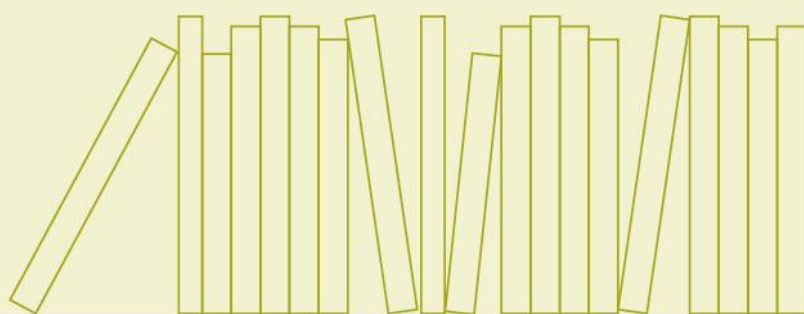Economic Commission for Latin America and the Caribbean

ECLAC SUBREGIONAL HEADQUARTERS FOR THE CARIBBEAN

Report of the expert group meeting on strengthening ICT and knowledge management capacity in support of the sustainable development of multi-island Caribbean SIDS

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FOR SUSTAINABLE DEVELOPMENT WITH EQUALITY

Economic Commission for Latin America and the Caribbean
Subregional Headquarters for the Caribbean

Expert group meeting on strengthening ICT
 and knowledge management capacity
 in support of the sustainable development
 of multi-island Caribbean SIDS
3 October 2019
Port of Spain, Trinidad and Tobago

REPORT OF THE EXPERT GROUP MEETING ON STRENGTHENING ICT AND KNOWLEDGE MANAGEMENT CAPACITY IN SUPPORT OF THE SUSTAINABLE DEVELOPMENT OF MULTI-ISLAND CARIBBEAN SIDS

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CONTENTS

A. SUMMARY OF RECOMMENDATIONS

1.   Participants gave a series of insights on strengthening the information and communication technologies (ICT) and knowledge management (KM) capacity of small and outlying islands in multi-island Caribbean SIDS. They emphasized that, in many cases, government officials understand what needs to occur to strengthen this capacity, but their ability to implement strategic goals and plans is limited due to inadequate bandwidth and unreliable connections. Therefore, investing in high-speed, affordable and reliable connectivity for small and outlying islands should be the most urgent priority for multi-island Caribbean Small Island Developing States (SIDS).

2.   Information security must be given due attention for multi-island countries to improve the disaggregation of data at the island level. At present, a lack of protocols and agreements on confidentiality and information security prevent this from occurring. Multi-island Caribbean countries could work together at the regional level to produce a common legislative and regulatory framework for disaggregating data by island, as has occurred in other ICT-related areas in the past.

3.   Participants also noted that an artificial distinction is often made between telecommunications and ICTs in national legislation, policy frameworks and organizational structures, which results in lost opportunities for coordination and collaboration in these areas and duplication of efforts by government officials. In multi-island countries, central governments should work with island administrations to ensure coordinated approaches to policy development and planning in the areas of telecommunications and ICT. Furthermore, these two policy areas should be merged or placed under the remit of a single ministry or government department.

4.   It was further emphasized that the availability of transportation links can impact the development of ICT infrastructure in small and outlying islands. As a result, the development of knowledge management programmes and ICT infrastructure should be considered alongside issues relating to the quality, availability and affordability of transportation services.

B. ATTENDANCE AND ORGANIZATION OF WORK

1. Place and date

5.   The Economic Commission for Latin America and the Caribbean (ECLAC) subregional headquarters for the Caribbean convened an expert group meeting to discuss the study entitled "Strengthening ICT and knowledge management capacity in support of the sustainable development of multi-island Caribbean SIDS". This meeting took place on 3 October 2019 in Port of Spain, Trinidad and Tobago.

2. Attendance

6.   The expert group meeting was attended both in person and online by representatives of government departments and ministries responsible for education, health, ICT, telecommunications, statistics and sustainable development from the study's three case study countries, Saint Kitts and Nevis, Trinidad and Tobago, and the Turks and Caicos Islands. Representatives of regional telecommunications organizations, namely the Caribbean Telecommunications Union (CTU), Eastern Caribbean Telecommunications Authority (ECTEL) and the Caribbean Association of National Telecommunications Organizations (CANTO), also participated online and in person.

3. Agenda

1. Welcome remarks and introduction

2. Overview and presentation of the study

3. Plenary discussion on presentation and study

4. Closing remarks

C. SUMMARY OF PROCEEDINGS

1. Opening of meeting

7.   The Associate Programme Management Officer of ECLAC subregional headquarters for the Caribbean thanked all participants for joining the meeting, and emphasized that the purpose of the meeting was not only to present the study's findings but to ensure it is as robust as possible and can serve its purpose of strengthening ICT and KM capacity in multi-island Caribbean countries. Therefore, she encouraged the participants' feedback and active participation during the plenary discussion.

8.   She explained that ECLAC's study, "Strengthening ICT and knowledge management capacity in support of the sustainable development of multi-island Caribbean SIDS", investigates the role that ICT and KM are playing in supporting sustainable development across islands in multi-island Caribbean SIDS. Focusing on the areas of health, education and governance, the study uses the multi-island countries of Saint Kitts and Nevis, Trinidad and Tobago, and Turks and Caicos Islands as case studies to explore inter-island differences in ICT and KM capacity and the scope for strengthening this capacity.

9.   The Deputy Director of ECLAC Caribbean welcomed all participants and stated that the meeting would provide an opportunity to discuss how the strategic application of ICTs and knowledge management can act as an important equalizer, improving efficiency in the delivery of government services across multi-island countries. He stated that ICT and KM are valuable tools to support sustainable growth and the delivery of public services in challenging multi-island settings. However, this potential is largely untapped with more than half of households in the region still lack accessing to the internet, and small and outlying islands being particularly underserved.

10.   The Deputy Director stated that multi-island Caribbean countries not only need to use innovative funding approaches to build resilient ICT infrastructure but must foster a culture of innovation that demonstrates the need for and potential of new ICT and KM systems. He encouraged the participation, questions and comments of all present in the meeting and thanked participants for this opportunity to work together to improve ICT and knowledge management capacity in the region.

2. Presentation and discussion of the study "Strengthening ICT and knowledge management capacity in support of the sustainable development of multi-island Caribbean SIDS"

11.   The Associate Programme Management Officer gave a brief overview of the draft study, beginning with the motivations for embarking on the research. She explained that the Caribbean subregion is comprised mainly of SIDS and at least 38 per cent of the 26 programme countries served by ECLAC Caribbean are multi-island States or territories. Multi-island SIDS encounter several challenges, including dispersed populations and fragmented economies, which can result in unequal

availability, access and quality of public services across islands. However, these challenges do not necessarily result in poor development outcomes and can be overcome with good leadership and sustained economic growth.

12.   By way of introduction, the Officer explained the meaning of terms used in the study, including e-learning, e-health and knowledge management, and gave some examples of common e-government and KM tools and their potential. She also outlined the demographics and governance arrangements of the three study countries.

13.   The Officer then set out the findings of the draft study in the areas of ICT development, governance, health and education. Starting with ICT development, she explained that fixed broadband penetration is approximately 90 per cent in both Saint Kitts and Nevis. However, speed, reliability and cost of broadband services is an issue on both islands. Tobago has poorer ICT access than Trinidad. Similarly, in Turks and Caicos Islands, all inhabited islands have wireless and mobile broadband penetration but only Grand Turk and Providenciales have fixed broadband and television access due to ongoing recovery from the 2017 hurricane season.

14.   Of the three study countries, Trinidad and Tobago makes the most extensive use of e-government tools to deliver public services and is the only one with a current national ICT strategic plan. However, knowledge management does not play a significant role in governance of any of the countries. The central government in Saint Kitts and Nevis is developing a government wide area network and a broadband strategy to reduce the cost of high-speed connections. The central government in Trinidad and Tobago is also developing such a network, with full connectivity for Tobago planned in 2019.

15.   In the area of health, none of the countries have a national electronic health record (EHR) and limited or no use is made of tele- or mobile-health, and knowledge management. Health facilities are generally connected to the internet and some have or are working to implement electronic health information systems (EHIS). However, there is a need to digitize existing paper-based records and integrate EHIS within and across islands.

16.   Schools in the Family Islands are unable to effectively integrate ICTs into education due to inadequate bandwidth received via microwave transmissions. Similarly, primary schools in Saint Kitts and Nevis still use outdated asymmetric digital subscriber line (ADSL) technology over copper lines. Schools in both Trinidad and Tobago report connectivity challenges, which the central government is seeking to address through its 5-Star ICT in Education Programme. All schools in Turks and Caicos Islands use OpenEMIS, an open source education management information system (EMIS). However, only some schools in the other two study countries have adopted EMIS and these systems are not integrated across schools.

17.   The Officer then outlined the study's conclusions. She noted that ICT infrastructure in the Family Islands and Tobago is less developed than the more populated islands in those countries, but the situation is more equitable in Saint Kitts and Nevis. However, reliability, cost and quality of fixed and mobile connections are particularly problematic in small and outlying islands of the study countries, with some exceptions. Furthermore, the effectiveness of e-government and knowledge management has been mixed and the use of these tools inconsistent.

18.   In the area of education, the Officer explained that students living in small and outlying islands have a more limited range of educational opportunities and a lack of high-speed internet connectivity impedes distance learning and use of ICT as an educational tool. Similarly, less populated islands offer a more limited range of health services and patients often travel between islands to access services. Fully digitized EHRs, tele-health and mobile-health would increase the

availability of healthcare services and reduce the need for inter-island travel, but these e-health initiatives depend on reliable, high-speed internet connections, coordination and investment.

19.   Finally, the Officer introduced the study's recommendations leading from these findings and conclusions, and identified future research opportunities to improve the situation of small and outlying islands in multi-island Caribbean SIDS.

3.   Plenary discussion on presentation and study

20.   Participants were invited to give their comments and feedback on the study, paying special attention to the findings made in relation to their countries.

21.   The Education Planner from the Ministry of Education, Youth, Culture, Social and Library Services in Turks and Caicos Islands gave an example of the challenges of providing ICT infrastructure to small and outlying islands. She noted that Salt Cay only has three school age children, which limits the feasibility of investing in ICT infrastructure for education on that island. The Information Technology Officer from the same Ministry emphasized that inadequate bandwidth is a major challenge for schools in Turks and Caicos Islands, due to many islands still relying on internet via microwave transmission. He said challenges are compounded by low bandwidth and have limited the Ministry's capacity to improve the integration of ICTs into education.

22.   The CTU's Telecommunications Specialist agreed that islands with particularly small populations struggle to attract investment in ICT infrastructure but noted that distance learning and other e-learning initiatives are not always costly. He inquired about the meaning of the term e-governance as used in the study and noted that members of the public are not as familiar with the terms e-governance and knowledge management as they are with ICT. He noted that the ITU prefers the term e-government and encouraged its use in the study. He also suggested making the origins of information in the study on CARCIP clear.

23.   The Manager of Policy, Strategy and Monitoring at the Ministry of Public Administration of Trinidad and Tobago expressed her gratitude for the study, noting that its findings were very useful for her Ministry. She noted that it would have also been interesting to consider whether the availability of transportation links between islands affect ICT connectivity and availability. She posed the question of whether strong transportation links result in slower investment in comprehensive ICT infrastructure.

24.   The ECTEL representative enquired as to how the multi-island countries were selected for the study and suggested that a definition be provided for technical terms to avoid ambiguity. She noted that the ITU defines 'fixed broadband penetration' as the number of fixed broadband subscriptions per 100 inhabitants but that no definition was provided in the study. She also commented on data disaggregation at the island level, noting the challenges it presents for multi-island SIDS and that protocols and agreements must be in place to enable this process.

25.   ECLAC's Associate Programme Management Officer stated that a range of factors were considered when selecting the case study countries, including their populations, number of islands and governance arrangements. The selected countries were sufficiently different to enable rich findings applicable to all multi-island Caribbean SIDS. The Officer also indicated that she would add definitions of technical terms to the study and noted that disaggregating data at the island level in multi-island SIDS ensures no one is left behind in small and outlying islands.

26.   The Deputy Chief asked whether disaggregated data is simply not being collected or whether legislative or other constraints prevent this taking place. The representative of Trinidad and Tobago's Central Statistical Office (CSO) stated that some data is disaggregated at the island level, but that confidentiality presents an issue when disaggregating the data of small populations. He added that the CSO is now using mobile devices to enable quicker collection of data. The Ministry of Public Administration's representative stated that some work is needed to align data collection systems and that, in her experience, one challenge is that a distinction is often made between telecommunications and ICT data although in many cases they are one and the same.

27.   The representative of iGovTT noted that his organization is particularly interested in information security, and that he would read the recommendations on this topic with interest. The ECTEL representative also emphasized the importance of data protection and security for its Member States.

28.   The CTU's Telecommunications Specialist noted that the CTU's mandate extends to both telecommunications and ICTs, and that in many cases it is not useful to maintain a distinction between the two areas. Regarding the future research opportunities identified, he noted that a Caribbean-wide gap analysis is needed and that this may form part of the Single ICT Space Project of the Caribbean Community (CARICOM). He also noted that the joint HIPCAR[1] project of CARICOM, the International Telecommunications Union (ITU) and the CTU could be revived to develop model legislation and regulatory frameworks for multi-island countries in the areas of ICT, privacy and data sharing and security.

29.   In response to an enquiry from iGovTT's representative, the Officer noted that the study would be published by the end of the year and disseminated to multi-island countries in the region. She invited participants to stay in touch regarding future research in this area and noted that it is possible for governments to make requests for technical assistance to ECLAC.

4.   Closing remarks

30.   The Officer gave a vote of thanks, expressing appreciation to the participants for their substantial contributions to the expert group meeting. She emphasised that ideas, suggestions and recommendations advanced during the meeting will be meaningfully incorporated in the revised study. She ended by urging multi-island SIDS to grasp the opportunities to implement the study's recommendations and encouraged all stakeholders to continue to work together to address the needs of the most vulnerable in small and outlying islands in the Caribbean.

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[1] HIPCAR is an acronym for Harmonization of ICT Policies, Legislation and Regulatory Procedures in the Caribbean.

Annex I

LIST OF PARTICIPANTS

IN PERSON ATTENDEES

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<u>Annex II</u>

AGENDA

0930-0940   **1. Welcome remarks and introduction**

Amelia Bleeker, Chairperson, Associate Programme Management Officer, Caribbean Knowledge Management Centre (CKMC), Economic Commission for Latin America and The Caribbean (ECLAC), subregional headquarters for the Caribbean

Dillon Alleyne, Deputy Chief, ECLAC, subregional headquarters for the Caribbean

0940 – 1015   **2. Overview and presentation of the study**

Amelia Bleeker, Associate Programme Management Officer

1015-1145   **3. Plenary discussion on presentation and study**

Representatives of government ministries and departments responsible for education, health, ICT, telecommunications, statistics and sustainable development in Saint Kitts and Nevis, Trinidad and Tobago, and the Turks and Caicos Islands

Representatives of the Caribbean Telecommunications Union (CTU), Eastern Caribbean Telecommunications Authority (ECTEL) and other regional telecommunications organizations

1145-1200   **4. Closure of the meeting**

Amelia Bleeker, Associate Programme Management Officer