



Improving the Quality of Statistics in Belize

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**Inter-American
Development Bank**

Institutions for
Development Sector

Institutional Capacity of
the State Division

TECHNICAL NOTE

No. IDB-TN-728

December 2014

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Inter-American Development Bank

2014

Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library

Perfit, Janine T.

Improving the quality of statistics in Belize / Janine T. Perfit, Mariko Russell, Jorge E. Muñoz A.

p. cm. — (IDB Technical Note ; 728)

Includes bibliographic references.

1. Public administration—Statistics—Belize. 2. Statistics—Belize. I. Russell, Mariko. II. Muñoz A., Jorge E. III. Inter-American Development Bank. Institutional Capacity of the State Division. IV. Title. V. Series. IDB-TN-728

<http://www.iadb.org>

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Abstract*

In modern public management the use of statistics for decision making is essential. Evidence-based policy, as well as results-based public management, cannot operate effectively without reliable and timely data. Likewise, without more specialized, quality statistics, the achievement of development objectives cannot be appropriately monitored, or the effectiveness of development plans evaluated. In the specific context of Belize, the importance of a well-functioning statistical system is essential to the process of economic and social development of the country. Yet, according to the evidence collected, the country is characterized by the absence of a statistical system; as such, the agencies that produce data based on administrative registries and surveys usually do their work independently; there is no regulation that governs statistical production in any institution outside the SIB; and there is no common set of classifiers, norms, and definitions based on good practices that meet international standards. Since the SIB does not audit and regulate the production of data in the country, statistical production is disintegrated and there is room for improvement in timeliness and quality. Moreover, Belize's NSS does not have any effective mechanism to reach users. To improve this situation, this technical note recommends strengthening the SIB's capacity to produce basic statistics and increasing the country's use of statistics through the implementation of a national statistics strategy in Belize with the SIB in the role as the coordinating agency. This will help to strengthen the entire statistical system.

JEL Codes: H00

Keywords: National Statistical System, public management, evidence-based policy, data, coordination, Latin America and the Caribbean, official statistics, production and use of statistics, Statistical Institute of Belize, institutional capacity, censuses, surveys, National Strategy for the Development of Statistics

* This publication has benefited from the guidance and comments of Anneke Jessen, Dougal Martin, and José Antonio Mejía of the IDB and Glenn Avilez, Director General of the SIB.

1. Introduction

This Technical Note assesses the production and use of statistics in Belize. Its analysis and recommendations are based on two different sources: first, the information collected directly from a series of interviews with the main actors of Belize's National Statistical System (NSS), including producers (the Statistical Institute of Belize and the Central Bank of Belize, among others) as well as users (e.g., the Belize office of the United Nations Development Programme); second, data from the World Bank and the Inter-American Development Bank (IDB) related to the production and use of statistics in Belize. The diagnosis of Belize's statistical system thus builds on both interview results and secondary sources.

In addition to the information needed to diagnose Belize's NSS, information has been gathered on the policies that are relevant to this national system. Based on the combination of the different types of information mentioned above, a set of policy options are proposed that aim to strengthen the NSS. Finally, among the policy options proposed, a specific policy recommendation is made with the purpose of strengthening the statistical system.

This note consists of six sections including this first brief introduction; the second section presents a justification for working to strengthen the NSS, including an overview of the commitments and agreements established by the international community to cooperate in this area. The third section presents an assessment of the NSS, which includes an overview of the state of statistical production, the intensity of the use of statistics for policy making, and the system's institutional aspects, including its legal framework and the state of the Statistical Institute of Belize (SIB). The fourth section refers to the current policies being implemented in Belize with regard to the statistical system, and the fifth section presents policy options for strengthening the system in the coming years, each with its own advantages and challenges. Finally, the sixth section presents the authors' policy recommendation based on the assessment of the system.

2. Justification

Belize recently prepared a long-term national development strategy called Horizon 2030, which “embodies the vision for Belize in the year 2030 and the core values that are to guide citizen

behavior and inform the strategies to achieve this common vision for the future” (Government of Belize, 2010).¹ This document, which was prepared as a result of consultation with a broad range of stakeholders, represents a framework that will guide different sectors to carry out their own planning rather than a set of predetermined projects and programs. The Horizon 2030 framework includes: (i) core values and guiding principles that serve as its base; (ii) two pillars to support development (democratic governance for effective public administration and sustainable development, and education for development); (iii) healthy citizens and a healthy environment as the “brick and mortar” of the framework; and (iv) economic resilience as a higher-level goal. In relation to the democratic governance pillar, the document lists strategies to achieve the goals under this theme, which include those for rebuilding public accountability. The first strategy in this category is to “expand the information which government is required to regularly publish.” Production and dissemination of quality statistical information within an effective NSS is the essential requirement to pursue this strategy and to support others under this pillar.

This strategy is particularly relevant in the context of modernization of public management through evidence-based policymaking. Statistics play a critical role in planning as well as in the evaluation of public sector activities. Not only are statistics important as a basis for policymaking within the public sector, but also for private sector activities. Evidence-based policymaking means that, wherever possible, public policy decisions should be informed by careful analysis using sound and transparent data. More specifically, it may be defined as the systematic and rigorous use of statistics to: (i) achieve issue recognition; (ii) inform program design and policy choice; (iii) forecast the future; (iv) monitor policy implementation; and (v) evaluate policy impact.

Despite the importance of the theme, Belize’s NSS does not have the interactions and connections between public agencies that would make up a robust statistical system. Part of the explanation for this may be that the actual legal framework for statistics has not been implemented, leaving the NSS with a lack of leadership.

Although coordination of the NSS is stated in Belize’s SIB Act of 2006, SIB’s current activities do not include any role in this coordination (Woods, 2009). The absence of a lead agency in Belize’s NSS is related to the disintegration of the system and hinders SIB’s link to the

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<http://www.cdn.gov.bz/belize.gov.bz/images/documents/NATIONAL%20DEVELOPMENT%20FRAMEWORK%202010-2030%20USER%20FRIENDLY%20VERSION.pdf>

other agencies that produce data and statistics for the country.² Both metadata and microdata are seldom shared among the public agencies of the NSS that produce data and statistics. In addition to the lack of coordination among producers of statistics, there is also poor coordination between producers and users of statistics in Belize.

In order for the government to effectively plan and evaluate its policies, it is desirable that the NSS, as a country system, function in two dimensions: statistical information is produced with acceptable quality (the production dimension) and statistics are used for decision making (the use dimension). However, in Belize these conditions are met only on a sporadic, irregular, or ad hoc basis. In this context, this note will analyze the current situation of official statistics production, dissemination and use in Belize, identify some policy options and make a recommendation based on the assessment.

3. Assessment

3.1. Main Challenges for Belize's NSS

The creation of an NSS in Belize is incipient. The SIB was established in 2007 in accordance with the 2006 Statistical Act. This law recognizes the need for a lead institution that can coordinate the statistical activities of the country, covering production, dissemination, analysis, and use. The Act clearly assigns these roles to the SIB. However, according to the evidence collected (discussed below), the country is characterized by the absence of a statistical system. As such, the agencies that produce data based on administrative registries and surveys usually do their work independently; there is no regulation that governs statistical production in any institution outside the SIB; and there is no common set of classifiers, norms, and definitions based on good practices that meet international standards. Since the SIB does not audit and regulate the production of data in the country, statistical production is disintegrated and there is room for improvement in timeliness and quality. The lack of regulation and audit in Belize's NSS is largely attributed to institutional weaknesses at the SIB, which suffers from budget constraints that, in turn, hinder the execution of many of its responsibilities contemplated in the 2006 Statistics Act. Institutional weakness at the SIB also manifests itself in the limited number

² Several other government institutions produce statistics. This includes the Central Bank that produces information and publications on macroeconomics and the banking system.

of technical personnel hired by the institution, which impedes the production of critical statistical products for the country.

Moreover, Belize's NSS does not have any effective mechanism to reach users. As a consequence, there is scarce knowledge about the statistical needs in the country. This means that there is a gap between producers' supply and users' demand. In other words, the producers produce what they consider are users' needs without reaching out to users to identify their real needs. This structural gap between the demand and supply of statistics produces a lack of timeliness for the entire set of statistics produced in Belize.

Under these conditions, it is difficult for statistics to be used for policymaking decisions; therefore, evidence-based public management is a challenge for the country.³ To improve this situation, it is necessary to support the institutional development of the SIB, not only as a main producer of statistics, but more importantly, as an integral part in the organization of the NSS.

3.2. Production of Statistics in Belize

The production of statistics in Belize is the responsibility of several public sector agencies. The SIB is responsible for collecting, processing, organizing, and disseminating statistical information that comes from the Population and Housing Census, several household surveys (income and expense, labor force, living conditions), and the Consumer Price Index. In terms of economic statistics, the Central Bank of Belize produces statistics on three of the four main accounts: monetary accounts, balance of payments, and, in conjunction with the Ministry of Finance, fiscal accounts. There is only one major economic account for which the SIB is responsible—the national accounts. UNICEF assists Belize in collecting and analyzing data to monitor the situation of children and women through the Multiple Indicator Cluster Surveys (MICS). The Ministry of Agriculture carries out the Agricultural Census. Some other line ministries such as Education, Health, and the Ministry of Natural Resources and Environment produce some statistics related to their sectors. Data is unavailable for many other sectors.

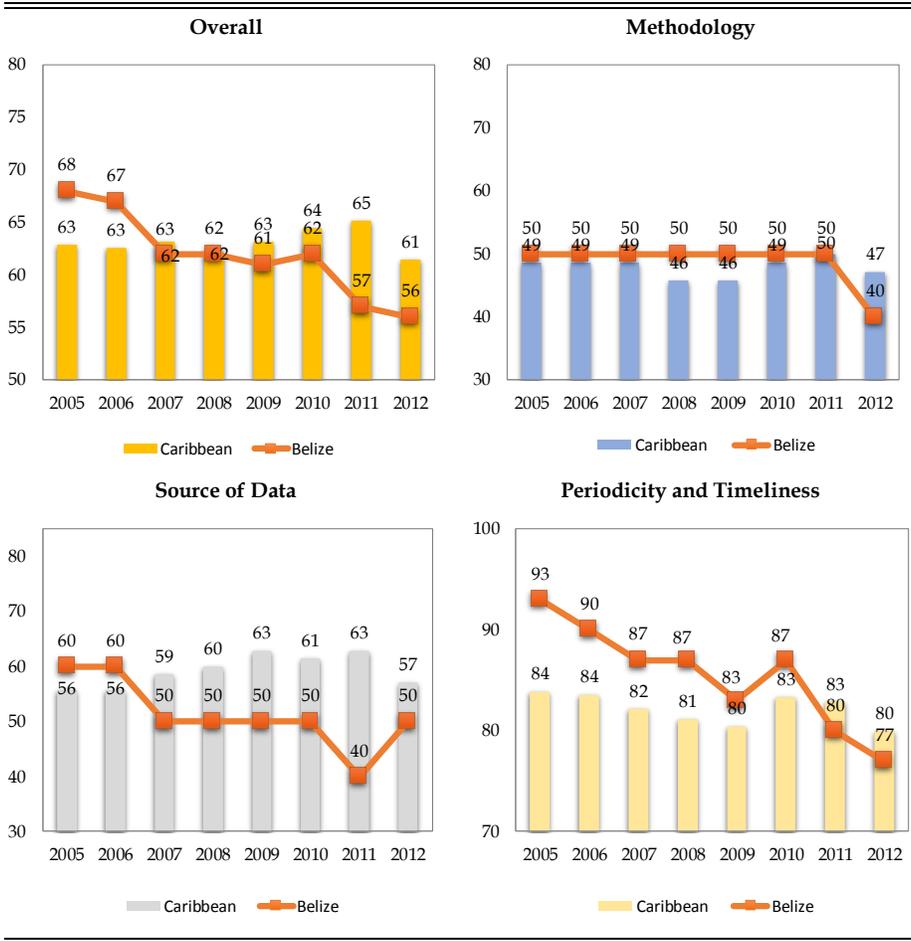
According to the World Bank's Statistical Capacity Indicator (SCI), a proxy for statistics production, Belize scored 56 out of 100 in 2012.⁴ The score has decreased from 68 in 2005 and

³ Some LAC countries have developed databases of indicators to monitor a range of plans and national priorities. In St. Lucia, *Helen Info* is designed for use by the government for making and evaluating evidence-based social policy.

⁴ The SCI is an indicator that assesses three dimensions of the production side of statistics: (i) the methodology used; (ii) the source of data used; and (iii) the periodicity and timeliness of relevant statistics. The SCI scores 100 when all

contrasts with a relatively stable path seen on the SCI for the entire LAC region (see upper left graph in Figure 1). In fact, Belize had a better score than the Caribbean region in 2005; however, seven years later, in 2012, this trend has been reversed, showing an SCI score that is lower than other countries in the region. The main explanation for Belize’s decline of 12 points on the SCI is a rapid deterioration of the *periodicity and timeliness* of its official statistics. While this aspect of the production of statistics has lost 16 points, the other two aspects (*methodology* and the *source of data* used for producing statistics) have lost 10 points each (see Figure 1).

Figure 1. Evolution of the Statistical Capacity Indicator (SCI)



Source: Author’s elaboration based on data extracted from the World Bank, Statistical Capacity Indicator.

the dimensions are fulfilled in accordance with the World Bank criteria, and 0 when the criteria are completely lacking. See <http://bbsc.worldbank.org/bbsc/SelectColorParameter>

From all three aspects of the production of statistics considered within the SCI, in Belize the methodology aspect is where the country is particularly lacking (with a score of 40 out of 100). The following reasons explain this score: the country was using a base year for national accounts and the consumer price index that was older than 10 years,⁵ it does not have an industrial production index, and it does not produce import and export price indexes. Moreover, the government's financial accounts are not consolidated. Of the two-tier international standards established by the IMF to guide member countries in the dissemination to the public of their economic and financial data, Belize has subscribed to the General Data Dissemination System (GDSD), but has not progressed to adopt the Special Data Dissemination Standard (SDDS) required for those member countries having or seeking access to international capital markets. Regarding statistical data sources, Belize conducts its agricultural census with intervals of longer than 10 years, and the periodicity of the national household poverty survey is still ad hoc, while the last three were conducted at seven-year intervals by coincidence. Additionally, the country's coverage of the vital registration system is incomplete (see Table 1).

⁵ The base year was recently updated to 2011. Incorporation of the new base year in the scoring would give Belize a score of 50 on the aspect of methodology, which is in line with recent historical ratings.

Table 1. Statistical Capacity Indicator, 2012

Methodology	Status	Value	Weight	Score
National accounts base year	Base year older than 10 years	0	10	0
Balance of payments manual in use	Using BPM5	1	10	10
External debt reporting status	Actual or preliminary	1	10	10
Consumer price index base year	Base year older than 10 years	0	10	0
Industrial production index	Not available monthly/quarterly	0	10	0
Import and export price indexes	Not available monthly/quarterly	0	10	0
Government finance accounting	Accounts not consolidated	0	10	0
UNESCO reporting	At least 3 times in last 4 years	1	10	10
National immunization coverage	Consistent with WHO/UNICEF	1	10	10
Special Data Dissemination Standard	Does not subscribe	0	10	0
TOTAL Methodology				40
Source Data	Status	Value	Weight	Score
Population census	Periodicity of 10 years or less	1	20	20
Health survey	Periodicity of 3 years or less	1	20	20
Poverty survey	Periodicity between 3 and 5 years	0.5	20	10
Agricultural census	Periodicity longer than 10 years	0	20	0
Vital registration system coverage	Incomplete	0	20	0
TOTAL Source Data				50
Periodicity and Timeliness	Status	Value	Weight	Score
Income poverty	Periodicity longer than 5 years	0.3	10	3.3
Child malnutrition	Periodicity longer than 5 years	0.3	10	3.3
Child mortality	National/international estimate is available for reference years	1	10	10
Immunization	Periodicity of 1 year	1	10	10
Per capita GDP growth	Periodicity of 1 year	1	10	10
HIV/AIDS	National/international estimate is available for reference years	1	10	10
Maternal health	Periodicity of 3 years or less	1	10	10
Gender equality	Not available	0	10	0
Primary completion	Indicator observed for 5 out of 5 latest years	1	10	10
Access to water	Indicator observed for at least 2 out of 6 latest years	1	10	10
TOTAL Periodicity & Timeliness				77

Source: Author's elaboration based on data extracted from the World Bank, Statistical Capacity Indicator.

Examples of shortcomings in the production of statistics based on periodicity and timeliness are noted here. During the last three census rounds (1990, 2000, 2010), only the population and housing censuses have met international recommendations for periodicity; currently Belize does not produce an economic census and has carried out agricultural censuses only twice in the past 30 years (1984 and 2011). The labor force survey was conducted in 2009, suspended while the 2010 population census was carried out, and then resumed in 2012.

Problems with periodicity and timeliness have also caused the lack of data in Belize. The lack of data on poverty and inequality rates, gender statistics, and socioeconomic conditions is particularly noticeable and is due to the absence of a continuous living standards household survey to follow up critical indicators in these key areas. For the last 20 years, Belize has carried

out a survey for measuring the poverty phenomenon (living conditions survey) only three times (1995, 2002, and 2009), and currently there is no continuous research on socioeconomic and living conditions available through any household survey.

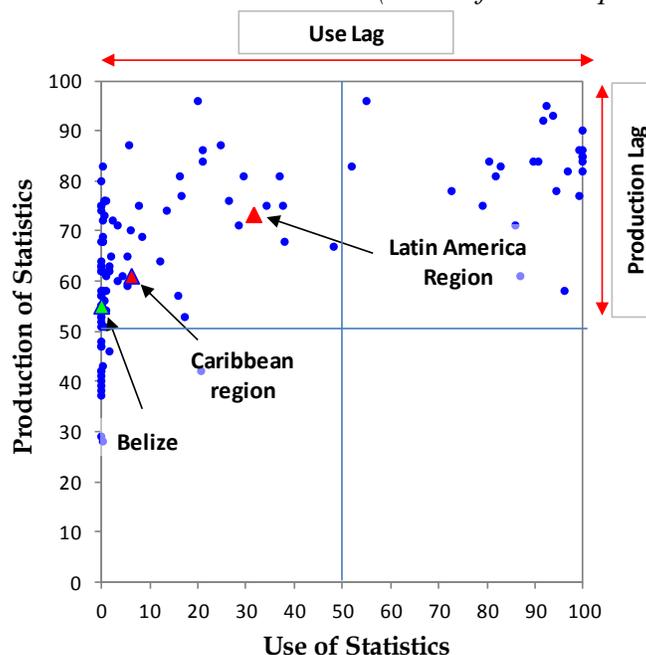
The lack of data in Belize is even more critical for business surveys such as manufacturing surveys and small business surveys. Due to the low response rates to these surveys, Belize does not have dependable information to accurately track its real economic sector performance. As a consequence of this, the accuracy of macroeconomic accounting in the country is compromised. Belize does not prepare input and output tables, which results in the lack of assessment of internal consistency in the System of National Accounts (SNA). Something similar takes place with the absence of relevant statistics such as prices and salaries: Belize does not track prices of the inputs used in manufacturing and the Consumer Price Index only covers urban, not rural, areas.

Finally, the lack of data is also evident when assessing the information needed to follow up on the Millennium Development Goals (MDGs). Belize can only follow up 50 percent (22) of the MDG indicators with a lag of less than two years, and 9 percent (4) of them with a lag of one year. Finally for 18 percent (8) of the MDG indicators, no source of data exists with which to follow their progress.

3.3. The Use of Statistics in Belize

With respect to the demand side of statistics, Belize's score is below the LAC average, and below the average of other Caribbean countries. Belize's *use of statistics* is less frequent than its *production of statistics* (see Figure 2). In this sense, and following a categorization proposed by Scott (2005), Belize resembles a "data demand-constrained" country, which is a country where statistics are not used for decision making because policymakers lack the incentives and/or the capacity to use them. However, due to the fact that there is an acute lack of both data and reliable data sources, Belize can be also considered as a "data supply-constrained" country. Consequently, taking into consideration both the demand and supply of data, Belize can be considered to be a country that belongs to the group of "vicious circle" countries whose statistics are weak and policymakers make little use of them. According to Scott (2005), in these countries, policymaking is not evidence-based, raising the potential for poor policy decisions and poor development outcomes.

Figure 2. Production and Use of Statistics (results for a sample of 111 countries)



Source: The production of statistics is approximated by the SCI of the World Bank.

Note: Use of Statistics comes from the probability of using labor statistics (see Muñoz, 2012.)

3.4. Legal Framework

The Statistical Institute of Belize Act (the SIB Act) of 2006 is in line with a modern statistics act empowering the Statistical Institute of Belize as the coordinating agency of the NSS with a legal framework that ensures its autonomy, independence, and transparency. However, despite the fact that the law is adequate for the purpose of coordinating Belize’s NSS, the SIB Act needs a high-level governmental directive to enforce it. Such a directive would mandate that the other government agencies and offices coordinate statistical production closely with the SIB, with the SIB as the lead agency, clearly stating all the rules concerning the agencies producing statistics in the country, their relationship with the SIB, and the duties and responsibilities of the SIB as the principal statistical agency capable of regulating and auditing all the production of official statistics in the country.

3.5. The Statistical Institute of Belize

The SIB, which replaced the former Central Statistical Office, was established in 2007 under the SIB Act of 2006. According to the Statistics Act, the functions of the SIB are the collection, compilation, extraction, analysis and release of official statistics relating to the demographic, social, environmental, economic, and general activities and conditions of Belize.⁶

The SIB was established as an autonomous body that provides, on an impartial basis, quantitative and representative information about the economic, demographic, gender, social, and environmental situation in Belize to all users, including both government and non-government sectors. The SIB also must coordinate the data produced by the other agencies of the National Statistical System, including the methodologies involved, with a view to ensuring timelines, standardization of information, efficiency, and satisfaction of users' requirements. In addition, the SIB should provide appropriate classifications and conformity with international requirements and standards.

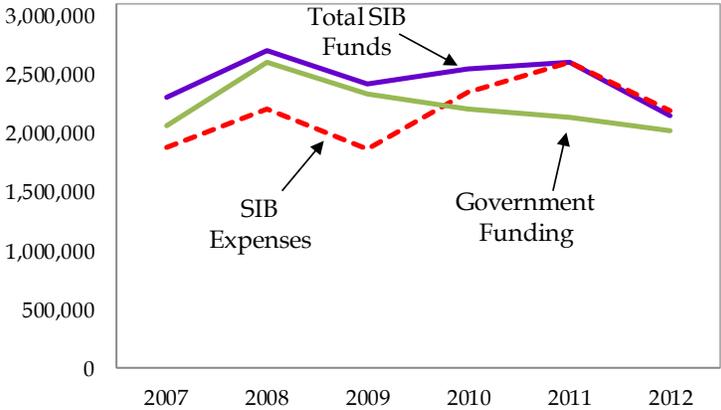
The Statistics Act empowers the SIB as the only authorized institution that can approve the official status of any data or other statistical information published by any other public body. This means that the SIB has the authority to approve the processing of data collection, compilation, analysis, and dissemination of every statistic produced by any public body, which arms the institute with a powerful tool to coordinate the NSS. While other public sector agencies produce some economic and social sector statistics, the SIB is responsible for producing the majority of the basic and derived statistical information relevant for the country, including population and housing censuses, household sample surveys, and various indicator systems. It also produces the national accounts and the consumer price index.

Yet the SIB shows noticeable institutional weaknesses that include weak capacity to: (i) hire the necessary number of technical staff that would enable the institution to produce a standard set of censuses and surveys; (ii) show regularity of the data collected and statistics produced; and (iii) coordinate and regulate the production of statistics by other government

⁶ The SIB is governed by a Board of Directors, which is the principal governing body of the Institute, and whose members are the Ministers of Health, Education, Economic Development; the Financial Secretary; the Governor of the Central Bank of Belize; the Presidents of the National Trade Union; Belize's Chamber of Commerce and Industry; the University of Belize; Belize's business bureau; the Director General of SIB; and a representative of civil society. SIB's Director is appointed by the Governor-General on the advice of the Prime Minister for a one-time renewable period of five years. The Statistics Act points out that the Director shall perform his functions and discharge his duties independent from the control of any person or authority. This mandate ensures the independence of the statistical institution and gives a sense of transparency to its processes.

agencies. Overall, the SIB does not have a proactive mechanism to reach users to gather information about the potential and actual demand for statistics in the country. Weaknesses related to the production of statistics in the country have to do with institutional weaknesses of the SIB, which impede the institute from allocating sufficient resources to produce the data that the country needs and hinders a proper coordination of the statistical system as a whole. Although statistics is a government function subject to economies of scale, Belize actually spends comparatively less on statistics than larger countries in the region. The SIB’s budget as a percentage of GDP is 0.07 percent, and financial support from the Government of Belize to the SIB represented only 0.26 percent of the entire national budget for 2011. This figure is low considering that the average funding for NSOs in the region for the same year was around 0.47 percent of national budgets.⁷ Since 2008, budgetary allocations to the SIB—the SIB’s primary source of income—have declined even in nominal terms (see Figure 3). As a result, funding has declined even faster in real (inflation-adjusted) terms and as a percentage of GDP. External development assistance for statistics allocated to the SIB has varied from 1 percent of SIB’s budget in 2008 to 10 percent in 2012, which indicates that in relative terms dependence on international funds is increasing.

Figure 3. SIB Budgetary Limitations (in Belize Dollars)



Source: ICS calculations based on SIB budget.
 Note: In constant terms and adjusted for the census budget.

⁷ This is the average share of the national budget given to NSOs in a sample of countries in the region: Brazil, Colombia, Chile, Ecuador, Guatemala, Mexico, and Nicaragua. These countries were selected based on the information available.

The SIB employs 39 people, 32 of whom are technical staff and 7 are managerial personnel. While 25 percent (7 people) of the technical staff have pursued postgraduate studies, the other 75 percent have only completed undergraduate studies. With regard to technical expertise, SIB's technical staff only has an average of 5.4 years of experience relevant to statistics. The lack of human resources is a consequence of both a budget constraint and the absence of any formal statistical instruction in the country. Belize does not have any faculty or a school of statistics in its higher education system. This means that instruction in statistics is only gained by technical staff following a practice of learning by doing or by studying statistics abroad and then returning to Belize. Too often, those with technical training leave the SIB after a short time in order to work at higher-paying jobs in the private sector.

The SIB uses its limited capacity to carry out the most basic of functions: the production of statistics based on what is possible given the constraints on human and financial resources. The SIB's current Strategic Plan (2009–2014) focuses on SIB's responsibility to collect and disseminate official statistics, rather than on its role as the NSS coordinator. This prioritization is completely appropriate given resource scarcity and the necessity for the SIB to, at a minimum, produce adequately the statistics for which it is responsible. Nevertheless, the SIB's medium and long-term strategic goals should be to serve as the coordinator of the NSS with the necessary resources, and sufficient recognition for statistics as critical to the development of Belize.

4. Policy Options

Based on the analysis in the previous sections, this technical note presents three policy options. Their short-term aim is to build the capacity of the SIB to produce timely and reliable statistics. The medium- to long-term objective is to strengthen Belize's NSS and empower the SIB as the lead agency that regulates the production and dissemination of official statistics in Belize. It is important to note that these policies vary in complexity and the timeframe in which they could be implemented effectively.

4.1. Alternative 1: Strengthening Belize's NSS through the Improvement of Basic Statistics Produced by the SIB: Censuses and Surveys

One of the most significant shortcomings in the NSS of Belize is a lack of data coming from censuses and surveys. To solve this problem, in the short term, the SIB has embarked on a project under the Accelerated Data Program to catalogue all census and sample survey microdata. Other NSS agencies should do the same to continually collect data for a set of indicators such as labor market, poverty, and quality of life. In addition, the SIB should institutionalize a policy on data collection that covers sample size calculation, sampling techniques, stratification, and the construction of a sample master frame (SMF) for intercensal household surveys.

In addition to the household survey system, the SIB must design and implement a survey of businesses that should be stratified by size. To do so, it is necessary to have a complete register system of businesses and firms so as to construct its sample master frame, which can also be constructed once an economic census and the agricultural census are conducted in the country. The business survey will be useful to follow up key economic indicators and should be conducted at least on a quarterly basis.

- **Advantages:**

- i) The implementation of a system of household surveys would allow Belize to produce a set of indicators that currently do not exist. For instance, the country will start having quarterly indicators of unemployment and employment, labor force income and education, school attendance for children, literacy, schooling levels, social security coverage, migration, income inequality, and poverty, among others. These indicators will help with tracking the MDG indicators and those to be established as part of the post-2015 development agenda.
- ii) A system of business surveys would significantly improve the data sources for national accounts. Data to follow up economic indicators that are currently unavailable would be produced, including input costs, salaries, investment, production, and inventories, which collectively would help enhance the accuracy of the national accounts.

- **Challenges:**

- i) The definition of the purpose of the surveys would require that the SIB have personnel trained in questionnaire design, sampling, and other related areas.
- ii) Budget constraints would be a problem if the SIB decides to create both a household survey system and a business survey system. The SIB currently lacks the institutional capacity to allocate new financial resources to carry out multiple projects.

4.2. Alternative 2: Strengthening Belize's NSS by Enhancing SIB's Institutional Capacity

Most of the problems that Belize's NSS faces are a consequence of the SIB's institutional weaknesses. The lack of data coming from censuses, surveys, and registers is a direct result of the institute's inability to allocate new financial resources and to coordinate the production of statistics delivered by all the NSS agencies. In this sense, in order to strengthen Belize's NSS, the SIB should be strengthened first. This process would start by training its technical personnel on a long-term and sustainable basis, allocating more financial resources for data collection, hiring more qualified personnel to address new operations inside the SIB, making sure that SIB's physical and technological resources are adequate to fulfill its duties, and putting into practice the 2006 Statistics Act.

- **Advantages:**

- i) Strengthening the SIB would strengthen the use of statistics in policymaking decisions. Decision makers, researchers, and the public would understand how statistics and evidence facilitate the country's development.
- ii) The SIB would have the means to allocate resources to new projects inside the institute and promote quality standards for all its processes.
- iii) By allocating more financial resources, hiring more qualified personnel, and training its technical staff, the SIB would have the means to increase and improve the processes of collecting data, carry out censuses and surveys, and strengthen the generation and use of the data throughout the NSS.
- iv) By fully implementing the Statistics Act, Belize's NSS would start working as a system since the SIB, as the lead entity, would be more empowered to start coordinating the agencies that produce statistics in the country.

- **Challenges:**

- i) The SIB would need real support from within the public sector to undertake these activities.
- ii) Fiscal constraints at the national level hinder the strengthening of statistical capacity.
- iii) Finding skilled personnel in statistics is a challenge in Belize. There is no formal education in statistics in the country.
- iv) Agencies of Belize's NSS must start working along with the SIB to define methodologies, identify good practices of standardization and quality control, and share databases (both metadata and microdata). Currently this is not happening in Belize's NSS because there is no strategic plan that empowers the SIB to lead these processes.

4.3. Alternative 3: Strengthening Belize's NSS by Implementing a National Strategy for the Development of Statistics

Part of the institutional weakness of the SIB and the lack of reliable and timely data in the country are a consequence of the lack of sufficient value assigned to statistics in Belize. There should be a greater role for statistics in the development of public policy, thus triggering more resources and improved institutional capacity of the SIB. There is a lack of knowledge regarding which censuses and surveys must be conducted and their periodicity. Implementation of a National Strategy for the Development of Statistics (NSDS) would help to validate the importance of the statistics sector for Belize's development. Making the transition to evidence-based policymaking can best be achieved through formulating a NSDS that is fully integrated into national policy processes. Such strategies have been developed and are used in NSS around the world.⁸

- **Advantages:**

- i) Through the design and implementation of a NSDS, Belize's NSS would have a better understanding of the "problem tree" that affects it; this would let NSS agencies

⁸ See <http://paris21.org/NSDS>. It is crucial to involve not only producers but also users in the NSDS process. Users are consumers of statistics, and a statistical system is viable only if the outputs and services it provides meet users' needs. The NSDS also enables stakeholders in the NSS (sectoral ministries, central bank, national statistical office, etc.) as well as technical and financial partners to coordinate their efforts through appropriate mechanisms.

- grasp the current state of the statistical system in Belize and arrive at a consensus on how to strengthen it.
- ii) By building on what already exists, such a strategy would convert statistical priorities into a detailed but flexible work program over a 5–10 year period.
 - iii) Through the strategy, Belize’s NSS would know first-hand and in detail the *demand* for statistics and data in Belize, which would help producers to design a roadmap of the data that must be collected and released for the coming years.
 - iv) Through the strategy, Belize’s NSS would know first-hand and in detail the *supply* of statistics and data in Belize that originate in censuses, surveys and registers, which would help to design a work plan for collecting, analyzing, and disseminating the statistics that must be produced during an agreed upon timeframe.
 - v) Through a NSDS, Belize’s NSS would be capable of putting users and producers of statistics together to meet each other on a regular basis. This would help to start a continuous process in which they agree upon coordination mechanisms and institutionalize them.
 - vi) Through a NSDS, Belize’s NSS would leverage the statistics sector from both users and producers of statistics in Belize, which would help to legitimize and let decision makers know that statistics and data are imperative for the development of the country.
 - vii) Through a NSDS, Belize’s NSS would formulate consensual strategies related to specific activities to strengthen the Statistical System and its lead agency, the SIB.
 - viii) The SIB likely would have support from international organizations interested in promoting and supporting a statistics strategy in Belize (such as the World Bank, Paris21, and the IDB).

- **Challenges:**

- i) The SIB would need support from the other producers and users of the NSS to design and begin implementation of an NSDS. This could take up to one year or longer, since many potential users of statistics in Belize are not aware of the benefits of improving statistics.

- ii) Budget constraints on the national budget of Belize hinder the strengthening of the SIB and the NSS.

5. Policy Recommendations

Having analyzed the advantages and challenges of each policy option, and given the IDB's experience in the sector, the most suitable option recommended for the statistics sector in Belize would be a combination of the first and the third alternatives presented above. The short-term focus should be on the urgent need to improve basic statistics produced by the SIB. In the medium term, the SIB should launch the process to design, and later implement, a National Strategy for the Development of Statistics that would strengthen the NSS. The improvement of SIB production must be focused on enhancing the system of national accounts (SNA) and the national household survey system (NHSS). The expected impact of focusing on these systems will be a more accurate estimate of the gross domestic product and a large set of relevant statistics for policymaking, such as labor indicators (principally unemployment and employment rates), productivity rates, salaries, social security coverage, health indicators, schooling indicators, school attendance, poverty rates, and inequality indexes.

The frequency of releasing data from both systems—SNA and NHSS—must also be improved. The SIB should be encouraged to release data from the SNA quarterly and from the NHSS monthly. The former implies that the SIB carries out a full review and improvement of its data collection methods. The SIB also must be capable of designing samples and coordinating with other offices of the government the sharing of business registers to feed into the SNA. This is also true for collecting information for both household samples and registers of individuals. Both systems—SNA and NHSS—must meet international recommendations to guarantee the quality of the statistics released by the SIB. In this sense, it is recommended that the SIB follow the 2008 revision of the United Nations System of National Accounts. With regard to the NHSS, the SIB should as much as possible follow all the recommendations contained in the handbook of household surveys from the Statistics Division of the United Nations (revised edition) and the Living Standards Measurement Study (LSMS) handbook on designing household survey questionnaires from the World Bank.

Following on the actions recommended above to improve the SIB's production of basic statistics, the SIB should also launch the process to design, and later implement, a National Strategy for the Development of Statistics in Belize, which would also help to improve both SNA and NHSS systems. As already mentioned, the assessment indicates that the problems of the NSS in Belize lie in the lack of value placed on statistics and data for the development of the country, not only in the public sector but also on the part of the general public. The institutional weaknesses of the SIB, the absence of an integrated system for the statistics sector, and a significant gap in primary data collection (census, surveys, and registers), all reflect the low use of statistics in the country. Implementing an NSDS is a strategic approach that would help visualize these problems by those involved in Belize's NSS. Once the problems are identified during the initial stage of the strategy design, a set of strategies could be discussed and agreed upon among stakeholders. In order to support the process, it is recommended that the Government of Belize be involved throughout the strategy's design and implementation. Moreover, although the legal framework that regulates the SIB provides the institute with key legal tools to take the role of coordinator/leader of the NSS, this is currently not a reality because the law is not being put into practice. Placing the statistical sector as a strategic priority within the government's development agenda would contribute to enforcing its legal framework as well. Implementing the National Strategy for the Development of Statistics would raise the statistics sector to a position of national interest and facilitate the implementation of the law that stipulates that the SIB act as the coordinating agency of the NSS.

The low use of statistics presents a challenge to improving Belize's NSS. In this regard, implementing the NSDS would be expected to strengthen the use of statistics given that producer-user relations would be improved during its implementation through meetings and workshops. Additionally, the strategy can include a specific plan to improve the use of statistics through activities such as training programs for users inside and outside government institutions, technical training for statisticians in charge of analysis and writing reports, setting up protocols for dissemination, and sharing not only the statistics but also the microdata and metadata pertinent to the statistics released.

In summary, strengthening the SIB's capacity to produce basic statistics and increasing the country's use of statistics through the implementation of a national statistics strategy in Belize with the SIB in the role as the coordinating agency will help to strengthen the entire

statistics sector. This dual course of action will give legitimacy to the need for having a formalized NSS, raise awareness of the structural problems of the statistical system, and allow stakeholders to share strategies and responsibilities to strengthen Belize's NSS for the coming years.

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