

**Expert Consultation and Meeting on Enhancing Geospatial Information
Management Arrangements and Accelerating the Implementation of the SDGs
together with the
Sub-regional Workshop on the United Nations Integrated Geospatial Information
Framework for the Caribbean**

Summary Report

21 - 25 October 2024

Saint John's, Antigua and Barbuda



Day 1 (Monday 21 October 2024)

Welcome Remarks

Mr. Andrew Nurse, Chief Surveyor, Surveys and Mapping Division, Government of Antigua and Barbuda moderated the Opening Session, welcoming participants and the many experts attending, and encouraged them to actively participate in discussions throughout the week, to network to strengthen the relationship between stakeholders, and to work collectively towards the advancement of SIDS in the Caribbean.

Mr. Robelto Isaac, Permanent Secretary of the Ministry of Agriculture, Lands, Fisheries and the Blue Economy welcomed everyone and encouraged them to have a fruitful and productive meeting, and to take advantage of the benefits of participation to the workshop for the advancement of prosperity in SIDS countries.

Mr. Stephen Keppel, President of PVBLIC Foundation, thanked the Government of Antigua and Barbuda and the United Nations (DESA) for co-hosting the workshop, together with the SDG Data Alliance. He described the role of PVBLIC in cohosting the workshop to advance the Antigua and Barbuda Agenda for SIDS (ABAS), inclusive of establishing and advancing the SIDS Centre of Excellence and the SIDS Global Data Hub, for which the seeds were planted several years ago as part of the development of the SDG Data Alliance. Data is important for Island Nations. He highlighted that the workshop and the launch of the SIDS Global Data Hub were part of the tangible activities to act upon as an outcome of SIDS4 and the ABAS: A Renewed Declaration for Resilient Prosperity, as well as efforts to support all SIDS. He highlighted the role of the SDG Data Alliance

partnership between its founding partners (PVBLIC Foundation, the United Nations, Kellogg Foundation, and Esri) to implement and use geospatial data and global frameworks to support the advancement of SIDS and their prosperity. Mr. Keppel concluded by encouraging participants to take action from the discussions and decisions made at the workshop.

Ms. Sofia Nilo Crisostomo, President of UN-GGIM Americas welcomed the workshop as an important step for Caribbean countries and offered the support of the Americas region towards the implementation of the SDGs in the Caribbean, and of the United Nations Integrated Geospatial Information Framework (UN-IGIF).

Mr. Rolando Ocampo, Director of Statistics Division, United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC), expressed his appreciation to PVBLIC Foundation, the SDG Data Alliance and the UN-GGIM Secretariat for bringing the Caribbean countries together and for the government of Antigua and Barbuda for hosting the workshop. He further acknowledged the various organizations participating in the workshop. Mr. Ocampo recalled that the recent 7th UN-GGIM High-Level Forum in Mexico called for various actions in building geospatial capacities to address climate resilience, disaster risk response and economic development. He also recalled the St. Lucia workshop attended by 13 countries where participants from both geospatial information and statistical agencies worked collaboratively in promoting the UN-IGIF in the Caribbean and to assist countries in their efforts. As a global community, efforts have been underway in bringing sectors together (government, private sector, and academia).

Mr. Teo CheeHai, UN-GGIM Secretariat, expressed appreciation to the Government of Antigua and Barbuda for hosting, and PVBLIC Foundation for sponsoring the workshop. He considered the workshop would have consequential results to address local and global challenges. He further noted the importance of geospatial information management for the land and marine domain, its potential to impact the lives and livelihoods of people, from streets to coastal communities. He noted the momentum to implement the UN-IGIF and encouraged countries to work together in advancing their national geospatial capabilities in alignment with national priorities, and global agendas. He concluded that location data is not only ubiquitous, but it also creates an environment for better societies.

Hon. Sir Steadroy Benjamin, Deputy Prime Minister and Attorney General, offered a warm welcome to the participants and relayed how important this day is for everyone attending. He noted that Antigua and Barbuda recognizes that geospatial information is crucial for planning, decision-making, and implementation across various sectors, including health, education, agriculture, urban planning, and environmental management, and that the purpose of the workshop was to lay the foundation for the preservation of life for the island states. He challenged the participants to develop strategies to help arrest the impacts of global warming for SIDS. He further noted that an agreed point in the ABAS underscores that SIDS face substantial structural challenges building the necessary ecosystem, institutions and capacity for promoting and using science, technology, innovation and digitalization to drive economic growth and sustainable development.

The Deputy Prime Minister highlighted the role of geospatial information in achieving resilience as it enables data-driven decision making, monitoring progress, fostering inclusivity and promoting collaboration across sectors and disciplines, and that by sharing data and insights, SIDS can develop integrated solutions that address multiple SDGs simultaneously. He noted the high potential of geospatial information and emphasized the Integrated Geospatial Information Framework (IGIF) would support the development of geospatial information systems. He observed the need to invest in technology, to develop capacity, to promote open data, and to engage stakeholders. He highlighted that improving geospatial information systems is not just about technology; it is about creating a foundation for informed decision-making, inclusive development, and resilient communities. The Deputy Prime Minister concluded that sustainable resilience within the

Caribbean can leverage the power of geospatial information as a catalyst for change and that collective efforts can leverage this valuable resource to build a better, more sustainable world for all.

Aims, Objectives and Format

Mr. Greg Scott, Executive Director of the SDG Data Alliance, welcomed participants and noted the goals of the workshop in considering “How do we implement global frameworks and mandates?” and “How do we build capacity to achieve these goals?” He provided background information on the need for supporting the SIDS and the Caribbean region, and noted this workshop was part of a series of regional workshops initiated over the last two years that continue to build a path forward in enhancing geospatial information management arrangements. He further indicated that learning challenges from the Caribbean region are important and that getting ideas from the participants in the workshop would help to form the foundation and needs of the SIDS Centre of Excellence and SIDS Global Data Hub. Mr. Scott provided an overview of the first two high-level days of the workshop, where participants would highlight key issues and important challenges that need to be addressed, and which would form the basis of more detailed discussions during the second set of two-days followed by the culmination on the last day of the week identifying how the Caribbean SIDS can contribute to meeting the goals and challenges presented during the previous days.

Session I-1: Setting the Scene

During this session, Antigua & Barbuda’s Minister of Agriculture, Lands, Fisheries and the Blue Economy, the Hon. Anthony Smith, was present and listened to the deliberations attentively.

Ms. Anya Thomas, SIDS Unit, UN-DESA, provided an overview presentation on the History of SIDS over three decadal agreements, the SIDS4 Conference, outcomes (ABAS), and next steps. She highlighted that data provides the scientific evidence of why nations have challenges and the need to back arguments with data and literature (reports and research proof). She highlighted that identifying the problems was easy but overcoming and implementing solutions for SIDS, the “implementation deficit”, was a challenge. Ms. Thomas further noted the data requirements for addressing global challenges, including the availability and timeliness of data, identifying priority areas, particularly climate change, and access to climate financing is a priority for SIDS. We do not have the sectoral and costing data needed. She noted that insufficient data for several key indicators in the CARICOM region are making assessment and trend analysis difficult. She further noted that assessing debt vulnerabilities is challenging, as the data is often not available nor transparent (particularly for debt to China). On the ABAS, Member States committed to engaging in systematic monitoring and evaluation for SIDS. Only two countries reported on the Samoa Pathway, and even they are held up in legislatures. Ms. Thomas further presented the latest developments for SIDS including the use of the Multidimensional Vulnerability Index (MVI) and considerations beyond GDP. She presented key strategic considerations such as the need to fund and have more data available. Ms. Thomas also mentioned the current challenges in the SIDS Caribbean to: mobilize funding around data and statistics (and geospatial); prioritize resources for national digital infrastructures (data and statistics); develop effective partnerships, particularly for private sector and philanthropic organizations for science, technology and innovation; develop a talent pool of skilled staff; use big data for indicator monitoring and evaluation; realize the use and show value of geospatial platforms; establish robust data governance including appropriate legislative overhauls; have more inclusive statistical processes for policy-relevant indicators including private sector data; understand what’s needed to deliver data towards resilient prosperity; establish self-sustaining investments; and finally access to development Finance and debt sustainability support.

Mr. Teo CheeHai (UN-GGIM Secretariat) provided a brief overview of the history, mandates, objectives and functions of UN-GGIM and the related support to countries in the implementation of the UN-IGIF. He noted the increasing responsibilities and staffing of the geospatial work programme in DESA with over 30 positions in SD/DESA to support the programme of the work of the Committee of Experts and presented the key frameworks of the UN-GGIM and introduced the UN-IGIF.

Mr. Rolando Ocampo (UN-ECLAC) presented the ongoing efforts of implementation of the UN-IGIF in the region including in Argentina, Chile, Guyana, Colombia, Panama, Trinidad and Tobago, Dominican Republic and Saint Lucia. He further presented how the various organizations from the region are assisting countries in building their geospatial capabilities. He also presented the specific exercises and training on the implementation pathways which were conducted. He also noted the donation of equipment and other resources from Mexico to the University of the West Indies as a great support for the region.

Ms. Sofia Nilo Crisostomo (UN-GGIM Americas) presented the initiatives, activities and actions implementing the UN-IGIF in the region and in the Caribbean, including the survey that was conducted by the UN-GGIM Americas region with 22 countries participated. She noted 15 countries have aligned with the UN-IGIF and noted the various groups and committees from the Americas region.

Mr. Stephen Keppel and Mr. Greg Scott presented the roles and activities of PVBLIC Foundation, the SDG Data Alliance, including activities related to implementing the UN-IGIF, establishing SDG Data Hubs, and supporting SIDS through the Global Data Hub into the future. Mr. Keppel offered an overview presentation on the value of communication and its social impact when bringing together public institutions and the private sector to work together in helping countries work toward achieving the SDGs. He concluded on noting PVBLIC is the catalyst to make changes that they want to pursue in innovative ways and therefore that the goal of PVBLIC is towards action. Mr. Scott clarified that the SDG Data Alliance is a consortium of multi-stakeholder partners that support countries through the Alliance and acknowledged that there is often a disconnect between use of data and technology to meet the high-level national goals that countries have. He noted that national reporting did not allow for leveraging data at local levels, noting the contradiction with the fact that data for SIDS is needed at local levels. He further informed participants that the SDG Data Alliance is a means to address the needs of developing countries and least developed countries by building SDG Data Hubs, and to support the geospatial capacity through the creation of a Country-level Action Plan.

Session I-2: Status Reports by Countries

This session introduced a high-level ‘status report’ and situational analysis from each country, presenting their capacities and capabilities including the alignment with national priorities. The presentations are available as slides [online](#).

In Antigua and Barbuda, Mr. Nurse noted that the 4 strategic priorities of the country must align with national and regional priorities in poverty reduction, health care, population inequalities, and climate change. In the Bahamas, Mr. Duane Miller noted the priority in his country included climate change, land administration, and disaster response management. In Barbados, Mr. David McCollin noted the priority in his country including housing and property management. In Guyana, Mr. David Cole noted the priorities in his country were provided by users, citizens and communities. In Saint Kitts and Nevis, Ms. Aiexa Douglas noted the priorities in her country were related to poverty, land, and affordable homes, good health and well-being, and sustainable cities with multi-family homes. In Saint Lucia, Ms. Suzanna Aurelien noted the priorities in her country are social empowerment, gender, land reform, youth, health care, and agriculture. In Saint

Vincent and the Grenadines, Mr. Keith Raymond Francis noted the priority in his country and work priorities changed as his office was moved from agriculture, to housing, to transport.

Each presenter detailed their national priorities, current capacities, current challenges and their desired future ideal situation.

Participants exchanged their common challenges, including raising communication and awareness, the need for champions and political engagement, disasters and risks, the need for sustainable funding, the value proposition of geospatial information management for politics and communities, insufficient staff exacerbated by the 'brain drain' and the absence of capacity development, and data silos between government agencies and beyond.

Day 2 (Tuesday 22 October 2024)

Session I-2: Status Reports by Regional Organizations

This session introduced a high-level 'status report' and situational analysis of regional organizations. Each regional organizations presented its capacities and capabilities.

Mr. Ocampo (UN-ECLAC) presented an overview of the current work of UN-ECLAC in the region on its efforts to consolidate geospatial capabilities across the organization, to support countries to implement the UN-IGIF, to manage platforms, and to integrate geospatial and statistical data. He noted the potential of geospatial in the Caribbean with potential contributions of multiple actors across sectors (Private Sector Network, CARICOM, government, etc.), and acknowledged the challenge to have a coordinated approach for implementation and for the benefit of the Caribbean countries.

Participants noted the role of UN-ECLAC as critical to support and promote the value of geospatial, its potential role to promote geo-statistical capabilities in the Caribbean region, and to promote best practices. The participants recalled the importance of talent and the potential use of students in economic studies to evaluate geospatial value and provide support.

Ms. Sofia Nilo Crisostomo (UN-GGIM Americas) noted the current focus on institutions, human resources, standards, and that 28% of the Caribbean countries have ongoing efforts on the UN-IGIF. She expressed her support for more coordinated efforts in the Caribbean region. She highlighted that within the Americas, only 20% of countries have sufficient funding to support geospatial efforts at a national level. She concluded on the will to support implementation of the SDGs in the Caribbean, and of the UN-IGIF.

Ms. Valrie Grant (OECS Geospatial Strategic Advisor) presented on behalf of CARIGEO and highlighted their contribution and engagement to coordinate activities in the region and the recent workshop in Saint Lucia and Trinidad and Tobago on the implementation of the UN-IGIF. She further noted the Caribbean GeoStats awareness program (on hold at the moment). It is a student competition effort. Ms. Grant also presented on behalf of the Organization for Eastern Caribbean States (OECS) Commission with an overview presentation on its activities and role. She also mentioned that CARIGEO would possibly morph into the new Institute for the OECS.

Mr. Prabhjot Singh (Pan American Health Organization (PAHO)) presented activities and data efforts in the Caribbean, including the challenges associated with technology, a lack of data, data sharing, inconsistent data and mapping. In particular he noted the different geographies between health, environment, and school districts and the lack of geospatial boundaries for various local thematic areas.

Ms. Sula Sarkar (IPUMS) introduced their activities on microdata with data for more than 50 countries and their ongoing collaboration with national statistics offices. Use of data is restricted to research and is not public. She noted the absence of data for many Caribbean countries.

Mr. Philip Hippolyte (Humanitarian OpenStreetMap (HOT)) presented their activities on crowdsourcing and local partnerships in the Caribbean region.

Participants engaged in a detailed discussion on coordinating and consolidating various efforts in the Caribbean and considerations for consolidating portals, building on past efforts.

Session I-5: Platforms and Solutions

Mr. Rolando Ocampo and Mr. Alvaro Monett (UN-ECLAC) presented the various portals capacities deployed including CEPALSTAT, CEPALGEO and SDI Americas.

Ms. Valrie Grant (OECS) presented the challenges on coordinating and consolidating various efforts in the Caribbean region and considerations for consolidating a portal, building on past efforts. In this regard, she showcased the CARIGEO Portal.

Mr. Thiago Hernandez Rocha (PAHO) presented the WHO World Health Data Hub initiative and the Health Facilities Master List (HFML).

Mr. Robert Hoddenbach and Mr. Greg Murphy (Fugro Climate and Nature) showcased their capabilities and toolbox to collect, manage and analyze geospatial information and further indicated the changing focus of Fugro from tool-based approaches for clients to a needs approach such as on climate and coastal vulnerability, and how their contribution can enhance existing platforms and solutions.

Session I-4: Introduction to SDG Data Hubs and SIDS Global Data Hub Prototype

Mr. Charles Brigham (Esri) presented the technology and software capabilities from Esri's ArcGIS solution to deploy SDG Data Hubs and the related pre-set templates and ready-to-use applications and configurations for SDG related data and indicators. Countries within the SDG Data Alliance are using these technologies and solutions.

Mr. Greg Scott (SDG Data Alliance) and Mr. Adam Pfister (Esri) presented the SIDS Global Data Hub and showcased the architecture, structure and capabilities of the Hub, drawing from global-to-local datasets, to showcase challenges, results and facts related to SIDS priorities, inclusive of Oceans, Climate, Tourism and Trade, and Well-being.

Participants discussed the challenges associated with the lack of political awareness on the availability of data and available platforms, and the fact that data acquisition (and subsequent sharing and use) was often commissioned for the specific needs of one client but rarely recycled for other domain applications. The 'capture once, use many times' ethos is not being adhered to. Participants further noted that the value of

geospatial information was not well conveyed to decision-makers and that to ensure the multi-purpose use of the data, it required a multi-stakeholder approach. Participants also stressed the importance of the accessibility of data to showcase its value.

Day 3 (Wednesday 23 October 2024)

Session II-4: Enhancing Partnerships and Collaboration in the Caribbean – SIDS4 and ABAS

Mr. Andrew Nurse (Survey and Mapping Division) organized a session related to data themes, technologies, policy frameworks, capacity development, regional cooperation and community engagement. In break-out groups, participants discussed existing policies, regional knowledge networks and tertiary training (UWI, University of Guyana, UTECH), existing organizations activities and partnerships, public-private partnerships, regional exchange programs, crowd-sourcing activities, regional awareness raising activities, means and solutions to monitor the SDGs and the need to align these to global partnerships.

Participants discussed specifically the contribution to implementing the SDGs to which UN-ECLAC informed of its SDG Gateway in a content management system; PAHO uses data to prioritize its programs; OECS need policy coherence to ensure that agencies can make the linkage between work plans and programs; and Antigua and Barbuda noted the need to align national development programs and the SDGs, including with regional perspective and priorities.

Participants also discussed developing sets of priorities for geospatial information in the Caribbean region, including the gaps of skilled talent, education, awareness, policies, and closer partnerships. Participants exchanged the need to assess and understand community engagement and requirements, and beyond the critical importance of identifying champions to raise awareness and deliver the value proposition of geospatial information on the SDGs. The annual GIS Day was noted to be important to collectively raise awareness on the benefits of geospatial data and innovation. Participants reiterated the challenge of data silos within the government.

Session II-1: Summary of the High-level segment and where do we go from here?

Mr. Guillaume Le Sourd (UN-GGIM Secretariat) provided an overview of the various resources and frameworks available online on the website of UN-GGIM and provided a summary of the high-level segment of the two previous days on SIDS priorities, challenges at national and regional levels, and observations from participants. In particular, on the importance of coordinated action towards the implementation of the SDGs, the UN-IGIF and ABAS.

Overview of National Priorities for SIDS (in no order)

- Climate change
- Disaster response and risk management
- Building resilience
- Poverty reduction
- Health care systems and sustainable cities with multi-family homes
- Population inequalities
- Land administration and affordable homes

- Social empowerment: users, citizens and communities' approach
- Economic well-being
- Gender and youth
- Agriculture

Summary of Common Issues/Challenges for Countries (in no order)

- Communication and awareness – lack of understanding and political engagement.
- Risk in the political cycle. Decision-makers are always looking at the next election. Not enough political engagement and champions.
- The 'brain drain' and lack of skilled staff. Once trained, many take better jobs in the private sector.
- Limited resources and capacity – including human and financial – and sustainable funding.
- Lack of legislative frameworks. No adoption of geospatial information and data policies.
- Rapid technological change, and the skills/ability/training of staff to keep up.
- Resistance of agencies to share and integrate data (data silos).
- Lack of 'buy-in' from stakeholders (from government right down to the community) on the value proposition for geospatial information and other enabling technologies.
- Not being able to align the data to the problems of government – to national priorities,
- Disasters and risks
- Mainstreaming the UN-IGIF outside of the National Geospatial Agency
- Partnerships and collaboration, national and regional
- Integration and interoperability
- Implementing – from talking to doing

Summary of Common Issues/Challenges for Regional Entities (in no order)

- Promote the value of geospatial information for social, environmental, and economic development.
- Funding for enhancing geospatial information arrangements (regional organizations)
- Effective communication to top executives and translation
- Participation of countries
- Collaboration between geospatial and statistical offices/communities
- Collaboration with regional organizations
- Strengthen coordinated actions
- Impactful implementation and sustainable funding
- Engaging countries to contribute to regional work
- Leverage regional and local capacities
- Partnerships and collaboration are key!

Session II-3: The Role of Regional Organizations in Supporting National Efforts

Ms. Valrie Grant (OECS) moderated an interactive session with participants regarding the role of regional organizations. Participants agreed on the importance of collaboration and coordination, highlighted the need to reduce duplication of efforts, sharing good practices across countries, defining common goals and shared approaches, and noted the strength in having a common unified voice. The countries noted the importance

of attending the meetings of OECS and CARICOM to work effectively. The definition of a collective strategy and interests in the region appeared critical to participants for enhancing collaboration.

Participants noted the barriers toward achieving sustainable stakeholder engagement were highly associated with the political buy-in and a collective stakeholder engagement approach, inclusive of policy and technical professionals. Participants further discussed and noted the benefits of working across sectors in government to ensure coherent policies and to work across the regions for better regional buy-in.

Mr. Rolando Ocampo (UN-ECLAC) offered to facilitate and lead discussions and ‘next steps’ to develop a common strategic approach for the region. Participants considered it important to involve the OECS and CARICOM to have the leadership of the Caribbean on-board for such a strategy in the region, and to ensure regional coordination and cohesiveness. Participants also considered it key to ensure that all Caribbean countries would be included in the conversation and share this initiative of building a common strategy for the SIDS Caribbean region. Participants noted the importance of including the health sector, statistics, regional partners, academia and the private sector in a global partnership and consider collective regional investment.

Participants continued to discuss regional priorities and the role of regional organizations in leveraging the Secretariat of CARICOM, OECS and ACS to coordinate and amplify the message. Some participants recognized the need for national engagement and talking to existing organizations. In summary, a regional strategy should be discussed, building consensus with four regional entities to support the conversation: UN-ECLAC, CARICOM, OECS and UN-GGIM.

Day 4 (Thursday 24 October 2024)

Session I-3: Introduction to the UN-IGIF and CAP Process

Mr. Teo CheeHai (UN-GGIM Secretariat) provided a detailed overview presentation and lead a subsequent discussion on the main elements and pathways of the UN-IGIF and Country-level Action Plan process.

Session II-4: Enhancing partnerships and reflections from the SIDS4 Conference.

Ms. Taryn Edwards of the Survey and Mapping Division of Antigua and Barbuda presented perspectives and views on the 4th International Conference on Small Island Developing States and mentioned the economic and social benefits of the conference for the island. She further noted the benefits from increased assistance from international agencies, including the partnership with the SDG Data Alliance in the lead up to SIDS4, and subsequent launch of the Centre of Excellence for SIDS and SIDS Global Data Hub. She concluded on the key takeaways on the importance of aligned goals with national priorities, noted the common issues related to data collection, brain drain, limited resources and data silos, and finally highlighted the commonality of goals in the region on sustainability and resilience. OECS congratulated Antigua and Barbuda for holding the forum and noted the many partnerships established following the forum.

Participants noted the importance of the priorities set by ABAS for all countries in the Caribbean region and to leverage and reference these priorities in advocacy and national documents as anchors for strengthening geospatial information capacities. Participants noted the implicit reference to mapping through the theme of the SIDS conference to “Charting.” Participants further noted that preparing or updating a national

country-level action plan would require a lot of engagement and resources, and noted there would be a need to continuously adapt according to national priorities.

Participants also considered the inclusion of geospatial in national acts or laws, particularly as a mean to break data silos but both pros and cons were brought up. Participants also made reference to the importance of cartography and data visualization as a mean for convincing decision-makers on the need and use of geospatial information. Participants noted the importance to use demographic data for SIDS for assessing socio-economic aspects in the region. Participants concluded on the great potential for supporting SIDS through partners involved in the workshop and thanks to the national senior leadership engagement as a very positive support to strengthen national and regional geospatial capacities.

Session II-2: Identifying Country Needs Against National Priorities

A breakout session was organized to gather views from participants on:

- 1) What national data* holdings/assets do you have? Where are these data* holdings/assets? (*geospatial, statistical, administrative, and other data)
- 2) How are you aligning or improving the alignment of your geospatial activities to national development priorities? Did aligning your geospatial activities to national development priorities elevate the visibility and significance of geospatial information and enhance your geospatial information capacities?
- 3) Improving data availability, technology and use: Caribbean good practices. Improving the availability, accessibility and utilization of quality, accessible, timely and reliable geospatial information including integration with statistics, other meaningful data, Indigenous knowledge resources for informed and effective policy development and decision-making.

Day 5 (Friday 25 October 2024)

Mr. Guillaume Le Sourd (UN-GGIM Secretariat) provided a summary of the breakout groups from the previous day, including the inventory on the fundamental geospatial data themes in the region, and noted this activity was well underway for the regions and could easily be completed to ground a potential regional SIDS Caribbean strategy. He further summarized that the current alignment of geospatial information with national priorities was not always adequate, that more awareness on benefits of geospatial information for decision making and addressing national priorities still needed to be addressed. Participants requested that NSDI policies and action plans need to be endorsed and funded. He summarized further that if the good practices identified in the Caribbean were to have a unified and strong voice, regional champions, standards implementation exchange, education and capacity across the region would be needed. Showcasing 'good practice' examples of the value and use of data would be valuable for breaking data silos, to foster peer-to-peer learning, to help develop a regional cooperation, to pool resources, consider past successes on the development of a regional Spatial Data Infrastructure, contribute to regional endeavors, develop reports on the value of collaboration, data integration, and sustains political and operational support to utilize geospatial data effectively across the Caribbean region.

The summary concluded on the Caribbean approach to enhancing geospatial information arrangements at national and regional levels rooted in the "5 Cs": Cooperation, Coordination, Collaboration (resources,

knowledge, capabilities), Communication for consensus, and Consolidated efforts (portals, hubs, etc....) and messaging.

Participants agreed to the summary of actions for the workshop:

Actions

1. Drafting a list of national priorities for Caribbean SIDS towards a strategy for the Caribbean. **ECLAC/OECS/Secretariat**
2. Developing a coordinated communication mechanism. **ECLAC/CARICOM/OECS with SDA helping**
3. Developing regional showcases on impact, possibly through a Storymap and/or Map Portfolios. **ECLAC/OECS/SDA**
4. Establish quarterly virtual meetings, beginning with countries and regional entities represented in the workshop, to keep the momentum going in the Caribbean. **ECLAC**
5. Improve communication with emails and a WhatsApp group. **ECLAC**
6. Complete an inventory on the UN 14 Global Fundamental Geospatial Data themes (FGDT) to continue across the region. **ECLAC/OECS**
7. Scope a capacity development workshop and technical assistance efforts on the implementation of the UN-IGIF. **ECLAC/SDA**
8. Initiate sharing of data through the SIDS Global Data Hub (could also do an updated 14 FGDT Story map for SIDS against some national priorities). **SDA**
9. Assemble a technical/policy team to advocate at highest levels. **ECLAC, UN-GGIM**
10. Ensure bottom-up approach, not only top-down approach. **ALL**
11. Share the summary and share proposed actions from workshop to region/neighbors. **ALL**
12. Commitment to support the Centre of Excellence for SIDS with advocacy from Esri Chief Scientist, Dawn Wright **ESRI**

Actions for Countries to Consider

13. Send official letters to UN (ECLAC/Secretariat) for technical support/assistance.
14. Initiate Country Data Hub.
15. Reference and implement the UN-IGIF.
16. Contribute to the SIDS Global Data Hub.
17. Collaborate and invite regional partners to engage.
18. Identify champions (political and technical).