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Regional Statistics Sub-Programme

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THE CARICOM ENVIRONMENT IN FIGURES 2004



Caribbean Community Secretariat
Greater Georgetown, 2008

PREFACE

The CARICOM Environment in Figures 2004 has been prepared by the Caribbean Community (CARICOM) Secretariat, Statistics Sub-programme based on data submitted by Member States and Associate Members, from the United Nations Statistics Division (UNSD) and from other regional and National Organisations. This is the second report in this area of Statistics that has been produced. The first report contained data up to the period 2002. The work on Environmental Statistics in the CARICOM Region was stimulated by a Project on "Strengthening Capacity in the Compilation of Statistics and Indicators for Conference Follow-up in the CARICOM Region," jointly carried out by the United Nations Statistics Division (UNSD) and the Caribbean Community (CARICOM) Secretariat from 1999 - 2003. The Project was executed in the CARICOM Member States, which are Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. However relative to data collection and capacity building activities the Associate Members were also included in these efforts and data for some of these countries are found in this publication.

Of importance to note is the work of the CARICOM Advisory Group which operated in the area of Social/Gender and Environmental Statistics, developing a programme for sustaining the data collection, compilation and dissemination efforts post the end of the CARICOM/UNSD Project.

As expressed in the first report, it continues to be the case that in the CARICOM Region, most of the 15 Member States are faced with growing competition between economic interests for limited natural resources, pressures from increasing tourism and a greater frequency of natural disasters. Sound policy decisions must be made using timely and reliable information to enable sustainable development. This regional report is the second attempt to compile Environmental Statistics and there were many challenges faced

including the absence of dedicated staff to work in this area both at the regional and national levels, as well as a lack of basic environmental statistics and indicators which is a relatively new area of statistics to the region. As a consequence this report which contains data up to 2004 (with some data for 2005) is only now being published in 2008. Nonetheless, some countries such as Belize, Jamaica and Suriname continue to make tremendous efforts to produce these statistics. Trinidad and Tobago recently produced its first compendium in this area of statistics.

This publication relies as stated earlier on available data submitted by Member States as well as under a collaborative arrangement with the UNSD for selected themes. The design of this publication presents metadata, a brief evaluation and assessment of the data and the tables and graphs of the various statistics and indicators. The publication focuses on twelve (12) themes which are: Population and Households, Tourism, Environmental Health, Natural Disasters, Energy and Minerals, Land Use and Agriculture, Coastal and Marine Resources, Biodiversity, Forest, Air, Waste and Water.

For each theme, the indicators are identified and for each indicator, information and analysis as required are presented on: Concepts and Definitions, Method of Computation, Indicator Relevance, Data Assessment, Data Sources and Evaluation (of the data). An estimate of the degree of harmonisation of the data is also attempted as an indicator of the comparability of the statistics across member states. It is expected that, as this area of statistics becomes more established, concepts, definitions, classifications and methods of data collection should become increasingly more harmonised and standardised. The environmental indicators that correspond to Millennium Development Goals indicators are also identified in the report.

This report took a considerable time to produce, from the initial efforts of the CARICOM Advisory Group (now the Advisory Group on Statistics) to review and develop the programme in this area; the review and refinement of core indicators and the identification of additional indicators; the design and submission of table formats to member countries; the monitoring of the submission of the information; the compilation

of the statistics and indicators in tables and the submission to countries for review and amendments and the preparation of various drafts of the report.

In view of the fact that environment statistics is a relatively new and emerging field of statistics, with a large number of data sources and institutions involved, and with a lack of benchmarks and standards, it is anticipated that the publication would help bring to the fore some of the problems that exist with these data; differences in data at the national level and at the regional level; data that exist within various organisations at the national level but are not available at the CARICOM Secretariat. The need for increased inter-agency collaboration and the use of software such as the United Nations-based Devinfo to facilitate the compilation and dissemination of statistics that are available within agencies at the national levels must be emphasised as primary mechanism of improving data availability.

The CARICOM Secretariat therefore welcomes feedback and as well data presented as missing or inaccurately presented or updated data from countries and organisations. It is hoped that this publication could contribute to providing a picture of some aspects of the status of the environment as well as in improving the data collection and compilation efforts in the Region.

ACKNOWLEDGEMENTS

Data were collected from several sources during the preparation of this report. The CARICOM Secretariat, therefore, wishes to acknowledge and thank those Organizations and persons for their invaluable contribution in supplying the data either by means of printed publications or through direct contact. Among these sources are the National Statistical Offices of Member States and Associate Members. The Secretariat looks forward to the continued support of these Organizations in the preparation of future editions of this report.

Sincere thanks and appreciation are also extended to the staff of the Statistics subprogramme for their tireless efforts in compiling and preparing the report.

Specifically, special mention must be made of the Intern that worked in the Statistics Sub-programme for the Summer of 2007 for her tremendous data-collection, research and analytical efforts which enabled the realisation of this publication.

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ABBREVIATIONS & ACRONYMS

CARICOM	Caribbean Community
AG	Antigua and Barbuda
BS	The Bahamas
BB	Barbados
BZ	Belize
DM	Dominica
GD	Grenada
GY	Guyana
JM	Jamaica
MS	Montserrat
KN	St. Kitts and Nevis
LC	Saint Lucia
VC	St. Vincent and the Grenadines
SR	Suriname
TT	Trinidad and Tobago
AI	Anguilla
BM	Bermuda
VG	The British Virgin Islands
TC	The Turks and Caicos Islands
BOD ₅	Biochemical Oxygen Demand
CaCO ₃	Limestone (Calcium Carbonate)
CaMg (CO ₃) ₂	Dolomite
CaSO ₄	Anhydrite (Anhydrous Calcium Sulphate)
CaSO ₄ ·2H ₂ O	Gypsum (Hydrated Calcium Sulphate)
CH ₄	Methane
Cl	Chloride
CO ₂	Carbon dioxide

COD	Chemical Oxygen Demand
CPI	Consumer Price Index
CTO	Caribbean Tourism Organisation
DDPH	Dissolved and Dispensed Petroleum
DDT	DichloroDiphenylTrichloroethane
DO	Dissolved Oxygen
DOC	Dissolved Organic Carbons
E/D	Embarkation / Disembarkation Cards
EMA	Environmental Management Authority
FAO	Food and Agriculture Organization of the United Nations
FOB	Freight on Board
GIS	Geographic Information System
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
JICA	Japanese International Cooperation Agency
KMnO ₄	Potassium Permanganate
K ₂ O	Potassium Oxide
LAFTA	Latin American Free Trade Association
LPG	Liquefied Petroleum Gas
MPA	Marine Protected Area
NaCl	Sodium Chloride
NH ₃	Ammonia

NO ₂	Nitrogen Dioxide
NM-VOC ₅	Non-Methane Volatile Organic Compounds
N ₂ O	Anthropogenic Nitrous Oxide
OECD	Organisation for Economic Cooperation and Development
OECS	Organisation of Eastern Caribbean States
OD	Ozone Depletion
PO ₄	Phosphates
P ₂ O ₅	Phosphoric Acid
Pb	Lead
SiO ₂	Silica Sand
SO ₂	Sulphur Dioxide
TCHTA	Turks and Caicos Hotel and Tourism Association
TDS	Total Dissolved Solids
TOC	Total Organic Carbon
TPO ₄	Total Phosphate
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNSD	United Nations Statistics Division
WC	Water Closet
WHO	World Health Organisation
Zn	Zinc

NOTES AND SYMBOLS

NOTES

Efforts were made to assess the degree of harmonization of the indicators.

Indicators that are fully harmonized are represented by “**H**” and imply that the conceptual and methodological differences among Member States/Associate Members are negligible.

Indicators that are partially harmonized are represented by “**PH**” and imply that there is harmonization among some Member States/Associate Members, but that there are also substantive differences among some of those same states or others.

“**NH**” implies that there is an absence of harmonization with regards to concepts and methodologies among Member States/Associate Members.

“**DK**” Impossible to assess.

Unless otherwise stated, the charts refer to data shown in the accompanying table.

SYMBOLS

...	Data not available
n.a	Not applicable
0	Less than half of the unit specified
-	Nil, magnitude zero