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**Economic and environmental questions: Science
and technology for development**

**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**

Report of the Secretary-General

Executive summary

This report has been prepared in response to the request by the Economic and Social Council to the United Nations Secretary-General, in its resolution 2006/46, to inform the Commission on Science and Technology for Development (CSTD) on the implementation of the outcomes of the World Summit on the Information Society (WSIS) as part of his annual reporting to the Commission. The report has been prepared by the United Nations Conference on Trade and Development (UNCTAD) secretariat based on information provided by entities in the United Nations system and elsewhere on their efforts during 2013, with a view to sharing effective practices and lessons learned.

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Introduction

1. In 2013, the global information and communications technology (ICT) revolution continued to expand across all regions. As technology and markets continue to evolve at an extraordinarily rapid pace, Governments, businesses, international organizations and citizens are challenged to keep pace and adapt to ever-shifting opportunities and uncertainties.

2. This report includes information provided by 26 United Nations and other international organizations and stakeholders¹ concerning trends, achievements and obstacles in the implementation of WSIS outcomes during 2013.²

I. Current trends

A. Development status of information and communications technologies

3. ICT demand and supply have continued to grow. Globally, the number of mobile cellular subscriptions now surpasses 6.8 billion.³ Many rural and remote regions of developing countries, though, have yet to be covered by mobile networks, and many citizens cannot afford mobile phones. Internet access and use also continues to expand, with more than 2.7 billion Internet users worldwide.⁴ An increasing proportion of users have access to high-end broadband networks and services, but access is not ubiquitous or affordable in large portions of the developing world.

4. The United Nations and international agencies have begun a 10-year review of WSIS outcomes (WSIS+10) to be completed by the General Assembly in 2015, alongside the review of the Millennium Development Goals. During 2013, the first WSIS+10 review event was organized by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The International Telecommunication Union (ITU) hosted the WSIS Forum, which launched an open consultation on the issues and goals for the review.

¹ Africa ICT Alliance, Association for Progressive Communications, Council of Europe, Department of Economic and Social Affairs, Economic Commission for Africa, Economic Commission for Europe, Economic Commission for Latin America and the Caribbean, Economic and Social Commission for Asia and the Pacific, Economic and Social Commission for Western Asia, End Child Prostitution, Child Pornography and the Trafficking of Children for Sexual Purposes, Food and Agriculture Organization of the United Nations, International Chamber of Commerce–Business Action to Support the Information Society, Internet Governance Forum, Internet Society, International Trade Centre, International Telecommunication Union, Organization for Economic Cooperation and Development, Telefónica, UNCTAD, United Nations Environment Programme, United Nations Educational, Scientific and Cultural Organization, United Nations Industrial Development Organization, World Health Organization, World Intellectual Property Organization, World Meteorological Organization and World Trade Organization.

² Full submissions from these organizations are available at <http://unctad.org/cstd>.

³ <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2013.aspx>.

⁴ Ibid.

B. Wireless technologies and trends

5. Many recent developments in the ICT sector have involved wireless technologies. Wireless broadband services have become one of the fastest growing trends, with mobile broadband subscriptions growing at some 30 per cent per year,⁵ allowing users to access content from an increasing variety of “smart” devices.

6. Under ITU guidance, Governments and regulators are transforming their spectrum management policies, for example by shifting from analogue to digital broadcasting standards. This releases large ranges of spectrum for use. The newly available spectrum promises to create opportunities for innovative and lower cost networks, which could prove beneficial in reaching underserved populations and offering more affordable services.

7. These developments are contributing to the ongoing convergence of technologies, media and applications, as voice, data transmission, broadcasting and traditional media become increasingly integrated and interchangeable.

C. Government policy initiatives

8. An increasing number of countries are recognizing the importance of ICTs by adopting or preparing national ICT policies and/or broadband plans and strategies aimed at bringing together the range of stakeholders on the supply and demand sides of the ICT ecosystem, to create coherent and effective paths to ICT development.

9. Such strategies emphasize the role of ICTs in education and, by extension, the importance of increasing awareness and building human capacity in the use of ICTs in all spheres. Introducing computers, Internet access and technical training into school curricula has become a priority focus. More recently, new “digital literacy” strategies aim at taking ICT-oriented public education beyond the classroom, to society as a whole, to ensure that current and future generations are best prepared to reap the benefits of the information society.

II. Implementation and follow-up at the regional level

A. Africa

10. The sizeable gaps in Internet access in African countries have begun to shrink with significant growth in this sector, and new policies and initiatives are showing promise. According to a recent report,⁶ as of 2013, Africa has an overall estimated 63 per cent mobile penetration and a 16 per cent Internet access rate. Mobile broadband penetration has increased from 2 per cent in 2010, to 11 per cent in 2013. The Internet represents 1.1 per cent of gross domestic product (GDP) in Africa and could rise from \$18 billion today, to \$300 billion in 2025.⁷ Despite these gains, sub-Saharan Africa still has the lowest Internet penetration rate.

11. The Economic Commission for Africa (ECA) continues to support its member States in the implementation of the Tunis Agenda for the Information Society, working

⁵ <http://www.broadbandcommission.org/documents/bb-annualreport2013.pdf>.

⁶ http://www.mckinsey.com/insights/high_tech_telecoms_internet/lions_go_digital_the_internets_transformative_potential_in_africa.

⁷ Ibid.

closely with the African Union Commission and Africa's regional economic communities on the development of an African convention on cybersecurity, harmonization of cyberlegislation and e-government indicators.⁸

12. The Africa ICT Alliance, a private sector-led cooperation among African ICT organizations, launched operations in 2013, conducting activities in support of implementing WSIS action lines.⁹

B. Asia and the Pacific

13. The steady progress in ICT development has been uneven in many parts of the Asia-Pacific region. The Economic and Social Commission for Asia and the Pacific (ESCAP) carried out a regional review of the WSIS outcomes in Asia and the Pacific in 2013,¹⁰ identifying areas of progress and continuing challenges.

14. Although mobile telephony is available to a substantial majority of the region's population and public institutions are increasingly connected to the web, the more economically advanced countries of ESCAP (e.g. Australia, Japan, New Zealand, the Republic of Korea, Singapore) have progressed even faster than the less connected ones, thereby increasing the digital divide. For example, while only 7 per cent of people in the Asia-Pacific region have fixed broadband access, the Republic of Korea is at 37.56 per cent fixed broadband penetration, compared to Myanmar with only 0.01 per cent.

15. ESCAP is promoting a number of initiatives aimed at closing the digital divide, including development of the concept of an Asia-Pacific information superhighway: a continent-wide meshed network of terrestrial optical fibre. In 2013, ESCAP and ITU produced a set of terrestrial transmission infrastructure maps¹¹ to allow the identification of missing links and bottlenecks in cross-border fibre optical networks.

C. Western Asia

16. The Western Asia region has taken significant steps towards bridging the digital divide and building an information society. Lower costs are enabling higher rates of ICT adoption. The public and private sectors are working together to integrate local communications networks regionally and globally.

17. The latest edition of the *Regional Profile of the Information Society in the Arab Region*,¹² produced by the Economic and Social Commission for Western Asia (ESCWA) in 2013, confirms that the Arab region has taken significant steps towards achieving WSIS objectives.

18. The information society portal for the ESCWA region¹³ provides a platform for knowledge management, further supporting collaboration and dissemination of information on key ICT policy themes.

⁸ <http://au.int/en/cyberlegislation>.

⁹ <http://aficta.org/index.php/home/visionmission>.

¹⁰ Following resolution 69/10 of the Economic and Social Commission for Asia and the Pacific, entitled "Promoting regional information and communications technology connectivity and building knowledge-networked societies in Asia and the Pacific".

¹¹ <http://www.unescap.org/idd/maps/asia-pacific-superhighway/>.

¹² <http://www.escwa.un.org/information/pubaction.asp?PubID=1492>.

¹³ <http://ispr.escwa.org.lb>.

D. Latin America and the Caribbean

19. In Latin America and the Caribbean, ICTs are having a positive impact on economic growth, technological investment, production and business/consumer behaviour in some countries, while in others progress has been slower.¹⁴ There is asymmetrical development of critical infrastructure reflected in mobile broadband penetration: the most advanced countries have 15 times more development than the ones lagging the furthest behind. It has been estimated that ICTs represent on average 3.2 per cent of GDP in four countries in the region (Argentina, Brazil, Chile and Mexico).¹⁵

20. The Economic Commission for Latin America and the Caribbean (ECLAC) oversees the region's implementation of WSIS activities. The Fourth Ministerial Conference on the Information Society in Latin America and the Caribbean approved the Montevideo Declaration – whereby the region's countries reaffirmed their commitment to achieving the targets in the Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean (eLAC 2015)¹⁶ – and the 2013–2015 workplan for the implementation of the Plan of Action.¹⁷

21. ECLAC is also the technical secretariat of the Regional Dialogue on Broadband, which expanded in 2013 to 11 members.¹⁸ During 2013 ECLAC deepened its work in the measurement of digital economy and its benefits for equality, and in the promotion of ICT use to overcome the gender divide.

E. Europe

22. While there has been considerable progress in improving the infrastructure and technological capacity of ICTs in many of Europe's emerging economies, the Internet in many of these economies is not robust and is subject to potential disruptions, largely due to the small number of providers.¹⁹

23. In implementing the outcomes of WSIS, the Economic Commission for Europe (ECE) of the United Nations has concentrated on finding solutions that use ICT tools to facilitate development goals, while dedicating special attention to sustainability-related concerns. ECE has undertaken initiatives through its various subprogrammes to address most of the WSIS action lines by promoting partnerships among public and private stakeholders in the region.

24. The Council of Europe works with its 47 member States, the private sector, civil society and other actors to shape ICT policies for the region, through conventions in fields such as cybercrime, data protection and the protection of children and through the European Dialogue on Internet Governance.²⁰ At the 2013 global Internet Governance Forum (IGF),

¹⁴ http://www.cepal.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/5/49395/P49395.xml&xsl=/publicaciones/ficha.xsl&base=/publicaciones/top_publicaciones.xsl.

¹⁵ Ibid.

¹⁶ <http://www.eclac.cl/cgi-bin/getprod.asp?xml=/elac2015/noticias/paginas/0/44210/P44210.xml&xsl=/elac2015/tpl-i/p18f.xsl&base=/elac2015/tpl-i/top-bottom.xslt>.

¹⁷ http://www.eclac.cl/socinfo/noticias/documentosdetrabajo/8/49568/eLAC-Plan_of_work_2013-2015.pdf.

¹⁸ <http://www.eclac.org/cgi-bin/getprod.asp?xml=/prensa/noticias/comunicados/6/51136/P51136.xml&xsl=/prensa/tpl-i/p6f.xsl&base=/socinfo/tpl-i/top-bottom.xsl>.

¹⁹ See the ECE contribution to this report.

²⁰ <http://hub.coe.int/en/a-free-and-safe-internet>.

the Council presented its draft Guide on Human Rights for the Internet Users²¹ for comment, with the intention of adopting it during 2014.

III. Implementation and follow-up at the international level

A. General Assembly

25. The General Assembly adopted resolution 68/198 in December 2013, which recognized that ICTs have the potential to provide new solutions to development challenges. The General Assembly decided to finalize the modalities for its overall review of the implementation of WSIS outcomes no later than the end of March 2014 and invited the President of the Assembly to appoint two co-facilitators to convene open consultations for that purpose (A/RES/68/198, para. 22).

26. In response to General Assembly resolution 67/195, the Working Group on Enhanced Cooperation (WGEC) on public policy issues relating to the Internet was established by the Chair of the CSTD. It held its first meetings in May and November 2013. The WGEC consists of 22 Member States and representatives from the private sector, civil society, technical and academic communities, and intergovernmental and international organizations.

B. Economic and Social Council

27. In July 2013, the Economic and Social Council adopted resolution 2013/9, which noted the ongoing implementation of WSIS outcomes, emphasizing the multi-stakeholder approach and contributions of numerous agencies at the international and regional levels, while reiterating the importance of maintaining this process.

28. The Council recognized and reaffirmed the importance of implementing the WSIS outcomes on Internet governance and enhanced cooperation, including the role of the WGEC and the IGF. It urged all stakeholders to continue to focus on and prioritize the goals of WSIS, including review and improvement of measurement of and indicators for ICT development. Finally, it noted that a substantive session on WSIS+10 would be organized by the CSTD, as mandated by paragraph 47 of Economic and Social Council resolution 2013/9.

C. United Nations Group on the Information Society

29. In May 2013, the 30 members of the United Nations Group on the Information Society (UNGIS) issued a joint statement on the post-2015 development agenda,²² which noted the dramatic changes in the ICT landscape since the Millennium Summit and the WSIS. These include factors that make ICTs more directly relevant to achieving the Millennium Development Goals, such as helping to accelerate sustainable development, ensuring rights-based development, creating jobs, improving education, empowering women and other key benefits.

²¹ <http://www.coe.int/t/information/society/Rights%20of%20Internet%20Users/Draft%20Council%20of%20Europe%20Guide%20on%20Human%20Rights%20for%20Internet%20Users.pdf>.

²² <http://www.ungis.org/Portals/0/documents/JointInitiatives/UNGIS.Joint.Statement.pdf>.

30. UNGIS emphasized that the role of ICTs for development should be fully recognized in the post-2015 development agenda, which should reflect lessons learned on the potential of ICTs to achieve the Goals. In this regard, there should be linkages between the post-2015 development agenda and the WSIS+10 review processes to ensure coordination and coherence.

31. In response to the UNGIS joint statement,²³ the Secretary-General's Special Adviser on Post-2015 Development Planning noted that this input reinforced the Secretary-General's report to Member States on the Millennium Development Goals and post-2015 goals,²⁴ which underscored the centrality of incorporating science and technology, including ICTs, into the post-2015 development agenda.

D. Facilitation and coordination of multi-stakeholder implementation of the Geneva Plan of Action

32. ITU hosted the annual WSIS Forum in May 2013, together with UNESCO, UNCTAD and the United Nations Development Programme. This event included the launch of the WSIS+10 High-Level Event: Open Consultation Process²⁵ and the annual meeting of the WSIS action-line facilitators.

33. The WSIS Forum 2013 Outcome Document focused on the ongoing development of WSIS+10 plans. A WSIS+10 Visioning Track was formed, whereby participants were encouraged to consider key themes for the upcoming WSIS+10 review.

E. Civil society, business and multi-stakeholder partnerships

34. During 2013, the Association for Progressive Communications focused efforts on affordable Internet access, ICT use for environmental sustainability, use of emerging technologies for social change, building the "information commons", defending human rights in the Internet sphere, securing gender equality and women's rights, and improving Internet governance.

35. In 2013, the World Wide Web Foundation established the Alliance for Affordable Internet²⁶ to advance affordable access to mobile and fixed Internet connectivity in developing countries. In December, the Alliance released its first Affordability Report.²⁷

36. The Internet Society (ISOC),²⁸ which is also the organizational home to the Internet Engineering Task Force (IETF), has expanded its collaboration with many intergovernmental organizations to promote the expansion of an open Internet globally.²⁹ This included participation in 2013 in the Internet Technical Advisory Committee of the Committee on Digital Economy of the Organization for Economic Cooperation and Development (OECD).

37. End Child Prostitution, Child Pornography and the Trafficking of Children for Sexual Purposes (ECPAT) International leads the Dynamic Coalition on Child Online

²³ http://www.ungis.org/Portals/0/documents/JointInitiatives/AminaMohammend_HC_re_UNGIS_Joint_Statement.pdf.

²⁴ <http://www.un.org/millenniumgoals/pdf/A%20Life%20of%20Dignity%20for%20All.pdf>.

²⁵ <http://www.itu.int/wsis/review/mpp/>.

²⁶ <https://a4ai.org/>.

²⁷ <http://a4ai.org/wp-content/uploads/2013/12/Affordability-Report-2013-FINAL.pdf>.

²⁸ www.internetsociety.org.

²⁹ <http://www.internetsociety.org/who-we-are/our-community-and-partners>.

Safety. In 2013, ECPAT organized stakeholder workshops on child online protection at the IGF³⁰ and published youth-led field level studies, conducted in Africa³¹ and Latin America,³² on vulnerabilities arising from ICT use by children.

38. Business Action to Support the Information Society, an initiative of the International Chamber of Commerce (ICC), works with businesses to support WSIS outcomes.³³ ICC also manages the Commission on the Digital Economy, which develops policy and practical tools in collaboration with international organizations. ICC participated in the 2013 IGF and contributed statements emphasizing the need to develop favourable policy environments to allow businesses and individuals to capitalize on the benefits of the Internet.³⁴

F. Facilitation and implementation of WSIS action lines and themes

1. Implementation of action lines

a) *The role of public governance authorities and all stakeholders in the promotion of ICTs for development (C1)*

39. The eLAC process overseen by ECLAC is a multi-stakeholder platform for high-level dialogue and regional cooperation on ICT policies. The Montevideo Declaration reinforced the commitments of the Latin American and the Caribbean countries to meet the objectives set out in the Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean.³⁵

40. The Africa ICT Alliance held its first summit in Nigeria in June 2013 to address the theme of fulfilling the promise of the digital age in Africa.³⁶

b) *Information and communication infrastructure (C2)*

41. ITU organized the eighth facilitation meeting of action line C2 at the WSIS Forum, with the theme titled “Broadband backbone connectivity: Economic, regulatory policy and technical aspects”.³⁷ ITU also organized the Connect Asia-Pacific Summit,³⁸ jointly with the Government of Thailand, in November 2013 and hosted six regional development forums.³⁹

42. An important focus of ITU connectivity initiatives has been on schools, under the framework of its Connect a School, Connect a Community programme.⁴⁰

³⁰ <http://www.intgovforum.org/cms/dynamiccoalitions/79-child-online-safety>.

³¹ http://resources.ecpat.net/EI/Publications/ICT/ICT%20Research%20in%20AFRICA_p1.pdf.

³² http://resources.ecpat.net/EI/Publications/ICT/ICT%20Research%20in%20LatinAmerica_ENG.pdf.

³³ <http://www.iccwbo.org/Advocacy-Codes-and-Rules/BASIS/>.

³⁴ <http://www.iccwbo.org/News/Articles/2013/ICC-underscores-need-for-Internet-policies-that-encourage-global-economic-growth/>.

³⁵ The Montevideo Declaration was adopted at the Fourth Ministerial Conference on the Information Society held 3–5 April 2013.

³⁶ <http://aficta.org/index.php/aficta-summit-2013>.

³⁷ <http://www.itu.int/wsis/implementation/2013/forum/documents/outcomes.html>.

³⁸ <http://www.itu.int/en/ITU-D/Conferences/connect/Asia-Pacific/Pages/default.aspx>.

³⁹ <http://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC14/Pages/rpm.aspx>.

⁴⁰ http://www.itu.int/ITU-D/connect/flagship_initiatives/connecting_children/index.html.

43. ITU has also been assisting numerous countries in developing wireless broadband master plans⁴¹ and is developing a worldwide interactive map of transmission networks.⁴² On spectrum matters, the ITU Development Sector has made available a computer program known as the Spectrum Management System for Developing Countries (SMS4DC).⁴³ On telecommunications standards, the ITU Telecommunication Standardization Sector approved 139 work items in 2013, including Sector recommendations, supplements and technical papers.⁴⁴

c) *Access to information and knowledge (C3)*

44. UNESCO continued to promote the use of free and open source software in its fields of competence and discussed recommendations in this area in the framework of the WSIS+10 review, in collaboration with the International Federation for Information Processing.⁴⁵

45. UNESCO launched five national initiatives in 2013, under the project World Map of UNESCO's Points of Interest,⁴⁶ aimed at strengthening the resilience of local communities to post-disaster and post-conflict situations through a geographic information system data infrastructure that is openly licensed.

46. UNESCO and the Global Initiative for Inclusive ICTs developed the global report *Opening New Avenues for Empowerment*, which offers a model policy for accessible ICTs, in support of implementation of the United Nations Convention on the Rights of Persons with Disabilities.⁴⁷

47. ITU's Accessibility Policy for persons with disabilities was endorsed by the 2013 Session of the ITU Council. The study groups of the ITU Telecommunication Standardization Sector have been developing policies on ICT and audiovisual media accessibility.

48. In June 2013, the World Intellectual Property Organization (WIPO) administered the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled.⁴⁸

49. WIPO's Access to Research for Development and Innovation⁴⁹ programme facilitates access to scientific and technical journals. It is also part of the Research4Life partnership,⁵⁰ together with specialized programmes from the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations and the United Nations Environment Programme (UNEP). Similarly, WIPO's Access to Specialized Patent Information programme allows access to commercial patent databases.⁵¹

⁴¹ <http://www.itu.int/ITU-D/asp/CMS/index.asp>.

⁴² <http://www.itu.int/en/ITU-D/Technology/Pages/InteractiveTransmissionMaps.aspx>.

⁴³ http://www.itu.int/ITU-D/tech/spectrum_management/SMS4DC.html.

⁴⁴ http://www.itu.int/ITU-T/workprog/wp_search.aspx?isn_sp=-1&isn_status=-1,1,3,7,2&adf=2013-01-01&details=0&field=aebcgfjkl.

⁴⁵ <http://ipthree.org/ip3-at-unesco-wsis10-update-event-february-2013-paris/>.

⁴⁶ <http://umaps.unesco-ci.org/>.

⁴⁷ <http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/unesco-global-report-opening-new-avenues-for-empowerment-icts-to-access-information-and-knowledge-for-persons-with-disabilities/>.

⁴⁸ http://www.wipo.int/edocs/mdocs/diplconf/en/vip_dc/vip_dc_8.pdf.

⁴⁹ <http://www.wipo.int/ardi/en/>.

⁵⁰ <http://www.research4life.org>.

⁵¹ <http://www.wipo.int/patentscope/en/programs/aspi>.

50. The United Nations Industrial Development Organization (UNIDO) helped launch the online Viet Nam Investment Monitoring Platform⁵² and established a similar platform covering 19 sub-Saharan African countries. In addition, the UNIDO Clusters and Business Linkages Unit has developed a dedicated website⁵³ that makes its cluster development methodology accessible worldwide.

51. ECA set up the initiative Access to Scientific and Socioeconomic Knowledge in Africa,⁵⁴ an interactive online resource for bringing together scientific and socioeconomic knowledge in Africa.

52. Many private sector firms have developed initiatives with international agencies, including the European Union,⁵⁵ for fostering digital inclusion for marginalized social groups, such as people with hearing impairments and remote fishing communities.

53. An international seminar on e-participation: empowering people through information and communications technologies was organized by the Department of Economic and Social Affairs in collaboration with ITU in July 2013, in Geneva, Switzerland. The seminar sought to promote the development of a measurement and evaluation tool for engagement and e-participation,⁵⁶ which aims at helping Member States to better understand the state of play in using ICTs for civic engagement and public participation.

d) Capacity-building (C4)

54. ITU organized the eighth facilitation meeting of action line C4 during the WSIS Forum, focusing on national e-skills for a knowledge society. ITU also adopted guidelines for implementation of a new Centres of Excellence programme for the 2015–2018 cycle.⁵⁷

Technical training

55. ITU organized workshops on very small aperture terminal and satellite systems,⁵⁸ and the ITU Academy is developing a new ITU Spectrum Management Training Programme.⁵⁹

56. ISOC undertook technical training programmes in conjunction with regional Internet registries. ISOC also conducted workshops with the African Union, to help develop Internet exchange points in Africa,⁶⁰ and workshops in Latin America and Africa on combating spam.

57. WIPO's Technology and Innovation Support Centres⁶¹ provide research and business communities with expert assistance in accessing technological information from online patent, scientific and technical journal databases.

⁵² See <http://investment.unido.org/imp/>.

⁵³ www.clustersfordevelopment.org/.

⁵⁴ <http://askia.uneca.org/askia/node/1>.

⁵⁵ The European Union has a project with the private sector on e-inclusion (see www.m-inclusion.eu).

⁵⁶ http://workspace.unpan.org/sites/Internet/Documents/METEP%20framework_18%20Jul_MOST%20LATEST%20Version.pdf.

⁵⁷ <http://www.itu.int/ITU-D/asp/CMS/coe.asp>.

⁵⁸ <http://academy.itu.int/index.php/component/k2/item/1083>.

⁵⁹ <http://academy.itu.int/>.

⁶⁰ <http://www.internetsociety.org/events/workshops/axis-project-and-axis-workshops>.

⁶¹ <http://www.wipo.int/patentscope/en/programs/tisc>.

Business and entrepreneurship

58. UNIDO and the Internet Society of Tunisia established the Digital Entrepreneurship Platform,⁶² a web-based platform to provide entrepreneurial training for young people. Under UNIDO's registration project in Viet Nam, staff at the Agency for Business Registration and provincial business registration offices were trained in the computerization of processes and procedures.⁶³

59. ECA has been working on transforming community ICT access points in Ghana and the United Republic of Tanzania into tele-innovation centres through the Knowledge Network of African Community Telecentres.⁶⁴ This included a baseline study on management and ownership of telecentres and developing strategic business plans and a toolkit.⁶⁵

Education, youth and girls

60. In connection with its many school connectivity initiatives, ITU provided teacher training programmes and helped develop school curricula on the use of computers and application of technology in a wide range of subjects.⁶⁶

61. ITU has put special emphasis on empowering girls and women, establishing International Girls in ICT Day in 2010. Over 40,000 girls and young women participated during the 2013 celebrations.⁶⁷ ITU also continues to host the Girls in ICT Portal.⁶⁸

62. ESCWA prepared a study entitled "Impact of ICT on Arab youth: Education, employment and social change".⁶⁹

Government

63. In February 2013, ESCWA launched the Academy of ICT Essentials for Government Leaders in the ESCWA Region⁷⁰ to create awareness and build the capacity of decision-makers on the utilization of ICT for sustainable development.

64. ECE has been actively supporting capacity-building of policymakers to reform legal frameworks related to ICTs. Other programmes focus on databases and training and advisory services in environmental, trade and land management issues, as well as support for women entrepreneurs.⁷¹

e) Building confidence and security in the use of ICTs (C5)

65. At the WSIS Forum, ITU addressed the need for better international cooperation on cybersecurity.⁷² Specific initiatives include the Global Cybersecurity Agenda, ITU cybercrime legislation resources and two new resolutions by Study Group 17 on

⁶² <http://www.dep-youth.org/>.

⁶³ <http://investment.unido.org/imp/>.

⁶⁴ <http://community.telecentre.org/profiles/blogs/knowledge-network-of-african-community-telecentres-knact-portal-t>.

⁶⁵ http://unctad.org/en/PublicationsLibrary/a68d65_bn_ECA.pdf.

⁶⁶ http://www.itu.int/ITU-D/sis/Connect_a_school/.

⁶⁷ <http://girlsiniict.org/girls-in-ict-day-events/2013>.

⁶⁸ <http://girlsiniict.org/>.

⁶⁹ <http://www.escwa.un.org/information/pubaction.asp?PubID=1422>.

⁷⁰ http://www.itu.int/wsris/review/inc/docs/submissions/Form1_WSIS10-HLE-OC_OfficialSubmissions-ESCWA_web.pdf.

⁷¹ http://www.unece.org/fileadmin/DAM/Gender/publication/Support-Systems-January_2014.pdf.

⁷² <http://www.itu.int/wsris/implementation/2013/forum/documents/outcomes.html>.

Cybersecurity of the ITU Telecommunication Standardization Sector.⁷³ The ITU Radiocommunication Sector also established security principles for international mobile telecommunications networks.⁷⁴ ITU and the International Multilateral Partnership against Cyber Threats are coordinating establishment of national computer incident response teams and conduct cyberdrills for partner countries. ITU also coordinates with partners on the Child Online Protection initiative.⁷⁵

66. The ECE secretariat helped experts in the Regional Commonwealth in the field of Communications (RCC)⁷⁶ to prepare a project on transboundary trust space.⁷⁷ The RCC launched cooperation with the United Nations Centre for Trade Facilitation and Electronic Business in revising policies on authentication of trade documents by means other than signature.⁷⁸

67. The WIPO Arbitration and Mediation Centre⁷⁹ promotes protection of intellectual property in the Internet domain name system through dispute prevention and settlement, in liaison with trademark owners and representatives, the Internet Corporation for Assigned Names and Numbers and registration authorities. In 2013, the Centre continued to work with administrators of country code top-level domains, applying electronic, paperless dispute resolution policies for domains, including for internationalized domain names.⁸⁰

68. ECA and the African Union Commission developed a regional convention on cyberlegislation, including a regional consultation on cybersecurity in Africa.⁸¹ The ECA subregional Office for Southern Africa organized the Southern African Development Community Cybersecurity Awareness Workshop in November 2013.

69. IETF, through the Internet Architecture Board Privacy Programme, published a request for comments entitled "Privacy Considerations for Internet Protocols".⁸² IETF also launched a new public email list⁸³ to discuss proposals for improvements in protocols for mitigation against pervasive monitoring.

70. ISOC has established the Messaging, Malware and Mobile Anti-Abuse Working Group, a partnership of Governments, trusted network operators, Internet service providers and bulk mail distributors.⁸⁴

f) The enabling environment (C6)

71. ITU organized the action line C6 facilitation meeting at the WSIS Forum on the theme of future consumer behaviour and demand.⁸⁵ Five new thematic reports were

⁷³ http://www.itu.int/osg/csd/cybersecurity/gca/global_strategic_report/chapt_5_iframe.htm.

⁷⁴ Recommendations of the ITU Radiocommunication Sector M.1078, M.1223, M.1457, M.1645 and M.2012.

⁷⁵ <http://www.itu.int/osg/csd/cybersecurity/gca/cop/>.

⁷⁶ <http://www.en.rcc.org.ru/>.

⁷⁷ <http://www.en.rcc.org.ru/index.php/component/content/article/226-2009-02-16-09-43-13/810-on-1-3-october-2012-in-geneva-switzerland-28th-session-of-the-rcc-informatization-commission-and-15th-session-of-the-rcc-information-security-commission-were-held>.

⁷⁸ http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/plenary13/ECE_TRADE_C_CEFAC_2013_4E.pdf.

⁷⁹ <http://www.wipo.int/amc/en/center/faq/domains.html>.

⁸⁰ <http://www.wipo.int/amc/en/domains/cctld/>.

⁸¹ [http://www.lex-informatica.org/Presentation at uneca Conference.pptx](http://www.lex-informatica.org/Presentation%20at%20uneca%20Conference.pptx).

⁸² <http://tools.ietf.org/search/rfc6973>.

⁸³ perpass@ietf.org.

⁸⁴ <http://www.maawg.org/>.

⁸⁵ <http://www.itu.int/wsisis/implementation/2013/forum/documents/outcomes.html>.

released on international Internet connectivity in sub-Saharan Africa,⁸⁶ strategies for the deployment of next generation networks in a broadband environment,⁸⁷ taxing telecommunications/ICT services,⁸⁸ Universal Service funds⁸⁹ and regulation and consumer protection in a converging environment.⁹⁰

72. ITU organized several forums that addressed the enabling environment for ICTs, including the Global Symposium for Regulators,⁹¹ the Forum on Telecommunication/ICT Regulation and Partnership in Africa,⁹² the Regional Seminar on Costs and Tariffs for Africa⁹³ and other regional meetings in Latin America, Asia and Oceania.

73. UNCTAD and the Association of Southeast Asian Nations secretariat published a review of e-commerce legislation harmonization. UNCTAD launched a new project to support implementation of legal frameworks on e-transactions, cybercrime and personal data protection in the Economic Community of West African States.

74. The ECE secretariat has been organizing annual conferences in the Russian Federation on information standards, providing for discussion of the experiences and problems of Government and business in the Customs Union of Belarus, Kazakhstan and the Russian Federation.

75. During 2013, ESCWA provided advisory services to develop national cyberlegislation in Algeria, Iraq and Yemen. ESCWA also developed a cyberlegislation policy note⁹⁴ to aid stakeholders on the legislative processes of cyberspace.

76. The World Trade Organization (WTO) continued its Work Programme on Electronic Commerce.⁹⁵ In December 2013, the ninth WTO Ministerial Conference decided to further extend WTO's moratorium on customs duties on electronic transmissions.⁹⁶ Also during 2013, the Committee on Trade and Development held a symposium on e-commerce and small and medium-sized enterprises⁹⁷ (SMEs), and the Council for Trade in Services held one on services related to developments in e-commerce.⁹⁸

g) *ICT applications (C7)*

E-government

77. In 2013, the Department of Economic and Social Affairs co-organized Leading the Way in E-Government Development: Conference for Government Chief Information Officers and Key Officials, in Helsinki, with the Government of Finland and in cooperation with the European Commission.⁹⁹ The Department also organized the Global e-Government

⁸⁶ http://www.itu.int/en/ITU-D/Regulatory-Market/Documents/IIC_Africa_Final-en.pdf.

⁸⁷ <http://www.itu.int/ITU-D/finance/Studies/NGN%20deployment%20strategies-en.pdf>.

⁸⁸ <http://www.itu.int/en/ITU-D/Regulatory-Market/Documents/Taxation%20Study-final-en.pdf>.

⁸⁹ <http://www.itu.int/en/ITU-D/Conferences/GSR/Documents/ITU%20USF%20Final%20Report.pdf>.

⁹⁰ <http://www.itu.int/en/ITU-D/Regulatory-Market/Documents/Regulation%20and%20consumer%20protection.pdf>.

⁹¹ <http://www.itu.int/en/ITU-D/Conferences/GSR/Pages/GSR2013/default.aspx>.

⁹² <http://www.itu.int/ITU-D/af/events/FTRA/2013/>.

⁹³ <http://www.itu.int/en/ITU-D/Regulatory-Market/Pages/Events2013/Cairo/home.aspx>.

⁹⁴ <http://www.escwa.un.org/information/pubaction.asp?PubID=1394>.

⁹⁵ http://www.wto.org/english/thewto_e/minist_e/min11_e/brief_ecom_e.htm.

⁹⁶ [https://mc9.wto.org/; WT/MIN\(13\)/32 – WT/L/907](https://mc9.wto.org/; WT/MIN(13)/32 – WT/L/907).

⁹⁷ https://www.wto.org/english/tratop_e/serv_e/wkshop_june13_e/wkshop_june13_e.htm.

⁹⁸ https://www.wto.org/english/tratop_e/devel_e/wkshop_apr13_e/wkshop_apr13_e.htm.

⁹⁹ <http://www.unpan.org/Events/Conferences/tabid/94/mctl/EventDetails/>

[ModuleID/1532/ItemID/2322/Default.aspx](http://www.unpan.org/Events/Conferences/tabid/94/mctl/EventDetails/ModuleID/1532/ItemID/2322/Default.aspx).

Forum on Smart Government and Smart Society through its affiliate, the United Nations Project Office on Governance, in cooperation with the Government of the Republic of Korea,¹⁰⁰ and partnered in the organization of the Government Summit held in the United Arab Emirates.¹⁰¹

78. In 2013, the Department of Economic and Social Affairs organized regional workshops to build e-leadership capacity in cooperation with the United Nations Project Office on Governance and sponsored an expert group meeting entitled “The Transformative Power of e-Government” (Bahrain).¹⁰² The Government of Colombia, the Department of Economic and Social Affairs and the United Nations Development Programme established a Centre for Innovation on e-Government Development for Latin America and the Caribbean. The Department also initiated more than 15 advisory and technical assistance missions.

79. The Department of Economic and Social Affairs developed two tools for measuring e-government, prepared guidelines on open government data for citizen engagement as an online reference¹⁰³ and delivered interactive courses to more than 5,000 participants in the United Nations Public Administration Network Online Training Centre.¹⁰⁴

80. ECA, in collaboration with UNCTAD, organized a seminar on cloud computing and e-government in Africa in December 2013.¹⁰⁵ ECA also launched a study on open government data in Africa.

81. The United Nations University, ESCWA and the Government of Lebanon jointly organized a training workshop in November 2013 on e-governance policies, infrastructure and measurement. ESCWA and the Department of Economic and Social Affairs jointly organized a regional workshop on e-government best practices in December 2013, which presented a study on e-government strategies in Arab countries.¹⁰⁶

82. In 2013, WIPO provided technical assistance products and services to industrial property offices from 53 countries and African regional industrial and intellectual property offices. Work also included several regional workshops focusing on key automation topics, training and sharing of national experiences and best practices.¹⁰⁷

E-business

83. UNCTAD, the International Trade Centre (ITC) and the Universal Postal Union held an open consultation on the e-business action line between December 2012 and mid-February 2013. Based on its findings, the e-business facilitation meeting of the WSIS Forum 2013 focused on e-commerce for development.

84. UNCTAD’s *Information Economy Report 2013: The Cloud Economy and Developing Countries*¹⁰⁸ emphasized that options for cloud adoption in low- and middle-income countries look different from those in more advanced economies. The report

¹⁰⁰ <http://workspace.unpan.org/sites/internet/Documents/UNPAN90655.pdf>.

¹⁰¹ <http://workspace.unpan.org/sites/internet/Documents/Aide-Memoire%20UNDESA%20Sessions%20Dubai%202013.pdf>.

¹⁰² <http://www.un.org/en/development/desa/newsletter/desanews/trends/2013/06/index.html>.

¹⁰³ <http://www.unpan.org/DPADM/EGovernment/OpenGovernmentDataandServices/tabid/1536/language/en-US/Default.aspx>.

¹⁰⁴ <http://www.unpan.org/elearning/mdggame/tabid/1419/language/en-us/default.aspx>.

¹⁰⁵ <http://www.uneca.org/scceg>.

¹⁰⁶ <http://www.un.org/en/development/desa/newsletter/desanews/trends/2013/12/index.html>.

¹⁰⁷ http://unctad.org/en/PublicationsLibrary/a68d65_bn_WIPO.pdf.

¹⁰⁸ http://unctad.org/en/PublicationsLibrary/ier2013_en.pdf.

advises developing countries to raise their understanding of the cloud's opportunities and risks in order to be able to make informed policy decisions.

85. A joint UNCTAD–International Labour Organization project to revise the International Labour Organization's framework for assessing women entrepreneurship development policies and better reflect the ICT dimension was completed in 2013.

86. ECE continues to develop electronic business standards through the United Nations Centre for Trade Facilitation and Electronic Business.¹⁰⁹ Among these are the United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport, which facilitates the exchange of information on transport, customs, government and business procurement, just-in-time manufacturing and finance. During 2013, the Electronic Data Interchange's directories were continually improved and updated.¹¹⁰

87. ECA implemented a project on e-commerce facilitation for SMEs to enhance implementation of ICT policies and plans in Ethiopia and the Gambia.¹¹¹ It undertook an e-commerce readiness assessment and developed an e-commerce platform which will be piloted by selected SMEs in both countries.

88. ITC presented the results of a consultation on e-business at two WSIS review meetings in 2013.¹¹² ITC also undertook projects to support businesses in Côte d'Ivoire, Fiji, Kenya and Kuwait, applying web- and mobile-based tools and providing training to improve supply chains and market linkages.

89. Several private companies worldwide introduced initiatives, such as business incubation programmes and mobile payment systems, to help local entrepreneurs adopt ICTs.

E-learning

90. UNESCO has had an ICT Competency Framework for Teachers toolkit since 2011.¹¹³ In 2013, UNESCO conducted a session on the future of mobile learning¹¹⁴ and organized the High-Level Policy Forum on ICT and Education for All.¹¹⁵ It also delivered capacity-building in cooperation with the Commonwealth of Learning in Jamaica, Kenya and Oman on national ICT in education policies.

91. ECE, in collaboration with UNEP and the United Nations Office for the Coordination of Humanitarian Affairs, developed an online training platform as an introduction to industrial accidents.¹¹⁶

92. ECLAC focused on teacher training in ICTs, digital educational content, integration of ICTs in curriculum and use of ICTs for teaching and school management. Two publications were produced, one on the integration of ICTs in education systems¹¹⁷ and an

¹⁰⁹ <http://www.unece.org/cefact/>.

¹¹⁰ <http://www.unece.org/tradewelcome/areas-of-work/un-centre-for-trade-facilitation-and-e-business-uncfact/outputs/standards/unedifact/directories/download.html>.

¹¹¹ <http://www1.uneca.org/TabId/3018/Default.aspx?ArticleId=1476>.

¹¹² <http://www.intracen.org/open-consultation/>.

¹¹³ <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/unesco-ict-competency-framework-for-teachers/>.

¹¹⁴ <http://unesdoc.unesco.org/images/0021/002196/219637e.pdf>.

¹¹⁵ http://www.unesco.org/new/en/unesco/themes/icts/single-view/news/high_level_policy_forum_on_ict_and_education_for_all_achievements_and_the_way_forward/#.UtyFwbQo6M8.

¹¹⁶ <http://www.unece.org/env/teia/pubs/onlinetraining2013>.

¹¹⁷ http://www.eclac.org/publicaciones/xml/6/49396/Integracion_tecnologias_WEB.pdf.

analysis of the implementation of Plan Ceibal in Uruguay, which incorporates digital technologies in education.¹¹⁸

93. There are several private sector initiatives that support a series of efforts to move children from child labour to schools, support teachers and schools, connect schools internationally, provide cross-cultural teacher training and support e-learning and curriculum updating.

E-health

94. ITU organized a regional workshop on e-Health services in low-resource settings¹¹⁹ to share knowledge and disseminate ICT applications for health best practices. Two further events were organized during the World Health Assembly¹²⁰ and during the substantive session of the Economic and Social Council¹²¹ to raise countries' awareness about the potential of "mobile for health".

95. The WHO ePORTUGUÊSe Programme supports multilingualism awareness and works closely with ministries of health of Portuguese-speaking countries to facilitate access to health information.

96. The HINARI Access to Research in Health Programme set up by WHO, together with major publishers, enables more than 100 low- and middle- income countries to gain access to one of the world's largest collections of biomedical and health literature.

97. In 2013, 38 country teams in five regions (Africa, Europe, Middle East, South-East Asia, Western Pacific) participated in training through the joint WHO-ITU workshops on national eHealth strategy development with a view to developing national eHealth plans. The joint WHO-ITU *National eHealth Strategy Toolkit*¹²² is currently available in five United Nations languages.

98. To assist Member States in implementation of health data and health information technology standards, the 2013 World Health Assembly resolution WHA66.24 highlighted the importance of standards adoption. The resolution also highlighted the need to ensure that health-related Internet top-level domain names were operated in the public interest, consistent with global public health objectives.

99. ECLAC prepared an eHealth handbook in collaboration with the Spanish Society of Health Informatics for the management and governance of eHealth in Latin America.¹²³ The handbook was adopted in university training programmes in health and medical informatics in Argentina, Brazil, Colombia, Ecuador, Peru and the Bolivarian Republic of Venezuela. ECLAC also conducted case studies on telemedicine in the Bolivarian Republic of

¹¹⁸ <http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/7/49837/P49837.xml&xsl=/tpl/p9f.xsl>.

¹¹⁹ <http://www.itu.int/en/ITU-T/Workshops-and-Seminars/e-Health/201302/Pages/default.aspx>.

¹²⁰ <http://www.who.int/mediacentre/events/2013/wha66/en/>.

¹²¹ <http://esango.un.org/irene/ecosoc.html?page=viewContent&nr=21028&type=8>.

¹²² <http://www.who.int/ehealth/publications/overview.pdf>.

¹²³ <http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/2/47652/P47652.xml&xsl=/tpl-i/p9f.xsl&base=/socinfo/tpl-i/top-bottom.xsl>.

Venezuela¹²⁴ and eHealth in Mexico,¹²⁵ and a regional study on regional public policy protocols on tele-health.¹²⁶

E-environment

100. ITU organized several events to build capacity and raise awareness on ICTs and climate change, e-waste and environmental sustainability.¹²⁷ Study Group 5 of the ITU Telecommunication Standardization Sector approved nine new recommendations on green ICT standards and published 17 reports covering areas such as climate change adaptation and mitigation, energy efficiency, smart grids, e-waste, sustainable ICTs, sustainable buildings and end-of-life management for ICT equipment.¹²⁸

101. The joint task force composed of the ITU, the World Meteorological Organization and the UNESCO Intergovernmental Oceanographic Commission held two workshops, investigating the potential of using submarine cables for ocean and climate monitoring and disaster warning. Study Group 5 also formed new focus groups on smart sustainable cities¹²⁹ and smart water management¹³⁰ and continued to organize meetings of the Joint Coordination Activity on ICTs and Climate Change.¹³¹

102. The World Meteorological Organization continued to develop its meteorological information system,¹³² which facilitates access to information on weather, climate and water issues. The Severe Weather Forecasting Demonstration Project¹³³ is continuing to evolve. ICTs are also being harnessed by government weather organizations around the world, for example, through warnings sent by Short Message Service (SMS) to fishermen in Uganda on Lake Victoria.

103. UNEP and the secretariat of the Basel, Rotterdam and Stockholm Conventions are contributing to the discussion on sustainable life-cycle management of ICT equipment and e-waste. UNEP also encourages the development of smart climate monitoring using ICTs, and promotes intersectoral cooperation between the ICT community and the environmental protection community worldwide.

104. The ECE environment subprogramme, in collaboration with the United Nations Institute for Training and Research and the OECD, sent a joint message to national focal points and stakeholders on electronic tools for pollutant release and transfer registers, under the Aarhus Clearinghouse for Environmental Democracy.¹³⁴ ECE also developed and launched its Green Economy Toolbox.¹³⁵

¹²⁴ <http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/7/49897/P49897.xml&xsl=/tpl/p9f.xsl&base=/socinfo/tpl/top-bottom.xslt>.

¹²⁵ <http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/1/49281/P49281.xml&xsl=/tpl/p9f.xsl&base=/socinfo/tpl/top-bottom.xslt>.

¹²⁶ http://www.eclac.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/2/51222/P51222.xml&xsl=/publicaciones/ficha.xsl&base=/publicaciones/top_publicaciones.xsl.

¹²⁷ <http://www.itu.int/en/ITU-T/climatechange/Pages/events.aspx>.

¹²⁸ <http://www.itu.int/en/ITU-T/climatechange/Pages/publications.aspx>.

¹²⁹ <http://www.itu.int/en/ITU-T/focusgroups/ssc/Pages/default.aspx>.

¹³⁰ <http://www.itu.int/en/ITU-T/focusgroups/swm/Pages/default.aspx>.

¹³¹ <http://www.itu.int/en/ITU-T/jca/ictcc/Pages/default.aspx>.

¹³² http://www.wmo.int/pages/meetings/documents/Final_2013PTC_Report.pdf.

¹³³ <http://www.wmo.int/pages/mediacentre/news/AfricaSevereWeatherForecastingProject.html>.

¹³⁴ <http://aarhusclearinghouse.unece.org/>.

¹³⁵ <http://www.unece.org/index.php?id=33571>.

E-agriculture

105. The e-Agriculture Community is a global initiative of the Food and Agriculture Organization of the United Nations to facilitate the exchange of knowledge on ICTs in agricultural development and food security. At the end of 2013, the e-Agriculture Community had grown to over 10,900 registered individuals from more than 170 countries.¹³⁶

106. ECLAC conducted studies on the effects of ICTs in regional agriculture, including best practices in information systems, production management, systemic risk analysis and environmental management. ECLAC and the Government of Costa Rica organized an international seminar entitled “Digital technologies for competitiveness, social inclusion and sustainable development in Costa Rican agriculture”.¹³⁷ The Commission also produced a report on the application of ICTs in agriculture in Latin America.¹³⁸

E-science

107. UNESCO organized a forum on using e-science to strengthen the interface between science, policy and society, which addressed emerging trends in e-science and the development of applications in critical public areas.¹³⁹

108. UNESCO and the European Organization for Nuclear Research launched audiovisual training modules in physics for science teachers during the celebration of World Science Day for Peace and Development. UNESCO also launched the Global Observatory of Science, Technology and Innovation Policy Instruments and worked with the Nature Publishing Group to launch the UNESCO nature project, World Library of Science.¹⁴⁰

109. ECA organized the Committee on Development Information, Science and Technology¹⁴¹ to provide capacity-building through knowledge and experience sharing.

h) Cultural diversity and identity, linguistic diversity and local content (C8)

110. Within the framework of the special initiative Assistance to Indigenous People, the ITU Development Sector aims at enhancing indigenous communities’ use of ICTs and promoting their integration into the information society. The ITU Telecommunication Development Bureau’s operational plan¹⁴² includes activities promoting digital inclusion and enabling universal, sustainable and affordable access to ICTs, including for disadvantaged, marginalized and vulnerable groups, and indigenous people.

111. ECLAC, via the eLAC process, has among its targets to overcome the gender digital divide by sensitizing Governments about the issue. At the Regional Conference on Women in Latin America and the Caribbean, ECLAC presented a report entitled *Women in the digital economy: Breaking through the equality threshold*.¹⁴³

112. ESCWA has undertaken several initiatives aimed at enhancing the quality of online digital content in Arabic, including a study entitled “Business models for digital Arabic

¹³⁶ <http://www.e-agriculture.org/>.

¹³⁷ <http://www.iica.int/Esp/prensa/Lists/Comunicados%20Prensa%202009/DispForm.aspx?ID=864>.

¹³⁸ <http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/9/49319/P49319.xml&xsl=/tpl-i/p9f.xsl&base=/socinfo/tpl-i/top-bottom.xsl>.

¹³⁹ <http://www.unesco.org/new/en/natural-sciences/science-technology/sti-policy/e-science/>.

¹⁴⁰ <http://www.unesco.org/new/en/natural-sciences/special-themes/science-education/>.

¹⁴¹ <http://www.uneca.org/codist>.

¹⁴² <http://www.itu.int/ITU-D/pdf/op/OP2011-2014.pdf>.

¹⁴³ <http://www.cepal.org/publicaciones/xml/1/51141/womaninthedigitaleconomy.pdf>.

content”¹⁴⁴ and an initiative called the “Promotion of the Digital Arabic Content Industry through Incubation”.¹⁴⁵

113. WIPO organized, jointly with the Andean Community, a workshop on access to genetic resources and the protection of traditional knowledge from an indigenous perspective. The workshop allowed participants to review the WIPO Traditional Knowledge Documentation Toolkit, which aims at assisting traditional knowledge holders in identifying and defending their intellectual property interests.¹⁴⁶ WIPO also participated in global and regional events in Indonesia, the Islamic Republic of Iran and Norway on preserving traditional cultures.

i) Media (C9)

114. ITU carried out studies for Internet Protocol television¹⁴⁷ that will enable enhanced, media-rich delivery of content, as well as next generation networks¹⁴⁸ to reduce international imbalances affecting the media. The ITU Telecommunication Standardization Sector is also working to enhance accessibility features of audiovisual media through the Focus Group on Audiovisual Media Accessibility¹⁴⁹ and has organized two Internet Protocol television Application Challenges.¹⁵⁰

115. ITU is also implementing a project on the transition from analogue to digital broadcasting aimed at assisting developing countries to shift to digital terrestrial broadcasting.

116. In 2013 UNESCO hosted World Press Freedom Day which focused on promoting the safety of journalists. UNESCO adopted a workplan on journalists’ safety and promoted the United Nations Plan of Action on the Safety of Journalists and the Issue of Impunity.¹⁵¹

117. UNESCO’s International Programme for the Development of Communication launched an initiative on knowledge-driven media development.¹⁵² UNESCO also piloted a model Media and Information Literacy Curriculum for Teachers and Gender-Sensitive Indicators for Media.¹⁵³

118. WIPO released a paper entitled “The legal status of video games: Comparative analysis of national approaches”¹⁵⁴ which presents a legal analysis of this increasingly popular form of mass entertainment and powerful platform for innovative art.

¹⁴⁴ http://www.escwa.un.org/information/publications/edit/upload/E_ESCWA_ICTD_13_TP-1_E.pdf.

¹⁴⁵ http://www.itu.int/wsis/review/inc/docs/submissions/Form1_WSIS10-HLE-OC_OfficialSubmissions-ESCWA_web.pdf.

¹⁴⁶ http://www.wipo.int/export/sites/www/tk/en/resources/pdf/tk_toolkit_draft.pdf.

¹⁴⁷ <http://www.itu.int/en/ITU-T/gsi/iptv/Pages/default.aspx>.

¹⁴⁸ <http://www.itu.int/en/ITU-T/gsi/ngn/Pages/default.aspx>.

¹⁴⁹ <http://www.itu.int/en/ITU-T/focusgroups/ava/Pages/default.aspx>.

¹⁵⁰ <http://www.itu.int/en/ITU-T/challenges/pages/iptv.aspx>.

¹⁵¹ <http://unesdoc.unesco.org/images/0022/002227/222728e.pdf>.

¹⁵² <http://www.unesco.org/new/en/communication-and-information/intergovernmental-programmes/ipdc/special-initiatives/media-development-indicators-mdis/>.

¹⁵³ <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/BSP/GENDER/PDF/GeneralConferenceReportAnnex.pdf>.

¹⁵⁴ http://www.wipo.int/export/sites/www/copyright/en/activities/pdf/comparative_analysis_on_video_games.pdf.

j) *Ethical dimensions of the information society (C10)*

119. As co-facilitator of action line C10, ECPAT International takes a lead in actions to prevent child abuse through ICTs. ECPAT's global monitoring reports looked at the progress in protecting children from sexual exploitation.¹⁵⁵

120. UNESCO's Information for All Programme prepared a review study entitled "Current and emerging ethical and societal challenges of the information society"¹⁵⁶ and developed an information ethics handbook for policymakers.¹⁵⁷ UNESCO also organized an international conference on the Internet and sociocultural transformations in the information society in the Russian Federation¹⁵⁸ and an international meeting of experts on the ethical aspects of the information society in Latvia.¹⁵⁹

121. The Industry Dialogue group published guiding principles on freedom of expression and privacy in the telecommunications sector.¹⁶⁰

122. The Council of Europe Conference of Ministers responsible for media and the information society hosted a forum on freedom of expression and democracy in the digital age and opportunities, rights and responsibilities, which paved the way for further work by the Council on inter alia the notion of Internet freedom.¹⁶¹ The Committee of Ministers adopted the Declaration on Risks to Fundamental Rights Stemming from Digital Tracking and Other Surveillance Technologies.¹⁶²

k) *International and regional cooperation (C11)*

123. ECE established a project working group on knowledge-based development under the Special Programme for the Economies of Central Asia, attended by high-level government officials.¹⁶³ ECE is also working closely with the RCC and the Interstate Council for Standardization, Metrology and Certification of the Commonwealth of Independent States.

124. Latin American countries took part in the Regional Dialogue on Broadband where ECLAC was asked to carry out a new study on mobile broadband in the region. Participants also discussed the steps needed to install a new submarine cable between Europe and Latin America.

125. ESCWA organized the Arab Forum on the ICT Sector. Participants included experts and stakeholders from the public and private sectors, civil society and academia, who discussed strengthening financing and investment mechanisms, promoting business initiatives and developing a competitive ICT sector in the Arab region.

126. ISOC has expanded its collaboration with intergovernmental organizations, such as OECD, the African Union, Asia-Pacific Economic Cooperation, WIPO, the Inter-American

¹⁵⁵ http://resources.ecpat.net/EI/index_A4A.asp.

¹⁵⁶ <http://unesdoc.unesco.org/images/0022/002227/222791e.pdf>.

¹⁵⁷ http://www.unesco.org/new/en/media-services/single-view/news/riga_ethics_expert_meeting_outcomes_now_available/#.UtssBdVOnIU.

¹⁵⁸ http://www.unesco.org/new/en/media-services/single-view/news/major_event_by_ifap_to_stimulate_international_reflection_on_internet_and_societal_transformation/#.Ut3WjLQo6M8.

¹⁵⁹ <http://www.unesco.org/new/en/communication-and-information/intergovernmental-programmes/information-for-all-programme-ifap/events/global-meeting-of-experts-on-the-ethical-aspects-of-information-society/>.

¹⁶⁰ <http://www.telecomindustrydialogue.org/>.

¹⁶¹ http://www.coe.int/t/dghl/standardsetting/media/Belgrade2013/default_en.asp.

¹⁶² <https://wcd.coe.int/ViewDoc.jsp?id=2074317&Site=CM>.

¹⁶³ http://www.unece.org/speca/kbd_v.html.

Telecommunication Commission of the Organization of American States and the Council of Europe, and with national governments, to promote the expansion of the open Internet globally.¹⁶⁴

2. Implementation of themes

a) *Financing mechanisms*

127. Private sector investment in ICTs has continued through changing economic circumstances, focusing on mobile networks and international and national broadband infrastructure. International financial institutions play a crucial role, providing investment and technical support in developing policy and regulatory environments that are attractive to private investors. The World Bank has invested more than US\$1.2 billion in the ICT sector in 30 countries over the past five years.

128. Many countries have implemented Universal Service and Access Funds to channel financing towards supporting the roll-out of ICT access and services to rural and underserved locations. The utilization of such Funds continued to grow in 2013, despite the difficulties of some Funds in implementing their mandates due to political, legal or capacity constraints.

129. One area where access to financing remains problematic is for SMEs in the ICT sector in developing countries. There are few opportunities for individuals and businesses in poor countries to find seed financing to test and market new ideas.¹⁶⁵ Governments, Universal Service and Access Funds, philanthropists and international agencies can help stimulate creative ICT entrepreneurship by allocating venture capital to such entrepreneurs, while encouraging the emergence of new ICT-enabled financial mechanisms such as mobile money, crowdsourcing and microfinance.

b) *Internet governance*

Enhanced cooperation

130. The WGEC held its first two meetings in May and November 2013.¹⁶⁶ It has implemented a survey questionnaire¹⁶⁷ and received 69 responses on such topics as implementation of the Tunis Agenda, the role of stakeholders and developing countries and barriers to participation in enhanced cooperation.

131. The responses provided insights into the variety and focus of stakeholders involved in the Internet governance process. Some 200 issues were identified for discussion by the WGEC to determine a set of recommendations on enhanced cooperation for consideration by the General Assembly.

Internet Governance Forum

132. General Assembly resolution 68/198 acknowledges the importance of the IGF as a forum for multi-stakeholder dialogue on public policy issues related to key elements of Internet governance and its role in building partnerships.

¹⁶⁴ <http://www.internetsociety.org/who-we-are/our-community-and-partners>.

¹⁶⁵ Contribution of the Africa ICT Alliance.

¹⁶⁶ <http://unctad.org/en/Pages/CSTD/WGEC.aspx>.

¹⁶⁷ http://unctad.org/meetings/en/SessionalDocuments/WGEC_Summary_of_Responses.pdf.

133. The eighth IGF was held on October 2013 in Bali, Indonesia,¹⁶⁸ where the overarching theme was “Building bridges: Enhancing multi-stakeholder cooperation for growth and sustainable development”. In preparation for this meeting, regional IGFs were held in Africa,¹⁶⁹ the Arab region,¹⁷⁰ Asia and the Pacific,¹⁷¹ Europe¹⁷² and elsewhere, in addition to national forums in many countries.¹⁷³ The eighth IGF introduced new formats and refocused some of the Forum’s traditional issues, in line with the evolving landscape of Internet governance discussions.

134. The Working Group on Improvements to the Internet Governance Forum (WGIGF), established by the Chair of the CSTD within the framework of the CSTD’s mandate on promoting dialogue on furthering the implementation of WSIS outcomes, met five times between February 2011 and February 2012. WGIGF submitted its report¹⁷⁴ to the fifteenth session of the CSTD and the 2012 substantive session of the Economic and Social Council held on 2–27 July 2012, in New York, United States of America. In December 2012, the General Assembly approved these recommendations for implementation.

135. The recommendations contained in the WGIGF report were subsequently followed up by the Multi-stakeholder Advisory Group (MAG) of the IGF, which created a dedicated working group to evaluate and implement them. The MAG working group undertook an evaluation of the WGIGF recommendations in March 2013 and proposed a schedule for their implementation.

136. The IGF secretariat has submitted to the CSTD a report that outlines some of the steps taken in response to the five areas of WGIGF recommendations: shaping the outcomes of IGF meetings, working modalities, funding, broadening participation and capacity-building, and linking the IGF to other Internet governance-related entities. The IGF secretariat’s actions have increased its outreach capacity and fundraising efforts and improved the possibilities for participation by developing countries.

137. In accordance with WGIGF recommendations, the IGF secretariat and MAG have been working to improve the quality and format of IGF outcomes to enhance the impact of the IGF on global Internet governance and policy. An expanding IGF social media profile has further strengthened outreach and visibility of IGF outputs. IGF working modalities, including open consultations, MAG and the secretariat, have also continued to improve. One major improvement made during the 2013 cycle was that from the close of the second open consultations and MAG meetings in June 2013 to the eighth IGF in Bali in October 2013, the IGF secretariat convened a series of virtual MAG meetings to continue preparations for the annual meeting. This practice will continue in 2014.

138. Capacity-building activities will continue to improve and expand in 2014. Increasing funding for the IGF, through encouraging voluntary contributions from traditional and new donors, continues to be a priority for the secretariat and MAG.

c) Measuring ICT for development

139. The Partnership on Measuring ICT for Development is a multi-stakeholder initiative, led by ITU, UNCTAD and ECLAC, aimed at improving the availability and quality of

¹⁶⁸ <http://www.intgovforum.org/cms/2013-bali>.

¹⁶⁹ <http://afigf.uneca.org/>.

¹⁷⁰ <http://www.igfarab.org>.

¹⁷¹ <http://www.rigf.asia>.

¹⁷² <http://www.eurodig.org>.

¹⁷³ <http://www.intgovforum.org/cms/igf-initiatives>.

¹⁷⁴ http://unctad.org/meetings/en/SessionalDocuments/a67d65_en.pdf.

internationally comparable ICT statistics.¹⁷⁵ In 2013, the Partnership launched the Task Group on Measuring Trade in ICT Services and ICT-enabled Services (led by UNCTAD). The Partnership's Task Group on Measuring the WSIS Targets (led by ITU) also launched a meta-data questionnaire to assess data availability for the WSIS target indicators.¹⁷⁶

140. ITU continues to monitor developments in the global ICT sector through its collection of statistics and indicators. The World Telecommunication/ICT Indicators Database is updated regularly and disseminated widely.¹⁷⁷ In 2012–2013, more than 150 statistical indicators from over 200 economies worldwide were collected. ITU published its brochure entitled “The World in 2013: ICT Facts and Figures”, featuring estimates for key ICT indicators. In October ITU launched the *Measuring the Information Society Report 2013*,¹⁷⁸ which includes two authoritative benchmarking tools, the ICT Development Index and the ICT Price Basket, to monitor information society developments.

141. The first Meeting of the Expert Group on ICT Household Indicators examined contributions received from the Expert Group's online discussion forum over 2013 and finalized a core list of indicators on ICT household access and individual ICT use.¹⁷⁹

142. The eleventh World Telecommunication/ICT Indicators Symposium¹⁸⁰ focused on topics such as national coordination of ICT statistics, ICT infrastructure and access, revenue and investment, quality of service, data traffic, wireless broadband, digital broadcasting, ICT household access and individual ICT use, and gender and ICT.

143. The Observatory for the Information Society in Latin America and the Caribbean has continued to support ICT measurement in the region, through its online statistical information system.¹⁸¹ Also, the Regional Broadband Observatory produces indicators on diffusion and access to broadband, tariffs and service speed.¹⁸²

144. ESCWA produced the report *Impact of Selected e-Services on Socioeconomic Development in the Arab Region*¹⁸³ and held a forum on the role of ICTs in socioeconomic development within the region.¹⁸⁴

145. ECLAC undertook several activities to promote ICT measurement, including a methodological workshop together with UNCTAD on measuring ICTs at the firm level, a workshop on measuring ICT for health and a regional workshop on survey methodology for evaluating ICT policies.

¹⁷⁵ <http://www.itu.int/en/ITU-D/Statistics/Pages/intlcoop/partnership/default.aspx>.

¹⁷⁶ <http://groups.itu.int/wsis-targets/OverviewofTGWSIS/tabid/1017/afv/topicsview/aff/217/Default.aspx>.

¹⁷⁷ <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>.

¹⁷⁸ <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2013.aspx>.

¹⁷⁹ <http://www.itu.int/en/ITU-D/Statistics/Pages/events/brazil2013/default.aspx>.

¹⁸⁰ <http://www.itu.int/en/ITU-D/Statistics/Pages/events/wtis2013/default.aspx>.

¹⁸¹ <http://www.eclac.org/tic/flash/>.

¹⁸² <http://www.eclac.org/cgi-bin/getprod.asp?xml=/socinfo/noticias/noticias/4/43574/P43574.xml&base=/socinfo/tpl-i/top-bottom.xsl>.

¹⁸³ http://www.escwa.un.org/information/publications/edit/upload/E_ESCWA_ICTD_13_2_E.pdf.

¹⁸⁴ <http://www.escwa.un.org/main/scroll/printwhatsnew.asp?id=770&referenceNUM=ICT-SocioEcon-2013>.

IV. Findings and suggestions

146. The economic and social impacts of ICTs are widespread and profound. Governments are increasingly recognizing the importance and potential of ICTs in their national social and economic objectives by developing national ICT policies. The fastest growth in Internet usage is in developing countries where people are increasingly becoming “Internet creators”, with around 150,000 Internet-related start-ups on an annual basis. Nevertheless, sizeable gaps in ICT development remain between and within regions.

147. Internet governance is an important aspect of the ICT ecosystem, where all stakeholders have important roles to play. A multi-stakeholder model marks a good first step towards integrating the different kinds of structures, including formal and informal, corporate and technologist, as well as hierarchical and decentralized, that Internet governance comprises.

148. The United Nations and international agencies have begun preparations towards the WSIS+10 review to be undertaken by the General Assembly in 2015, alongside discussions on the post-2015 developmental agenda. To this end, a substantive session on WSIS+10 will be organized by the CSTD during its seventeenth session in May 2014.

149. Applying ICTs in challenges in development will be an important theme within the post-2015 development agenda, and ensuring coordination between those deliberations and the WSIS+10 review processes remains imperative. The WSIS+10 review needs to highlight both accomplishments and challenges in achieving WSIS targets. It will be essential for the WSIS+10 review to inform the post-2015 development agenda on the complex interlinkages between ICTs and sustainable development, ensuring rights-based development, creating jobs and entrepreneurial opportunities, improving education, empowering women and other key benefits.
