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Implementing World Summit on the Information Society outcomes, 2016-2017

Abstract

This report discusses 2016-2017 trends related to the implementation of the World Summit on the Information Society (WSIS) at the regional and international levels. It has been prepared with a view to complement the report of the Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (A/72/64-E/2017/12).

The first section outlines current levels of information and communication technology (ICT) access and use and considers ongoing digital divides. Subsequent sections address, in turn, linkages between information and communication technologies (ICTs) and sustainable development goals (SDGs) and constraints inhibiting developmental outcomes; emerging trends in ICTs and services including e-government and e-commerce; and challenges facing WSIS implementation in areas including governance, employment and capacity-building and data gathering.

Key words: WSIS follow-up, information and communication technologies (ICTs), SDGs

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Introduction

The Secretary-General is requested by the General Assembly to report annually, through the ECOSOC, on progress made in implementing the outcomes of the World Summit on the Information Society (WSIS), which was held in two phases in 2003 and 2005. This report complements the report of the Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (A/72/64-E/2017/12).[1]

The General Assembly completed its ten-year review of the implementation of WSIS outcomes in December 2015.[2] In the outcome document from that review (A/RES/70/125), the Assembly reiterated the commitment of all stakeholders, articulated in the Tunis Agenda for the Information Society, to build 'a people-centred, inclusive and development-oriented Information Society.'[3] It emphasised the importance of integrating the Information Society with the international community's work to implement the 2030 Agenda for Sustainable Development and fulfil its Sustainable Development Goals (SDGs). The WSIS+10 review and the 2030 Agenda provide the framework for continued efforts by the international community to implement WSIS outcomes for the next decade.

The first section of this report outlines current levels of ICT access and use and considers ongoing digital divides. Subsequent sections address, in turn, linkages between ICTs and SDGs and constraints inhibiting developmental outcomes; emerging trends in information and communication technologies and services including e-government and e-commerce; and challenges facing WSIS implementation in areas including governance, employment and capacity-building and data gathering.

[1] http://unctad.org/en/PublicationsLibrary/a72d64_en.pdf
[2] http://workspace.unpan.org/sites/Internet/Documents/UNPAN96078.pdf
[3] http://www.itu.int/net/wsis/docs2/tunis/off/6rev1.html

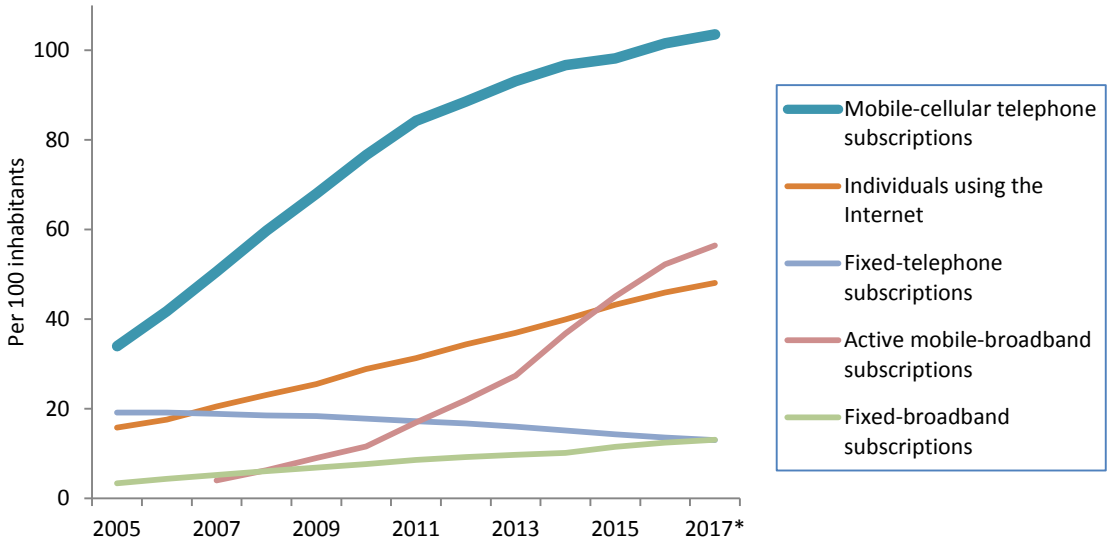
1. The digital divide

Access for all to ICTs, including the Internet, is essential if they are to change lives and promote sustainable development. Considerable progress has been made since WSIS, as shown in Figure 1, but much still needs to be done to reduce inequalities in digital access and achieve the core goal of the sustainable development agenda, that 'no-one should be left behind.'

The number of people with mobile phone subscriptions worldwide is now more than 60% of the world's population.[4] It is estimated that 48% of the world's inhabitants made use of the Internet at least once in a three-month period in 2017, compared with 15.8% in 2005, and that 53.6% of households had Internet access at home by 2017, compared with 18.4% in 2005.[5] The capabilities of the networks, devices and services they use are far greater now than they were then.

However, these global figures mask continued digital divides in ICT access and use which are critical concerns for WSIS implementation.

Figure 1
Changes in global uptake of ICTs, 2005-2017

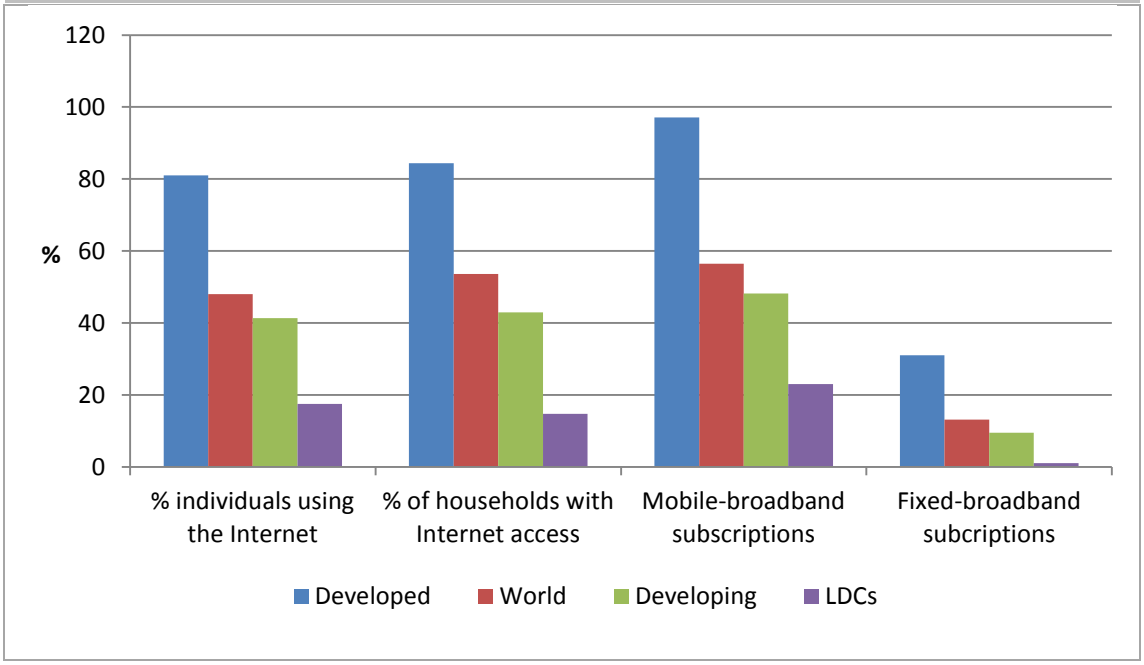


Note: *Estimate
Source: ITU World Telecommunication /ICT Indicators database

[4] https://www.gsmaintelligence.com/research/?file=9e927fd6896724e7b26f33f61db5b9d5&download
[5] Global and regional ICT data (source ITU), http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

As illustrated in Figures 2 and 3, there are marked differences in ICT access and use between developed and developing countries, with particularly low levels for least developed countries (LDCs), and within certain geographic regions. Latest estimates suggest that there are 97.1 active mobile broadband subscriptions and 31 fixed broadband subscriptions for every 100 inhabitants in developed countries, compared with 48.2 and 9.5 in developing countries. These figures are particularly low in sub-Saharan Africa (26 and 0.4), where the proportion of households with Internet access at home is estimated to be 18 per cent compared with 48.1 per cent in the Asia-Pacific region and 84.2 per cent in Europe.[6] There is an even greater broadband divide between and within countries in terms of access, speed as well as affordability.[7]

Figure 2
Access to ICTs by development status, 2017 estimates



Note: The developed/developing country classifications are based on the UN M49, see: http://www.itu.int/en/ITU-D/Statistics/Pages/definitions/regions.aspx.html
Source: ITU[8]

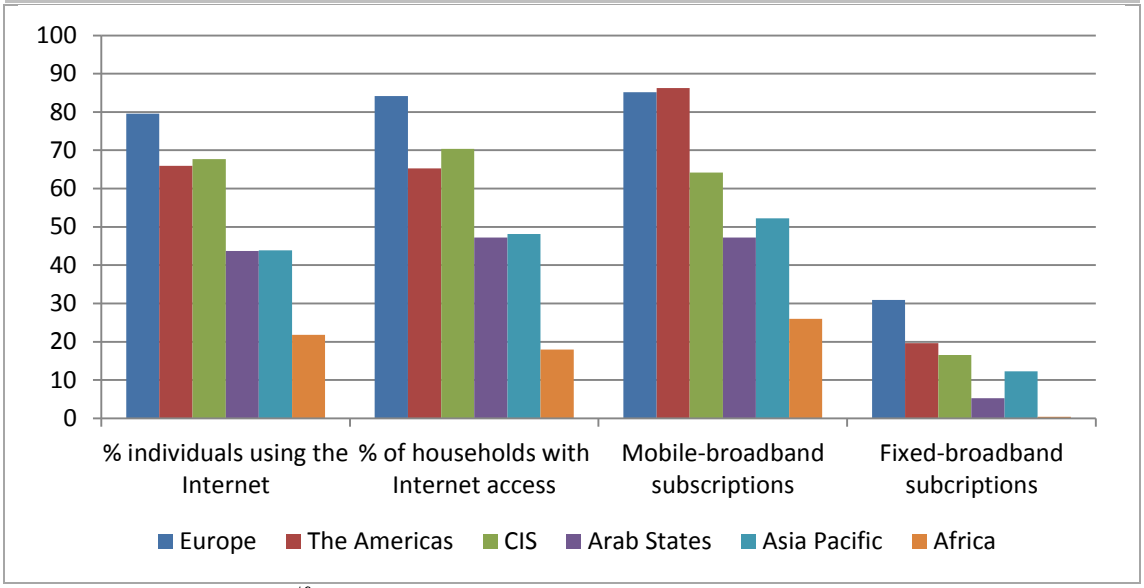
These differences have proved to be persistent as developed countries and emerging market economies are better placed to take advantage of new technological developments than other countries.[9]

There is a strong association between LDCs and those that are least connected.[10] The *2030 Agenda for Sustainable Development* calls on stakeholders to 'strive to provide universal and affordable access to the Internet in least developed countries by 2020.'[11] Estimates for household Internet access in LDCs have risen slowly, however, from 2.2% in 2010 to 9.7% in 2015 and 14.7% in 2017, reinforcing the need for

[6] *ibid.*
[7] http://unctad.org/en/PublicationsLibrary/a70d63_en.pdf
[8] http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf
[9] https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2016/MISR2016-w4.pdf
[10] *i.e.* the lowest ranking quartile of countries in the ITU's ICT Development Index: *ibid.*
[11] http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, Goal 9 Target c.

redoubled efforts by governments, the private sector and civil society to extend affordable access for all. Public access facilities will continue to play an important part in achieving universal access.[12]

Figure 3
Access to ICTs by region, 2017 estimates



Note: ITU regions definitions[13] CIS: Commonwealth of Independent States region.
Source: ITU[14]

There are also substantial and continued digital divides within regions. These are particularly marked in the Asia-Pacific region, which includes some of the most connected countries in the world, such as the Republic of Korea (ranked second in the ICT Development Index, which measures ICT access, use and skills) as well as a number of LDCs that ranked in the lowest quartile of that Index.[15] There is an even greater broadband divide between and within countries in terms of access, speed as well as affordability.[16]

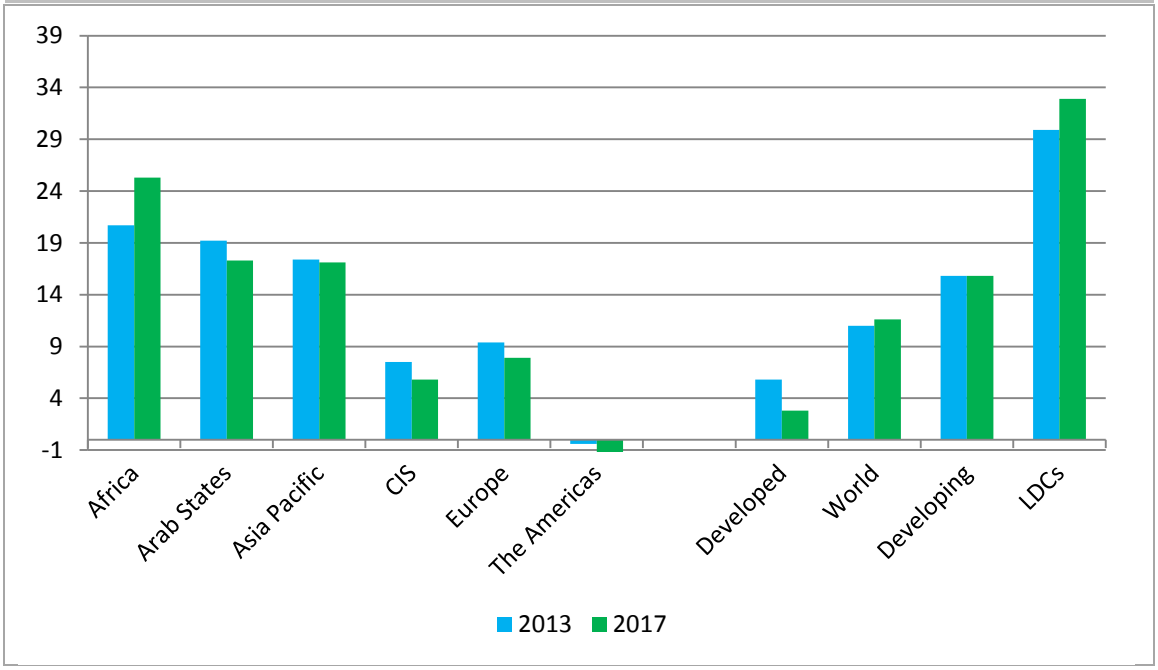
In all regions, countries which are experiencing civil conflict are particularly disadvantaged. Landlocked countries and small island states are also frequently disadvantaged by their geography and demography, as are rural areas of most countries, where rates of return on investment in network infrastructure are harder to achieve than in urban areas, and where average incomes are often lower, reducing intensity of use. Estimated data for 2015 shows that only 29% of the world's rural population is covered by third-generation (3G) mobile networks, compared with 89% of its urban population.[17]

The General Assembly paid particular attention in its WSIS+10 review to the gap in digital access between women and men. Worldwide, it is estimated that women are 11.6 per cent less likely than men to make use of the Internet, and 32.9 per cent less likely to do so in LDCs.[18] As illustrated in Figure 4, the global digital gender gap appears to have grown in developing countries since 2013, reinforcing the need for initiatives by

[12] For an assessment, see http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf, Chapter 1
[13] See http://www.itu.int/en/ITU-D/Statistics/Pages/definitions/regions.aspx
[14] http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf
[15] https://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2017/MISR2017_Volume1.pdf, Chapter 2
[16] http://unctad.org/en/PublicationsLibrary/a70d63_en.pdf
[17] http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf
[18] http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx

businesses and other stakeholders to help women overcome the structural inequalities (particularly lower incomes and fewer years in education) and, in some contexts, social norms that inhibit access to technologies that could enhance their economic opportunities and empower their lives.

Figure 4
The digital gender gap, 2013 and 2017



Note: The gender gap represents the difference between the Internet user penetration rates for males and females relative to the Internet user penetration rate for males, expressed as a percentage. ITU regions definitions[19] CIS: Commonwealth of Independent States region. Data estimates for 2017.
Source: *ITU, Facts and Figure 2017, p. 3.*[20]

2. ICTs and sustainable development

The *2030 Agenda for Sustainable Development* recognised that 'the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies.'[21]

This potential is cross-cutting and accelerating. ICTs and the Internet are having transformative impacts on the ways in which economic activities are undertaken, on social interaction, and on the relationships between government, business and citizens. They contribute to poverty reduction by enabling new forms of economic opportunity, improving access to markets, finance and information, and expanding the business and social networks of small and medium-sized enterprises. These impacts are poised to grow as ICTs become more pervasive while new technologies and services continue to emerge.

[19] See http://www.itu.int/en/ITU-D/Statistics/Pages/definitions/regions.aspx
[20] https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf
[21] http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, para. 15.

Alongside their general impact on economies and societies, ICTs have the potential to support delivery of many of the specific targets included in the *2030 Agenda*. Particular attention has been paid in this context to their contributions to health and education, agriculture and new enterprise development, gender equality and environmental sustainability. Action Line facilitators have compiled a matrix linking SDGs with Action Lines to guide this work into the future.[22,23]

It is clear, however, that many constraints inhibit full achievement of the potential contribution that ICTs can make towards development. These include the inequalities in access described in section 1; difficult geographical environments and demographic contexts, such as those in landlocked countries and small island states; lack of complementary infrastructure such as electrical power networks, particularly in rural areas; limited scope for competition to drive improvements in supply that meet customer demand; and weaknesses in the legal and regulatory environment for investment and innovation.

The positive effects of digital technologies on growth and improved services delivery have been documented in a number of studies, including the 2016 World Development Report.[24] They have recognised that digital technologies have boosted growth, expanded opportunities and improved service delivery since WSIS, and reaffirmed that they offer great scope for fulfilling developmental goals in future. However, the 2016 World Development report argued that the aggregate impact of ICTs on development to date has fallen short of expectations, and been unevenly distributed raising questions concerning its impact on equality and inequality. It also notes that the greatest barriers to developmental are not technological but related to the enabling environment. As well as addressing the digital divide, it is necessary to address the enabling environment of 'analogue complements' to digitalisation by strengthening regulations that ensure competition among businesses; developing workforce skills to meet the demands of the new economy; and ensuring that governance institutions are accountable to those affected by them. The relationship between ICTs and the wider public policy context is fundamental to achievement of the SDGs.

UN Regional Commissions have also drawn attention to the need for policy coherence between technology and wider public policy. The Economic and Social Commission for Asia and the Pacific (ESCAP), for example, has confirmed that private investment in infrastructure in its region is hampered by poor regulation, and is encouraging member States to improve the environment for public-private partnerships and mainstream ICTs into strategic development plans. The Economic and Social Commission for Western Asia has noted significant progress in the formulation and modernization of national ICT strategies, infrastructure and enabling environments, but also has expressed concern about the lack of integration between sustainable development and ICTs, and between technology and administration. The Regional Commission for Latin America and the Caribbean (ECLAC) addresses regional challenges such as these through coordinated Digital Agendas (eLACs) which share experience and promote collaboration in areas such as broadband development.

Infrastructure investment is critical to tackling the inequalities in access described in Section 1 and leveraging benefits from the emerging technologies described in Section 2, but it is only part of the challenge