

NSS
JAMAICA



NATIONAL STATISTICAL SYSTEM ASSESSMENT JAMAICA



Statistical
Institute of
Jamaica



Foreword

Data are fundamental tools of democratic governance as they allow for greater transparency and accountability. The provision of quality statistics is essential for planning and monitoring in both the public and private sectors. Without good data government, businesses and individuals are unable to assess past performances and make appropriate plans for the future. The value of statistics to development was emphasised in the United Nation's report A World that Counts - Mobilising the Data Revolution for Sustainable Development, which stated:

“Data are the lifeblood of decision making and the raw material for accountability. Without high quality data providing the right information on the right things at the right time; designing, monitoring and evaluating effective policies becomes almost impossible”.

The demand for quality statistics is increasing as Jamaica, like the rest of the world, moves towards more evidenced-based decision-making. Global development frameworks such as the 2030 Agenda for Sustainable Development (SDGs) have also ushered in renewed and urgent attention on the need for better data and statistics to monitor progress and inform policy and decision-making.

Jamaica has had a long history of producing national statistics with the first record of statistical activity dating back to the population census of 1844. However, the provision of official statistics to the government and people of Jamaica on a regular basis began in 1946. The need for statistical information to assist policy makers, following the implementation of adult suffrage, led to the passing of the Statistics Act in 1946. This gave birth to Jamaica's first National Statistics Office (NSO), the Central Bureau of Statistics, which was tasked to process and analyse the 1943 Population Census and determine the size of the population in preparation for the implementation of adult suffrage and the election of 1944. In the ensuing years, the range of statistics produced in Jamaica has expanded, covering other social, economic and environmental aspects of the country.

Official statistics in Jamaica are, however, produced in a decentralized system and in the absence of a coordinated framework. This has resulted in the absence of harmonised concepts, definitions, methodologies, standards, classifications and geographic demarcations. This lack of coordination among the producers of official statistics in Jamaica limits the ability of Jamaica's National Statistics System (NSS) to respond to the data requirements of policy makers, businesses, and the public. The data requirements of VISION 2030 Jamaica, regional CARICOM

work programmes aimed at measuring the impact of the CARICOM Single Market and Economy (CSME), International Trade Agreements and the Sustainable Development Goals (SDGs) all drive the need for the production and dissemination of relevant statistics in a coordinated manner.

In an effort to address these and other weaknesses in the system a number of strategies are being developed by the Statistical Institute of Jamaica (STATIN) aimed at establishing a coordinated National Statistics System (NSS). The objective of an NSS is to ensure co-ordination and co-operation among producers and users of official statistics in order to advance standardisation, quality, consistency, comparability and the use of evidence as the basis for policy choices and decision-making.

This document comprises an assessment of the NSS of Jamaica, with an in-depth review of the readiness and capacity of Ministries, Departments and Agencies (MDAs) to adequately address the statistical needs of the country. It identifies priority actions to support improvements in and developments of sectoral statistical areas. This assessment was undertaken with technical and financial assistance from the Partnership in Statistics for Development in the 21st Century (PARIS21). It forms part of the process of preparing a National Strategy for the Development of Statistics (NSDS) for Jamaica. This strategy will guide the development of the NSS and will provide the country with a vision for the development of statistics consistent with Vision 2030 Jamaica.

A handwritten signature in black ink, appearing to read 'Coy', is positioned above the printed name and title of the signatory.

Carol Coy

Director General

Statistical Institute of Jamaica (STATIN)

Acronyms

BOJ	Bank of Jamaica
CGP	Code of Good Practice in Statistics for Latin America and the Caribbean
ICT	Information and Communication Technology
IDB	Inter-American Development Bank
IDP	International Development Partner
IMF	International Monetary Fund
MDAs	Ministries, Departments and Agencies
MICAF	Ministry of Industry, Commerce, Agriculture and Fisheries
MNS	Ministry of National Security
MoFP	Ministry of Finance and the Public Service
MOH	Ministry of Health
MOT	Ministry of Tourism
MTF	Medium Term Socio-Economic Policy Framework
NSDP	National Summary Data Page
NSDS	National Strategy for the Development of Statistics
NSO	National Statistics Office
NSS	National Statistics System
PARIS21	Partnership in Statistics for Development in the 21 st Century
SDDS	Special Data Dissemination Standard
SDG	Sustainable Development Goal
SPSS	Statistical Packages for Social Sciences
STATIN	Statistical Institute of Jamaica
SWOT	Strengths, Weaknesses, Opportunities, Threats
TASC	Tool for Assessment of Statistical Capacity
UNDP	United Nations Development Programme
UN	United Nations

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It is hoped that the result of this project will facilitate the development of a National Strategy for the Development of Statistics in Jamaica and ultimately contribute to the production of good quality statistics in Jamaica.

Executive Summary

For many decades, Jamaica has been producing data at international standards ensuring the application of best practices to satisfy the needs of policy makers, researchers, academia and the public at large. These data cover a wide range of subject matters and topics. The production and provision of quality statistics have undergone far-reaching expansion over time and today Jamaica is recognised internationally for the production of high quality social and economic data.

Currently, the island produces:

1. economic statistics including gross domestic product, international merchandise trade, consumer price index and producer price index, financial sector statistics, balance of payments, external debt, exchange rates, fiscal sector statistics, tourism, production;
2. social statistics on the population, labour market, employment and earnings, vital events, education, health, crime;
3. environmental statistics on the country's natural resources, air quality, weather, etc.; and
4. multi-domain statistics including Information and Communication Technology (ICT) statistics.

Objective of this Assessment of Jamaica's National Statistics System (NSS)

"The National Statistical System (NSS) is the combination of statistical organisations and units within a country that jointly collect, process and disseminate official statistics on behalf of a national government." (PARIS21, 2017)

The overall goal of this assessment of the NSS of Jamaica was an in-depth review of the readiness and capacity of Ministries, Departments and Agencies (MDAs) to adequately address the statistical needs of national Sustainable Development Strategies, primarily the global Sustainable Development Goals (SDGs), and Jamaica's National Development Plan, Vision 2030.

Specifically the outlined objectives were:

- I. an independent assessment of the Jamaican statistical system;
- II. organization and implementation of consultations with stakeholders; and,
- III. implementation of a SWOT analysis of the MDAs as reliable sources for good quality data.

Method of Assessment

There was a two-pronged approach for the NSS assessment. This included a desk review of documents outlining previous assessments of Jamaica's NSS and the National Statistics Office (NSO), and a round of consultations with other key producers of official statistics.

The primary documents reviewed were:

1. Peer Review Report on Compliance with the Regional Code of Good Practices in Statistics: Jamaica (2015) – ECLAC;
2. Gap Analysis of Jamaica's National Statistics System (2013) – STATIN/ UNDP;
3. Tool for Assessment of Statistical Capacity (TASC): Jamaica (2013) – IDB.

The stakeholders were assessed at two levels:

1. Agency Level – Looking at their overarching policies and practices governing the production of statistics;
2. Programme Level – Looking at standards, methods and data quality.

In addition to the National Statistics Office, the Statistical Institute of Jamaica (STATIN) and Ministries, Departments and Agencies (MDAs) which are required to provide data for the monitoring of the Sustainable Development Goals (SDGs), were selected for the assessment.

This assessment was done through face-to-face consultations with the staff of the MDAs as well as the completion of previously prepared questionnaires.

Main Findings

Current State of Jamaica's NSS

- Jamaica has a decentralised statistics system where the production of statistics is fragmented and agency determined.
- Producers of official statistics in Jamaica are largely MDAs.
- All government agencies are required to provide data at varying intervals, but the majority produce annual statistical reports for the national budget.
- There is no single piece of legislation which governs official statistics in Jamaica

Coordination in the NSS

1. Coordination in the production of official statistics is not legally mandated.

2. Statistical production in Jamaica is typically undertaken in an environment with no comprehensive coordination of all relevant entities, using disparate standards and definitions.
3. The process of information sharing between administrative agencies is not legally mandated and for the most part takes place at the discretion of the relevant institutions.
4. Despite the general lack of coordination within Jamaica's NSS, in recent years efforts have been made to improve the harmonization among the principal entities engaged in the production of some statistics.

Legal and Institutional Framework

1. The Statistics Act is the primary legislation governing the production of official statistics. It was first passed in 1946, in response to the need to create a national statistics office, with the primary focus of processing and analysing the 1943 census.
2. Since its inception, the Statistics Act has been amended twice, each time expanding the role and responsibilities of the NSO, the Statistical Institute of Jamaica (STATIN).
3. The objective behind the current initiative to amend the Statistics Act is to modernize and strengthen the national statistical system to better produce quality statistics that respond to new and evolving national data needs. This amendment will better define the role and responsibilities of STATIN, and establish the overarching framework for the production of official statistics in Jamaica.

Assessment of MDA Programmes

1. Currently, social and economic statistics dominate the programmes of MDAs. This is evidenced by the fact that over half of these programmes pertain to demographic and social statistics while economic statistics account for just under a third.
2. The main reasons for the production of data are given as: government/legal mandate to inform policy and for administrative and regulatory purposes.
3. The assessment revealed that some data-producing MDAs were not assured legally of their professional independence. That is, they did not have a law or other formal provision such as a policy that prohibits interference from others, including other government agencies, in the compilation of statistics.
4. On the matter of confidentiality, the majority of the entities assessed had some formal provision in place to maintain data confidentiality.

5. A key component of a successful NSS is the availability of resources for the production of required statistics. Resource availability is of major concern to the MDAs as the demand for data to satisfy the provision of SDG indicators is growing. The majority of MDAs indicated that their ability to produce statistics was severely hampered by a lack of sufficient resources primarily human, capital, space, equipment and infrastructure.

Recommendations

The assessment identified a number of challenges faced by MDAs in the execution of the task of producing good quality statistics on a timely basis. With the objective of achieving a coordinated national statistics system, steps will have to be employed to address these situations. The following are recommendations for priority attention.

The review of the legislation to adequately address the production of statistics

There is an urgent need to:

- a. Amend the Statistics Act with a view to establishing a governing body to coordinate and manage the continued development and modernization of the NSS ;
- b. Empower STATIN with the authority and resources to respond to the statistical needs of government, private sector and the general public;
- c. Enshrine in law professional independence of entities involved in the production of statistics;
- d. Create the framework to facilitate data sharing and improve general access to data within the NSS.

Data dissemination

The dissemination of data reflects the understanding of what is produced and available, what is required by the user and the satisfaction of this requirement. For this to be accomplished, existing technology needs revamping to accommodate the inclusion of modern hardware and software packages as well as the examination of multi-agency cost sharing agreements. There is also a need to fill the vacuum for greater partnership, data storage, data sharing in open data format via efficient websites, as well as the use of social media to promote easy access to information. Additionally, priority needs to be given to harmonizing standards and definitions to establish data linkages and common use of terms/identifiers to facilitate data sharing and comparability within and across MDAs.

Training and capacity building

The competence and preparedness of the personnel charged with the responsibility of producing quality statistics cannot be overemphasised. To this end, there is urgent need to give

attention to the restructuring/creation of statistical units within MDAs to facilitate the establishment of posts that are dedicated to the production of statistics. In most MDAs, the production of statistics is lost among competing priorities, when weighed against the number of tasks assigned to each member of staff.

In order to manage and streamline statistical activities, statistical units, where they exist within MDAs, need to be adequately equipped or be established in MDAs without a dedicated unit. This is against the background that many persons are assigned the task of collecting and collating statistics for dissemination without proper training in statistics, or the appreciation for the impact of the outputs. A great deal of this could be facilitated through information sharing of experiences and practical work in data production. Comprehensive training in the understanding, application and use of international standards and the impact on quality should also be included.

Data User Engagement

A major weakness in the plans and activities of data producers in the NSS is the absence of, or low participation of users. Mechanisms should be put in place to get feedback from data users on areas such as the content, format and frequency of the data disseminated etc. MDAs need to have a greater understanding of the role of data users in the process and make deliberate efforts to include them.

Conclusion

The National Statistics System of Jamaica, as viewed through the work of STATIN and the MDAs, could at this time be described as being at a crossroad. There is a great deal of work to be done and decisions to be made in a very limited time if the data needs of the nation's policy priority are to be met. These include the provision of data for the Vision 2030 Jamaica – National Development Plan and monitoring the attainment of the SDGs.

The profile and relevance of statistics in the day-to-day activities of business and development in Jamaica are growing in importance. The call for timely, accurate and fit-for-purpose data will increase further. STATIN has built some level of trust among users concerning the statistics it produces and this needs to be sustained and strengthened. Coordination in the National Statistical System is necessary and a more formal, structured approach to the collection, compilation and dissemination of data is necessary.

I. Introduction

Overview of the National Statistics System (NSS)

A country's statistical dynamics are in many ways impacted by both its economic and social realities. Depending on the situation facing the country, there may be sound opportunities for the development of quality statistics. On the other hand, in the context of limited resources, the socio-economic reality of the country may serve as a path to undermining the production and use of quality statistics. The provision of high quality social, economic, environment and multi-domain statistics is vital to evidence-based decision making at all levels of a country's development.

Jamaica recognises the need for this, as evidenced by its long history of producing high-quality statistics. These statistics cover a wide range of subject matter and topics dating back to the population census of 1844. However, the provision of official statistics to the government and people of Jamaica on a regular basis began in 1946 with the passing of the Statistics Act and the creation of Jamaica's first National Statistics Office (NSO), the Central Bureau of Statistics. Over the years, the range of statistics produced in Jamaica expanded, covering other social, economic and environmental aspects of the country. This gave rise to changes in the statistical landscape with the national statistics office's function upgraded to meet the evolving statistical demands in the country. The importance of data is also integrated in the country's framework for managing strategic policy priorities, with the need for data production enshrined in a number of laws¹.

In recent years however, the need for a coordinating framework for the production of official statistics has been acknowledged, and a concerted effort is being made to address this deficiency. In 2005, the Statistical Institute of Jamaica (STATIN) initiated the process for the review of the legislative framework in which the national statistics system operates. A Green Paper entitled "*Quality Statistics – An Imperative for Jamaica*" was tabled in the House of Representatives, outlining recommendations and proposals regarding amendments to legislation to facilitate a more reliable system.

The next major milestone towards legislative reform was achieved in 2007, through a Ministry White Paper entitled '*Assuring Integrity in National Statistics #24/07*'. The white paper outlined the weaknesses in the system, while proposing a framework for the production of official

¹ Statistics (Amendment) Act, the Bank of Jamaica Act, the Registration (Births and Deaths) Act, the Companies Act, the Financial Services Commission Act, The Aliens Act and the Immigration Restriction (Commonwealth Citizens) Act, and the Customs Act, et al

statistics aimed at improving, among others, coordination and standards. Subsequently, dialogue has continued around the review and amendment of the Statistics Act to formalize the governance structure required for the establishment of a robust national statistics system.

An improved NSS will enable effective monitoring and evaluation of government policies and programmes, while facilitating informed decision making by the private sector, civil society, academia and the populace. The expectations of both government and the private sector is for the participation of all Jamaicans in the productive activities of the economy with commitments to high levels of production. This however requires data to enable evidence-based decision making and planning. There is a need for data on the populace on a consistent basis and basic economic, social and environmental indicators for use in decision making in all sectors of the country.

The priorities for growth and development outlined by the government in the National Development Plan - Vision 2030 Jamaica, presupposes that the required statistics are readily available, coherent and of good quality. High-quality data are central to the successful implementation of any of these priorities and the production of these statistics in a cohesive manner across providers is essential.

Further emphasizing the need for a coordinated NSS is the 2030 Agenda for Sustainable Development. Jamaica does not exist in a vacuum and must relate to and satisfy the requirements for its national development as well as satisfying regional and international development objectives. To this end, there is heightened interest in the provision of quality statistics on elements that have become critical assessment indicators. The Sustainable Development Goals (SDGs) is one such set of indicators that are data intensive, necessitating a coordinated approach for the provision of relevant, quality data on a timely basis.

Despite the general lack of coordination in Jamaica's NSS, in recent years, efforts have been made to improve the coordination between the principal entities engaged in the production of some statistics. The Government of Jamaica has initiated a process to achieve compliance with the IMF's Special Data Dissemination Standard (SDDS) by 2019. In furtherance of this objective, a working group for the SDDS subscription was established by the NSO (STATIN), Central Bank (BOJ) and the Ministry of Finance (MoFP). This collaboration resulted in the production of Jamaica's National Summary Data Page (NSDP), which was officially launched in 2017. Similar pockets of collaboration in the production of statistics have emerged in other domains including the Vital Statistics Commission and the Labour Market Commission.

These pockets of collaboration however, require an overarching framework that adopts a holistic approach to coordination within the NSS. Additionally, these pockets of collaboration

often lack the legislative mandate, and the participation and commitment of each agency is solely dependent on its own discretion. As such, there is overriding evidence that there is an urgent need for a well-managed national statistics system in Jamaica.

Major Producers of Official Statistics

Providers of official statistics in Jamaica are largely Ministries, Departments and Agencies (MDAs) of Government and STATIN. All government agencies are required to provide data at varying intervals, but the majority table annual statistical reports at the end of the fiscal year.² Figure 1 identifies the major producers of official statistics in Jamaica.

FIGURE 1: MAJOR PRODUCERS OF OFFICIAL STATISTICS IN JAMAICA



Overview of STATIN

The Statistical Institute of Jamaica (STATIN) was established under the Statistics (Amendment) Act, 1984. STATIN is the main government agency with responsibility for the collection and dissemination of official statistics in Jamaica. The national statistics office in Jamaica was created in 1946 as the Bureau of Statistics. As the demands for data increased, the Bureau evolved into the Department of Statistics, and later the Statistical Institute of Jamaica. The Statistical Institute of Jamaica is an agency under the Ministry of Economic Growth and Job Creation.

² The fiscal year runs from April 1 to March 31.

In advancing its mandate, STATIN relies on its governance framework through which corporate objectives are set and plans for achieving those objectives and monitoring performance are determined. The policy and strategic direction of STATIN is set by the Board of Directors comprising representatives of key MDAs, the private sector and academia. The day-to-day management and technical direction of STATIN are however led by the Director General and the Management Team.

The main functions of the Institute are in accordance with the provisions of the Statistics Act:

- to collect, compile, analyse, abstract and publish statistical information relating to the commercial, industrial, social, economic and general activities and condition of the people;
- to collaborate with public agencies in the collection, compilation and publication of statistical information including statistical information derived from the activities of such agencies;
- to take any census in Jamaica; and
- generally, to promote and develop integrated social and economic statistics pertaining to Jamaica and to co-ordinate programmes for the integration of such statistics.

Through the years, STATIN has taken steps to modernise its statistical processes within its limited resources. In furtherance of the production of high quality statistics, STATIN has entered into bilateral arrangements with various MDAs for the supply of administrative data. STATIN has also provided technical support to MDAs through membership in technical committees, work groups and direct support.

Given its role as the NSO, STATIN has also fostered strong relationships with International Development Partners (IDPs) and custodians of international statistical methodologies.³ These agencies have provided support and guidance in many of the statistical products developed and produced by STATIN. This promotes the production of statistics that are consistent with international standards in accordance with Principle nine (9) of the UN Fundamental Principles of Official Statistics.

³ Example United Nations Statistics Division (UNSD), etc.

FIGURE 2: STATISTICAL PRODUCTION BY STATIN

Demographic and Social	Economic	Environment and Multi-Domain	Other
• Population estimates • Vital Statistics • Births, Death, Mariages and Divorces • Labour Market • Employment • Unemployment • Social Statistics • Education • Health • Social Protection • Household Expenditure	• Consumer Price Indices • Producer Price Indices • International Merchandise Trade • National Accounts • GDP • Tourism Satellite Account	• Environment Statistics • ICT Indicators • Energy Statistics • Survey of Living Conditions	• Population and Housing Census • Agriculture Census • Business Register • Classifications • JIC • JSOC • Quality Assurance Framework

The focus on standards and quality is the modus operandi of STATIN's data production and statistical processes. However, despite its best attempts over the years, STATIN has not been able to realize its fullest potential due to the absence of overarching national legislation governing the production of statistics in Jamaica. This has limited its influence on the production of official statistics by other MDAs.

Policy Priorities and Data Needs

In 2009, Jamaica's first long-term national development plan, "Vision 2030 Jamaica", was framed to chart out a path towards developed country status by 2030. This plan outlined four (4) national goals and fifteen (15) national outcomes aimed at making Jamaica *"the place of choice to live, work, raise families and do business"*. The long-term vision is operationalized through short and medium-term priorities, policies and programmes under Medium Term Socio-Economic Policy Frameworks (MTFs), each spanning three years. A result-based management framework has also been defined, including national outcome indicators, reported online through an e-dashboard of indicators.

This dashboard is updated on a quarterly basis, the aim of which is to show the progress of the National Development Plan. Sixty-seven (67) indicators with targets, linked to the fifteen (15)

national outcomes are presented as part of the monitoring and evaluation process. The main sources of information are STATIN, MDAs, international organizations and academia⁴.

Since the launch of Vision 2030 Jamaica, three (3) MTFs have been created, with the current MTF covering the period 2015 – 2018. Under the current MTF, the following national policy priorities have been identified:

FIGURE 3: MEDIUM TERM THEMES UNDER MTF 2015 – 2018



These thematic targets are further broken down into: priority national outcomes; priority areas; and priority strategies and actions. Weaknesses have been identified in the information system needed for the monitoring of the MTFs. The following data gaps have been identified for the MTF 2015-2018⁵

TABLE 1: DATA GAPS FOR MTF 2015-2018 AS AT 2015⁶

Indicator	Issue
1. Physicians, nurses and mid-wives per 1000 population	Inconsistent data
2. Maternal mortality ratio	Inconsistent data
3. Child (<5 yrs) mortality rate	Inconsistent data
4. Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases	Inconsistent data
5. Adult Literacy Rate	Measurement issues
6. Percentage of labour force that is certified	Measurement issues
7. Percentage of children in consumption quintile 1 receiving PATH benefits	Data not timely

⁴ Yale University contributes to the production of the Environmental Performance Index.

⁵ It should be noted that these data gaps are based on the information contained in the MTF 2015-18.

⁶ Source MTF 2015-18

8.	Percentage of PATH beneficiaries in consumption quintiles 1 and 2	Data not timely
9.	No quantitative indicators are included for sport, based on lack of data	Data not available
10.	No new quantitative indicators have been determined for output from the ICT industry	Lack of awareness of available data
11.	Percentage share of global GDP based on PPP	Inconsistent data
12.	Greenhouse Gas Emission (Mt per annum)	Inconsistent data
13.	% of population with secure housing tenure	Inconsistent data, measurement issues
14.	Housing Quality Index	Data not timely
15.	Poverty in Rural Areas (%)	Data not timely
Notes		
• Inconsistent Data: Data are not available for all reporting periods • Measurement issues: Only proxy data are available • Data not timely: Data are available, but with a significant reporting lag • Data not available/ lack of awareness: Data are not currently available, or the availability of data is not publicized		

The Planning Institute of Jamaica (PIOJ) has identified the following as the major data related impediments to the success of Vision 2030 Jamaica:

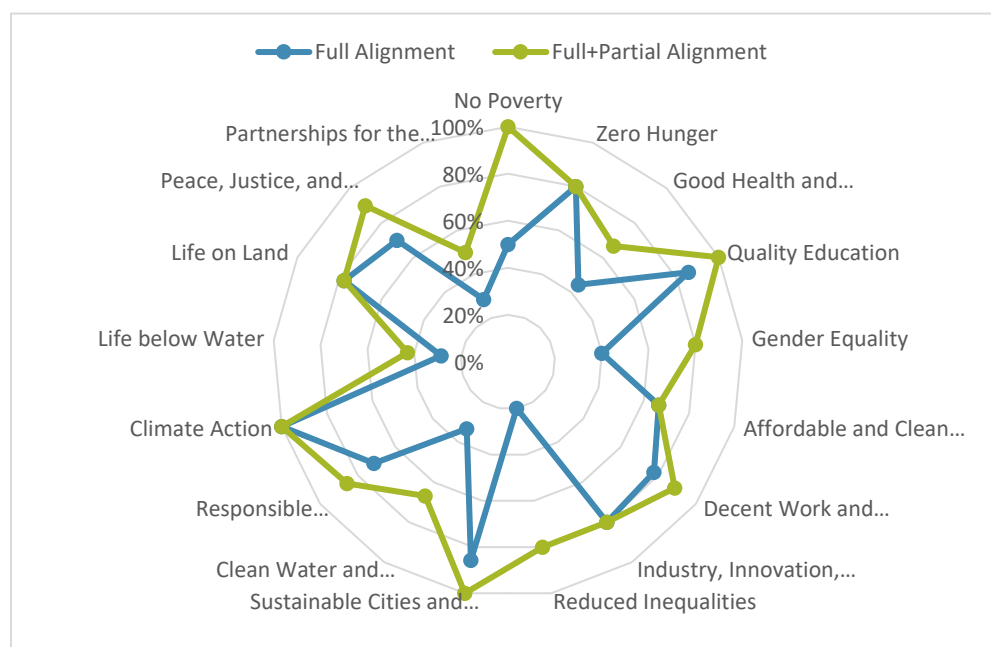
- Weakness in sector-level indicator frameworks;
- The lack of a data and evidence-based decision-making culture in some sectors and organizations; and
- The unavailability of required data in key development areas such as culture and creative industries.

The SDGs and Agenda 2030 are another important stimulus for Jamaica's development. "**A ROADMAP FOR SDG IMPLEMENTATION IN JAMAICA**" (April 2017) prepared by the Government of Jamaica with the support of UNDP, shows a 91 per cent alignment between Vision 2030 Jamaica and the SDGs. *"An assessment of Jamaica's national planning documents, using the Rapid Integrated Assessment methodology developed by UNDP, shows that Vision 2030 Jamaica—National Development Plan (Vision 2030 Jamaica), the Medium-Term Socio-Economic Policy Framework (MTF) and sectoral policies are strongly aligned with the SDGs. Jamaica's planning documents reflect either full or partial alignment, with 91.0 per cent of the 115 SDG targets⁷ deemed relevant for the country"* (GOJ; UNDP, 2017). According to the roadmap, "Vision 2030 Jamaica" will be the axis around which SGD implementation will be organized.

⁷ There are 169 targets at the global level.

There is therefore the need for harmonization of efforts to produce the indicators related to the SDGs and the data required for the monitoring of the MTFs.

FIGURE 4: FULLY ALIGNED VS. FULL AND PARTIALLY ALIGNED SDG TARGETS TO JAMAICA'S PLANNING DOCUMENTS⁸



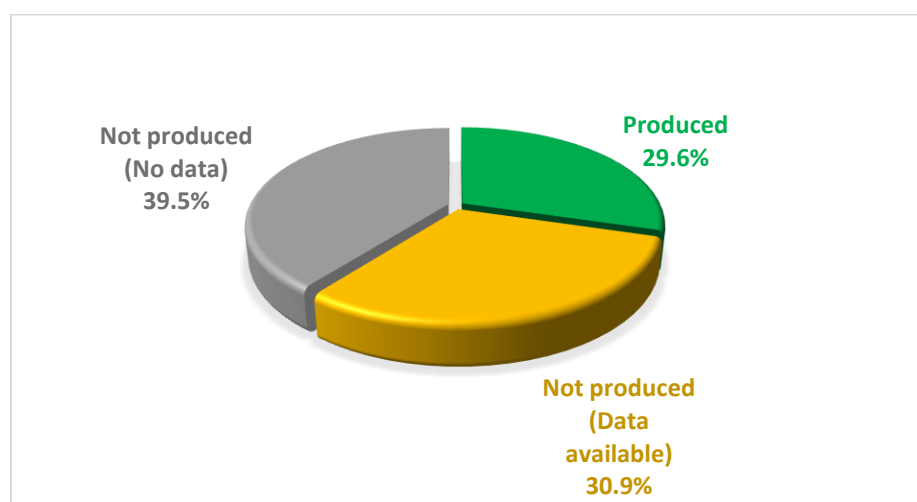
IN 2016, STATIN UNDERTOOK AN ASSESSMENT OF JAMAICA'S ABILITY TO RESPOND TO THE DATA NEEDS OF THE SDGs. STATIN'S ASSESSMENT OF THE CAPACITIES OF JAMAICA'S NSS TO EFFECTIVELY MONITOR PROGRESS TOWARDS THE SDGs REVEALED DATA GAPS. ACCORDING TO THE ASSESSMENT, OF THE TWO HUNDRED AND TWENTY-THREE (223) UNIQUE AND APPLICABLE SDG INDICATORS⁹, 29.6 PER CENT OR SIXTY-SIX (66) WERE BEING PRODUCED. IN THE MEDIUM-TERM, WITH ADDED RESOURCES, JAMAICA MAY BE ABLE TO PRODUCE ANOTHER 30.9 PER CENT OR SIXTY-NINE (69) OF THE SDG INDICATORS. THE REMAINING 39.5 PER CENT HOWEVER ARE NOT BEING PRODUCED, AND NO DATA SOURCE CURRENTLY EXISTS FOR THEIR PRODUCTION (SEE

Figure 5).

⁸ Appendix VI Additional Tables and Charts outlines the percentage alignment between the SDGs and Jamaica's planning documents by Goal and Thematic Area.

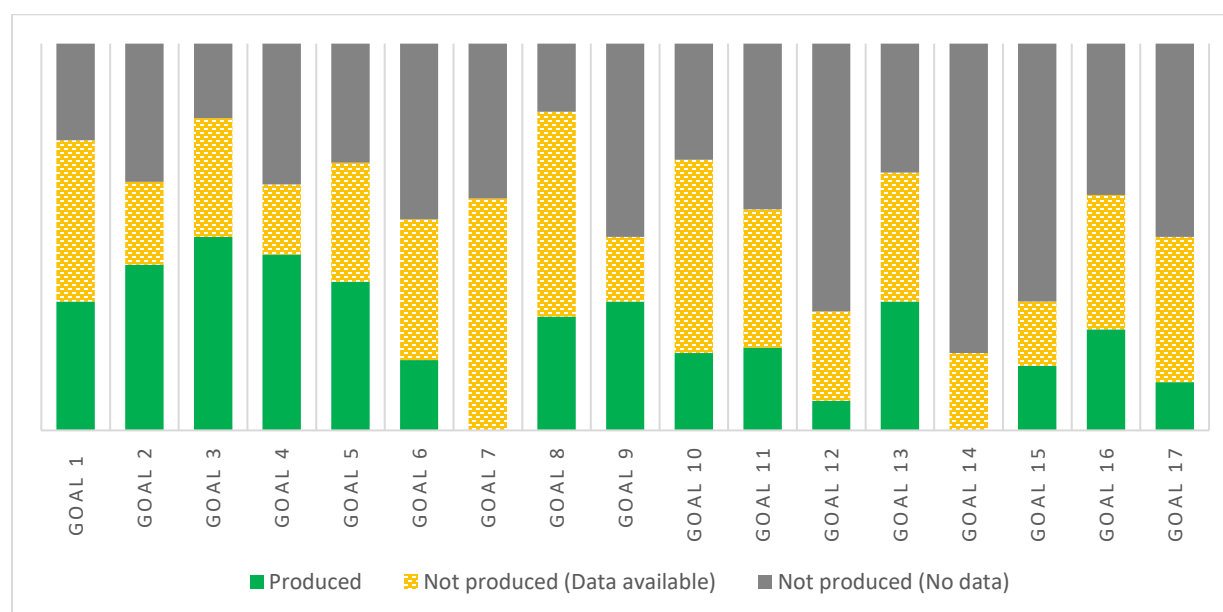
⁹ At the time of the consultations, there were 230 unique indicators in the global indicator framework.

FIGURE 5: JAMAICA'S ABILITY TO REPORT ON THE SDGs



The data gap for the SDGs was most evident for goals 14, addressing life below water, and 7, addressing affordable and clean energy. On the other hand, data were most available for goal 3, good health and well-being.

FIGURE 6: JAMAICA'S ABILITY TO REPORT ON THE SDGs BY GOAL



The institutional mechanism to manage the implementation of the SDGs in Jamaica is an Inter-Ministerial Core Group in charge of providing coordination and technical support to the process. The group brings together PIOJ, the Ministry of Foreign Affairs and Foreign Trade (MFAFT), and STATIN. The MFAFT leads on international relations and negotiations, the PIOJ on policy and programme development and implementation, while STATIN leads on data and

monitoring. The members of the Core Group collaborate with other MDAs, civil society, academia, the private sector and other relevant stakeholders for the successful implementation of the SDGs in Jamaica.

Objective of the Assessment

The National Statistics System (NSS) in any country is established to develop standards and principles favourable to ensuring cooperation and coordination among the producers and users of national statistics. This aids in the provision of more timely, reliable, relevant and consistent data to policy makers and the populace at large. To achieve this, a number of international institutions have over time partnered with local organizations to provide both technical and financial assistance to improve statistical processes.

In response to the data requirements of the 2030 Sustainable Development Agenda, the Partnership in Statistics for Development in the Twenty-first Century (PARIS21) has focused on providing support to developing countries to establish their NSS. In Jamaica, PARIS21 has in collaboration with STATIN sought to provide a comprehensive assessment of the current state of Jamaica's national statistics system.

The assessment details the current state of the statistical system, specifically the statistical processes and the underlying challenges being experienced in the production of official statistics in response to user needs. The assessment of the NSS will inform the preparation of the National Strategy for the Development of Statistics (NSDS) in Jamaica, which will contain priority action areas to address existing challenges in the system and ensure the production and dissemination of data needed by users.

II. NSS Assessment Methodology

A two-pronged approach was used in the NSS assessment. This included a desk review of documents that previously assessed Jamaica's NSS and the Statistical Institute of Jamaica (STATIN). There were also consultations with key stakeholders, including data producers of official statistics from various MDAs to review sector statistics, data users, donors and partners. Stakeholder views on current issues and challenges in the NSS, which were part of the discussions in the NSDS country training workshop held on July 18-20, 2017 in Kingston, Jamaica, were likewise considered part of the assessment.

For the desk review, the following documents served as primary references. A full list of the documents informing this assessment is found in the References section of this document.

- Peer Review Report on Compliance with the Latin American and Caribbean Regional Code of Good Practices in Statistics: Jamaica (2015) - ECLAC
- Gap Analysis of Jamaica's National Statistics System (2013) – STATIN/ UNDP
- Tool for Assessment of Statistical Capacity (TASC): Jamaica (2013) – IDB

In the assessment of sector statistics, major data producers from MDAs, including the STATIN, were selected. The stakeholders consulted included staff members with specific responsibility for the production of statistics, and the management of these MDAs. The assessment of stakeholders was conducted at two levels:

- A. Agency Level – Looking at their overarching policies and practices governing the production of statistics
- B. Programme Level – Looking at standards, methods and data quality.

Two (2) questionnaires were used for the assessment of sector statistics:

- Questionnaire A (agency level) was used to capture information on the general policies and practices of MDAs as it relates to the production of statistics, while
- Questionnaire B (program level) captured information on statistical processes and standards.

Additional information and commentary were also captured from the participating MDAs that provided context to the survey results (see Figure 7).

Consultations were done through face-to-face meetings with officials and staff of the agencies with specific responsibility for the production of statistics as well as completion of the questionnaires. The meetings focused on the following discussion points:

1. Ability of the entity to provide the required data for monitoring of the SDGs;
2. Staff competency and adequacy for effectively managing the statistics processes;

3. Access to data from other MDAs;
4. Training Needs;

The consultations were conducted from March to June 2017.

A purposive sample of MDAs was selected for the stakeholder consultations. The frame for selection was the list of MDAs that are required to provide data/indicators for the monitoring of the Sustainable Development Goals (SDGs), in addition to STATIN.

FIGURE 7: QUESTIONNAIRE SECTIONS, NSS SECTORAL ASSESSMENT



A total of twenty (20) MDAs participated in the assessment. Ministries with no data producing Department or Agency were excluded, while some key Ministries were not covered in the assessment due to conflicts in scheduling consultations. The Ministry of National Security (4) and the Ministry of Economic Growth and Job Creation (3) had the largest number of producers of official statistics that participated in this assessment (*See Table 2: Number of Entities Assessed by Government Ministry*).

From the participating MDAs, a total of sixty-five (65) statistical programmes¹⁰ were assessed using Questionnaire B. For the purpose of the report, a statistical programme is a statistical indicator or group of statistical indicators that are produced by a single data generation process under the same analytical framework.

¹⁰ See Appendix II List of Statistical Programmes Assessed

TABLE 2: NUMBER OF ENTITIES ASSESSED BY GOVERNMENT MINISTRY

Government Ministry	Number Assessed	
	Entities	Statistical Programmes
Culture, Gender, Entertainment and Sport	1	2
Economic Growth and Job Creation	3	18
Education, Youth and Information	2	2
Energy, Science, Technology and Telecommunications	1	3
Finance and Public Service	2	5
Foreign Affairs and Foreign Trade	0	0
Health	2	14
Industry, Commerce, Agriculture and Fisheries	1	5
Justice	0	0
Labour and Social Security	2	10
Local Government and Community Development	0	0
National Security	4	4
Tourism	1	1
Transport and Mining	1	1
Total	20	65

The Ministry of Economic Growth and Job Creation had the largest number of statistical programmes (18). This was expected as the National Statistics Office, STATIN falls within the purview of this Ministry. MDAs under the Ministry of Health identified fourteen (14) statistical programmes for assessment, followed by the Ministry of Labour and Social Security with ten (10) programmes.

III. Current State of the Jamaica's NSS

Review of Previous Assessments of the NSS and STATIN

In the current assessment of the status of the national statistical system in Jamaica, references were made to previous reviews, which examined the operations, organization and output of STATIN, and to some extent, the activities in the national statistical system. A number of findings from these assessments are still valid today and these are further complemented by the findings in the current review, which are discussed more in-depth in the succeeding sub-sections. For reference, the following is a summary of the major findings from previous assessments:

- Legal Framework
 - a. provisions for strengthening statistical institutions and improving coordination of the national programme of statistics need to be included in the Statistics Act;
 - b. provision to establish a system-wide policy for data sharing among MDAs is necessary;
 - c. provision for the implementation of quality assurance framework is desirable.
- Data Production
 - a. Inefficiencies in the statistical production process could be improved with technology and increased use of administrative data;
 - b. there is a lack of standardization of statistical definitions and concepts used in statistical production across the NSS;
 - c. there is need for the harmonization of geographic boundaries used in statistical reporting across the NSS, particularly when disaggregating data by regions;
 - d. for some programmes, there is a lack of compliance with regional and international standards;
 - e. validity and reliability tests are required for some statistical outputs;
 - f. there is a disconnect between data production activities of MDAs and their policy mandate;
 - g. there are gaps between coordination and structure of data processing programmes;
 - h. there is need to develop metadata documentation and user manuals.
- Data Dissemination and Data Sharing
 - a. need to improve timeliness and availability of data;
 - b. need for wider data dissemination via the internet, in an open data format;
 - c. promotion of partnership and data sharing among members of the NSS is essential;
 - d. there is need to focus on data comparability to facilitate sharing across entities;
 - e. challenges in interlinking data-sets were due to the absence of common identifiers;
 - f. the need for user satisfaction measures.
- Resources

- a. there needs to be an improvement in the ratio of professional to non-professional staff;
- b. technology infrastructure needs improvement ;
- c. timely recruitment of staff is adversely impacted by the bureaucratic processes of the public sector and the low remuneration.

Legal and Institutional Framework

Statistics Act and Other Related Laws

The first population census in Jamaica was conducted in 1844. However, the beginning of the present statistical system dates back only to the 8th population census in 1943, when the results were used as a basis for the preparation and implementation of universal adult suffrage in the 1944 general elections. The Statistics Act was first passed in 1946, which created the Central Bureau of Statistics, with the mandate to process and analyse the results of the 1943 population census and to conduct succeeding ones, and to compile external trade data and retail price indices. In 1955 the Statistics Act was amended to convert the Bureau into the 'Department of Statistics'. A further amendment was effected in 1984 to broaden the scope of the work of the Department and this resulted in the establishment of the Statistical Institute of Jamaica (STATIN), a corporate body and a statutory corporation with its own governance structure and budget.

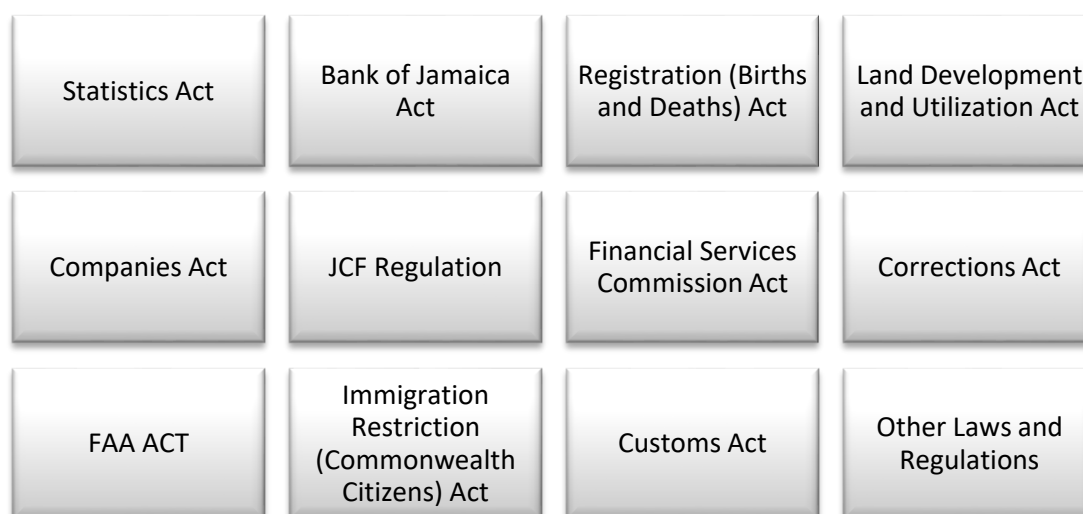
In Jamaica, official data production and dissemination are not restricted to the Statistics Act. A number of other laws also exists that govern the production of statistics in specific fields and entities, tailored to the specific data and statistics needs of agencies. Examples of these laws include the Bank of Jamaica Act, Civil Registration Act, Financial Services Commission Act, Customs Act, the Aliens Act and the Immigration Restriction (Commonwealth Citizens) Act, among others (see Figure 8).

The data collected by MDAs are often tailored to their individual needs, and are not necessarily compliant with international statistical standards and best practices. This often leads to data incompatibility and inconsistencies. Sharing of administrative data is not explicitly legally mandated¹¹ and for the most part takes place at the discretion of the relevant institutions. In response, STATIN has secured access to administrative data produced by other MDAs through Memoranda of Understanding (MOUs). However, such arrangements are limited to the use of the data by STATIN, and are at times not extended to other MDAs engaged in the production of official statistics.

¹¹ Individuals and businesses are explicitly mandated to provide information to STATIN under the Statistics Act.

There is currently no single legislation that governs the production and dissemination of official statistics in Jamaica. The current Statistics Act covers the work of STATIN, and does not define the roles and responsibilities of other data producers nor the relationship between STATIN and other government ministries, departments and agencies producing statistics. Coordination and management of the National Statistical System are not covered in the existing legislation. On the other hand, the other laws, while mandating the production of statistical information, do not adequately address the context, standards and requirements for producing official statistics, as espoused in the Statistics Act.

FIGURE 8: EXAMPLE OF LOCAL LEGISLATION MANDATING THE PRODUCTION OF STATISTICS



There is a proposal to amend the Statistics Act seeking to better define the roles and responsibilities of STATIN and other producers of official statistics, as well as to establish an overarching framework for the national statistical system through the creation of a regulatory body to oversee the governance of the NSS. This is critical to the improvement of the function of STATIN and the proper coordination of the national statistical system. The coordinating body will ensure that statistical standards, quality assurance and professional ethics are set in the NSS. There is an urgent need to amend the current Statistics Act to ensure the successful management and monitoring of the Vision 2030 Jamaica and the SDGs.

Coordination of the NSS

UN Fundamental Principles of Official Statistics stipulate in its 8th Principle that *“Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system”*. Jamaica’s Statistics Act states that STATIN will *“collaborate with public agencies in the collection, compilation and publication of statistical information derived from the activities of such agencies”*, and will *“promote and develop integrated social and economic*

statistics pertaining to Jamaica and coordinate a programme for the integration of such statistics”.

However, the provisions of the Statistics Act were not deemed explicit enough to allow STATIN to take the lead on coordination. Moreover, the boundaries of the NSS have not been clarified. As a result, Jamaica’s NSS remains fragmented with little or no coordination among MDAs producing official statistics.

The need for a framework for national statistics has been consistently mentioned in STATIN’s strategic plans at least since the 2002-2005 modernization plan. A “Green Paper” and then a “White Paper” were prepared and discussed. The White Paper or Ministry Paper “Assuring integrity in national statistics”, approved in 2007, states, *“there is no supporting framework to carry out a general coordination role...”* An institutional arrangement that includes a national coordinating body with responsibility for the governance of national statistics services is crucial to improve the performance of STATIN and to upscale the efficiency of official statistics services. The Five-Year Strategic Plan 2012-2017 stipulates, *“the medium term goal is to have the Statistics Act amended to provide for the establishment of the National Statistics Commission that will provide governance to the statistics system”*.

Therefore, initiatives have been recently taken to proceed with the changes required, with the objective of defining, adopting and implementing the institutional changes needed. Amendments to the Statistics Act have been prepared, and approval granted by Cabinet. The next step is for drafting instructions to be submitted to the Chief Parliamentary Counsel. This process however, is proceeding at a slow pace.

The absence of a proper institutional coordinating framework establishing governance modalities for the Jamaica’s NSS is a severe constraint. It has an impact on two important issues:

- **Coordination and Programming:** a governing body will have the responsibility of coordinating all the official entities producing statistics and of setting priorities for the NSS. This responsibility should encompass the preparation of a common and unique strategic plan for the development of statistics in Jamaica, covering all the institutions (STATIN and MDAs). The body would define priorities and give an opinion on the distribution of the resources dedicated to statistics in the national budget. The execution of the medium term plan would be monitored on an annual basis, through a report covering the activities of all the components of the NSS.
- **Validation and monitoring quality,** including harmonization of data and assuring consistency in official statistics: the governing body will be in charge of the validation of

official data. It means that this entity will ensure that the data produced by every component of the NSS will abide by the international standards and norms. “Quality assurance” will be monitored by the governing body of the NSS. Presently, the statistical production in MDAs is governed by the data needs of each agency. It is tailored to their institutional needs, and not necessarily compliant with international standards and best practices. Additionally, there is sometimes conflicting information within the NSS. Moreover, the sharing of administrative data is not explicitly legally mandated. It takes place at the discretion of the institutions. STATIN uses Memoranda of Understanding with various MDAs to have access to specific data.

In spite of the lack of an appropriate coordination framework for the NSS, strategic planning for statistics has a history in Jamaica. This is however limited to the activities of STATIN. A Strategic Plan was adopted at the beginning of the Millennium: “The modernization of STATIN: A strategic Plan 2002-2005”. The “Information Technology Policy/ Strategy Plan 2004-2007” aimed at developing the technological resources required to modernize the Institute was also developed. The current Plan covers the period 2012-2017 and is still focused on the modernization of the Institute. The document defines strategic objectives around six thematic areas. These are:

- I. To strengthen the legal framework: this highlights the need to define and implement a new institutional framework to establish and maintain a National Statistical System (NSS). It requires amendments to the Statistics Act.
- II. To improve operational efficiencies
- III. To maintain and enhance the client focused service culture.
- IV. To continue the provision of coherent, accurate, relevant and timely statistical information. The implementation of new statistical products in response to stakeholder needs is also seen as important.
- V. To continue the modernization of the information and communication technology
- VI. To obtain adequate funding to support the Institute’s operations.

Progress on the Strategic Plan is monitored through Annual reports that are available¹². They review the operations carried out during the past year, present the main figures/indicators of the past operations and identify the main issues and constraints faced by the Institute.

International Cooperation and Partnerships

Jamaica’s membership in the Caribbean Community (CARICOM)¹³ also means that it is a member of the Standing Committee of Caribbean Statisticians (SCCS). The main objectives of

¹² Annual Report and Statement of Accounts-A review of operations, April 1, 2005-March 31, 2016.

the SCCS are: 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. In order to advance these objectives a common framework for the development of statistics is maintained throughout the region. Through the SCCS the CARICOM Statistics Model Bill was also developed and this influenced some aspects of the draft Statistical Act for Jamaica. Statistical training especially under the European Development Fund (EDF) is an important aspect of the CARICOM initiative. The dialogue on the modalities of monitoring the SDGs, also initiated by CARICOM, encourages initiatives in the region and among member countries regarding this demanding issue. The SCCS was also instrumental in having the Conference of Heads of Government of CARICOM endorse the Action Plan for Statistics in the Caribbean. Among the issues dealt with in the Action Plan are:

1. the strengthening of the National Statistical System in countries that will address funding of the National Statistical Office (NSO) and other producing agencies, staffing, legislation, education, training and development of the current staff;
2. the upgrading of the IT infrastructure in the National Statistical Offices and Systems in relation to the production and dissemination of statistics;
3. the promotion of careers in statistics through greater infusion of statistics in the education system to lead to the development of data scientists;
4. the support of a regional approach to the development of statistics;

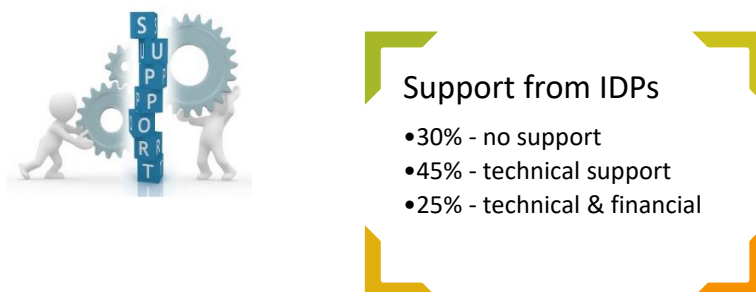
Technical assistance from Jamaica's International Development Partners (IDPs) and through CARICOM programmes, complements the national resources dedicated to statistics. Based on this assessment, an estimated 70 per cent of MDAs reported that they received either technical or financial support from IDPs, particularly in the area of demographic and social statistics.

This assessment revealed that within the past five (5) years, just under a half (45%) of MDAs reported receiving technical support from IDPs, while another twenty-five per cent (25%) received both technical and financial support. This serves to fill critical funding gaps in the

¹³ CARICOM was founded in 1973, and in 1974 a Standing Committee of Caribbean statisticians was established. A regional approach to statistics development was then initiated and gave birth to a Regional Statistics Work Programme (RSWP) in 2005. The RSWP aimed at defining a platform for a structured and harmonized development of statistics in the Caribbean, and at setting the basis for the production of a common core of quality statistics. CARICOM and its Advisory Group on Statistics (AGS) played an important role in setting a modernization framework in the member states, through the preparation of documents such as a common census framework, a common framework for data warehousing, archiving and storage, a statistics model bill. The RSWP benefitted from support of EU and IDB. A new framework for the development of statistics has been adopted in 2016: CARICOM Statistics Action Plan.

budget for statistics produced by these MDAs. The provision of technical support also serves to improve the technical competencies of persons working in the production of statistics.

FIGURE 9: SUPPORT FROM INTERNATIONAL DEVELOPMENT PARTNERS (IDPs)



Jamaica participates in the international and regional fora related to statistics and therefore is well informed of the initiatives taken at that level. STATIN was nominated and became a member (until May 2017) of the Inter-Agency and Expert Group on SDGs indicators (IAEG-SDG) created by the UN Statistical Commission. It also actively engages in the region and recently participated in a round of assessments on the level of compliance with the Code of good practice in statistics for Latin America and the Caribbean defined by UNECLAC.

Statistical Infrastructure and Resources

Methodological Soundness

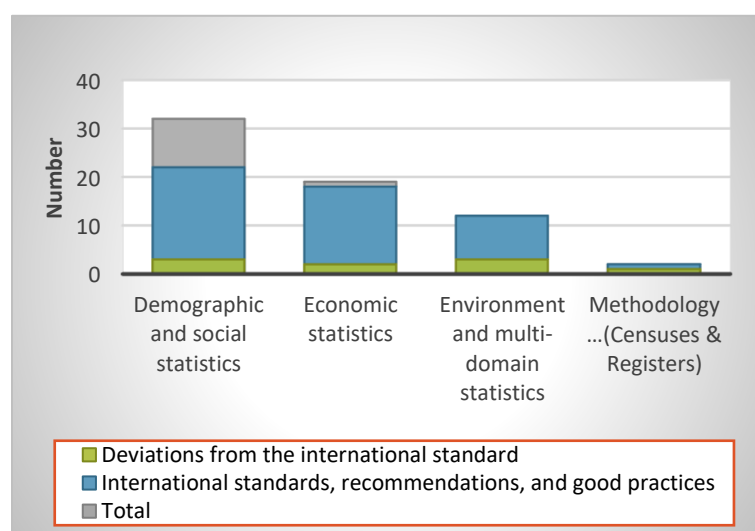


FIGURE 10: USE OF INTERNATIONAL STANDARDS AND DEVIATIONS

The methods used in the production of statistics should be consistent with international standards, recommendations and best practices. This supports the international comparability of data and the robustness of the methodologies used. However, while international comparability of official statistics is important, it is also important that the information produced meets the needs of local users, and is sensitive to the

peculiarities of Jamaica. As such, it is not uncommon for the producers of official statistics to adapt international standards to their local circumstances. This should, however, be clearly documented and released along with the statistical information to reduce the risk of erroneous interpretation.

Demographic and social statistics programmes had the lowest rate of compliance with international standards¹⁴. Of the thirty-three (33) programmes assessed, twenty-two (22) or 68.8 per cent adhered to international standards, recommendations and best practices. This is compared to 94.7 per cent for economic statistics and 100.0 per cent each for the other two domains. It should be noted that in the absence of adherence to international standards, MDAs were guided by local laws, policies and guidelines in the production of statistics.

Resources

The human, financial, physical and technological resources allocated for the production of statistics directly impact the coverage, scope and timeliness of information. Principle 5 of the CGP states, *“the resources available for national statistical activity must be sufficient and appropriate for the generation of official statistics”*. With a finite set of resources, and an atmosphere of increased demand for statistics, data producing entities are faced with choices that dictate the amount and quality of available information.

Situation in STATIN

STATIN faces inadequate resources, both financial and human, to support the continued conduct of as well as improvements in its statistical activities.¹⁵ Some of the major statistical operations, such as the Household Expenditure Survey and the Census of Agriculture were delayed due to lack of funds.¹⁶ Inadequate resources also affect the Institute’s ability to sufficiently improve its production processes in order to comply with the IMF’s Special Data Dissemination Standard (SDDS). The ability of STATIN to advance the development of the national statistical system is also limited due to financial constraints.

The ECLAC peer review underlined the necessity to allocate additional resources for the improvement of basic statistics. It mentioned, *“budget reductions since three years¹⁷ mean that the resources are stretched to their limits and that this will put in jeopardy the level of quality*

¹⁴ See Appendix III Conceptual Frameworks Guiding the Production of Official Statistics in Jamaica for the list of international standards applied.

¹⁵ STATIN Five-Year Strategic Plan 2012-2017.

¹⁶ STATIN Annual Report 2015-2016.

¹⁷ The budget declined in constant terms from 2012 to 2015

¹⁷ The budget declined in constant terms from 2012 to 2015

already attained". Further, the report argued that there is a risk of a decline in the quality and coverage of the current statistical operations due to budget restrictions.¹⁸

Data available for other NSOs show that generation of additional funds through the selling of statistical services to the users is of limited impact. The proportion of resources generated by this option rarely exceeds 5 per cent. Moreover, this might have the adverse impact of restricting access to the data or dedicating NSO's rare resources to activities not directly linked to its mandate.

Staff data show that restrictions linked to austerity in the management of public resources took place in recent years at STATIN. In 2015, there were 343 staff and only 310 in 2016. Calculations made based on data collected by CARICOM¹⁹ show that the ratio "*NSO staff/inhabitants*" for Jamaica is the lowest among eight countries²⁰ with comparable data. Another feature of the human resource is the imbalance in the ratio of professional and clerical staff with 113 non-professionals from among 311 staff in 2017.

The ECLAC report underlined the impact of staff turnover in STATIN. The Institute experienced an 8 per cent rate of staff turnover in 2017. This however masks the loss of specialized skills in areas such as national accounting and information technology where staff turnover is at a much higher rate. More generally, the level of salaries for statisticians is a concern according to STATIN and MDAs as it poses a threat to staff recruitment and retention.

Situation in MDAs

As far as human resources for statistics are concerned, the situation prevailing in the MDAs is more worrying. A total of four hundred and ninety-eight (498) persons were identified as involved on a regular basis in the production of statistics within the assessed MDAs as of 2017. Of this, two (2) out of five (5) persons were employed by the MDAs, while the rest were employed by STATIN. The largest category of the persons working in statistics, are professional or technical staff (44.8%) (See Table 3). Seventeen (17) MDAs indicated that one of their main risks was losing statisticians within their institutions given the low salaries.

It should be noted that in a number of these MDAs, the staff engaged in statistics are also assigned other non-statistical duties. With limited human resources, emphasis on high-quality statistical production is at times lost among competing priorities.

¹⁸ ECLAC peer review, April 2015, p.15

¹⁹ Diagnostic assessment of the NSOs of the Caribbean countries, September 2013.

²⁰ Antigua and Barbuda; Bahamas; Barbados; Dominica; Grenada; Saint Vincent and Grenadines; Trinidad and Tobago.

TABLE 3: NUMBER OF PERSONS WORKING IN STATISTICS WITHIN THE ASSESSED MDAs

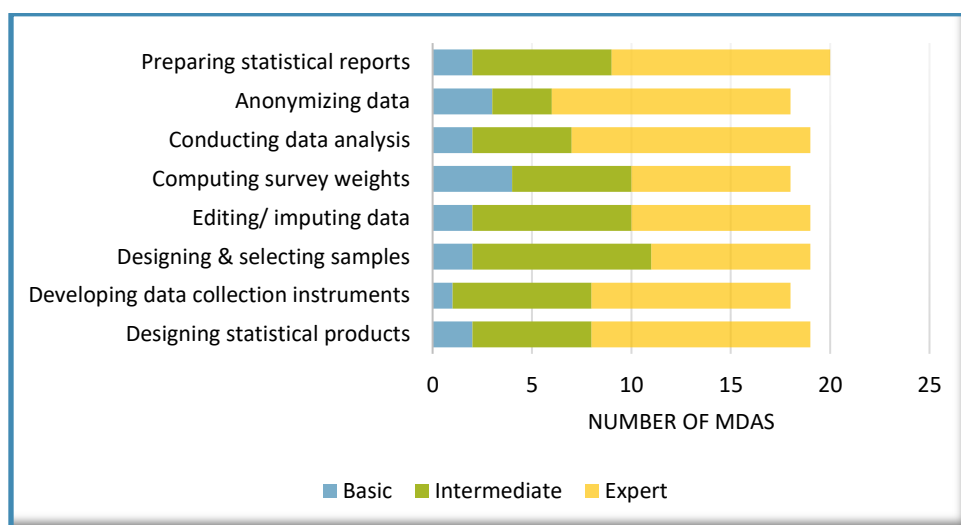
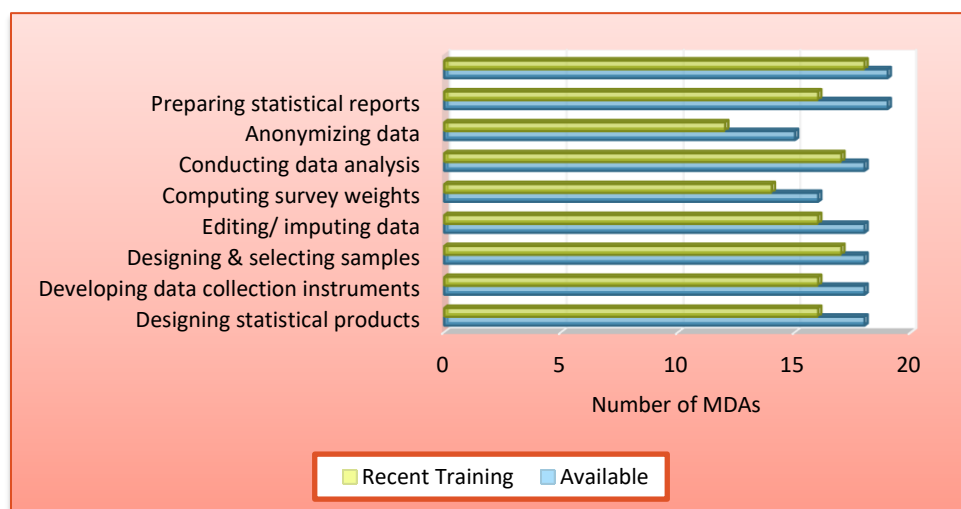
	Other MDAs				STATIN	Total
	Statistical Domain					
	Demographic and Social	Economic	Environment & Multi-domain	Total		
Professional / Technical Staff	45	83	15	143	80	223
Clerical/ Support Staff	16	15	2	33	159	192
Administrative & Other Staff	14	3	2	19	65	84
Total Statistical Staff	74	101	19	194	304	498

Fifteen MDAs (out of 20) consider that they need additional staff for statistics production and dissemination. According to the MDAs, 116 additional staff (58 professional/technical staff) should be recruited in order to respond to the current demands for statistics (see Table 4). The assessment of staff requirement for some MDAs did not consider the need to monitor the 2030 Agenda, thus it is possible that the demand for professional and support staff may be higher than is currently indicated. A more detailed review of the potential impact of the 2030 Agenda on the resources of data producing MDAs is needed.

TABLE 4: DESIRED INCREASES IN THE NUMBER OF STATISTICAL STAFF

	n	Mean	Median	Minimum	Maximum	Sum
Professional / Technical Staff	12	5	3	1	15	58
Clerical/ Support Staff	9	2	2	1	5	22
Administrative and Other Staff	8	4	2	1	15	35
Total Statistical Staff	15	8	6	1	26	116

Skill gaps are likewise mentioned as an issue in the NSS. Based on the assessment of existing statistical skills/competency in the NSS which relates to training received in the past seven (7) years, writing statistical reports is the most common with about 95 per cent of MDAs indicating they have this skill within their organization (see Figure 11). One of the skills most needed by MDAs according to responses received is on data anonymization (see Figure 12).

FIGURE 11: REPORTED LEVEL OF TECHNICAL COMPETENCE WITHIN MDAS**FIGURE 12: AVAILABILITY OF STATISTICAL COMPETENCIES WITHIN MDAS**

The MDAs perceived that the skills of their staff are adequately developed and maintained. They likewise expressed that there was a level of permanency of the statistical staff, as half of the MDAs consulted indicated that the statistical staff turnover was manageable (see Table 5). This permanency will however be threatened in the coming years as the demand for analysts and statisticians by the private sector increases.

TABLE 5: PERCEIVED ADEQUACY OF RESOURCES FOR THE PRODUCTION OF STATISTICS

	Strongly disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %
The skills of staff are developed and maintained to perform the required tasks.	5.0	5.0	20.0	55.0	15.0
Staff turnover is manageable.	5.0	10.0	35.0	50.0	0.0
Salary levels are adequate for the nature of the work, and competitive.	35.0	50.0	5.0	5.0	5.0
Overall, sufficient resources are allocated for the production of statistics.	15.0	55.0	30.0	0.0	0.0
Sufficient physical space has been allocated for the production of statistics.	15.0	20.0	30.0	30.0	5.0
Software used for compiling and analysing statistical data is adequate.	10.0	35.0	15.0	35.0	5.0
IT infrastructure (hardware, software, networking facilities) for producing statistical data is adequate to perform the required tasks.	20.0	30.0	10.0	35.0	5.0
Financial allocation for compiling statistics is adequate to perform the required tasks.	25.0	30.0	20.0	25.0	0.0

Financial resources

Lack of sufficient financial resources for statistics prevails in fourteen (14) institutions involved in the production of statistics; nine (9) MDAs indicated that they do not have a dedicated budget for the production of statistics. Any planned improvements to statistics or even the basic data collection have no dedicated budget and run the risk of not being adequately funded or funded at all.

FIGURE 133: BUDGET FOR THE PRODUCTION OF STATISTICS



Dedicated Budget

- 55% had a dedicated budget
- 45% had NO dedicated budget

The assessment showed that 55 per cent of the MDAs consulted disagreed/strongly disagreed with the statement that the *financial allocation for compiling statistics is adequate to perform the required tasks* (see Table 15)

Generally, MDAs felt that the resources, technical, human, financial, available for the production of statistics were inadequate. Seventy per cent (70%) felt that the resources allocated to the production of statistics were inadequate, while the remaining thirty per cent (30%) were neutral on this issue.

The assessment however, revealed that the low salary levels afforded to persons working in official statistics is a significant risk to the production of high-quality statistics. In an increasingly

data literate world, the demand for talented data analysts and statisticians is increasing. As such, statisticians today have more employment options, and without an improvement in the competitiveness of the remuneration afforded to these professionals, there looms the risk of a brain drain, primarily among the younger staff. This would compromise the quality of statistics produced within the NSS.

Physical and IT Resources

The MDAs had mixed responses on the allocation of sufficient physical space for the production of statistics. The majority of responses were either neutral (30%) or in agreement, (30%) that *sufficient physical space has been allocated for the production of statistics*. MDAs were also split on their perception of the adequacy of statistical software for the compilation and analysis of statistics. Thirty-five (35%) agreed with this notion that the software available to them was adequate, while another thirty-five per cent (35%) disagreed. The major complaint in this regard however, was that the cost to acquire the required licences for statistical software packages was prohibitive.

Half of the MDAs (50%) assessed deemed that their IT infrastructure was inadequate to perform the required tasks. This limits their ability to automate, and has perpetuated the largely manual approach to the compilation of data for statistical purposes.

Data Production and Management

STATIN and Sector Statistics

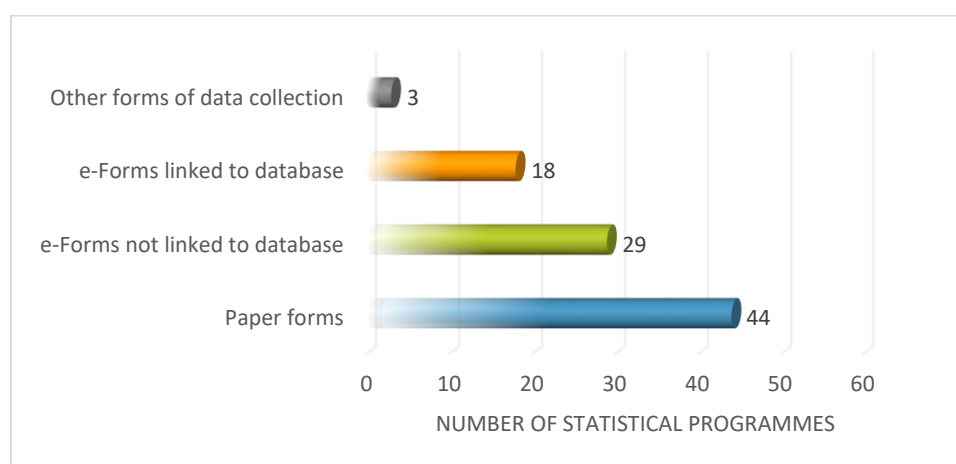
Accuracy and Reliability

It is imperative that the results of official statistics accurately portray the reality it is intended to measure. It is also important that the process used to generate official statistics is reproducible and reliable over time. For purposes of this assessment, the focus was on the source data used for the production of statistics and indicators and its impact on the accuracy and reliability of the final output.

The source of information and the mode of data collection not only have an impact on the timeliness of statistical production, but also on the accuracy and reliability of the information collected. The more manual the statistical process, the greater the number of entry points for error. For data collected on paper, error may be introduced at the point of recording, and at the point of data entry. As such, as much as possible, the data collection process should be automated with built-in consistency checks to reduce the risk of data capture and processing error.

Data are collected on paper for the majority (44) of statistical programmes. A significant number (29) of programmes also captured data on electronic forms (e-forms) that were not linked to a database. This mode of data collection allows the respondent to enter the requested information that may then be entered into a database. This mode improves on the paper form by reducing the risk of transcription error or errors associated with illegible penmanship. Just over a quarter (18) of the programmes assessed, captured their data electronically directly into a database. This is the preferred mode of data capture to improve accuracy.

FIGURE 14: MODE OF DATA COLLECTION BY STATISTICAL PROGRAMME



The largest proportion of statistical programmes that collected data using e-Forms linked to databases was under Environment and Multi-domain statistics. Approximately forty-five per cent (45%) of the programmes within this group collected data using this medium.

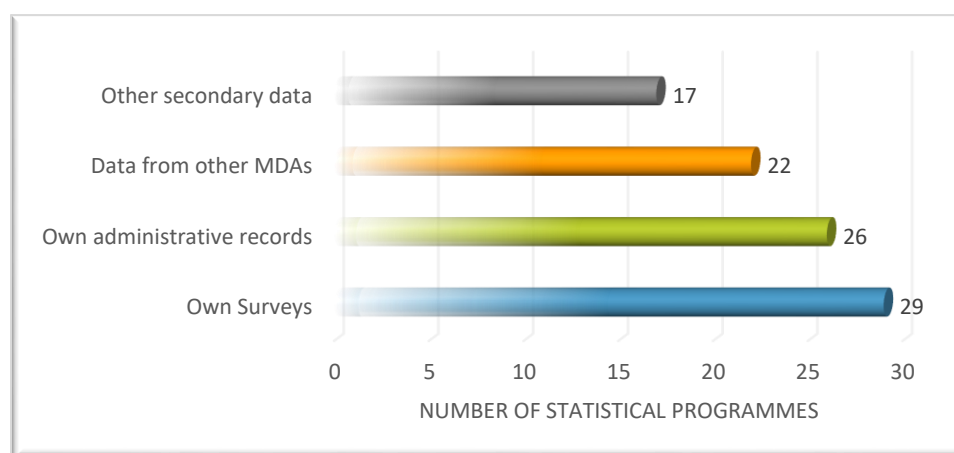
TABLE 6: MODE OF DATA COLLECTION BY STATISTICAL PROGRAMME BY DOMAIN

	<u>Statistical Domain</u>			
	Demographic and social statistics	Economic statistics	Environment & multi-domain statistics	Methodology ... (Censuses & Registers)
Paper forms	24	11	7	2
e-Forms not linked to database	13	12	3	1
e-Forms linked to database	8	5	5	0
Other forms of data collection	0	3	0	0
Total	31	18	11	2

The use of primary data collection, affords the MDA greater control over the quality of the data used to produce the statistics. As a primary data collector, an entity has control over the content, timeliness, concepts and definitions used and the ability to customise the data

collection instrument to ensure the appropriateness of the information collected for its intended use.

FIGURE 15: DATA SOURCE OF STATISTICAL PROGRAMMES



As a user of secondary data, entities have far less control over the quality of the information received, and often times have no input into the design of data collection instruments, the concepts used or the quality control process. It often translates into significant data quality issues when data are used for the production of statistics that are not collected for statistical purposes. This is particularly the case when the statistical uses of the data are not considered. The use of secondary data is however a cost-efficient option, when compared to the cost of conducting surveys. Secondary data also serve to reduce respondent burden, and where the statistical uses of the data are appropriately accounted for, secondary data can prove to be an excellent source for statistical information.

TABLE 7: DATA SOURCE OF STATISTICAL PROGRAMMES BY DOMAIN

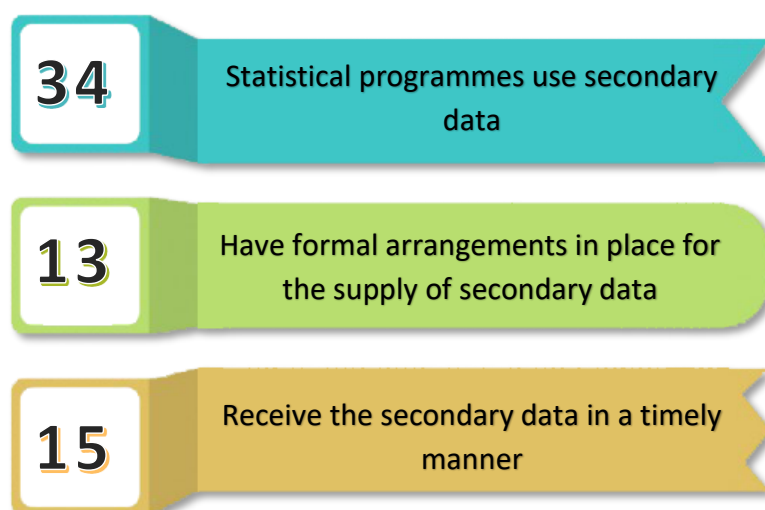
	Statistical Domain			
	Demographic and social statistics	Economic statistics	Environment & multi-domain statistics	Methodology ...(Censuses & Registers)
Own Surveys	10	10	7	2
Own administrative records	18	5	3	0
Data from other MDAs	5	10	6	1
Other secondary data	11	3	3	1
Total	32	18	12	2

The majority of the statistical programmes assessed engaged in primary data collection using either surveys (45.3%) or administrative records (40.6%). Just over a third (34.4%) of the statistical programmes assessed relied on other secondary data from other MDAs as an input

into the statistical production process, while just over a quarter (26.6%) relied on secondary data from other sources. It should be noted that there are some programmes that use multiple sources of data in the production of statistics.

A total of thirty-four (34) statistical programmes were identified as relying on secondary data as an input into the statistical production process. Of this, the proportion that had formal arrangements in place for data sharing was low. The results showed that formal arrangements

FIGURE 176: NUMBER OF STATISTICAL PROGRAMMES USING SECONDARY DATA

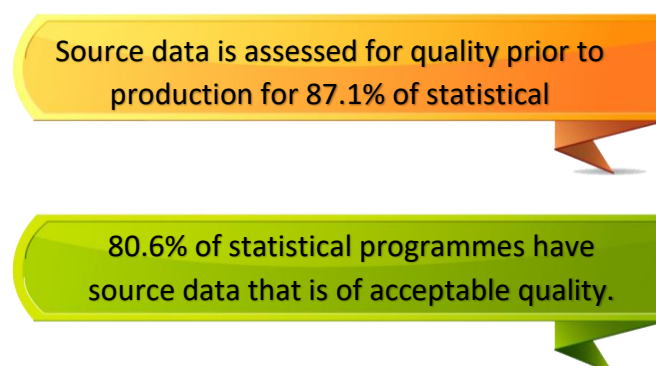


were in place for the supply of data for the production of only thirteen (13) statistical programmes. The assessment revealed that MDAs largely relied on personal relationships or tradition for the supply of information. This is a critical risk to the timely production of statistics by these MDAs, as a change in the leadership or staff of the organizations supplying data could adversely affect the availability of the data. It is

therefore recommended to have formal data supply agreements within data producing MDAs and this should be included in the updating of the Statistics Act.

Additionally, in the absence of formal arrangements, it was found that the timeliness of the supply of secondary data is less than satisfactory. The majority of programmes (19 programmes) were not receiving data in a timely manner thereby hindering the timely production of statistics. The low priority of statistical production in some entities may be a key factor for the timeliness issue.

FIGURE 167: QUALITY OF SOURCE DATA



It is imperative, that the production of statistics is accompanied by robust quality assessments. It is particularly important that data sources are assessed prior to use to minimise the risk of producing unreliable statistics. This ensures that any errors in the source data are not introduced into the statistical production process, without commensurate adjustments to address these errors.

For those programmes assessed, 87.1 per cent indicated that they evaluated their source data prior to using it.

Statistical Inventory

Majority of statistical programmes fell within Domain 1: Demographic and Social Statistics (51%), followed by Domain 2: Economic Statistics (29%) and Domain 3: Environment and Multi-domain Statistics (17%). Only three (3) per cent of the statistics programmes assessed fell within Domain 4: Methodology of data collection, processing, dissemination and analysis. The assessment also revealed significant data gaps within some domains, for instance, none reported producing statistical products relating to culture, political and other community activities, time-use, globalization or entrepreneurship.

FIGURE 18: DISTRIBUTION OF STATISTICAL PROGRAMMES BY DOMAIN²¹

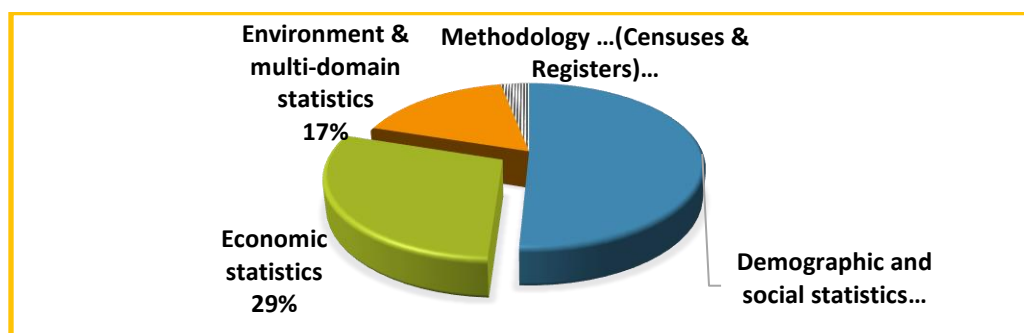


FIGURE 19: EXAMPLES OF THE STATISTICAL PROGRAMMES OF JAMAICA'S NSS

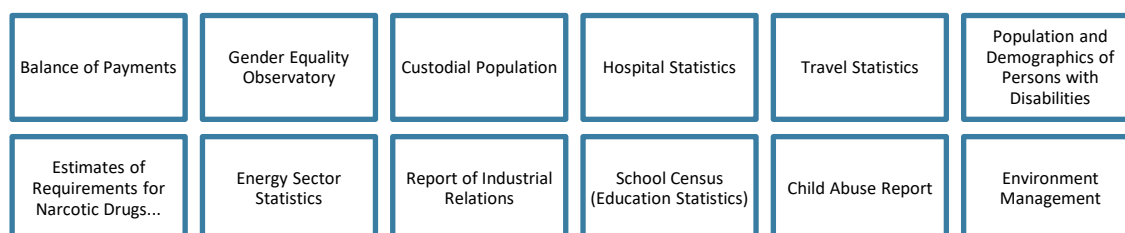


Figure 19 shows the examples of some of the statistical programmes of Jamaica's NSS.

²¹ UNECE. (2009). *Classification of Statistical Activities*

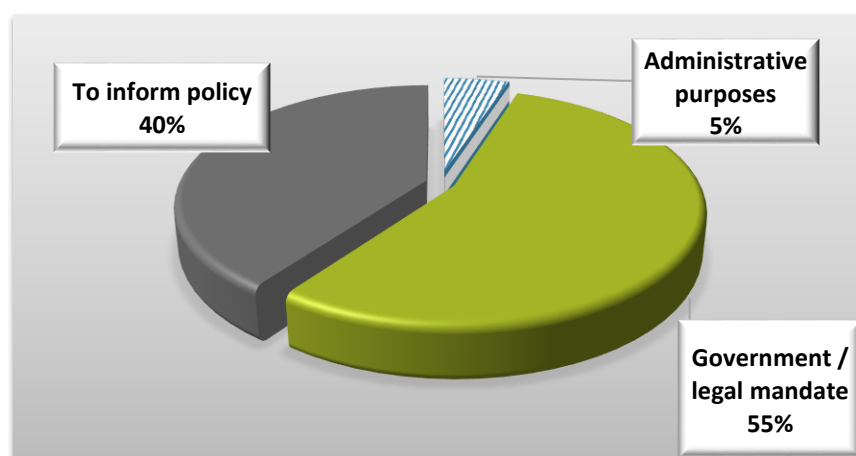
TABLE 8: NUMBER OF MDAs WITH AT LEAST ONE STATISTICAL PROGRAMME PER DOMAIN AND PROGRAMMES

Statistical Domain	MDAs	Number Programmes
Domain 1: Demographic and social statistics		
1.1 Population and migration	3	3
1.2 Labour	2	5
1.3 Education	2	2
1.4 Health	2	12
1.5 Income and consumption	1	1
1.6 Social protection	4	6
1.7 Human settlements and housing	1	1
1.8 Justice and crime	3	3
1.9 Culture	0	0
1.10 Political and other community activities	0	0
1.11 Time use	0	0
Domain 1: Total Programmes Assessed		33
Domain 2: Economic statistics		
2.1 Macroeconomic statistics	1	0
2.2 Economic accounts	1	1
2.3 Business statistics	1	0
2.4 Sectoral statistics	6	9
2.4.1 Agriculture, forestry, fisheries	1	5
2.4.2 Energy	1	1
2.4.3 Mining, manufacturing, construction	1	0
2.4.4 Transport	1	1
2.4.5 Tourism	1	1
2.4.6 Banking, insurance, financial statistics	1	1
2.5 Government finance, fiscal and public sector statistics	1	3
2.6 International trade and balance of payments	3	2
2.7 Prices	2	2
2.8 Labour cost	1	1
2.9 Science, technology and innovation	1	1
Domain 2: Total Programmes Assessed		19
Domain 3: Environment and multi-domain statistics		
3.1 Environment	2	2
3.2 Regional and small area statistics	1	1
3.3 Multi-domain statistics and indicators	5	7
3.3.1 Living conditions, poverty and cross-cutting social issues	2	2
3.3.2 Gender and special population groups	2	3
3.3.3 Information society	2	2
3.3.4 Globalisation	0	0
3.3.5 Indicators related to the Millennium Development Goals	1	0
3.3.6 Sustainable development	1	0
3.3.7 Entrepreneurship	0	0
3.4 Yearbooks and similar compendia	0	1
Domain 3: Total Programmes Assessed		12
Domain 4: Methodology of data collection, processing, dissemination and analysis		
4.3 Data sources	1	2
4.3.1 Population and housing censuses; etc. ...	1	1
4.3.2 Business and agricultural censuses and registers	1	1
Domain 4: Total Programmes Assessed		2

Mandate for Statistical Production

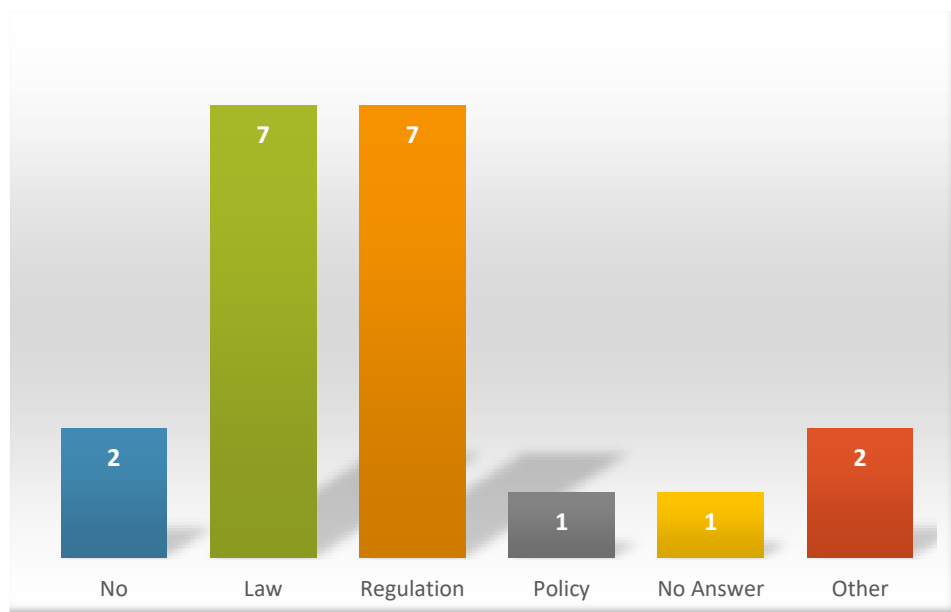
According to the Code of Good Practice in Statistics for Latin America and the Caribbean (CGP), *the collection of information for the preparation of official statistics must be supported by a clear legal mandate*²². This includes the legal authority to collect, compile and disseminate statistical information. Additionally, this legal mandate should compel individuals and businesses to provide information for statistical purposes, while compelling the data producing entity to preserve the confidentiality of the information collected. The Statistics Act, includes such a mandate, but applies only to the work of STATIN.

FIGURE 20: MAIN REASON FOR PRODUCING STATISTICS



Official statistics in Jamaica are largely produced in response to a Government or legal mandate. More than a half (55%) of the MDAs assessed indicated the production of statistics was required by law or official regulation. Two out of five MDAs produced statistics to provide information for policy making, while the remaining five (5) per cent produced data for administrative purposes.

²²SCA- ECLAC. (2011). Code of Good Practice in Statistics for Latin America and the Caribbean, pg. 5

FIGURE 21: NUMBER OF MDAs WITH A LEGAL BASIS FOR DATA COLLECTION

Statistical Techniques

A major concern is the fact that of those programmes that engaged in prior checks, only 80.6 per cent found that the source data was of acceptable quality. This means that among the 87.1 per cent of statistical programmes that assessed their source data prior to use, 1 in 5 found that the source data quality was below par. In other words, for 29.8 per cent of the statistical programmes that use secondary data, either the source data was not reviewed at all prior to use, or it was found to be of an unacceptable quality.

As part of the assessment, the producers of statistics were asked whether key error checks or statistical adjustments were made to their source data prior to compilation. They were asked whether they made checks or adjustments for: incomplete or missing data; outliers or extreme values; coverage; and other checks or adjustments. The assessment revealed that for a significant number of statistical programmes, these critical checks and adjustments were not being made. This could result in volatile statistics that are not representative of the intended population.

TABLE 9: CHECKS AND ADJUSTMENTS MADE TO DATA BY TYPE OF ADJUSTMENT AND STATISTICAL DOMAIN

Checks/ Adjustments Made	Yes	No	N/A	Total
	n		n	
All Programmes				
Incomplete records/ missing data	31	24	9	64
Outliers/extreme values	24	30	10	64
Coverage	23	30	11	64
Other Checks/ Adjustments	2	47	12	61
Domain 1: Demographic & Social Statistics				
Incomplete records/ missing data	9	14	8	31
Outliers/extreme values	6	16	9	31
Coverage	6	16	9	31
Other Checks/ Adjustments	0	21	10	31
Domain 2: Economic statistics				
Incomplete records/ missing data	15	3	1	19
Outliers/extreme values	15	4	0	19
Coverage	12	5	2	19
Other Checks/ Adjustments	1	14	1	16
Domain 3: Environment and multi-domain statistics				
Incomplete records/ missing data	6	6	0	12
Outliers/extreme values	3	9	0	12
Coverage	4	8	0	12
Other Checks/ Adjustments	1	11	0	12
Domain 4: Methodology of data collection... (Data Sources - Censuses and Registers)				
Incomplete records/ missing data	1	1	0	2
Outliers/extreme values	0	1	1	2
Coverage	1	1	0	2
Other Checks/ Adjustments	0	1	1	2

A review of the techniques applied to assess or transform secondary data prior to use, found that economic statistics were more likely to apply key techniques or transformation prior to use. On the other hand, however, while the producers of demographic and social statistics acknowledged that these checks were applicable, they also indicated that they were sometimes not done.

Microsoft Excel was found to be the most widely used software in the production of official statistics in Jamaica. This was followed by SPSS, Other Software, and SAS. When asked to comment on the choice of software, a number of MDAs indicated that their choice of software is influenced by the cost of acquisition. Given the very limited budgets available, some entities found that despite wanting to acquire and use higher/more updated versions of relevant software in the production of statistics, these MDAs could not afford them. This therefore limits their ability to employ key statistical techniques in an efficient manner.

Use of Statistical Software

FIGURE 22: USE OF STATISTICAL SOFTWARE BY TYPE OF SOFTWARE AND NUMBER OF STATISTICAL PROGRAMMES

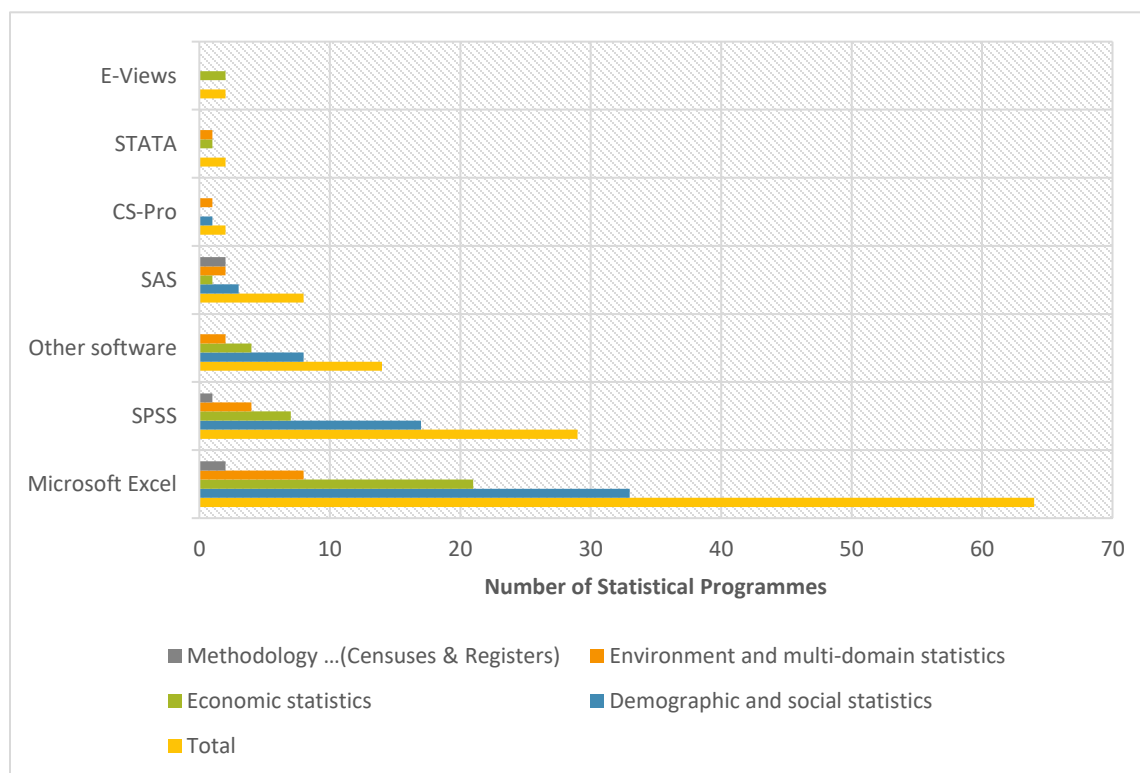


FIGURE 233: AUTHORITY TO DISSEMINATE AND PREANNOUNCED RELEASE SCHEDULE

70% have the AUTHORITY TO DISSEMINATE without external editing or approval

50% have a PRE-ANNOUNCED RELEASE SCHEDULE for statistical information

1. 35% are publicly available
2. 15% are for internal use only

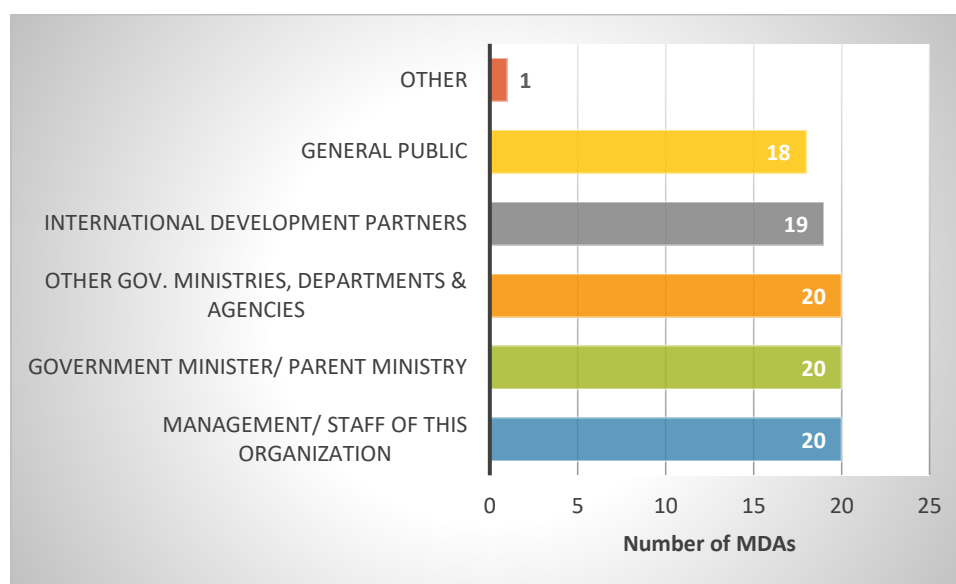
Data Dissemination, Communication and Analysis

The ability of an entity to release statistical information without external interference or approval is a critical pillar on which the credibility of their data hinges. Of the twenty MDAs assessed, seventy per cent (70%) indicated that they have the authority to disseminate statistical information without editing or approval from others, including other

government agencies, or ministerial approval. The remaining 30 per cent by virtue of their structure or reporting obligations required prior approval for the release of statistical

information. This was largely because no distinction was made between statistical information and regular releases by these entities.

FIGURE 24: ACCESS TO STATISTICAL INFORMATION

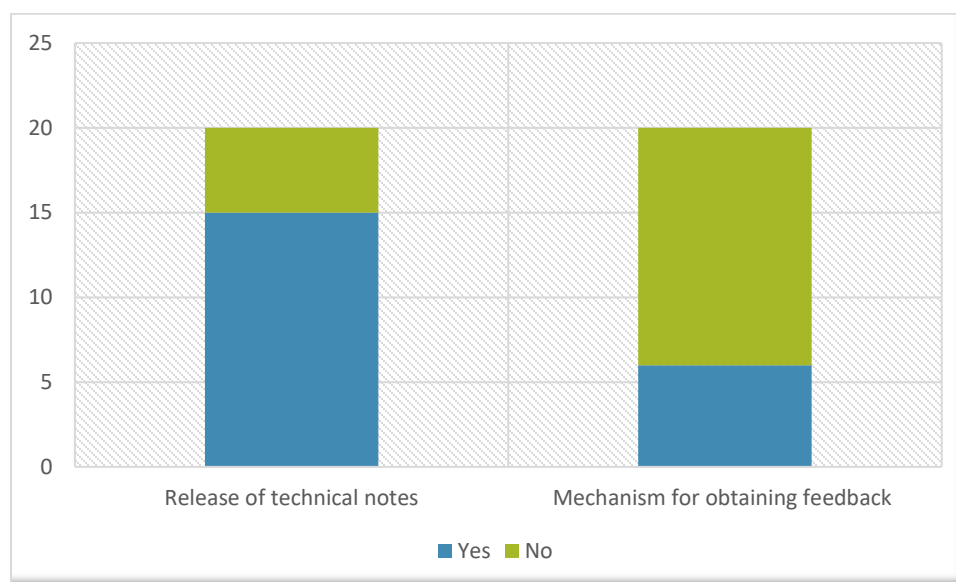


The statistical information produced by the MDAs assessed was largely accessible to the public. However, this information was often not available in an open format, which limited the usability of the data. Nineteen (19) of the twenty (20) MDAs disseminated their information internationally in response to global reporting obligations. Eighteen (18) of the twenty (20) MDAs disseminated their information to the public. In some cases information was being released internationally, because of international reporting obligations, but not available to the Jamaican public.

TABLE 10: DISSEMINATION MEDIA FOR STATISTICAL REPORTS, TABLES AND MICRO-DATA

Medium	Reports n	Tables n	Micro-Data n
Print	17	17	4
Website (view only)	1	1	0
Website (downloads)	14	13	3
E-mail	17	16	5
Other electronic medium (CDs, etc.)	10	10	5
Total	18	19	6

While most MDAs disseminated information in the format of tables (19) and reports (18), only one-third (6) released micro-data to users. While MDAs disseminated information using various media, the majority of the disseminated information is in pdf format. The primary media for disseminating reports and tables is via print or email, while microdata is primarily disseminated via email or other electronic medium.

FIGURE 25: NUMBER OF MDAs RELEASING TECHNICAL NOTES AND SOLICITING USER FEEDBACK

Fifteen (15) of the twenty (20) MDAs indicated that they released technical notes along with statistical information. Additional information is provided to assist users in interpreting the information. However, MDAs did not actively engage in assessing the *fitness for use* of their data, as only six (6) of them had a formal mechanism to obtain feedback from their users. Data are therefore being produced by a significant number of MDAs without consultation with users on their suitability.

Quality Management

Quality Management of a statistical programme relates to the requirement that statistics should be disseminated with an appropriate periodicity in a timely fashion, are consistent internally and with other major datasets, and follow a regular revision policy. In 2015, STATIN, supported by Statistics Canada, embarked on a process for the development and implementation of a Quality Assurance Framework consistent with the UN's

"QUALITY" is the extent to which a product or service of STATIN is fit for users' intended purposes. It defines our behaviour on the job, ensuring that our products and services are of the highest standard, integrity and credibility.

STATIN (2016)

Fundamental Principles of Official Statistics, the Code of Good Practice in Statistics for Latin America and the Caribbean, and the Generic National Quality Assurance Framework of the United Nations. This work builds on previous efforts to implement a quality management

system within STATIN, but is more tailored to the production of statistics. To date however, the implementation of a quality assurance framework has been limited to STATIN, and has not yet been extended to the other MDAs. Work with the other MDAs in this regard is set to begin in the latter part of 2017 via a Data Quality Workshop funded by the UNDP.

TABLE 11: CROSS-DOMAIN AND TEMPORAL CONSISTENCY CHECKS BY DOMAIN

	Demographic and social statistics	Economic statistics	Statistical Domain Environment & multi-domain statistics	Methodology ... (Censuses & Registers)	All Products
	n	n	n	n	n
Validation against other related information					
Yes	15	18	9	1	43
No	15	1	3	1	20
Total	30	19	12	2	63
Evaluation of the movement of estimates over time					
Yes	14	18	8	1	41
No	18	1	4	1	24
Total	32	19	12	2	65

For the majority of programmes, the producers of statistics engaged in consistency checks prior to publication. However, these checks were more pervasive in the economic statistics than in other domains.

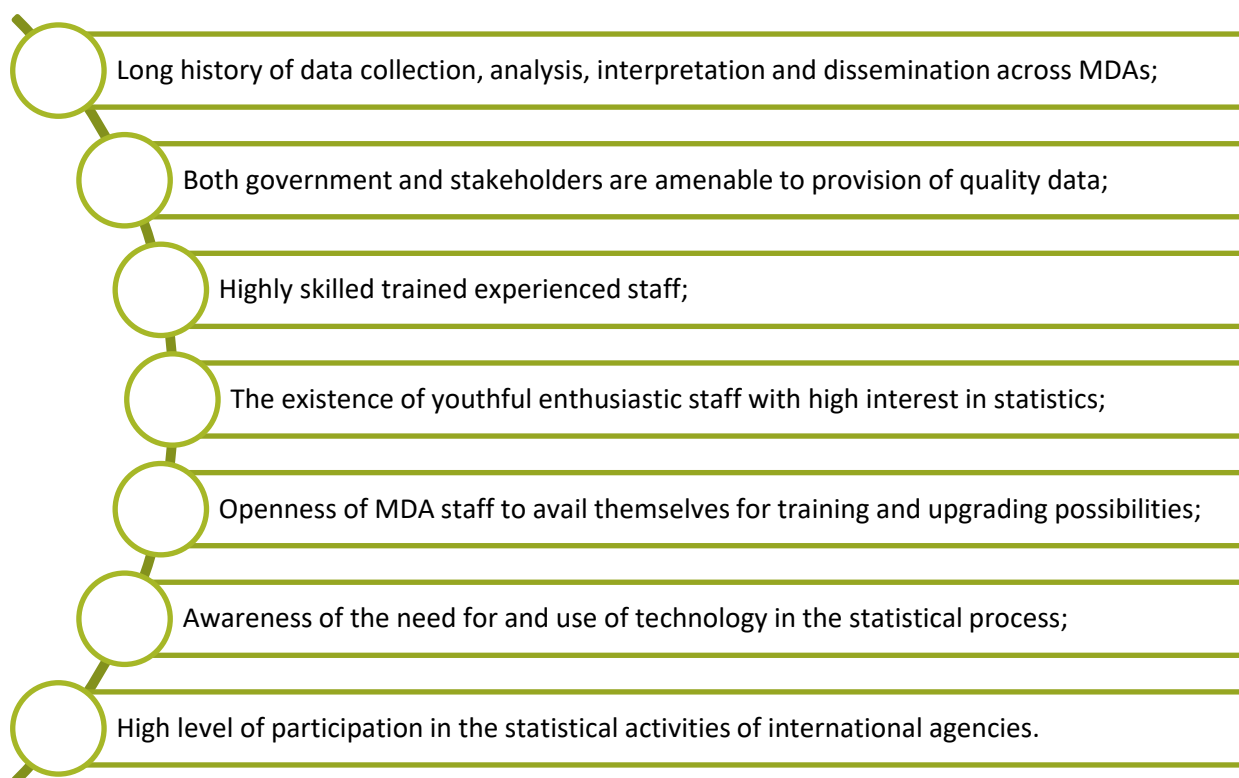
Similarly, the majority of economic statistics programmes evaluated the resultant statistic over time. This is however not practiced for more than half of the demographic and social statistics programmes.

IV. SWOT Analysis of Jamaica's NSS

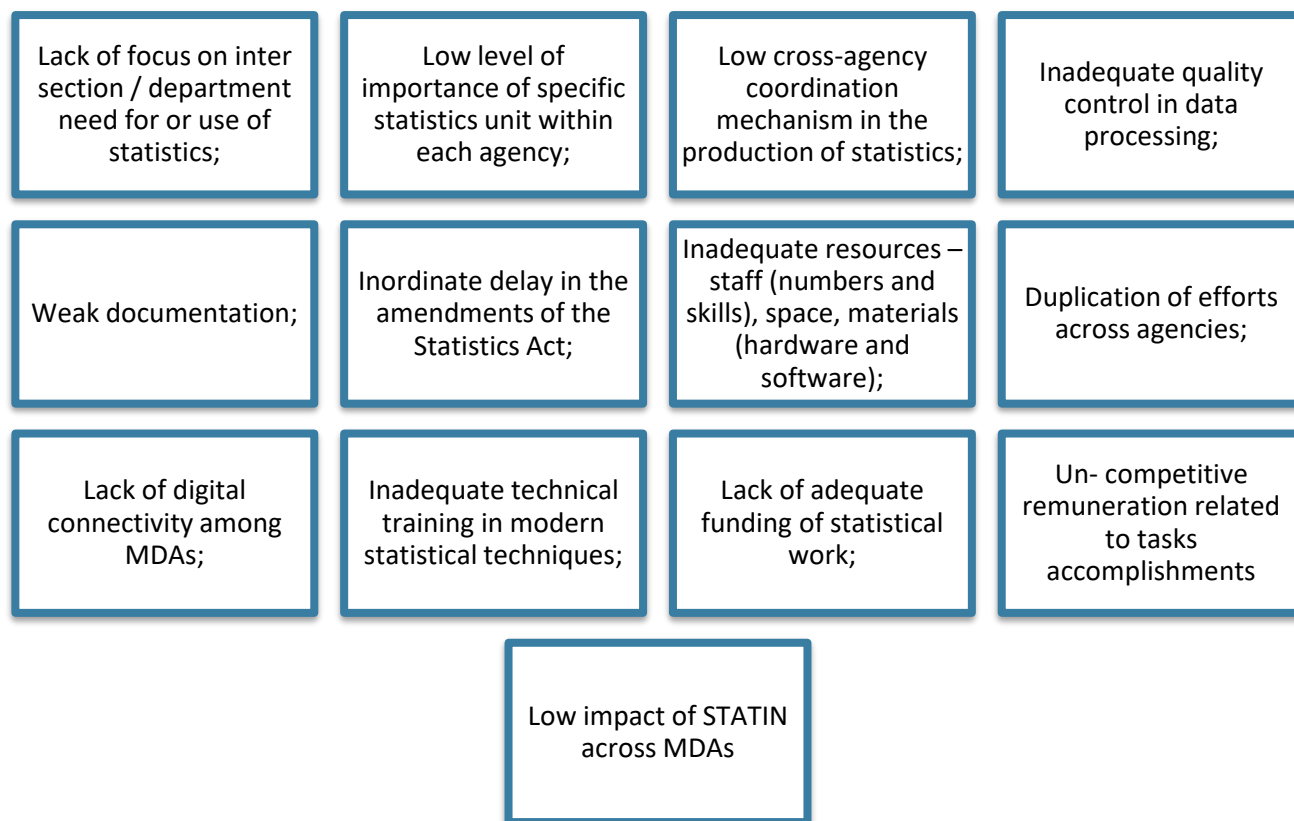
The SWOT analysis of the situation obtained from consultations with MDAs provided greater understanding of the challenges to the accomplishment of the NSS objectives. There are however, some areas of hope and these should be highlighted in preparation for the NSDS.

The outcome of the consultations, are presented in the SWOT outlined below.

Strengths of Jamaica's NSS



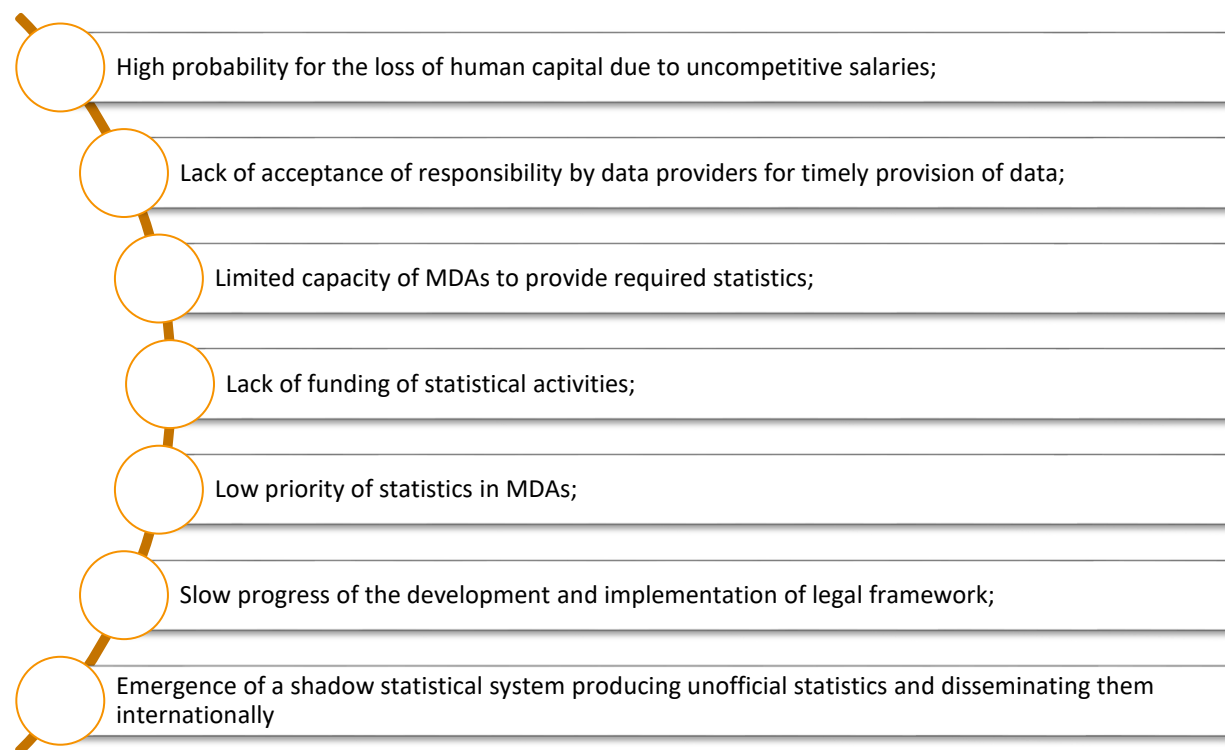
Weaknesses of Jamaica's NSS



Opportunities for Jamaica's NSS



Threats to Jamaica's NSS



V. Recommendations

The assessment identified a number of challenges faced by MDAs in the execution of the task of producing good quality statistics on a timely basis. With the objective of achieving a coordinated national statistics system, steps will have to be employed to address these challenges. The following are considered recommendations for priority attention, and may be considered in the preparation of the national strategy for the development of statistics (NSDS).

The review of the legislation to adequately address the production of statistics

1. Expedite amendments to the Statistics Act and where possible incorporate the recommendations contained herein;
2. Establish the coordinating body to provide effective governance and manage the continued development and modernization of the NSS. This body should provide overarching guidance and direction for Jamaica's NSS.
3. Set up and adequately resource the NSS Secretariat within STATIN;
4. Empower STATIN with the authority and resources to respond to the statistical needs of other MDAs;
5. Include provisions for effective coordination among the various providers and users of statistics (e.g., standards and regulations);
6. Enshrine in the law the professional independence in the production of statistics;
7. Creation of the framework to facilitate data sharing and improve general access within the NSS.

Data Production

1. Increase the production of data to respond to the demands of the SDGs;
2. Harmonize the data used to monitor the various development frameworks to reduce the reporting burden on MDAs and optimize the use of resources;
3. Increase the use of administrative data and explore alternative data sources for the production of official statistics;
4. Establish a National Quality Assurance Framework for official statistics;
5. Harmonize standards and definitions to establish data linkages and common use of terms / identifiers to facilitate data sharing and comparability within and across MDAs;
6. Organise and facilitate inter-agency information sharing;
7. Revamp / update technology to provide modern hardware and software packages for use in statistics. Cost savings could be achieved through multi-agency negotiations with software providers. While this could ultimately be subsumed into the wider GOJ

IT Strategy, the current state of technology within these entities require urgent attention;

8. Improve statistical policy-setting to facilitate sharing of expertise/ best practices in the activities related to data production.

Data dissemination

1. Develop technology for greater connectivity, data storage, data sharing in open data format via efficient websites, as well as the use of social media to promote easy access to information;
2. More timely production of statistics according to a published schedule;
3. Release data in an open data format;
4. Use modern data communication tools such as data visualization to enhance the increased use of data in the society;
5. Produce metadata to improve the interpretation and understanding of the statistics being released.
6. There should be routine monitoring of users' satisfaction regarding the production and dissemination of official statistics in Jamaica.

Training and Capacity building

1. Restructure statistics units/ sections within MDAs to ensure the establishment of posts that are dedicated only to the production of statistics. Considering the number of tasks to be covered by each staff member in the MDAs in addition to engagement in statistical activities, statistical production is at times lost among competing priorities;
2. Establish and equip statistical units within MDAs to manage statistical activities;
3. Provide the training and necessary capacity development for the management of statistical activities within the statistics units of MDAs. Many staff members are assigned the task of collecting, collating and compiling statistics for dissemination without proper training in statistics, or the appreciation for the impact of the outputs;
4. Expose staff in the statistics units to comprehensive training and periodic refresher courses in data literacy, use of international standards and the rudiments of statistics;
5. Develop and implement a coordinated programme of training in statistics with local and regional universities for the whole NSS;
6. Provide training in specialized areas of statistics to satisfy the demands of analytical assessment / evaluation of data.

Other

1. Increase user participation in the production of statistics;
2. Harmonize the technology (where possible) for easy comparability;
3. There is urgent need for increase in the technical, financial and other resources allocated to MDAs for the production of statistics;
4. Review remuneration offered to statisticians and other technical officers engaged in the production of statistics, in order to secure this scarce skill. This could be implemented as part of a wider Human Resource initiative to promote longevity of tenure in the NSS;
5. To remedy the lack of resources in the NSS there should be a dedicated budgetary allocation for the maintenance and development of official statistics in the GOJ Budget. Access to this fund could fall under the purview of the National Statistics Commission, and would benefit the entire NSS.
6. Establish a permanent dialogue between producers and users of official data.
7. Define and promote an advocacy approach regarding the role of statistics in development (including a communication policy at the NSS level) aiming at sensitizing and mobilizing political deciders and the other stakeholders.

VI. CONCLUSION

The current environment in Jamaica, in terms of interest in and awareness of the impact of high-quality statistics on development, presents an opportunity for strengthening and improving the NSS. The main obstacles are the lack of a sound legislative framework for governance and the provision of adequate resources for training and capacity building.

The atmosphere of the readiness for cooperation as reflected in the MDA consultations also augurs well and the work on the implementation of the NSS should begin without delay. There is trust in the ability of STATIN to guide the process of development and coordination of the NSS and this should be capitalized upon with some degree of urgency in moving the process forward.

There is general agreement that the national statistical system should be formalized in light of the specific requirements for the provision of indicators for the monitoring of the Sustainable Development Goals. Coordination of the NSS is critical to the integration of statistics in national planning, the implementation of international standards and principles and the adoption of innovative tools and techniques in the production and dissemination of official statistics.

Stakeholders, who are charged with the responsibility of producing national statistics, must collectively engage the government and assist in their understanding and awareness of the role of quality statistics in accomplishing the priorities that have been outlined for the National Development Plan. This engagement would also foster awareness of the need for greater investment by government in the production and dissemination of statistics.

Additionally, stakeholders in both public and private sectors should be encouraged to collaborate in the modernization of the Jamaican statistical system, with roles clearly defined and commitments assured.

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Appendix I. MDAs Participating in the Assessment

- Statistical Institute of Jamaica (STATIN)
- Ministry of Finance and Public Service (MoFP)
- Bank of Jamaica (BOJ)
- Ministry of Economic Growth and Job Creation
- Registrar General's Department (RGD)
- Ministry of Education, Youth and Information
- Ministry of National Security
- Ministry of Labour and Social Security
- Jamaica Constabulary Force
- Department of Corrections
- Office of the Children's Registry
- Bureau of Gender Affairs
- Ministry of Tourism
- Ministry of Health
- Ministry of Transport and Mining
- Ministry of Science, Energy and Technology
- Ministry of Industry, Commerce, Agriculture and Fisheries
- Passport, Immigration and Citizenship Agency
- Programme of Advancement Through Health and Education (PATH)
- National Environmental Planning Agency
- National Family Planning Board

Appendix II. List of Statistical Programmes Assessed

Agricultural Price Statistics	Household Expenditure Survey
Annual Registration of Clients for Training	Human Rights Statistics
Annual School Census (Education Statistics)	Immigration and Migration Statistics
Annual Travel Statistics	Immunization Statistics
Balance of Payments	Industrial Relations Statistics
Broiler Meat Production Statistics	International Merchandise Trade Statistics
Central Register of Establishment Units	Jamaica Health and Lifestyle Survey
Child Abuse Statistics	Labour Force Statistics
Clinical Statistics	Labour Market Intelligence and Information
Community Mental Health Statistics	Livestock Production Statistics
Consumer Price Index	Measuring Jamaica's Information Society (ICT Report)
Convention on the Elimination of all Forms of Discrimination against Women	Median Record Case Abstracts
Crime Data	National Accounts
Crime Statistics	National Council on Senior Citizens Statistics
Custodial Population Statistics	National Insurance Scheme Statistics
Demographic Statistics	National Surveillance Data
Domestic Crop Production Statistics	Occupational Safety and Health Statistics
Drug control statistics	PATH Statistics
Early Stimulation Programme	Population and Demographics of Persons with Disabilities
Egg Production Statistics	Population and Housing Census
Employment and Earnings	Poverty Mapping
Energy Sector Statistics	Producer Price Index
Environment Statistics	Sectorial Statistics: Banking, Financial
Environmental Management Statistics	Social Protection Statistics
Environmental Regulations Enforcement Statistics	Social Statistics
Epidemiology Profile of Health Conditions and Services in Jamaica	Survey of Living Conditions
Family Planning Statistics	Tax Expenditure Estimates
Financial Sector Statistics	Telecommunications Statistics
Fiscal Policy Paper	Transport Statistics
Food and drug statistics	Vital Statistics
Gender Statistics	Vitals: A Quarterly Report of MOH
Hospital Statistics	

Appendix III. Conceptual Frameworks Guiding the Production of Official Statistics in Jamaica

1. 13th International Conference of Labour Statisticians, 1982 and other ILO standards on Measuring Employment and Unemployment
2. Balance of Payments Manual 6 and Balance of Payments Compilation Guide
3. ECLAC Standards and Guidelines on Gender Statistics
4. Family Health Manual
5. FAO Methodology for Measuring Domestic Crop Production
6. Financial Action Task Force (FATF) Recommendations
7. Food and Drug Act and Regulations
8. Framework for the Development of Environment Statistics (FDES)
9. Government Finance Statistics Manual, IMF
10. Health Policy Manual
11. Health Records Manual
12. Health Research Manuals guided by IFHIMA, PAHO, AHIMA
13. ICD-10, International Classification of Diseases Causes or Deaths
14. IDB Methodology for Tax Expenditure Estimates
15. ILO Conventions on Industrial Disputes and Industrial Resolutions
16. IMF Consumer Price Index Manual Theory & Practice 2009
17. IMF Producer Price Index Manual: Theory and Practice 2004
18. Inter-American Development Bank Project Appraisal Document
19. Internal Manuals Based on International Standards and Guidelines
20. International Narcotics Control Board (INCB) Manuals / Drug Control Convention
21. International Telecommunications Union (ITU) Manual 2014 Edition
22. International Telecommunications Union (ITU) Standards
23. Monetary and Financial Statistics Manual, 2000 (MFSM)
24. National Surveillance Manual for Jamaica
25. Organization of American States (OAS) Manual for Crime Observatories
26. OLADE / IAEA Best Practices on Energy Sector Statistics
27. Operational Manual - World Bank Guidelines
28. Principles and Recommendation for Population and Housing Census Rev. 2
29. Principles and Recommendations of Vital Statistics, Demographic textbooks
30. Report II: Household income and expenditure statistics; 17th International
31. Resolution concerning an integrated system of wages statistics, adopted by the Twelfth International Conference of Labour Statisticians (October 1973)
32. Standard Methods for Wastewater and Water Quality Analysis
33. System of National Accounts, 1993
34. UN / WTO Recommendations 1993
35. UN Conventions on Rights of the Persons with Disabilities. Disabilities Act
36. UN Conventions on the Rights of the Child
37. UN Fundamental Principles of Official Statistics
38. UN Guidelines / CEDAW Committee for the Convention on the Elimination of all Forms of Discrimination against Women
39. UN Guidelines and Recommendations for Social Statistics
40. UNECE Guidelines on Statistics Business Registers, 2015
41. UN International Merchandise Trade Statistics: Concepts and Definition 2010
42. UNESCO Institute of Statistics Guidelines for Education Statistics
43. WHO Family Planning Manual

44. WHO International Standards on Diagnosis
45. World Bank Guidelines for Living Standards Measurement Surveys
46. World Bank Poverty Mapping Guidelines

MDA Number			

Appendix IV. NSS Assessment Questionnaire A

Agency Level Questionnaire – For Management/ Senior Personnel

Respondent Information

1. Respondent Name	2. Respondent Title
3. Respondent e-mail	4. Respondent Phone

MDA Information

5. Type of Entity ☐ 4. Ministry >>7 ☐ 5. Department ☐ 6. Statutory Body ☐ 7. Executive Agency ☐ 9. Other (specify)	
6. Name of Entity	
7. Parent Ministry/ Name of Ministry ☐ 5. Ministry of Culture, Gender, Entertainment and Sport ☐ 6. Ministry of Economic Growth and Job Creation ☐ 7. Ministry of Education, Youth and Information ☐ 8. Ministry of Energy, Science, Technology and Telecommunications ☐ 9. Ministry of Finance and Public Service ☐ 10. Ministry of Foreign Affairs and Foreign Trade ☐ 11. Ministry of Health ☐ 12. Ministry of Industry, Commerce, Agriculture and Fisheries ☐ 13. Ministry of Justice ☐ 14. Ministry of Labour and Social Security ☐ 15. Ministry of Local Government and Community Development ☐ 16. Ministry of National Security ☐ 17. Ministry of Tourism ☐ 18. Ministry of Transport and Mining	
8. Name of Statistical Unit/ Section	
9. Statistical Unit/ Section Contact Name	10. Statistical Unit/ Section Contact Title
11. Statistical Unit/ Section Contact e-mail	12. Statistical Unit/ Section Contact Phone

Statistical Inventory

13. Which of the following does your MDA produce?

Domain	Production	Data Description(s)
Domain 1: Demographic and social statistics		
1.1 Population and migration	☐ Yes ☐ No	•
1.2 Labour	☐ Yes ☐ No	•
1.3 Education	☐ Yes ☐ No	•
1.4 Health	☐ Yes ☐ No	•
1.5 Income and consumption	☐ Yes ☐ No	•
1.6 Social protection	☐ Yes ☐ No	•
1.7 Human settlements and housing	☐ Yes ☐ No	•
1.8 Justice and crime	☐ Yes ☐ No	•
1.9 Culture	☐ Yes ☐ No	•
1.10 Political and other community activities	☐ Yes ☐ No	•
1.11 Time use	☐ Yes ☐ No	•
Domain 2: Economic statistics		
2.1 Macroeconomic statistics	☐ Yes ☐ No	•
2.2 Economic accounts	☐ Yes ☐ No	•
2.3 Business statistics	☐ Yes ☐ No	•
2.4 Sectoral statistics	☐ Yes ☐ No	•
2.4.1 Agriculture, forestry, fisheries	☐ Yes ☐ No	•
2.4.2 Energy	☐ Yes ☐ No	•
2.4.3 Mining, manufacturing, construction	☐ Yes ☐ No	•
2.4.4 Transport	☐ Yes ☐ No	•
2.4.5 Tourism	☐ Yes ☐ No	•
2.4.6 Banking, insurance, financial statistics	☐ Yes ☐ No	•
2.5 Government finance, fiscal and public sector statistics	☐ Yes ☐ No	•
2.6 International trade and balance of payments	☐ Yes ☐ No	•
2.7 Prices	☐ Yes ☐ No	•
2.8 Labour cost	☐ Yes ☐ No	•
2.9 Science, technology and innovation	☐ Yes ☐ No	•
Domain 3: Environment and multi-domain statistics		
3.1 Environment	☐ Yes ☐ No	•
3.2 Regional and small area statistics	☐ Yes ☐ No	•
3.3 Multi-domain statistics and indicators	☐ Yes ☐ No	•
3.3.1 Living conditions, poverty and cross-cutting social issues	☐ Yes ☐ No	•
3.3.2 Gender and special population groups	☐ Yes ☐ No	•
3.3.3 Information society (ICT)	☐ Yes ☐ No	•
3.3.4 Globalisation	☐ Yes ☐ No	•
3.3.5 Indicators related to the Millennium Development Goals	☐ Yes ☐ No	•
3.3.6 Sustainable development	☐ Yes ☐ No	•
3.3.7 Entrepreneurship	☐ Yes ☐ No	•

Domain	Production	Data Description(s)
3.4 Yearbooks and similar compendia	☐ Yes ☐ No	•

Legal and Institutional Environment

14. What is the main purpose of/ reason for the collection, processing and/or dissemination of statistics by your organization?

☐ 6. Administrative purposes ☐ 7. Government/mandate legal ☐ 8. International requirement
☐ 9. To inform policy ☐ 9. Other (specify)

15. Is there a law, policy, regulation or other legislative arrangement that assigns primary responsibility as well as the authority to this entity for the collection, processing, and dissemination of statistics identified at 13?

☐ 1. No >>16 ☐ 2. Law ☐ 3. Regulation
☐ 4. Policy ☐ 9. Other (specify)

15.1. What is the name of the law, policy, regulation or other legislative arrangement?

Adequacy of Resources

16. How many persons are involved on a regular basis in the production of statistics within your organization?

Staff Type	Current Number	Is this adequate?	Optimal Number
1. Professional / Technical Staff		☐ Yes ☐ No	
2. Clerical/ Support Staff		☐ Yes ☐ No	
3. Administrative and Other Staff		☐ Yes ☐ No	
4. Total		☐ Yes ☐ No	

17. Does this organization have in-house, the technical capacities listed below; what is the general competency level of the staff undertaking these activities; and has any of the staff undertaking these tasks received formal training (certificate, degree, etc.) to help him/her perform these tasks in the past 7 years?

Statistical Activity	Technical Capacity Available?	Competency Level	Trained in past 7 years?
1. Designing statistical products	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No
2. Developing data collection instruments	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No
3. Designing & selecting samples	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No
4. Editing/ imputing data	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No

5. Computing survey weights	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No
6. Conducting data analysis	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No
7. Anonymizing data	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No
8. Preparing statistical reports	☐ Yes ☐ No ☐ n/a	☐ Basic ☐ Intermediate ☐ Expert	☐ Yes ☐ No

18. Is there a dedicated budget for the production of statistics by this organization?
☐ 1. Yes ☐ 2. No

19. Has this organization received technical or financial support from international agencies for the production of statistics in the past 5 years?
☐ 1. No ☐ 2. Yes, Technical support ☐ 3. Yes, Financial support ☐ 4. Both

19.1. Which international agencies have you received technical support from in the past 5 years for the production of statistical information?

20. Indicate your level of agreement with the following statements.
[1 = strongly disagree; 5 = Strongly agree]
Level of Agreement

20.1.	The skills of staff are developed and maintained to perform the required tasks.	
20.2.	Staff turnover is manageable.	
20.3.	Salary levels are adequate for the nature of the work, and competitive.	
20.4.	Overall, sufficient resources are allocated for the production of statistics.	
20.5.	Sufficient physical space has been allocated for the production of statistics.	
20.6.	Software used for compiling and analysing statistical data is adequate.	
20.7.	IT infrastructure (hardware, software, networking facilities) for producing statistical data is adequate to perform the required tasks.	
20.8.	Financial allocation for compiling statistics is adequate to perform the required tasks.	

Professional Independence

21. Is there a law or other formal provision that prohibits interference from others, including other government agencies, in the compilation of statistical information?

- ☐ 1. No ☐ 2. Yes, Law
☐ 9. Yes, Other formal provision (specify)

Statistical Confidentiality

22. Does this organization have standards in place to ensure the confidentiality of statistical information?

- ☐ 1. No ☐ 2. Yes, Law
☐ 9. Yes, Other formal provision (specify)

Dissemination Practices

23. Does this entity have the authority to disseminate statistical information without editing or approval from others, including other government agencies, or ministerial approval?

- ☐ 1. Yes ☐ 2. No

24. Who has access to the statistical information produced by this entity? *(Select all that apply)*

- ☐ a. Management/ staff of this organization ☐ b. Government Minister/ Parent Ministry
☐ c. Other Gov. Ministries, Departments & Agencies ☐ d. International Development Partners
☐ e. General public ☐ x. Other (specify)

25. Does this entity have a preannounced release schedule for the statistical information it produces?

- ☐ 1. No ☐ 2. Yes, for internal use only ☐ 3. Yes, publicly available

26. How is the statistical information that is produced by this entity released?

<i>Dissemination Format</i>	<i>Print</i>	<i>Website (view only)</i>	<i>Website (downloads)</i>	<i>e-mail</i>	<i>Other electronic (CDs, etc.)</i>
1. Reports	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. Tables	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
3. Micro-data	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4. Other (specify)	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

27. Does this entity release technical notes/ methodological documentation along with the statistical information it produces?

- ☐ 1. Yes ☐ 2. No

28. Does this entity have a mechanism for obtaining feedback from data users?

☐ 1. Yes

☐ 2. No

29. General comments?

MDA Number			

Appendix V. NSS Assessment Questionnaire B

Data Level Questionnaire – For Each Statistical Domain

MDA Information

Q 1.	Name of Entity
Q 2.	Name/ Description of Statistics
Q 3.	Statistical Domain Code <i>(see Questionnaire A, Q13 for Code e.g. 3.3.1)</i>

Respondent Information

Q 4. Respondent Name	Q 5. Respondent Title
Q 6. Respondent e-mail	Q 7. Respondent Phone

Methodological Soundness

Q 8. Are the concepts and definitions used in the production of this statistical information based on international standards, recommendations, and good practices? ☐ 5. Yes ☐ 6. No >> Q 9
8.1. What is the name of the main manual/ guideline which sets out the international standard, recommendations and good practices that govern the production of this statistical information?
8.2. Are there any deviations/ departures from the international standard, recommendations or good practices specified above? ☐ 3. Yes (<i>specify</i>) _____ ☐ 4. No
Q 9. Are the classification systems used in the production of this statistical information broadly consistent with internationally accepted standards, guidelines or good practices? e.g. JIC, JSOC, etc. ☐ 1. Yes ☐ 2. No
Q 10. Do you document the procedures used in computing these statistics?

☐ 1. Yes☐ 2. No**Accuracy and Reliability****Q 11. How are the data collected for the production of this statistical information?**☐ 3. Paper forms☐ 4. e-Forms not linked to database☐ 5. e-Forms linked to database☐ 9. Other (specify)**Q 12. What is/are your data source(s) for the production of this statistical information?**☐ 1. Own administrative records >>Q 13☐ 2. Own Surveys >>Q 13☐ 3. Data from other MDAs☐ 9. Other secondary data (specify)**12.1. Do you have a formal arrangement in place with your data provider for the production of this statistical information?**☐ 1. Yes☐ 2. No**12.2. Do you receive the source data in a timely manner as required for the production of this statistical information?**☐ 1. Yes☐ 2. No**Q 13. Do you assess the quality of the source data before using it for the production of this statistical information?**☐ 1. Yes☐ 2. No**Q 14. Do you use statistical techniques to adjust or transform the source data before using it, for any of the following reasons?**

<i>Source Data Error</i>	
1. Incomplete records/ missing data	☐ Yes ☐ No ☐ n/a
2. Outliers/extreme values	☐ Yes ☐ No ☐ n/a
3. Coverage	☐ Yes ☐ No ☐ n/a
9. Other (specify)	☐ Yes ☐ No ☐ n/a

Q 15. Is the source data adequate for the production of this statistical information as required?☐ 1. Yes☐ 2. No**Q 16. Please indicate whether you use any of the following software packages in the production of this statistical information?**

<i>Software</i>	
1. Microsoft Excel	☐ Yes ☐ No
2. SAS	☐ Yes ☐ No
3. SPSS	☐ Yes ☐ No
4. CS-PRO	☐ Yes ☐ No
5. STATA	☐ Yes ☐ No
6. E-Views	☐ Yes ☐ No
9. Other (specify)	☐ Yes ☐ No

Q 17. Are there procedures in place for controlling the quality of this statistical output?

☐ 1. Yes	☐ 2. No
---------------------------------	--------------------------------

Serviceability

Q 18. What is the periodicity of this statistical information, i.e. what is the reporting period?

☐ 1. Monthly
 ☐ 2. Quarterly
 ☐ 3. Annually
☐ 9. Other (specify)

Q 19. How long after the reporting period is this statistical information released?

☐ 1. Ad hoc
☐ 2. Scheduled
 ☐ day(s)
 ☐ week(s)
 ☐ month(s)
 ☐ year(s)

Q 20. Do you validate your estimates against other related information?

☐ 1. Yes
 ☐ 2. No

Q 21. Do you evaluate the movement of your estimates over time?

☐ 1. Yes
 ☐ 2. No

Q 22. Do you publish revised estimates after the initial release?

☐ 1. Yes
 ☐ 2. No >>Q 23

22.1. Do revisions and/or updates follow a regular and transparent schedule?

☐ 1. Yes
 ☐ 2. No

22.2. Do you assess the magnitude/ size of revisions over time?

☐ 1. Yes
 ☐ 2. No

22.3. Are preliminary and/or revised/updated data clearly identified?

☐ 1. Yes
 ☐ 2. No

Q 23. General comments

Appendix VI. Additional Tables and Charts

TABLE 12: PERCENTAGE ALIGNMENT TO SDGs OF JAMAICA'S PLANNING DOCUMENTS

SDG Goal	# Targets considered	# Targets aligned	# Aligned targets with indicators	% Alignment ²³
1. No Poverty	4	4	4	100%
2. Zero Hunger	5	5	3	100%
3. Good Health and Well-being	9	9	6	100%
4. Quality Education	7	7	4	100%
5. Gender Equality	5	5	4	100%
6. Clean Water and Sanitation	6	6	3	100%
7. Affordable and Clean Energy	3	3	3	100%
8. Decent Work and Economic Development	9	9	7	100%
9. Industry, Innovation and Infrastructure	5	5	5	100%
10. Reduced Inequalities	5	4	3	80%
11. Sustainable Cities and Communities	7	7	6	100%
12. Responsible Consumption and Production	7	7	3	100%
13. Climate Action	3	3	2	100%
14. Life below Water	7	4	1	57%
15. Life on Land	9	7	4	78%
16. Peace, Justice and Strong Institutions	10	9	8	90%
17. Partnerships for the Goals	14	11	2	79%
TOTAL	115	105	62	91.3%

TABLE 13: PERCENTAGE ALIGNMENT TO SDG THEMATIC AREA OF JAMAICA'S PLANNING DOCUMENTS

Thematic Area	# Targets considered	# Targets aligned	% Alignment
People	30	30	100%
Planet	32	27	84%
Prosperity	29	28	97%
Peace	10	9	90%
Partnership	14	11	79%
TOTAL	115	105	91.3%

²³ [(Targets aligned/targets considered) *100]

TABLE 14: STAFF COMPLEMENT OF MDAs WITH ADEQUATE STAFF BY STATISTICAL DOMAIN

	Number of MDAs	Minimum	Maximum	Staff Complement			Sum
				Mean	Median		
Professional / Technical Staff							
Demographic and Social Statistics	4	2	5	4	4		15
Economic Statistics	2	5	21	13	13		26
Environment & Multi-domain Statistics	0						
All Domains	6	2	21	7	5		41
Clerical/ Support Staff							
Demographic and Social Statistics	3	0	3	2	3		6
Economic Statistics	3	0	10	3	0		10
Environment & Multi-domain Statistics	2	0	2	1	1		2
All Domains	8	0	10	2	1		18
Administrative and Other Staff							
Demographic and Social Statistics	4	0	2	1	2		5
Economic Statistics	5	0	1	1	1		3
Environment & Multi-domain Statistics	0						0
All Domains	10	0	2	1	1		8
Total Statistical Staff							
Demographic and Social Statistics	1	5	5	5	5		5
Economic Statistics	2	5	32	19	19		37
Environment & Multi-domain Statistics	0						
All Domains	3	5	32	14	5		42

TABLE 15: STAFF COMPLEMENT OF MDAs ***WITHOUT*** ADEQUATE STAFF BY STATISTICAL DOMAIN

	Number of MDAs	Minimum	Maximum	Staff Complement			Sum
				Mean	Median		
Professional / Technical Staff							
Demographic and Social Statistics	6	1	13	5	4		30
Economic Statistics	3	12	30	19	15		57
Environment & Multi-domain Statistics	2	7	8	8	8		15
All Domains	11	1	30	9	7		102
Clerical/ Support Staff							
Demographic and Social Statistics	7	0	3	1	1		10
Economic Statistics	2	0	5	3	3		5
Environment & Multi-domain Statistics	0						
All Domains	9	0	5	2	1		15
Administrative and Other Staff							
Demographic and Social Statistics	6	0	6	2	1		9
Economic Statistics	0						
Environment & Multi-domain Statistics	1	2	2	2	2		2
All Domains	7	0	6	2	1		11
Total Statistical Staff							
Demographic and Social Statistics	9	2	18	8	7		69
Economic Statistics	3	13	35	21	16		64
Environment & Multi-domain Statistics	2	8	11	10	10		19
All Domains	14	2	35	11	9		152



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