

**THIRTY- EIGHTH MEETING OF  
THE STANDING COMMITTEE OF  
CARIBBEAN STATISTICIANS**

**SCCS/2013/38/15**

**Frigate Bay, St. Kitts and Nevis**

**28-30 October 2013**

**29 October 2013**

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**STATUS REPORT ON ENVIRONMENT STATISTICS AND PROGRAMME OF WORK  
2014/2015**

**1. CARICOM ENVIRONMENT IN FIGURES 2009**

The “**CARICOM Environment in Figures 2009**” report which contains data for the period 2005 to 2009 and data for some countries from the 2010 Round of Population and Housing Census was circulated on October 14th 2013 to Member States and The United Nations Statistics Division (UNSD) for feedback. The report was also disseminated on the Secretariat’s web site on October 17th 2013.

Data for this report was submitted by Member States for most of the themes with the exception of Waste and Water which were collected by the UNSD under a collaborative arrangement with the CARICOM Secretariat. In addition, the Caribbean Tourism Organisation (CTO) and the Caribbean Environmental Health Institute (CEHI) provided data on Tourism and Environment Health, respectively which assisted in filling the data gaps under these themes.

The Secretariat was able to incorporate data from the 2010 Census Round for five countries. These are The Bahamas, Belize, Saint Lucia, Bermuda and the Cayman Islands. Additionally, the CARICOM Secretariat received Bermuda’s Environment

Statistics Compendium 2011, Belize's Environment Outlook 2010, Dominica's 2010 Environment Statistics Report, Jamaica's State of the Environment Report 2010 and St. Vincent and the Grenadines' 2010 Environmental Statistics Report. These reports speak to the commitment of countries of the region to the development of Environment Statistics.

The indicators under the themes Waste, Water, Land Use and Air recorded the most data gaps. (**Attachment**)

## **2. SUPPORT FOR ENVIRONMENT STATISTICS IN CARICOM MEMBER COUNTRIES**

The Caribbean Hub sub-component of the European Commission-funded *Capacity Building relative to Multilateral Environmental Agreements (MEAs) in the African, Caribbean and Pacific (ACP) countries*, provided funds through the CARICOM Secretariat to support the efforts of countries in monitoring of the Multilateral Environmental Agreements and related commitments. In the area of Statistics, this support was offered to Member States of the Community and *Antigua and Barbuda, Dominica, Jamaica and Trinidad and Tobago* were the first four countries to indicate interest in participating in the project, of which only the first three countries followed up relative to this activity. The CARICOM Secretariat therefore conducted missions in these countries in November 2012 with the primary aim of strengthening inter-agency coordination to fill the gaps in Environment Statistics focusing on the area of Biodiversity –incorporating the themes of Forestry, Land Use, Coastal and Marine Resources and Biodiversity in its own right.

The CARICOM Secretariat was able to collect some data and publications under Biodiversity for inclusion in the Regional report. The interactions also resulted in the following benefits:

- An awareness of the data collected by agencies outside of the National Statistical Office which has facilitated the collection of core data, the identification of primary sources of data and the responsible agencies;
- The importance and merits of collaboration using either the informal one-on-one approach (NSO and Agency); or the formal Inter-agency approach both of which have been employed in Dominica where four Inter-Agency meetings have been held since the establishing of its Inter-Agency Committee in September 2011;
- Initial feedback as it relates to the collection of similar data by agencies assisted in more effective streamlining of data collection through increased collaboration and the minimising of duplication;
- Metadata from a number of international agencies were shared with participants including from the International Union for Conservation of Nature (IUCN); Food and Agriculture Organisation (FAO); Global Forest Resources Assessment (FRA) and the United Nations Economic Commission for Europe (UNECE). It therefore facilitated a better understanding of concepts and of the various categorizations used and adopted internationally;
- Current mechanisms, processes and systems were shared for the gathering of relevant data on biodiversity-related MEAs;
- Insights into some of the challenges faced by line ministries were highlighted in both responding to data requested by other national stakeholders and by international agencies. It was noted that while the data may exist at the line ministry, the capacity to generate the data in the formats required is not always readily available;

- The benefits of interagency coordination and the role of the statistics unit in providing leadership and oversight to the overall process of data collection and setting standards for data quality were reinforced;
- The use of Geographic Information Technology (GIS) technology was emphasised as a best practice in collecting vital information on the size of protected marine and terrestrial areas, understanding the biology of the area, the impact of determining the extent of forest cover and in monitoring and tracking of the changes in the development and use of the land;
- The meeting recognized the need to reduce instances of rough estimations and further emphasized the need for a more scientific approach to data collection such as the conduct of surveys, the establishing of proper sampling frames and business registers to produce baseline data and the use of internationally accepted extrapolation models;
- The meeting noted the challenges of smaller territories in conforming to the metadata standards as it relates to the definition for Coastal areas and Forest.

#### **4. CHALLENGES AND OPPORTUNITIES**

There are still significant challenges in the compilation of Environment Statistics despite the efforts of the CARICOM Secretariat, the UNSD and countries. Some challenges are linked to the frequency of production of some indicators such as information on the housing stock, population and households which for many countries are collected every ten years in the Population and Housing Census. This factor was one of the determinants in delaying dissemination of the publication in order to obtain updated information on some of variables from the 2010 Census Round.

There are a few countries that continue to improve the frequency in which they are producing publications. These include Suriname, Dominica, Belize and Jamaica. In

recent years Bermuda has been able to produce two publications, in fairly quick session, the latest being in 2011. Overall, data gaps seemed to have lessened among the indicators in the area of Tourism through collaboration with the CTO. The Secretariat receives data from other regional organisations but invariably there are often differences when the same data are submitted by countries. This is an issue that is required to be addressed and in this context that there is need for countries to review the data contained in the regional publication.

The CARICOM Secretariat therefore welcomes feedback on the report which has been disseminated.

## **5. WORK PLAN IN ENVIRONMENTAL STATISTICS FOR 2014/2015**

The CARICOM Secretariat has also received support from the European Union under the Tenth European Development Fund to develop Environment Statistics. The 2014/2015 work programme will continue to strengthen capacity in Member States. In-country support will be given to countries and the lessons learnt from these interactions will serve to inform remaining countries. A regional training workshop will also be conducted during the first quarter of 2014.

The Implementation Strategy prepared at the 2011 workshop that was held in St Kitts and Nevis would be followed up specifically with regard to data collection focusing on the data gaps, publication of an environment compendia and Inter-agency activities.

Elements of the approach to be followed will be to:

- (i) Provide support for the filling of the data gaps and the compilation of metadata in countries;
- (ii) Collaborate with international and regional organisations to strengthen these areas of Environment Statistics;

- (iii) Convene the CARICOM Workshop on Environment Statistics in the first quarter of 2014 to review the work put in place through the production of the CARICOM Environment in Figures 2009 and to train Member States in the compilation of Statistics and Indicators in the existing data gaps.

## **ACTION TO BE TAKEN**

**The Meeting is invited to:**

- (i) **consider** the work put in place to develop this area of Statistics; and
- (ii) **support** the 2013/2014 Work Programme in Environment statistics

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## ANNEX

### CORE INDICATORS FOR THE CARICOM PROGRAMME INCLUDING THE MILLENNIUM DEVELOPMENT GOALS (MDGs) AND THE CARIBBEAN SPECIFIC INDICATORS FOR THE MILLENNIUM DEVELOPMENT GOALS (CSMDGs)

TOPIC/THEME	NUMBER/NAME OF TABLE
<b>Population and Households</b>	<p>PH1(a): Number of Households by Type of Dwelling</p> <p>PH2(a): Number of Households by Type of Tenure PH2(b): Proportion of households with own dwelling (CSMDG)</p> <p>PH3: Number of Households by Type of Material of Outer Walls</p> <p>PH4: Number of Households by Type of Material Used for Roofing</p> <p>PH5: Households by Number of Bedrooms</p> <p>PH6: Number of Households by Size of Household</p> <p>MDG 7.10 Proportion of urban population living in slums</p>
<b>Tourism</b>	<p>TO1(a): Tourists arrivals by Type of Arrival and Tourist nights spent</p> <p>TO1(b): Tourist Intensity Ratio, Tourism Density Ratio and Tourist Penetration Ratio</p> <p>TO2: Number of Hotels Classified by number of rooms, Beds and Rooms occupied by Year</p> <p>TO3: Visitor Expenditure and Number Employed in Tourism</p> <p>TO4: Tourist Arrivals by Country of Origin</p> <p>TO5: Tourist Arrivals by Type of Accommodation</p>
<b>Environmental Health</b>	<p>EH1: Number of Reported Cases of Environmentally Related Diseases</p> <p>EH2: Number of Households by Type of Water Supply</p> <p>EH3: Number of Households by Type of Sanitation Facilities</p> <p>MDG 7.8: Proportion of population using an improved drinking water source</p> <p>MDG 7.9: Proportion of population using an improved sanitation facility</p>

TOPIC/THEME	NUMBER/NAME OF TABLE
<b>Natural Disaster</b>	ND1(a): Natural Disasters by Year ND1(b): Incidence of natural disasters; (CSMDG) ND1(c): Economic losses resulting from natural disasters; (CSMDG) ND1(d): Social dislocation resulting from natural disasters; (CSMDG)
<b>Energy and Minerals</b>	EM1: Energy Consumption by Type and Year EM2(a): Number of Households by Type of Fuel Used for Cooking EM2(b): Proportion of Households using solid fuels by type of tenure. EM3: Number of Households by Type of Fuel Used for Lighting EM4: Mineral Production by Type EM5: Mineral Reserves by Type
<b>Land Use and Agriculture</b>	LA1: Land Use LA2: Use of Fertilizers by Type and Year LA3: Use of Pesticides by Type and Year
<b>Coastal and Marine Resources</b>	MR1: Total and Protected Marine Area MR2: Fish Landings by Type MR3: Number of families and Population of coastal area MR4: Percentage of coral reefs destroyed by human activity and by natural disasters; (CSMDG)
<b>Biodiversity</b>	MDG 7.4: Proportion of fish stocks within safe biological limits MDG 7.6 Proportion of terrestrial and marine areas protected MDG 7.7 Proportion of species threatened with extinction



TOPIC/THEME	NUMBER/NAME OF TABLE
<b>Forest</b>	FOR1: Protected Forest Area as a percentage of Total Land Area MDG 7.1 Proportion of land area covered by forest
<b>Air</b>	AIR1: Emissions of Sulfur Dioxide (SO <sub>2</sub> ) AIR2: Emissions of Nitrogen Oxides (NO <sub>x</sub> ) AIR3: Emissions of Non-Methane Volatile Organic Compounds (NM-VOCs) AIR4: Emissions of Carbon Dioxide (CO <sub>2</sub> ) AIR5: Emissions of Methane (CH <sub>4</sub> )
	AIR6: Emissions of Nitrous Oxide (N <sub>2</sub> O) AIR7: Emissions of Lead (Pb) and Consumption of Leaded Petrol MDG 7.2: CO <sub>2</sub> emissions, total, per capita and per \$1 GDP (PPP) (MDG, CSMDG) MDG 7.3: Consumption of ozone-depleting substances
<b>Waste</b> <i>(collected by the UNSD)</i>	WA1: Generation of Waste by Source WA2: Generation and Recycling of Selected Waste Materials WA3: Management of Municipal Waste WA4: Composition of Municipal Waste WA5: Management of Municipal Waste — City Data WA6: Waste Treatment and Disposal Facilities WA7: Generation and Recycling of Selected Waste Materials MDG 7.5 Proportion of total water resources used
<b>Water</b> <i>(collected by the UNSD)</i>	WT1: Renewable Fresh Water Resources WT2: Freshwater Abstraction WT3: Freshwater Available for Use WT4: Total Water Use WT5: Water Supply Industry (ISIC 36) WT6: Wastewater Treatment Facilities WT7: Population Connected to Wastewater Treatment

## ATTACHMENT I

### STATUS REPORT OF ENVIRONMENT DATA RECEIVED 2005-2009

AREA OF ENVIRONMENT STATISTICS	DATA PRODUCTION (Tables etc.)	DATA GAPS BASED ON DATA SUBMITTED
Population and Households (2000 and 2010 Round of censuses)	PH1: Number of Households by Type of Dwelling PH2(a): Number of Households by Type of Tenure PH2(b): Proportion of households with own dwelling (CSMDG) PH3: Number of Households by Type of Material of Outer Walls PH4: Number of Households by Type of Material Used for Roofing PH5: Households by Number of Bedrooms PH6: Number of Households by Size of Household MDG 7.10 Proportion of urban population living in slums (Estimated UN data)	1 MS 1 MS  1 MS  1 MS 1 MS 1 MS 8 MS and 1 AM
Tourism	Tourist Arrivals by Type of Arrival and Number of Tourist Nights Spent Tourist Intensity, Tourism Density and Tourist Penetration Ratio Number of Hotels Classified by number of rooms, Beds and Rooms occupied by Year Visitor Expenditure Tourist Arrivals by Type of Accommodation Tourist Arrivals by Country of Origin	-  4 MS  11 MS and 2 AM 1 MS and 5 AM 9 MS and 3 AM 1 MS and 1 AM
Environmental Health	Number of Reported Cases of Environmentally Related Diseases Number of Households by Type of Sanitation Facilities (2000 and 2010 Round of censuses) Number of Households by Type of Water Supply (2000 and 2010 Round of censuses) MDG 7.8 Proportion of population using an improved drinking water source	6 MS and 4 AM  2 MS  2 MS  <b>(no data submitted)</b>
Natural Disasters	Natural Disasters by Year	2 MS and 3 AM
Energy and Minerals	Energy Consumption by Type and Year Number of Households by Type of Fuel Used for Cooking (2000 and 2010 Round of censuses)	7 MS and 4 AM  -

AREA OF ENVIRONMENT STATISTICS	DATA PRODUCTION (Tables etc.)	DATA GAPS BASED ON DATA SUBMITTED
	EM2(b): Proportion of population using solid fuels by type of tenure. Number of Households by Type of Fuel Used for Lighting (2000 and 2010 Round of censuses) Mineral Production by Type Mineral Reserves by Type	<b>(no data submitted)</b>  - <b>12 MS and 5 AM</b> <b>14 MS and 5 AM</b>
Land Use and Agriculture	Land Use Use of Fertilizers by Type and Year Use of Pesticides by Type and Year	<b>13 MS and 5 AM</b> <b>7 MS and 4 AM</b> <b>7 MS and 4 AM</b>
Coastal and Marine Resources	Total and Protected Marine Area Fish Landings by Type Population of Coastal Area Percentage of coral reefs destroyed by human activity and by natural disasters; (CSMDG)	<b>7 MS and 3 AM</b> <b>5 MS and 3 AM</b> <b>9 MS and 4 AM</b>  <b>(no data submitted)</b>
Biodiversity	MDG 7.4: Proportion of fish stocks within safe biological limits MDG 7.6 Proportion of terrestrial and marine areas protected MDG 7.7 Proportion of species threatened with extinction	<b>(no data submitted)</b>  7 MS and 4 AM <b>(no data submitted)</b>
Forest	Protected Forest Area as a Percentage of Total Land Area MDG 7.1 Proportion of land area covered by forest (UN Data)	<b>8 MS and 4 AM</b>  <b>2 AM</b>
Air	Emissions of Sulfur Dioxide (SO <sub>2</sub> ) Emissions of Nitrogen Oxides (NO) Emissions of Non-Methane Volatile Organic Compounds (NM-VOCs) Emissions of Carbon Dioxide (CO <sub>2</sub> ) Emissions of Methane (CH <sub>4</sub> ) Emissions of Nitrous Oxide (N <sub>2</sub> O) Emissions of Lead (Pb) and Consumption of Leaded Petrol MDG 7.2, CS MDG: Carbon dioxide emissions (CO <sub>2</sub> ), thousand metric tons of CO <sub>2</sub>	<b>(no data submitted)</b> <b>(no data submitted)</b>  <b>(no data submitted)</b> <b>(no data submitted)</b> <b>(no data submitted)</b> <b>(no data submitted)</b>  <b>(no data submitted)</b>  <b>14 MS and 5 AM</b>
Waste (United Nations data from Country)	WA1: Generation of Waste by Source WA2: Generation and Recycling of Selected Waste Materials WA3: Management of Municipal Waste WA4: Composition of Municipal Waste	<b>9 MS and 4 AM</b>  <b>13 MS and 5 AM</b> <b>8 MS and 4 AM</b> <b>11 MS and 5 AM</b>

<b>AREA OF ENVIRONMENT STATISTICS</b>	<b>DATA PRODUCTION (Tables etc.)</b>	<b>DATA GAPS BASED ON DATA SUBMITTED</b>
	WA5:Management of Municipal Waste — City Data WA6:Waste Treatment and Disposal Facilities WA7:Generation and Recycling of Selected Waste Materials	<b>12 MS and 5 AM</b> <b>13 MS and 5 AM</b> <b>14 MS and 5 AM</b>
Water (United Nations data from Country)	WT1: Renewable Fresh Water Resources WT2: Freshwater Abstraction WT3: Freshwater Available for Use WT4:Total Water Use WT5:Water Supply Industry (ISIC 36) WT6:Wastewater Treatment Facilities WT7:Population Connected to Wastewater Treatment MDG 7.5 Proportion of total water resources used	<b>11 MS and 2 AM</b> <b>10 MS and 4 AM</b> <b>11 MS and 2 AM</b> <b>11 MS and 4 AM</b> <b>10 MS and 4 AM</b> <b>10 MS and 3 AM</b> <b>12 MS and 4 AM</b> -

MS refers to Member State

AM refers to Associate Member