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## Policy imperatives for the timely production and dissemination of quality and relevant statistics in the Caribbean

### Introduction

Many international development agendas highlight the importance of quality data for sustainable development. With the advent of the data revolution for sustainable development,<sup>1</sup> stakeholders have underscored the value of timely, usable data in informing decision-making and for monitoring progress and evaluating outcomes, be it in relation to national development planning or as regards the achievement of the Sustainable Development Goals (SDGs) and other international development agendas.

Crucially, the COVID-19 pandemic, more than anything else in recent times, has demonstrated the value of timely production and dissemination of data for decision-making. In the Caribbean, at the national and subregional levels, COVID-19 has not only been a public health matter but has also become a socioeconomic issue with many ramifications for how societies operate. As governments tackle the challenges posed by the pandemic and its aftermath, statistics have been one of the essential tools employed by governments to educate citizens about the risks posed by the pandemic and the severe consequences of contracting the COVID-19 disease.

Furthermore, authorities have relied on statistics to assess what public health measures to implement in response to the pandemic and for what duration. However, the extent and efficacy of such measures depend on the capacity to produce data, the quality of the data generated, and the timeliness with which these data are produced and

### Key recommendations

- **National statistical offices (NSOs) in the Caribbean should audit their workforces to identify staffing needs and knowledge gaps**
- **NSOs should survey user statistics' needs and the training needs of their agencies to ensure the production of relevant data**
- **NSOs should establish research units that identify methodological shortcomings and develop new statistical series and indicators to address them**
- **ECLAC and other international partners should facilitate trainings for NSO staff and provide technical assistance to bridge knowledge or methodological gaps**
- **NSOs should establish strategies to bring their countries into full compliance with the principles of national statistical capacity**

<sup>1</sup> See <https://www.undatarevolution.org/>.

disseminated. Many Caribbean countries have done an impressive job in this regard. Since the pandemic's beginning, the subregion's governments published daily updates on the number of infections, hospitalization, deaths, and recovery from COVID-19. Such feats are to the credit of national and subregional epidemiological authorities with a long-standing culture of disease surveillance and reporting for national public health purposes and in fulfilment of international reporting obligations to the World Health Organization. In the tragic circumstance of COVID-19, there is thus a critical lesson to be learned in ensuring the timely production and dissemination of data and statistics, which are essential in informing decision-making.

## Background

Critical statistical capacity and legislative gaps in the National Statistical Systems (NSSs) have been identified as obstacles to the timely production and dissemination of official statistics in the Caribbean (Abdulkadri, 2017; ECLAC, 2019). In the context of these constraints faced by national statistical offices (NSOs), there are arguably opportunities for improving the timeliness of generating and disseminating official data and statistics while maintaining high levels of quality with the modification of specific operating procedures. However, such change in the procedure may require policy changes beyond the administrative authority of NSOs; changes that often can only be implemented through higher levels of political decision-making in government. These include institutionalizing an NSS, implementing data-sharing agreements across government agencies, and operationalizing a data release calendar for major statistical products.

In the wake of the COVID-19 pandemic, the Caribbean frequently released data on infections, hospitalization and deaths caused by the disease from official and unofficial (sometimes unverified) sources. Thus, there has been a better appreciation of data, creating an opportunity to leverage unofficial data sources to address the severe lags in producing official statistics in the Caribbean, especially social and environment statistics. Moreover, the notable work done by many Caribbean countries in timely and publicly disseminating public health data related to the pandemic provides an encouraging signal that the same could be achieved across other areas of official statistics given the right circumstances.

ECLAC conducted a subregional assessment of the capacity of NSS of the Caribbean to produce data for national development and the implementation of the SDGs (Clement 2021). This assessment forms part of a broader study on institutional mechanisms for an integrative approach to implement the 2030 Agenda and the small island developing States (SIDS) Sustainable Development Agenda in the Caribbean. This assessment, among others, sought to identify necessary actions required for NSOs and other producers of official statistics— in terms of process, policy, technology acquisition and technical capacity—to effectively measure and report on progress in the implementation of the SDGs and the SIDS Accelerated Modalities of Action (SAMOA) Pathway.<sup>2</sup>

ECLAC assessment focused on the process, policy, technology acquisition and technical capacity of NSS and involved a survey of the NSOs' senior management teams in nine Caribbean countries.<sup>3</sup> The survey's instrument drew from International Monetary Fund's Data Quality Assessment Framework, the United Nation's National Quality Assurance Framework, and selected modules of the United States Census Bureau/Inter-American Development Bank's Tool for Assessing Statistical Capacity. Overall, questions relevant for assessing fourteen principles or dimensions were adopted or adapted from these frameworks (see table 1).

<sup>2</sup> The SAMOA Pathway links commitments to sustainable development of SIDS and provides a comprehensive framework for addressing the challenges they face in attaining sustainable development.

<sup>3</sup> The study included Antigua and Barbuda, British Virgin Islands, Dominica, Grenada, Jamaica, Montserrat, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago.

Table 1: Principles of National Statistical Capacity

CODE	Principle	Description of the principle	Number of requirements
A	Legal environment	The existence of legislation describing the responsibilities, authority and other organizational factors within the NSS, such as the terms and conditions for the production and dissemination of statistics, including the appointment of the head of statistics.	8
B	Institutional environment	Professional independence; impartiality and objectivity; and transparency.	7
C	Data confidentiality	The availability of guidelines and instructions on the protection of statistical confidentiality throughout the statistical business process, e.g., individual reporters' data are to be kept confidential and used for statistical purposes only, and the NSS staff is aware of the guidelines and procedures.	4
D	Adequacy of resources	The financial, human, physical and technological resources should be adequate for the statistical work program; both in magnitude and quality.	4
E	Quality commitment and management	Quality management is defined as the set of systems and frameworks within an organization to manage and guarantee the quality of statistical products and processes, including managing the statistical system and the institutional environment, as applicable. Some aspects of this dimension are the existence of a quality policy or statement, the training of staff in quality management, and a culture of continuous quality improvement.	6
F	Relevance of statistical products and output	Relevance is the degree to which statistics meet current and potential users' needs. It refers to whether all needed statistics are produced, and the extent to which concepts used (definitions, classifications etc.) reflect user needs.	3
G	Coordinating the National Statistical System (NSS)	A statistical law establishes the responsibilities of the members of the NSS, including its coordination; the establishment of a National Statistical Council or similar advisory body; and the existence of a National Strategy for the Development of Statistics (NSDS).	6
H	Organizational design and management	The existence of mission and vision statements; design of the work program is influenced by National Development priorities and the SDG Agenda, staff evaluation and training.	11
J	Statistical production processes/methodological soundness	The methodological basis for the production of statistics should be sound, and this can be attained by following internationally accepted standards, guidelines, or good practices. Some other important aspects are accuracy, reliability, timeliness, cost efficiency etc., of the source data. Sampling and Non-sampling errors are monitored.	11
K	Accuracy of statistical output	The statistical output gives an adequate picture of the reality. Sound Statistical procedures and techniques are employed. Some aspects of this dimension are timeliness, punctuality of data collection and metadata management.	4
L	Data dissemination and data accessibility	Data and metadata should be presented clearly and understandably and should be readily available to users. Metadata should also be relevant and regularly updated. In addition, assistance to users should be available, efficient and performed in a reasonable time frame.	7
M	Advocacy and communication	A Communication and/or Advocacy Unit exist within the Statistical Agency that promotes the organization to the public and external partners. There are processes in place to promote literacy, mobilize funding and partner with the media to communicate messages to the various audiences.	6
N	Administrative records	Administrative records are data originally collected for non-statistical purpose. Control of the methods by which the administrative data are collected and processed should rest with the administrative agency. In most cases the administrative agency will be a government unit. A List of sources of Administrative Records with key variables for developing Administrative Records Databases has been developed.	3
O	Strategic planning -NSDS design and implementation	The country has designed or implemented an NSDS or plans to design and implement one which will be financed through Gov't Expenditure and the assistance of International Development Partners.	3

Source: Clement, D. (2021), UN-ECLAC Assessment of the Capacity of the National Statistical Systems of the Caribbean Subregion to produce data for national development and the implementation of the SDGs. NSS Capacity Assessment Caribbean Subregion Report: Production of Data for Development Planning and the SDGs, ECLAC.

The number of requirements under each principle varied from three to eleven. The survey’s respondents were asked to rate their NSS’ compliance to each requirement on a scale of 1-4, where 1 represents non-compliance and 4 represents full compliance. The average respondent rating for each principle is considered a benchmark of the level of subregional capacity in upholding that principle. Therefore, the average rating provides the basis for making policy recommendations on ensuring the timely production and dissemination of quality data and statistics in the Caribbean.

## National Statistical System Assessment

A total of 51 senior management professionals at the NSOs of the nine countries covered in the ECLAC survey rated their NSO’s performance based on the 14 principles. The summary statistics of the rating are reported in table 2. Six principles had an average rating between 3.01 and 3.38, equivalent to their partial compliance. The remaining eight principles had an average rating of 2.06 to 2.90, equivalent to low compliance on these principles. The top three rated principles are data confidentiality, dissemination standards and data accessibility, and accuracy of statistical output, with most respondents rating their NSO as fully compliant with data confidentiality. At the other end of the spectrum, the relevance of statistical products and output, coordination of the NSS, and administrative records are the principles rated in the bottom three, with most respondents assessing their NSO to be in low compliance concerning the relevance of statistical products and output, and coordination of the NSS.

The survey’s results are interesting revelations. Although much has been said about the timeliness of the production and dissemination of quality statistics in the Caribbean, senior professionals in the field rated two principles most highly—the dissemination standards and data accessibility and quality commitment and management principles. This perception suggests that within the official statistics circle, senior officials have a reasonable degree of

confidence in the quality of official statistics and the presentation of data to and accessibility of data by users. So why is the perception of untimely and inadequate data production pervasive among data users in the Caribbean? The answer to this question may lie in the low compliance rating for statistical products and output relevance. Suppose NSOs are not providing policymakers and other data users with the most current and relevant statistical data. In such a case, policymakers will not have the most current quantitative evidence to inform their decisions.

Table 2: Summary statistics of respondents’ rating of the 14 Principles of Statistical Capacity

Principle	Mean	Standard deviation	Mode
Data confidentiality	3.38	0.55	4
Dissemination standards and data accessibility	3.19	0.57	3
Accuracy of Statistical Output	3.14	0.56	3
Legal environment	3.11	0.39	3
Statistical production processes	3.1	0.49	3
Institutional environment	3.01	0.58	3
Organizational design and management	2.9	0.58	3
Quality commitment and management	2.82	0.76	3
Advocacy and communication	2.46	0.85	3
Strategic planning	2.32	0.82	3
Adequacy of resources	2.28	0.55	2
Administrative records	2.21	0.93	3
Coordination of the NSS	2.17	0.58	2
Relevance of statistical products and output	2.06	0.62	2

Source: Clement, D. (2021),(see table 1).

One of the three requirements under the principle of relevance is for statistical agencies to consult with users and data producers occasionally. Moreover, conducting user satisfaction surveys is also essential. NSOs should use the feedback from these consultations and surveys to adjust statistical programs and services. However, respondents of the ECLAC survey opined that Caribbean NSOs are non-compliant with this principle.

The lack of NSS coordination is another significant result from the survey where the respondents pointed to a vital deficiency. The respondents point to the lack of a national statistical council, or equivalent body, to coordinate the implementation of national statistical plans between NSOs and other official statistics-producing bodies. The average rating of 2.17 on the NSS coordination principle was the second-lowest score for all categories.

## Threats and opportunities

The senior management of Caribbean NSOs appreciated the socioeconomic, political, and environmental conditions which can hinder or advance their offices' capacities. In other words, they identified the threats and opportunities that NSOs face for the timely production of quality statistical data in the Caribbean.<sup>4</sup>

The Caribbean subregion faces critical socioeconomic and environmental challenges, such as crime, poverty, limited resources for social policy measures, and disasters. The COVID-19 pandemic and climate change have exacerbated these critical challenges, which threaten NSOs' current capacities and future capacity-building. For example, disasters like hurricanes can destroy vital national infrastructure for data collection. Furthermore, the wake of the COVID-19 pandemic produced grave health and socioeconomic costs, such as increased unemployment and poverty, which diverts limited state financial resources away from NSOs and toward funding essential social policies.

Notwithstanding, the Caribbean's critical socioeconomic and environmental threats also create significant opportunities identified by the subregion's NSOs. The timely production of quality data constitutes the essential basis for conceptualizing and implementing effective socioeconomic policy measures. These measures addressing issues such as unemployment, poverty, and vulnerability to severe weather events require that NSOs provide government agencies with quality data, including gender- and age-disaggregated socioeconomic data. Nevertheless, NSOs in the subregion can only harness these opportunities if they overcome specific political and economic challenges.

The Caribbean's socioeconomic challenges create significant financial pressures on the already strained government budgets. Such financial strains create the main threat to Caribbean NSOs, which primarily manifests in understaffing and underfunding. NSOs senior management teams reported that a critical threat to their capacities is the insufficient staffing of their offices, particularly with qualified statisticians and surveyors. Hence, understaffing poses a severe threat to NSOs in fulfilling their mandates. Furthermore, the need to fund recovery measures in response to disasters and implement social protection programmes because of the worsening socioeconomic condition limits resources available to NSOs. Ironically, the timely dissemination of quality data produced by NSOs allows governments to adequately target their social policies, especially in the wake of external shocks. In addition to threats resulting from limited resources, frequent changes in executive administrations of governments shift policy priorities, thus further divert resources away from NSOs.

Nevertheless, drawing from their institutional strengths, the identified threats provide opportunities for Caribbean NSOs. NSOs' senior management reported that their offices enjoy crucial independence to carry out their mandates. They also enjoy a high degree of institutionalization at the national level. At the regional level, Caribbean countries coordinate and receive statistical capacity assistance from the

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<sup>4</sup> It is important to note that ECLAC received 36 responses out of the original 51 responses from the NSOs' senior management teams regarding the threats and opportunities that they face. The questionnaire on threats and opportunities was an additional survey to the main one regarding the NSOs' compliance with the principles of national statistical capacity.

Regional Statistics Programme Office at the CARICOM Secretariat, the Statistics Services Unit of the OECS Commission, and other international partners, such as ECLAC. If governments provide adequate resources to the NSOs, their high degree of institutionalization and available regional capacity assistance would significantly strengthen the NSOs' abilities to produce timely and quality statistical data. Such data are critical in informing and making more effective social policy measures, thus contributing to the fulfilment of national development priorities and the SDGs.

## Policy recommendations

To enhance the capacity of Caribbean National Statistical Systems to produce and disseminate quality statistics promptly, ECLAC offers the following recommendations for the consideration of Caribbean governments:

1. Undertake a workforce audit of the NSOs and the other producers of official statistics to acquire up-to-date information on their staffing and know-how needs.
2. Conduct a training needs assessment survey to help identify skills and competencies within the relevant organizations and help develop training programs to bridge skill gaps.
3. Develop career development and succession plans to encourage skilled staff to remain in the NSOs or in statistical roles in other ministries, departments and agencies of government that produce official statistics. Succession planning is essential to ensure the viability of Caribbean NSSs.
4. Update the Statistics Acts or Ordinances, as relevant, to (a) include the definition of the National Statistical System, (b) include the definition of Official Statistics, (c) provide the NSO right of access to administrative records for statistical purposes and (d) establish the supremacy of the Statistics Acts or Ordinance above other legislation in matters relating to official statistics.

5. Hold data user/producer consultations and user satisfaction surveys at least once every year to improve the utility of statistical data for users.
6. Prepare annual reports on the activities and developments in the NSS to promote transparency and accountability.
7. Promote and encourage the formation within NSOs of research units that evaluates existing methodologies and processes while also managing the development and introduction of new statistical series and indicators.
8. Establish strategies for conceptualizing and implementing significant changes to bring NSOs in full compliance with the principles of national statistical capacity.

Similarly, ECLAC recommends the following for the consideration of regional agencies and international development partners that have a mandate or interest in the area of statistics:

1. Organize a biennial high-level forum within the subregion to bring together the relevant policymakers at the national and international levels to discuss issues regarding the collection of official statistics.
2. Undertake periodic peer reviews of the National Statistical Systems of the Caribbean.
3. Provide technical support to address methodological challenges and provide methodological training in compiling data for SDG indicators.
4. Provide technical assistance that covers expert training in specialized areas of statistics and provision of specialized statistical services.
5. Organize training in metadata documentation, survey sampling, and data analysis, including big data and data science.
6. Organize training in quality management, change management and national strategies for developing statistics.
7. Assist countries in designing and implementing national strategies for the development of statistics.

8. Encourage and support South-South cooperation initiatives in official statistics.

## Conclusion

Building capacities for the timely production and dissemination of statistical data is essential for Caribbean decision-makers to achieve their socioeconomic policy goals. However, Caribbean countries face several challenges that hinder the timely production and dissemination of quality official statistics. Nevertheless, the COVID-19 pandemic clearly exemplified how the dissemination of timely and quality data regarding infections, deaths, lingering symptoms, and recoveries formed the basis of effective public health measures. That experience bolstered the case for greater

investment in national statistical offices and other agencies of government that produce office data to ensure that quality data are available to policymakers to design and implement effective policy measures.

This policy brief outlines policy recommendations for governments, regional organizations, and international development partners to leverage the current opportunities to advance official statistics in the Caribbean. Key among these recommendations are practical measures to address methodological shortcomings and skill gaps through training and technical cooperation. In this regard, ECLAC and other international partners have a crucial role in facilitating the necessary international cooperation to implement these recommendations.

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