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ENVIRONMENTAL BIG PUSH IN THE CARIBBEAN



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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 Sustainable 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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The Bahamas	Jamaica
Barbados	Saint Kitts and Nevis
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Cuba	Saint Vincent and the Grenadines
Dominica	Suriname
Dominican Republic	Trinidad and Tobago
Grenada	
Guyana	

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DIRECTOR'S DESK: ENVIRONMENTAL BIG PUSH IN THE CARIBBEAN

In addition to the threat of climate change, natural disasters and other vulnerabilities, the Caribbean, with the rest of the international community, is also trying to cope with the formidable new challenges presented by the COVID-19 pandemic.

For more than one year, the disease has severely disrupted global economic activities, through the disruption of supply chains, major health impacts, the limitations on the movement of people and the effects on production and trade. It has also imposed significant additional economic costs on countries, as they have been forced to divert resources towards the management of the pandemic, through the implementation of new public health protocols; the provision of social support to millions whose livelihoods have been disrupted; and the procurement and administration of vaccines.

The Caribbean has not been spared. The subregion has grappled with the ravages of the pandemic for more than eighteen months, these challenges exacerbated by dramatic economic fallout with the collapse of the tourism sector, rising public debt and fiscal constraints, as well as the continuous threat of natural disasters. While acknowledging the prevailing challenges, it is time to envision and pursue a positive perspective for advancing the subregion's future development strategy.

One such approach is the adoption of an "Environmental Big Push" suggested by ECLAC to support economic social and environmental development. This is a strategy in which economic growth,

employment generation, and new production chains can be achieved while lessening the environmental footprint. It is also aimed at maintaining the recovery of production capacity of natural capital which includes environmental services.

Considering the dependence of Caribbean economies on the natural environment, many Caribbean countries have been adopting and implementing strategies calculated to foster such a big push.

In this issue of FOCUS, we reflect on how the subregion has advanced this strategy in order to achieve its development aspirations.

To this end we explore three broad issues. The first analyses the subregion's efforts to sustain a blue green economic development strategy, that would enhance Caribbean efforts to promote the protection of the global environmental commons. The second looks at the potential benefits and opportunities for supporting a 'big push' approach through the implementation of the Escazú Agreement. By ratifying and demonstrating commitment to the principles of this Agreement, the Caribbean can embrace its fullest potential. And the third chronicles the evolution of solid waste management strategies in the Caribbean in light of COVID-19. We examine the increase

in solid waste production as a direct consequence of the COVID-19 pandemic, and its relationship with the concept of the environmental big push.

It is hoped that these reflections serve to convey to policymakers and stakeholders the message that there are yet creative and practical solutions to the challenges that the Caribbean faces. At ECLAC Caribbean, we continue to make ourselves available to supporting all our partners and stakeholders in these efforts.

Yours in Focus

A handwritten signature in black ink, appearing to read "Diane Quarless".

Diane Quarless



BLUE-GREEN ECONOMY AND POST COVID-19 RECOVERY IN THE CARIBBEAN

Willard Phillips*

For at least two decades, many Caribbean countries have sought to diversify their economies away from a traditional single-sector economic structure dominated by agriculture, tourism or energy. These efforts were developed in the context of globalization, consequent upon the conclusion of the Uruguay Round of multilateral trade negotiations and the establishment of the World Trade Organization in 1992.

Diversification was deemed to be important since trade liberalization, resulted in the dismantling of traditional trading regimes, particularly for agricultural commodities. However, globalization also created opportunities for access to new markets, especially for tourism services and energy products, and many Caribbean economies significantly expanded their tourism sectors, or their market access for hydrocarbon outputs.¹

The World Travel and Tourism Council (2021) reports that the contribution of tourism value-added to Gross Domestic Product in the subregion was 14.1 per cent in 2019.² This is consistently one of the highest measures among tourism regions in the world.

Notwithstanding this success, several emerging factors gave further impetus to the subregion's efforts at realigning its economies. Among these were the focus on environmental issues, with particular reference to small island developing States (SIDS) in the multilateral agendas subsequent to the 1992 UN Conference on Environment and Development in Rio de Janeiro, Brazil. Notable were manifestations of the effects of climate change through increased frequency and intensity of natural events; economic shocks to small open economies (for instance the global financial crisis of 2008-2009); the high level of energy insecurity and a recognition of its impact on trade balance and the wider economy; and the need to respond to the imperatives of climate change mitigation and adaptation in order to decarbonize subregional economies.

Over time, many of these efforts by Caribbean countries have fallen within the ambit of blue-green economy initiatives. Today, these represent the Caribbean's adoption of strategies in support of an Environmental Big Push. In this article, an examination is made of the subregion's progress in developing a blue-green economy strategy for advancing its development. An assessment is also made of the impact of the COVID-19 pandemic on the blue-green economy agenda in the subregion, and opportunities for future progress.

WHAT IS BLUE-GREEN ECONOMY?

Blue-green economy refers to an economy in which economic actors seek to minimize the negative external³ impacts of economic decisions, within the terrestrial and marine space.

Classic negative externalities include air, soil and water pollution produced from private industrial or agricultural activities. The wider society often bears such costs either in the form of health impacts, environmental degradation, disrupted livelihoods, and additional tax burdens for cleanup or mitigation. In the absence of regulatory policy, such costs are ignored by the polluter and represent a significant contribution to one's profit.

Although blue-green economic aspects are inextricably linked, for the purpose of examination, this type of economy may be conceived as two parts – the blue, which focuses on the economically sustainable use of the oceans; and the green, which applies the same principle to the management of a country's industries and economic activities. Beyond the

broad notion of reducing external effects, blue-green economic practice aims to reduce carbon emissions, while maximizing social inclusion and the efficiency of natural capital use. UNEP (2021) asserts that in such an economy, fiscal and investment strategies are honed toward enhancing green investments; public expenditure is directed towards the creation of sustainable goods and services; and social policy seeks the preservation and promotion of livelihoods which are directly linked to the use of natural capital and environmental services.

For the blue economy, the World Bank (2016) notes that oceans contribute roughly US \$1.5 trillion, or three per cent of global value-added annually. These economic contributions are mainly derived from three areas, which are (i) extraction of resources; (ii) tourism and transportation services; and (iii) environmental services such as carbon sequestration, oxygen generation and thermal modulation.

For small island economies, the sustainable use of the ocean has become a key objective, given that SIDS typically control far greater marine jurisdictions relative to their land area (the Commonwealth, 2016). UNCTAD (2014) identifies the areas of fisheries, energy, and coastal and recreational services as the most salient aspects of the blue economy for SIDS. In the Caribbean, these sectors are important contributors to both the economy and livelihoods.

With respect to the green economy, the approach to economic management is one in which economic and social goals are maximized, while reducing impacts

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¹ Trinidad and Tobago expanded its global markets for gas, while Guyana recently emerged as a petroleum exporter.

² The Caribbean Tourism Organization however reports a 64.5% decline in tourism arrivals for 2020 on account of the Covid 19 pandemic. This suggests a related significant decline in sector earnings for that year.

³ Negative externalities are costs to third party economic agents who do not participate in economic decisions, but are nevertheless forced to bear such costs, for no benefits.

on land-based ecosystems. Possibly the mostly widely adopted strategy for greening economies is climate change mitigation, where countries strive to reduce their carbon emissions. This involves transitioning to cleaner renewable energy production and use for industry, households, and transportation; application of agricultural production practices which reduce greenhouse gas production; and the implementation of energy efficiency standards for most areas of economic and social life.

Green economy strategies also include enhanced efforts for sustainable water use, while minimizing waste production, deforestation, biodiversity loss, coastal pollution, and the overall impact of economic and social activities on the natural environment. When examined in purely economic terms, a blue-green economic strategy holds significant implications for SIDS economies, since the minimization of externality effects cannot be achieved without an increase in long-run average costs. This in turn presents challenges with respect to maintaining trade competitiveness, especially given the economies of scale challenges that are typical for small states.

Nevertheless, the threat of climate change, and the accompanying global efforts to confront it have also created new opportunities for Caribbean SIDS to pursue blue-green economy strategies. As will be discussed this has already been recognized by many Caribbean SIDS.

WHAT HAS THE CARIBBEAN DONE TO DATE?

Previous and current efforts to reorient Caribbean economies in the direction of blue-green development include the following:

- Sector specific investments
- Fiscal and debt management
- Legislative and regulatory measures
- Marine resource extraction and utilization
- Shipping and Maritime Logistics
- Ocean governance policies

SECTOR SPECIFIC INVESTMENTS

Considering specific sectors, energy represents the best evidence of the subregion's blue-green economy efforts.

For example, while countries such as Trinidad and Tobago have been traditional extractors of fossil energy from its marine resources, Guyana has become a recent marine energy producer, while Suriname is expected to begin production in the near future. However, progress with respect to renewable energy has been more significant with the establishment of utility scale solar power (e.g. Antigua and Barbuda, Barbados, Saint Lucia, Saint Kitts and Nevis); wind energy (e.g. Curaçao, Jamaica); hydro-power (e.g. Suriname) and geothermal energy (e.g. Dominica, Guadeloupe, Saint Kitts and Nevis, Saint Vincent and the Grenadines).⁴ Several countries (e.g. Barbados, Saint Lucia) have also adopted solar water heating as a key strategy for meeting their household and tourism sector hot water needs.

Greening of the subregion's tourism sector has also been advanced through the adoption of energy efficiency standards for accommodation, eco-labelling and certification for coastal resources (e.g. Blue Flag certification for beaches), along with waste and waste water management for cruise ports and marinas, among others.

FISCAL AND DEBT MANAGEMENT STRATEGIES

Fiscal efforts to absorb externality costs have also been applied in the Caribbean, as was the case of a green tax implemented in Trinidad and Tobago.⁵

This levy, which became applicable more than two decades ago, is a 0.3 per cent tax on gross income for all businesses, and is intended to finance environmental protection and remediation activities in Trinidad and Tobago.

Blue-Green economy strategies have also been linked to national debt management, as demonstrated in the Government of Barbados' proposed blue-bonds issue, which seeks to redirect sovereign debt

payments to a conservation fund for marine and coastal ecosystems.

LEGISLATIVE AND REGULATORY MEASURES

In this area, efforts at strengthening the institutional framework and human capacity for blue-green economic development are wide and varied.

Many Caribbean countries have established environmental management and solid waste management authorities and have passed supporting legislation to define and give special protection to ecologically sensitive areas, including coastal wetlands, marine protected areas, watersheds, and forest reserves. Further, pollution rules have been implemented to limit the indiscriminate disposal of wastes.

Recently, specific legislative actions have been proposed to ban or limit single-use plastics in several Caribbean jurisdictions. Human resource development policies have also been oriented towards creating skills for engaging the multilateral negotiating process, as well as specialized talents in energy sector regulation, climate financing, and natural resource valuation.

MARINE RESOURCE EXTRACTION AND UTILIZATION

Apart from fossil energy, fish is also an important resource harvested from the sea.

The fishing industry is an important source of livelihood for the Caribbean, providing income, nutrition and export earnings for up to 180 thousand persons in the subregion (FAO, 2019). However, it is the subregion's tourism sector which derives the highest ecological benefit from the oceans, as it is established on the use of oceans and seas for cruise transportation, yachting, swimming, diving and snorkeling, and other forms of marine recreation.

► (continued on page 6)

⁴ Note that Guadeloupe is already a producer of geothermal energy, while the others are vigorously pursuing its development.

⁵ Smith David C. (2001) "The Case of the Green Fund Levy in Trinidad and Tobago" Business and Environmental Services Limited, Jamaica.

BLUE-GREEN ECONOMY AND POST COVID-19 RECOVERY IN THE CARIBBEAN (CONTINUED)

As noted by the Caribbean Tourism Organization (CTO), the tourism sector is the largest contributor to gross domestic product (GDP), with the Bahamas, Barbados, the Dominican Republic, Jamaica, and Saint Lucia being some of the main destinations in the Caribbean (Table 1).

SHIPPING AND MARITIME LOGISTICS

Although shipping has been a pivotal element of economic development in the Caribbean, further evolution of the blue-green economy has been pursued through the expansion of ship registration and the evolution of logistics hubs.

Countries such as Antigua and Barbuda, the Bahamas, and Saint Vincent and the Grenadines, have established significant ship registries in an effort to bolster this sub-sector.

Attempts have been made to also exploit the geographic and nautical advantages of the subregion in relation to global shipping and logistics, with the Port of Jamaica brokering considerable investments in the development of a regional port and

logistics hub in the capital Kingston. Similar efforts to move in this direction have been made by the Bahamas.

OCEAN GOVERNANCE

Since the Caribbean is a region of multi-island sovereign States and overseas territories, there is significant overlap of territorial Exclusive Economic Zones.

Ocean governance arrangements are therefore necessary in order to ensure sustainable utilization of the maritime commons, while at the same time minimizing conflicts. While ocean governance is the remit of the maritime area, effective ocean governance is also important for the sustainable use of the land area.

This is especially important in the Caribbean given the relative physical closeness of the islands, the joint benefits, and threats to these economies by occurrences in the Caribbean Sea. By way of examples, the dominance of the subregion in the global cruise business implies common regulatory requirements for cruise ships, relative to the disposal

of ship-generated wastes, which could ultimately end up in nearshore or coastal areas of islands.

Noteworthy is the use of the Caribbean Sea as a major route for international commercial shipping, as well as for the increasing extraction of fossil energy. This has also promoted the need for joint and common strategies with respect to safety at sea and the management of oil-spills. The recent emergence of the influx of Sargassum spp. into the Caribbean Sea is another example of the need for regional ocean governance arrangements.

To various degrees, Caribbean countries have taken steps to address these ocean governance challenges. Efforts have been made to forge common arrangements for the management of ships' waste from cruise lines in the Organization of Eastern Caribbean States (OECS).⁶ Further, various negotiated agreements have been signed for the extraction of a common resource, as has been the case of agreements for flying fish harvest signed between the governments of Barbados and Trinidad and Tobago.⁷ Similar arrangements (e.g. Trinidad and Tobago and Venezuela) have been entered into with respect to the extraction of oil and gas in the southern Caribbean Sea.⁸

Ocean governance arrangements have also been pursued at the level of the local jurisdiction, as governments strive to sustainably utilize coastal resources. Several countries have therefore established regulatory control over demarcated coastal areas in the form of specially defined protected areas such as coastal wetlands (e.g. Jamaica and Trinidad and Tobago), and marine protected areas (e.g. Barbados, Belize, Grenada, and Saint Lucia).

At a technical level, analysis of ocean governance issues has also been ongoing for several years under the Caribbean Large Marine Ecosystems Project (CLME). And while several challenges⁹

Table 1: Tourism GDP% - Selected Caribbean Countries - 2019

Country	Direct Contribution to GDP (%)
Anguilla	15.8
Antigua and Barbuda	15.4
Bahamas	23.3
Barbados	12.5
Cayman Islands	8.8
Cuba	2.8
Dominica	14.6
Dominican Republic	5.7
Grenada	16.8
Jamaica	12.0
Saint Kitts and Nevis	10.7

Source: statista.com, 2021

⁶ See: <https://www.thegef.org/project/ship-generated-waste-management>

⁷ See: <https://www.informe.org/en/treaties/fishing-agreement-between-government-republic-trinidad-and-tobago-and-government-barbados>

⁸ See: <https://www.reuters.com/article/us-trinidad-tobago-venezuela-idUSKBN1ZX21Y>

⁹ See: <https://www.frontiersin.org/articles/10.3389/fmars.2021.667273/full>

have been identified with respect to implementing these arrangements in the subregion (Fanning et al, 2021), these efforts reflect the increasing understanding of Caribbean stakeholders of the role of oceans in advancing the development of the blue-green economy.

All of these initiatives target the broader objectives of sustainably utilizing the natural resource base of the marine and terrestrial space, reducing externality costs, and providing additional options for economic development.

HOW COVID-19 HAS AFFECTED PROGRESS

The COVID-19 pandemic has negatively impacted the economies and society in significant ways since its emergence in 2020.

For the Caribbean, broad-based effects on blue-green economic development arise, from disrupted economic activity, reduced growth, suspended project implementation, increased national debt, and redirection of public financial and other resources towards the management of the disease.

Specific areas of blue-green economic development which have been directly affected include tourism services which declined by 65 per cent (CTO, 2021), since international passenger travel was suspended for more than a year. Further, suspension of economic and social activities globally resulted in a dramatic fall in energy prices, which also affected the revenues of subregional energy exporters.

Disruptions of international supply chains have also affected the delivery of goods, with a lagged effect giving rise to inflation in many global markets. The International Monetary Fund (IMF 2021) estimates that the primary commodity price index increased by some 29 per cent between the final quarter of 2020 and the first quarter of 2021, reflecting rebounding inflation in fuels, metals and food.¹⁰

Emergency measures, such as expanded parallel health care, vaccine procurement, and social support to displaced employees

have also imposed increased fiscal and debt burden on Caribbean economies, with the full economic and social impacts of these measures yet to be determined.

BLUE-GREEN ECONOMY OPPORTUNITIES:

Despite the existing challenges, there remain several opportunities for further development of the blue-green economy in the Caribbean.

These options can be pursued through alternative consumption and use of resources, or sustainable use of environmental factors. The first is in the area of food and food security, as the re-establishment of small-scale multiple cropping farming systems, alongside development of the agri-food value chain, offers good prospects for enhancing regional food security, improving nutrition status and enhancing the overall rural economy. This farming approach also holds significant potential for evolving a more carbon-neutral agriculture that is better suited to small island States.

Linked to agriculture and food is the prospect of developing a more robust natural health and homeopathy subsector, in which natural health and related lifestyles are promoted as an important aspect of the subregion's tourism sector. Tourism services may be further expanded to include remote working and study support to workers and students from metropolitan areas outside the subregion.¹¹

Digital economy - especially with respect to health services - have also become important, particularly in the management of the current pandemic; these services also hold significant potential for Caribbean economies.

Finally, implementation of strategies for efficiently managing, costing and monetizing water use is a key option for minimizing the deadweight loss and externality costs currently associated with freshwater use in the Caribbean.

CONCLUSION

The blue-green economy development strategies here suggested would be feasible only to the extent that the subregion achieves the important pre-requisites of attracting investment, enhancing education, appropriate skills and human capital development, and pursuing transformation of the digital economy infrastructure.

The sustenance of the subregion's blue-green economy would also depend on the Caribbean efforts as a vigorous advocate in promoting the protection of the global environmental commons. ■

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¹⁰ IMF World Economic Outlook – April 2021,

¹¹ Barbados has already initiated experimentation with this idea.



THE ESCAZÚ AGREEMENT: EMPOWERING CARIBBEAN SIDS TO BUILD FORWARD BETTER IN A COVID-19 CONTEXT

David Barrio, Artie Dubrie & Carlos de Miguel*

“As we continue to tackle the shattering impacts of COVID-19 and step up efforts to curb the triple crisis of climate change, biodiversity collapse and pollution of the natural environment, the Escazú Agreement’s entry into force provides hope and inspiration and sets the stage for sustainable and resilient recovery.”

United Nations Secretary-General Antonio Guterres’ message, Marking the entry into force of the Escazú Agreement, 22 April 2021

Achieving universal wellbeing requires peaceful, fair, inclusive, and sustainable societies. A regime with these characteristics is built through the deepening of democracy, full respect for human rights, sustainable management of natural resources, and all of society participation. This link between human wellbeing, rights to life and a healthy environment is becoming even more evident, as the Caribbean small island developing States (SIDS) strive for sustainable development, including the attainment of resilient economies.

By adopting the first regional environmental treaty of Latin America and the Caribbean, countries of the region devised a collective blueprint towards sustainable development and demonstrated the power of compacts for sustainability. The Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (“Escazú Agreement”), which entered into force on 22 April 2021, supports green recovery and environmental big push initiatives in Caribbean SIDS in times of COVID-19 and can contribute towards building forward better (ECLAC, 2020).

As the region’s first environmental treaty, it offers tools to address the most pressing environmental and natural resources management challenges. The Agreement is expected to bring strategic benefits across the economic, social, and environmental fields. It fosters evidence-based policies, partnerships for sustainable development and catalyzes low carbon solutions. The Escazú Agreement can be transformative for the countries of the region, driving

a shift towards sustainability based on dialogue, inclusion and compacts for resilient COVID-19 recovery. This article will present an analysis of the Escazú Agreement in the context of building forward better in the Caribbean.

DEFINING THE ESCAZÚ AGREEMENT

Resulting from the United Nations Conference on Sustainable Development (Rio+20) in 2012 (UN, 2012) and adopted in Escazú, Costa Rica in 2018, the Escazú Agreement aims to contribute to the protection of the rights of the citizens of Latin America and the Caribbean in present and future generations.

These include the right to live in a healthy environment and to sustainable development through the full and effective implementation of the rights of access to information. It also emphasizes public

participation and access to justice in environmental matters and the creation and strengthening of capacities and cooperation.

By paying special attention to persons and groups in vulnerable situations, the Agreement puts equality at the core of sustainable development and focuses on inclusiveness. The Agreement cements such environmental rights of access with concrete capacity-building and cooperation provisions, based on the priorities and needs of Parties. It also establishes a supporting institutional architecture intended to capitalize resources, foster capacity development and policy formulation and offer collaborative platforms to reach its expected accomplishments.

Table 1: Caribbean SIDS Status as signatories and State Party to the Escazú Agreement

Country	Signature	State Party since
Antigua and Barbuda	27/08/2018	04/03/2020
Belize	24/09/2020	-
Dominica	26/09/2020	-
Dominica Republic	27/09/2018	-
Grenada	26/09/2019	-
Guyana	27/09/2018	18/04/2019
Haiti	27/09/2018	-
Jamaica	26/09/2019	-
Saint Kitts and Nevis	26/09/2019	26/09/2019
Saint Lucia	27/09/2018	01/12/2020
Saint Vincent and the Grenadines	12/07/2019	26/09/2019

Source: ECLAC, Observatory on Principle 10 in Latin America and the Caribbean, 5 July 2021

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MEETING AND SUSTAINING THE CHALLENGES OF CARIBBEAN SIDS

The Escazú Agreement specifically refers to the Barbados Programme of Action (BPOA) of 1994, on the Sustainable Development of SIDS, the Mauritius Declaration and Strategy (2005) for the Further Implementation of the Programme of Action and the SIDS Accelerated Modalities of Action (SAMOA) Pathway (2014).

With respect to the latter, the Escazú Agreement supports implementation of the SAMOA Pathway, focusing on peaceful, prosperous, inclusive societies and safe communities.

To date, eleven Caribbean SIDS are

signatories, five of these being States Parties to the Agreement. The status of Caribbean SIDS countries as signatories and State Parties are listed in Table 1.

THE ESCAZÚ AGREEMENT PROVIDING AN ENABLING ENVIRONMENT FOR BUILDING FORWARD BETTER

Transforming the development model to one that is economically, socially, and environmentally sustainable, requires a population that understands the social and environmental footprints of the prevailing development process, as well as the implications of major investment decisions, including their impact on climate change and biodiversity (ECLAC, 2021).

The following four items exemplify areas in which the Escazú Agreement can provide support, as Caribbean SIDS address challenges for building forward better.

1. Environmental data for evidence-based public policies

The Escazú Agreement provides for access to environmental information by all stakeholders as well as the production, and dissemination of such information by States in a timely manner. Parties are to have in place environmental information systems, take steps to establish pollutant release and transfer registers, develop and implement early warning systems and endeavor to publish periodic reports on the state of the environment, among others.¹

► (continued on page 10)

Access to information tools under the Escazú Agreement

Measuring the impacts of climate change and disasters

The Escazú Agreement promotes the production, disclosure and dissemination of climate change and disaster-related information. It allows for the analysis of trends; it can determine the impacts and enable measures to prevent or limit potential damage, including designing and implementing adequate prevention, management and recovery policies and access to financing. Article 6.5 also includes information on imminent threats to public health or the environment and the development of early warning systems. Along these lines, in an effort to study the effects of climate change in the coastal areas of Latin America and the Caribbean, ECLAC has developed a comprehensive risk-assessment methodology² to analyze coastal changes, climate variability and the vulnerability of coastal areas in order to evaluate the economic impacts of climate change on the region's coastal areas. Furthermore, ECLAC is also pioneering efforts in the field of disaster assessment and in the development and dissemination of the Damage and Loss Assessment (DaLA) and Post Disaster Assessment (PDA) methodologies to assess the effects and impacts of disasters in countries of the region.

Environmental information systems³

Environmental information systems, required under article 6.3 of the Escazú Agreement, provides for the production of up-to-date environmental information in a duly organized and accessible manner. This can be made progressively available through information technology and georeferenced media. Such systems may include environmental laws and regulations, reports on the state of the environment, lists of the competent public entities, and lists of polluted areas by type of pollutant and location. Also, information on the use and conservation of natural resources and ecosystem services, including sources such as scientific, technical and technological reports, information on environmental impact assessment processes, and information on administrative sanctions. By way of example in the Eastern Caribbean, the National Environmental Information System of Saint Lucia collects indicators on the state of the environment, such as biological diversity, food production, climate change, human population and resource depletion. All of these provide insight into the environmental health and management, and contribute to the shaping of the country's public policies, such as the Medium-Term Development Strategy 2020 - 2023.

Pollutant release and transfer registers

In its article 6.4, the Escazú Agreement obliges Parties to take steps towards the establishment of a pollutant release and transfer register (PRTR). PRTRs are publicly accessible databases or inventories with periodically updated information on air, water, soil and subsoil pollutants as well as materials and waste. In the Caribbean, the Natural Resources Conservation (Wastewater and Sludge) Regulations 2013 (S.I. No. 69A of 2013) of Jamaica require the National Resources Conservation Authority to maintain a Pollutant Release and Transfer Register.

¹ Pursuant to its article 12 of the Escazú Agreement and on Principle 10 of the Rio Declaration, the Observatory in Latin America and the Caribbean is operated by ECLAC and serves as a clearinghouse gathering treaties and national laws, regulations, strategies, plans and policies on the matters covered by the agreement. The link is available at: <https://observatoriop10.cepal.org/en>

² See Economic Commission for Latin America and the Caribbean, "The effects of climate change on the coasts of Latin America and the Caribbean: Climate variability, dynamics and trends", <https://www.cepal.org/en/publications/39866-effects-climate-change-coasts-latin-america-and-caribbean-climate-variability>

³ See Economic Commission for Latin America and the Caribbean, Disaster Assessment Portal, <https://www.cepal.org/en/headquarters-and-offices/eclac-caribbean/disaster-assessment/disaster-assessment-portal>

THE ESCAZÚ AGREEMENT: EMPOWERING CARIBBEAN SIDS TO BUILD FORWARD BETTER IN A COVID-19 CONTEXT (CONTINUED)

2. Inclusive partnerships for better economies

Whole-of-society efforts including through dialogue, improved transparency and accountability set the stage for building forward better. This is all the more important in the environmental domain, where natural capital is a key driver for sustaining economic growth, development and wellbeing of Caribbean SIDS. Public participation strengthens national policymaking and ensures that government actions are more closely aligned to national needs and priorities. Furthermore, the active involvement of stakeholders in issues of concern to them is essential to effective problem solving. Partnerships and collaboration also build legitimacy, acceptance and ownership of decisions, nurturing trust and legal certainty, which are key for the sustainability of long-term policies.

Partnerships and cooperation are reinforced in the Escazú Agreement in numerous ways. Public participation is considered a pillar of environmental decision-making, requiring States to ensure public engagement at all stages of decision-making, on activities and projects having a significant impact on the environment as well as in other environmental decisions of public interest. The provision of timely, comprehensive information and data, appropriate spaces for consultations with due regard for local knowledge dialogue and exchange of views are components of the participatory process.

3. Strong public institutions and human resources for sustainability

Inclusive and environmentally friendly recovery will also depend on effective public institutions. To fulfill their mandate and function effectively, institutions require sufficient tools,

resources and expertise. This implies building capacity in the public sector to address challenges of common interest and national concern, and to build resilience to future shocks.

The Escazú Agreement therefore recognizes the importance of building national capacities for environmental governance, based on each country's priorities and needs. Article 10 includes the training on environmental access rights, awareness-raising and capacity-building programmes for judicial and administrative officials and the promotion of education on environmental matters.

4. Leveraging green solutions for transformative recovery in the Caribbean

The ideals of the Escazú Agreement are important in complementing the combination of policies to close gaps through the environmental big push for sustainability. Its tenets can inspire action and support the implementation of the eight sectors identified by ECLAC as drivers of sustainable productive transformation (ECLAC,

2021). These are detailed in Figure 2.

The following examples provide more detailed analysis on how this Agreement can support the greening of recovery efforts in the Caribbean:

i. Boosting clean energy transition

Environmental access rights can lay the groundwork for reshaping the energy landscape and promoting the transition to cleaner, renewable energy. Enhanced access to energy-related information and participatory national energy and decarbonization plans, including through Strategic Environmental Assessments, can accelerate the shift towards green energy solutions. Data on energy availability, cost for production, imports and consumption, as well as carbon emissions may encourage efficiency and more sustainable consumption and production patterns. For example, providing clear, comprehensive and reliable information to consumers and users through labeling, setting minimum consumption standards and educating the population about proper uses of energy and energy saving strategies can

Figure 2: Key Sectors driving the big push for sustainability and with implications for the Caribbean SIDS Economies

1. The energy transition: Renewable energies and reduction in the use of fossil fuels.
2. Sustainable mobility and urban space management*
3. The digital revolution: Universalizing access
4. The health-care manufacturing industry (Cuba)
5. The bioeconomy: Sustainable development based on biological resources and natural ecosystems.
6. Valuing and expanding the care economy
7. Developing the circular economy
8. Sustainable recovery in the tourism sector

Source: Building forward better: Action to strengthen the 2030 Agenda for Sustainable Development, ECLAC (2021)

*For the Caribbean SIDS, this will also include coastal communities and spaces. Given that there is a high population density and economic activities in these zones.

promote a low-carbon energy culture at all levels of society. In turn, this will foster knowledge generation, developing capacities and aligning interests and objectives, vis-à-vis the energy policy. In energy-dependent countries, improving efficiency, reducing consumption and putting in place low scale renewable energy generation also contribute to decreasing the high import fossil fuel bill.

ii. Maximizing the digital revolution

Digital transformation reinforces access to information, public participation and access to justice. In turn, guaranteeing access rights contributes to encouraging societies to embrace the digital transformation, in what can be seen as a virtuous circle. Access to and use of digital technologies can serve as catalysts of transparency, facilitate public engagement and contribute to more effective administrative and judicial procedures. The Escazú Agreement encourages the use of new information and communication technologies, such as open data sources, in the different languages used in countries, as appropriate. Moreover, it states that competent authorities shall endeavor to ensure, to the best extent possible, that environmental information is usable for other reporting and decision-making platforms, processable and available in formats that are accessible, and that no restrictions are placed on its reproduction or use, in accordance with national legislation. This could be, for example, to use data on ground water quality to make informed decisions regarding its use as potable water; on aquifer performance, and on land use planning, including water shed management

iii. Unleashing the potential of bioeconomy sectors

An economy based on biological resources and natural ecosystems has the potential to diversify the productive structure and sustainably increase value added. Bioeconomy points to the sustainable use and management of biodiversity including coastal and ocean-based bio-resources, agroecology,

eco-tourism and nature-based solutions. Having access to data and information can provide knowledge of the available biological resources, scientific and technological capabilities, conservation vulnerabilities, local and indigenous knowledge, and can inform consumer preferences. Lack of this knowledge may result in underestimation of the potential of bioeconomy and nature-based solutions and favour unsustainable sectors and less cost-effective solutions. Stakeholder participation can also promote appropriate regulatory frameworks for use of bio-resources, including the requirements for access and benefits sharing with local communities.

CONCLUSIONS

There is no doubt that the Escazú Agreement sets the foundation for building forward better.

Through strengthening data and information access, knowledge generation and by fostering multi-stakeholder partnerships it lays the groundwork for effective public policies. This is especially so when addressing natural resources and environmental management arrangements by ratifying and demonstrating commitment to the principles of this Agreement, the Caribbean can embrace its fullest potential. ECLAC as Secretariat supports Caribbean countries in meeting the objectives of this regional agreement. ■

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CHANGING DYNAMICS IN SOLID WASTE GENERATION AND MANAGEMENT UNDER COVID-19

Elizabeth Thorne *

One of the areas of the ECLAC focus is the Environmental Big Push, but what does this mean? How is this relevant to the sustainable development of Caribbean small island developing States (SIDS)?

Bayramoglu and Jaques (2009) define the Environmental Big Push as the desired or “good” equilibrium achieved when developing countries advance environmental standards, for example the implementation of international emission standards, and when a number of industrialized sectors move towards modernizing their production while simultaneously investing in new abatement technology.

In this article, we examine the increase in solid waste production as a direct consequence of the COVID-19 pandemic, and its relationship with the concept of the environmental big push. Generally, managing solid waste is challenging, but in the middle of a pandemic, advancing holistic and innovative solid waste management practices should be encouraged. In SIDS, particularly Caribbean SIDS, appropriate solid waste management practices by governments are important. Given their limited land area, the nexus between solid waste management, human and environmental health and protection cannot be underestimated.

To determine whether the environmental big push has traction in the Caribbean, this article reviews the findings of several studies. It also examines global trends focusing on specific regions and country examples.

LINKING COVID-19 TO WASTE GENERATION CHANGES

COVID-19 was first reported in Wuhan, China in December 2019 (Das et al, 2021) and has had an impact on solid waste management. The scientific and medical fraternities deemed it a high public health risk, with implications for solid waste management workers and others.

There is a link between COVID-19 and altered waste generation volumes and waste streams (Moonsammy et al 2021, Naughton 2020). The results were not uniform but linked to specific situations and locations (Naughton 2020). Several examples demonstrated this reality. In the United States – specifically Arizona, New York, Ohio and South Carolina - there were upsurges in recycling, but

household and agricultural waste also increased (Naughton 2020). Where there were high levels of unemployment and an increase in the number of people working from home, there was a notable increase in “spring cleaning” of homes and surroundings.

Sometimes, large volumes of waste overwhelmed collectors and resulted in co-contamination incidences of recyclables, rendering these items unrecoverable. Despite an advanced and well-organized recycling sector in the USA, several drawbacks were experienced, as some recycling facilities closed or opted to reduce capacity to adhere to the pandemic restrictions, resulting in a redirection of this waste stream to landfills (Naughton 2020). The country also experienced an increase in food deliveries, creating more packaging waste; there were surges in food stockpiling leading to food spoilage, and increased organic waste (Naughton 2020).

Similar trends were observed in developing countries, such as Guyana and Nigeria. For example, there was an upswing in household waste with the onset of ‘hard lockdown’ initiatives in both countries (Moonsammy et al 2021). A study conducted by Sharma et al (2020) also observed waste streams shifted towards the purchasing of more tinned and non-perishable goods during many of the lock-down regimes. Sharma et al. (2020) also examined how these lockdown measures disrupted food supply chains, as many raw materials were produced in the rural areas - on farms and stored in warehouses - far from the urban spaces. Restrictions on transportation and fear of disease transmission encouraged hoarding, which led to large scale dumping or burial of waste. It was evident that the

solid waste management issues created by the pandemic were complex, calling for innovative solutions tailored to specific country dynamics.

Other trends that emerged include the reversion to single-use plastics, as there were mandatory requirements of personal protective equipment (PPE) for frontline workers; and an increasing hypersensitivity to hygiene, driving up the demand for plastic products (Sharma et al 2020, Naughton 2020). In many cases, single-use plastic regulations were suspended, as bans and fees were discontinued so that frontline workers could ensure their personal health and welfare (Sharma et al 2020).

At a global level, recycling services were also under threat with shrinking international markets, and financial issues including closures. Ultimately, the pandemic unearthed several underlying supply chain challenges.

Additional layers of complexities were also observed in different regions with respect to waste disposal and collection changes. In Guyana and Nigeria again, these were changes in waste collection schedules, which led many households to engage in self-dumping, especially within areas in close proximity to landfills (Moonsammy et al 2021).

Many governments’ first response was to reduce the frequency of waste collection, limiting the contagion (Moonsammy et al 2021). In the case of Saint Kitts and Nevis, the Government adopted reduced waste collection schedules during the initial stages of the pandemic. But regular collection resumed on 1 June 2020 (SKSWMC 2021). Contrarily, other nations such as Canada (Ontario),

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China and Singapore chose to increase their waste collection schedules for the first few months into the pandemic (Moonsammy et al, 2021). Overall, biomedical waste, plastic waste and food waste, were found to be the waste streams causing greatest concern globally (Naughton 2020).

In the subregion, the Caribbean Public Health Agency (CARPHA) found that prevailing conditions under the pandemic exacerbated already strained solid waste management practices (CARPHA 2020). Nonetheless, the patterns/trends were similar. For example, increased use of face masks, face-shields, hand sanitizers, gloves, gowns, personal protective equipment (PPE) and plastics in general were reflected in the waste streams. These increased waste volumes affect human health and the environment. CARPHA found that unmanaged infectious medical waste could result in uncontrolled dumping, open burning and incineration. These could have serious deleterious effects on human health and contribute to environmental pollution. Further, the environmental impacts in the short and long term may include:

- the release of toxins into the atmosphere,
- increased mortality in some marine species/animals,
- changes in the physical habitat and ecosystems.

These impacts could be far-reaching over time and space, affecting livelihoods as the pollution would extend to the beaches and recreational waters, cause damage to sea vessels, and result in a decrease in wildlife and a reduction in tourist revenues. Although the use of disinfectants was highly recommended to reduce the transmission of the virus, these held toxic implications to the environment and a possibility of increased mortality in aquatic organisms. In light of these trends, several strategies have been proposed to mitigate the long-term effects of a changed solid waste management regime. The World Health Organization (WHO) offered guidelines and several countries implemented protocols for medical/health care waste disposal. However, the use and application of these guidelines

are nationally determined.

Das (2021) also proposed proper sustainable waste management and increasing the recyclability of some products as possible solutions in containing the spread of the contagion. Some countries implemented special protocols to treat with this highly risky biomedical waste. In the Philippines for example, a special amendment for handling healthcare waste was developed. It involved a signed agreement between the healthcare facility, transporter and treatment workers, all adhering to strict measures that were monitored at all levels (Dal et al 2021).

Similarly, Moonsammy (2021) suggested a re-think of solid waste management practices with the onset of the pandemic, noting that this must be framed in the context to which these strategies are applied. This is especially important, considering the widening disparity between implementation of solid waste management strategies in developed countries, as opposed to developing countries. In many cases in developing and less developed countries, the solid waste programmes are fragmented and sometimes unsponsored, unregulated, and with limited safety protocols enforced, therefore efforts should be made to change these norms.

There were also several cases of informal sector activities including self-disposal, demonstrated in the Guyana and Nigeria study. However, in the case of Guyana, its government was committed to changing the status quo through the development of an integrated solid waste management plan leaning toward sustainable methods, and an improved landfill infrastructure, accompanied by public awareness programmes, and policies supporting recycling. Nigeria on the other hand, implemented waste reduction strategies through public education and waste reduction incentives, such as deposit fees for waste materials.

Sharma (2020) also perceived these as potential opportunities to create innovative solutions in the event of future pandemics. Emergency response services, temporary relaxation of single-use plastics restrictions and shifting to

automated waste treatment systems to reduce potential viral transmission were all proposed.

Considering all aspects of solid waste management would facilitate the development of appropriate strategies and, where necessary, resources should be dedicated to educating and supporting communities accordingly (Moonsammy 2021). Systems thinking, and modelling were also suggested as strategies to identify interconnections that could provide another level of guidance (Naughton 2020).

Nonetheless, the long-term effects of waste generation during the pandemic and the waste composition will be revealed over time. However, quicker access to waste generation patterns could contribute to the reduction of waste generation and protect communities and workers (Naughton 2020). Together these studies provided many insights into managing the emerging solid waste management challenges as presented in this article.

Notwithstanding the disparity between the regions, some of the Caribbean nations have implemented progressive and innovative systems to treat with their respective challenges. Barbados, for example, has focused on becoming a world-leading technology driven society that developed a residential waste management strategy. They rolled out a national programme, which issued every household with a standardized Radio Frequency Identification (RFID) 65-gallon roll out cart for general waste and an 18-gallon bin for recyclables. The vehicles commissioned to collect waste from these RFID bins were specially outfitted with compactors and mechanical lifting carts to empty and collect the waste. This country is committed to transitioning its solid waste collection from a manual to a more efficient and safer mechanical one (Cision PR Newswire, 2021). The system also involved software for tracking, monitoring, and providing analytics for waste collection and operations. This country is therefore advancing the environmental big push.

▶ (continued on page 14)

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In Saint Kitts and Nevis there was a similar national programme to distribute RFID smart bins to all households (SKSWC 2021). Although their overall solid waste management strategy was not fully articulated, it was interesting that this nation also considered implementing strategies that encouraged more accountability and possibly some level of monitoring trends. These types of programmes foster accountability and provide an opportunity to monitor and evaluate waste volumes and trends, and could be considered as a quantum leap towards transforming the subregion's waste management strategies.

Barbados and Saint Kitts and Nevis have used the shortcomings in their solid waste management strategies, exposed by COVID-19, as an opportunity to re-think their systems. Barbados is forging forward through partnerships to secure a future with minimum waste.

CONCLUSION

Globally, solid waste management is challenging, but for SIDS, it is critical given limited land space and higher competition for resources. In SIDS the importance of the land-sea dynamic and the interconnectivity of all ecosystems come into play, since waste and its leachate can cause deleterious environmental effects on land and sea. Like Barbados, subregional governments should look towards identifying appropriate and sustainable solutions to their waste issues.

Waste separation at the source should also be established, so that different waste streams could be isolated, thus making it possible to reclaim and recycle some streams (plastic, paper, glass and metal). This should go a step further, as collection programmes should match the streams. Barbados offers a good example, where specially outfitted trucks to collect plastics are included in the fleet of waste vehicles, in order to collect and monitor this waste stream.

In many Caribbean nations, there is already some level of recycling of these materials in progress. The identification of markets or systems which could uptake the waste material would therefore be useful. National organic waste programmes could also be considered, or community compost programmes to treat with this waste stream. Overall, waste disposal systems need to be interconnected and safely implemented to ensure that they are all sustainable and environmentally sound.

Understanding the social and economic potential of solid waste management strategies are critical in determining the most cost effective and environmentally suited strategies for Caribbean countries. From an ECLAC perspective, the economics of restructuring solid waste management strategies in SIDS is worth exploring. ■

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