\_final\\_version.pdf](https://sustainabledevelopment.un.org/content/documents/20630San_Pedro_Declaration_final_version.pdf)

Table 1. SAMOA Pathway: Economic, Social and Environmental Pillar Aligned with the SDG Equivalent<sup>a</sup>

Pillar	SAMOA Pathway Priority	SDG Goal
Economic	Sustained and Sustainable, inclusive and equitable economic growth with decent work for all	8
	Development and Poverty Eradication	1
	Sustainable Tourism	8
	Sustainable Energy	7
	Sustainable Transportation	7
Social	Food Security and Nutrition	2
	Water and Sanitation	6
	Health and Non-Communicable Diseases	3
	Gender Equality and Women Empowerment	5
	Social Development	10
	Culture and Sport <sup>b</sup>	
	Promoting peaceful societies and safe communities	16
	Education	4
Environment	Climate Change	13
	Disaster risk reduction	11
	Oceans and Seas	14
	Sustainable consumption and production	12
	Management of Chemicals and waste, including hazardous waste	6
	Biodiversity	15
	Desertification, land degradation and drought	
	Forest	
	Invasive Alien species	

<sup>a</sup> Adopted from the: Advanced unedited copy of the report (UNGA 74, 2019): Follow-up to and implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States Report of the Secretary-General (cited May 2019), available at: [https://sustainabledevelopment.un.org/content/documents/221852019\\_SG\\_Report\\_SAMOA\\_Pathway\\_Advance\\_unedited\\_copy.pdf](https://sustainabledevelopment.un.org/content/documents/221852019_SG_Report_SAMOA_Pathway_Advance_unedited_copy.pdf)

<sup>b</sup> It must be highlighted however, that due to overlap in categorization and focus, several priorities in the SAMOA Pathway do require their own measuring tool to ensure accurate assessment.

revitalisation of the CDCC- RCM, with a view to advancing political advocacy on SIDS issues at the regional level, facilitating SIDS-SIDS cooperation and spearheading implementation of the SAMOA Pathway in a coherent and effective manner.

Turning to the UN Caribbean MSDF (2017-2021), this multi-country sustainable development framework for the Caribbean was negotiated to support the realization of the 2030 Agenda and its SDGs, the SAMOA Pathway and other international development platforms. It is supported by the full range of UN agencies funds and programs serving the English and Dutch speaking Caribbean. The reporting template for the UN Caribbean MSDF maps the sustainable development priorities of the Caribbean Community (CARICOM) Strategic Plan (2015-2019), the SAMOA Pathway and

the SDGs.<sup>12</sup>

### HOW TO ACHIEVE COHERENCE ACROSS AGENDAS

Drawing on the outcomes of recent national and regional developments towards achieving a more synergistic approach in the implementation of the sustainable development agendas, the following recommendations are enlisted:

**a.** Conduct of a detailed assessment of the CDCC-RCM to define a road map with assigned resources, management and reporting structure.

**b.** Resource mobilization and capacity development for the establishment and management of implementation synergies across sustainable development agendas. This is also an important knowledge management asset towards

supporting continuity when there are changes in national and regional focal points.

**c.** Employment of information technology and data management platforms as tools in the implementation of the sustainable development agendas. This can also provide towards reducing the reporting burdens across agendas.

**d.** Integration of the SIDS sustainable development agenda into formal educational curricula at primary, secondary and tertiary levels.

**e.** Targeted advocacy, communication, outreach and awareness raising on the economic, social and environmental vulnerabilities, priorities and opportunities for sustainable development in the Caribbean SIDS. ■

<sup>12</sup> The UN Caribbean Multi-country Sustainable Development Framework (cited March 2019) <http://www.2030caribbean.org/content/unct/caribbean/en/home/MSDF/overview.html>



# DISASTERS AND SMALL ISLAND DEVELOPING STATES (SIDS): WHERE GEOGRAPHY AND VULNERABILITY MEET

Omar Bello and Luciana Fontes de Meira\*

Disasters affect sustainable development through their impact on human, environmental and financial resources, setting back the gains made over time. These impacts are especially challenging for SIDS, as is stated in the Global Assessment Report on Disaster Risk Reduction<sup>1</sup>: “compared to Europe and Central Asia, SIDS are expected to lose on average 20 times more of their capital stock each year in disasters”.

**G**eographical location in hazard-prone regions, limited physical size and high-population density in low-elevation coastal areas exposes the human assets and infrastructure of SIDS to greater than average natural threats.<sup>2</sup> For example, disasters have a relatively greater impact on an island in the Caribbean than it would have on a country in continental Latin America since the impact on the former tends to have national dimension.<sup>3</sup>

In light of this, an interesting question that arises is whether it is possible to discern differences in disaster patterns among the SIDS themselves. This article analyses disaster trends and their effects in the three geographic regions where SIDS are located; the Caribbean,<sup>4</sup> the Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS)<sup>5</sup> and the Pacific.<sup>6</sup>

Another question to be addressed is whether all SIDS should approach the issue of disasters in the same way, or whether there are specificities to be considered in each region. To properly answer this question, we use the EM-DAT collection of data<sup>7</sup> on disasters worldwide, and analyze and compare trends in natural hazards in SIDS in the Caribbean, the AIMS and the Pacific region from 1990 to 2018. Given the available data,

four dimensions will be investigated: number and type of disasters; affected population; data availability; and damage in relation to GDP.

## A) NUMBER AND TYPE OF DISASTERS

During the period 1990-2018, 341 disasters caused by natural hazards occurred in Caribbean SIDS, 203 in the Pacific SIDS, and 66 in the AIMS region.

The average number of disasters per decade was greater in every decade in the Caribbean when compared with the other two regions (see Table 1). A possible explanation for this is the concentration of Caribbean countries in a smaller spatial spread compared to small islands

in the Pacific and AIMS regions. For this reason, there is a greater probability that one natural hazard, for example a hurricane, will affect more than one country thereby causing more disasters per occurrence.

Regarding the historical data in recorded types of disasters, storms (52 per cent) and floods (33 per cent) are the most common ones in the Caribbean. In total, in this region 91 per cent of disasters were weather related. Even though hurricanes are the major disruptive force, flooding tends to periodically impact a large proportion of the population and should be prioritized in long term planning.

In the AIMS region, weather related events such as storms, flooding, and

Table 1 - Disasters (1990-2018)

	Caribbean	AIMS	Pacific
<b>Number of Disasters</b>	341	66	203
<b>-- Annual Average --</b>			
<b>1990-99</b>	8.7	2.1	6.9
<b>2000-09</b>	13.9	3.1	7.0
<b>2010-18</b>	12.8	1.6	7.1
<b>Disasters with data about damage available</b>	108	11	48

Source: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of Emergency Events Database (EM-DAT) [online] [www.emdat.be](http://www.emdat.be)

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<sup>1</sup> UNISDR (2015). Making Development Sustainable: The Future of Disaster Risk Management. Global Assessment Report on Disaster Risk Reduction. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction. p 74

<sup>2</sup> Sjøstedt, Martin & Povitkina, Marina (2016). Vulnerability of Small Island Developing States to Natural Disasters: How Much Difference Can Effective Governments Make? The Journal of Environment & Development. Vol 26, Issue 1.

<sup>3</sup> Bello, O. (2017) “Desastres, crecimiento económico y respuesta fiscal en los países de América Latina y el Caribe, 1972-2010”. Revista de la CEPAL No. 120, abril 2017. Santiago, Chile.

<sup>4</sup> 16 Caribbean countries considered: Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago.

<sup>5</sup> Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS) comprises 9 countries: Bahrain, Cabo Verde, Comoros, Guinea-Bissau, Maldives, Mauritius, Sao Tomé and Príncipe, Seychelles and Singapore.

<sup>6</sup> The Pacific region is comprised of 13 countries: Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, Vanuatu

<sup>7</sup> EM-DAT contains essential core data on the occurrence and effects of over 22,000 mass disasters in the world from 1900 to the present day. The database is compiled from various sources, including UN agencies, non-governmental organizations, insurance companies, research institutes and press agencies.



Table 2 - Disasters by Type (1990-2018)

	Caribbean	AIMS	Pacific
<b>Biological*</b>	18	23	14
<b>Droughts</b>	19	6	17
<b>Floods</b>	112	11	39
<b>Geophysical**</b>	8	9	45
<b>Other***</b>	6	2	11
<b>Storms*</b>	178	15	77
<b>Total</b>	<b>341</b>	<b>66</b>	<b>203</b>

Source: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of Emergency Events Database (EM-DAT) [online] [www.emdat.be](http://www.emdat.be)

\*Biological hazards include viral and bacterial diseases

\*\*Geophysical events include earthquake, tsunamis, and volcano eruptions

\*\*\* Other include forest fires, land fires and landslides

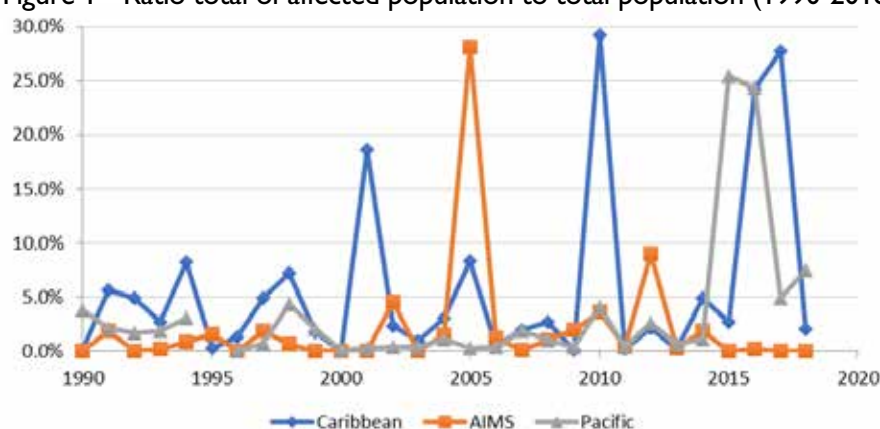
made available. In the Pacific region, weather related events such as storms, floods, and droughts to a lesser extent are likewise predominant (62 per cent). Storms represent 40 per cent of the total number of disasters. A distinctive feature of this region is that 19 per cent of the events were geophysical (earthquakes, tsunamis and volcano eruptions). While less frequent, droughts usually affect a larger proportion of the population when compared to other natural events. However, tsunamis and tropical cyclones tend to have larger economic impacts, although the data available in the Pacific and the AIMS for total damage is still limited.

### B) RATIO OF TOTAL AFFECTED POPULATION<sup>8</sup> TO TOTAL POPULATION

This indicator demonstrates the average percentage of the affected population in the countries that experienced a disaster in a specific year.

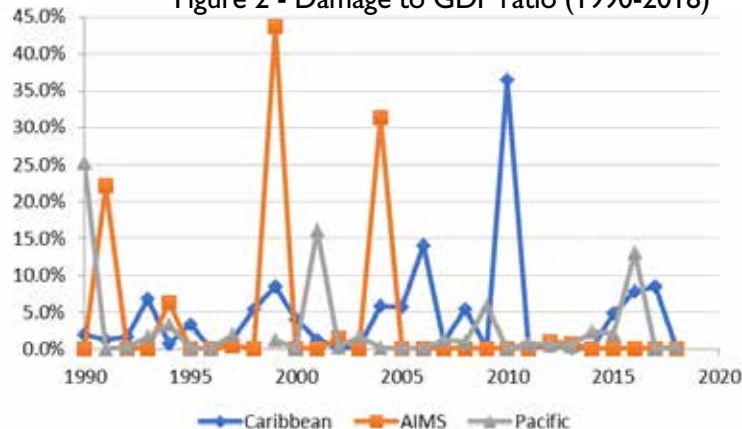
The average of this indicator for the Caribbean SIDS is 5.8 per cent. In six years 2001, 2005, 2010, 2015, 2016 and 2017, the indicator was greater than 15 per cent. The maximum value, 29.2 per cent, was reached in 2010. For the Pacific SIDS, the average is lower at 3.5 per cent. Only in two years, 2014 and 2015, the average was greater than 15 per cent. The maximum value was 25.4 per cent in 2015. In the case of the AIMS, the average of this indicator was 2.1 per cent. Only in one year was this indicator greater than 15 per cent, reaching 28.1 per cent in 2005.

Figure 1 - Ratio total of affected population to total population (1990-2018)



Source: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of Emergency Events Database (EM-DAT) [online] [www.emdat.be](http://www.emdat.be)

Figure 2 - Damage to GDP ratio (1990-2018)



Source: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of Emergency Events Database (EM-DAT) [online] [www.emdat.be](http://www.emdat.be)

droughts are also the most frequent type of disasters (49 per cent), with storms representing 23 per cent of the total. However, biological hazards (viral and bacterial diseases) are also significant,

being the second most frequent type of disaster at 35 per cent. Although they affect a relatively large number of people, the economic impact of these events is regrettably not measured or

<sup>8</sup> In term of the methodological approach, to compare the three groups of SIDS we use for each year a weighted average of the ratio affected population in island in relation to the total population in island. For each island, the weight is the ratio of the total population in island to the sum of the populations of all islands in its region that suffered a disaster that year.

► (continued on page 14)



## RENEWABLE ENERGY: NEW OPTIONS FOR ENERGY SECURITY AND BEYOND IN CARIBBEAN SMALL ISLAND DEVELOPING STATES

Willard Phillips\*

With very few exceptions,<sup>1</sup> Caribbean Small Island Developing States (SIDS) depends on energy imports to meet their economic and social needs. These imports are primarily fossil fuel. Guerra (2016) in an assessment of the energy matrix of Caribbean countries estimated that up to 62.6 per cent of the region's primary energy supply was obtained from crude oil, with a mere 3 per cent derived from hydro.

**M**easured in terms of the Energy/Supply Ratio (Figure 1), the region's high dependence on imported energy, over time, has added to balance of payment challenges and has exposed Caribbean economies to the vagaries of the international energy markets, through price and supply shocks. While climate change and its impacts have in turn exacerbated these concerns, rapidly evolving renewable energy (RE) technologies offer new opportunities for Caribbean SIDS to address their energy challenges. There is evidence to suggest that these countries are well disposed to seize the benefits of RE. Such benefits could also extend beyond the issue of energy security for high energy demand sectors, to include cost savings in both the water and food subsectors.

What then are the prospects for renewable energy development in

the Caribbean? Several assessments indicate that the subregion possesses substantial RE potential from solar, wind, geothermal, and even hydro-power sources. According to the International Renewable Energy Agency (IRENA), Caribbean SIDS possessed an installed capacity of RE of roughly 2.2 gigawatts in 2017 - sufficient energy to power 1,050 Caribbean homes<sup>2</sup> per period, with solar and wind being the RETS showing greatest growth over the previous 5 years.

Moreover, increases in installed RE capacity averaged 100MW per year during the same period. These achievements, however, remain relatively insignificant when assessed in terms of the subregion's actual potential. Schmidt and Sangermano (2017) note that the Caribbean has abundant sources of RE in the form of sun, wind and geothermal, with limited hydro. In the

case of solar, for example, the subregion boasts an annual solar resource of 5.46 kWh/m<sup>2</sup>, higher than the largest solar markets of Hawaii, California, Texas and Spain. Additionally, average annual wind speeds approximate 7 m/s, similar to that of Texas and California, the two dominant wind energy producing states of the United States of America. Given its relatively high volcanic activity, the Caribbean region also has great potential for significant geothermal production, with countries including Dominica, Guadeloupe, Martinique, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines, already pursuing projects in various stages of development. The larger Caribbean SIDS, Haiti, Jamaica and the Dominican Republic have also demonstrated hydro-electric potential.

The adoption of RE, however, provides more than an opportunity for addressing the energy security of Caribbean SIDS. This is because renewable energy has been shown to provide even broader

Figure 1 - Energy Supply/Consumption

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