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KEY STATISTICS REQUIRED UNDER THE CARICOM CSME

Prepared by
Sylvan Roberts, Statistician
ECLAC Subregional Headquarters for the Caribbean
Port of Spain, Trinidad and Tobago

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I. INTRODUCTION, BACKGROUND AND OBJECTIVES

The CARICOM Single Market and Economy (CSME) seeks to foster regional growth and development among its Member States. Even though the key objective of the CSME is the development of the Member States, the CSME is not a political union as such but represents a deepening of the integration process. This will be achieved through the creation of “an integrated market for goods and services and the free flow of capital and individuals across traditional borders. The essential philosophical underpinning in the CSME is the creation of a single economic space which in reality means the removal of all barriers that prevent the combining of the physical, natural and human resources of the existing CARICOM states.” Since the CSME will comprise one single economic space, natural and physical boundaries will be broken down, goods, services and individuals will be able to move freely within the space which will in effect be “one large agglomerated country” for all economic, social and environmental activities. It is noted that under this regime the harmonization and coordination of all processes will be crucial to the successful functioning of the CSME.

The following are the primary specific objectives of the CSME:

- a) full employment
- b) improved standards of living
- c) economic development convergence
- d) enhanced international competitiveness
- e) increased production and productivity
- f) trade and economic expansion
- g) increased economic leverage and effectiveness in the international arena
- h) Coordination of foreign economic policies and relations with third states or group of states
- i) enhancement of functional co-operation

II. MONITORING THE ACHIEVEMENT OF THE OBJECTIVES OF THE CSME

In order to ensure the achievement of the objectives of the CSME, the regular and timely production by all Member States of a broad scope of statistics and indicators will be crucial. These statistics and indicators will provide the essential tools to assist in monitoring and evaluating the achievement of the key objectives of the CSME. The good news is that even though some of these statistics and indicators will be new to the region, considerable progress have already been made and continue to be made in the production of most of these key statistics in several Member States. Recognition must be made of the fact however, that a few Member States are still lagging far behind the others and efforts must be accelerated to address this.

The approach in this paper is to consider each crucial area of statistics individually, and present and discuss some details highlighting in general where the region is with respect to the regular and timely production of the respective area of statistics. I will then conclude the paper with a discussion of some of the major challenges facing statistical development and progress in the region.

III. KEY STATISTICS REQUIRED UNDER THE CSME

A. Economic statistics

In the area of Economic statistics, the four pillars that conventionally support rigorous economic analysis i.e. the **National Accounts, Balance of Payments (BOP), Monetary statistics and Government Finance Statistics (GFS)** will continue to be even more crucial under the CSME. Complementing these will be the need for a comprehensive set of timely **External Trade Statistics (visible and invisible), Prices and Production** statistics (more comprehensively for the Agricultural sector), and **Labour Force statistics**.

1. The National Accounts Statistics

The National Accounts comprises a set of very comprehensive statistics on the 'real' productive sector of the economy. Currently, most Member States produce basic GDP estimates and other main aggregates such as Gross Value Added by the major economic sectors. Other statistics of high importance in this area are Gross wages and salaries, Compensation of Employees, Final Consumption Expenditures, Fixed Capital Formation etc. all of which are not currently being produced by all Member States. Two (2) other major challenges in this area are the need to harmonize the National Accounts Statistics in accordance with the SNA 1993. Over the past few years there have been several activities aimed at supporting Member States to align their Accounts with the SNA 1993, but only a few states have been able to take full advantage of these opportunities. One major setback here is the lack of basic data. Lack of data is also seriously affecting the generation of quarterly GDP estimates which remains a challenge for the sub-region. Only one or two (2) of the fifteen (15) Member States currently produce quarterly GDP estimates and as the economies of the region improve, quarterly estimates will become more important.

2. The Balance of Payments (BOP) Statistics

In the region, the **Balance of Payments** statistics which provide a systematic summary of economic transactions between an economy and the rest of the world are often the responsibility of the Central Banks. The BOP rely heavily on the statistics on external trade in goods. These are often compiled by the National Statistics Offices. Over the years, most Member States have developed a good trade data capture, compilation and reporting system for their trade in goods but the same cannot be said for the more challenging area of statistics on trade in services, which is also a key component of the BOP. With respect to statistics on trade in services, it can be argued that the sub-area of Tourism statistics may be the main area that any tangible progress have been made over the years, even though much work to improve the statistics in other service areas is ongoing. Work through Tourism Satellite Accounting (TSA) for several Member States has also been very active in recent years as efforts increase to analyze the Tourism sector as a separate entity because of its significance to the sub-region. Considerable progress has therefore been made in the compilation of the BOP statistics. However, better statistics on trade in services can add considerable value to this branch of statistics.

3. **Monetary Statistics**

The **Monetary statistics** also form part of the purview of the Central Banks in the sub-region. Among other uses the key statistics coming from this source help to monitor the money supply which in turn can be very useful in monitoring and controlling inflation. Monetary statistics are perhaps the easiest to compile and are therefore usually very complete, timely and accurate. These statistics will continue to be very important for the CSME.

4. **The Government Finance Statistics (GFS)**

The GFS are derived from the government's annual budget of income and expenditure. Most of the major aggregates relating to the transactions of government that are needed for financial and economic analysis can usually be obtained shortly after the close of the government's financial year. Timeliness and accuracy in the production of these statistics have been greatly enhanced during the past decade, when several Member States adopted new computerized software systems to process the government's accounts. Undoubtedly, the GFS will continue to be very useful under the CSME.

5. **External Trade Statistics**

External Trade (in goods) statistics provide key inputs into several of the above sets of statistics and are crucial to economic analysis. Ever since the advent of CARICOM itself, the need for a comprehensive set of statistics on trade in goods was recognized. Of all the various areas of statistics, external trade statistics have therefore attracted most support in all the Member States of CARICOM. Currently, all countries do produce a very comprehensive set of trade in goods statistics, but a few are still grappling with the problem of timeliness. Another shortcoming of the trade statistics is that even though the detailed transactions at the commodity level by country of origin and destination are available, some of the major trade indicators like the indices of export and import prices are not readily available. Since the National Statistical Offices are the guardians of the external trade statistics, and these provide the main inputs for the trade indicators, this agency should be given the responsibility to produce these indicators.

As is the case for other statistics, with the advent of the CSME there will be pressures for wider accessibility of the trade statistics. Currently all requests are done manually by the Secretariat staff. There is no reason why this cannot be facilitated online and the CSME will demand it.

6. **Agriculture Statistics**

Agricultural statistics will become even more important than they currently are as the sub-region continues to diversify in the agricultural sector and as the sector regains prominence. Many countries are realizing that whereas the conventional stock of natural resources such as fuel, copper, gold etc. are quickly diminishing, 'mother' earth will always be a viable source of basic foods. As a consequence more interest is being redirected to increase investment in the agricultural sector as the diversification programmes in this sector continue. But investment will also have to be made in familiar

agricultural crops such as sugar cane production, bearing in mind the potential gains from the manufacture of Ethanol. The conduct of Agricultural censuses and surveys will therefore be revived in order to provide the necessary production statistics needed to maximize the development of the agricultural sector. In addition, the regular compilation of recurrent data on prices of agricultural commodities will have to be institutionalized in order to meet the market demands.

7. **Labour Force Statistics**

A comprehensive set of Labour Force statistics will continue to be of crucial importance to the CSME as it achieves the objective of creating employment and enhancing the living conditions of the people of the sub-region. Currently several Member States are producing a broad scope of labour statistics from their regular labour force surveys. These will continue but will have to be expanded. For example, only a few countries are now producing statistics on **labour costs** even though these are key to the potential investor. Countries will also have to increase the frequency of the surveys to a quarterly basis since more rapid movements in the economy will require more frequent and updated analyses. A further need in this area will be for up-to-date **labour market statistics** generated through the establishment of Labour Market Information Systems.

8. **Other Statistics in this Area**

Two (2) other areas of statistics that should be flagged as important under the CSME are Statistics on the **national Debt** and on **Information and Communication Technology (ICT)**. A very thorough job with the Debt statistics continues to be done by the Central Banks of the region but much more attention need to be paid to the collection, compilation, and dissemination of ICT statistics as we approach the goal of narrowing the digital divide. Even though in the upcoming census of population and housing some countries will include questions relating to ICT this will not be sufficient. A more dynamic system of data collection, compilation and dissemination will have to be designed.

B. Social, demographic and environmental statistics and indicators

1. **Social and demographic statistics**

The CARICOM Secretariat has identified core sets of **social, demographic and environmental indicators**. The minimum tables showing these indicators are included in this paper as appendices 1 and 2. These indicators were determined by a select group of directors of statistics of the region and endorsed by the larger forum of the Standing Committee of Caribbean Statisticians (SCCS) of the Secretariat. The first list comprises some eighty one (81) social and demographic indicators. Most of the forty eight (48) MDG indicators are included here. The second list comprises the priority set of environment indicators which amount to 55.

The results have shown that the capacity of Member States to collect, compile and analyze social and demographic data on a recurrent basis through the use of administrative records, surveys and censuses need to be significantly enhanced if they are

to produce these indicators on a recurring basis. Currently, the administrative sources for some of these data are very faulty and as a consequence are not reliable agents for demographic data. The Vital Registration Systems of the countries of the sub-region, for example, continue to be plagued with problems of non and late reporting of vital events and the lack of automation of their systems. However, most countries do have reasonably good systems for the production of education and health statistics on an annual basis.

This therefore leaves most of the other social and demographic data to be collected through surveys and censuses. Both means of data collection are very expensive and this is often the reason why countries of the sub-region cannot use these sources regularly. All countries do conduct population censuses every decade however and for a few, this may be the main source of data.

2. Environmental Statistics

The compilation of the environmental indicators present even more challenges since thus far, only a few countries in the sub-region have established environmental statistics capabilities. Hence, even more work needs to be focused in this sector.

As a consequence, even though Member States agree to compile and share these indicators with the Secretariat on a continuous basis several countries are reporting these very late or not at all. When the list of indicators was being compiled, it was recognized that due to the fact that the data producing agencies vary so much there should be close coordination and maximum cooperation among these agencies and with the National Statistics Office. The extent to which this cooperation has been enhanced is questionable. This certainly does not help the process of compiling and reporting of the indicators. In addition, human resource constraints may also be another major reason why some Member States cannot respond to this challenge.

3. Migration statistics

This is an area of statistics that is currently lacking in Member States of the sub-region. These statistics will be necessary to monitor the achievement of the objectives of the CSME to promote the free movement of people. For various policy reasons, authorities will need to know the extent of the movement of peoples and various socio-economic and demographic characteristics of those who move. Currently, only a limited amount of migration statistics is collected in the decennial censuses of population and housing. Even though this does provide a good snapshot of the immigration phenomenon at one point in time, only broad trends in the sister phenomenon of emigration can be derived from these sources. A potential source of reasonably good migration statistics especially for the island states of the sub-region is the administrative systems that will be set up to record the movements of people in and out of the various states. These systems will be computerized and since most movements will take place at the international airports of the island states, the problem of undocumented migration may not affect the total count that much. Unfortunately, the same will not be true for countries like Belize, Guyana and Suriname with virtually 'open' borders. However, migration statistics will be so important that a method must be found by countries to properly account for the movements of people in the economic space.

4. **Gender Statistics**

The CSME will also demand the production of a broader scope of **Gender statistics**. Currently in this area of statistics, the authorities of most Member States are attending to the need for their statistics to be produced by sex. However, of growing importance is the need for a broader scope of gender statistics particularly in the areas of **Domestic Violence** and **Time Use and Unpaid Work** for women who spend most of their time working in domestic duties. This is extremely important since the availability of statistics will enhance gender mainstreaming which is a primary goal for all Member States of the sub-region.

IV. CONCLUSION

In this paper I have attempted to highlight some of the key statistics that will form the essential tools to assist in monitoring the achievement of the goals of the CSME. There is no doubt that there are and will be other key areas. To do a more thorough job on a topic like this would require more time during which a ‘Users survey’ of key stakeholders could be carried out and analyzed for a more comprehensive report. A few users were consulted verbally but this was certainly too limited. Finally, a paper like this should not conclude without summarizing some of the more general and non-technical challenges. One of the most important challenges facing the sub-region is the need to formulate and promote more “evidenced based” policies. This would translate to the need for more timely and accurate statistics of a broader scope and the obvious need therefore, for statistical strengthening by the national governments. A second challenge is to identify appropriate incentives to attract and retain dedicated persons in the statistics profession. Thirdly, there is an urgent need to promote the sharing of experiences and best practices among Member States. Finally, there is also urgent need for more collaboration and cooperation among agencies that are working in the field of statistics in the sub-region.

Annex 1

PRIORITY LIST OF INDICATORS FOR THE CARICOM PROGRAMME ON STRENGTHENING CAPACITY IN THE COMPILATION OF SOCIAL/GENDER AND ENVIRONMENT STATISTICS AND INDICATORS IN THE CARICOM REGION

I. POPULATION

1. Total Population
2. Population by age group
(0-4, 5-9, 10-14, 75-79, 80+)

II. FAMILIES AND HOUSEHOLDS

1. Population by marital status and age group
2. Population by union status
3. Total Fertility Rate (births per woman)
4. Contraceptive use by union status, age group, rural/urban, type
5. Household by size and head of household

III. WORK

1. Labour force participation rate by age group
2. Unemployment rate by age group
3. Employed population by employment status
4. Employed population by occupation
5. Employed population by industry
6. Employed population by urban/rural
7. Employed population by marital status
8. Employed population by hours worked per week
9. Population not in the labour force by activity and age
10. Employed population by educational attainment
11. Share of women in wage employment in the non-agricultural sector

IV. ECONOMY

1. GDP growth rate
2. GDP per capita
3. Average monthly earnings by occupation (groups)
4. Income earners in households by sex of head of household

V. EDUCATION

1. Literacy rate 15-24 and 25+ years
2. Population 10 years and over by level of education
3. School enrolment in primary level
4. School enrolment in secondary level
5. School enrolment in tertiary level
6. Progression, repetition and drop-out rates at primary/secondary level
7. Drop-out rates by reason at primary/secondary
8. Tertiary level enrolment by field of study
9. Enrolment in vocational training
10. Teachers in primary/secondary/third level of school
11. Net enrolment ratio in primary education
12. Proportion of children starting grade 1 who reach grade 5
13. Ratio of girls to boys in primary, secondary and tertiary education
14. Ratio of literate females to males of 15-24 year olds

VI. HEALTH

1. Life expectancy at birth
2. Life expectancy at 5 years of age
3. Infant mortality rate
4. Under-five mortality rate
5. Maternal mortality ratio
6. Births attended by trained personnel by type of occupation
7. Population with disabilities by type of disability
8. Mortality rates by cause of death and age
9. Access to safe water
10. Access to sanitation
11. Hospitals/clinics per 1,000 persons
12. Physicians per 1,000 persons
13. Knowledge of HIV/AIDS by age and education
14. Persons treated for HIV/AIDS by level of education and age
15. Number of newly confirmed cases by risk group exposure category and age group
16. Health personnel trained in HIV/AIDS care and management by profession
17. Mortality from HIV/AIDS by age, occupation, rural/urban
18. HIV/AIDS mortality as a percentage of total mortality
19. Cumulative total of HIV/AIDS by age group
20. Crude birth rate (per 1,000 persons)
21. Crude death rate (per 1,000 persons)
22. Proportion of 1 year old children immunised against MMR, DPT, OPV & TB
23. HIV prevalence among 15-24 year old pregnant women
24. Contraceptive prevalence rate
25. Number of children orphaned by HIV/AIDS

VII. CRIME

1. Crime rates by type of crime
2. Victims of violence by sex of offender and sex of the victim
3. Crime by urban/rural
4. Injury by urban/rural
5. Reported cases of domestic violence
6. Victims of violence by type of crime and age
7. Offenders by type of crime and age
8. Convictions by type of crime and age
9. Employed in judicial professions (lawyers, judges, police, prison personnel etc.)

VIII. DECISION MAKING

1. Members of parliament
2. Persons in high managerial positions in public and private sector including selected public order and safety occupations
3. Population voting in parliamentary elections
4. Selected Senior-Level Positions in the Government Service
5. Persons employed as Legislators, Senior Officials and Managers
6. Persons employed by status in employment – Employers and Own Account Workers

IX. POVERTY

1. Proportion of population below \$1 per day (PPP-values)
2. Poverty gap ratio [incidence x depth of poverty]
3. Share of poorest quintile in national consumption
4. Prevalence of underweight children (under five years of age)
5. Proportion of population below minimum level of dietary energy consumption (indigent)

Annex 2

PRIORITY LIST OF CORE INDICATORS FOR THE CARICOM PROGRAMME – ENVIRONMENT COMPONENT

I. POPULATION AND HOUSEHOLDS:

1. Annual population growth rate
2. Population size urban / rural
(Note: There is no need to collect data on the above two indicators of population)
3. Distribution of households by type of dwelling
4. Distribution of households by type of tenure
5. Distribution of households by type of materials of outer walls
6. Distribution of households by type of roof
(Note: Proportion of households with access to secure tenure - MDG)

II. TOURISM

1. Tourist intensity / growth
2. No. of tourist nights
3. Tourist penetration ratio
 - a. No. of cruise passenger arrivals
 - b. No. of cruise ships arrivals
4. No. of rooms, beds and employees
5. Room occupancy rate
6. Estimates of visitor expenditure
7. No. of hotels by size
8. No. of hotels occupied by land area

III. ENVIRONMENTAL HEALTH

1. Number of reported cases and incidence of environmentally related diseases (gastroenteritis, typhoid, malaria, dengue, cholera, accidental pesticide poisoning, respiratory diseases)
2. Distribution of households by main source of drinking water
(Note: Proportion of population with sustainable access to an improved water source, urban / rural - MDG)
3. Distribution of households by type of toilet facilities
(Note: Proportion of urban population with access to improved sanitation -MDG)

IV. NATURAL DISASTER

1. Frequency and type
2. Economic loss
3. Human loss

V. ENERGY

1. Consumption of energy and renewable energy (import/export)
(Note: Energy use (kilogram oil equivalent) per 1 US\$ gross domestic product (PPP) - MDG)
2. Distribution of households by fuel used for type of cooking
(Note: Proportion of population using solid fuels - MDG)
3. Distribution of households by type of lighting

VI. LAND USE

1. Total area
2. Land use
3. Land use change

VII. AGRICULTURE

1. Use of fertilizer by type (N,P,K), weight
2. Use of pesticides by type (weight)
(Note: total arable area and total area under Slash/Burn will be covered under "Land Use" section)

VIII. WASTE

1. Disposal of waste
 - a. Landfill
 - b. Incineration
 - c. Composting
 - d. Re-cycling
2. Generation of waste by type and source / sector (household, industrial)
3. Toxic / Hazardous material (imported / exported)

IX. FRESH WATER

1. Quantity of water available
2. Water abstraction, water supply and water use
 - a. water abstraction
 - b. water supply
 - c. Water use
3. Domestic consumption of water per capita
4. Water quality of rivers and lakes (concentration)

X. AIR / CLIMATE

1. Emissions of pollutants by stationary and mobile sources
 - a. CO₂
 - b. NO_x
 - c. SO₂
 - d. CH₄
 - e. Volatile Organic Compounds (VOCs)
 - f. Pb
- (Note: Carbon dioxide (CO₂) emissions (per capita) - MDG)*
2. Consumption of ozone depleting substances – CFC - MDG)

XI. COASTAL ZONES

1. Total marine area (territorial sea area)
2. Protected marine area
 - a. Protected marine area as % of total territorial sea area
3. Fish landings (weight)
4. Maximum sustainable yield for fisheries (weight/time)
5. Population growth in coastal areas

XII. BIODIVERSITY

1. Ratio of area protected (as defined in IUCN classification) to maintain biological diversity to surface area - MDG
(Note: in order to measure the indicator, it is required to collect data on total protected area (i.e. terrestrial and marine) and total surface area which includes terrestrial area plus any territorial sea area.)
2. Total land area
3. Protected land area
 - a. Protected land area as % of total land area

XIII. FOREST

1. Total forest area
(deforestation and reforestation can be generated)
2. Protected forest area
3. Protected forest area as % of total forest area
4. Forest area as % to land area (excludes inland waters; rivers, lakes etc.)
(Note: Proportion of land area covered by forest - MDG)

XIV. MINERALS

1. Production of gold, Aluminum or Bauxite, Sand & Gravel, Limestone, Crude oil

Source: CARICOM Secretariat