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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***Summary*

This report highlights major activities by stakeholders to implement outcomes of the World Summit on the Information Society (WSIS) in 2015. It takes account of the overall review of WSIS implementation conducted by the United Nations General Assembly in December 2015, 10 years after the second phase of the World Summit. It also draws attention to the review's call for stronger synergies between WSIS, the 2030 Agenda for Sustainable Development and the Addis Ababa Action Agenda, also adopted in 2015.

The report was prepared at the request of the Economic and Social Council, in its resolution 2006/46, for the United Nations Secretary-General to inform the Commission on Science and Technology for Development each year on the implementation of WSIS outcomes. It draws on information provided by entities in the United Nations system and elsewhere.

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## Introduction

1. This report, prepared at the request of the Economic and Social Council, in its resolution 2006/46, includes information provided by 32 United Nations entities and other international organizations and stakeholders<sup>1</sup> in response to a letter from the Secretary-General of UNCTAD inviting contributions on trends, achievements and obstacles in the implementation of WSIS outcomes. The report summarizes major activities of 2015, including the overall review of implementation of WSIS outcomes by the General Assembly, which concluded in December 2015.

### **I. Overall review: Implementation of the outcomes of the World Summit on the Information Society**

2. The Tunis Agenda for the Information Society, paragraph 111, requested the General Assembly to perform an overall review of implementation of WSIS outcomes in 2015. The General Assembly decided, in its resolution 68/302, that its review would be concluded by a two-day high-level meeting, in accordance with General Assembly rules of procedure, with the participation of Member States and all relevant WSIS stakeholders.

3. The high-level meeting took place in New York, United States of America, on 15 and 16 December 2015. The outcome document of this meeting, General Assembly resolution 70/125, reaffirmed the WSIS vision of a people-centred, inclusive and development-oriented information society. It assessed progress to date, identified gaps and challenges, and made recommendations for the future. The document welcomed the rapid evolution and diffusion of information and communications technologies (ICTs), but expressed concern about continued digital divides within and between countries. It identified future opportunities and challenges, and provided agreed conclusions on ICT for development, bridging digital divides, the enabling environment, financial mechanisms, human rights, building confidence and security in ICTs, and Internet governance.

4. The high-level meeting was preceded by an intergovernmental preparatory process led by the Permanent Representatives of Latvia and the United Arab Emirates, acting as co-facilitators, with secretariat support from the Office of the President of the General Assembly and the Department of Economic and Social Affairs. ITU, UNESCO and UNCTAD contributed to the preparations throughout the process. Intergovernmental

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<sup>1</sup> African Union Commission; Association for Progressive Communications; Council of Europe; Department of Economic and Social Affairs; Economic Commission for Africa (ECA); Economic Commission for Europe; Economic Commission for Latin America and the Caribbean (ECLAC); Economic and Social Commission for Asia and the Pacific (ESCAP); Economic and Social Commission for Western Asia (ESCWA); End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes; Food and Agriculture Organization of the United Nations (FAO); International Chamber of Commerce-Business Action to Support the Information Society; International Federation of Library Associations and Institutions; International Labour Office (ILO); International Telecommunication Union (ITU); International Trade Centre; Internet Corporation for Assigned Names and Numbers, Internet Governance Forum; Internet Society; Organization for Economic Cooperation and Development (OECD); Telefónica; United Nations Children's Fund; United Nations Conference on Trade and Development (UNCTAD); United Nations Educational, Scientific and Cultural Organization (UNESCO); United Nations Environment Programme (UNEP); United Nations Industrial Development Organization, Universal Postal Union, World Health Organization (WHO); World Intellectual Property Organization; World Meteorological Organization; World Trade Organization. For these contributions, see <http://unctad.org/en/Pages/CSTD/WSIS-UNSG-Report.aspx>. All websites cited in this report were accessed on 22 February 2016.

preparatory meetings were held in New York in July and October 2015. Informal consultations with all WSIS stakeholders were organized alongside these meetings.

5. A number of preparatory documents were submitted to the General Assembly to assist in its deliberations. In accordance with its role in assisting the Economic and Social Council as focal point in system-wide follow-up, review and assessment of progress made in implementing WSIS outcomes, and following substantive discussion at its eighteenth session in May, the Commission on Science and Technology for Development submitted a 10-year review of progress (E/2015/31-E/CN.16/2015/4) to the General Assembly, through the Economic and Social Council. It also submitted to the General Assembly a comprehensive analysis, *Implementing WSIS Outcomes: A Ten-year Review*,<sup>2</sup> which drew upon extensive published evidence as well as regional consultations and written contributions from all stakeholders.

6. Other reports submitted to the General Assembly included the following:

- (a) Final Statement of the conference, “Towards Knowledge Societies for Peace and Sustainable Development”, hosted by UNESCO in February 2013;<sup>3</sup>
- (b) WSIS+10 Statement on the Implementation of WSIS Outcomes;
- (c) Vision for WSIS Beyond 2015.

7. Following an extensive multi-stakeholder preparatory process, the latter two reports were adopted at the WSIS+10 high-level event held by ITU in June 2014.<sup>4</sup> In addition, the Partnership on Measuring ICT for Development published the *Final WSIS Targets Review: Achievements, Challenges and the Way Forward* in June 2014.<sup>5</sup>

8. The General Assembly agreed to hold a further high-level meeting on the information society in 2025, with the participation of all stakeholders, which will take stock of progress in implementing WSIS outcomes, identify areas of continued focus, consider solutions to enduring and emerging challenges, and contribute to the General Assembly’s subsequent review of the 2030 Agenda for Sustainable Development.

## II. Key trends

### A. Digital opportunity and digital divide

9. General Assembly resolution 70/125 welcomed the evolution of connectivity, innovation and access to ICTs which has taken place since WSIS, including rapid growth in fixed and wireless broadband, mobile Internet, smartphones and tablets, cloud computing and big data. Despite these achievements, however, the resolution expressed concern about significant digital divides between and within countries, including the gender digital divide, and reiterated its commitment to address these through efforts to improve connectivity, affordability, content and capabilities.<sup>6</sup>

<sup>2</sup> UNCTAD and World Summit on the Information Society, 2015, available at [http://unctad.org/en/PublicationsLibrary/dtlstict2015d3\\_en.pdf](http://unctad.org/en/PublicationsLibrary/dtlstict2015d3_en.pdf).

<sup>3</sup> [http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS\\_10\\_Event/wsis10\\_final\\_statement\\_en.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/wsis/WSIS_10_Event/wsis10_final_statement_en.pdf).

<sup>4</sup> <http://www.itu.int/net/wsis/implementation/2014/forum/dam/documents.html#high-level>.

<sup>5</sup> [http://www.itu.int/en/ITU-](http://www.itu.int/en/ITU-D/Statistics/Documents/publications/wsisreview2014/WSIS2014_review.pdf)

[D/Statistics/Documents/publications/wsisreview2014/WSIS2014\\_review.pdf](http://www.itu.int/en/ITU-D/Statistics/Documents/publications/wsisreview2014/WSIS2014_review.pdf).

<sup>6</sup> Ibid.

10. According to the *Measuring the Information Society Report 2015* issued by ITU, the proportion of people covered by mobile networks worldwide now exceeds 95 per cent. Further, mobile cellular subscriptions have grown from 2.2 billion to 7.1 billion since 2005, and broadband mobile subscriptions, from 0.8 billion to 3.5 billion since 2010. However, developing countries, and particularly the least developed countries, where only 6.7 per cent of households have Internet access, still lag behind developed countries, where 81.3 per cent of households have access. There are substantial digital divides between urban and rural areas in many countries, with only 29 per cent of the world's rural population covered by a third-generation – 3G – network, compared with 89 per cent of its urban population.<sup>7</sup>

11. ITU data indicate that the proportion of women worldwide who are online is 40.8 per cent, compared with 45.9 per cent of men.<sup>8</sup> This gap is significantly wider in developing countries and the least developed countries than in developed countries. The overall review, in General Assembly resolution 70/125, recognized the close association between the gender digital divide and other gender inequalities. It called for new emphasis on gender in the implementation of WSIS action lines, including measures to address women's participation in ICTs as content creators, employees, entrepreneurs, innovators and decision makers.

12. The ICT Development Index of ITU brings together indicators for ICT access, use and skills to compare performance between countries and over time. The *Measuring the Information Society Report 2015* also shows that all countries improved their Index performance between 2010 and 2015 but that disparities between countries remain substantial. Top performers in the Index are mostly developed countries with high income levels, competitive markets and skilled populations, while developing countries typically have lower Index levels, and the least developed countries may be falling behind. ITU concludes that targeted policy initiatives can improve Index performance, enabling the least developed countries and the least connected countries to reduce digital divides and enhance the contribution of ICTs to sustainable development.<sup>9</sup>

## **B. The evolving Internet**

13. Rapid changes have continued in technology, services and governance of the Internet. Cloud computing continues to enable new services for businesses and individual users, while the Internet of Things and innovative applications and devices point towards the Internet's greater pervasiveness in economic and social activity in the future.

14. There has been extensive discussion concerning the future stewardship of the Internet Assigned Numbers Authority function following the announcement in 2014 by the Government of the United States that it intends to transfer this to an independent multi-stakeholder process.<sup>10</sup> The Internet Corporation for Assigned Names and Numbers established a stewardship transition coordinating group of the Authority and has developed

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<sup>7</sup> ITU, 2015, *Measuring the Information Society Report 2015*, Geneva, available at <http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf>.

<sup>8</sup> Ibid.

<sup>9</sup> See footnote 7.

<sup>10</sup> National Telecommunications and Information Administration, United States Department of Commerce, 2014, NTIA announces intent to transition key Internet domain name functions, 14 March, available at <https://www.ntia.doc.gov/press-release/2014/ntia-announces-intent-transition-key-internet-domain-name-functions>.

proposals and accountability measures, which will be forwarded to the United States Administration in early 2016.<sup>11</sup>

15. Other issues concerning Internet governance, such as cybersecurity, net neutrality, human rights, cultural diversity and the implications of emerging technologies and applications, were extensively discussed in forums during the year. These include the Internet Governance Forum,<sup>12</sup> the Geneva Internet Platform,<sup>13</sup> a World Internet conference organized by the Government of China<sup>14</sup> and the Global Commission on Internet Governance, which published studies on the dark web, cybersecurity and children's rights online.<sup>15</sup> The Internet Corporation for Assigned Names and Numbers is reviewing experience of new generic top-level domains, more than 750 of which have been introduced since 2013, prior to a further application round.

16. UNESCO held a conference on the future of the Internet, "Connecting the Dots: Options for Future Action", in Paris in March 2015.<sup>16</sup> It affirmed the Organization's Internet universality principles to promote a human-rights-based, open Internet that is accessible to all and is characterized by multi-stakeholder participation. A draft study considered at the conference<sup>17</sup> was adopted at the General Conference of UNESCO in November, together with options for future action by UNESCO and its partners.<sup>18</sup>

### C. The information society and the post-2015 development agenda

17. The United Nations adopted the 2030 Agenda for Sustainable Development in September, including 17 Sustainable Development Goals, which set a new framework for international action to enhance economic prosperity, social welfare and environmental sustainability (A/RES/70/1). The 2030 Agenda recognized that global interconnectedness and the spread of ICTs have great potential to accelerate human progress, bridge the digital divide and develop knowledge societies. Goal 9, which deals with infrastructure and innovation, includes a target to significantly increase access to ICTs and strive to provide universal and affordable access to the Internet in the least developed countries by 2020. Goal 17 includes the aim of enhancing the use of enabling technology, in particular ICTs. Other targets stress the role of ICTs in education and gender empowerment.

18. General Assembly resolution 70/125 called for close alignment between the WSIS process and the 2030 Agenda, highlighting ICTs' cross-cutting contribution to the Goals and poverty eradication. This relationship was extensively discussed during the year. The Department of Economic and Social Affairs organized expert group meetings on policy integration in government in pursuit of the Sustainable Development Goals<sup>19</sup> and on advancing a sustainable information society for all in January and June 2015, respectively.<sup>20</sup> WSIS action line facilitators prepared a mapping exercise that identified synergies called the *WSIS-SDG Matrix: Linking WSIS Action Lines with Sustainable Development Goals*. It was presented at the WSIS Forum, endorsed by the United Nations Group on the

<sup>11</sup> <https://www.icann.org/stewardship>.

<sup>12</sup> [http://www.intgovforum.org/cms/10th%20IGF%20Chairs%20Summary\\_Finalv2.pdf](http://www.intgovforum.org/cms/10th%20IGF%20Chairs%20Summary_Finalv2.pdf).

<sup>13</sup> <http://giplatform.org/>.

<sup>14</sup> <http://www.xinhuanet.com/english/cnleaders/2015WIC/>.

<sup>15</sup> <https://www.ourinternet.org/>.

<sup>16</sup> See <http://www.unesco.org/new/en/netconference2015>.

<sup>17</sup> UNESCO, 2015, *Keystones to Foster Inclusive Knowledge Societies: Access to Information and Knowledge, Freedom of Expression, Privacy, and Ethics on a Global Internet*, Paris.

<sup>18</sup> <http://www.unesco.org/new/en/internetstudy>.

<sup>19</sup> <http://www.unpan.org/Events/Conferences/tabid/94/mctl/EventDetails/ModuleID/1532/ItemID/2720/Default.aspx>.

<sup>20</sup> <http://unpan3.un.org/wsis10/egm>.

Information Society and forwarded to the General Assembly.<sup>21</sup> The importance of big data for both the implementation and the measurement of the Sustainable Development Goals was further recognized, following publication in 2014 of the report, *A World That Counts*, by the Independent Expert Advisory Group on the Data Revolution for Sustainable Development.<sup>22</sup>

19. In July, the third International Conference on Financing for Development agreed upon the Addis Ababa Action Agenda, including the establishment of a technology facilitation mechanism to build capabilities in technology, including ICTs, in developing countries. The mechanism was incorporated in the 2030 Agenda for Sustainable Development and launched at the United Nations summit for the adoption of the post-2015 development agenda in September. General Assembly resolution 70/125 encouraged a prominent profile for ICTs in this mechanism and consideration of its contribution to WSIS implementation.

20. The World Bank published the *World Development Report 2016: Digital Dividends* in January 2016.<sup>23</sup>

### III. Implementation and follow-up at the regional level

#### A. Africa

21. ECA published *WSIS+10 and Beyond: Outcomes and Perspectives for Africa*, which was followed by a review meeting in April.<sup>24</sup> The report discussed the continued rapid take-up of mobile access and usage in Africa, as well as improvements in harmonization of policy and legal environments for ICTs and the formulation and implementation of subregional e-strategies by the continent's regional economic commissions. However, ECA reiterated concerns that broadband deployment and Internet access remained inadequate, constraining development outcomes and necessitating renewed investment in infrastructure and public access facilities.

22. In January 2015, the African Union adopted the Common African Position on the post-2015 development agenda and Agenda 2063 for the structural transformation of Africa, which emphasize the importance of infrastructure development, including ICT, as a pivot for development.<sup>25</sup> The African Union adopted a declaration supporting the role of ICTs in sustainable development at its ICT Ministerial Conference in Ethiopia in September.<sup>26</sup> Together with ECA, it supported the fourth African Internet Governance Forum, which was held alongside the Ministerial Conference.<sup>27</sup> The Government of Tunisia hosted the ninth ICT 4 All Forum in November.<sup>28</sup>

<sup>21</sup> [http://www.itu.int/net4/wsis/sdg/Content/wsis-sdg\\_matrix\\_document.pdf](http://www.itu.int/net4/wsis/sdg/Content/wsis-sdg_matrix_document.pdf).

<sup>22</sup> See <http://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf>.

<sup>23</sup> Available at [http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2\\_0/Rendered/PDF/World0developm0000digital0dividends.pdf](http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2_0/Rendered/PDF/World0developm0000digital0dividends.pdf).

<sup>24</sup> [http://www.uneca.org/sites/default/files/PublicationFiles/wsis10\\_and\\_beyond.pdf](http://www.uneca.org/sites/default/files/PublicationFiles/wsis10_and_beyond.pdf).

<sup>25</sup> [http://www.uneca.org/sites/default/files/uploaded-documents/Macroeconomy/post2015/cap-post2015\\_en.pdf](http://www.uneca.org/sites/default/files/uploaded-documents/Macroeconomy/post2015/cap-post2015_en.pdf);  
[http://agenda2063.au.int/en/sites/default/files/agenda2063\\_popular\\_version\\_05092014\\_EN.pdf](http://agenda2063.au.int/en/sites/default/files/agenda2063_popular_version_05092014_EN.pdf).

<sup>26</sup> [http://www.au.int/en/sites/default/files/newsevents/workingdocuments/13016-wd-english-addis\\_ababa\\_declaration\\_of\\_au\\_ministers\\_in\\_charge\\_of\\_cict\\_sep.2015.pdf](http://www.au.int/en/sites/default/files/newsevents/workingdocuments/13016-wd-english-addis_ababa_declaration_of_au_ministers_in_charge_of_cict_sep.2015.pdf).

<sup>27</sup> <http://afigf.org/>.

<sup>28</sup> <http://www.ict4all.tn/en/>.

## B. Asia and the Pacific

23. ESCAP continues to work with regional partners, including the Asian Development Bank and the Asia-Pacific Telecommunity, to stimulate regional infrastructure development and address intraregional digital divides. The Asia-Pacific Information Superhighway initiative aims to improve the connectivity of landlocked developing countries in the region through links to submarine cables and deployment of Internet exchange points.<sup>29</sup> In conjunction with the Internet Society and the Asian Development Bank, ESCAP in December published a report entitled *Unleashing the Potential of the Internet in Central Asia, South Asia, the Caucasus and Beyond*.<sup>30</sup>

24. Increasingly, ICTs are being used in support of early warning systems for natural disasters reduction and emergency communications in the region. The Commission published a survey, *Enhancing E-resilience of ICT Infrastructure: Gaps and Opportunities in Disaster Management*.<sup>31</sup> It also produced a working paper on intelligent transport systems in the region (see <http://www.unescap.org/sites/default/files/ITS.pdf>).

## C. Western Asia

25. ESCWA prepared its biennial *Regional Profile of the Information Society in the Arab Region*, which assessed Information Society development and identified post-2015 priorities. The *Profile* draws on the Information Society Portal for the ESCWA Region, which gathers and analyses data on regional trends in order to provide information and resources to policymakers and other stakeholders (<http://isper.escwa.un.org/>). Particular concerns include the low availability of broadband connectivity, digital divides between countries and between urban and rural areas, and the need to stimulate developmental uses of ICTs.

26. The Commission focused on regional priorities concerned with cybersafety and cybercrime, developing ICT awareness among government leaders, and the use of space and satellite technologies. It continued work to promote Arabic content and online services, organizing a forum on Arab content in an era of major digital transformations in partnership with ITU, the League of Arab States and the Government of the United Arab Emirates. It also published the study, *Improving the Quality of Digital Arabic Content* (<http://isper.escwa.un.org/>).

27. The fourth Arab Internet Governance Forum was held in Lebanon in September, under the theme “Internet economy for sustainable development”.<sup>32</sup>

## D. Europe

28. The Economic Commission for Europe plays a central role in ICT-enabled trade facilitation. In 2015, the United Nations Centre for Trade Facilitation and Electronic Business managed by the Commission updated the United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport and the United Nations Code for Trade and Transport Locations, which facilitate information exchange in transport,

<sup>29</sup> <http://www.unescap.org/our-work/ict-disaster-risk-reduction/asia-pacific-information-superhighway>.

<sup>30</sup> <http://www.unescap.org/resources/unleashing-potential-internet-central-asia-south-asia-caucasus-and-beyond>.

<sup>31</sup> <http://www.unescap.org/resources/enhancing-e-resilience-ict-infrastructure-gaps-and-opportunities-disaster-management>.

<sup>32</sup> <http://igfarab.org/En/index.jsp>.

customs, government and business contexts.<sup>33</sup> The Commission promotes single-window data-sharing initiatives to reduce trade costs and works with ESCAP to promote paperless trade. It supports the development of intelligent transport systems to improve efficiency in transport and freight networks and is working with European partners to develop a shared environmental information system.

29. The annual European Dialogue on Internet Governance was held in Bulgaria in June.<sup>34</sup> The Global Internet Policy Observatory is being set up by the European Commission.<sup>35</sup>

30. The Council of Europe held a conference on freedom of expression in October<sup>36</sup> and published the book *Journalism at Risk: Threats, Challenges and Perspectives*. At its December meeting, the Council's Steering Committee on Media and Information Society finalized recommendations of the Council of Ministers on Internet freedom, the safety of journalists and a new strategy on Internet governance for 2016–2019.<sup>37</sup> Other work during the year focused on youth participation, the processing of personal data and freedom of assembly and association on the Internet.

## E. Latin America and the Caribbean

31. ECLAC implements WSIS outcomes through its regional action plans, whose contribution towards regional and international cooperation was recognized with a WSIS Prize in 2015. The fifth Ministerial Conference on the Information Society in the region, held in Mexico in August, considered a report entitled *The New Digital Revolution: From the Consumer Internet to the Industrial Internet*,<sup>38</sup> reviewed implementation of the Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean, and issued the Mexico Declaration. The Declaration approved the Digital Agenda for Latin America and the Caribbean, which included policy commitments relating to access and infrastructure, the digital economy, e-government, sustainable development and inclusion, and governance.

32. The Observatory for the Information Society in Latin America and the Caribbean<sup>39</sup> gathers regional data and maintains an online statistical information system on ICT, while its Regional Broadband Observatory<sup>40</sup> monitors indicators on broadband diffusion, access, tariffs and service speeds. The Commission published a report on the state of broadband in Latin America and the Caribbean, comparing countries within the region and addressing policy challenges.

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<sup>33</sup> <http://www.unece.org/cefact/edifact/welcome.html>;  
<http://www.unece.org/cefact/locode/welcome.html>; information from the Economic Commission for Europe.

<sup>34</sup> <http://www.eurodig.org/archives/eurodig15/>.

<sup>35</sup> <https://ec.europa.eu/digital-agenda/en/global-internet-policy-observatory-gipo>.

<sup>36</sup> [http://www.coe.int/t/dghl/standardsetting/media/Conf-FoE-2015/default\\_en.asp](http://www.coe.int/t/dghl/standardsetting/media/Conf-FoE-2015/default_en.asp).

<sup>37</sup> [http://www.coe.int/t/dghl/standardsetting/media/cdmsi/CDMSI\(2015\)021rev\\_en\\_abridged\\_report\\_9th\\_meeting.pdf](http://www.coe.int/t/dghl/standardsetting/media/cdmsi/CDMSI(2015)021rev_en_abridged_report_9th_meeting.pdf).

<sup>38</sup> ECLAC, 2015, Santiago, available at [http://repositorio.cepal.org/bitstream/handle/11362/38767/S1500587\\_en.pdf](http://repositorio.cepal.org/bitstream/handle/11362/38767/S1500587_en.pdf);jsessionid=6654F9574A3EA06CFE3A86C3AF2B4781?sequence=1.

<sup>39</sup> <http://www.cepal.org/cgi-bin/getprod.asp?xml=/socinfo/noticias/paginas/8/44988/P44988.xml&xsl=/socinfo/tpl-i/p18f-st.xsl&base=/socinfo/tpl-i/top-bottom.xsl>.

<sup>40</sup> <http://www.cepal.org/socinfo/orba/>.

## IV. Implementation and follow-up at the international level

### A. Economic and Social Council – General Assembly

33. On 22 July 2015, the Economic and Social Council adopted resolution 2015/26, assessing progress in the implementation and follow-up of WSIS outcomes. The Council agreed to submit two items to the preparatory process for the overall review of the implementation of the outcomes of WSIS by the General Assembly: the summary of the discussion of the WSIS review, which had taken place during the eighteenth session of the Commission on Science and Technology for Development, and the Commission secretariat report, *Implementing WSIS Outcomes: A Ten-year Review*.

34. In addition to resolution 70/125, the General Assembly on 22 December 2015 adopted resolution 70/184 on ICTs for development. It requested the Secretary-General to take the 2030 Agenda for Sustainable Development and the Addis Ababa Action Agenda into account in reporting on the implementation of WSIS outcomes, through the Commission, to the seventy-first session of the General Assembly in 2016.

### B. United Nations Group on the Information Society

35. This inter-agency mechanism was established by the United Nations System Chief Executives Board for Coordination to coordinate the implementation of WSIS outcomes throughout the United Nations system. It revised its workplan at its annual meeting in May, within the framework of the General Assembly review, and welcomed work undertaken by United Nations agencies to strengthen the relationship between ICTs and the Sustainable Development Goals.<sup>41</sup> The General Assembly in December agreed, in its resolution 70/125, that the work of the Group should be continued. The Group prepared a joint statement to the General Assembly on the overall review of the implementation of WSIS outcomes. The statement emphasized the importance of coherence across the United Nations system in the implementation of multiple goals and commitments, of harnessing the power of new technologies to promote sustainable development and of achieving the goal of universal, affordable access to ICTs.<sup>42</sup>

### C. Facilitation and coordination of multi-stakeholder implementation

36. The 2015 WSIS Forum was held in Geneva, Switzerland, in May under the theme “Innovating Together: Enabling ICTs for Sustainable Development”. During the Forum, action line facilitators issued the *WSIS-SDG Matrix*, which identifies associations between action lines and the Sustainable Development Goals.<sup>43</sup> The General Assembly, in its resolution 70/125, recognized the WSIS Forum as a platform for discussion and sharing of best practices in the implementation of WSIS outcomes by all stakeholders and agreed that it should continue to be held annually.

37. UNESCO maintains the WSIS Knowledge Communities online platform.<sup>44</sup> ITU continues to maintain the WSIS Stocktaking Process, including the WSIS Stocktaking Database, which describes ICT and development activities.<sup>45</sup> WSIS Project Prizes are

<sup>41</sup> <http://www.ungis.org/>.

<sup>42</sup> [http://www.ungis.org/Portals/0/documents/general/UNGIS\\_CEB\\_STATEMENT.pdf](http://www.ungis.org/Portals/0/documents/general/UNGIS_CEB_STATEMENT.pdf).

<sup>43</sup> <http://www.itu.int/net4/wsis/forum/2015/>.

<sup>44</sup> <http://www.wsis-community.org/>.

<sup>45</sup> <http://www.itu.int/net4/wsis/stocktaking/en>.

awarded annually at the WSIS Forum to recognize excellence in implementation of projects and initiatives that further WSIS goals.<sup>46</sup> The Gender Equality and Mainstreaming in Technology, or GEM-Tech, Awards were organized jointly by ITU and the United Nations Entity for Gender Equality and the Empowerment of Women during the General Assembly high-level meeting in December.<sup>47</sup>

## **D. Civil society, business and multi-stakeholder partnerships**

38. Many activities that support WSIS objectives are implemented by the private sector, civil society, academic and technical communities and multi-stakeholder partnerships.

39. As well as investing in infrastructure and services, businesses also engage in partnerships with Governments and international agencies to support access and applications development, and in research on the impact of ICTs. International Chamber of Commerce–Business Action to Support the Information Society, also known as ICC–BASIS, an initiative of the International Chamber of Commerce, works with businesses to support WSIS outcomes, including the WSIS Forum and the Internet Governance Forum.<sup>48</sup> The Global System for Mobile Communications Association, which represents mobile communications businesses, published reports on local content development and the gender digital divide.<sup>49</sup>

40. Civil society organizations have continued to focus attention on access, development and rights dimensions of the information society. The Association for Progressive Communications is one of many organizations concerned with ICT, development and rights issues, and Internet governance. The Association and the Humanist Institute for Development Cooperation released the *Global Information Society Watch 2105: Sexual Rights and the Internet* in 2015.<sup>50</sup> The International Federation of Library Associations and Institutions focused on public access and cultural aspects of the information society during the year, while End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes International addressed children's rights and child protection.

41. The Internet Society focused on measures to promote an open Internet and on the evolving relationship between Internet governance and sustainable development. In 2015, it produced the *Global Internet Report 2015: Mobile Evolution and the Development of the Internet*.

## **E. Facilitation of action lines and selected implementation of activities of United Nations entities**

### **1. Implementation of action lines**

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

42. The contribution of ICTs to development features in the work of United Nations specialist agencies, multilateral organizations, international financial institutions and other

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<sup>46</sup> [http://www.itu.int/net/pressoffice/press\\_releases/2015/18.aspx#.Vnposv2uuUk](http://www.itu.int/net/pressoffice/press_releases/2015/18.aspx#.Vnposv2uuUk).

<sup>47</sup> <http://www.itu.int/en/action/women/gem/Pages/award-2015.aspx>.

<sup>48</sup> <http://www.iccwbo.org/advocacy-codes-and-rules/basis/>.

<sup>49</sup> <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/07/150709-asia-local-content-final.pdf>[http://www.gsma.com/connectedwomen/wp-content/uploads/2015/02/GSM0001\\_02252015\\_GSMARreport\\_FINAL-WEB-spreads.pdf](http://www.gsma.com/connectedwomen/wp-content/uploads/2015/02/GSM0001_02252015_GSMARreport_FINAL-WEB-spreads.pdf).

<sup>50</sup> <https://www.giswatch.org/2015-sexual-rights-and-internet>.

stakeholders. The General Assembly's commitment to the value and principles of multi-stakeholder cooperation and engagement in the implementation of WSIS outcomes was reaffirmed in General Assembly resolution 70/125.

43. Widespread attention was paid to the relationship between WSIS outcomes and the Sustainable Development Goals. The 2015 facilitation meeting on implementing WSIS outcomes related to action line C1 focused on enabling ICTs for sustainable development.<sup>51</sup> The Department of Economic and Social Affairs held an expert group meeting on advancing a sustainable information society for all in New York in June, which informed the overall WSIS review of the General Assembly.<sup>52</sup>

(b) *Information and communication infrastructure (C2)*

44. ITU works with Governments and the private sector to establish international standards and regulations on telecommunications and radio spectrum, and to develop national broadband plans. Areas of particular activity in 2015 included the transition to digital broadcasting, which makes spectrum available for alternative applications, and the development of standards concerned with cloud computing and the Internet of Things.<sup>53</sup>

45. General Assembly resolution 70/125 recognized broadband as an essential enabler of sustainable development. ITU and UNESCO coordinate the Broadband Commission, which brings together senior representatives of international organizations, Governments and the private sector to promote policies for the adoption and use of broadband services. The Commission published *The State of Broadband 2015: Broadband as a Foundation for Sustainable Development*<sup>54</sup> and held a special session on creating sustainable financial and investment models for a global roll-out of broadband networks at the World Economic Forum in January.<sup>55</sup> In conjunction with Ericsson, it issued the report, *Means of Transformation: Harnessing Broadband for the Post-2015 Development Agenda*.<sup>56</sup> The Commission was relaunched in September as the Broadband Commission for Sustainable Development.<sup>57</sup>

46. OECD in October published a report entitled *Data-Driven Innovation: Big Data for Growth and Well-Being*, which emphasized the increasing impact of data analytics on innovation and growth.<sup>58</sup>

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

47. UNESCO continued to emphasize the importance of building inclusive knowledge societies, in which access to information is transformed into knowledge with the capacity to support sustainable development. During the year it developed and published guidelines on open access, open educational resources and media literacy, and organized conferences concerned with the relationships between ICTs, young people and persons with disabilities.

48. Public-access facilities continue to play an important role in access to information and services. The Universal Postal Union published a global overview entitled *Measuring Postal e-Services: A Global Perspective*<sup>59</sup> and launched, in partnership with the

<sup>51</sup> <http://www.itu.int/net4/wsis/forum/2015/Agenda/Session/255>.

<sup>52</sup> <https://publicadministration.un.org/wsis10/egm>.

<sup>53</sup> [https://www.itu.int/net/pressoffice/press\\_releases/2015/22.aspx](https://www.itu.int/net/pressoffice/press_releases/2015/22.aspx).

<sup>54</sup> <http://www.broadbandcommission.org/Documents/reports/bb-annualreport2015.pdf>.

<sup>55</sup> <http://www.broadbandcommission.org/Documents/publications/bb-davos-report-2015.pdf>.

<sup>56</sup> <http://www.broadbandcommission.org/Documents/reports/TF-Post2015-advocacy-2014.pdf>.

<sup>57</sup> [http://www.itu.int/net/pressoffice/press\\_releases/2015/38.aspx#.VnpuI\\_2uuUk](http://www.itu.int/net/pressoffice/press_releases/2015/38.aspx#.VnpuI_2uuUk).

<sup>58</sup> <http://www.oecd.org/sti/data-driven-innovation-9789264229358-en.htm>.

<sup>59</sup> [http://www.upu.int/uploads/tx\\_sbdownloader/studyPostalEservicesEn.pdf](http://www.upu.int/uploads/tx_sbdownloader/studyPostalEservicesEn.pdf).

International Fund for Agricultural Development, the African Postal Financial Services Initiative to support remittances. The International Federation of Library Associations and Institutions worked with other stakeholders to promote Internet access through libraries and other public services.

49. Access to scientific research and information is a priority within this action line. WHO, FAO, UNEP and the World Intellectual Property Organization collaborate in the Research4Life programme, which offers preferential access for developing countries to peer-reviewed journals concerned with scientific research, health, agriculture and the environment.<sup>60</sup> OECD published a report on the economic impact of intellectual property.<sup>61</sup>

(d) *Capacity-building (C4)*

50. Education and capacity-building are crucial to enabling developing countries to derive social and economic gains from technological innovation. United Nations agencies and other stakeholders held many conferences, workshops and training sessions during the year aimed at increasing the capacity of policymakers, ICT professionals and users of ICTs. The annual facilitation meeting relating to WSIS action lines C4 and C7 (e-learning) focused on mainstreaming e-skilling.<sup>62</sup>

51. ITU restructured its Centres of Excellence, which share expertise and build capacity in telecommunications and ICTs, introducing new training modalities and finalizing the ITU Spectrum Management Training Programme.<sup>63</sup> The Internet Society worked with partners such as the African Union Commission, to build capacity in technical areas, including the establishment of Internet exchange points and the deployment of Internet Protocol version 6.

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

52. The Group of Governmental Experts on Developments in in the Field of Information and Telecommunications in the Context of International Security, established by the General Assembly, assessed existing and emerging security threats arising from ICTs. It reaffirmed the interest of all States in promoting the use of ICTs for peaceful purposes and preventing conflict arising from their use.<sup>64</sup>

53. The Global Cybersecurity Agenda, led by ITU, provides a framework for coordinating legal, technical, organizational and training needs worldwide.<sup>65</sup> National computer security incident response teams have been established in many countries, often with technical support from ITU and the Forum of Incident Response Security Teams.<sup>66</sup> In April, ITU and ABI Research published the *Global Cybersecurity Index and Cyberwellness Profiles* of 196 countries.<sup>67</sup>

54. The Internet Society emphasized the collective responsibility of stakeholders concerning Internet security in *Collaborative Security: An Approach to Tackling Internet*

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<sup>60</sup> <http://www.research4life.org>.

<sup>61</sup> OECD, 2015, Enquiries into Intellectual Property's Economic Impact: Chapter 1–Synthesis Report, 10 August, available at [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP\(2014\)17/CHAP1/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP(2014)17/CHAP1/FINAL&docLanguage=En).

<sup>62</sup> <http://www.itu.int/net4/wsis/forum/2015/Agenda/Session/208>.

<sup>63</sup> [http://www.itu.int/en/itu-wsis/Documents/ITUContribution/2015\\_ITU\\_Contribution\\_to-WSIS-Implementation.pdf](http://www.itu.int/en/itu-wsis/Documents/ITUContribution/2015_ITU_Contribution_to-WSIS-Implementation.pdf), paras. 245–255.

<sup>64</sup> <http://www.csistech.org/blog/2015/8/27/un-publishes-latest-report-of-the-group-of-government-experts>.

<sup>65</sup> <http://www.itu.int/en/action/cybersecurity/Pages/gca.aspx>.

<sup>66</sup> <http://www.first.org/>.

<sup>67</sup> [https://www.itu.int/dms\\_pub/itu-d/opb/str/D-STR-SECU-2015-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-SECU-2015-PDF-E.pdf).

Security Issues, while OECD issued *Digital Security Risk Management for Economic and Social Prosperity: OECD Recommendation and Companion Document*.<sup>68</sup> The Internet Governance Forum considered spam and computer security incident response teams.<sup>69</sup>

55. ESCWA published *Policy Recommendations on Cybersafety and Combating Cybercrime in the Arab Region*, which offered a regional analysis and focused on the need to develop national strategies, awareness-raising, public-private partnerships and international cooperation.<sup>70</sup> The Council of Europe continued to promote capacity-building related to the Convention on Cybercrime.<sup>71</sup>

56. The impact of the Internet on children continues to raise concerns, which are addressed through the Global Cybersecurity Agenda and initiatives by all stakeholders. The United Nations Children's Fund established a global programme to build capacity to tackle online child sexual exploitation.

57. General Assembly resolution 70/125 called for the development of a global culture of cybersecurity, including all stakeholders, and welcomed initiatives, including those of ITU, the Commission on Crime Prevention and Criminal Justice, and the United Nations Office on Drugs and Crime.

(f) *Enabling environment (C6)*

58. The annual ITU Global Symposium for Regulators was held in Gabon in June,<sup>72</sup> focusing on investment opportunities and funding challenges in network deployment and on knowledge-sharing applications with the potential to reduce digital divides. The Symposium adopted best practice guidelines on fourth-generation regulation,<sup>73</sup> the theme of *Trends in Telecommunication Reform 2015: Getting Ready for the Digital Economy*, published by ITU.<sup>74</sup>

59. ITU organized the World Radiocommunication Conference in November, which endorsed improvements in radio-spectrum management to increase efficiency and facilitate innovation.<sup>75</sup>

60. General Assembly resolution 70/125 placed special emphasis on the enabling environment, including the identification and implementation of best and emerging practices in education, innovation and investment.<sup>76</sup> ITU conducted a survey of regulatory environments and launched an ICT regulatory tracker to showcase changes in practice.<sup>77</sup>

(g) *ICT applications (C7)*

E-government

61. There is growing consensus concerning the importance of e-government and digital public services. The biennial United Nations E-Government Survey, prepared by the

<sup>68</sup> <http://www.oecd.org/publications/digital-security-risk-management-for-economic-and-social-prosperity-9789264245471-en.htm>.

<sup>69</sup> <http://www.intgovforum.org/cms/best-practice-forums/2015-bpf-outs>.

<sup>70</sup> [http://www.escwa.un.org/information/publications/edit/upload/E\\_ESCWA\\_TDD\\_15\\_1\\_SUMMARY\\_E.pdf](http://www.escwa.un.org/information/publications/edit/upload/E_ESCWA_TDD_15_1_SUMMARY_E.pdf).

<sup>71</sup> [http://www.coe.int/t/DGHL/cooperation/economiccrime/cybercrime/default\\_en.asp](http://www.coe.int/t/DGHL/cooperation/economiccrime/cybercrime/default_en.asp).

<sup>72</sup> <http://www.itu.int/en/newsroom/gsr-15/Pages/default.aspx>.

<sup>73</sup> <http://www.itu.int/en/ITU-D/Regulatory-Market/Pages/Trends/Trends-Special%20Edition.aspx>.

<sup>74</sup> [http://www.itu.int/en/publications/Documents/Trends2015-short-version\\_pass-e374681.pdf](http://www.itu.int/en/publications/Documents/Trends2015-short-version_pass-e374681.pdf).

<sup>75</sup> <http://www.itu.int/en/ITU-R/conferences/wrc/2015/Pages/default.aspx>.

<sup>76</sup> <http://workspace.unpan.org/sites/Internet/Documents/UNPAN95735.pdf>.

<sup>77</sup> <http://www.itu.int/en/ITU-D/Regulatory-Market/tracker/Pages/default.aspx>.

Department of Economic and Social Affairs, assesses the increasing use of ICTs in public sector management, services and citizen participation, thereby informing government decision-making. Consultations on modalities for the 2016 survey, which will focus on e-government for sustainable development, were held in 2015.

62. Increased attention has been paid to citizen engagement and open government. The Measurement and Evaluation Tool for E-Government Readiness of the Department of Economic and Social Affairs, known as METER,<sup>78</sup> provides information resources to Governments. The Department of Economic and Social Affairs undertook further work to support citizen participation, including the development of an assessment methodology for open government data for citizen engagement.

#### E-business

63. General Assembly resolution 70/125 recognized that the digital economy was an important and growing part of the global economy. The e-business action line focused in 2015 on priorities for embedding inclusive and sustainable e-business, appropriate technologies and local requirements in the implementation of the post-2015 development agenda. The Partnership on Measuring ICT for Development consulted on the development of methodologies to measure international trade in ICTs and ICT-enabled services in support of the agenda.

64. The UNCTAD publication, *Information Economy Report 2015: Unlocking the Potential of E-commerce for Developing Countries*,<sup>79</sup> introduced the business-to-consumer electronic commerce index to be updated annually, enabling a comparison of e-commerce readiness between countries. UNCTAD also launched a global database of legal and regulatory frameworks for electronic transactions, cybercrime, data protection and consumer rights.<sup>80</sup>

65. The International Trade Centre analysed barriers to participation in global digital markets for African small and medium-sized enterprises and explored ways to build capacity and platforms relevant to their needs. The Universal Postal Union organized a series of regional e-commerce conferences and an expert meeting on laws and regulations for e-commerce. ECLAC published a report entitled *The Digital Ecosystem and Economy in Latin America* in conjunction with Telefonica and other partners.<sup>81</sup>

66. At the tenth World Trade Organization Ministerial Conference in Nairobi in December 2015, participants agreed to extend the work programme on e-commerce and moratorium on customs duties on electronic transmissions.<sup>82</sup> Agreement was also reached in July 2015 to extend the application of the Information Technology Agreement to a wider range of information technology products.

#### E-learning

67. Education and ICTs have become increasingly interconnected. ICTs are now widely used in schools, for both administrative and pedagogic purposes, and ICT awareness is playing an increasingly important role in curricula preparing young people for employment and business.

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<sup>78</sup> <http://www.unpan.org/DPADM/EGovernment/METERforEGovernment/tabid/1270/language/en-US/Default.aspx>.

<sup>79</sup> [http://unctad.org/en/PublicationsLibrary/ier2015\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ier2015_en.pdf).

<sup>80</sup> [http://unctad.org/en/Pages/DTL/STI\\_and\\_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx](http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx).

<sup>81</sup> <http://en.fundaciontelefonica.com/publications/publication-details/itempubli/439/>.

<sup>82</sup> [https://www.wto.org/english/thewto\\_e/minist\\_e/mc10\\_e/mc10\\_e.htm](https://www.wto.org/english/thewto_e/minist_e/mc10_e/mc10_e.htm).

68. Particular attention was paid in this action line to open educational resources and free and open source software for teachers and learners.

69. UNESCO continued to promote ICT professional skills through its Competency Framework for Teachers,<sup>83</sup> to encourage the inclusion of ICTs in national and global programmes to meet education-for-all targets and to recommend their use in educational management information systems.

#### E-health

70. WHO plays the leading role in monitoring and facilitating e-health developments within the United Nations system. Its Global Observatory for eHealth conducted the latest in a series of global surveys in 2015, providing 125 country e-health profiles. These indicated encouraging progress but emphasized the need for continued efforts to build foundations, policy and capacity. The number of countries with national e-health strategies rose from 55 in 2009 to 116 in 2015. A comprehensive report on the 2015 survey will be published in May 2016.

71. The facilitation meeting for the e-health action line at the WSIS Forum focused on putting the “public” back in public health, with a particular focus on social media.<sup>84</sup> The importance of ICT for global emergency and humanitarian response has been highlighted by recent disease epidemics, natural disasters and conflicts. WHO emphasizes the potential of ICTs to enable timely local reporting and mapping, rapid and secure sharing of information, public information exchange and the connection of communities with front-line personnel for emergency response.

#### E-employment

72. The report of the Commission on Science and Technology for Development, *Implementing WSIS Outcomes*, noted that ICTs had a mixed impact on employment: job creation and displacement as well as enabling new work patterns and modalities.<sup>85</sup> This has been increasingly discussed, with attention focusing on innovations such as increased automation and the future use of artificial intelligence. There has been significant job migration between countries, including outsourcing from developed to developing countries, and some substitution of office work by telecommuting. General Assembly resolution 70/125 recognized that, while ICTs have created a new generation of businesses, innovators and jobs, they have also altered others and made some obsolete.

73. UNCTAD and ILO published the *Global Assessment of Sex-Disaggregated ICT Employment Statistics* in December.<sup>86</sup>

#### E-environment

74. General Assembly resolution 70/125 recognized that ICTs generate environmental benefits, which should be maximized, and impose environmental costs, which require mitigation. The Global e-Sustainability Initiative, ITU and other international partnerships are exploring how to reduce the environmental impact of networks and devices.

75. The 2015 Conference of the Parties to the Basel Convention adopted interim guidelines on the transboundary movement of e-waste.

<sup>83</sup> <http://www.unesco.org/new/en/unesco/themes/icts/teacher-education/unesco-ict-competency-framework-for-teachers/>.

<sup>84</sup> <http://www.itu.int/net4/wsis/forum/2015/Agenda/Session/233>.

<sup>85</sup> [http://unctad.org/en/PublicationsLibrary/dtlstict2015d3\\_en.pdf](http://unctad.org/en/PublicationsLibrary/dtlstict2015d3_en.pdf), pp. 107–108.

<sup>86</sup> [http://unctad.org/en/PublicationsLibrary/tn\\_unctad\\_ict4d04\\_en.pdf](http://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d04_en.pdf).

76. UNEP has focused on the use of ICTs to enhance environmental information reporting and sharing. Data are now shared by 190 countries through its research-sharing facility UNEP Live, which makes use of national reporting systems. The Protocol on Pollutant Release and Transfer Registers of the Economic Commission for Europe offers a model for ICT-enabled monitoring of pollution.<sup>87</sup>

77. ICTs are increasingly used to gather and share meteorological and environmental information. The World Meteorological Organization shares information between countries, while its Integrated Global Observing System seeks to improve meteorological and climate data. A severe weather-forecasting demonstration project is improving disaster warning and preparedness in Africa and the Pacific.

#### E-agriculture

78. WSIS follow-up activity on e-agriculture is underpinned by the e-Agriculture Community of Practice, which facilitates collaboration in knowledge-sharing, networking, research and programme implementation.<sup>88</sup> By December 2015, it had over 13,000 participants from more than 170 countries, including development practitioners, policymakers, representatives of farmers organizations, researchers and ICT specialists in agriculture and rural development.

79. FAO surveyed users before the 2015 WSIS Forum to review the Community's effectiveness and future demand at a time of rapid change in ICT development, publishing conclusions in the *E-agriculture 10-year Review Report*.<sup>89</sup> It identified challenges and recommendations on content, capacity development, gender and diversity, access and participation, partnerships, technologies and economic, social and environmental sustainability.

80. FAO and ITU have continued to support the development of national e-agriculture strategies.

#### E-science

81. Increased attention has been paid to the role of science, technology and innovation in advancing sustainable development, including the potential of big data to increase understanding and improve planning for development. The 2015 UNESCO *Science Report: Towards 2030* stressed the importance of ICTs, data sharing and citizen engagement.<sup>90</sup> The Scientific Advisory Board of the United Nations Secretary-General issued recommendations in May to improve the coordination of data collection and reduce the data divide between countries.<sup>91</sup>

82. The facilitation meeting for the action line on e-science focused on open solutions for inclusive knowledge societies. UNESCO and other United Nations agencies promote open access to scientific journals and research through the Research4Life programme.<sup>92</sup>

83. General Assembly resolution 70/125 called for a prominent profile for ICTs in the Technology Facilitation Mechanism, which was launched at the United Nations summit for the adoption of the post-2015 development agenda.

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<sup>87</sup> <http://www.unece.org/env/pp/prtr.html>.

<sup>88</sup> <http://e-agriculture.org/e-agriculture>.

<sup>89</sup> <http://www.fao.org/3/a-i4605e.pdf>.

<sup>90</sup> <http://unesdoc.unesco.org/images/0023/002354/235406e.pdf>.

<sup>91</sup> <https://sustainabledevelopment.un.org/?page=view&nr=1387&type=13&menu=1634>.

<sup>92</sup> <http://www.research4life.org/>.

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

84. UNESCO has continued to integrate WSIS outcomes into its work on cultural and linguistic diversity, the protection and promotion of digital heritage and support for the creative industries. It held a panel discussion on culture and ICTs as drivers of sustainable development at the WSIS Forum in May.<sup>93</sup>

85. The International Federation of Library Associations and Institutions and other civil society organizations have emphasized the importance of cultural issues, including digital heritage, within the WSIS+10 review and the 2030 Agenda for Sustainable Development. The Council of Europe prepared a draft recommendation on the Internet of citizens, with a focus on the modernization of cultural institutions.<sup>94</sup> Internet stakeholders, including ITU, UNESCO and the Internet Corporation for Assigned Names and Numbers, have continued to make progress towards a multilingual Internet, building on the introduction of internationalized top-level domains, 113 of which had been designated by the end of 2015.<sup>95</sup>

86. General Assembly resolution 70/125 recognized that ICTs increasingly support diversity of cultural expression and the creative and cultural sectors.

*(i) Media (C9)*

87. The relationship between traditional media and ICTs has continued to evolve as the latter have enabled new ways of gathering and disseminating news, diversified news sources, including through citizen journalism and crowdsourcing of audio and video content, and altered business models for news organizations. UNESCO explored these issues in its Connecting the Dots conference (March 2015) and Internet study.

88. UNESCO continued its work to promote media freedom, with particular attention to media literacy, community broadcasting, safety of journalists and the Organization's gender-sensitive indicators for media. The action line facilitation meeting in May focused on the importance of free, independent and pluralistic media in achieving development objectives.<sup>96</sup> The Council of Europe also focused on freedom of expression and the safety of journalists.

89. ITU continued to support the transition from analog to digital broadcasting.

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

90. The UNESCO Connecting the Dots conference facilitated the sharing of information and good practice among stakeholders on issues concerning rights and the Internet, including security and privacy.<sup>97</sup> In November, the UNESCO General Conference endorsed the findings of its Internet study, which identified priorities relating to rights and the ethical dimensions of the Internet as critical components of knowledge societies.<sup>98</sup>

91. The Council of Europe organized a conference on freedom of expression in October, and is preparing a comparative study on Internet content control within its member States.

<sup>93</sup> <http://www.itu.int/net4/wsis/forum/2015/Agenda/Session/261>.

<sup>94</sup> [https://www.coe.int/t/dg4/cultureheritage/culture/digitisation/CDCPP-\(2015\)8\\_EN-Internet-citoyens.pdf](https://www.coe.int/t/dg4/cultureheritage/culture/digitisation/CDCPP-(2015)8_EN-Internet-citoyens.pdf).

<sup>95</sup> Information provided by the Internet Corporation for Assigned Names and Numbers.

<sup>96</sup> <http://www.itu.int/net4/wsis/forum/2015/Agenda/Session/206>.

<sup>97</sup> [http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/outcome\\_document.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/outcome_document.pdf).

<sup>98</sup> <http://unesdoc.unesco.org/images/0023/002325/232563E.pdf>; A/RES/70/125.

92. Increased attention was paid during the year to the impact of cyber violence against women and girls, including the preparation of a discussion paper by the Broadband Commission and a best-practice forum held by the Internet Governance Forum.<sup>99</sup>

93. General Assembly resolution 70/125 recognized that human rights have been central to the WSIS vision, and that ICTs have shown a potential to strengthen the exercise of rights, including freedom of expression and of association, while also recognizing concerns about restrictions on free expression, privacy and the safety of journalists. It reaffirmed that the same rights that people have offline must also be protected online.

(k) *International and regional cooperation (C11)*

94. The overall review of WSIS was the main focus for international cooperation on WSIS implementation during the year. Regional consultations were held by the secretariat of the Commission on Science and Technology for Development in preparation for its 10-year review of WSIS outcomes. The Chief Executives Board issued a joint statement to the General Assembly on the overall review.<sup>100</sup>

95. Attention also focused on the relationship between WSIS implementation and other United Nations processes and outcomes, particularly those of the United Nations summit for the adoption of the post-2015 development agenda, the third International Conference on Financing for Development and the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change.

96. The Commission considered the themes, smart cities and infrastructure, and foresight for digital development, at its 2015–2016 intersessional panel meeting in January 2016.<sup>101</sup>

## 2. Thematic issues

(a) *Financing mechanisms*

97. Private investment has continued to be the main source of ICT sector finance. Telecommunications revenue accounts for more than 2.5 per cent of global gross domestic product, more than 25 per cent of which is in developing countries.<sup>102</sup> Public–private partnerships have added significantly to the range of investment initiatives for infrastructure and services in developing countries. Significant infrastructure investments have also been made by international financial institutions.

98. General Assembly resolution 70/125 welcomed increases in public and private ICT investment since WSIS. It called for greater and sustainable investment in infrastructure and services, capacity-building, research and development, and transfer of technology on mutually agreed terms, within the framework established by the Addis Ababa Action Agenda.

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<sup>99</sup> <http://www.broadbandcommission.org/Documents/reports/bb-wg-gender-discussionpaper2015-executive-summary.pdf>; <http://www.intgovforum.org/cms/documents/best-practice-forums/623-bpf-online-abuse-and-gbv-against-women/file>.

<sup>100</sup> [http://www.ungis.org/Portals/0/documents/general/UNGIS\\_CEB\\_STATEMENT.pdf](http://www.ungis.org/Portals/0/documents/general/UNGIS_CEB_STATEMENT.pdf).

<sup>101</sup> <http://unctad.org/en/Pages/MeetingDetails.aspx?meetingid=941>.

<sup>102</sup> UNCTAD, 2015, *Implementing WSIS Outcomes: A Ten-year Review*, New York and Geneva, available at [http://unctad.org/en/publicationslibrary/dtlstict2015d3\\_en.pdf](http://unctad.org/en/publicationslibrary/dtlstict2015d3_en.pdf).

(b) *Internet governance*

## Enhanced cooperation

99. The Tunis Agenda for the Information Society called for enhanced cooperation to enable Governments to carry out on an equal footing their roles and responsibilities in international public policy issues pertaining to the Internet, but not in day-to-day technical and operational matters that do not affect international public policy issues.<sup>103</sup> A number of initiatives to develop enhanced cooperation have taken place since WSIS. A paper on the mapping of international Internet public policy issues was submitted to the eighteenth session of the Commission.<sup>104</sup>

100. The General Assembly, in its resolution 70/125, called for continued dialogue on implementation of enhanced cooperation. It requested the Chair of the Commission, through the Economic and Social Council, to set up a working group by July 2016 to develop recommendations on further implementation of enhanced cooperation as envisioned in the Tunis Agenda. The working group would ensure the full involvement of all stakeholders, taking into account their diverse views and expertise.

## Internet Governance Forum

101. The tenth annual meeting of the Forum was held in João Pessoa, Brazil, on 10–13 November 2015, under the theme “Evolution of Internet governance: Empowering sustainable development”. Over 2,400 people attended the Forum, which included more than 150 workshops and thematic sessions, while others participated online through 50 remote hubs.

102. The Multi-stakeholder Advisory Group of the Forum continued to implement the recommendations of the Commission’s Working Group on Improvements to the Forum,<sup>105</sup> through innovations to increase participation and produce tangible outcomes. Intersessional work led to the identification by the Forum of policy options for connecting the next billion people.<sup>106</sup> A number of Best-Practice Forum reports were discussed. These included studies on the regulation of unwanted communications, online gender-based violence, adoption of Internet Protocol version 6, computer security incident response teams, Internet exchange points and multi-stakeholder participation. Plenary sessions of the Forum provided input to the WSIS+10 review and considered the Internet economy and sustainable development; policy options for connecting the next billion people; enhancing cybersecurity and building digital trust; zero-rated services; the relationship between human rights, access and Internet governance; and the evolution of the Internet governance ecosystem following the NETmundial initiative.<sup>107</sup>

103. The number of national and regional Internet Governance Forums continued to grow, with more than 40 such initiatives reported during 2015.

104. The General Assembly, in its resolution 70/125, agreed at its high-level meeting in December to extend the Forum’s mandate for a further 10 years, during which the Forum should show further progress in working modalities and the participation of relevant stakeholders from developing countries. The eleventh meeting of the Forum will take place in Mexico in 2016.

<sup>103</sup> <http://www.itu.int/osis/docs2/tunis/off/6rev1.html>, paras. 69–71.

<sup>104</sup> [http://unctad.org/meetings/en/SessionalDocuments/ecn162015crp2\\_en.pdf](http://unctad.org/meetings/en/SessionalDocuments/ecn162015crp2_en.pdf).

<sup>105</sup> <http://www.unctad.info/en/CstdWG/>.

<sup>106</sup> <http://www.intgovforum.org/cms/FinalSynthesisPolicyOptionsForConnectingTheNextBillion.pdf>.

<sup>107</sup> <http://www.intgovforum.org/cms/igf2015-main-sessions>;  
[http://www.intgovforum.org/cms/10th%20IGF%20Chairs%20Summary\\_Finalv2.pdf](http://www.intgovforum.org/cms/10th%20IGF%20Chairs%20Summary_Finalv2.pdf).

### Measuring ICT for development

105. The Partnership on Measuring ICT for Development is a collaborative forum of 14 United Nations and other agencies, concerned with data collection and analysis on ICT for development and WSIS outcomes.<sup>108</sup> In February, it presented a proposal concerning the relationship between ICTs and the measurement of Sustainable Development Goals to a United Nations expert group meeting on the indicator framework for the 2030 Agenda for Sustainable Development.<sup>109</sup> Work on establishing modalities for the measurement of the Goals will be completed in 2016.

106. ITU maintains the world telecommunication/ICT indicators database, which includes more than 100 indicators from over 200 countries.<sup>110</sup> In November, ITU published its annual *Measuring the Information Society* report, which assessed trends over the preceding five years in the ICT Development Index, including data on ICT access, usage and skills.<sup>111</sup> The report also assessed movements in the ICT price basket and discussed the implications of the Internet of Things for analysis of development data.

107. General Assembly resolution 70/125 reiterated the call of the 2030 Agenda for Sustainable Development for a significant increase in access to ICTs and universal and affordable access to the Internet for all by 2020. It welcomed the targets set for connectivity and other aspects of ICT development in the Connect 2020 Agenda, which was adopted at the ITU Plenipotentiary Conference in 2014, including the target to achieve 60 per cent Internet usage by 2020.<sup>112</sup> New modalities for measuring progress towards the Connect 2020 targets for growth, inclusiveness, sustainability, innovation and partnership, were developed by ITU in 2015, paying particular attention to developing countries and the least developed countries.<sup>113</sup>

108. There has been particular concern to improve measurement of the digital divide, including the gender digital divide. Research concerning the gender digital divide was published by UNCTAD and ILO,<sup>114</sup> ITU<sup>115</sup> and the Global System for Mobile Communications Association.<sup>116</sup>

## V. Findings and suggestions

109. In 2015, the United Nations, with the support of all stakeholders, adopted the 2030 Agenda for Sustainable Development and General Assembly resolution 70/125. Together, these set the scene for growing synergies between WSIS outcomes, the development of the information society and the achievement of sustainable development.

110. ICTs have become much more pervasive in the 10 years since WSIS, while their nature has been transformed by the rapid pace of innovation, leading to the introduction of new services such as social media and the emergence of new modalities of connectivity and

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<sup>108</sup> ITU, UNCTAD, Department of Economic and Social Affairs, UNESCO Institute for Statistics, ECA, ECLAC, ESCAP, ESCWA, ILO, UNEP/Basel Convention, United Nations University, OECD, the World Bank and Eurostat. See <http://www.itu.int/en/ITU-D/Statistics/Pages/intlcoop/partnership/default.aspx>.

<sup>109</sup> <http://www.itu.int/en/ITU-D/Statistics/Documents/intlcoop/partnership/Partnership-Background-note-on-ICT-indicator-proposal-for-Expert-Group.pdf>.

<sup>110</sup> <http://www.itu.int/ITU-D/ICTEYE/>.

<sup>111</sup> See footnote 7.

<sup>112</sup> <http://www.itu.int/en/connect2020/Pages/default.aspx>.

<sup>113</sup> See footnote 7.

<sup>114</sup> [http://unctad.org/en/PublicationsLibrary/tn\\_unctad\\_ict4d04\\_en.pdf](http://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d04_en.pdf).

<sup>115</sup> See footnote 7.

<sup>116</sup> [http://www.gsma.com/connectedwomen/wp-content/uploads/2015/02/GSM0001\\_02252015\\_GSMAReport\\_FINAL-WEB-spreads.pdf](http://www.gsma.com/connectedwomen/wp-content/uploads/2015/02/GSM0001_02252015_GSMAReport_FINAL-WEB-spreads.pdf).

access such as cloud computing. As a result, ICTs have become increasingly central to the work of government and business and to the lives of individual citizens – changing the nature of the administration and delivery of public services; enabling the emergence of new types of enterprise and employment, while challenging long-established ones; and giving people new opportunities to access information, express themselves and interact with one another. These achievements have been accompanied, however, by associated problems, including the risks of greater inequality arising from digital divides, as well as threats to personal security, privacy and environmental costs.

111. The 15 years between 2015 and the conclusion of the 2030 Agenda will see ICTs become even more pervasive, while big data, the Internet of Things and other innovations in technology and services are likely to have at least as transformative an impact as that which has occurred since WSIS. The implications of these developments for government, economy and society will be profound. Experience since WSIS has shown that it is difficult to predict the nature and impact of ICT innovations: many of the services that are now widespread were not anticipated in 2005.

112. The growing importance and rapid evolution of the information society pose a number of challenges that were recognized in the General Assembly's overall review of the implementation of WSIS outcomes. Addressing these will be critical to post-2015 implementation and follow-up.

113. The international community must strengthen its focus on making the information society more people-centred, inclusive and development-oriented. Evidence from the WSIS+10 review shows the extent to which digital divides between and within countries inhibit full achievement of the benefits of the information society. More needs to be done in particular to ensure that the least developed countries, and poor and marginalized communities in all countries, are not left behind. General Assembly resolution 70/125 also paid particular attention to ensuring the full inclusion of women and girls in the information society, including the achievement of gender equality in Internet use and their greater involvement as employees, entrepreneurs, innovators and decision makers. Inclusion is a matter not just of connectivity, but also of affordability and the development of content and capabilities.

114. The United Nations and other stakeholders should build a deeper understanding of the nature of the evolving information society and the impact that it has on government, economy and society. More evidence needs to be gathered and analysed, more systematically, to ensure that decision makers have the information they need to make appropriate decisions, evaluate the impact of policy choices and decisions, address emerging challenges in areas such as cybersecurity and human rights, and leverage benefits from innovations in technology. This requires imaginative new approaches, including capacity-building for data gathering and analysis in developing countries.

115. Strong synergies are needed between the information society and the implementation of the 2030 Agenda for Sustainable Development. The more pervasive and capable ICTs become, the more impact they will have on each of the Goals of the 2030 Agenda, facilitating their implementation through new technologies and capabilities, and enabling more effective monitoring and measurement of progress towards sustainable development through big data gathering and analysis. If the development potential of the information society is to be fully realized, these trends need to be captured in national and international development strategies, particularly those concerned with achievement of the Goals.

116. The General Assembly recognized in its overall review that these challenges cannot be met without the continued participation, partnership and cooperation of Governments, the private sector, civil society, international organizations, the technical and academic communities, and other stakeholders from all countries. Multi-stakeholder cooperation and engagement have characterized the WSIS process since its inception. Their contribution to

building synergies between the information society and the overarching Goals of the international community, set out in the 2030 Agenda for Sustainable Development, will be equally important.

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