



**CARIBBEAN COMMUNITY (CARICOM)
REGIONAL STRATEGY FOR THE DEVELOPMENT OF
STATISTICS (RSDS) - 2019-2030**

THE STRATEGIC FRAMEWORK

April 2018

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ATTACHMENT

**ATTACHMENT I SELECTED REGIONAL PUBLIC GOODS TO SUPPORT
THE IMPROVEMENT OF STATISTICS IN CARICOM**

GLOSSARY

LIST OF ACRONYMS

AC	-	Advocacy and Communication
AGS	-	CARICOM Advisory Group on Statistics
CAPI	-	Computer-assisted Personal Interviewing
CAPS	-	Caribbean Association of Professional Statisticians
CARICOM	-	Caribbean Community
CGSP	-	CARICOM Code of Good Statistical Practices
CQAF	-	CARICOM Quality Assurance Framework
CSME	-	CARICOM Single Market and Economy
CSS	-	CARICOM Statistical System
e-CISTAR	-	Establishment of the [virtual] CARICOM Institute for Statistical Training and Research
EDF	-	European Development Fund
EU	-	European Union
GIS	-	Geographic Information Systems
GOV	-	Governance
GPS	-	Global Position System
GSBPM	-	Generic Statistical Business Process Model
HGC	-	Conference of Heads of Government of CARICOM
HLF	-	High Level Advocacy Forum
HRD	-	Human Resource Development
ICT	-	Information and Communication Technologies
IDB	-	Inter-American Development Bank
IDPs	-	International Development Partners
IN	-	Innovation

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ISS	-	Integrated Statistical Systems
IT	-	Information Technology
MDAs	-	Ministries, Departments and Agencies
MOU	-	Memorandum of Understanding
NSDS	-	National Strategy for the Development of Statistics
NSO	-	National Statistical Office
NSS	-	National Statistical System
NSWP	-	National Statistics Work Programmes
PARIS21	-	Partnership in Statistics for Development in the 21st Century
RSDS	-	Regional Strategy for the Development of Statistics
RSO	-	Regional Statistical Office
RSP	-	Regional Statistics Programme
RSWP	-	Regional Statistical Work Programme
SAMOA Pathway	-	Small Islands Developing States Accelerated Modalities of Action Pathway
SCAs	-	Statistical Conference of the Americas
SCCS	-	Standing Committee of Caribbean Statisticians
SDGs	-	Sustainable Development Goals
SDMX	-	Statistical Data and Metadata eXchange
SH	-	Standards and Harmonisation
SIDS	-	Small Island Developing States
SNA	-	System of National Accounts
TWG	-	Technical Working Group
UN	-	United Nations
UNECE	-	United Nations Economic Commission for Europe

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UNSC	-	United Nations Statistical Commission
UNSD	-	United Nations Statistics Division
UNSG	-	United Nations Secretary General
UN Women MCO	-	United Nations Entity for Gender Equality and the Empowerment of Women Multi-Country Office for the Caribbean

**PREAMBLE TO THE CARICOM REGIONAL STRATEGY FOR THE
DEVELOPMENT OF STATISTICS**

“BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY”

The Caribbean Community (CARICOM) from its inception in 1973 recognised the importance of adequate statistical services in achieving its goals and aspirations. Within the framework of the **Treaty**¹ establishing the Caribbean Community and in accordance with **Resolution No. 54/74/4 of the Fourth Meeting of the Common Market Council of Ministers** under the general supervision of Council, CARICOM established the **Standing Committee of Caribbean Statisticians (SCCS) in 1974**, one year after the establishment of CARICOM. The objectives of the SCCS as given by Council in 1974 were, *inter alia*,

“to foster increased recognition of the importance of adequate statistical services to the countries of the region; to widen the scope and coverage of statistical data collection; and to improve the quality, comparability and timeliness of statistics produced.”

Harmonised statistical information is an essential ingredient in planning, monitoring and evaluating the development of the Region². Official Statistics is a public good that provides a statistical and information infrastructure responsive to the needs of citizens, public and private decision-makers, researchers, the media and other users. Notwithstanding its importance, developing countries like those in CARICOM remain challenged in their delivery of quality statistics for use in policy and other developmental concerns. Additionally, recent obligations at the regional and international levels have placed new demands on national and regional statistical systems, rendering the need for regional cooperation in statistics even more urgent, beginning with the need to reinforce statistical development at the country level. Strong regional cooperation on statistics would be of benefit to both regional stakeholders and to national statistical systems, as the latter play a crucial role in policy formulation, monitoring and evaluation.

In this context, Heads of Government, at the Thirty-Seventh Regular Meeting of the Conference of Heads of Government (HGC) of the Caribbean Community, held in July 2016 agreed upon the need for a CARICOM Regional Strategy for the Development of Statistics (RSDS) (**HGC/2016/37/9**), in endorsing the Action Plan for Statistics in the Caribbean³. The Action Plan which consisted of actions recommended to be taken by Governments will, through improvements in the availability of statistics for evidence-based decision-making at all levels, result in better development outcomes and greater prosperity for the peoples of CARICOM. At the 38th HGC held in Grenada in July 2017, Heads of Government endorsed the preparation of the RSDS relative to its strategic role in strengthening statistics and improving its availability for

¹ Treaty of Chaguaramas, 1973

² Some of the text included in this Preamble are excerpts/adaptations taken from the presentation made to the 38th Meeting of the Conference of Heads of Government held in Grenada in July 2017 on the preparation of the RSDS

³ Presented by the Member State of Grenada. The Action Plan was developed by the SCCS.

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evidence-based decision-making (HGC/2017/38/15) entitled “Regional Plan for Statistics Development”).

The critical step that followed the decision of the 38th HGC was the elaboration of the RSDS. The RSDS, draws from a number of guiding principles and imperatives committed to by the Region in collaborative fora, including those of PARIS21⁴, as follows:

- **Responding to the statistical requirements of the regional development agenda**, without infringing on the sovereignty of Member States, since the regional development agenda comprises priorities that have been agreed upon by CARICOM Member States. Some of the data required to inform the regional development agenda may not be currently available among Member States. RSDSs are appropriate instruments to address this challenge and to assist in the narrowing of statistical development gaps.
- **Assuring comparability of data in and across all Member States:** The formulation, implementation and monitoring of regional policies would require harmonised and comparable data in all Member States. The RSDS would identify regional strategies and activities that would harmonise conceptual frameworks, methods, and tools for ensuring data comparability. This may also include the adoption of binding statistical regulations in conformity with recommendations and international standards.
- **Strengthening links and convergence between the regional and national levels**, as the RSDS implies close cooperation and collaboration among Member States.
- **Pooling statistical skills, expertise and resources at the regional level:** One of the value-added aspects of regional statistical cooperation which must be a critical part of the RSDS is the identification and pooling of human resources in possession of the statistical skills and expertise needed in the Region (e.g. demographers, national accountants, survey experts, gender specialists, etc.). These experts will be deployed in Member States and/or in “regional training centres”.
- **Enabling the development of statistical tools and services at the regional level** that are more cost effective than at the national level. Likewise, it contributes to strengthening statistical capacities and promotes harmonisation.
- **Facilitating, coordinating and strengthening representation with respect to external partners.** The RSDS must include strategies that strengthen relationships and foster engagements among Member States, development partners, and the larger international statistical community.
- **Highlighting South-South cooperation as a means of strengthening statistical capacity** across the Region and facilitating the sharing of best practices.

⁴ PARIS21 stands for Partnership in Statistics for Development in the 21st Century and it operates under the Organisation of Economic Cooperation and Development (OECD). It was founded in November 1999 by the United Nations, the World Bank, the International Monetary Fund, the OECD, and the European Commission in response to the UN Economic and Social Council resolution on the goals of the UN Conference on Development.

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- **Serving as a framework for the implementation and monitoring of the Agenda 2030 at the regional level.** A regional approach for CARICOM for implementation and monitoring of the SDGs must include sustained strengthening of the national and regional statistical systems which generate official statistics as a central element of the statistics architecture. Accordingly, given the paucity of financial and human resources, providing critical support constitutes an imperative. The RSDS offers a useful framework in this regard.
- **Adding value through the more efficient use of resources in the production of harmonised intra-regional statistics:** An overarching framework for statistics development can enhance and promote regional solutions and approaches to statistics development, strengthen the weaker national statistical/offices and systems, and enable the achievement of economies of scale.

The SCCS, which recommended the development of the RSDS in the Action Plan, has served as a foundation for coordinating the development of statistics in CARICOM, broadening its objectives over time in order to achieve its mandate. The SCCS established subsidiary committees and groups including: the Regional Census Coordinating Committee (RCCC), the CARICOM Advisory Group on Statistics (AGS) and Technical Working Groups (TWGs).

The Regional Statistical Programme (RSP) of the CARICOM Secretariat, which functions as a Regional Statistical Office (RSO), coordinates the functioning of the SCCS and its subsidiary groups and is therefore the focal point for monitoring the achievements of the CARICOM Statistical System (CSS)⁵ such as through the implementation of the common Regional Statistics Work Programme (RSWP). The mission of the RSP is to develop sustainable statistical infrastructure across Member States/Associate Members of the Community and within the Secretariat, providing accurate, timely and reliable statistical information on CARICOM and promoting the effective and efficient use of these statistics in decision-making. The RSP also plays a leadership role in coordinating the implementation of capacity-building initiatives for the strengthening of the CSS, with funding received from International Development Partners (IDPs). The RSP pays special attention to the principle of subsidiarity which implies that the regional office will not undertake work that should be done at the country level and would provide support that is country-driven and country owned and when requested.

To facilitate its work, the RSP relies heavily on the National Statistical Offices (NSOs) and in general the NSSs to source official statistics of Member States in establishing regional statistical databases and statistical indicators for monitoring the performance of the CARICOM Single Market and Economy (CSME) as well as the progress with development goals and targets of a number of international and regional frameworks.

The CSS has undertaken a number of initiatives (some in progress) in support of statistical development and often in collaboration with or funding from a number of IDPs. These initiatives include:

- The Regional Statistics Work Programme (RSWP);

⁵ The CSS therefore comprises the RSP, the NSS- NSO and Other Producing Units.

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- The Resolution on Statistical Development;
- The CARICOM Statistics Model Bill;
- Regional Census Coordination - Common Census Framework;
- First and Second High Level Advocacy Forum;
- Code of Good Statistical Practices;
- Quality Assurance Framework;
- Data Management Framework;
- Several Capacity-building activities across Economic, Social/Gender, Environment and ICT Statistics;
- Centres of Excellence in Statistics and a Programme of Attachment;
- Identification of Core Data Sets and CARICOM-Specific Indicators.

The mandate for the development of the RSDS and NSDS at the regional and national levels dates back to the **Eighth Meeting of the Community Council (the Council) and its Resumed Session held in 2001** at which Council noted the approach **to enable strategic direction for the development of statistics in CARICOM** including: efforts to harmonise statistics in the Region; to document statistical methodologies and the processes of data collection and compilation; and to enhance the ability to effectively depict the socio-economic status of CARICOM Member States through the establishment of a core set of socio-economic statistics. **The Fifteenth Meeting of the Council held in Guyana in 2005** recommended that **regional and national strategies** should be prepared with financial proposals to enable the implementation of the common Regional Statistical Work Programme (RSWP) which was approved by the Council in that year.

There are many challenges facing CARICOM countries as Small Island Developing States (SIDS) that impact the capacity to implement the RSWP and fundamentally affect the availability of statistics for use by policy and decision-makers. Some of the challenges that impact the availability of Statistics include:

- Small size of the National Statistical Offices (NSOs);
- Staffing – Inadequate staff at both the regional and national levels; Lack of trained Staff; High Staff turnover for some offices; Need for Staff that are simultaneously more technologically and analytically sound in the realm of being data scientists;
- Increased demand for Statistics in an environment of declining resources of governments, exacerbating the data gaps;
- Outdated Legislative Frameworks;
- Need to stay relevant by providing the data required by users and people of the Region to take decisions and be informed, in a timely, easily accessible and with user-friendly formats;
- Absence of a National Statistical System- lack of coordination of the producing agencies that may impact the reliability of the data produced and intensify the data gaps;
- Absence of coordinated response by IDPs resulting in a duplication of efforts, waste of resources and intensification of the burden on the NSOs;

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- Leadership and Management issues may arise with regard to the absence of a coordinated NSS –rendering them incapable to respond or to treat with existing challenges of data availability and to also respond to new challenges of data demands.

The above challenges will be exacerbated by the increased national, regional and international demands for statistics that require strengthening of the national statistical systems inclusive of access to much needed resources for the functioning of these systems ranging from basic data collection programmes, adopting updated methodological frameworks and classifications and providing the users with statistics that are fit for purpose. The 37th HGC also recognised the increasing demands placed on statistical systems emanating from the commitment of Member States to the CARICOM Single Market and Economy (CSME), the Community Strategic Plan 2015-2019, the United Nations 2030 Agenda for Sustainable Development (Agenda 2030)⁶, and the SIDS Accelerated Modalities for Action (SAMOA) Pathway.

In advancing the development of the RSDS, the RSP requested support from the Partnership in Statistics for Development in the 21st Century (PARIS21). The RSDS should be aligned with National Strategies for the Development of Statistics (NSDS)⁷ where these are being developed in countries. The RSDS should take into consideration the main challenges confronting the producers of official statistics in their attempt to satisfy the continuously evolving demand for statistics about the region and will serve as the **Strategic Roadmap** to guide the process of transformation of the CSS. **The RSDS is country-owned and is building on and being informed by the initiatives developed by Member States/Associate Members through the AGS/SCCS** and that are in varying stages of implementation, such as, the CARICOM RSWP⁸, the Model Statistics Bill, the Centre of Excellence in statistics and the CARICOM Quality Assurance Framework/Code of Good Statistical Practices. These initiatives will be reinforced through Centres of Excellence in statistical offices, and the embedding of statistics as a data science in the school curriculum.

The design of the CARICOM RSDS includes the following key phases:

- **Phase 1** – Comprehensive assessment of the CARICOM regional and national statistical systems, building on the results of the Diagnostic Assessment of the National Statistical Offices (NSOs) of Caribbean countries conducted in 2011/2013; and preparation of a roadmap for the design of the RSDS.⁹
- **Phase 2** – RSDS Formulation, including visioning, objective-setting, strategising, and action planning with budgeting.

⁶ The 2030 Agenda comprises 17 goals, 169 targets and approximately 232 indicators.

⁷ An NSDS is expected to provide a country with a strategy for developing statistical capacity across the entire national statistical system (NSS). The NSDS will provide a vision for where the NSS should be in five to ten years and will set milestones for getting there. It will present a comprehensive and unified framework for continual assessment of evolving user needs and priorities for statistics and for building the capacity needed to meet these needs in a more coordinated, synergistic and efficient manner. It will also provide a framework for mobilising, harnessing, and leveraging resources (both national and international) and a basis for effective and results-oriented strategic management of the NSS.

⁸ The Regional Statistical Work Programme (RSWP) was approved by the Fifteenth Meeting of the Community Council in 2005. It contains the common core of statistics that should be produced across all Member States of CARICOM.

⁹ The Roadmap comprises governance mechanisms for the allocation of roles and responsibilities, the identification of resource requirements, consultation arrangements and review mechanisms.

- **Phase 3** – Dissemination and Advocacy.

The Assessment Phase of the CARICOM RSDS is completed. The RSDS formulation is in progress and the Draft Strategic Framework arising out of the validation meetings and presentation to the 42nd SCCS was prepared and was circulated for review after which it was revised and re-circulated for final comments. The Strategic Framework, as presented, includes: The Vision, Mission, Core Values, the Strategic Framework Value Chain and some indicative Actions that can inform the Implementation Plan. The preparation of the Implementation Plan with a Budget will follow.

The CARICOM RSDS constitutes the **shared foundation** upon which the Region's statistical capacity will be developed. It is therefore critical that once formulated, it is adopted at the highest political level of CARICOM, along with the **commitment of resources** for its implementation.

Accordingly, a Budget will be prepared for the work associated with the national agencies (NSO/NSS in Member States/Associate Members) and for the regional office (RSP), which should provide for, *inter alia*, adequate staffing, training, data collection from surveys on a continuous basis, administrative data exchange, state-of-the-art IT infrastructure, statistics legislation, and other related issues.

Fundamentally, given the increased/increasing demand for statistics as well as the recognition of its necessity in decision-making at all levels of the Community, the staffing of the CSS inclusive of the RSP and the NSOs/NSS will need to be addressed as a priority.

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STRATEGY FOR THE DEVELOPMENT OF STATISTICS
(RSDS) 2019-2030
STRATEGIC FRAMEWORK**

THE CARICOM RSDS 2019-2030 STRATEGIC FRAMEWORK

1. THE CARICOM STATISTICAL SYSTEM (CSS) -VISION, MISSION AND CORE VALUES

The CARICOM Statistical System (CSS) comprises the National Statistical Offices, other Producers of Statistics in Ministries, Departments and Agencies (MDAs) of Member States and Associate Members and the Regional Statistics Programme (RSP) of the CARICOM Secretariat. The NSO and the other producers of Statistics in the MDAs make up the National Statistical System (NSS).

1.1 VISION

A CARICOM Statistical System (CSS) that is recognised for professional excellence and is the premier source of high-quality, harmonised statistics on the Community.

1.2 MISSION

To provide CARICOM and the Global Community with high quality, harmonised, national and regional statistics for evidence-based decision-making, research, the empowerment of the people and for the achievement of sustainable economic growth and development.

1.3 CORE VALUES

Professional Independence: We commit to producing and disseminating official statistics that respect and adhere to scientific independence through the preconditions of scientific competence and impartiality of the staff of the CSS. We also commit to ensuring that the use and benefit of official statistics are dependent on their credibility and on the confidence that users would have in these statistics and will make every effort to ensure that official statistics is free from political and other biases.

Transparency: We commit to make available to all staff and users, statistical standards, policies and compilation practices that are clear, understandable and accessible. We will ensure equity in availability of official statistics to all categories of users.

Integrity: We strive to produce results that reflect observed phenomena in an impartial manner and present data and analyses honestly and openly. We practice truthfulness and honesty and are accountable for our actions. We ensure that official statistics provide objective criteria to make individual, private and public decisions.

Confidentiality: We guarantee absolutely, the privacy of data providers-households, individuals, enterprises, administrations and other respondents. We firmly commit to the confidentiality of the information they provide and the use of this information only for statistical purposes. In cases when data points might allow for uniquely identifying individuals, we commit to using anonymization techniques to ensure full confidentiality.

Quality: We commit to ensuring a high level of quality in the production and dissemination of official statistics in the CSS. We emphasise the pivotal role for the CARICOM Quality Assurance Framework (CQAF) and the CARICOM Code of Good Statistical Practices (CGSP) that can serve to systematically and consistently assess, compare and improve the quality of the statistics produced across the CSS, through improvement in the institutional environment, statistical processes and outputs. We commit to ensuring trust and confidence in the quality of the official statistics of the CSS

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through the **branding** of official statistics that are produced and disseminated such that they are distinguishable, based on their high quality, from other statistics produced outside of the CSS.

Accessibility:

We practice the presentation of official statistics in a clear and understandable form, its dissemination in a suitable, timely and convenient method and its availability and accessibility in an equitable manner to all users.

User Orientation/

Customer Focus:

We commit to building a culture in the statistical organisations of the CSS that is demand-driven, based on customer focus/user orientation. We practice continuous engagement with our customers/users and employees. We undertake to use feedback from the customers and the employees of the CSS as a basis to review and develop the values of the CSS and to link these values so developed to the brand of official statistics. We encourage the employees of the CSS to align their behavior with and to live the brand based on user orientation/customer focus and to reward them for the same.

2. THE RSDS STRATEGIC FRAMEWORK

2.1 AN OVERVIEW OF THE ULTIMATE OUTCOME, STRATEGIC PRIORITIES TO 2030 AND STRATEGIC DRIVERS

The **Ultimate Outcome** that is to be achieved is:

An efficient CARICOM Statistical System (CSS), that is responsive to the national, regional and global development agenda, enabling a resilient Community with sustained economic growth and development

The RSDS that is to enable the transformation and modernisation of the CSS, centres around **five (5) Strategic Priorities** that will be applied to overcome the challenges being experienced by CARICOM Small Island [and Low-Lying Coastal] Developing States (SIDS) in the development of the statistical infrastructure on a sustained basis. The CSS should be well-coordinated and should be responsive to emerging concerns of the Community. The five (5) Strategic Priorities that seeks to provide the statistical requirements to enable the Ultimate Outcome are:

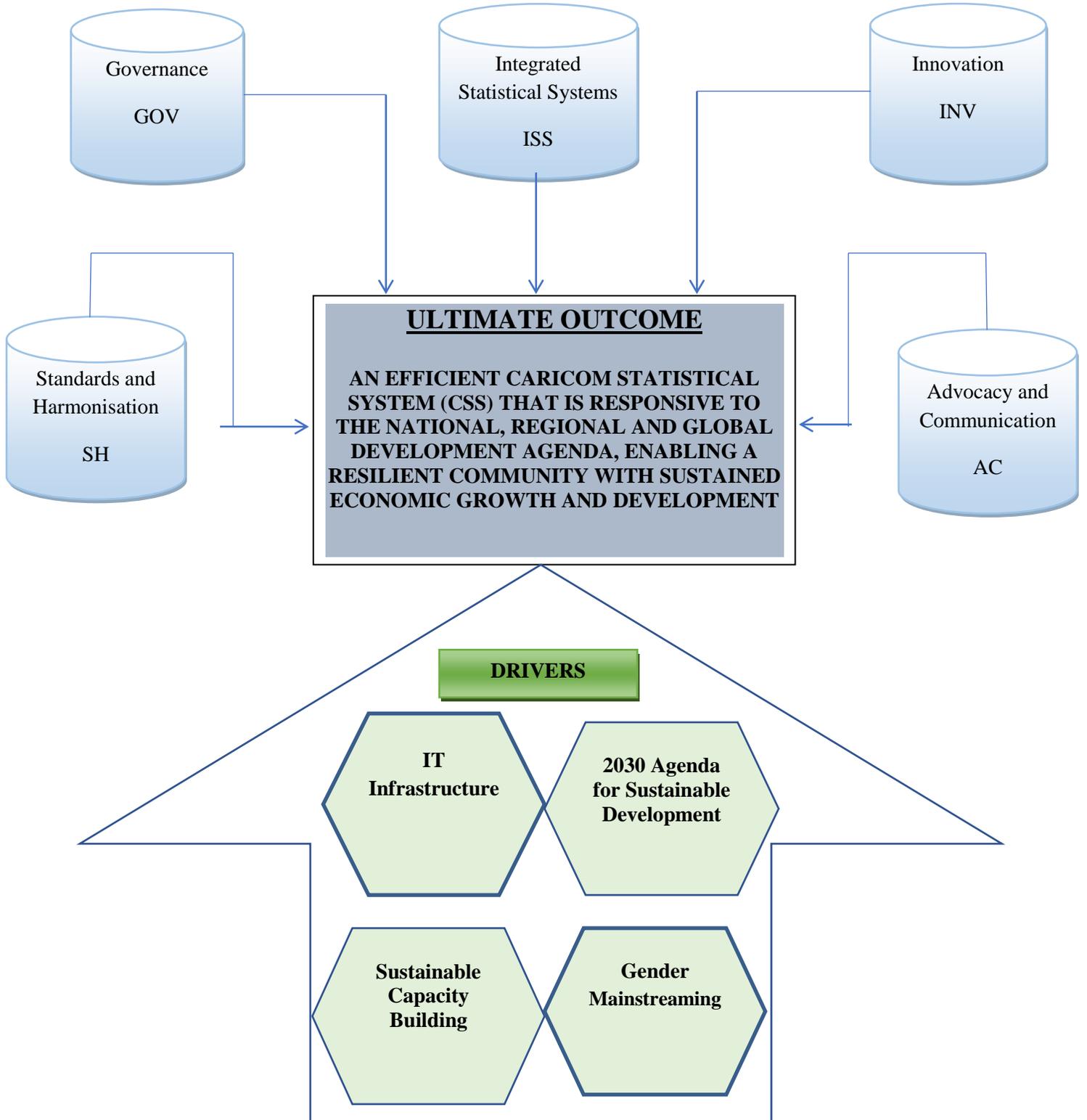
1. Standards and Harmonisation;
2. Governance;
3. Integrated Statistical Systems;
4. Innovation; and
5. Advocacy and Communication

There are **four (4) Strategic Drivers or Enablers** that are informing the Strategic Priorities, and which are also necessary for the achievement of the strategic objectives and ultimate outcome:

1. IT Infrastructure;
2. The 2030 Agenda for Sustainable Development;
3. Sustainable Capacity Building, and
4. Gender Mainstreaming.

FIGURE 1. THE RSDS STRATEGIC FRAMEWORK

ULTIMATE OUTCOME, STRATEGIC PRIORITIES AND DRIVERS



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2.2. THE RSDS STRATEGIC FRAMEWORK VALUE CHAIN

VISION	A CARICOM Statistical System (CSS) that is recognised for professional excellence and is the premier source of high-quality, harmonised statistics on the Community.				
MISSION	To provide CARICOM and the Global Community with high quality, harmonised, national and regional statistics for evidence-based decision-making, research, the empowerment of the people and for the achievement of sustainable economic growth and development.				
ULTIMATE OUTCOME	An efficient CARICOM Statistical System that is responsive to the national, regional and international development agenda, enabling a resilient Community with sustained economic growth and development.				
					
[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
GOALS	To Advance the production of High Quality, Comparable, national and intra-regional statistics.	To Enable an effective and modern Governance Structure and Institutional Arrangements.	To Establish a cohesive and coherent architecture in the production, processing and dissemination of statistics.	To Enable and facilitate the development and sharing of innovative methods, tools and technologies in the production and dissemination processes in the CSS.	To Raise the profile and the value of statistics to effect change and to empower institutions and individuals to use statistics effectively in decision-making.
STRATEGIES	SH1: Strengthen and implement a common programmatic approach to systematising the production of high quality harmonised statistics based on alignment of the National Statistics Work Programmes (NSWP) with the common and updated Regional Statistical Work Programme (RSWP).	GOV1: Strengthen and support the Regional Coordination Mechanism of the CSS as an overarching governance structure for the transformation and modernisation of statistics in the CSS.	ISS 1: Develop and implement a common statistical architecture for the CSS, based on a statistical Business Process Model.	INV1: Develop and implement an interoperable network of national, regional and global platforms of data services and applications (such as Open Data, Cloud Computing and Statistical Data and Metadata eXchange (SDMX)-based applications).	AC1: Develop and promote sustained communication and advocacy strategies in support of the transformation and modernisation of statistics in the CSS.

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[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
	<p>SH2: Facilitate conformity of the approaches to the production and dissemination of statistics at the national level with international and regional standards.</p>	<p>GOV2: Modernise the Governance Structures of the National Statistical Systems (NSS) and specifically of the National Statistical Offices (NSOs).</p>	<p>ISS2: Exploit the opportunities and advance the adoption and implementation of new and existing methodological frameworks and data sources (such as, CARICOM_SIDS specific methodologies, surveys, administrative and Big Data applications).</p>	<p>INV2: Promote and enable innovations in modern methodological and analytical advances in Statistics including the new approaches of data science, that are suited/can be adapted for CARICOM SIDS</p>	<p>AC2: Develop and implement frameworks on statistical literacy in CARICOM.</p>
	<p>SH3: Advance the implementation of the CARICOM Code of Good Statistical Practices (CGSP) and finalise the development and commence implementation of the CARICOM Quality Assurance Framework (CQAF).</p>	<p>GOV3: Enable the Development of Coordinated National Statistical Systems (NSS).</p>	<p>ISS3: Enable the application of an interoperable ICT infrastructure in the development and functioning of the CSS.</p>		<p>AC3: Develop a CARICOM Statistics Brand as a hallmark of quality, nationally, regionally and internationally.</p>
		<p>GOV4: Enable a regional mechanism to sustainably support/fund the development of statistics from national, regional and international sources, inclusive</p>			<p>AC4: Develop and implement dissemination frameworks and platforms including websites, data hubs and portals.</p>

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[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
		of in-kind resources.			
		GOV5: Build strategic partnerships with relevant partners (such as, International Development Partners (IDPs), the private sector, national, regional and international universities, including private universities), for the development of statistics in the CSS.			
					
STRATEGIC OBJECTIVES	<ol style="list-style-type: none"> To produce a common core of relevant statistics across the CSS. To harmonise statistics across the CSS that also conforms to international standards. To produce high quality statistics in the CSS in accordance with the CARICOM Quality Assurance Framework (CQAF). 	<ol style="list-style-type: none"> To modernise and improve the regional governance and coordination mechanisms and structures. To improve the effectiveness of the governance arrangements within the National Statistical Systems, specifically ensuring an effective and fully-functioning NSS (NSDS, updated legislation data-sharing, national committees, MOUs in place as required, etc.). 	<ol style="list-style-type: none"> To develop and implement a common statistical production architecture for an integrated CSS based on the Generic Statistical Business Process Model (GSBPM). To implement an interoperable ICT architecture to facilitate an integrated data management system (such as, the use of cloud computing for storage, analysis, 	<ol style="list-style-type: none"> To establish an environment that is conducive to explore and exploit the opportunities for innovations presented by the data revolution. To leverage innovative methodological frameworks, best practices and sources, including exploiting Big Data (such as, scanning data on prices, and passengers carried in transportation systems, Mobile Phones locations). 	<ol style="list-style-type: none"> To develop and implement/disseminate, on a sustained basis, advocacy and communication programmes, activities and products on the use/usefulness of statistics. To increase statistical literacy in CARICOM; To enable an understanding of the value and usefulness of statistics. To establish and sustain a culture of engagement of employees and stakeholders in the communication of the statistical

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[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
		<p>3.To establish a regional mechanism for statistics to make available adequate financial, human and material resources from national, regional and international sources.</p> <p>4.To build relationships with national, regional and international development partners, the private sector, national, regional and international universities including private universities and specifically to exploit opportunities for public-private sector partnerships to mobilise support for the modernisation and transformation of the CSS.</p> <p>5. To enable participation in the regional and global statistical development agenda (such as the meetings of the SCCS, the CARICOM Advisory Group on Statistics and Technical Working Groups, the United Nations Statistical Commission (UNSC) and the Statistical Conference of the Americas</p>	<p>research and geo-referencing of statistics using Global Position System (GPS) and similar IT related approaches).</p> <p>4. To strengthen and expand an integrated system of key economic, social and demographic, environmental and ICT statistics. (such as special population groups- the poor, persons with disabilities, the elderly, children and youth, gender, climate change, classifications systems and key data sources from surveys/ censuses, administrative and Big Data).</p>	<p>3 To develop innovations based on Open Data and Statistical Data and Metadata eXchange (SDMX) compliant approaches, (such as open standards-based data and metadata portals and related interoperable ICT advances).</p>	<p>processes and products.</p> <p>5. To strengthen the communication and advocacy programmes and develop Centres of Excellence in communication and advocacy.</p> <p>6. To facilitate the development and living of a high-quality brand of statistics by all employees of the CSS.</p> <p>7.To establish dissemination frameworks for the accessibility of statistics by the people of CARICOM.</p>

BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY

[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
		(SCAs)).			
 DRIVERS					
STRATEGIC DRIVERS/ ENABLERS	1. IT INFRASTRUCTURE <ul style="list-style-type: none"> (i) Harness the innovative and transformational power of ICT as a key ingredient in modernising and transforming the CSS; (ii) Address the issue of data security in the context of statistical confidentiality and implement data protection/loss policies and the use of anonymization techniques; (iii) Ensure investment, on a sustained basis, in state-of-the-art IT tools for data collection, management and dissemination; (iv) Enable the development and establishment of an appropriate IT infrastructural environment to facilitate advancement, development and operation of a Central Repository for CARICOM Statistics; (v) Enable common and interoperable IT frameworks and platforms for effective data production, processing, warehousing, archiving, storage, inclusive of cloud computing and common and secure IT networks for data exchange, geo-referencing of statistics and the use of mobile equipment; (vi) Promote and develop open source solutions in the IT technological environment within the CSS; (vii) Promote and enable IT applications in data analytics, data visualisation, exploitation of Big Data, geospatial referencing and the use of Satellite Imagery, micro-data accessibility- online micro-data labs and data anonymisation, linking of administrative data in the multisource and multi-mode production processes; (viii) Develop an IT-oriented Human Resource Strategy for statistics to engender and orient statisticians with data scientists' capabilities/skills. 				
	2. 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT <ul style="list-style-type: none"> (i) Exploit the opportunities of the 2030 Agenda for the modernisation and transformation of the CSS; (ii) Mainstream the 2030 Agenda framework across the entire CSS to make available the production of indicators to monitor all 17 Goals and 169 targets and the corresponding monitoring of the SAMOA Pathway; (iii) Specifically, with reference to (ii), <ul style="list-style-type: none"> (a) Mainstream statistics on environmental issues and concerns inclusive of Climate 				

BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY

[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
	<p style="text-align: center;">Change, Disasters/Natural Disasters and on Green Economies, and</p> <p>(b) Promote statistics to inform Crime Prevention strategies and Citizen Security across the CSS inclusive of trafficking of humans, drugs trafficking, Gender-Based and Gang-related Violence;</p> <p>(iv) Build and strengthen strategic partnerships, to optimise the use of scarce resources and to achieve efficiency gains in facilitating the production of the indicator framework that can guide, monitor and underscore the achievements of the 2030 Agenda framework/SAMOA Pathway;</p> <p>(v) Undertake a baseline assessment in the context of the 2030 Agenda of the capacity of countries to produce the 230+ indicators, assessing at the same time the institutional, organisational and technical readiness of the CSS to move to the next level of maturity in building the relevant data ecosystem.</p>				
	<p>3. SUSTAINABLE CAPACITY BUILDING</p> <p>(i) Undertake a gap analysis to determine the skills and competencies that are required to sustain the current and planned programmes and to identify the statistical capacity needs of countries;</p> <p>(ii) Assess the institutional, organisational and technical readiness of national statistical systems to move to the next level of maturity with regards to modernisation, making use of available assessment tools;</p> <p>(iii) Enable the development of a systematic programme of capacity-building for successful transformation of the CSS and which should have a clear and direct link to succession planning;</p> <p>(iv) Enhance the capacity of the CSS to produce quality statistics on a sustainable basis;</p> <p>(v) Formally establish and make operational the Centres of Excellence in Statistics;</p> <p>(vi) Develop and advance a system of training, capacity-building and knowledge base through the establishment of the virtual CARICOM Institute for Statistical Training and Research (e-CISTAR), inclusive of an Online Knowledge Base and accredited training courses in collaboration with universities and existing statistical institutes to complement traditional technical training methods and by leveraging existing and establishing new e-learning platforms;</p> <p>(vii) Explore opportunities for pooling skilled human resources for establishing a formal system of South-South cooperation/Attachment Programmes across to the CSS;</p> <p>(viii) Provide support to the Caribbean Association of Professional Statistics (CAPS) for enabling the professionalisation of statistics in the CSS;</p> <p>(ix) Develop closer collaboration with universities in the region to enable short-term training courses in statistics for the CSS;</p>				

BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY

[Integrated] STRATEGIC PRIORITIES	BUILDING RESILIENCE OF THE CARIBBEAN COMMUNITY				
	Standards and Harmonisation	Governance	Integrated Statistical Systems	Innovation	Advocacy and Communication
	<p>(x) Advance and sustain the operations of the system of Technical Working Groups to enable networking in the implementation of methodological frameworks and in the instilling and sharing of best practices in the CSS;</p> <p>(xi) Implement the recommendations of the Action Plan for Statistics in the Caribbean as endorsed by the 37th Meeting of the Conference of Heads of Government (HGC) of CARICOM including the training of statisticians as data scientists, the award of scholarships in statistics at the tertiary level; the inclusion of statistics, data science, data analysis and IT in an integrated manner in the education curricula at the primary, secondary and tertiary levels; and engaging with youth in the development of mobile application for statistics.</p> <p>(xii) Develop an incentive-based HRD programme to reduce staff turnover/increase staff-retention of trained staff in the CSS</p> <p>(xiii) Align the Statistical Capacity Building Programmes of the CSS with recommendations on capacity-building from the Global Community, adapting as required for SIDS.</p> <p>(xiv) Establish and systematise training programmes in non-technical areas such as, leadership and management training for statisticians across the CSS.</p>				
	<p>4. GENDER MAINSTREAMING</p> <p>(i) Mainstream Gender Issues and Concerns in the development and implementation of the RSDS, ensuring that the production and dissemination of gender statistics is both integrated in different sections of the strategy, and a key objective in itself;</p> <p>(ii) Advance the incorporation and systematising of a programme on Gender Statistics, including data production and dissemination mechanisms to monitor progress using CARICOM Gender Equality Indicators;</p> <p>(iii) Ensure consistent sex disaggregation of SDG related data wherever possible and embed sex-disaggregated estimates into regular reporting cycles to the regional and international statistical systems.</p> <p>(iv) Develop and implement specialized surveys as needed to capture issues of gender equality and women’s empowerment across the region, including the conduct of Gender-Based Violence surveys for the monitoring and evaluation of the achievement of gender equality commitments;</p> <p>(v) Facilitate training of statisticians and gender experts in gender analysis and the interpretation and use of gender statistics;</p> <p>(vi) Enable collaboration and networking of gender experts and statisticians to engender and sustain a focus on gender in the production, analysis, dissemination, and use of statistics.</p> <p>(vii) Promote dialogue between gender data users and producers to ensure gender statistics meet user’s expectations and are widely used for policy making and advocacy</p>				

**ACTIONS FOR THE STRATEGIC PRIORITIES AND DRIVERS
– INFORMING THE RSDS IMPLEMENTATION PLAN**

3. ACTIONS FOR THE STRATEGIC PRIORITIES AND DRIVERS–INFORMING THE RSDS IMPLEMENTATION PLAN

3.1 KEY SOURCES OF INFORMATION THAT CAN INFORM THE RSDS ACTIONS

In this section, key sources of information and some actions that can inform the development of the Implementation Plan of the RSDS Strategic Framework are reviewed. Following the approval of the RSDS, the Implementation Plan will be developed along with the preparation of a costing of the work to be undertaken. Since some countries have already commenced modernising and transforming their National Statistical Offices/Systems through loans or other support from IDPs, the **Implementation Plan when prepared, will take into consideration work completed or in progress by countries**. Preceding the approval to prepare the RSDS, the Action Plan for Statistics was endorsed by CARICOM Heads of Government at the 37th Conference of Heads of Government (37 HGC) in 2016. The elements of the Action Plan have informed the development of the RSDS. Highlights of the Action Plan include the following specific actions:

- (i) **Strengthen** the National Statistical Systems in countries that will address funding of the National Statistical Offices (NSOs) and other producing agencies including, staffing, legislation, education, training and development of the current staff;
- (ii) **Enable** the upgrading of the IT infrastructure in the National Statistical Offices and Systems in relation to the production and dissemination of statistics;
- (iii) **Promote** careers in statistics through greater infusion of statistics in the education system to lead to the development of data scientists;
- (iv) **Promote** the professionalisation of statistics in CARICOM through the Caribbean Association of Professional Statisticians (CAPS);
- (v) **Support** a regional approach to the development of statistics.

In addition, at the global level of the United Nations Statistical Commission (UNSC), among the decisions of the Forty-Seventh Session of the UNSC on the Transformative Agenda for Official Statistics, were the following:

The 47th UNSC:

- *“Reconfirmed the necessity to modernise and strengthen statistical systems, at the national, regional and global levels, built around standards-based architecture and considering national specificities, to respond more effectively and efficiently to the needs of emerging users, and in particular to address the data demand in relation to the 2030 Agenda for Sustainable Development and related initiatives;*
- *Encouraged the completion of the series of regional conferences and the formulation of regional road maps for a transformative agenda through the moderation of the five thematic areas and by taking stock of existing programmes and activities for integrating and modernising statistical systems in close consultation with member countries, regional commissions and agencies and other stakeholders, and by eventually mobilising funds and sharing innovative technology, know-how and good practices.”*

The **Caribbean Conference on the Transformative Agenda for Official Statistics** was one of these regional conferences, which took place in **Barbados during 7-9 September 2016**. This Conference was therefore timely, given the high-level endorsement of statistics in CARICOM at the 37th HGC. The issues and elements of the Action Plan for Statistics were incorporated in the recommendations coming out of this Caribbean Conference on the Transformative Agenda for Official Statistics. In addition, the **First UN World Data Forum on Sustainable Development Data, which was held in Cape Town, South Africa from 15-18 January 2017**, comprised themes and recommendations that built upon those that were derived from the Caribbean Transformative Agenda Conference and the other regional transformative agenda conferences held in other parts of the world. The development of the RSDS has therefore benefited from the elements of the Action Plan for Statistics, which informed the recommendations of the Caribbean Conference and by extension the Global Action Plan.

The **Actions for the Strategic Priorities and Objectives** that follow are **by no means comprehensive but are indicative**. In addition, **the five priority areas are essentially inter-**

connected such that, the implementation of actions under one area may impact actions in the other priority areas, leading to a cross-fertilisation of the strategic priorities. A comprehensive Implementation Plan would therefore be required to be prepared to make the RSDS operational.

3.2 HIGHLIGHTS OF ACTIONS FOR THE STRATEGIC PRIORITIES

SH: STANDARDS AND HARMONISATION

The goal of this priority area, Standards and Harmonisation is to ensure that the statistics produced across the CSS are harmonised and conform to global and regional statistical standards. This strategic area should facilitate the production of statistics that can be compared regionally and globally. It is fundamental to enabling the production and dissemination of high quality statistics. Therefore, to advance the efforts to improve the production of High Quality Comparable National and Intra-Regional Statistics the following strategies were recommended to be pursued:

GOAL – SH: To Advance the production of High Quality, Comparable, national and intra-regional statistics

- **SH1: Strengthen and implement** a common programmatic approach to systematising the production of high quality harmonised statistics based on alignment of the National Statistics Work Programmes (NSWP) with the common and updated Regional Statistical Work Programme (RSWP).
- **SH2: Facilitate** conformity of the approaches to the production and dissemination of statistics at the national level with international and regional standards; and
- **SH3: Advance** the implementation of the CARICOM Code of Good Statistical Practices (CGSP) and finalise the development and commence implementation of the CARICOM Quality Assurance Framework (CQAF).

A checklist of standards and harmonisation mechanisms should be prepared during the Implementation Phase of the RSDS and will include standards in statistics production such as the common Regional Statistical Work Programme (RSWP); the System of National Accounts 2008 (2008 SNA), the Manual of Statistics of Trade In Services 2010 (MSITS 2010); the CARICOM Code of Good Statistical Practices (CGSP); the CARICOM Quality Assurance Framework (CQAF); the CARICOM Common Census Questionnaire; and the Generic Statistical Business Process Model (GSBPM). Fundamentally, use should be made of CARICOM_SIDS relevant standards and harmonisation frameworks similar to the approach articulated under the Priority Area – Integrated Statistical Systems.

SH1. : Strengthen and implement a common programmatic approach to systematising the production of high quality harmonised statistics based on alignment of the National Statistics Work Programmes (NSWP) with the common and updated Regional Statistical Work Programme (RSWP).¹⁰

The focus of the actions should be to undertake a review of the RSWP relative to new priorities of CARICOM Member States inclusive of economic, social, environmental and technological concerns, challenges and opportunities, The National Development Plans and Medium - Term Development Strategies of Member States, the Strategic Plan of the Community, the 2030 Agenda for Sustainable Development and the Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway are some of the key contextual issues to inform the RSWP.

Based on the review, the RSWP can be enhanced and the levels of importance of the various domains/elements can be adjusted to determine a minimum core that countries can agree to produce. It is also necessary to determine the gaps between the respective National Statistics Work Programmes (NSWP) and the RSWP and to determine the capacity needs to fill the data gaps¹¹. The filling of the data gaps will require actions across all strategic priorities and drivers. Use should be made of all available assessments including an assessment on the compliance of countries to the RSWP undertaken by the Regional Statistical Programme, as well as the assessment undertaken in preparation for the RSDS.

¹⁰ See Appendix for Brief Overview of RSWP

¹¹ Driver 3- Capacity-Building;

SH2. Facilitate conformity of the approaches to the production and dissemination of statistics at the national level with international and regional standards

The CARICOM regional integration agenda requires harmonised statistics to enable the aggregation of consistent, methodologically sound and comparable data. The statistics must also be produced in accordance with regional and international standards. The actions required should be to monitor and enable capacity-building to enable conformity to the regional and international frameworks including the latest revisions undertaken.

The preparation of a programme to facilitate the implementation of the frameworks should consider the support provided by all partners. The actions should also include regional approaches to enable uniformity in application of standards. Member States may also benefit from actions taken under other priority areas such as the updating of their statistics legislation, sourcing of financial resources for the updating of IT software applications, data collection (e.g. Computer Assisted Personal Interviewing), corresponding data processing and staffing. Assessing compliance to the regional and international standards should be undertaken by the Regional Statistical Programme and/or the relevant international statistical agencies.

SH3. Advance the implementation of the CARICOM Code of Good Statistical Practices (CGSP) and finalise the development and commence implementation of the CARICOM Quality Assurance Framework (CQAF)

The actions under this strategic area should include focus on the development and implementation of the peer review system of the CGSP. It is expected that the piloting of the Peer Review will inform the adjustments required in this process to enable greater adherence of countries to good statistical practices. The actions should also focus on the full development of the CQAF of which work is already in progress. It is also expected that implementation of the CQAF would be undertaken across the CSS.

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GOV: GOVERNANCE

The priority area, Governance and Institutional Arrangements, is to enable an effective CARICOM Statistical System, and specifically, effective coordination of the national statistical system (NSS) with a key role for the National Statistical Office. It is expected that this strategic priority can result in improvement in the production and dissemination of key statistics from the NSS. Building and operationalising strategic partnerships such as with, IDPs, the private sector, national, regional and international universities, inclusive of private universities, should be key actions to be included for implementation. An effective governance structure should have as a basis, relevant and up-to-date Statistics Legislations. The Standing Committee of Caribbean Statisticians (SCCS) supported by the subsidiary group, the CARICOM Advisory Group on Statistics (AGS) should support these arrangements by its mandate in regional statistical development. Effective governance mechanisms, initiatives and arrangements are vital in the actioning of transformation and modernisation of the NSS. This priority area will be advanced through the following strategies in the planning period:

GOAL- GOV: To Enable an effective and modern Governance Structure and Institutional Arrangements

- **GOV1: Strengthen and support** the Regional Coordination mechanism of the CSS as an overarching governance structure, for the transformation and modernisation of statistics in the CSS;
- **GOV2: Modernise** the Governance Structures of the National Statistical Systems (NSS) and specifically of the National Statistical Offices (NSOs);
- **GOV3: Enable** the Development of Coordinated National Statistical Systems;
- **GOV4: Enable** a regional mechanism to sustainably support/fund the development of statistics from national, regional and international sources, inclusive of in-kind resources; and

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- **GOV5: Build** strategic partnerships with relevant partners (such as, IDPs, the private sector, national, regional and international universities including private universities) for the development of statistics in the CSS.

GOV1. Strengthen and support the Regional Coordination Mechanism of the CSS as an overarching governance structure for the transformation and modernisation of statistics in the CSS

The regional coordination mechanism is an essential feature of the overarching governance structure for coordinating and sustaining improvement in the range and quality of statistics produced in the CSS. The key mechanism that enables regional coordination is the Standing Committee of Caribbean Statisticians that was established by the Common Market Council in 1974 and endorsed by Heads of Government that same year. The SCCS enables the development of harmonised statistics that are relevant to countries and to the regional integration development agenda. The SCCS endorsed the establishment of the CARICOM Advisory Group on Statistics (AGS) in 2007.

The last review of the SCCS took place under the Ninth EDF in 2010 when the Terms of Reference for the SCCS was reviewed which was followed by a review of the terms of reference of the AGS. The Actions in this area should be to undertake a review of the structure and functioning of the SCCS and its subsidiary groups including the Regional Census Coordinating Committee, the Advisory Group on Statistics and the Technical Working Groups. Based on the review, the recommendations for increased effectiveness of the SCCS as a decision-making body can be developed for implementation.

GOV2. Modernise the Governance Structures of the National Statistical Systems (NSS) and specifically of the National Statistical Offices (NSOs)

The CARICOM Region and the global statistical community have been taking steps towards facilitating the modernisation and transformation of statistical organisations. In the case of the CARICOM Region, some Member States have taken decisive actions to enable modernisation including with the support of a number of IDPs. Additionally, at the CARICOM Secretariat, projects implemented through funding received from the IDPs such as the European Union (EU),

Ninth and Tenth European Development Fund; the Inter-American Development Bank (IDB), the World Bank, the Caribbean Development Bank and collaborative work with UN agencies have supported the efforts at modernisation and transformation. The EDF and IDB funding have led to the creation of a number of regional public goods as well as support to the strengthening of statistics which must be sustained given the expansion in data demands such as the indicators to monitor the SDGs.

Modernisation and transformation of the NSS and specifically the NSO can be achieved through the updating of the Statistics Legislation in countries relative to the establishment of an **integrated NSS**. The actions included under this heading should also focus on the **review and updating of Statistics Legislation based on the CARICOM Model Bill**.¹² The updated legislation can serve to establish an NSO that has greater autonomy with a Board of Directors and the process of recruiting the Head of the NSO. The establishment of committees by the Board of Directors can also be undertaken. The development of Statistics Regulations and formal Memoranda of Understanding (MOUs) can serve to make operational the legislation and to establish a modernised entity.

GOV3. Enable the Development of Coordinated National Statistical Systems

At the national level the National Statistical System (NSS) comprises the national statistical office (NSO)¹³ and the units and other agencies that produce statistics as part of their administrative responsibilities in Ministries, Departments and Agencies (MDAs). The NSO should play a key role in coordinating the statistics produced in the NSS, ensuring that these statistics are harmonised nationally and attain a high quality, in accordance with stated norms and standards of the CSS such as the CQAF. Effective coordination should also enable the exchange of data across agencies in the production of official statistics, in keeping with the confidentiality provisions under the statistics legislation. Therefore, an effectively coordinated

¹² The review of the national legislation can in turn, provide feedback for improvement of the Model Bill, given new developments that impact statistics.

¹³ The NSO is a central statistical agency mandated to produce key official statistics. It may be a department or office of a Ministry or an autonomous or semi-autonomous statistical authority.

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NSS should enhance the availability and use by the NSOs of administrative data from the MDAs, for statistical purposes only.

The actions should also focus on the implementation of a strategic approach for the development of the NSS utilising the framework of the National Strategy for the Development of Statistics (NSDS)¹⁴ that provides for a long-term strategic approach for the strengthening of the NSS enabling the production of statistics that satisfy national, regional and international priorities and an effectively coordinated NSS.

Arising out of the work put in place on enacting updated statistics legislation (GOV2) and on the NSDS, other actions may include implementing formal mechanisms for coordination and data exchange such as dedicated staff, IT infrastructure, training/strengthening capacity of staff across the NSS and preparation of MOUs for data exchange within the NSS. The establishment and functioning of Statistics Advisory Councils or inter-agency committees should also be implemented if these are deemed necessary in the governance arrangements to enhance collaboration and data-sharing.

In addition, the actions under this strategic priority should facilitate the review and validation of statistical processes in the NSS, as a cross-fertilisation with the area on Standards and Harmonisation, inclusive of validation of surveys and administrative data collection processes to ensure that they are methodologically sound, in accordance with the CQAF and other relevant standards. The actions under the priority area, Advocacy and Communication that focus on issues pertaining to the value of administrative data can support and encourage collaboration in the sharing of data.

Therefore, the **actions across priority areas should result in good governance of the CSS** and realise the benefits of effective coordination in the reduction of the gaps in official statistics and improvement in its quality including timeliness.

¹⁴ The NSDS is a mechanism that has been developed by the organisation Partnership in Statistics for Development in the 21st Century (PARIS21) and is used to assist countries in strengthening statistical capacity. For regional statistical offices there is also a Regional Strategy for the Development of Statistics (RSDS).

GOV4. Enable a regional mechanism to sustainably support/fund the development of statistics from national, regional and international sources inclusive of in-kind resources

National Statistical Offices in CARICOM are relatively small compared to those in other countries and face a number of challenges based on the small size of these NSOs. Some of these challenges include:

- Inadequate staff/lack of trained staff in the CSS (RSP and NSS);
- Increased demand for statistics and the need to stay relevant by providing data required by users/decision-makers;
- Declining resources of governments that impact the funding of statistical operations;
- Outdated legislative frameworks;
- Absence of a national statistical system due to lack of coordination;
- Inadequate IT resources; and
- Inadequate investment to transform and modernise the NSS.

Given the economic challenges faced by countries of the region, *“with very limited and stretched public resources, and dwindling grant resources, the necessity for evidence-based policy-making is crucial. Governments and citizens alike need relevant and timely information on which to make decisions. Consequently, countries must invest in regional approaches that help to optimise the scarce public resources of countries, in order to strengthen the weak national statistical systems to provide the data needs for the governments and the people. These limited resources should not be wasted individually. A much more significant regional agenda should be developed since all countries would be beneficiaries.”*¹⁵ Included in these beneficiaries are the private sector, national, regional and international universities including private universities.

A regional mechanism that can effectively support and/or fund the development of statistics can provide resources to assist countries across the board. It can focus on the operational aspects of the NSS inclusive of support **to the training of staff, enabling the conduct of surveys and**

¹⁵ From the keynote address delivered by Dr. the Rt. Hon. Keith C. Mitchell, Prime Minister of Grenada, at the Second High Level Advocacy Forum on Statistics

censuses in a regionally coordinated approach; capacity-building through South-South co-operation, the sharing of best practices, to augment IT infrastructure and to establish **Centres of Excellence** for attachment/exchange programmes. One best practice is the traditional regionally-coordinated census strategy that supports the conduct of census across the region which includes the sharing of expertise and equipment for data processing, assistance with questionnaire preparation through a common questionnaire and regional training. In sum, the regional mechanism can sustain the statistical development in the long-term and can optimise scarce resources in the strengthening of the national statistical systems including pooling of expertise and enabling its use across countries. A key action should be the preparation of a resource mobilisation strategy/activity for supporting the regional mechanism to focus both on resources that countries can make available in kind such as expert staff that can be deployed across the region to assist NSOs in need of support, Training of Trainers programme, the CoE development as centres of training.

GOV5. Build strategic partnerships with relevant partners (such as, IDPs, the private sector, national, regional and international universities, including private universities), for the development of statistics in the CSS

The key actions to be undertaken under this area will be the strengthening and developing of relationships with new/existing partners such as the private sector and universities including private universities. The contribution of the International Development Partners to the development of statistics in the Region is recognised and investment by them must continue to ensure the Region's access to up to date technology and technical support to realise the data revolution. The reduction and elimination of the data challenges experienced by the statistical agencies in the NSS can be achieved through the leveraging of funds from IDPs, the private sector, etc., to boost the domestic resources available from governments to strengthen statistical capacity in countries.

The IDPs can assist in the data revolution required in the CSS through exploiting the use of IT facilitating access to “Big Data” sources, making available state-of the-art technological solutions, such as, e-data capture, cloud computing and other related technical and technological

support to the CSS. The IDPs have a key role to play in the resource mobilisation strategy/activity for supporting the regional mechanism under GOV4.

ISS: INTEGRATED STATISTICAL SYSTEMS

Integrated Statistical Systems are fundamental to the transformation and modernisation processes and will be built upon a consistent and common institutional statistical environment such as legal frameworks, statistical operations and work programmes, communication infrastructure and interoperability of the IT infrastructure.

An integrated statistical system is characterised by the use of a common set of tools and processes for the compilation, analysis and dissemination of various domains of statistics - social, economic, environment, ICT. The model relies on the integration of datasets and the combination of data from different sources which is a departure from the traditional “stovepipe” method whereby each domain operated in separate units/’silos’ often using different approaches to the data compilation and dissemination cycle. In an integrated system, statistics for specific domains are not produced independently from each other but are instead produced together in an integrated fashion (horizontal integration).

The CSS should also continue to lead in the development of CARICOM Specific frameworks such as was undertaken on the Caribbean Specific MDGs (CSMDGs), the Common Census frameworks and the planned development of the Caribbean Specific SDGs (CSDGS). Fundamentally, the CSS should play a lead role in developing SIDS-relevant methodological frameworks. In pursuit of this strategic area attention will be given to the following:

GOAL-ISS: To Establish a cohesive and coherent architecture in the production, processing and dissemination of statistics.

- **ISS1: Develop** and implement a common statistical architecture for the CSS based on a statistical Business Process Model;

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- **ISS2: Exploit** the opportunities and advance the adoption and implementation of new and existing methodological frameworks and data sources, (such as CARICOM_SIDS specific methodologies, surveys, administrative data and Big Data applications); and
- **ISS3: Enable** the application of an interoperable ICT infrastructure in the development and functioning of the CSS.

ISS1. Develop and implement a common statistical architecture for the CSS, based on a Statistical Business Process Model

The Generic Statistical Business Process Model (GSBPM) was developed by the United Nations Economic Commission for Europe (UNECE) and has been widely adopted by the international statistical community. The GSBPM essentially defines the set of business processes needed to produce official statistics, providing a standard framework and harmonised terminology to modernise the statistical production processes. The GSBPM is useful in integrating data and metadata standards, process documentation, harmonising statistical computing infrastructures and in providing a framework for process quality assessment and improvement.

The world is getting more integrated. The actions under this strategic area should be to adapt the GSBPM as a regional public good that can be used by CARICOM_SIDS. Sensitisation of staff, users and other stakeholders about the model should be undertaken. Training/capacity building on the application of the model should also be undertaken. Implementation of the model should be supported and monitored.

ISS2. Exploit the opportunities and advance the adoption and implementation of new and existing methodological frameworks and data sources, (such as CARICOM_SIDS specific methodologies, surveys, administrative and Big Data applications)

Critical to an integrated statistical system is the adoption and implementation of new and existing international methodological frameworks. Many of these frameworks are already integrated in terms of methodological development at the international level. An integrated statistical system will make available the access to data from the most reliable sources in a timely manner while decreasing production costs and enhancing the quality of official statistics.

Strengthening and expanding regionally and internationally supported multi-purpose survey programmes such as household, business and other economic surveys and population and housing census programme and economic census where feasible should be targeted, taking advantage of opportunities that can assist in building an integrated statistical system. Leveraging administrative data sources where these are available should also be pursued.

This strategic priority should also include the adoption of sound methodological frameworks in the context of an integrated statistical systems. The opportunities for exploiting and using new data sources such as Big Data should also be undertaken inclusive of lessons-learnt, best practices and innovations that are developed from within or outside the CSS.

ISS3. Enable the application of an interoperable ICT infrastructure in the development and functioning of the CSS

In the context of the data revolution in CARICOM¹⁶, ICT is the tool that should power the data revolution that can be used for the sustainable development of regional economies. The potency of ICT should help countries to move forward quickly and effectively. ICT has great potential in transforming the national and regional statistical systems to inform solutions to the data challenges. A critical action under this strategic area should be advancing the development of the Central Repository for Statistics at the regional and national levels building on data that have been submitted by countries to the CARICOM Secretariat or by the MDAs to the NSOs (Central Data Repository at the national level).

Fundamentally, there should be actions to enable the utilisation of an interoperable ICT infrastructure in the development of the integrated national and regional statistical systems. These actions should also enable alignment, integration and interoperability of the data hubs/systems. ICT software and applications to enable integrated system for data management- data collection, processing, warehousing- of all statistics produced will be pursued. The approach should be based on a single source of truth design, the use of cloud computing in archiving,

¹⁶ From the Keynote Address delivered by the Prime Minister of Grenada, Dr. the Rt. Hon. Keith Mitchell at the Second HLF in 2014 in Grenada.

storage and dissemination. The actions should therefore make operational any innovations that are developed under that strategic area.

INV. INNOVATION

Innovation is inevitable in the transformation and modernisation agenda, specifically utilising the advancements in IT technology, new sources of data such as Big Data and modern tools of data collection such as Computer Assisted Personal Interviewing. The use of innovations in enabling online access to micro-data labs and anonymised micro data in a manner that would preserve the privacy and avoid the downloading of this data are innovations that can be pursued by data scientists. The actions under this strategic area should also relate to innovations in methodological applications in the production and dissemination of data. The development of a modern standards-based statistical business architecture should assist in making possible the pursuit of innovations. The following are some of the key areas of Innovation in statistics development:

GOAL-INV: To enable and facilitate the development and sharing of innovative methods, tools and technologies in the production and dissemination processes in the CSS.

- **INV1: Develop** and implement an interoperable network of national, regional and global platforms of data services and applications (such as Open Data, Cloud Computing and Statistical Data and Metadata eXchange (SDMX)-based applications);
- **INV2: Promote** and enable innovations in modern methodological and analytical advances in Statistics including the new approaches of data science, that are suited/can be adapted for CARICOM SIDS.

INV1: Develop and implement an interoperable network of national, regional and global platforms of data services and applications (such as Open Data, Cloud Computing and Statistical Data and Metadata eXchange (SDMX)-based applications)).

Innovation is a vital strategy in any transformation and modernisation process. It implies the development and introduction of new ideas, methods, devices etc. The actions should therefore seek to develop and explore the standardisation of production processes including the sharing of innovative tools and interoperable technologies across the CSS. The actions under this strategic area should also focus on gaining access to and/or developing innovations and interoperable networks and data and metadata platforms and the exploration of practices with respect to cloud computing. These innovations should also include open standards-based web portals and SDMX-based functionalities.

INV2. Promote and enable innovations in modern methodological analytical advances in Statistics including the new approaches of data science, that are suited/can be adapted for CARICOM SIDS

Innovations should also focus on developing or adopting creative statistical methods in the application of methodological frameworks and in enabling efficiencies through the reduction of costs and improvement in timeliness in the statistical processes. The actions should also seek to access innovations in data analytics and statistical research including on large data sets. These innovations in statistical methods and processes can be adapted for application in SIDS, in contrast to those methods and processes that are more suited to a developed or large country context.

AC. ADVOCACY AND COMMUNICATION

The use of statistics is probably undertaken by a relatively small group of users. This priority area will attempt to target the expansion of the statistics user community through advocacy and communication. **The branding of statistics from the CSS should reflect its high quality and other key principles such as the independence of the statistics produced, trust by the public, and guarantee of the core values that inform the RSDS.**

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Effective communication and advocacy strategies and initiatives is critical in enabling the improvement in the production and dissemination of statistics and in sustaining the impact of the modernisation of the CSS. Advocacy and Communication strategies and programmes are required throughout the Community to engender the importance of statistics, to educate on the usefulness of statistics in the professional/work or everyday lives of all persons.

The focus is to create a culture in which all persons in the Community can become more “statistics literate”, to engender an understanding of basic uses and interpretation of statistics that can assist in detecting inaccurate information. It is therefore intended to develop a statistical literacy programme, to target the education system; enhance the dissemination of statistics including website improvement. Actions should also seek to attract more users of statistics through producing more user-friendly dissemination products with data visualisation, telling stories with the statistics produced and making use of mobile apps and services for disseminating “stats-messages”. Diverse population groups should be targeted with messages with which they can identify. Advocating for statistics should also emphasise the value of statistics as a public good. To achieve the objective, the following are some key actions:

GOAL-AC: To raise the profile and the value of statistics to effect change and to empower institutions and individuals to use statistics effectively in decision-making

- **AC1: Develop** and promote sustained communication and advocacy strategies in support of the transformation and modernisation of statistics in the CSS;
- **AC2: Develop** and implement frameworks on statistical literacy in CARICOM;
- **AC3: Develop** a CARICOM Statistics Brand as a hallmark of quality, nationally, regionally and internationally; and
- **AC4: Develop** and implement dissemination frameworks and platforms including websites, data hubs and portals.

AC1. Develop and promote sustained communication and advocacy strategies in support of the transformation and modernisation of statistics in the CSS

Effective communication and advocacy strategies are required to sustain the transformation and modernisation of the CSS. This area will seek to develop communication and advocacy frameworks that can lead to a better understanding of the value and usefulness of statistics. Specific groups should be targeted including the media, policymakers, the private sector, civil society, persons with disabilities, students, children and youth. The actions will strengthen and reinforce existing communication and advocacy programmes.

AC2. Develop and implement frameworks on statistical literacy in CARICOM

The aim is to develop and implement basic statistical literacy programmes to expand the number of persons in CARICOM with a basic understanding of statistics. The actions should also target the education curricula at all levels. Out of school adult statistical literacy programmes should also be developed for implementation. Use of mobile messenger services to highlight messages that can attract the interest of diverse groups is a key element of the intended approach. It is hoped to improve both access and use of the statistics produced in the CSS through enabling the development of a more statistically literate population and with greater creativity in the statistical products that can appeal to all population groups in CARICOM.

AC3. Develop a CARICOM Statistics brand as a hallmark of quality, nationally, regionally and internationally

The action under this area should be to develop a brand for the statistics produced in the Community through designing a logo and creating a theme/catch-phrase that would create an identity and perception that the products are of high quality and in accordance with the principles of the CARICOM Code of Good Statistical Practices, the CARICOM Quality Assurance Framework and the Fundamental Principles of Official Statistics. The brand should be recognised for principles such as professional independence, integrity and confidentiality.

AC4. Develop and implement dissemination frameworks and platforms, including websites, data hubs and portals

Modernisation of the websites/pages in the CSS should be a key action to enable implementation of user-friendly web-based platforms for the access to data on the Community. Online data access will be the key. The generation of a Central Data Repository as listed under the IT Infrastructure (Driver) should improve the data available from across the CSS for dissemination to users and potential users. The work to be undertaken under statistical education and literacy should lead to greater use of the statistics disseminated. Existence of state-of-the-art data hubs with a population that is not statistically literate may not lead to increased use of these hubs. The idea is to reverse this trend in CARICOM.

4. STRATEGIC DRIVERS/ ENABLERS

There **are four (4) strategic drivers or enablers** that are vital in ensuring successful achievement of the goals of the Strategic Priorities. These are the following:

1. IT Infrastructure;
2. 2030 Agenda for Sustainable Development/SAMOA Pathway;
3. Sustainable Capacity Building; and
4. Gender Mainstreaming.

IT INFRASTRUCTURE

At the Second High-Level Advocacy Forum (HLF), the keynote address was delivered by the Prime Minister of Grenada, Dr. The Rt. Honourable Keith C. Mitchell. Among the points made at this forum that fuel the need for the enabling force of ICT in statistics development are the following:

- The potency of Information Communication Technology (ICT) in helping the Region to move forward quickly and effectively in the design of strategies for development;

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- ICT must be the engine of the data revolution that was recommended to enable the production of statistics in the “post-2015 development agenda”;
- It has great potential in transforming the national and regional Statistical Systems to inform solutions for the majority of the data challenges; and
- ICT also has the potential of significantly cutting costs and reducing the time taken to collect and produce data, thus enhancing efficiency.

The Prime Minister also underscored that the data revolution must be powered by ICT and encouraged statisticians to continue thinking of creative and innovative ways to revolutionise the statistical processes using ICT in the national and regional strategic plans.

The elements of this strategic driver incorporate the following:

- **Harness** the innovative and transformational power of ICT as a key ingredient in modernising and transforming the CARICOM Regional Statistical System;
- **Address** the issue of data security in the context of statistical confidentiality and implement data protection/loss policies and the use of anonymization techniques;
- **Ensure** investment, on a sustained basis, in state-of-the-art IT tools for data collection, management and dissemination;
- **Enable** the development and establishment of an appropriate IT infrastructural environment to facilitate advancement, development and operation of a Central Repository for CARICOM Statistics;
- Enable common and interoperable IT frameworks and platforms for effective data production, processing, warehousing, archiving, storage, inclusive of cloud computing and a common and secure IT networks for data exchange, geo-referencing of statistics including the use of mobile equipment;

- **Promote** and **develop** open source solutions in the IT technological environment within the CSS;
- **Promote** and **enable** IT applications in **data analytics, data visualisation**, exploitation of Big Data, **geospatial referencing** and the use of Satellite Imagery, micro-data accessibility- online micro-data labs and data anonymisation, and in the linking of administrative data in the multisource and multi-mode production processes;
- **Develop** an IT-oriented Human Resource Strategy for statistics to engender and orient statisticians with data scientists' capabilities/skills.

2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

The 2030 Agenda for Sustainable Development (2030 Agenda) was agreed to by countries world over including those of CARICOM in September 2015, as a “comprehensive, far-reaching and people-centred set of universal transformative goals and targets”. It is aimed, *inter alia*, to eradicate poverty in all its forms and dimensions, including extreme poverty and to achieve sustainable development in a balanced and integrated manner. The 2030 Agenda comprises 17 Goals, 169 targets and approximately 232 unique indicators. The SAMOA Pathway will also drive the production of statistics in the data eco-system of the CSS.

This 2030 Agenda framework is a critical driver of the strategic framework of the CSS. This framework would undoubtedly impact the work programme of the NSS until 2030. The CARICOM Secretariat in recognition of this framework which was then pending, convened, **the High-Level Advocacy Forum on Statistics: Strategising for the Development of Statistics in the Caribbean Community (CARICOM) in the Post-2015 Development Agenda** in Grenada on 26 May 2014. Its underlying theme was, “*A data revolution for sustainable development with a new international initiative to improve the quality of statistics and information available to citizens*”, which was called for by the Secretary-General of the United Nations of the High-

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Level Panel of Eminent Persons (Panel) which would entail the development of Sustainable Development Goals (SDGs).

The actions under this strategic driver should inform on the production of the indicators to monitor the processes by which countries can achieve all 17 Goals and 169 targets, including ending poverty and hunger, ensuring healthy lives and promoting well-being, also ensuring inclusive and equitable education, the achieving of gender equality and the empowering of women and promoting sustained and inclusive economic growth.

Specifically, under this strategic driver, key concerns that will inform the statistical requirements are that of Crime and Citizen Security; Climate Change, Natural Disasters/Disasters and the Green Economy. Preparedness and response to disasters including natural disasters can benefit tremendously from statistics that can lessen or eliminate fatalities and reduce the negative impact on the economy and on people's livelihoods. The population and assets that are exposed to these hazards such as persons living by rivers/coastal areas; persons living in poorly constructed housing or with no shelter, transportation and communication infrastructure can be identified by relevant statistics embedded in Geographic Information Systems (GIS).

Climate Change inclusive of climate-related hazards and its impact on natural disasters is another significant aspect of the 2030 Agenda that will fuel the demand for statistics to inform climate change measures, strategies and policies at the national level.

Green Growth can bring key elements to developing countries including, increasing GDP through the production of green goods and services that can lead to increased revenue. The RSDS can help build climate and disaster resilient economies in CARICOM as well as stimulate green growth economies.

Promoting peaceful and inclusive societies for sustainable development, as reflected in Goal 16, is another critical concern for CARICOM countries as it relates to Crime Prevention and Citizen Security inclusive of Gender-Based Violence. These areas would also stimulate the production and dissemination of statistics in the CSS.

The key elements of this driver will seek to:

- **Exploit** the opportunities of the 2030 Agenda for the modernization and transformation of the CSS;
- **Mainstream** the 2030 Agenda framework across the entire CSS to make available the production of indicators to monitor all 17 Goals and 169 targets and the corresponding monitoring of the SAMOA Pathway;
- **Specifically**, with reference to the mainstreaming of the 2030 Agenda the following are some key issues:
 - (a) **Mainstream** statistics on environmental issues and concerns inclusive of Climate Change, Disasters/Natural Disasters and on Green Economies, and
 - (b) **Promote** statistics to inform Crime Prevention strategies and Citizen Security across the CSS inclusive of trafficking of humans, drugs trafficking, Gender-Based and Gang-related Violence;
- **Build** and **strengthen** strategic partnerships, to optimise the use of scarce resources and to achieve efficiency gains in facilitating the production of the indicator framework that can guide, monitor and underscore the achievement of the 2030 Agenda framework/SAMOA Pathway; and
- **Undertake** a baseline assessment in the context of the 2030 Agenda of the capacity of countries to produce the 230+ indicators, assessing at the same time the institutional, organisational and technical readiness of the CSS to move to the next level of maturity, in building the relevant data ecosystem.

SUSTAINABLE CAPACITY BUILDING

Statistical Capacity Building is the “*the process of [achieving] changes at the levels of individuals, organisations and enabling environments in a national statistical system through which the system obtains, strengthens and maintains its capabilities to set and achieve its own statistics development objectives over time*” (UNSG, 2016: 19-20).

At the Twenty-Sixth Meeting of the SCCS in The Bahamas in October 2001, recognising the demands being made on National Statistical Offices in the context of the establishment of the CSME, the SCCS commenced the preparation of a Resolution which urged Governments of the Region, inter alia, to give priority to the strengthening of national statistical systems, particularly NSOs to undertake the collection, processing, analysis and dissemination of statistics and to provide the NSOs with the human, material, technical and financial resources and logistics to produce the data required by users.

This Resolution on Statistical Development was further developed by the SCCS and was presented to and passed by the Fifteenth Meeting of the Caribbean Community Council of Ministers in 2005. Statistical capacity building is a strategic driver in sustaining the production and dissemination of statistics in the CSS.

IDPs have provided substantive support in some areas to statistical capacity-building either through the CARICOM Secretariat, directly to Member States or through other organisations. While this support has contributed significantly to improvement in the availability of statistics in some countries, data gaps still exist due to a number of reasons including, increasing demands for statistics in new and existing areas, resources constraints, specifically staffing and funding for statistical operations; difficulties in implementing updated international methodological frameworks.

The SCCS and the CARICOM Advisory Group on Statistics (AGS) have identified mechanisms that can sustain capacity-building such as the establishment of **Centres of Excellence, online knowledge base and e-training**. Essentially the elements of the Action Plan for Statistics

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should form the foundation of this driver in so far as they address staffing, training, and statistical education at the primary, secondary and tertiary levels, among other issues.

Challenges experienced by some countries relative to staff-turnover and retention should also be addressed as part of a wider Human Resource Development Strategy that should ensure that trained staff are given incentives to remain in the profession at the NSO. The key elements of this driver will seek to:

- **Undertake** a gap analysis to determine the skills and competencies that are required to sustain the current and planned programmes and to identify the statistical capacity needs of the CSS;
- **Assess** the institutional, organisational and technical readiness of national statistical systems to move to the next level of maturity with regards to modernization, making use of available assessment tools;
- **Enable** the development of a systematic programme of capacity-building for successful transformation of the CSS and which should have a clear and direct link to succession planning;
- **Enhance** the capacity of the CSS to produce quality statistics on a sustainable basis;
- **Formally establish** and make operational the **Centres of Excellence in Statistics**;
- **Develop and advance** a system of training, capacity-building, knowledge base through the establishment of the **virtual CARICOM Institute for Statistical Training and Research (e-CISTAR), inclusive of an Online Knowledge Base and accredited training courses** in collaboration with universities and existing statistical institutes, to complement traditional technical training methods by leveraging existing and establishing new e-learning platforms;

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- **Explore** opportunities for **pooling skilled human resources** for establishing a formal system of South-South cooperation/Attachment Programmes across to the CSS;
- **Provide support to the Caribbean Association of Professional Statistics (CAPS) for enabling the professionalisation of statistics in the CSS;**
- **Develop** closer collaboration with **universities** in the region to enable short-term training courses in statistics for the CSS;
- **Advance** and sustain the operations of the system of Technical Working Groups to enable networking in the implementation of methodological frameworks and in the instilling and sharing of best practices in the CSS;
- **Implement the recommendations of the Action Plan for Statistics in the Caribbean** as endorsed by the 37th Meeting of the Conference of Heads of Government (HGC) of CARICOM including the training of statisticians as data scientists, the award of scholarships in statistics at the tertiary level; the inclusion of statistics, data science, data analysis and IT in an integrated manner in the education curricula at the primary, secondary and tertiary levels; and engaging with youth in the development of mobile application for statistics;
- **Develop** an incentive-based HRD programme to reduce staff turnover/increase staff-retention of trained staff in the CSS;
- **Align** the Statistical Capacity-Building Programmes of the CSS with recommendations on capacity-building from the Global Community, adapting as required for SIDS; and
- **Establish** and systematise training programmes in non-technical areas such as, leadership and management training for statisticians across the CSS.

GENDER MAINSTREAMING

The 20-year review of the Beijing Platform for Action on gender equality and women's empowerment (Regional Review Meeting, Geneva, November 2014) emphasised the importance of the production of Gender Statistics on pertinent Gender issues. The CARICOM Secretariat in partnership with the United Nations Entity for Gender Equality and the Empowerment of Women Multi-Country Office for the Caribbean (UN Women MCO) initiated an effort in 2014 to identify a context-relevant set of Gender Equality Indicators to enable the production of gender statistics, disaggregated by sex.

This initiative builds on previous efforts to produce gender statistics, including a CARICOM/United Nations Statistics Division project (1999-2004) on "*Strengthening Capacity in the Compilation of Social/Gender and Environment Statistics for Conference Follow-up*" that developed indicators based on the major gender issues at that time and produced among other outputs a publication on "Women and Men in Figures".

It also builds on work put in place on the Caribbean Specific MDG (CSMDGs) Indicators in which the need was seen by countries to better incorporate gender issues in the MDGs. In this regard a target on Gender-Based Violence was included as well as relevant indicators, Gender disparities in education, income and occupation were also reflected in the CSMDGs Indicators. Gender statistics are needed to measure and monitor the status of the lives of women and men and of girls and boys and are critical in helping policymakers to formulate and monitor policies and plans, monitor changes, and inform the public. Gender is therefore a key driver in the improvement of statistics in the CSS. The key elements under this strategic driver are:

- Mainstream Gender Issues and Concerns in the development and implementation of the RSDS, ensuring that the production and dissemination of gender statistics is both integrated in different sections of the strategy, and a key objective in itself.

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- Advance the incorporation and systematising of a programme on Gender Statistics, including data production and dissemination mechanisms to monitor progress using CARICOM Gender Equality Indicators.
- Ensure consistent sex disaggregation of SDG related data wherever possible, and embed sex-disaggregated estimates into regular reporting cycles to the regional and international statistical systems.
- Develop and implement specialised surveys as needed to capture issues of gender equality and women’s empowerment across the region, including the conduct of Gender-Based Violence surveys for the monitoring and evaluation of the achievement of gender equality commitments.
- Facilitate training of statisticians and gender experts in gender analysis and the interpretation and use of gender statistics.
- Enable collaboration and networking of gender experts and statisticians to engender and sustain a focus on gender in the production, analysis, dissemination, and use of statistics.
- Promote dialogue between gender data users and producers to ensure gender statistics meet user’s expectations and are widely used for policy making and advocacy.

5. NEXT STEPS

Other Key Actions subject to the approval of the RSDS are:

- (i) Development of a Comprehensive Implementation Plan with Costing based but not exclusively on the Actions indicated in the RSDS;
- (ii) Development of a Compliance Scorecard in a Reporting Template which can be part of a Monitoring and Evaluation Framework for the RSDS;

- (iii) A Resource Mobilisation Strategy for the RSDS;
- (iv) A Communication Strategy for the RSDS;
- (v) A Mid-term review of the RSDS - making any adjustments that are deemed necessary.

**SELECTED REGIONAL PUBLIC GOODS TO SUPPORT THE IMPROVEMENT OF
STATISTICS IN CARICOM**

ATTACHMENT I

**SELECTED REGIONAL PUBLIC GOODS TO SUPPORT THE IMPROVEMENT OF
STATISTICS IN CARICOM**

A1. OVERVIEW OF REGIONAL STATISTICAL WORK PROGRAMME (RSWP)

The development of the Regional Statistical Work Programme (RSWP) was prepared in response to a mandate received from the Eighth Meeting of the Resumed Session of the Community Council of Ministers (Council) in July 2001, which requested the Secretariat and the Standing Committee of Caribbean Statisticians to prepare a three-year programme of work for the improvement of the quality and range of statistics available in the Region.

The Twenty-Sixth Meeting of the Standing Committee of Caribbean Statisticians (SCCS) agreed to the preparation of a three-year work programme, after considering the data needs to establish and monitor the CARICOM Single Market and Economy (CSME). The RSWP was developed by the Secretariat and the Standing Committee of Caribbean Statisticians (SCCS) and was subsequently presented to and approved by the Fifteenth Meeting of Council in January 2005. However, the formal adoption of the RSWP by the NSOs was limited.

The RSWP was updated in 2011 through funding provided by two International Development Partners, the European Union under the Ninth European Development Fund, which provided funding for the development of the overall system and elements and the Inter-American Development Bank (IDB), that contributed to a diagnostic assessment that led to further refinement of the RSWP relative to the capacity of countries. The RSWP comprises **five (5) domains**:

- Demographic and Social Statistics;
- Economic Statistics;
- Environment and Multi domain Statistics;
- Methodology of Data Collection, Processing, Dissemination; and
- Analysis and Strategic and Managerial Issues of Official Statistics.

A2. CARICOM MODEL BILL

Statistics Legislation was introduced on the Agenda of the SCCS dating back to 2003 with a presentation by the Secretariat of a review of Statistics Acts for the collection of Official Statistics in the Caribbean Community. This review showed that legislation to enable the development of a Monitoring Framework for the establishment and functioning of the CARICOM Single Market and Economy (CSME) was required.

After this review, the decisions of the Fifteenth Meeting of Council in 2005 that led to approval of the RSWP, also urged countries to update their Statistics Legislation to obtain information required for decision-making.

Consequently, with the support of funding from the Inter-American Development Bank regional public goods facility a CARICOM Model Bill was prepared with full participation of the CARICOM AGS and the SCCS. The CARICOM Model Bill was presented to the Eighth Meeting of Senior Officials of Legal Affairs Committee (SOLAC), the Fifteenth Meeting of the Legal Affairs Committee (LAC) in Bridgetown Barbados in 2011 and to the Meeting of the Chief Parliamentary Councils (CPC) in November 2011 in Antigua and Barbuda.

The CARICOM Model Bill as drafted seeks to provide for the establishment of a National Statistical Institute with the functions of developing an integrated statistical system, establishing standards for statistical purposes, collecting, compiling, analysing and publishing official statistics and for other related matters. It made recommendations relative to the governance of the Institute, being a body corporate with a Board of Directors; on the recruitment of the Head of the Institute; on the establishment of standards, on the exchange of data from MDAs for statistical purposes only and on the dissemination of anonymised microdata.

The Model Statistics Bill also seeks to establish the Monitoring Framework at the country level to enable the National Statistical Systems to produce statistics and indicators that are in accordance with the provisions of the Revised Treaty of Chaguaramas, Establishing the Caribbean Community including the CSME. Additionally, the Official Statistics that will be

collected under this legislation will provide critical information for citizens and governments in undertaking their own decision-making on economic and social issues, in academic research and in promoting mutual understanding of the economic and social development of countries of the Community relative to the rest of the world.

A3. COMMON CENSUS FRAMEWORK¹⁷

The conduct of Population and Housing Censuses in the Caribbean dates back to the early 1840s continuing at regular intervals except during the period of the Great Depression which saw the absence of census-taking in most countries and the World War II period when the census was postponed. From the very early period in the Caribbean up to the 2010 Census Round census-taking was characterised by a coordinated approach across countries and efforts at uniformity in the census questions. In the early period of colonial rule, while it was recognised that complete uniform practices for all countries were not possible, practical guidelines were provided to ensure uniformity in data collection.

The recommencement of censuses in the post-World War II period in most countries in the Caribbean in 1946, exhibited significant regional collaboration with all participating member countries utilising a common approach. This period marked a defining moment in census-taking in the Caribbean and was the blueprint for the future. Jamaica had conducted its census in 1943 and for the countries that conducted their census in 1946, the unit established by Jamaica for the conduct of its census was extended and expanded to serve as a “regional body”, providing great assistance to other colonies in the undertaking of their census exercises.

Over time, the regional coordination of census taking in the Caribbean region increased as well as efforts at uniformity in the content of the census questionnaires. In 1966, the Conference of Commonwealth Caribbean Government Statisticians recommended the establishment of a Census Co-ordinating Committee, comprising the Census Officer for each territory under the Professor of Demography at the University of the West Indies (UWI) Mona, Jamaica. The principal objectives of this Committee were to plan the 1970 regional census and to advise and

¹⁷ “Paperless Census: A viable Option for CARICO Countries?” Philomen Harrison, presented at the World Statistics Congress 2015 of the International Statistical Institute, Rio de Janeiro, Brazil, Sept 2015

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assist local census organisations in the preparation and conduct of census and census-related activities. There was contribution to a budget that met the central cost of planning and support.

The Ninth Meeting of the Commonwealth Caribbean Government Statisticians in September 1976 recommended that the CARICOM Secretariat and the Council of Ministers establish a Regional Census Coordinating Committee (RCCC). This decision marked another turning point with the Regional Statistics Programme (RSP) of the CARICOM Secretariat being charged with the responsibility of facilitating regional coordination and assistance supported by the RCCC in CARICOM from the 1980 Census Round to the present time.

The RCCC reports to the Standing Committee of Caribbean Statisticians (SCCS) which was established by the Common Market Council of Ministers (Council) as a vehicle for harmonising and improving the range and quality of statistics in CARICOM. The Council also approved a budget for the regional support to which countries contributed. The CARICOM Secretariat through the RSP plays a vital role in facilitating the conduct of the censuses through the convening of the RCCC Meetings, constant monitoring of the status of countries preparedness between RCCC meetings; and in sourcing funds from IDPs for the application of technical assistance. For the 2010 Census Round given the financial situation of countries no effort was made through the Community Council of Ministers to have a central budget to which countries had to contribute to support activities in countries.

In fact, for the 2010 Census Round more concerted efforts to achieve a greater degree of uniformity within the regionally coordinated approach saw the execution of a **Common Census Framework** project which was jointly funded by the Inter-American Development Bank (IDB) and the United Nations Population Fund (UNFPA) with support being received from the United Kingdom through the Department for International Development (DFID) and the European Union. **The Common Census Framework comprised three main components, a Common Questionnaire which primarily was a common core of questions; Common Methodologies; and Common System of Data Dissemination.** Regional Training and in-country technical assistance were also provided in Mapping/GIS and in data processing at a level that exceeded

previous census rounds. There were also activities that were funded by the UNFPA either jointly with the Secretariat or on their own through direct technical assistance to countries.

It should be understood, that, despite the support provided to countries and the efforts at uniformity, countries make the final decisions as to the instruments and methods that are used in the conduct of their censuses. A review of the content of the questionnaire from countries relative to the common questionnaire showed that on average about 88 percent of the questions conformed/almost conformed to the Common Census Questionnaire.

A4. CARICOM CODE OF GOOD STATISTICAL PRACTICES (2010) – INCORPORATION OF A PEER REVIEW SYSTEM

The SCCS and the AGS developed a Code of Good Statistical Practices as part of its overall approach to improved quality of statistics throughout the CSS. Essentially the development of the Code of Good Statistical Practices was placed on the Agenda during a Ninth EDF Consultancy which sought to enhance statistical programming through updating and streamlining the RSWP. The Code of Good Statistical Practices is a vital mechanism to assess (self-assess) quality and good practices in Statistics. The CARICOM Code of Good Statistical Practices comprises fifteen (15) Principles. It has been administered three times, 2010/11, 2013/14 and 2016/17. Current developmental work led by the AGS and endorsed by the SCCS is the incorporation of a system of peer review. Pilot countries and peer reviewers have been identified and the peer review questionnaire has been developed and endorsed. Training of the peer reviewers has been conducted remotely. Guidelines for the pilot countries and for the peer reviewers are to be prepared for the conduct of the pilot.

A5. CARICOM QUALITY ASSURANCE FRAMEWORK

The Caribbean Community (CARICOM) Quality Assurance Framework (CQAF) is the supporting framework of the CARICOM Code of Good Statistical Practices (CGSP). The foundation behind the CARICOM Quality Assurance Framework (CQAF) is to ensure that the statistics produced are fit for purpose while being at the same time a manageable framework to implement across CARICOM SIDS.

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The preoccupation with the development of a quality assurance framework represents a concerted effort by the SCCS, AGS and the RSP to address statistical quality as a major outcome to be achieved in the CSS. The timing of the Draft CQAF document coincided with the decision by CARICOM Heads of Government to reinforce the importance of statistics as central to the integration movement through the endorsement of the Action Plan for Statistics in the Caribbean at the Thirty-Seventh Regular Meeting of the Conference of Heads of Government (HGC) of the Caribbean Community in 2016 and the subsequent endorsement of the preparation of the Regional Strategy for the Development of Statistics (RSDS) at the Thirty-Eighth Regular Meeting of the HGC in 2017.

The ultimate aim is to develop a CARICOM Regional Quality Assurance Framework grounded in the United Nations Fundamental Principles of Official Statistics and fundamentally in the CARICOM Code of Good Statistical Practices (CGSP) which will represent an important step in, not only promoting greater assurance in the use of statistics compiled by and for the Region, but will also promote the sustainability of practices that can ensure continuity in the fulfilling of the mission of providing harmonised, high quality statistics to users. The 42nd SCCS endorsed the recommendation of the AGS that a small subset of five (5) key principles should be implemented and that there should be movement towards a complete CARICOM Regional Quality Assurance Framework in the future, based on the capacity of countries. However, twelve (12) principles of the CGSP would be prepared in the CQAF for those countries that may possess the capacity to implement the entire set. The Principles that have been recommended by the AGS for the Phase 1 are: Quality Commitment (4), Statistical Confidentiality (5), Sound Methodology (7), Relevance (11) and Timeliness and Punctuality (13).

GLOSSARY

Explanatory Notes/Meanings of Key Terms in Statistics

Action Plan for
Statistics

The Action Plan for Statistics was endorsed by CARICOM Heads of Government at the 37th Meeting of the Conference of Heads of Government in 2016. There were five (5) major issues identified each of which contained Specific Actions and a timeframe.

The Plan covers five (5) major issues:

- Governments should undertake the strengthening of the National Statistical Systems (NSS) and specifically the National Statistical Offices (NSO);
- Governments should pursue the upgrading of the Information and Communication Technology (ICT) base;
- Promoting of careers in Statistics should be undertaken by Governments – embedding statistics as a [data] science in the curriculum of primary and secondary schools and enabling scholarships at the tertiary level;
- Governments should endorse and promote the Caribbean Association of Professional Statisticians (CAPS);
- Governments should support a regional approach to the development of statistics to optimise scarce resources in the strengthening of the NSS.

Administrative data

Administrative data are information that are collected and maintained by Ministries, Departments and Agencies (MDAs) of Governments, to meet legislative or regulatory requirements. The purpose is primarily for administrative records including for regulatory or audit purposes. This is one of the sources for statistics used by the National Statistics Offices for statistical purposes only. The NSOs therefore require access to this data either through linking individual records, data extraction and submission in electronic form or through the conduct of a survey of these agencies, or other means.

Advisory Group on
Statistics

The CARICOM Advisory Group on Statistics (AGS) is a subsidiary group of the Standing Committee of Caribbean Statisticians (SCCS), which was established in 2007, which was the year of its First Meeting in Suriname. Its main objective at that time was to enable the implementation of the common Regional Statistical Work Programme (RSWP) which was approved by the Fifteenth Meeting of the Community Council of Ministers in 2005. The Agenda of the AGS is now an expanded one, acting as a body that seeks to advance the decisions of the SCCS, participating in development projects and leading in initiatives such as the CARICOM Model Bill, the CARICOM Quality Assurance Framework and monitoring of projects funded by IDPs. The AGS has Terms of Reference. It is not a decision-making body but makes recommendations for determination by the SCCS.

Attachment
Programme

A programme to develop statistical capacity in Member States/Associate Members through on-the-job training that provides practical experience either through the presence of the trainee in the NSO providing the expertise or the presence of an expert from an NSO to the NSO receiving the training. While this might occur on an ad hoc basis, work is in progress with the SCCS/ AGS to establish a permanent or a continuous attachment programme as part of the Statistical Capacity Building mechanism that is linked to the initiative on the Centre of Excellence (CoE) in Statistics explained elsewhere in this glossary.

Big Data

Big data essentially includes data sets, structured, semi-structured or unstructured, that are characterised by high volume, velocity and variety of data and which requires specialised software tools to capture, organise, manage and analyse. Some examples of Big data include those generated using the internet and mobile devices in general, such as through online purchases on the internet, by the transactions and actions of large corporations, by scanning of information and the digitization of transactions and using social media. Big data is said to be the confluence of the three trends consisting of big transaction data, big interaction data and big data processing. The implications for official statistics are: (i) possible expansion of the work of the NSOs to take on the opportunities presented by Big Data; (ii) for the NSO to become a trusted third party in certifying the quality of the Big data; (iii) To be a clearing house for data from this and other non-traditional sources and (iv) to ensure that the knowledge and skill sets that are required (data science) to manage and analyse Big Data are available to exploit the opportunities to make use of this data as a source for deriving official statistics

Branding of [CSS Statistics]

The branding of the CSS implies distinctive recognition of the Statistics produced by the CSS based on its high quality and the principles that are embodied in its production, such as Professional Independence, Integrity and Confidentiality. The branding of the CSS Statistics by raising the awareness of users of the quality of data produced by NSOs and the Regional Statistics Programme will engender trust in the statistical products Underpinning the Brand will be the CARICOM Quality Assurance Framework (CQAF) and the Code of Good Statistical Practices (CGSP).

CAPI Computer-assisted personal interviewing (CAPI) is an interviewing technique in which the respondent or interviewer uses a computer, primarily a laptop or hand-held device, such as a tablet or other mobile device such as a smartphone for data collection. This approach to data collection contrasts with the traditional manual data collection using paper and pencil questionnaires to record the information obtained from a respondent and then to capture it either manually or using a scanner. There are implications for data processing of the information, including editing and validation checks, some of which can be incorporated in the CAPI method of data collection in real time. There are other implications such as the skill sets of interviewers, quality considerations, the speed of capturing and processing the information and the management of the change process from moving from the paper and pencil approach to a CAPI method. Several countries in the CSS have indicated that they intend to use CAPI as the data capture method for the 2020 Census Round.

CARICOM Code of Good Statistical Practices (CGSP) The CARICOM Code of Good Statistical Practices was developed out of a Ninth European Development Project on Statistical Programming. It is based on the European Statistics Code of Ethics Practice (ESCP) and comprises 15 Principles covering the institutional environment, the statistical production processes and the output of statistics. There are indicators of good practice for each of the Principles. It currently is administered on a self-assessment basis, but work is in progress to incorporate a Peer Review system for the CGSP.

The Code of Good Statistical Practice is therefore used as a technical standardisation instrument for coordinating and developing statistical activities, upgrading their quality and, as a result, strengthening the national statistical systems. It underscores the development of the CARICOM Quality Assurance Framework which is based on 12 of the 15 Principles of the CGSP and which is currently being developed for implementation in the CSS. Please see Attachment I on the overview of key regional public goods.

Caribbean Institute
for Statistical
Training and
Research (e-CISTAR)

The virtual Caribbean Institute for Statistical Training and Research (e-CISTAR) is intended to be an online statistical facility with the following objectives: (i) to enable the training of statisticians in the region through the availability of online training courses, (ii) to provide an online Knowledge Base in Statistics, (iii) to reinforce the networking and exchange of best practices and (iv) to foster focused statistical research.

The origins of the e-CISTAR is an initiative that was developed during the early period of the SCCS Forum in the late 70s to mid-80s and constituted a physical statistical training institute. This idea is being revisited as a virtual institute given the advances in IT that may make it more cost-effective relative to the financial burden to be placed on Member States. It would require collaboration with all universities in the Community. A key part of the e-CISTAR as indicated in (i) is the development of an online Knowledge Base which entails primarily but not exclusively transformation of the online Help Desk developed during the Ninth EDF, as it relates to manuals, guidelines produced by the CSS as well as from external sources including links to existing knowledge base resources in statistics.

CARICOM Model
Statistics Bill

The Model Bill is model legislation that serves, as the name implies, as a model to Member States for developing/updating their respective statistical legislation. It was developed with the support of funding from the Inter-American Development Bank regional public goods facility and with the full participation of the CARICOM AGS and the SCCS. Please see Attachment I on the overview of key regional public goods. It takes into consideration a number of key issues impacting the work in statistics such as IT, coordination of the national statistical system, need for independence of the NSO relative to the integrity of the statistics produced and the access of anonymised micro data access.

CARICOM Quality Assurance Framework	The Caribbean Community (CARICOM) Quality Assurance Framework (CQAF) is the supporting framework of the CARICOM Code of Good Statistical Practices (CGSP). The foundation behind the CARICOM Quality Assurance Framework (CQAF) is to ensure that the statistics produced are fit for purpose while being at the same time a manageable framework to implement across CARICOM SIDS. The CQAF is also based on UN Fundamental Principles of Official Statistics (UNFPOS), regional Statistics Codes of Practice, Quality Assurance Frameworks for Official Statistics. The CQAF is currently being developed by the SCCS with support from Statistics Canada. Please see Attachment I on the overview of key regional public goods.
CARICOM Statistical System (CSS)	The CARICOM Statistical System (CSS) comprises the National Statistical Offices, other producers of statistics in Ministries, Departments and Agencies (MDAs) and the Regional Statistical Programme (RSP). The NSO and the other producers of statistics in the MDAs make up the National Statistical System (NSS).

Central repository

Central repository for statistics is a general term used to refer to a destination designated for data storage. It is also commonly called data warehousing. The Secretariat through the Regional Statistics Programme (RSP) has been collecting statistical data from Member States and Associate Members of CARICOM on a number of statistical areas such as Merchandise Trade, Population, National Accounts and other economic, social, environment and ICT statistics. These datasets are located in electronic databases in the RSP which has responsibility for utilising them to compile intraregional statistics to the Community.

In the area of Trade and for the Population Census, detailed data sets are generally received but most of the data are at the aggregate level including indicators. Elements of the Central Repository already exist both at the level of detailed data and more aggregate statistics.

This Central Repository can serve a dual purpose. The first being as a central point for the availability of data on the Community and the second issue as a back-up for critical and easily retrievable statistics, indicators and data sets. Some past work has been undertaken relative to data warehousing framework development at the national and regional levels, but implementation was not possible. Given the advances in IT these frameworks need updates or revamping including making use of cloud computing and other mechanisms relative to storage of the data since the primary purpose of the repository is as a single point for dissemination of data on the Community.

Centre of Excellence	<p>The Centre of Excellence (CoE) is a competency centre or capability centre within an organisation, that serves as a focal point and a resource of expertise and, training. It is aimed and developing and sharing expertise and Best Practices within the organisation and is a key mechanism for capacity-building of staff of the organisation. The SCCS and the AGS has borrowed this concept, applying it to the CSS as a mechanism whereby NSOs can build capacity through developing of these CoEs in specific areas the expertise of which can then be shared across the CSS.</p> <p>The key vision of the CoE in statistics is to identify an exceptional organisation that is consistently producing and disseminating statistics or related services of high quality, in a specific area, not limited to the technical work required to produce the statistics, but also IT infrastructure management and development, corporate business planning, leadership, and Communication and Advocacy. Such an NSO can be branded as a CoE provided it meets specific criteria.</p> <p>The criteria identified include documented experience and expertise in the relevant area of a consistently high quality that is also in conformity with the internationally and regionally agreed statistical standards; adequate staff with the relevant competencies and experience that are able to effectively share their expertise and best practices; sustained work programme of the host NSO which is not negatively impacted by the provision of support to another NSO; adequate infrastructure including physical office space such as a training room to be used for purposes of the CoE, adequate equipment, IT software and adequate finance as required to enable the operation of the NSO as a CoE</p>
Cloud computing	<p>A cloud refers to a distinct IT environment that is designed for the purpose of remotely provisioning scalable and measured IT resources, usually via the internet but it can take the form of allowing for computers to communicate with one another outside a web-based environment. Cloud computing is the practice of using a network of remote servers usually (but necessarily) hosted on the Internet to store, manage, and process data.</p>
Data visualisation	<p>Data visualisation is the presentation of data in a pictorial or graphical format. It enables decision makers to see analytics presented visually, so they can grasp difficult concepts or identify new patterns.</p>

Data analytics	Data analytics is the process of examining data sets in order to draw conclusions about the information they contain, increasingly with the aid of specialised systems and software. This terminology is particularly used with reference to the processing of Big Data.
Data revolution	This term was used in the report of the High-Level Panel of Eminent Persons commissioned by the UN Secretary General on the post-2015 development agenda. The Panel called for a data revolution for sustainable development, with a new international initiative to improve the quality of statistics and information available to citizens. The Panel further highlighted that in this data revolution there is need to actively take advantage of new technology, crowd sourcing, and improved connectivity to empower people with information on the progress towards the targets.
Data science	<p>Big data processing cannot be easily achieved using traditional data analysis methods. Instead, unstructured data requires specialised data modelling techniques, tools, and systems to extract insights and information as needed by organisations. Data science is a scientific approach which applies mathematical and statistical ideas and computer tools for processing big data.</p> <p>Data science is a specialised field that combines multiple areas such as statistics, mathematics, intelligent data capture techniques, data cleansing, mining and programming to prepare and align big data for intelligent analysis to extract insights and information. Though this it may sound simple, data science is quite a challenging area due to the complexities involved in combining and applying different methods, algorithms, and complex programming techniques to perform intelligent analysis in large volumes of data. Hence, the field of data science has evolved from big data, or big data and data science are inseparable. However, there are many differences between big data and data science.</p>
Data scientists	A data scientist is a high-ranking professional with the training and curiosity to make discoveries in the world of big data, bringing structure to large quantities of formless data making analysis possible. Often, they have a background in Mathematics, Computer Science and Probability. They are capable of displaying information visually, finding clear patterns in the data.

Data warehouse The data warehouse often is the place in which multiple heterogeneous data sources are integrated into a consistent single point-of-access and is the data source for large-scale data mining. It is supposed to provide storage, functionality and responsiveness to queries beyond the capabilities of today's transaction-oriented databases and it is set to improve the data access performance of databases. It is useful IT mechanism for data dissemination. A strong database starts with good organisation and management, conforming to database standards. Databases are growing at an unprecedented rate and the storing and querying of large volumes of data from multiple data sources and in various data formats are required to be done in a meaningful and efficient way.

Gender Equality Indicators Gender equality indicators allow a measure of where women and men in a society stand vis-à-vis key social and economic issues such as health outcomes, participation in economic life, educational achievements, decision-making, leadership and public life and in the relative outcomes on human rights. Gender equality indicators require the collection and analysis of sex-disaggregated-data on who participates in and benefits in these and other related areas of social and economic life of a nation. Gender equality indicators help assess changes in gender relations in economic and social institutions, laws and practices.

The CARICOM Secretariat and the United Nations Statistics Division (UNSD) undertook a project from 1999-2004 to develop Social/Gender and Environment Statistics. The Gender Indicators were developed through bringing together Gender experts and statisticians and were therefore grounded in gender issues and concerns. More recently, the CARICOM Secretariat in partnership with the United Nations Entity for Gender Equality and the Empowerment of Women Multi-Country Office for the Caribbean (UN Women MCO), initiated an effort in 2014 to identify a context-relevant set of gender equality indicators that would enable the systematic generation of socio-economic statistic. These Gender Equality Indicators are based those approved by the UN Statistical Commission in 2013.

Generic Statistical Business Process Model (GSBPM)

The GSBPM describes and defines the set of business processes needed to produce official statistics. It provides a standard framework and harmonised terminology to help statistical organisations to modernise their statistical production processes, as well as to share methods and components. The GSBPM can also be used for integrating data and metadata standards, as a template for process documentation, for harmonizing statistical computing infrastructures, and to provide a framework for process quality assessment and improvement. It was developed by the United Nations Economic Commission for Europe (UNECE). It is a means to describe statistics production in a general and process-oriented way. It is used both within and between statistical offices as a common basis for work with statistics production in different ways, such as quality, efficiency, standardisation, and process-orientation.

Geospatial referencing

Spatial data, also known as geospatial data, is information about a physical object that can be represented by numerical values in a geographic coordinate system. It has increasingly been recognized as an important aspect of the national, regional and global information infrastructure. Geospatial information technologies, services and platforms have become critical tools to support national development, economic growth, improved decision-making and policy formulation, and have enhanced the capability for Governments, international organizations and researchers to analyse, model, monitor and report on humanitarian, peace and security, sustainable development, climate change, disasters, and other global development challenges. The linking of geospatial information and statistics improves the relevance of the evidence on which decisions can be made. Geospatial referencing can be done through satellite imagery discussed later.

Harmonised statistics Harmonised statistics are produced through ensuring that datasets are based on common classifications, definitions and standards which lead to improved comparability of statistics. The use of agreed harmonised concepts are a step towards this goal by making the interpretation and analysis of data easier. Harmonisation aims to make statistical definitions, concepts, methodologies and outputs comparable across the CSS and to facilitate clearer and more robust comparisons between data sources and to improve data quality. There is a difference between harmonisation and standardisation: standardisation involves adopting uniform questions, methodology, processes or outputs to measure an item while harmonisation brings together various types, levels and sources of data in such a way that they may be comparable.

In CARICOM, there is a common Regional Statistical Work Programme approved by the Community Council in 2005. A key contribution of the Regional Statistics Programme across Member States is to ensure that standards and harmonisation in the production and dissemination of statistics are developed and implemented as a vital aspect of the CARICOM Integration agenda. This would enable the aggregation of data of Member States and the ability to undertake comparative analysis.

High quality statistics It is important to have a commitment to quality in producing official statistics because data will only be useful if the quality is good. Accurate, reliable and timely information contribute to sound decision-making. Therefore, commitment to sound processes for collecting, compiling, processing and disseminating data are essential in ensuring that the statistical outputs are of high quality.

Statistical quality is defined in terms of a number of criteria which include relevance, accuracy, timeliness, punctuality, accessibility, clarity, comparability and coherence. See references on the CARICOM Quality Assurance Framework (CQAF) and the CARICOM Code of Good Statistical Practices (CGSP) provided earlier.

Integrated data management system	An integrated data management system is an integrated, yet modular, data management environment within which data, databases, and data-driven applications are governed and operate. Every element, sub-system or system of the data is inter-related with one system feeding into another and presenting a more holistic and strategic approach to managing data and statistical information. Currently, most NSOs have products in-house that support different roles and tasks, with each focusing on providing rich task-specific value, but with little emphasis on linkages with the preceding or next phase in the data lifecycle. For example, data are collected for the compilation of a specific area of statistics, but there are little or no linkages between the production of these statistics and their dissemination, say, through the use of such tools/facilities as a data warehouse.
Integrated statistical system	An integrated statistical system is characterised by the use of a common set of tools and processes for the compilation, analysis and dissemination of various domains of statistics - social, economic, environment, ICT. The model relies on the integration of datasets and the combination of data from different sources which is a departure from the traditional “stovepipe” method whereby each domain operated in separate units/’silos’ often using different approaches to the data compilation and dissemination cycle. In an integrated system, statistics for specific domains are not produced independently from each other but are instead produced together in an integrated fashion (horizontal integration).
Interoperable ICT infrastructure	Technical interoperability is the ability of two or more information and communication technology applications, to accept data from each other and perform a given task in an appropriate and satisfactory manner without the need for extra operator intervention.
Maturity	A Statistical Office will be considered as having reached the “next level of maturity” when it has graduated to a status in which it can sustainably produce and respond to demands for statistics including new and emerging demands in a timely manner; it functions within a well-coordinated national statistical system; and it possesses the capabilities and the capacity to provide support to other statistical offices without impacting its own operations.

Metadata	<p>A basic definition is that metadata are data that describe other data. Thus, statistical metadata are data that describe statistical data. Statistical metadata may also describe processes that collect, process, or produce statistical data; such metadata are also called process data. The term “statistical metadata” may also be used for descriptions of resources and tools that are instrumental in statistics production, e.g., statistical classifications and standards, registers, and statistical methods, procedures, and software. Metadata is a tool for comprehension, interpretation and understanding, providing meaning for numbers. It helps the user to determine if the data are appropriate for the problem at hand, i.e., determine its fitness for use.</p>
Methodological frameworks	<p>Regionally/internationally agreed standard sets of recommendations on how to compile systems of statistics in specific areas. The recommendations are expressed in terms of a set of concepts, definitions, classifications and rules that comprise the regionally/internationally agreed standard for measuring the specific area.</p>
Microdata	<p>The term “microdata” refers to sets of records containing information on individual persons, households or business entities. Microdata are obtained from statistical surveys, censuses and administrative sources and are usually aggregated in the form of tables or otherwise for use in the production of official statistics. Included in the Core Values of the RSDS is the commitment to Confidentiality and the guarantee that the privacy of data providers - households, individuals, enterprises, administrations and other respondents would be upheld and that information provided would only be used for statistical purposes. The SCCS has adopted a position on access to microdata in the Region which states, in part, that ‘access to all statistical data, whether microdata or tabular data, shall be strictly in accordance with the Statistics Acts of CARICOM Member States and Associate Members’ and ‘encourages Member States and Associate Members to establish mechanisms for disclosure prevention, such as data anonymisation and to provide access to microdata under controlled conditions, such as microdata laboratories’.</p>

Term	Explanatory Notes/Meanings of key Terms in Statistics
Multi domain statistics	Multi-domain statistics and indicators deals with conceptual or data work based on a specific thematic approach to outputs that cut across several economic, social or environmental subject areas. In the common Regional Statistical Work Programme, Multi Domain Statistics falls under the domain, Environment and Multi-Domain Statistics and includes: 2 Regional (Sub-National) and Small Area Statistics; Living Conditions and Poverty; Gender Concerns and Special Population Groups; Information Society; Sustainable Development; Yearbooks and Similar Compendia
National statistical office (NSO)	The NSO is a central statistical agency mandated to produce key official statistics. It may be a department or office of a ministry or an autonomous or semi-autonomous statistical authority.
National Statistical System (NSS)	The national statistical system (NSS) is the ensemble of statistical organisations and units within a country that jointly collect, process and disseminate official statistics on behalf of the national government.
National statistical work programme	The work programme developed by the NSO that guides the production of statistical products to meet the demands of users at the national and regional levels.
National Strategy for the Development of Statistics (NSDS)	The NSDS is a mechanism that has been developed by the organisation Partnership in Statistics for Development in the 21st Century (PARIS21), based on strategic planning, and used to assist countries in strengthening statistical capacity. For regional statistical offices there is also a Regional Strategy for the Development of Statistics (RSDS).
Official statistics	Official statistics are statistics disseminated by the national statistical system, except those that are explicitly stated not to be official. Official statistics result from the <i>collection and processing of data</i> into statistical information by a government institution or international organisation. They are then disseminated to help users develop their knowledge about a particular topic or geographical area, make comparisons between countries or understand changes over time. Official statistics make information on economic and social development accessible to the public, allowing the impact of government policies to be assessed, thus improving accountability.

Open data

Open data is grounded in the idea that some data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. A piece of data is open if anyone is free to use, reuse, and redistribute it – subject only, at most, to the requirement to attribute and/or share-alike.

New sources of data and new methods of data analysis are changing what we know about the world. Open Data Watch (ODW) tracks and supports this Data Revolution. ODW is an international, non-profit, non-governmental organization that works at the junction of open data and official statistics, monitoring open data policies, measuring their success and impact, sharing knowledge, building partnerships, and offering strategic advice and practical assistance to national governments, international organizations, and other NGOs.

Open source

The term "open source" refers to something people can modify and share because its design is publicly accessible. The term originated in the context of software development to designate a specific approach to creating computer programs.

Peer review system

Evaluation of the performance, or the quality of work, of a member of a peer group by the experts drawn from that group.

Development of A Peer Review System in the Caribbean Code of Good Statistical Practices (CGSP):

The Fifteenth Meeting of the CARICOM Advisory Group on Statistics (AGS) after discussions of the results of the second administration of the CGSP in 2013/14 made the following recommendation: (i) A Peer Review System as developed by the CARICOM AGS was recommended to be endorsed by the SCCS; (ii) The Peer Review is to be undertaken as an initial mechanism that can audit the results of the self-assessment.

Countries have volunteered to be peer-reviewed and countries and organisations that attend the SCCS have also volunteered to be reviewers. Training of the Peer Reviewers have been conducted. Pilot Implementation of the system is outstanding

Regional Census Coordinating Committee	The Regional Census Coordinating Committee is a sub-committee of the SCCS through which the Regional Support Strategy for the conduct of the Population and Housing Census is coordinated by the CARICOM Secretariat to assist countries in the conduct of their censuses including the provision of training and technical assistance. The rationale behind the use of a regionally coordinated approach to census taking in the Region is to enable methodological uniformity and comparability in the census data collected across countries and to support the conduct of the activity in countries, through regional training, South-South support and in country assistance.
Regional public goods	A regional public good is a service or resource whose benefits are shared by neighbouring countries (the countries within the Region). The benefits of pure regional public goods are “non-rival” (one country’s consumption does not subtract from the amount available to other countries) and “non-excludable” (no country in the region can be excluded from benefiting, except at prohibitive cost). The focus of the support of the CARICOM Secretariat exploits the development of Regional Public Goods in pursuit of a mainly regional approach to the development of statistics,
Regional Statistical Work Programme (RSWP)	The RSWP was developed by the Secretariat and the Standing Committee of Caribbean Statisticians (SCCS) and was subsequently presented to and approved by the Fifteenth Meeting of Community Council in January 2005 and subsequently updated in 2011, through two separate projects in which a diagnostic assessment was undertaken. Further information is provided in the attachment to the RSDS.

Satellite imagery	The term "satellite imagery" refers to types of digitally transmitted images taken by artificial satellites orbiting the Earth. In addition to military applications, satellite imagery has been used for mapping, environmental monitoring, archaeological surveys and weather prediction. Governments, large corporations and educational institutions make the most use of these images. Satellite imagery has many advantages. It can be used to track weather systems, especially dangerous storms like hurricanes, with great accuracy. It also allows for much greater areas of coverage and, because all information is digital, it can be easily integrated with software. Satellite data are invaluable to analysing changes in areas such as climate, forest cover, water sources, and air pollution over time. These images are used in many fields, including agriculture, geology, forestry, regional planning, mapping, and global change research. It is linked to geospatial referencing discussed above.
SDMX	Statistical Data and Metadata Exchange (SDMX) is the set of technical standards and content-oriented guidelines, together with an IT architecture and tools, to be used for the efficient exchange and sharing of statistical data and metadata.
Small Islands Developing States Accelerated Modalities of Action (SAMOA) Pathway	The SIDS Accelerated Modalities of Action (SAMOA) Pathway is an international framework that was developed as the outcome of the Third International Conference on Small Island Developing States (SIDS Conference) held in September 2014 in Apia, Samoa. The Conference played a significant role in identifying SIDS priorities that needed to be considered in the formulation of the 2030 Agenda.
Standing Committee of Caribbean Statisticians	The Standing Committee of Caribbean Statisticians was established within the framework of the Treaty establishing the Caribbean Community, in accordance with Resolution No. 54/74/4 of the Fourth Meeting of the Common Market Council of Ministers and subject to the general supervision of Council "to foster increased recognition of the importance of adequate statistical services to the countries of the Region; to widen the scope and coverage of statistical data collection; and to improve the quality, comparability and timeliness of statistics produced."
Statistical capacity	Statistical capacity is an entity's ability to collect, analyse, and disseminate high-quality data about one or more specific areas of statistics.

Term	Explanatory Notes/Meanings of key Terms in Statistics
Statistical infrastructure	Statistical infrastructure refers to tools which support the operation of a statistical system. These tools can help to organise the statistical system, improve efficiency, add value, create new outputs or simply perform tasks within the system. Statistical infrastructure includes tools such as standards, classifications and methods; information systems; metadata repositories; legislation; frameworks and information architecture; and skills and experience.
Statistical literacy	Statistical literacy is the ability to understand and reason with statistics and data. The abilities to understand and reason with data, or arguments that use data, are necessary for citizens to understand material presented in publications such as newspapers, television, and the Internet.
Statistical processes	The complete set of sub-processes needed to support statistical production including data collection, compilation, dissemination and analysis.
Statistical products	Statistical products are, generally, information dissemination products that are published or otherwise made available for public use that describe, estimate, forecast, or analyse the characteristics of groups, customarily without identifying the persons, organisations, or individual data observations that comprise such groups.
Subsidiarity	The principle of subsidiarity implies that a central authority should have a subsidiary function, performing only those functions which cannot be performed at a more local level. The central authority will only provide assistance on the requests and consistent with requests made by countries. Therefore in the case of statistics the work being undertaken should be country-driven and country owned. The AGS, SCCS, RCCC and TWGs are key regional mechanisms in the statistical architecture that can ensure country-driven and country-owned statistical programmes of assistance in CARICOM.
Technical Working Groups (TWG)	A technical working group is a group of persons with expertise on a particular area who work together on specific goals. In the case of the Region, TWGs have been established in a number of areas such as national accounts/trade in services, merchandise trade, SDGs and environment, in order to further the development of these statistics.



