### Kick-off Webinar DA12 Project: Introduction to Climate Change and Disaster Statistics in the Caribbean

### **CARICOM SIDS Climate Change and Disaster Statistics Project**

9–11 March 2021

### Background

The Caribbean region, particularly the small island developing states (SIDS), are vulnerable as they are often affected by events, such as hurricanes, storms, flood and landslides. This DA12 Project focuses on statistics related to climate change, disaster vulnerability and building resilience, including Covid-19. The project covers the years 2021 to 2023. It will support capacity building to institutionalise the production, dissemination and use of climate change and disasters statistics and indicators; and promote evidence-based decision-making.

The target audience for the webinar were focal points from national statistical offices (NSOs), disaster risk reduction/management authorities and the ministries responsible for environment and climate change issues in CARICOM countries (member states and associates). Stakeholders from sectoral authorities and Ministries and academia were also invited to participate.

Participants present were from Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, British Virgin Islands, Curaçao, Dominica, Grenada, Guyana, Jamaica, Montserrat, St Lucia, Sint Maarten, Saint Vincent and the Grenadines, Suriname, Trinidad & Tobago and Turks and Caicos Islands. Also represented were the CARICOM Secretariat, UNSD, CCCCC, CCREEE, IRENA, UWI and OECS.

### Day 1, Tuesday, 9 March 2021

# Taking stock of the regional and national situation, demand and supply of environment, climate change and disaster statistics

The moderator, Ms Pauline Leonard, Environment and Climate Change Statistics Area, Division of Statistics, ECLAC, welcomed everyone to the webinar and emphasised the importance of the project for the Caribbean. She laid down the ground rules for the presentations and encouraged participants to use the chat to ask questions and make comments.

### Inaugural session

Mr Roland Ocampo, Director, Statistics Division, ECLAC, welcomed participants from the countries and the international community. He gave an overview of the project and the background to the importance of collecting data on climate change and disaster statistics. Mr Ocampo praised the work of UNSD and CARICOM for the assistance they give to countries in the region in work on environment statistics and hoped that the participants would learn more about climate change and disaster statistics during the webinar.

Dr Philomen Harrison, Director, Statistics Programme, CARICOM Secretariat also welcomed the participants to the webinar. She reiterated how much the countries in the Caribbean are affected by climate change and disasters and spoke of the limits to which the countries can adapt to climate change. In emphasising the need for statistics to measure and monitor the impact of climate change

as an imperative, she gave special recognition to Ms Reena Shah of UNSD for introducing environment statistics to the CARICOM region while highlighting the improvements that have been made.

Ms Rayén Quiroga, Head, Environment and Climate Change Statistics Area, Statistics Division, ECLAC, introduced the team from ECLAC who will be working in the project.

### **Session 1: Introduction**

### 1a. Introduction of the participants

Ms Karina Cazarez, ECLAC, introduced a poll in which participants were invited to sign in and give information on their country of residence, their status with regard to data and their background. A total of 29 participants from 15 countries answered the poll: 4% were data producers; 22% were data users and 74% were both data users and producers. The majority of the participants were statisticians, environmental managers and economists; other participants were in the fields of GIS, meteorology, climate change, demography, disaster management and monitoring and evaluation. The figure below shows the countries that were represented in relation to the number of participants.

Figure 1: Countries represented during the first day of the webinar



### 1b. Who we are, objectives of the project and of the webinar

Ms Pauline Leonard, ECLAC, presented on the ECLAC Environment and Climate Change Statistics Programme. She outlined the objectives and outputs of the programme over the 20 years of capacity building support in the region. Ms Leonard also provided the participants with a short history of the work of the Statistics Division of ECLAC in capacity building activities in Latin America. The work in the region included SDG indicators as well as statistics on the environment, climate change and disasters. The focus for the present project will be on the English-speaking countries of ECLAC.

Participants were given an introduction to the project and its origins, the methods of implementation and the stakeholders that will be involved in the project. The objectives of the first webinar are to understand the production of climate change and disaster statistics in the Caribbean; show the latest methods of measuring climate change, the links with policymaking and some initiatives that are available to countries.

### **1c.** Introduction to regional situation of climate change and disaster statistics in Latin America and the Caribbean

Ms Rayén Quiroga, ECLAC, presented information on the effects of global and regional climate change and its impacts in the Latin America and Caribbean region. Of interest is that the economic cost of the disasters arising from hurricanes are not calculated in many countries. She advised that ECLAC has guidance for assessing disasters and their cost which can assist in studying the effects of climate change impacts.

Ms Quiroga informed that meeting that data on climate change can be measured by looking at areas under a sequence: drivers, evidence, impacts, vulnerabilities, mitigation and adaptation. She explained that the most important global and national demands for environment, climate change and disaster statistics are for the SDGs, the Sendai Framework and the Paris Agreement on Climate Change. While there have been improvements in institutional and inter-institutional collaboration within countries since 1999 when ECLAC was given the mandate for the production of environmental information, there are some countries that still do not have the resources to work on environment, climate and disaster statistics.

# Session 2: Situation of climate change and disaster statistics and indicators production in the Caribbean SIDS

### 2a. Regional situation of climate change and disaster statistics in the Caribbean

Ms Faustina Wiggins, Project Officer, Environment Statistics, CARICOM Secretariat provided the background to the UNSD/CARICOM project which began in 1999 and the main output which was a CARICOM regional publication on environment statistics. This was followed by technical assistance, training and the provision of equipment as well as international support funded by various international development partners including the World Bank, the United Nations Development Fund and the European Union through the European Development Fund. Work continued on the documentation of metadata and the adoption of the FDES, training workshops and in-country technical assistance as well as the establishment of a Technical Working Group for the Development of Environment Statistics. Ms Wiggins highlighted the current work on environment and other statistics and the publication of four regional environment statistics reports, national level environmental compendia and, more recently, a climate change statistics report by the CARICOM Secretariat.

### Q&A Session 2

Ms Reena Shah, UNSD, congratulated CARICOM on their presentation and stressed that the work already done for environment statistics by the UNSD and CARICOM should be used as a base for the work going forward.

### Flash country presentations: national situation, demand and supply of environment, climate change and disaster statistics, current initiatives and capacity building needs

### 2b. Disaster and Climate Change Statistics: Anguilla Experience

Ms Lori-Rae Alleyne-Franklin, Chief Statistician, Anguilla Statistics Department who first gave an overview of the island of Anguilla and the Anguilla Statistics Department. The impetus for the coordination of disaster statistics in Anguilla came after hurricane Irma hit in 2014. The measuring of

climate change and disasters statistics was undertaken by using a multi-organisational approach with the formation of a Disaster Working Group and outlined the advantages and challenges.

### Q&A Session 2

Trinidad enquired as to whether the small size of Anguilla would lead to easier coordination among agencies. While it would seem so at first, in smaller countries a few people have to do a lot of the work. The NSO in Anguilla has seven staff members.

There was encouragement from ECLAC and the CARICOM Secretariat for the improvement of environment, climate change and disaster statistics.

ECLAC stated its pleasure that Anguilla spoke of the day-to-day activities and the collaboration between agencies as they had learnt the importance of working as Anguilla described from working with Latin American countries.

CARICOM commended Anguilla on the presentation as it focussed on disaster and requested information on the inter-agency collaboration. The response was that departments that work with are ministries, e.g., water, health, disaster management agency, telecommunication companies, electricity, water company, environmental health dept., dept of natural resources, hotel association and chamber of commerce. Anguilla also mentioned that they are working on an environment compendium which will be forwarded to CARICOM as soon as it is completed.

**2c. Breakout Group Session 1:** Understanding the national situation of climate change and disaster statistics in countries. Ms Pauline Leonard, ECLAC, presented on the method of work and gave examples of questions that could be asked in the group.

The breakout groups held discussions that were aimed at a greater understanding of the status of environment, climate change and disaster statistics in the countries. Each group was given 25 minutes to discuss and answer the questions presented to them and prepare to present their feedback.

### 2d. Feedback of the participants (Slido Answers)

From the discussions in Breakout Group Session 1, Ms Karina Cazarez, ECLAC, asked participants to input their responses in a poll. For the first question on the elements that can lead to the successful production of climate change and disaster statistics, among many, the leading responses were: collaboration, coordination, working groups, political will, strengthen NSO; human and financial resources.

The participants were next asked to respond to a ranking of national challenges to producing climate change and disaster statistics. The highest ranked response was that "data and statistics exist in their country but were not available for use or lack of quality". Figure 1 below shows the responses to the question on challenges as identified by the participants. Participants were then asked to give three main takeaways from the breakout session. There were 25 answers and the most prominent were: informative, common challenges, interesting, engaging, exchange of ideas.

### Figure 2: Main challenges identified by the participants to producing climate change and disaster statistics



### Day 2, Wednesday 10 March 2021

# Concepts, methods, classifications and international demand for climate change and disaster statistics production and indicators examples

The moderator for Day 2 was Mr Abdullahi Abdulkadri, Coordinator of the Statistics and Social Development Unit, ECLAC subregional headquarters for the Caribbean.

A summary of the previous day was presented by ECLAC.

## Session 3: Introduction to concepts and methods for climate change and disaster statistics production

### **3a.** Data, statistics and indicators: Concepts and production of environment, climate change and disasters statistics

Ms Kika Klimsza, ECLAC, gave a presentation on what and how to measure statistics on the environment. She mentioned the necessity of defining the purpose for building the indicators and emphasised the importance of defining the statistical variables and using international statistical standards and classifications.

For the successful measurement and production of environmental statistics and indicators, countries need to put certain measures in place. She also explained that, under an environment statistics system, there are differences between environment statistics, environment indicators and environment accounts. Their uses, characteristics and how they are disseminated are varied.

### 3b. Relevant statistical classifications (including disasters)

Mr Alberto Malmierca, ECLAC, presented on the importance of statistical classifications, why they are needed and gave an example or the typology of hazardous events and disasters. He introduced the participants to some widely-used classifications and categories that are relevant to environment statistics.

Mr Malmierca gave an example of classification of hazardous events and disasters, the Database on occurrence and impact of disasters (EM-DAT) of the Centre for Research on the Epidemiology of Disasters (CRED). He outlined the criteria under which an event would be entered into the database and how the data is recorded.

### **3c.** Types and sources of statistics

Ms Janet Geoghagen-Martin, ECLAC, presented on the sources by which environment statistics can be collected by NSOs. She pointed out that there are many institutions involved in the collection and compilation of and outlined the pros and cons of each type. The types covered censuses, surveys, administrative records, remote sensing, monitoring systems, scientific research and estimation and modelling. Ms Geoghagen-Martin gave examples of how environmental data is collected in each type of instrument.

### Q&A Session 3:

Curacao asked how a country can ensure that data dissemination works and data are used? The response was that the production of data and indicators should be demand-driven. Ensuring that data will be used requires a solid and continuous relationship between data producers and users. To be aware of the users' needs, data producers might connect with users through various formats such as webinars, workshops and/or policy makers' engagement group works.

Anguilla commented that often data users do not interact with statisticians. There is a need for closer collaboration between specialists and statisticians. Spaces such as this webinar are an excellent opportunity to bring them together as the information that has been shared is well presented and suitable for non-statistical people.

Suriname asked how to build awareness on environmental accounting. Environment accounts are still emerging in the region. As building an environment account requires a large number of environment statistics and indicators, it is necessary to strengthen the production of the underlying or basic environmental data and statistics.

A comment from Trinidad & Tobago was that if a country is going to produce environment statistics for the first time, they have to bear in mind that there are local resource constraints. Countries might need to assess the extent to which the production of statistics responds to local purpose vs international or regional demands.

Other comments were about the lack of resources to produce statistics might lead to the exploration of using existing data. For example, in some cases, companies are mandated by law to produce reports and these might be a potential source of information.

# Session 4: Climate change and disaster relevant statistical frameworks and recommendations.

### 4a. Introduction to the Framework for the Development of Environment Statistics (FDES 2013) and its tools with a focus on climate change and disasters

Mr Emil Ivanov, Statistician, Environment Statistics Section, United Nations Statistics Division (UNSD) gave an overview of the FDES 2013, the Basic Set of Environment Statistics (BSES) and its accompanying manual, the Environment Statistics Self-Assessment Tool (ESSAT) and the matrix of the SDG indicators plus the Basic Set.

Mr Ivanov outlined the objectives of the FDES and its endorsement by the UN Statistical Commission as the framework for strengthening environment statistics programmes. He also covered the six components of the FDES and explained cross-cutting issues such as climate change, water, energy and agriculture that are covered within the FDES.

Countries in the region were encouraged to publish compendia or other outputs based on the FDES as the framework is a helpful guidance on developing environment statistics as is also useful for international reporting requirements.

### 4b. Global Set of Climate Change Statistics and Indicators

Ms Reena Shah, Chief, Environment Statistics Section, UNSD presented on the advances and process related to work on climate change statistics and indicators. She showcased the background and outlined the work UNSD has done with the UNFCCC regarding climate change statistics and indicators as well as recent work in the CARICOM region.

UNSD was given the mandate to develop a global set, applicable to all countries and in 2018 countries were encouraged to participate in a global consultation. A Pilot Survey on Climate Change Indicators was launched in early 2020 and feedback from countries indicated that most of the proposed indicators were applicable but further work was needed.

Ms Shah provided a summary of the work undertaken during the 7th Meeting of the Expert Group on Environment Statistics. She then showed examples of the spreadsheet and a metadata sheet and outlined the planned activities for further work on the global set. Countries were urged to participate in the Global Consultation on the Draft Global Set of Climate Change Statistics and Indicators and to engage all stakeholders. She also advised that countries can seek support from regional and international agencies.

### 4c. Introduction to ECLAC methodology to produce environment, climate change and disasters indicators

Ms Rayén Quiroga, ECLAC, cited ECLAC Manual 61 as a methodological guide for constructing indicators and listed the principles for constructing indicators. The guide will provide for a more efficient use of resources and build feasible and policy-relevant indicators. Ms Quiroga suggests that countries start with a manageable list of indicators that are easily collected. This can be assisted by using frameworks and methodology from agencies such as ECLAC and the UNSD (FDES). She also presented a detailed explanation of how to use the methodology to build indicator sets.

### 4d. ECLAC Damage and Loss Assessment methodology (DALA)

Dr Omar Bello, Senior Economic Affairs Officer, ECLAC, introduced the participants to DALA reports and ECLAC's recent work on disasters. Dr Bello explained the contents of a DALA report which includes estimations of disasters and their impacts and recommendations for resilient reconstruction. The core concepts of the DALA report – value of damage; losses; number of persons affected – were explained. He also showed the results of an estimation of the effects of hurricane Dorian in the Bahamas in 2019 and of the Covid-19 pandemic on the Dominican Republic tourism sector.

#### Q&A Session 4:

Grenada enquired if there were any environmental management information systems being developed. St Lucia responded that they are developing a National Environment System.

A question on the tier system in the FDES was asked by Trinidad. They wondered if SIDS and LDCs are able to produce most of the Tier 1 indicators, based on limited resources of the NSO and other associated ministries, this would be sufficient for environment statistics for the country. Could they then assume that Tier 2 & 3 indicators are for the MDCs? The response was that the Tier system is of global relevance and its use is indicative at the country level. The system should not be considered sufficient if national needs demand further information. The system is only for guidance.

**Comments on ESSAT**: The ESSAT is a great tool whether you are planning to start your environment statistics programme or you want to update your framework. The template allows for modification to include statistics/indicators at national and local levels. The ESSAT is also needed to be modified to include more options and also to include the main units of measurement and may provide options. The UNSD is gathering feedback on ESSAT for future updates.

**Comment on regional indicators (CARICOM)**: Indicators are developed with countries. Indicators have to be relevant to the country and the region. In some countries, sub-systems of indicators are emerging. For example, Barbados has one sub-system on energy management.

A question on the DALA methodology (DALA) referred to who does the estimation of the price of the asset? Is it the owner/holder or a government official? There can be underestimation or overestimation of asset price depending on who provides data. The response was that the DALA mission team is in charge of estimating damage. For example, for school damage, there is a group of engineers who estimate the average price of the assets that were destroyed. On the technical issues, the team collaborates with the government to estimate costs.

**Comments** (Grenada): Provided classifications of environment statistics are sometimes incompatible with data collection, particularly when NSOs work with secondary data. Some data sources are one-time surveys, and surveys are not done in collaboration with the statistics division. No methodologies are attached, and sometimes data cannot be used.

**Comment on methodologies** (ECLAC): Methodology is work in progress and ECLAC has tools to support countries in this regard.

**Comments** (UNSD): National data might not fit into available global methodologies. Countries are therefore encouraged to reach out to UNSD for guidance. This is work in progress, particularly data and statistics on adaptation.

# Session 5: Climate change and disaster indicators in global and regional frameworks of the 2030 Agenda for Sustainable Development (international demand).

### 5a. Introduction to global and regional frameworks of the 2030 Agenda: a statistical perspective

Ms Pauline Leonard, ECLAC, gave a presentation that highlighted the increased demand for environment statistics in the region. She informed the participants that most of the data on the environment, climate and the impact of disasters arose mainly from the need for data to feed into national policies, not necessarily for international commitments. However, there are many international agreements for which countries need to produce environmental information. These include the 2030 Agenda and the Sustainable Development Goals (SDGs), the UNFCCC, SAMOA Pathway, the Sendai Framework, the New Urban Agenda. She also presented information on some regional agreements such as the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazu Agreement) and the Montevideo Consensus on Population and Development.

### 5b. Climate change reporting mechanisms in the Paris Agreement

Mr Ventura Silva, UNFCCC Regional Office for the Caribbean explained the measurement, reporting and verification (MRV) under the UNFCCC and the Enhanced Transparency Framework (ETF) under the Paris Agreement.

The MRV enables parties to understand the implementation measures and provides accurate and reliable data and information in order to promote effective implementation. Mr Silva pointed out that support for MRV systems in the region is available through the "MRV Hub". The ETF provides general guidelines for transparency in order to provide a clear understanding of climate action and provide clarity on support provided and received.

NSOs have a role to play in gathering and disseminating information. There are handbooks and toolkits as well as several training workshops and courses. Each country should: provide a national inventory report of anthropogenic emissions by source and removals and information on climate change impacts and adaptation; and track progress re their national determined contribution (NDC).

### **5c.** Disaster indicators in the Sendai Framework for Disaster Risk Reduction: the Sendai Monitoring Framework

Jennifer Guralnick, UNDRR Regional Office for the Americas, explained the work of the United Nations Disaster Risk Reduction agency as it relates to the Sendai Framework.

The Sendai Framework was adopted in 2015 and is a roadmap for reducing human and economic loss as a result of disasters. In 2016, a working group was set up to define terminology and indicators relating to disaster risk reduction. An online system to facilitate reporting was made available in 2018. Indicators were also developed for the SDGs. She explained how in-country monitoring of DRR is managed and the seven Sendai global targets that were developed.

### 5d. CARICOM Core indicators for the SDGs

Ms Faustina Wiggins, CARICOM, gave a background on the SDGs in CARICOM and achievements in work with CARICOM countries on SDG-related indicators. She first gave an example of the geo-spatial products being developed at CARICOM, specifically a dashboard with emissions data from selected countries.

Her presentation then covered the work the CARICOM Secretariat has done in contributing to global and regional SDG indicators. In the region, in 2016, a workshop was held where 140 indicators were identified for further review. In 2017, a Technical Working Group on the SDGs was formed at which 109 unique SDG indicators were recommended to inform core SDG indicators to be produced by CARICOM countries and, at a meeting of the Council for Human and Social Development in 2018, 125 CARICOM Core Indicators were endorsed. These included 21 environment-related indicators. The CARICOM Secretariat is committed to continue working on core SDG indicators and to consolidate their collection as well as seeking funding for capacity building in the member states.

A decision was taken to defer the breakout group session until the following day. The moderator thanked the presenters and the participants for a successful second day.

### Day 3, Thursday, 11 March 2021

# Assessing opportunities and challenges to climate change and disaster statistics production in the Caribbean

The moderator for Day 3 was Ms Kika Klimsza, ECLAC.

# Session 6: Selected climate change and disasters metrics in Latin America and the Caribbean

Participants were asked to take part in an online quiz that was an introduction to the first presentation of the day.

Questions for the quiz were:

- 1) How much does the Caribbean contribute to total global greenhouse gas emissions?
- 2) What was the most used renewable primary energy in Latin America and the Caribbean?
- 3) Which factors contribute the most to sea level rise?
- 4) How did the forest cover change over the last 30 years in the Caribbean?
- 5) Which is the most frequent type of disaster in the Caribbean?
- 6) What is the economic cost of disasters in the Caribbean over the last 50 years?

### 6a. Selected climate change and disaster metrics in LAC

Ms Rayén Quiroga, ECLAC, presented a selection of data on climate change and disasters in Latin America and the Caribbean.

During the presentation, the answers to the quiz were revealed under the topics: climate change drivers, mitigation and evidence and occurrence and impacts of disasters. Climate change data presented covered GHG emissions, energy and carbon intensity and renewable energy, terrestrial and ocean temperature rise, sea level rise, forest cover loss and coral bleaching. Under occurrence and impacts of disasters, Ms Quiroga covered the number of disasters by type and their effect on humans and the economy. The data presented are mainly from international sources and are available in reports published by ECLAC.

#### Day 3 Q&A. Session 6:

A question from Trinidad & Tobago on presented indicators was for an explanation of why, since 2014, there has been a spike in GHG emissions for the Caribbean. ECLAC responded that this is not known as this data is from an international source and is aggregated for the region. However, calculations are done on the economic activities in the countries in order to arrive at the data.

A question was asked on whether livestock activity in agriculture contributes to the increase in GHG emissions. The response was yes, as the ISIC categories are used and agriculture does include livestock. This includes the emission of methane gas. Another participant was interested in whether agriculture was included in the GHG graph for the Caribbean. The response was yes, emissions for agricultural activities are part of the total.

Another question was asked as to why WRI and NASA emissions data was used instead of country data. Ms Quiroga responded that country data was not available and that is one reason why this work on capacity development is being carried out. WRI has good quality data and is disaggregated by economic activity. Also, some data collection processes might require advanced technology (e.g., satellite data). For example, in such cases, data from NASA is used because of the technology they have to produce the data.

### Breakout Group Session 2: Using the FDES for indicators related to climate change and disasters.

Ms Pauline Leonard explained the work to be completed in the groups. She showed an example of an SDG indicator and how to use the Basic Set of Environment Statistics and the SDG indicators metadata. Also provided was the computation method which would be used to calculate the indicator.

Some groups were willing or unable to respond and there were some technical difficulties. Two groups had lively discussions and went through the Basic Set but felt that there was not enough time to respond properly.

# Session 7: Assessing national opportunities and challenges to climate change and disaster statistics and indicators.

### 7a. Statistical opportunities and challenges to producing climate change and disaster statistics and indicators

Mr Abdullah Abdulkadri, ECLAC, presented on the statistical and institutional challenges faced by countries when attempting to developing environment, climate change and disaster statistics and indicators. He also outlined the various types of assistance that are available to countries as well as ways in which countries could help each other.

### Q&A Session 7

One participant remarked that Covid-19 virus has stymied efforts at collaboration with related agencies and ministries on environment statistics and it is difficult to coordinate activities when some people are still working from home. The sooner things get back to normal, the sooner can a push be made for environment statistics to be given the same importance and visibility as all other statistics that are compiled. For example, national accounts, population statistics, vital statistics, labour force statistics are still being produced, virus or no virus.

Mr Emil Ivanov requested that, in the event that a questionnaire on the global set is forwarded to ECLAC, he was requesting that feedback on the activity and results be forwarded to UNSD. Ms Shah remarked that the questionnaire is still in draft form and does not recommend that it be disseminated to the countries as yet. There was a consensus that when work begins with the countries, the latest version would be used.

# Session 8: Current statistical regional opportunities to support climate change and disaster-related statistics

### 8a. A sub-regional environment information system for the OECS (SEIS)

Mr Emmanuel Chamberlain, Head, Environmental Sustainability Division, Organisation of Eastern Caribbean States (OECS) gave a presentation on the activities of the OECS and, in particular, its subregional environment information system. Mr Chamberlain presented a perspective of the incidence and impact of climate and disaster in the region. He explained that the OECS is guided by the St Georges Declaration on the Principles for Environment Sustainability and other international frameworks. A proposed structure for a sub-regional environment information system (REIS) in collaboration with ECLAC was showed.

### **8b.** Supporting SIDS in Energy Transformation

Ms Areita Gonelevu Rakai, Programme Officer, SID Lighthouse Initiative, International Renewable Energy (IRENA) gave an overview of IRENA and their work in SIDS. The initiative was established in Abu Dhabi, UAE, in 2011 with a mandate to promote the worldwide adoption and use of renewable energy. Ms Gonelevu presented on the work of IRENA in data analysis of renewable energy and power generation capacities as well as investments in renewables.

### 8c. Caribbean Geospatial Development Initiative (Carigeo)

Mr Alvaro Monett, Adviser on geospatial information, presented on the purpose of Carigeo which is to improve spatial data information in the Caribbean region. This is achieved by partnerships with regional and international stakeholders; participants include national mapping and statistical offices. Mr Monett outlined the ToR and guiding principles as well as the international frameworks to which Carigeo is aligned. He also presented on the geoportal launched in 2020, as well as plans for future development in the region.

### Q&A Session 8

A question was raised about the dates of the upcoming webinars. Two webinars will be during the Statistical Conference of the Americas. Another will take place by the end of April and the information will be on the portal. The final dates will be communicated on the portal at a later date.

Carigeo was asked if there were any plans in place for work in Caribbean related to the 2020 round of censuses. The response was that there are no plans at present.

### 8d. Integrated and Resilience Planning project for member states

Mrs Sherie Ann Farquharson, The Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE), outlined the work of CCREEE and a series of projects for the countries in the region. Their objective is to promote the integration of energy resilience in programmes/energy sector plans.

CCREEE assesses the vulnerability and hazards of conventional generators; renewables (hydropower, wind, solar); transmission and distribution; and the demand for energy.

### Q&A Session 8

IRENA was asked if there was an explanation to account for the fact that the Caribbean grouping has high capacity for renewable energy yet the majority of the islands still use natural gas for electricity generation and use gas & diesel for transport vehicles; when would the Caribbean Islands transit to more renewable energy vs what exists today. The response was that this a work in progress. There would be advancement through an enabling environment and engagement of multiple stakeholder groups, including the private sector, and strengthening partnerships and collaboration.

CCREEE was asked to address the seemingly vast gap for CCREEE's 2027 target. They were asked if they would consider moving their target to 2035 because of the economic situation of most Caribbean Islands which may not be able to invest to meet the 2027 targets. The meeting was informed that Member States are working to meet the targets for 2027. Before 2027, a reassessment would be made to decide the changes that needed to be made.

### Session 9: Inter-institutional arrangements for statistical production

**9a.** The need for inter-institutional coordination and strengthening. Ms Pauline Leonard, ECLAC, pointed out the importance of national coordination as outlined in the Fundamental Principles of Official Statistics and the Code of Good Practice in Statistics for Latin America and the Caribbean.

The presentation began with a poll which surveyed the opinions of the participants on the institutional arrangements in their countries on the role of NSOs, ministries in the production of climate change and disaster statistics; and whether there is a working group to coordinate the collection of those statistics and the main barriers to coordination.

### Flash country presentations: national advances of coordination from Latin America and the Caribbean

### 9b. Suriname experience with inter-institutional coordination and institutional strengthening

Ms Anjali De Abreu-Kisoensingh, General Bureau of Statistics (GBS), Suriname, presented on the work done and publications of the GBS. She outlined the collaboration with environment stakeholders and the linking of environment policy and data. Ms Kisoensingh continued with the challenges faced, and plans for the future. She concluded with recommendations for strengthening environment statistics in NSOs.

### 9c. INEGI – Environmental statistics

Mrs Jesarela López Aguilar, Vice-President of Geography and Environment, INEGI, presented on the National System of Statistical and Geographical Information (SNIEG) which is coordinated by INEGI, their statistical and geographical information, the geospatial data cube of Mexico and the CEPAL Working Group. She explained the collaboration within different agencies and committees and the use of geospatial data and products within INEGI.

# Session 10: Next steps: towards a roadmap for the construction of national indicators

### 10a. General recommendations from the participants

**10b. Regional resources for collaboration**. Ms Karina Cazarez, ECLAC, presented on the strategy for the regional collaboration and specific objectives. The activities for the project were outlined and the participants introduced to the Online Regional Network on Environment Statistics of ECLAC the development of an English version of an online course.

A poll was administered for participants to share their preferences on how to strengthen collaboration and communication in the Caribbean region. Participants were asked:

- How would you prefer to hear from us regarding the project's latest activities and other related news?
  36.8% preferred to receive direct emails/updates when an event is approaching.
  36.8% would like to receive news via direct emails/updates when an event is approaching.
- Would you like to join a WhatsApp community for the Caribbean region to exchange the latest news and information on climate change and disaster statistics and indicators?
  58.8% would like to join a WhatsApp community.
- 3) What are the preferred topics for future webinars? The most common topics were: vulnerability of population and Infrastructure to climate change; greenhouse gas (GHG) emissions; risk management, disaster forecasting and early warning systems; and climate change public awareness and education.

### 10c. Preliminary conclusions and workshop evaluation

Ms Janet Geoghagen-Martin, ECLAC, gave a summary of what was presented during the workshop and main takeaways. This project is topical and of importance for the region. There needs to be some innovative and interesting modes of presenting, in order to gain and hold the interest of the participants. It will be useful to continue with the polls/quizzes and to have topics geared to the separate interests which were present. This will be no doubt be addressed as there are differing topics under climate change and disasters. Full engagement of participants in the breakout sessions was challenging as not all had the possibility to turn on their cameras or microphones. Perhaps in a single country workshop, this will be less of an issue. The meeting was wrapped up with words of gratitude from Ms Quiroga and a request to the participants to fill out an evaluation survey. She thanked everyone who participated in the webinar.

### **Feedback from the participants**

### Selected comments from participants:

Ms Tracelyn Joseph thanked ECLAC for the webinar and was grateful for the information gleaned during the three days.

Mr Tyrone Gopaul stated that he was very optimistic about environment statistics now and hoped to do work in that area.

Other participants extended thanks for the webinar and the sharing of information.

"Thank you very much for the info and participating. For me it was informative, a pleasure to participate and inspiring."

"Think it was organized very good. Two thumbs!"

"Our history knows a lot of heroes. To me, people like you and 'the team' behind all this are the heroes of modern times. Thank you and keep up the good work!"

"In my current context the most important presentation for me was Session 9: Inter-institutional arrangements for statistical production."

Responses to the question: What do you consider the most significant outcome(s) of the webinar?

"It made me want to compile environment statistics on a full time every day basis...not part time that currently exists in most Caribbean islands."

"The importance of the subject, especially in the medium term. + To prepare for the future and coordinate this (mutual adjustment) on national and international level."

"Having more knowledge about the issues, the Caribbean and Latin American experience regarding climate change. Working together as one region."

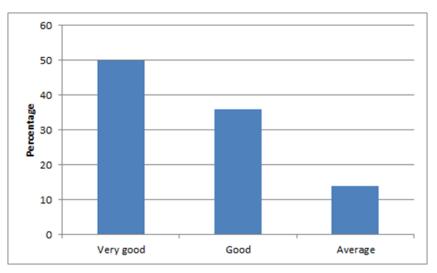
@Knowledge gained and the importance of collecting, compiling, analysing and disseminating of environment statistics and the importance of the National Statistical System and the synergies needed to get the work done."

"The shared experiences of the different countries and their challenges and opportunities, as well as the new informational resources mentioned and shared."

### **11.** Insights from the evaluation survey:

- 85% of respondents reported having acquired new information in the webinar. Almost all of them (99%) found this information useful to better understand the opportunities and challenges related to climate change and disasters indicators production and use in the Caribbean region.
- 85% of respondents said that the webinar helped them to engage in conversations and exchanging of experiences with representatives of other countries and institutions of the Caribbean region.





• A combined total of 86% of respondents said that the relevance of the webinar was 'very good' or 'good' for their current work. Fourteen per cent felt that it was 'average' for their present work.

64% of the respondents rated the overall usefulness of webinar as 'very good'; another 36% said that it was 'good'.