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Note by the secretariat

Summary

The purpose of this note is to present an overview of regional progress in implementing the outcomes of the World Summit on the Information Society (WSIS). Survey data collected in 2013 from member and associate members and publicly available data suggest that there has been progress in the past decade towards achieving the WSIS objectives. Larger segments of the population have access to information and communications technology (ICT), in particular mobile phones, and more public institutions are connected online than ever before. However, progress is incomplete, and in some instances the digital divide has actually increased as more advanced countries have surged ahead in implementation of WSIS objectives. Mobile broadband may enable some countries to catch up on Internet connectivity. Further improvements in terms of local content and language diversity would help stimulate investments in connection infrastructure and make ICT more affordable.

In this context, ICT will provide ever more opportunities for development, as well as more challenges. Policymakers will need to closely track and analyse the contribution of ICT to future sustainable development goals. Consequently, this note recommends for the consideration of members and associate members the development of a new set of ICT development indicators beyond 2015, updating some WSIS targets and creating new ones when necessary. The future goals should explore inclusive and sustainable connectivity, particularly through broadband, and the factors required for affordable universal access to broadband. In addition, future ICT goals should support the achievement of sustainable development goals, and should reflect lessons drawn from the WSIS implementation experience over the past decade. This includes using existing statistical standards when possible, involving the statistical community in the design of the targets at an early stage and reviewing the targets more frequently than before, to ensure ICT goals remain relevant as technology rapidly evolves.



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I. Introduction

1. Held in two phases in 2003 (Geneva) and 2005 (Tunis), the World Summit on the Information Society (WSIS) was organized under the aegis of the United Nations as an international initiative to address the growing digital divide.¹ The WSIS process was characterized by a truly multi-stakeholder participatory approach, with Governments, civil society, international agencies, academia and the private sector all contributing to decision-making. From the outset, it was agreed that the outcome of the WSIS process would be assessed against 10 targets set by the stakeholders. The Partnership on Measuring Information and Communications Technology for Development, directed by the WSIS stakeholders, developed a framework of 49 statistical indicators to measure progress towards the targets.² Whenever possible, the indicators were based on existing international statistical standards for measuring information and communications technology (ICT), developed by each specialized agency of the Partnership. Some of these statistical data are regularly collected and disseminated by Partnership members. Other targets are measured through indicators that were specifically designed for this

¹ See www.itu.int/wsis/index.html.

² The list of the WSIS targets and indicators are included in the annex to the present document.

purpose and are not regularly collected and disseminated by international organizations. The targets cover a wide array of policy areas and reflect numerous facets of the digital divide as identified during the Summit.

II. WSIS outcome review – methodological approach

A. Mandates for the WSIS review

2. Ten years after the Geneva phase of WSIS, its objectives are now under final review. The Open Consultation Process on Overall Review of the Implementation of the WSIS Outcomes (WSIS+10) has engaged the international community in examining successes and shortcomings and devising a future international framework for action on ICT and the digital divide. The review is evolving parallel to and in support of discussions on the global development agenda beyond 2015, and includes the following:

(a) The Partnership on Measuring Information and Communications Technology for Development produced an analysis of the outcome of the WSIS process based on statistical evidence. This effort, coordinated by the International Telecommunication Union (ITU) and to which ESCAP contributed, resulted in the report entitled *Final WSIS Target Review* – *Achievements, Challenges and the Way Forward*. The report was presented at the WSIS forum in Geneva in June 2014;

(b) The Economic and Social Council of the United Nations mandated the Commission on Science and Technology for Development $(CSTD)^3$ to serve as the focal point in the system-wide follow-up to the WSIS outcomes. Specifically, the Council requested CSTD, after its eighteenth session in 2015, to submit the results of its 10-year review of progress made in the implementation of the WSIS outcomes to the General Assembly in preparation for the overall review of the implementation of the WSIS outcomes in 2015;

(c) At the regional level, Commission resolution 69/10 requested the secretariat of ESCAP 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". The secretariat therefor carried out a regional statistical review of progress towards WSIS target indicators.⁴

3. Political consultations were also carried out in the WSIS+10 review, which resulted in the adoption in June 2014 of the *WSIS*+10 Statement on the Implementation of WSIS Outcomes, which takes stock of the implementation of the WSIS Action Lines and new challenges that have emerged, and the WSIS+10 Vision for WSIS Beyond 2015, outlining priority areas to be addressed in the implementation of WSIS beyond 2015.⁵

³ CSTD is a subsidiary body of the Economic and Social Council. It provides the Council and the General Assembly with high-level advice on relevant science and technology issues.

⁴ www.unescap.org/sites/default/files/ESCAP%20WSIS%20target%20review%20rev %2026%20May_0.pdf.

⁵ The documents are available from www.itu.int/wsis/implementation/2014/forum/inc/doc/ outcome/362828V2E.pdf.

B. Statistical data collection exercise

4. The Task Group on Measuring the WSIS Targets, established by the Partnership, devised a questionnaire to collect information on the 49 indicators, and requested the United Nations regional commissions to use the questionnaire to gather data from countries of their respective regions. The survey was carried out in 2013 by the regional commissions, including ESCAP, and data collected by ESCAP were communicated to the Partnership in November 2013. Where available, the survey was complemented with publicly available information on the WSIS target indicators. ESCAP received responses from the following developing countries in the Asia-Pacific region: Azerbaijan, Bangladesh, Bhutan, Cambodia, Fiji, Georgia, Iran (Islamic Republic of), Kazakhstan, Lao People's Democratic Republic, Maldives, Nauru, Nepal, Philippines, Singapore, Thailand and Viet Nam. This represented a response rate of 37 per cent, which is the highest response rate of developing countries by region, according to ITU, which coordinated the process at the global level. The responses received varied significantly in terms of thoroughness, with some respondents having clearly dedicated significant efforts to provide precise answers and additional relevant details.

III. Review of WSIS targets in Asia and the Pacific

5. The data collection exercise conducted by ESCAP resulted in the paper entitled "Assessing the outcome of the World Summit on the Information Society in Asia and the Pacific: regional survey and review by the ESCAP secretariat". This section provides a brief summary of the findings along with an examination of progress towards each target based on available data.

Target 1

6. Target 1 evaluates the rural dimension of the digital divide. Mobile telephony service is increasingly available and used even in rural areas in most ESCAP countries. Only a handful of countries retain low coverage rates in rural areas. The rural divide in access to and use of the Internet is much more pronounced in poorer countries, and is therefore worsened by low income. In more developed counties of the region, Internet usage ratios are very high for rural and urban areas (respectively 76.2 and 85.1 per cent in Japan in 2012, for example). In middle-income countries, rural Internet usage rates tend to fluctuate around half of the levels of urban areas (respectively 49.7 and 87.6 per cent in Azerbaijan). In poorer countries the differential in Internet usage between rural and urban areas tends to be much higher (respectively 3.8 and 16.1 per cent in Indonesia in 2010). The review, however, identified a trend of rapid progress in Internet use in rural areas, which is in good part owed to mobile broadband. The uptake of mobile broadband began earlier in more developed countries where it has progressed even more quickly. However, a few middle-income countries and members of the Commonwealth of Independent States have also done well in adopting mobile broadband technologies. Mobile broadband could open new avenues for intermediated ICT access in rural areas, as exemplified by the Infolady initiative in rural Bangladesh (box 1).

Box 1

Infolady: a women-centred programme to deliver information services in rural Bangladesh

The Infolady programme offers information, communication and ancillary services to disadvantaged rural dwellers, mostly women. The services are provided by specially trained women – the Infoladies – who travel between villages on bicycles and are equipped with laptops, webcams, mobile phones and Internet connectivity. Beneficiaries are met in groups and subsequently at their doorsteps, and offered affordable services that would otherwise not be readily available due to the lack of adequate rural transport infrastructure and socially conservative rural environments that make it difficult for women to travel and interact outside their villages.

The services Infoladies provide include:

- Communication services;
- Basic health services and reproductive health information and services;
- Advice on farming issues, and legal advice and assistance in interactions with administrations;
- Buying and selling from the villagers to enhance their access to markets.

An Infolady typically listens to the villagers' livelihood problems and assists them with Internet services or preloaded offline audiovisual livelihood content in Bangla, the local language.

The programme provides the Infoladies with specific training, and a loan to purchase a bicycle and ICT equipment. The Infoladies are able to generate a significant and steady income for themselves through the services they sell and the products they trade with beneficiary communities.

The model was launched in April 2010 by D.Net and is being scaled up nationwide in Bangladesh. The model has had positive impact on the wellbeing of the rural population by addressing issues such as family planning, hygiene, health care during pregnancy, agriculture, education, entertainment and women's empowerment in rural communities. Finally, the endeavour has enhanced the status of educated rural women and enabled rural women to challenge the status quo by establishing the right to ride bicycles in 400 communities.

Source: Adapted from http://infolady.com.bd and "Assessing the outcome of the World Summit on the Information Society in Asia and the Pacific: regional survey and review by the ESCAP secretariat".

Target 2

7. Target 2 measures progress in connecting schools. Data for a sample of ESCAP countries of various income levels reveal great disparities in the ratio of learners to computers, especially in least developed and lower income countries. Reported ratios of learners per available computer are very high in Cambodia (>500), Bhutan (79), India (89), Indonesia (136), Nepal (>500) and Sri Lanka (98), limiting effective individual use. On the other extreme, Australia, Japan, the Republic of Korea and Singapore all reported at least one computer for every seven pupils. Similar disparities are observed for Internet access in schools. Poorer countries tend to have fewer schools connected to the Internet, particularly to broadband, which would offer more

education services. Rates of primary and secondary schools with Internet access of any type stand at 5 per cent in Bangladesh and Nepal, 6 per cent in Kyrgyzstan and 17 per cent in Sri Lanka.

Target 3

8. The objective of this target is to connect all scientific and research centres through ICTs. Connectivity has become essential for scientific research and innovation. The limited data available for ESCAP countries show that public scientific and research centres are nearly all connected to broadband Internet. Connectivity of national research and education networks (NRENs) is also growing in the region, thanks in particular to regional and international initiatives, such as the Trans-Eurasia Information Network (TEIN) and the Central Asian Research and Education Network (CAREN). Through TEIN, research centres of 20 Asia-Pacific countries are linked with research centres across Europe. It allows for high-speed and high-volume exchange of data, and facilitates a wide range of applications to enhance research and education, including e-learning, videoconferences and online research collaboration.

Target 4

9. Target 4 sets the objective to connect all public libraries, archives, museums, cultural centres and post offices in line with the vision to preserve and promote cultural diversity and local knowledge through ICT. Moreover, connected public service institutions, such as libraries and post offices, can provide public Internet access points. Apart from data related to ICT in post offices,⁶ very limited data are available for this target. The data collected by the secretariat show varying degrees of connectivity across the region, usually correlated to income level. Post offices are very often connected in developed or upper-middle-income countries while rates of connectivity are very low in poorer countries. The limited data available also reveal that rates of connectivity and digitalization of national archives are usually very low in poorer countries. External assistance would probably be required to accelerate digitization of national archives which constitute major written repositories of cultural heritage.

Target 5

10. Target 5 sets the objective of connecting health centres and hospitals to improve the performance of health services. Relatively scant data are available for this target, but the data reveal a high level of Internet connections in public hospitals and public health centres, including in the least develop countries (LDCs) of the region. Bhutan, Georgia, Iran (Islamic Republic of), Maldives, Nauru and Thailand reported hospital Internet connection rates of 100 per cent. The little data available also show high levels of computer and Internet use to manage individual patient information.

Target 6

11. The Summit also developed a target on using ICT in Governments (target 6). The evidence collected by the ESCAP secretariat, as well as other indicators published regularly in the *E-Government Survey* of the United

⁶ Post office data are collected and publically disseminated by the Universal Postal Union.

Nations Department of Economic and Social Affairs⁷ show that Governments in Asia and the Pacific are increasingly making use of ICT to deliver services. Use of computers and the Internet by the staff of central Governments is becoming quasi-ubiquitous, including in LDCs. Likewise, most central government organizations are now equipped with a local area network (LAN) and intranet, and it is becoming the norm for government organizations to have a web presence. Nevertheless, the digital divide is still vividly illustrated by gaps in the availability and extent of online services provided by national Governments. According to the 2012 E-Government Survey, the Republic of Korea and Singapore obtained the best possible score, alongside the United States of America. In the region, good performers in terms of online services also include (in order of online service index score) Malaysia, Kazakhstan, the Russian Federation, Georgia, Mongolia, India, China and Thailand, which all fared significantly better than the regional average. By contrast, Myanmar, Nauru, Kiribati and Tuvalu exhibited the lowest levels of online services in the region and all Pacific island developing countries scored below the regional average.

Target 7

12. Target 7 concerns adapting education and school curricula to ICT. Although limited in its coverage of the region, the data available reveal an important divide regarding the preparedness of teachers to use ICT, with poorer countries usually having very few ICT teachers and low proportions of teachers trained to use ICTs to teach other subjects. For example, all teachers (100 per cent) in Singapore and Hong Kong, China were trained to teach using ICT, while only 2 per cent of teachers in Myanmar were. The data show a smaller, but distinct divide in terms of the availability of computer-and Internet-assisted instruction in schools of the region.

Target 8

13. As radio and television play an important role, especially in providing information to illiterate people, the Summit also set as a target to ensure that the entire population has access to those technologies (target 8). Data show that, compared to a decade ago, Asia-Pacific household access to radio has decreased, while access to television has increased. Possession of a television is still largely correlated to income. Poorer countries still exhibit possession rates below 50 per cent, while rates in high- and middle-income countries are closer to 100 per cent. Progress has been made in household television possession rates with notable increases in Azerbaijan (31.4 per cent), Maldives (25.5 per cent), Bhutan and Viet Nam (+20 per cent).⁸ The convergence of ICTs and the development of mobile television and mobile radio enabled by mobile broadband, mean that high-speed broadband access will eventually translate into de facto access to television and radio services. Basic ICT skills will be required to ensure that everyone is able to access television and radio services through mobile devices.

Target 9

14. Facilitating the development of content and the presence of all world languages on the Internet is the goal of target 9. Data available from a variety

United Nations E-Government Survey 2012: E-Government for the People (United Nations publication, Sales No. E.12.II.H.2). Available from http://unpan1.un.org/intradoc/groups/ public/documents/un/unpan048065.pdf.

⁸ For the period 2003-2010 for Azerbaijan and Maldives, 2003-2008 for Bhutan and 2004-2011 for Viet Nam.

of sources for this target show that, although the vast majority of available content on the Internet is in English, the relative share of other major ESCAP languages, particularly of Chinese, Korean and Russian, is growing. Rankings of the most prevalent languages online include Japanese (4), Russian (8) and Korean (9). The diversification of the languages represented online is confirmed by other sources reviewed by ESCAP, including the number and share of Wikipedia articles in various languages. The data generally indicate that the cultural digital divide tends to follow the patterns of the digital divide dictated by income disparities.

15. The Internet offers considerable potential in terms of promoting culture and preserving traditional knowledge. At the same time, it can also be a vector of cultural assimilation by promoting content solely in dominant languages. Growth in the number of Chinese and Russian Internet users has been particularly brisk over the past decade, and both languages have increased their number of users by over 1,000 per cent. In 2011, about a quarter of Internet users were Chinese speakers. Measuring the evolution of languages and content online is clearly an area that requires further support to reveal the true impact of the Internet on cultural diversity and take appropriate policy responses.

Target 10

Ensuring that more than half the world's inhabitants have personal use 16. of ICTs constitutes target 10. For many ESCAP countries, access to mobile telephony is widespread and, with a few exceptions, this aspect of target 10 has already been met in the region. Approximately one third of ESCAP countries have reached the objective of at least half of the population using the Internet and a few more countries are expected to reach the target by 2015. Despite progress, this component of the target still shows a strong digital divide. Most of the countries that have reached the 50 per cent target of Internet use are either developed or relatively high income. Such successes in increased Internet penetration are usually related to a rapid uptake in mobile broadband. Meanwhile, in 2012 in Afghanistan, Bangladesh, Cambodia, the Democratic People's Republic of Korea, Papua New Guinea, Myanmar, Solomon Islands, Timor-Leste and Turkmenistan, 10 per cent or less of the population used the Internet. Significant gains in access to the Internet, particularly broadband, are needed in poorer countries.

Overall review conclusions

17. Significant progress has been made towards the WSIS objectives in

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