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WORLD SUMMIT ON THE INFORMATION SOCIETY FIVE YEARS ON: INFORMATION AND COMMUNICATIONS TECHNOLOGY FOR INCLUSIVE DEVELOPMENT

(Item 4 of the provisional agenda)

Note by the secretariat

SUMMARY

The Asia-Pacific region has been facing challenges in fostering an inclusive- and development-oriented information society, as envisioned in the outcome documents of the World Summit on the Information Society.

Some of the key challenges highlighted in the present document are: (a) regional trends in the development of information and communications technology (ICT), including space-based technology and (b) key issues earmarked for the consideration of the Committee in accordance with Commission resolution 64/1 of 30 April 2008.

In particular, a review of regional efforts towards the information society has been made, with specific emphasis on issues related to ICT access and connectivity in under-serviced rural areas and Pacific island countries, by summarizing successful initiatives on community e-centres to reach the under-served and the ESCAP findings on Pacific connectivity. The secretariat identifies key priorities in promoting the expansion of ICT access for inclusive development in the region, including strategic partnerships within the United Nations system and with the private sector.

The Committee may wish to provide guidance on the secretariat's future strategic direction in the area of ICT for socio-economic development in the Asia-Pacific region, including possible outputs that could be reflected in the programme of work for the biennium 2010-2011.

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Introduction

1. From 1998 to 2008, information and communications technology (ICT)[1] has significantly transformed the Asia-Pacific region. The potential of ICT for economic growth and reducing poverty in the region has increased considerably. In a short span of time, the Internet has become an integral part of the Asian economy, while mobile communication has become the primary mode of communication in the region.

2. This expansion of ICT into various spheres has been driven partly by the fact that Asia and the Pacific have developed remarkable ICT resources. Some countries are recognized as world leaders in terms of technological resources, be they research and development capabilities, innovation and production or commercialization of ICT products and services. Also, some States have been very successful in attracting business process outsourcing and foreign direct investment and are homes to vibrant and dynamic ICT industries.

3. According to the ESCAP *Economic and Social Survey of Asia and the Pacific 2008*,[2] in 2007 the region enjoyed the fastest economic growth in a decade, and growth is expected to continue at a lower, but still robust, rate in coming years. In addition, several Asia-Pacific countries have accumulated large foreign reserves.[3]

4. However, disparities between more advanced economies and least developed countries, landlocked developing countries and small island developing States, in terms of ICT penetration, are not being reduced in the way envisaged by proponents of an inclusive and development-oriented information society. This phenomenon—the so-called digital divide—exists not only between developed and developing countries, but also within countries, where certain groups, such as women, the poor and people who live in rural areas or with disabilities, among others, may be marginalized. The worldwide recognition of this inequitable situation, along with the need to better understand the widespread effects of ICT on society, led to the World Summit on the Information Society, held in Geneva in 2003 and Tunis in 2005.

5. The Summit crafted a vision of a future information society and identified a series of activities and commitments[4] necessary to assess the impacts of ICT and to reduce the divide. To that end, at the regional level, the ESCAP secretariat has been assisting member States in their implementation of the outcomes of the Summit, through the *Regional Action Plan towards the Information Society in Asia and the Pacific* (ST/ESCAP/2415), by initiating various activities to

[1] The term "information and communications technology", as used in the present document, should be understood to include space-based technology, as appropriate.

[2] United Nations publication, Sales No. E.08.II.F.7.

[3] According to the ESCAP *Economic and Social Survey of Asia and the Pacific 2008*, developing economies in the Asia-Pacific region had accumulated $3.4 trillion in foreign reserves by October 2007, up from $2.7 trillion at the end of 2006.

[4] The Declaration of Principles and the Geneva Plan of Action (A/C.2/59/3, annex) and the Tunis Plan of Action (see A/60/687).

promote and build ICT capacities, to facilitate policy debate and to create an enabling policy environment for ICT for development. Five years has passed since the first phase of the Summit began. Considering that many development projects have a two- or three-year lifespan, 2008 is an appropriate time to assess the progress and gauge the impact of initiatives at the regional level and to learn the lessons necessary to guide future activities, especially as 2008 marks the halfway point to the 2015 target date of the Millennium Development Goals.

6. The secretariat is mindful that a series of review initiatives have recently been undertaken by various international and regional organizations to mark the fifth anniversary of the Geneva phase, take stock of relevant activities and measure the progress made. To supplement these analyses, the present document describes achievements in terms of ICT for development the ICT indicators of the Millennium Development Goals, which are at the heart of the goals and targets of the Summit. The document presents findings being compiled by the secretariat for the forthcoming ESCAP *Statistical Yearbook for Asia and the Pacific 2008*, which tracks progress towards the Goals, including achievements associated with the ICT indicators. The document then identifies gaps and proposes responses to reduce the disparities in ICT access, for consideration by member States.

I. ICT ACCESS IN ASIA AND THE PACIFIC

7. Mention of firm names, commercial products and specific technologies does not imply the endorsement of the United Nations.

8. Since the Geneva phase of the World Summit on the Information Society was held in 2003, the ICT landscape of the Asia-Pacific region has undergone significant change. The region, which is home to two thirds of the world's population, now hosts over half of the Internet and mobile connectivity in the world. Should current trends continue, the region could account for two thirds of global mobile phone users within a decade.

9. This remarkable achievement has been driven by national ICT policies, many formulated or enhanced in response to the World Summit on the Information Society. Following the Regional Action Plan, many Asian countries renewed strategic ICT policies to establish enabling regulatory environments, which facilitated progress in liberalization, privatization and competitive practices in ICT.

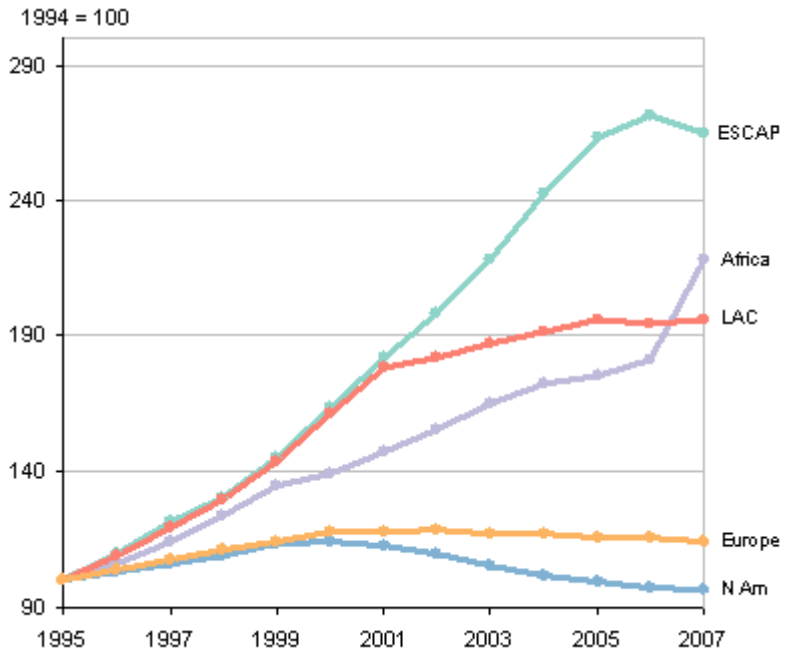
10. Countries in the region have combined a series of ICT policy instruments for developing the information society. Telecommunications, mobile and Internet policies address key elements such as universal service, interconnection, the unbundling of local loops, licensing, numbering schemes, portability, price cap regimes, roaming conditions, significant market power, spectrum allocation, and Internet service providers, as well as cyberspace regulations, such as spam controls, information security and digital rights management.

11. ICT policy has also been influenced by multilateral regulatory frameworks, including the World Trade Organization Agreement on Basic Telecommunications, Information Technology Agreement and Financial Services Agreement. In addition, some countries in the region formed subregional initiatives for e-strategy and ICT policy driven by the Association of Southeast Asian Nations, the Pacific Islands Forum Secretariat, the South Asian Association for Regional Cooperation and the Shanghai Cooperation Organization, among others.

12. As a result, ICT policy in the region as a whole has led to significant expansion of connectivity. Within that context, three main aspects of connectivity can be highlighted. First, mobile phone subscriptions have surpassed those of fixed-line systems, as shown by the proportion of mobile phone lines, which now accounts for 80 per cent of total phone lines, up from 30 per cent in 2003. Second, fixed-line connectivity has shown sluggish expansion, from 13 lines per 100 people in 2003 to 17 per 100 people in 2007. Third, broadband networking is set to become an important platform; while the average penetration rate in the ESCAP region is still low, at 5 per cent in 2007, such networking is growing rapidly in some countries of the region.

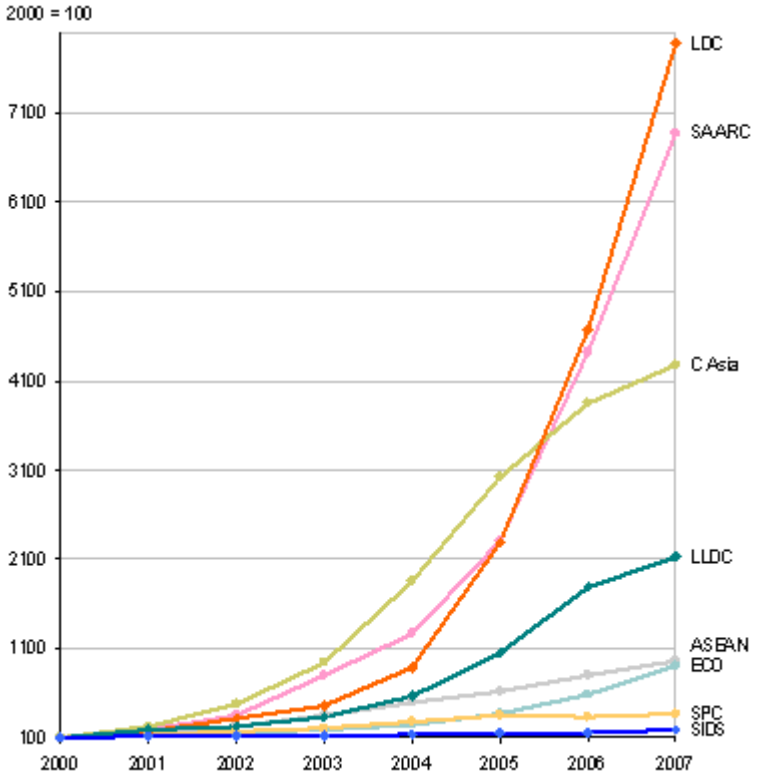
13. The Asia-Pacific region has experienced phenomenal ICT development compared with other regions. At the same time, the number of fixed telephone lines showed a decline for the first time among ESCAP member States (figure 1). This reflects the rapid growth in mobile subscriptions (figure 2).

Figure 1. Fixed telephone lines per 100 population for major world regions, index of change, 1995-2007



Source: ESCAP calculations based on International Telecommunication Union data.

Figure 2. Mobile phone subscribers in selected Asian and Pacific country/area groupings, 2000-2007



Source: ESCAP calculations based on International Telecommunication Union data.

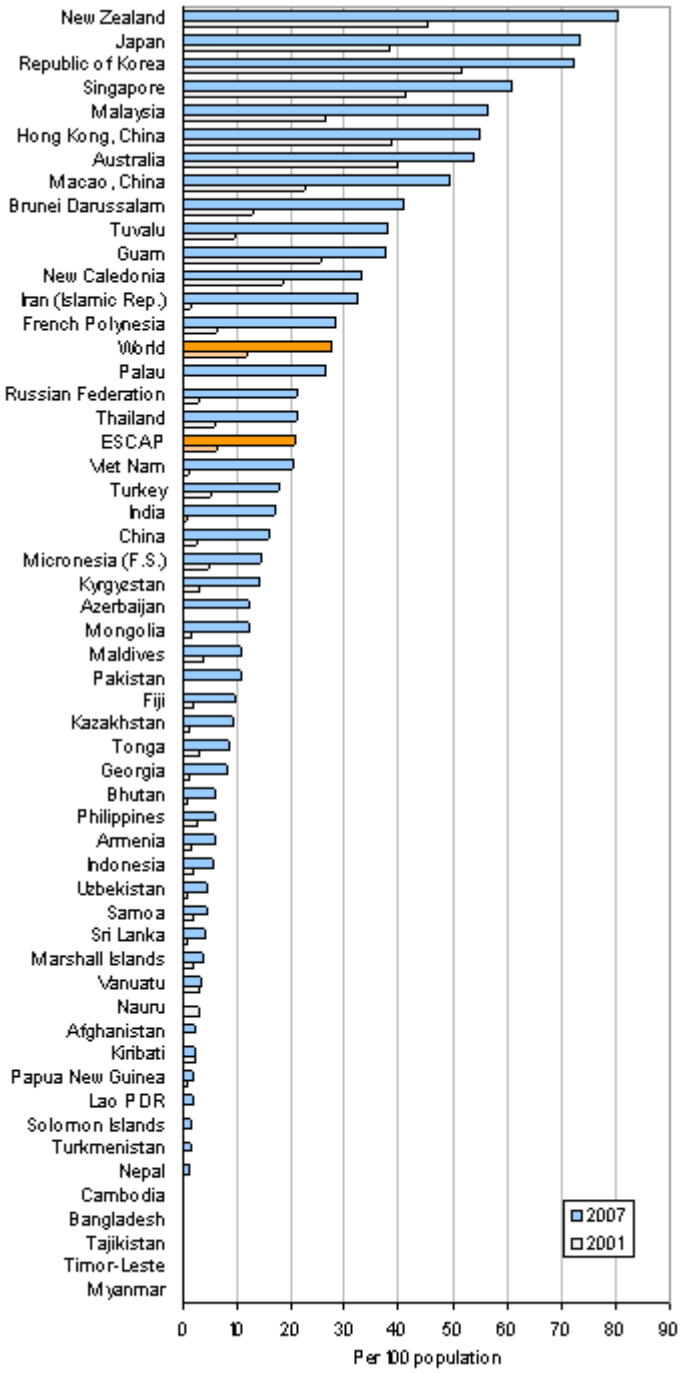
14. From an economic policy perspective, this aspect can be explained as follows. First, due to lack of investment, the traditional fixed-line infrastructure has not significantly expanded in lower-income countries. Rather, gaps have been filled through significant investment in mobile networks in urban areas. Second, in middle-income countries, investment in mobile systems has outpaced investment in fixed-line systems. Finally, the traditional fixed-line network shrank somewhat in high-income countries, with migration into mobile and broadband networks. In these countries, investments are made in both mobile and broadband infrastructures.

15. Stark variations in Internet usage and growth continue to exist between more advanced and less advanced countries. Overall, between 2001 and 2007 the region witnessed phenomenal growth in the number of Internet subscribers. The number of countries with fewer than 10 Internet users per 100 population decreased from 43 in 2001 to 26 in 2007 (figure 3). However, the disparity between high-income countries and the last 20 countries is wider than for fixed and mobile phones.

16. Numbers of Internet users have been observed to increase in connection with the expansion of fixed-line systems. In low-income and middle-income countries, which have limited broadband infrastructure, Internet connectivity is through the existing copper-based fixed lines and has a

relatively greater component of shared accounts through Internet cafes and community e-centres. In such cases, Internet use is almost constrained by the availability of fixed lines. In contrast, high-income countries and economic centres within middle-income countries are beginning a migration to fibre optics, which explains the diminishing use of traditional fixed lines, and are expanding broadband connectivity, which currently reaches 25 per cent of all Internet subscribers.

Figure 3. Internet users per 100 population in Asia and the Pacific, 2001 and 2007



Source: ESCAP calculations based on International Telecommunication Union data.

17. In economies such as China and India, new investment in fixed-line systems is increasingly driven by broadband, especially by fibre-to-the-home or fibre-to-the premises. In market growth terms, the opportunity cost of investing in next generation networks[5] is deemed higher than that of existing copper line-based technologies.

18. Disparities between high-income and low income countries are striking in regard to the uptake of broadband technologies. Although high-income economies in the region are leaders in the usage and diffusion of various technologies, the ESCAP region as a whole is still lagging (figure 4).

Figure 4. Number of broadband users in selected country/area groupings, 2004 and 2007