United Nations E/ESCAP/CICTSTI(1)/4

Economic and Social Council

Distr.: General
20 July 2016

Original: English

Economic and Social Commission for Asia and the Pacific
Committee on Information and Communications Technology,
Science, Technology and Innovation

First session
Bangkok, 5-7 October 2016
Item 2 (b) of the provisional agenda*
Policy issues for information and communications technology: regional review of the implementation of the World Summit on the Information Society action lines

Regional review of the implementation of the World Summit on the Information Society action lines

Note by the secretariat

Summary

The aim of the present report is to provide an overview of the lessons learned on the effectiveness of the regional processes and stakeholders in the implementation of the World Summit on the Information Society action lines in Asia and the Pacific. In order to fully appreciate the complexity of these processes, involving different stakeholders within the new development framework of the Sustainable Development Goals, the report discusses the World Summit implementation processes at the national, regional and international levels, followed by lessons learned from past World Summit reviews. Taking into account the rapid advances in technology and the need for sharing good practices and lessons learned at the regional level, the report aims to discern and recommend key elements for the regional review of the implementation of the action lines of the World Summit on the Information Society, as mandated by the Economic and Social Commission for Asia and the Pacific in its resolution 72/10.

This report further recommends, for consideration by member States, key elements in coordinating the regional review of the implementation of the action lines, linking national and multilateral processes with multi-stakeholder participation and engagement. In addition, the report recommends that action line facilitators be involved in the regional reviews, in order to enhance information-sharing and inter-agency coordination. The secretariat will continue to contribute to the World Summit on the Information Society Forum, led by the International Telecommunication Union, as well as the Commission on Science and Technology for Development.

* E/ESCAP/CICTSTI(1)/L.1.

Please recycle

I. Introduction

1. As a versatile technology and meta-infrastructure, information and communications technology (ICT) now permeates every facet of our lives: enabling trillions of dollars of financial transactions every day; connecting weather forecasts to agricultural production and disaster management; managing intelligent transport and trade facilitation; monitoring epidemics; advancing climate change adaptation; creating new businesses and even industries. The advent of ubiquitous ICT, cloud computing, big data and the "Internet of things" will allow devices to connect to each other and transmit data, providing unparalleled opportunities for vast data collection and analysis, which have become the basis for the emerging digital economy and smart cities.

2. In recognition of the importance of ICT for development, the World Summit on the Information Society Forums – held in Geneva in 2003 and in Tunis in 2005 – were organized under the auspices of the United Nations as a global initiative to address the growing digital divide. Characterized as a multi-stakeholder participatory approach, governments, civil society, international agencies, academia and the private sector all contributed to the decision-making processes.

3. The Geneva Plan of Action set forth the objectives of the World Summit on the Information Society as follows: (a) to build an inclusive information society; (b) to put the potential of knowledge and ICT at the service of development; (c) to promote the use of information and knowledge for the achievement of internationally agreed development goals, including those contained in the Millennium Declaration; and (d) to address new challenges of the information society, at the national, regional and international levels. The Geneva Plan of Action also outlined the World Summit action lines and specific targets for the information society to be established at the national level in the framework of national e-strategies, aligned with national development policies. The targets are to serve as benchmarks for actions and evaluation.

4. The Geneva Plan of Action set out 10 targets focusing on availability and access to ICT for development. [1] In addition, it established 11 action lines concerned with different areas of the information society with a focus on the impact and application of ICT. [2] Annual action line facilitators' meetings are open to all stakeholders to review progress at the global World Summit on the Information Society Forum. The emerging trends in the 11 action lines are summarized as an outcome of the World Summit on the Information Society Forum on a yearly basis. In the run-up to the overall review of the World Summit by the General Assembly, fresh priorities and trends in all the action lines were identified by a variety of stakeholders and reflected in the "WSIS+10 statement on the implementation of WSIS outcomes" and the "WSIS+10 vision for WSIS beyond 2015".[3]

---

[1] See A/C.2/59/3, annex. Available from www.itu.int/net/wsis/docs/geneva/official/poa.html#c1.

[2] Available from www.itu.int/net/wsis/stocktaking/help-action-lines.html.

[3] Available from www.itu.int/net/wsis/implementation/2014/forum/dam/documents.html#high-level. In addition, the United Nations Educational, Scientific and Cultural Organization (UNESCO) held an event in 2013 entitled "Information and knowledge for all: an expanded vision and a renewed commitment", which captured trends in the action lines facilitated by UNESCO.

5. The Tunis Agenda for the Information Society mandated the Economic and Social Council to oversee the system-wide follow-up of the World Summit outcomes.[4] The Tunis Agenda identified key areas that required national and international actors' attention, including: (a) regional backbone infrastructure, especially in economically disadvantaged regions; (b) broadband capacity; (c) international access and connectivity in least developed countries, landlocked developing countries and small island developing States; (d) the development of ICT applications and content for poverty alleviation and; (e) capacity-building for regulators and policymakers.

6. The 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development came into effect on 1 January 2016, succeeding the Millennium Development Goals. Over the next 15 years, these universal Goals will mobilize and catalyse efforts to end all forms of poverty, fight inequalities and tackle climate change. Regional follow-up and review will be based on national-level analyses and contribute to follow-up and review at the global level.

7. In view of the new development framework of the Sustainable Development Goals, the implementation and monitoring of the action lines of the World Summit on the Information Society need to reflect emerging and diverse development challenges and the transformative capabilities of ICT, such as broadband and mobile technologies, big data, cloud computing and the Internet of things and "over-the-top content", also taking into account the increasing need for regional cooperation in sharing good practices and lessons learned and materializing development benefits of these technologies based on improved connectivity.

8. The present report aims to lay out the mechanisms for the implementation and monitoring of the actions lines at the national, regional and international levels and to discern lessons learned from the previous reviews, based on which it recommends key elements in the processes for the regional review mandated by the Economic and Social Commission for Asia and the Pacific (ESCAP) in its resolution 72/10.

II. Mandates for World Summit on the Information Society action line implementation at the national, regional and global levels

A. National level

9. At the national level, most Member States implement national ICT strategies for development, taking into account, to a varying degree, the World Summit on the Information Society targets and other internationally agreed development goals. These national ICT strategies are either stand-alone policies or have been incorporated into their respective national development policies and plans. The collection of national ICT statistics by national statistics offices is mostly done through national censuses and household income and expenditure surveys or, in some cases, from the regulatory authority responsible for ICT. Upon yearly requests from the International Telecommunication Union (ITU) to the national authority responsible for telecommunications, selected ICT statistics are submitted to ITU.

[4] See A/60/687.

B. Regional level

10. The ESCAP secretariat was requested to coordinate activities for the World Summit on the Information Society at the regional level within the overall framework of the Millennium Development Goals. In its resolution 62/5, ESCAP mandated the secretariat to facilitate the development of the information society in the Asia-Pacific region, in particular, to strengthen regional cooperation in ICT for development.

11. In resolution 69/10, ESCAP further requested the secretariat to "[…] pursue the facilitation and coordination of the regional review of progress in implementation of the targets set out in the outcome documents of the World Summit on the Information Society". As a result, a regional survey[5] of progress towards World Summit on the Information Society target indicators was conducted by ESCAP for the member countries periodically, the latest of which was in 2014.[6] The findings of these surveys and reports served as a basis for the global review processes on the World Summit.[7]

12. Following the overall review in 2015, the General Assembly resolved to hold the World Summit on the Information Society Forum on an annual basis until 2025, and called for close alignment between the World Summit and Sustainable Development Goal processes. The General Assembly, in its resolution 70/125,[8] requested regional commissions to coordinate a regular regional review of action line implementation. In Asia and the Pacific, an intergovernmental committee – the ESCAP Committee on Information and Communications Technology, Science, Technology and Innovation – provides an ideal regional platform for member countries to share good practices and lessons learned as well as inputs into regional and eventually international processes on the World Summit.

13. As part of the action line implementation, in particular, with respect to improving ICT connectivity in Asia and the Pacific, ESCAP member States recommended the creation of an open-ended working group on the Asia-Pacific information superhighway, which was endorsed by ESCAP in its resolution 71/10. The working group held its first meeting in Incheon, Republic of Korea, on 1 and 2 September 2015. The meeting brought together ICT policymakers, broadband infrastructure experts and representatives of civil society and the private sector in order to address the digital divide, one of the persistent challenges and therefore a major goal of the World Summit. The details of the progress made towards the Asia-Pacific information superhighway have been presented in one of the Committee's reports (E/ESCAP/CICTSTI(1)/1). As part of the regional World Summit implementation, the regional commissions hold an annual meeting at the World Summit on the Information Society Forum to coordinate activities, share experiences and draw annual workplans for World Summit implementation.

---

[5] Available from www.unescap.org/sites/default/files/ESCAP%20WSIS%20target%20review%20rev%2026%20May_0.pdf.

[6] Available from www.unescap.org/sites/default/files/ESCAP%20review%20of%20the%20WSIS%20Targets%20and%20regional%20perspectives_0.pdf.

[7] Available from http://unctad.org/en/PublicationsLibrary/a69d65_bn_ESCAP.pdf.

[8] See General Assembly resolution 70/125.

14. In this context, in May 2016, the Commission requested the secretariat, in its resolution 72/10, to hold a regional review of the implementation of the World Summit action lines as part of the session of the Committee on Information and Communications Technology, Science, Technology and Innovation and ensure linkage to the global World Summit on the Information Society Forums. Subsequently, ESCAP, in collaboration with international and regional organizations, followed up and undertook several activities, such as developing technical materials and organizing capacity-building workshops as side events to the Committee session. The inputs from the regional review will be consolidated and submitted by the ESCAP secretariat to the global review processes on the World Summit in 2017 and other Sustainable Development Goal-related processes.

C. International level

15. At the international level, the World Summit on the Information Society Forum is organized each year, co-organized by ITU, UNESCO, the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Development Programme (UNDP), in close collaboration with all action line facilitators.

16. The General Assembly, in its resolution 70/125, on the World Summit on the Information Society, acknowledged the urgent need to bridge the digital divide and to assist developing countries, including least developed countries, landlocked developing countries, small island developing States and countries with economies in transition to benefit fully from the potential of ICT.

17. In support of the monitoring of action line implementation, the Partnership on Measuring Information and Communication Technology for Development, comprising 14 international organizations, focuses on the collection and dissemination of ICT statistics and guides developing countries in the production of ICT statistics for evidence-based decision-making.[9] The regional review reports were submitted to the Partnership, based on a global review of the World Summit targets that was completed in 2014.[10]

18. At the global level, the World Summit on the Information Society stocktaking process[11] highlights the importance of sharing best practices at the global level and, while recognizing excellence in the implementation of the projects and initiatives that further the goals of the World Summit and noting the report on the World Summit success stories, encourages all stakeholders to nominate their projects for the annual World Summit project prizes.[12]

---

[9] ITU; Organization for Economic Cooperation and Development; UNCTAD; UNESCO Institute for Statistics; Department of Economic and Social Affairs of the Secretariat; World Bank; United Nations University Institute for the Advanced Study of Sustainability; Economic Commission for Africa; Economic Commission for Latin America and the Caribbean; ESCAP; Economic and Social Commission for Western Asia; Eurostat; Secretariat of the Basel; Rotterdam and Stockholm Conventions; and International Labour Organization.

[10] International Telecommunications Union, *Final WSIS Targets Review: Achievements, challenges and the way forward* (Geneva, 2014). Available from www.itu.int/en/ITU-D/Statistics/Documents/publications/wsisreview2014/WSIS2014_review.pdf.

[11] See www.itu.int/net4/wsis/stocktakingp/en.

[12] See www.itu.int/net/wsis/.

19. The Economic and Social Council mandated its Commission on Science and Technology for Development to serve as the focal point in the system-wide follow-up on the World Summit on the Information Society outcomes. The Commission submitted the results of its 10-year review of progress made in the implementation of the World Summit outcomes to the General Assembly in preparation for the overall review of the implementation of the World Summit outcomes in 2015.[13]

20. In May 2016, the World Summit on the Information Society Forum was held in Geneva on the theme, "WSIS action lines: supporting the implementation of the SDGs". The theme focused on linking the World Summit on the Information Society to the Sustainable Development Goals. Each action line has a facilitator from a relevant United Nations organization that coordinates and monitors progress for each action line.[14] A global review of the implementation of the World Summit outcomes was undertaken in 2015, highlighting not only tremendous advancement but also persistent challenges in building the information society in all regions, including in Asia and the Pacific.[13]

21. Despite the procedures and processes put in place to encourage action line implementation, the ESCAP secretariat identified, in its research and analysis, persistent and emerging challenges in achieving the World Summit goals and targets in Asia and the Pacific, taking also into account the new requirements associated with the Sustainable Development Goals. Section III illustrates the challenges related to the action line implementation itself as well as the regional review mechanisms and processes.

III. Lessons learned from past World Summit on the Information Society implementation and reviews

A. Widening digital divide in Asia and the Pacific

22. Improving ICT access and connectivity has been at the heart of the World Summit framework and, therefore, has been one of the main goals and targets. Although Asia and the Pacific has been leading global ICT growth in the past decade, it has been recognized that, with the accelerated pace of technological advances and innovations, the more advanced countries have embraced new technologies, applications and usage at a faster pace, while the rest of the countries are unable to catch up with constantly moving targets, thus creating an ever widening digital divide.

23. For instance, some of the region's ICT advanced economies top major ICT indicators. The Department of Economic and Social Affairs' *United Nations E-Government Survey 2014: E-Government for the Future We Want* ranked the Republic of Korea, Australia and Singapore as the top three countries, followed by Japan and New Zealand at sixth and ninth, respectively.[15] The ITU ICT Development Index 2015,[16] which measures ICT access, usage and skills, ranked the Republic of Korea at the top of the list,

[13] UNCTAD and World Summit on the Information Society, *Implementing WSIS Outcomes: A Ten-year Review* (New York and Geneva, 2015). Available from http://unctad.org/en/PublicationsLibrary/dtlstict2015d3_en.pdf.

[14] Available from www.itu.int/en/itu-wsis/Pages/focal_points_al.aspx.

[15] *United Nations E-Government Survey 2014: E-Government for the Future We Want* (United Nations publication, Sales No. 14.II.H.1).

[16] Available from www.itu.int/net4/ITU-D/idi/2015.

followed by Hong Kong, China (ninth), Japan (eleventh) and Australia (thirteenth).

24. However, based on ESCAP analyses, the gap in broadband connectivity – as measured by fixed broadband subscriptions – among ESCAP member countries continues to widen and is unlikely to close without targeted interventions. In fact, the broadband expansion observed in Asia and the Pacific has been primarily driven by one country – China – with more than 50 per cent of the total fixed broadband subscriptions for the Asia-Pacific region in 2014. This trend has increased the region's broadband connectivity share of the global total to more than half. However, the broadband connectivity level among ESCAP members varies significantly, with the slowest progress observed among low-income countries, which resulted in an inevitable widening of the digital divide. Unaddressed, this disparity between the advanced and developing economies will lead to gaps in ICT access, capabilities and usage in a wide range of socioeconomic sectors. This is one of the reasons behind the General Assembly's adoption in 2015 of an outcome document of its review of the World Summit on the Information Society implementation,[8] noting the critical importance of alignment between the World Summit and the Sustainable Development Goals to capitalize on the transformative capabilities of ICT towards the achievement of the Goals.

B. Financing mechanisms on the information society

25. The Geneva Plan of Action recognized the need for appropriate financing mechanisms for developing the information society and urged developed countries, international financing institutions and developing countries to collaborate on this matter. The growth of the telecommunications sector as a result of introduced competition and privatization of telecommunications markets since the 1980s and 1990s witnessed a dramatic shift from public to private investments. As a result, multilateral and bilateral donors, including the World Bank, refocused their ICT sector investments from direct financing to supporting policy reforms and encouraging private sector investment. However, private investment tends to prioritize profitable markets, which has resulted in relatively larger, prosperous and urban markets receiving more financing and subsequently better ICT coverage, compared with smaller, less prosperous and profitable markets and regions. National Governments responded to this dynamic by putting in place a number of regulatory and policy measures such as licensing obligations, fiscal incentives and subsidies to promote network deployment in less economically viable areas. In some cases, these regulatory measures – universal service obligations – have been encouraged by multilateral donors as one of the conditions for funding of ICT infrastructure investments.

26. Despite these efforts, the Commission on Science and Technology for Development Secretariat's report on the World Summit on the Information Society outcomes noted that gaps in investment patterns largely remained, while regional cooperation, multi-stakeholder partnerships and seed financing were found to be critical elements for addressing ICT infrastructure gaps.[13] The report also noted the importance of investment beyond infrastructure to include content, applications and human capabilities, to develop the envisaged information society.

27. In support of the Geneva Plan of Action and the Tunis Agenda, and in particular to promote regional public-private partnerships on ICT investment, the Asia-Pacific information superhighway initiative provides an ideal regional platform for linking multilateral donors, national Governments and

operators. The information superhighway is an initiative to improve regional broadband connectivity, through a dense web of open access cross-border network infrastructure, creating a cohesive land- and sea-based fibre infrastructure with the ultimate aim of increasing the international bandwidth for developing countries in the region, to lower broadband Internet prices and to bridge the digital divide in the region,[17] as elaborated in a report presented to the Commission at its seventy-second session.[18] The information superhighway initiative contributes directly to the other key areas identified by the Geneva Plan of Action and the Tunis Agenda, in particular, promoting a regional backbone ICT infrastructure, with special attention to least developed countries, landlocked developing countries and small island developing States. In their efforts to bring affordable ICT and broadband connectivity to all, ESCAP and ITU are working together on interactive terrestrial transmission and Asia-Pacific information superhighway maps.[19]

C. Multi-stakeholder meetings on World Summit on the Information Society reviews

28. The World Summit on the Information Society action line facilitators meet to discuss gaps and opportunities in the implementation and monitoring progress of each action line. In particular, they discuss strategies on the way forward based on their analyses and stocktaking exercises. These meetings are held annually at the World Summit Forum held at ITU headquarters in Geneva. In some Member States, there are national committees on the World Summit on the Information Society (or on the information society in other Member States), with similar objectives and national focus. Other non-governmental organizations are also involved in World Summit action line reviews that strengthen stakeholder involvement in the World Summit implementation and review.

29. In ESCAP resolution 72/10, the Commission mandated the ESCAP secretariat to collaborate with international and regional organizations to hold regional preparatory consultations on World Summit action line implementation, taking into account the new requirements associated with the Sustainable Development Goals and emerging technologies and development trends. The preparatory meetings are designed to assess opportunities and challenges towards the implementation of the World Summit action lines.

30. The contributions from different stakeholders, including the private sector, civil society organizations, academia and the mass media, could provide invaluable insights and help catalyse and synergize often disparate and unconnected efforts towards common goals. These contributions from different stakeholders could also contribute to the work of the Regional Inter-agency Working Group on Information and Communications Technologies[20] at the regional level, co-organized by the ESCAP secretariat, the Asia-Pacific Telecommunity and ITU. The outcome and recommendations from such preparatory and multi-stakeholder meetings are expected to serve as a basis for deliberations at the ESCAP intergovernmental platforms and subsequently feed into global processes coordinated by ITU, the Economic and Social Council and the General Assembly.

---

[17] For additional information, please see www.unescap.org/our-work/ict-disaster-risk-reduction/asia-pacific-information-superhighway.

[18] E/ESCAP/72/17.

[19] See www.itu.int/itu-d/tnd-map-public/.

[20] See www.unescap.org/events/19th-meeting-regional-interagency-working-group-iwg-information-and-communication.

D. Methodological issues in measuring World Summit on the Information Society indicators

31. **Data collection and availability**. Recent reviews of the World Summit on the Information Society outcomes continue to highlight the challenge of lack of updated ICT statistics collected on a yearly basis in developing countries.[21] The Partnership on Measuring Information and Communication Technology for Development has identified a core list of over 50 indicators[22] covering areas including ICT infrastructure, access and use of ICT by households and individuals, use of ICT by businesses, the ICT sector, trade in ICT goods and ICT in education and e-government. Wherever possible, the indicators use existing international statistical standards for measuring ICT, developed by each specialized agency of the Partnership.

32. While some of these ICT indicators are regularly collected and disseminated by Partnership members, other indicators are not collected on a regular basis (or not publicly available). The limited information collected from the ESCAP regional review in 2014 reflected the lack of relevant data available at the national level on several World Summit target indicators. Hence, in order for member country Governments and relevant stakeholders to take advantage of the opportunities provided by ICT connectivity and to measure the progress towards World Summit goals, complete and updated ICT statistics need to be collected and made publicly available on a regular basis.

33. **Measuring the impact of the ICT sector on economic growth**. Effective monitoring of countries' progress against the World Summit targets and Sustainable Development Goals is a challenge. While it is easier to measure inputs on the supply side of the ICT sector (for example, connectivity or the direct macroeconomic impact of the ICT sector on growth as recorded in national accounts), measuring the impact of ICT on other sectors such as health and education is less straightforward. Data availability in key areas for estimating the demand side is often lacking (for example, operators' financial reports, including expenditure figures are often not readily available in several ESCAP least developed countries, landlocked developing countries and small island developing States). Therefore, effective monitoring of the progress towards the World Summit targets and, in particular, its contribution to the Sustainable Development Goals, is dependent on a better understanding of the statistics behind the supply and demand sides of the ICT sector.

[21] Available from http://unctad.org/SearchCenter/Pages/Results.aspx?k=http://unctad.org/en/PublicationsLibrary/dtlstict2015d3_en.pdf (2015) and www.unescap.org/sites/default/files/ESCAP%20WSIS%20target%20review%20rev%2026%20May_0.pdf (2014).

[22] Core ICT indicators (as at March 2016) are available from www.itu.int/en/ITU-D/Statistics/Documents/coreindicators/Core-List-of-Indicators_March2016.pdf.

E. Mainstreaming information and communications technology capabilities into wider socioeconomic sectors and development policies

34. While mainstreaming ICT into the national strategic development policies of several ESCAP member States has, to a certain degree, been realized, the recent reviews on World Summit on the Information Society implementation found that ICT is still seen and treated as stand-alone programmes or projects within governments or in the private sector. This constrains the potential of leveraging the opportunities that ICT can offer to governments, businesses and individuals. High geographical coverage of mobile networks in rural communities in Asia (87 per cent) and Oceania (84 per cent) provides opportunities for rural communities to use ICT more effectively for agricultural production among other socioeconomic uses. In the area of health, 85 per cent of countries worldwide had put in place e-health strategies in 2014.[23] As envisaged in the World Summit outcome documents and in support of the Sustainable Development Goals, more efforts should be made to further enhance integration and mainstreaming of ICT in various socioeconomic sectors.

F. Information and communications technology policy relevance to the changing technological landscape

35. ICT is a dynamic sector with rapid technological advancements and changes in the landscape. Based on UNCTAD estimates, the capabilities of ICT networks and services are now 30 times greater than the ones at the time of the establishment of the World Summit on the Information Society, and they will continue to expand rapidly. This requires ICT policymakers and regulators to keep up with technological advances and update relevant policies and regulations in this dynamic environment. Enabling policy and regulatory environments are critical to maximize the benefits of emerging technologies such as the Internet of things, online social media, big data and cloud computing.

36. These emerging ICT developments will greatly expand the data available to enhance development opportunities, yet they pose substantial regulatory challenges that can have a significant impact on governments, businesses and consumers. The so-called “fourth-generation regulation” is viewed as a necessary response to the recent dynamic changes in the digital ecosystem and as an opportunity to advance regulatory practices and goals. This new model based on consultation and partnership differs from previous regulation paradigms in the emphasis that regulators place on the pursuit of social and economic policy goals, as well as on the need for improved consumer protection and access to broadband networks.

37. A regional review process should take into account the challenges ICT policy and decision makers encounter in addressing the changing technological landscape through the sharing of lessons learned and good practices at the regional level and leverage regional cooperation wherever applicable, supported by close cooperation and collaboration among United Nations agencies and international organizations active in the area of ICT for development.

[23] Available from http://unctad.org/en/PublicationsLibrary/dtlstict2015d3_en.pdf.

IV. Towards an effective framework of the World Summit on the Information Society regional review

38. Given the complexities and lessons learned from recent reviews of the World Summit on the Information Society action line implementation since the Geneva Plan of Action and Tunis Agenda, the Committee may wish to consider key elements identified for the regional review processes. This is particularly important in light of the recent call for the need to link World Summit action lines with the Sustainable Development Goals.

39. The ESCAP secretariat, as requested in resolution 72/10, would coordinate the regional review process in collaboration with the various stakeholders identified above. The secretariat would also coordinate with the Partnership's focal points and World Summit action line facilitators in order to ensure that a comprehensive regional review process is undertaken. At the same time, collaboration with regional and international partners will be undertaken through the above-mentioned Regional Inter-agency Working Group on Information and Communications Technologies, preparatory and multi-stakeholder meetings and other mechanisms to avoid duplication and create synergies.

40. Continued efforts will be made in ICT capacity development among government leaders, civil servants, students/youth and women entrepreneurs through the United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development and other partners. The ESCAP secretariat will support the above activities by undertaking the World Summit regional review-related research and analyses to bring them to the attention of the member countries and to provide a regional platform for strengthened regional cooperation.

41. Through the coordination of the World Summit on the Information Society facilitators, led by ITU, a mapping exercise identified the linkages between the World Summit action lines and the Sustainable Development Goals. As a result, a matrix was developed to better understand the linkages (see table 1).

42. According to the matrix, all the World Summit action lines are directly linked to (a) certain Sustainable Development Goal target(s). In some cases, several World Summit action lines are linked to one target. At the same time, the matrix also reveals the cross-cutting nature of ICT in relation to the multiple dimensions of sustainable development.

Table 1
Sustainable Development Goals and World Summit on the Information Society linkages

	C1	C2	C3	C4	C5	C6	C7 e-government	C7 e-business	C7 e-learning	C7 e-health	C7 e-employment	C7 e-environment	C7 e-agriculture	C7 e-science	C8	C9	C10	C11
SDG 1	■	■	■	■	■			■		■			■	■			■	
SDG 2			■	■		■		■		■			■		■		■	
SDG 3	■		■	■						■			■				■	
SDG 4			■	■	■	■			■		■		■	■	■		■	
SDG 5	■		■	■	■	■		■		■			■			■	■	
SDG 6			■	■										■	■			
SDG 7			■		■									■				
SDG 8		■	■		■	■		■			■		■		■		■	
SDG 9		■	■		■	■	■	■				■	■			■	■	
SDG 10	■		■			■					■						■	
SDG 11		■	■		■	■						■			■		■	
SDG 12			■	■							■		■		■	■	■	
SDG 13			■	■								■	■	■			■	
SDG 14			■	■								■		■				
SDG 15			■									■		■				
SDG 16	■		■	■	■	■	■									■	■	
SDG 17	■		■	■	■	■	■	■		■	■		■	■			■	■

Source: International Telecommunication Union, "Advancing sustainable development through information and communication technologies: WSIS action lines enabling SDGs" (Geneva, 2014). Available from www.itu.int/net4/wsis/sdg/Content/wsis-sdg_booklet.pdf.

Abbreviations: SDG, Sustainable Development Goal.

Note: C1, Role of governments and all stakeholders in the promotion of ICTs for development; C2, Information and communication infrastructure: an essential foundation for the information society; C3, Access to information knowledge; C4, Capacity-building; C5, Building confidence and security in the use of ICTs; C6, Enabling environment; C7, ICT applications; C8, Cultural diversity and identity, linguistic diversity and local content; C9, Media; C10, Ethical dimensions of the information society; C11, international and regional cooperation.

43. Furthermore, the World Summit on the Information Society Secretariat analysed in detail the linkages between the Sustainable Development Goals and the World Summit as shown in table 2:[24]

Table 2
Sustainable Development Goals and World Summit comparison sample for Sustainable Development Goals 1 to 7

Sustainable Development Goal	*Relevant WSIS action line*
Goal 1: End poverty in all its forms everywhere (1.4, 1.5, 1.b)	C1, C2, C3, C4, C5, C7 e-business, C7 e-health, C7 e-agriculture, C7 e-science, C10
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture (2.3, 2.4, 2.5, 2.a)	C3, C4, C6, C7 e-business, C7 e-health, C7 e-agriculture, C8, C10
Goal 3: Ensure healthy lives and promote well-being for all at all ages (3.3, 3.7, 3.8, 3.b, 3.d)	C1, C3, C4, C7 e-health, C7 e-agriculture, C10
Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (4.1, 4.3, 4.4, 4.5, 4.7)	C3, C4, C5, C6, C7 e-learning, C7 e-employment, C7 e-agriculture, C7 e-science, C8, C10
Goal 5: Achieve gender equality and empower all women and girls	C1, C3, C4, C5, C6, C7 e-business, C7 e-health, C7 e-agriculture, C9, C10
Goal 6: Ensure availability and sustainable management of water and sanitation for all (6.a, 6.b)	C3, C4, C7 e-science, C8
Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all (7.1, 7.a, 7.b)	C3, C5, C7 e-science

Note: C1, Role of governments and all stakeholders in the promotion of ICTs for development; C2, Information and communication infrastructure: an essential foundation for the information society; C3, Access to information knowledge; C4, Capacity-building; C5, Building confidence and security in the use of ICTs; C6, Enabling environment; C7, ICT applications; C8, Cultural diversity and identity, linguistic diversity and local content; C9, Media; C10, Ethical dimensions of the information society; C11, international and regional cooperation.

44. The Partnership on Measuring Information and Communication Technology for Development also mapped out the existing ICT indicators against the Sustainable Development Goals, as demonstrated in table 3, although the table does not show the entire table that had been produced by the Partnership.[25]

[24] World Summit on the Information Society, *WSIS-SDG Matrix: Linking WSIS Action Lines with Sustainable Development Goals* (Geneva, 2015). See www.itu.int/net4/wsis/sdg/Content/wsis-sdg_matrix_document.pdf.

[25] Ibid, annex III.

Table 3
Sustainable Development Goals and World Summit indicators comparison sample

Sustainable Development Goals and targets	*Proposed ICT indicator*	*Available datasets (existing/developing)*
Goal 1: End poverty in all its forms everywhere		
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day		
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions		
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable		
1.4 By 2030 ensure that all men and women, particularly the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership, and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services including microfinance	1. Individuals using the Internet 2. Individuals owning a mobile phone 3. Population covered by a mobile broadband network, broken down by technology 4. Households with broadband Internet access	1. Existing, collected by ITU 2. Existing but new at the international level, data to be collected by ITU from 2015 3. Existing, collected by ITU 4. Existing, collected by ITU

Abbreviations: ITU, International Telecommunication Union.

45. In terms of the ICT-specific Sustainable Development Goals and targets, target 9.1 (Develop quality reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all) and means of implementation 9.c (Significantly increase access to ICT and strive to provide universal and affordable access to the Internet in least developed countries by 2020) are especially relevant to the context and circumstances in the region. Furthermore, under Goal 4 on education, one target requires the member countries "by 2020, [to] substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries". In the area of gender equality, Goal 5 has the target to "enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women". Sustainable Development Goal 17 further specifies the role of ICT as a means of implementation to "fully operationalize the technology bank and science, technology and innovation capacity-building mechanism

for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology".

46. In order to capitalize on the existing global review mechanisms, the World Summit on the Information Society regional review is proposed to be conducted for ESCAP member countries with the World Summit Secretariat and action line facilitators, including support by ITU, UNESCO and UNDP, playing the facilitating role in the implementation of the Geneva Plan of Action, taking into account the specific challenges and opportunities in Asia and the Pacific. The multi-stakeholder consultations and contributions as well as the Regional Inter-agency Working Group could supplement the review process and be geared towards each action line, with specific focus on the above mentioned ICT-related Sustainable Development Goal targets. The World Summit regional review will be reported to the subsequent sessions of the Committee. The review outcome will also serve as a basis for two interlinked regional and global processes of the Sustainable Development Goals and the World Summit, namely, the high-level political forum on sustainable development and the World Summit on the Information Society Forum after appropriate regional review processes.

47. The challenges and opportunities, good practices and lessons learned identified in the World Summit regional review process should also serve as a basis for further analysis, joint projects, harmonized approaches as well as regional cooperation, while issues which require attention by the ESCAP member countries will be brought forth to the Committee.

V. Issues for consideration by the Committee

48. The Committee may wish to consider the following matters:

(a) World Summit action lines are linked closely to the Sustainable Development Goals. Therefore, member States' efforts towards achieving the World Summit goals also contribute effectively to the Sustainable Development Goals;

(b) However, the effective implementation and monitoring of World Summit action line implementation continues to be hindered by several challenges, such as the persistent digital divide, affecting the ability of member countries to achieve the Sustainable Development Goals and World Summit goals effectively. These challenges need to be given special attention through regional initiatives, such as the Asia-Pacific information superhighway;

(c) Given the unique regional intergovernmental platform that ESCAP provides, the secretariat will coordinate the regional review of the World Summit action line implementation as proposed above, linking national and multilateral processes, with the engagement of action line facilitators, including ITU, UNESCO and UNDP, the Regional Inter-agency Working Group on Information and Communications Technologies and other stakeholders, such as the private sector, civil society, academia and the mass media. The secretariat should also continue and contribute to the World Summit on the Information Society Forum, led by ITU as well as coordinate with other ESCAP divisions for enhanced integration of ICT into various socioeconomic sectors;

(d) The World Summit action line facilitators will be requested to contribute to the regional review, in order to enhance information-sharing and inter-agency collaboration;

(e) The member countries are encouraged to enhance national-level efforts through revitalizing national World Summit (or information society) committees for better coordination among various government agencies, including national statistical offices, and between national, regional and global World Summit review processes, while active participation of not only ICT ministries and departments but also other stakeholders in the implementation and review processes would be urged;

(f) The regional review of the World Summit action line implementation should be linked to the Sustainable Development Goal review process whenever applicable to better reflect the role of ICT in sustainable development and the emerging requirements from the Sustainable Development Goal review processes at the regional and international levels should be channelled to the World Summit regional review through the ESCAP secretariat.