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**Submissions from entities in the United Nations system and elsewhere on  
their efforts in 2018 to implement the outcome of the WSIS**

**Submission by**

Economic Commission for Latin America and the Caribbean

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 22<sup>nd</sup> session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

<p>DISCLAIMER: The views presented here are the contributors' and do not necessarily reflect the views and position of the United Nations or the United Nations Conference on Trade and Development.</p>
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SE180868

14 December 2018

Dear Ms. Sirimanne,

I refer to the communication in which Mr. Mukhisa Kituyi, Secretary-General of UNCTAD, requests inputs to the SG's report on the implementation of the outcomes of the World Summit on the Information Society (WSIS).

Kindly find attached ECLAC's inputs for your attention. We hope this information is useful and remain at your disposal for any additional information.

Please accept the assurances of my highest consideration.

  
Alicia Barcena  
Executive Secretary

Ms. Shamika N. Sirimanne  
Director  
UNCTAD Division on Technology and Logistics  
Geneva, Switzerland

## IMPLEMENTATION OF WSIS ACTION LINES IN LATIN AMERICA AND THE CARIBBEAN IN 2018

### I. Executive Summary

Latin American and the Caribbean (LAC) countries remain committed to the implementation of WSIS outcomes, as they demonstrate with the decisions adopted at the Sixth Ministerial Conference on the Information Society in Latin America and the Caribbean, held in Cartagena de Indias, Colombia, from the 18<sup>th</sup> to 20<sup>th</sup> of April 2018. At the conference, government representatives of 23 countries agreed on a Digital agenda for Latin America and the Caribbean towards 2020, which sets 30 policy objectives in seven areas of action: digital infrastructure; digital transformation and digital economy; digital government; culture, inclusion and digital skills; governance for the information society; emerging technologies for sustainable development and regional digital market<sup>1</sup>.

UNECLAC as co-facilitator of actions lines (C1) the role of public governance authorities and all stakeholders in the promotion of ICTs for development, (C6) enabling environment and (C11) international and regional cooperation, continued its efforts on promoting the implementation of the WSIS outcomes in the LAC region by fostering policy dialogue among members countries, leading research, providing technical assistance, training, and generating statistical information about access and use of ICT's and specifically broadband.

The Cartagena de India's Declaration, adopted at the Sixth Ministerial Conference on the Information Society in Latin America and the Caribbean, reiterated the principles and objectives agreed upon at the World Summit on the Information Society, regarding the importance of building an inclusive information society and promoting the potential of information and communication technologies to achieve 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals and their targets.

The decisions adopted at the Sixth Ministerial Conference on the Information Society in Latin America and the Caribbean have also recognized the importance of promoting a governance of the information society to strengthen a global culture of trust in the Internet by fostering cybersecurity, harmonization and regulatory and institutional coherence, and a comprehensive gender perspective in digital policies.

Among, the key topics included in the Cartagena de India's Declaration is the importance of strengthen mechanisms of regional cooperation to provide the highest standards of information security and personal data protection, repudiating the unauthorized collection and improper and/or unauthorized use of persona data by any public or private entity, and fostering suitable mechanisms for ensuring the transparent treatment of personal data. This requires an Internet governance that protects privacy, promoting access to public information, fosters information security, promotes a culture of trust in the use of digital media, and actively combats cybercrime.

At the Sixth Ministerial Conference, LAC countries acknowledge that firms' adoption of digital technologies and the promotion of entrepreneurship ecosystems enable the development of new processes, products and business models, with positive impacts in terms of promoting structural and technological change. New technologies such as IoT, Artificial Intelligence and blockchain possess tremendous economic and social opportunities for the region.

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<sup>1</sup> See Cartagena de Indias Declaration, sixth Ministerial Conference on the Information Society in Latin America and the Caribbean, Cartagena de Indias, 18-20 April 2018

LAC countries are promoting a regional digital market strategy to benefit digital integration in Latin American and Caribbean and expand the digital economy, drawing on the cultural and linguistic similarities in the region. This topic was among of the seven pillars of the Digital agenda.

## II. Analytical Overview

### a. Policy trends and contributions

The digital revolution is triggering innovations that are leading to the reorganization of economic sectors, new dynamics in the labor market, the provision of smart goods and services and new conditions for competitiveness. These trends were highlighted by UNECLAC at the opening session of the Sixth ministerial meeting, where the Deputy Executive Secretary of ECLAC, underscored that digital technologies are entailed a profound change in production methods, daily life, security and the job market, among other areas, and this requires a new generation of digital agendas, focus on the need for a transition from the consumer Internet to the industrial Internet through a regional digital market and the use of advanced technologies, such as the Internet of things, blockchains and artificial intelligence<sup>2</sup>.

Among the facilitation process, UNECLAC prepare a set of documents to contribute to the discussions held in the Sixth Ministerial Conference. The main report presented was “Data, algorithms and policies; redefining the digital world”. The study analyses the Internet of Things, blockchain and artificial intelligence, as transformative technologies. It highlights two enablers of these technologies: global digital platforms and upgrading human resources. The report concludes reviewing the implications of artificial intelligence (AI) for achieving the Sustainable Development Goals (SDGs), and based on case studies, identified four elements that can be used to encapsulate the ways in which AI may influence development. The first two relate to the location of AI information processing (remote and local intelligence), while the last two refer to the inputs and outputs of that process as they relate to the real world (Augmented, virtual and replicated reality and fine-grained reality)<sup>3</sup>.

As stated in the Cartagena de Indias Declaration, countries in the LAC region are pursuing the idea to foster a digital regional market. In the new global economic and technological context, LAC countries face important challenges, in terms of having a coordinated reduction of barriers that hinder digital cross-border trade and investment in digital markets in the region. A broader agreement would create more harmonized legal frameworks and more aligned regulations that could generate economic and social benefits thought an integrated digital market.

UNECLAC presented at the Sixth Ministerial Conference a report about building a regional digital market in Latin America and the Caribbean. This document identifies certain barriers and obstacles that limit the expansion of the digital economy in the region and proposes some lines of strategic action aimed to guide policy decisions on connectivity, ecommerce, postal performance, consumer protection and digital financial inclusion. The document also presents a review of digital chapters in regional economic integration agreements<sup>4</sup>.

Part of the debate at the Sixth Ministerial Conference highlighted that ICTs had undergone three phases: first, communication between people; second, data (with big data); and third, artificial intelligence. The transition from an information society to a knowledge society had occurred, and it is important to foster the digital economy, artificial intelligence, blockchains and Industry 4.0, especially with respect to SMEs. The Internet of things facilitates more efficient and affordable services with greater scalability, blockchain technology could establish trust and transform

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<sup>2</sup> *Report of the sixth Ministerial Conference on the Information Society in Latin America and the Caribbean* (Cartagena de Indias, 18-20 April 2018)

<sup>3</sup> UNECLAC (2018), “Data, algorithms and policies: redefining the digital world”, United Nations publication (LC/CMSI.6/4), Santiago.

<sup>4</sup> CEPAL (2018), “Mercado digital regional: aspectos estratégicos”, Publicación de Naciones Unidas (LC/TS.2018/30), Santiago.

government services by better collaboration between parties, Artificial intelligence would strengthen the relationships between people as well as the relationship between people and machines. Finally, a sound and flexible regulatory approach was needed to avoid slowing down innovation.

With respect to digital agendas, the debate at last Ministerial meeting emphasized that integration and consistency of public institutions is fundamental. Technologies should not be an end in themselves, but instead be used to create wealth and well-being. To that end, each country needs to have a single vision of governance about digital technologies and promote the coordination among different ministries and government agencies. Even though, specific characteristics in each country are important, efforts should aim to have a greater regulatory compatibility and foster a better regional connectivity to favor the digital economy.

## **b. Challenges<sup>5</sup>**

Based on a review made by UNECLAC in the field of the digital economy, innovation and competitiveness, several initiatives are observed in a group of countries in LAC that aim to strengthen digital entrepreneurship. In this way, positive trends are being observed in the creation of technology-based companies or Startups. However, the availability of statistics on this phenomenon is a challenge, which hinders this type of analysis. Regarding the adoption of ICTs in business, based on the information available, it can be affirmed that most of the firms and companies in the region make basic use of ICT (computer and Internet), but find difficulties in making more sophisticated uses of these technologies. Nevertheless, better access and production of statistics in these areas is needed.

Regarding e-government, Latin America and the Caribbean, maintains medium levels of development (despite the existence of some more advanced countries, like Uruguay). The index of the United Nations electronic government (2016), shows that no LAC country has a very high rating in the index (above 0.75). Likewise, evident contrasts between subregions are maintained. Most countries analyzed in the region have digital government strategies or use of ICT in the public sector (73%), however, it is important to strengthen the measurement and monitoring aspects of electronic government policies.

In relation to digital education policies, several countries still show connectivity gaps to educational centers by geographical area and socioeconomic levels. Also, at least in 12 countries of the region there is evidence of several policies, programs and projects that encompass the dimensions of ownership (including training), provide digital resources or assist, in various ways, the dimension of digital culture, in addition to provide ICT infrastructure to schools.

About the e-health in LAC, it can be noticed that from 14 countries analyzed at least nine, had electronic health or telehealth policies or strategies included in their legal framework. In addition, only eight countries had a national electronic medical history (HME) system, and only five claimed to have national legislation on HME.

About the cyber legislation, LAC countries show several advances, especially in relation to the dissemination of regulatory frameworks on standards that are related to electronic transactions and electronic signatures, intellectual property, and to a lesser extent, the guides related to consumer protection and domain names regulation. The main challenges in this area have to do with the legal frameworks on cybercrime and security.

## **III. Innovative policies and programmes**

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<sup>5</sup> ECLAC (2018), "Monitoreo de la Agenda digital para América Latina y el Caribe", Publicación de Naciones Unidas (LC/TS.2018/29), Santiago.

## **a. Innovative policies**

Some countries in the LAC region are promoting projects on emerging technologies like blockchain. In 6 countries in the region 8 projects have been identified about the use of blockchain for public services. These countries are Mexico, Barbados, Venezuela, Brazil, Argentina and Chile. Nevertheless, only three projects are in a development stage, while the rest are explorations or proof of concept. For example, Argentina's government has been using the Bitcoin-based distributed application OpenTimestamps Dapp to record the publication times of its official bulletins<sup>6</sup>.

Regarding open government policies and based on the information about 13 countries, it can be said that 62% of these countries have a national strategy on open government, and 77% have a portal on open government data. Feedback with users is an aspect that requires improvement in the region in relation to policies of OG.

LAC countries, consider Fintech as having a great potential for financial inclusion. Of 11 countries review by UNECLAC, eight have recent regulations on fintech, or expect to have some type of regulation soon. These include Mexico, which, in March 2018, passed the Law Regulating Financial Technology Institutions to provide a framework for these services. This legislation, which puts Mexico at the forefront of provisions for the development of these services in the region, addresses aspects of electronic payment funds, crowdfunding and virtual assets<sup>7</sup>.

## **b. Programmes and activities**

Regarding partnerships, UNECLAC continued to build alliances with the private sector; the civil society and the technical community. These efforts have resulted in the organization of a series of activities, including a set of seminars. One of these events were "CLTx: Preparatory Meeting of the Latin American Telecommunications Congress", held in Cartagena de Indias, Colombia in April 2018. This event was organized by UNECLAC, the Latin American Bank of Development (CAF), Iberoamerican Association of Telecommunications Companies (ASIET), and GSMA. Among the participants were policymakers and representatives from the education sector, non-governmental organizations and the ICT industry.

Also, UNECLAC with the collaboration of the Internet & Jurisdiction Policy Network, organized on 22 of November of 2018 at ECLAC headquarters, the seminar: "Challenges in an interconnected world Cross-border data flows, data protection and cybersecurity". The objective was to debate on the increasing tensions over jurisdiction and normative coherence of the Internet, analyzing challenges to prevent legal gaps that can be detrimental to the Internet and its impact on development and well-being. Representatives from 12 LAC countries attended the workshop.

UNECLAC has lead several activities to improve national capabilities in the LAC region for the design of digital policies in 2018:

- Summer school: "Digital Transformation and Innovation in Latin America: Digital and Regional Integration". This summer school is an initiative of UNECLAC, the Barcelona Institute for International Studies (IBEI) and the Latin American Bank of Development (CAF). The programme seeks to discuss the impact of new digital technologies, such as Big Data analytics, the Internet of the Things (IoT), and artificial intelligence, in the economy and the society. The training is aimed to policy makers and professionals from the private sector and NGOs. The fifth edition of the summer school took place in Barcelona in June, 2018, with the participation of 18 representatives from 8 LAC countries.

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<sup>6</sup> Source, Illinois Blockchain Initiative, Blockchain in Government Tracker, <https://sites.google.com/view/blockchain-govt-tracker>

<sup>7</sup> UNECLAC (2018), "Data, algorithms and policies: redefining the digital world", United Nations publication (LC/CMSI.6/4), Santiago.

- CE Digital - Training for the Digital Ecosystem. This program aims to offer training opportunities to officials of regulatory agencies and professionals responsible of formulating policies on ICTs in Latin America. The program has been developed by UNECLAC, the Latin American Bank of Development (CAF) and GSMA. Through a range of fourteen training courses (face-to-face and online) the program offers an overview of the latest advances in technology and the ICT industry. Some of the topics are spectrum management for mobile services, Internet of Things, competition policies in the digital era, Internet governance, mobile money, mobile privacy, universal service and taxation for the mobile industry. Between 2016 and 2018, 600 professionals were trained from 17 countries.
- Workshops on "Big Data for the measurement of the digital economy". These workshops were aimed to debate conceptual, technical and methodological aspects behind the use of Big Data for the measurement of the digital economy. In 2018, one workshop was organized in Cartagena de Indias, Colombia, with the participation of several government representatives and experts.

UNECLAC acts as the technical secretariat of the Digital Agenda for Latin America and the Caribbean (eLAC2020), approved at the Sixth Ministerial Conference on the Information Society in Latin America and the Caribbean, held Cartagena de Indias in 2018. This process began in 2005 in Rio de Janeiro with the approval of the first action plan for the information society in Latin America and the Caribbean (eLAC2007), signed at the Regional Preparatory Meeting for the World Summit on the Information Society (WSIS). This action plan was then followed by the plans approved in El Salvador in 2008 (eLAC2010), Lima in 2011 (eLAC2015), Montevideo in 2013 (Workplan), Ciudad de Mexico in 2018 (Digital agenda). As technical secretariat of eLAC, UNECLAC efforts are focused on fostering the implementation of the digital agenda, by coordinating its follow-up mechanism, monitoring the compliance of the plan's goals and the generation of research and ICT statistics<sup>8</sup>.

The follow-up mechanism of eLAC2020 is comprised of three levels of coordination and cooperation which includes a steering committee, national focal points and 9 working groups: Access and Digital Infrastructure, Digital Transformation and Digital Economy, Regional Digital Market, Digital Government, Emerging technologies, Culture, Inclusion and Digital Skills, Internet Governance, Telework and Regulatory framework.

Regarding the production of ICT statistics, UNECLAC has continued to support the Observatory for the Information Society in Latin America and the Caribbean (OSILAC), collecting data from household surveys on ICT access and use for 16 countries. OSILAC maintains and update a database, which allows the calculation of ICT and socioeconomic indicators and its analysis over time and among the Latin American countries. This information is published through the statistical portal of UNECLAC (CEPALStat).

UNECLAC has also continued to support the Regional Broadband Observatory (ORBA), which has been periodically carrying out the collection of statistical information on the development of broadband in the LAC region. The information includes statistics on access, use and quality of the fixed and mobile broadband Internet service. This information is processed from different sources such as the International Telecommunication Unit (ITU) database, household surveys and the collection of data on tariffs based on web public of service providers and other sources (e.g. Statista, Akamai and bnamericas). The information collected allow to calculate indicators about Internet users by age, by geographical area, by gender and statistics on fixed and mobile broadband rates and connection speeds.

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<sup>8</sup> <https://www.cepal.org/es/proyectos/elac2020>

#### **IV. Future Actions**

- The agreements of the Sixth Ministerial Conference on the Information Society in Latin America and the Caribbean give continuity to this policy forum with a vision beyond 2018 and stated to hold the next Ministerial Conference in Brazil in 2020. During this meeting a draft new Digital Agenda will be discuss.
- UNECLAC will continue to act as the technical secretariat of the eLAC process, generating statistical information, research and supporting the steering committee of the process. UNECLAC will be also coordinating the working groups on the following topics: Access and Digital Infrastructure, Digital Transformation and Digital Economy, Regional Digital Market, Digital Government, Emerging technologies, Culture, Inclusion and Digital Skills, Internet Governance, Telework and Regulatory framework.
- UNECLAC will facilitate the organization of the preparatory meeting for Seven Ministerial Conference on the Information Society, to be held Ecuador in 2020.
- UNECLAC is expected to organized in 2019 two training workshop on Big Data for the measurment of the digital economy in Colombia and in the Domenican Republic, along with a the new version of the Summer school: "Digital Transformation and Innovation in Latin America: Digital and Regional Integration" in Barcelona, Spain.
- UNECLAC will deepen its research agenda on issues related to the digital economy, the futuro of work, industrial Internet and 5G. Specifically, progress will be made in research about the use of Big Data for measuring the digital economy.