



**International Seminar on Information and Communication
Technology Statistics**
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Organized by:
United Nations Statistics Division
International Telecommunication Union
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Statistics Korea

In cooperation with:



SUMMARY REPORT

International Seminar on ICT Statistics

Seoul, 19-21 July 2010

1. The International Seminar on Information and Communication Technology (ICT) Statistics, organized by the United Nations Statistics Division (UNSD), the United Nations Conference on Trade and Development (UNCTAD), the International Telecommunication Union (ITU) and the Statistical Office of the Republic of Korea (KOSTAT), in cooperation with the Partnership on Measuring ICT for Development, took place in Seoul, Korea from 19 to 21 July 2010.
2. The seminar was attended by 161 participants from more than 55 economies, and 8 regional and international organizations.
3. The seminar was organized in six sessions, addressing the following topics: ICT statistics and policy making; measuring the information society and future strategies: the Korean case; measuring the information society; measuring the information economy; the future of ICT measurement; and enhancing ICT data availability.
4. The seminar was opened by Ms Insill Yi, Commissioner, Statistics Korea; Mr Paul Cheung, Director, United Nations Statistics Division; Ms Susan Teltscher, Head, Market Information and Statistics Division, ITU; and Mr Torbjörn Fredriksson, OIC, ICT Analysis Section, UNCTAD.
5. This report summarizes the presentations and discussions of each session. Further information, such as the agenda, the presentation slides, and the list of participants is available at <http://unstats.un.org/unsd/ict/>.

Session 2: ICT statistics and policy making

6. The session, chaired by Commissioner Insill Yi of Statistics Korea, included three presentations that underlined the importance of ICT statistics in policy making.
7. The keynote presentation on the *Role of ICT statistics in Policy making*, delivered by Mr Hyunho Ahn, Vice Minister of Knowledge Economy of the Republic of Korea, highlighted the impressive growth of the ICT sector in the country, and emphasized the importance of ICT statistics in monitoring success in this area. It was highlighted that in Korea ICT statistics currently use international standards and are therefore comparable at the international level. The presentation further underlined the importance of developing timely statistics that reflect the rapidly changing ICT paradigm, generating data that cover the entire ICT production process, and monitoring the sector with time series data. In the country, ICT statistics are not only the basis for transparent and accountable policy-making but are also used to evaluate the performance of policies formulated. Despite of all the advancements in the ICT sector and the corresponding ICT statistics, the Republic of Korea is hoping to further improve the production of data, particularly to generate timely and accurate ICT statistics that reflect changes in the ICT industry and that are demand-oriented. The Vice Minister mentioned that the Government will expand the online dissemination of ICT statistics by setting up an ICT statistics portal. He also underlined the importance of enhancing international cooperation with international agencies such as the ITU, OECD, UNSD, UNCTAD and others.
8. The presentation by Mr Daniel Torres of the Government of Spain on *the Report of the EU Ministerial Meeting on Information Society Policies and Metrics* highlighted the overall priority given to ICTs, during the Spanish Presidency of the EU Council. Special emphasis was given to fostering common action to consolidate ICTs as a driver to improve productivity and quality of life in Europe. In this context, a Ministerial meeting on IS Policies and Metrics was held in Spain in June 2010. The meeting was attended by high-level representatives of the ITU, OECD, EU, and national ministers and their representatives. The main outcome of the meeting was the "Madrid Document" which highlights the important roles that governments can play in contributing to the development of timely and comparable information society (IS) indicators and methodologies. In addition, the need for governments to agree on allocating the appropriate resources to national agencies was highlighted to ensure the development

of IS indicators. It was noted that the role of international organizations in enhancing national capacities should be strengthened. Finally, the Madrid Document emphasizes the importance of using official statistical sources when addressing policy needs and to use non-official sources only when the former are not available, paying attention to the methodologies used.

9. The last presentation, which was made by Ms Susan Teltscher from the ITU on *Monitoring the World Summit on the Information Society (WSIS) targets*, highlighted the importance of benchmarking the Information Society and presented two important international benchmarking tools: the ICT Development Index and the ICT Price Basket. Both metrics, which were released in March 2010, can be used by countries when analyzing their national ICT levels and when comparing with other countries. The results highlighted that differences between developed and developing countries still exist, both in terms of ICT levels and prices of ICT services, particularly of broadband services. The second part of the presentation showed the results of the latest ITU World Telecommunication/ICT Development Report (WTDR) 2010 on monitoring the ten WSIS targets. The report highlights the current status of ICT availability and use for each of the WSIS targets and some of the challenges faced when assessing progress based on measurable indicators. Most importantly, the report identifies concrete indicators that can be used by countries when monitoring/measuring the WSIS targets at the country level. All participants were invited to contribute to the consultation process related to the proposed indicators for monitoring each WSIS target through a Partnership Task Group set up for that purpose. Participants were also encouraged to participate by way of dissemination of the final monitoring framework to be adopted and in the collection and provision of data.
10. The presentations were followed by a lively discussion, moderated by the Commissioner of Statistics Korea. Questions and comments related, among others, to such issues as how to capture quality aspects of ICT development, definitions of the ICT sector and harmonization of its scope among countries, the role of ICT statistics in the national strategies for development of statistics, the need for a good framework for monitoring the economic and social aspects of WSIS and the impact of ICT, and links between ICT data and internationally agreed development goals and targets.

Session 3: Measuring the Information Society and Future Strategies: Korean case

11. The session, which was chaired by Mr Paul Cheung, Director of the UN Statistics Division (UNSD), provided an overview of the various ICT statistics available in the Republic of Korea. Presentations were made by representatives of different Korean agencies involved in ICT data collection, indicating also the broad interest and involvement of different key players in this area, such as statistical agencies, regulatory agencies and academia.
12. The first presentation was made by Mr Hwan Jung Yang, Korea Communications Commission (KCC), and offered a panorama of the country's ICT statistics and development strategies, also describing the different phases in the ICT development strategy in Korea over the past thirty years. The speaker highlighted a number of key challenges for future work and called for the development of a new index that would take into account the accelerated convergence of both broadcasting and telecom activities.
13. In the second presentation, by Mr Hyunmin Joung of the National Information Society Agency (NIA) described the 2009 survey on the information society, its conduct, main findings and challenges faced. The indicators in the survey were well aligned with international standards, but also included specific national indicators. Among the challenges highlighted were the need to increase the sample size of the survey, to distinguish between public and private enterprises, and to develop strategies for improving the response rate.

14. In the third presentation, Mr Keon Ho Lee of the Korea Internet and Security Agency (KISA) reported on Internet usage and security statistics in Korea. The first part of the presentation described the survey methodology for the Internet usage and related surveys, such as those focusing on wireless Internet usage or Internet usage by specific user groups. Challenges reported were similar to those mentioned by previous speakers (e.g. sample size, response rates etc.). The second part of the presentation focused on the Internet security survey, covering both businesses and individuals. Key lessons learnt included the need for increasing awareness of security measures (e.g. privacy measures) for households, the need to refine definitions and the methodology for measuring spam and to include additional survey items, such as new cyber security threats, in mobile Internet.
15. The fourth presentation was given by Mr Hak Hun Kim from the National IT Industry Promotion Agency (NIPA) and dealt with statistical surveys on e-business and IT use and e-commerce. The stages of the IT Use Index were introduced as the conceptual basis for the first survey, while establishing policies on e-commerce are a main application of the second survey.
16. The fifth intervention was given by Mr Han Sung Jun from the Ministry of Public Administration and Security (MPAS) and described e-government activities in the Republic of Korea, covering internal government functions (such as record-keeping), issuance of standardized forms, services to citizens and business support services. The activities in general are aimed at increasing transparency and efficiency. The presentation showed the four phases of e-government and the paradigm changes as key elements for e-government work. Improving utilization and public satisfaction are the main policy goals, while emerging issues include responses to new platforms (such as smart phones), and privacy protection.
17. The final presentation was given by Mr Heung Suk Choi from Korea University and covered the digital divide. The presentation stressed the point that the digital divide should go beyond the current measurement by simple indicators and proposed a digital divide index composed of ICT access, capacity and use. The survey, which was carried out on an experimental basis, provided better insight into main areas of inequality, identifying better targets for government intervention.
18. In the subsequent discussion, many participants acknowledged the rich diversity of ICT surveys in the Republic of Korea, with many agencies involved, and the question of overall governance naturally arose. In the Republic of Korea, Statistics Korea (KOSTAT) is the officiating agency of all ICT statistics data collection, but countries need to evaluate how their own situation compares with this model.
19. Some of the other issues discussed concerned:
 - How to deal with the saturation effect, i.e. when statistical measures have reached a certain level with little further improvement. Participants agreed that ongoing review of indicators and inclusion of new relevant indicators or breakdown by additional dimensions in the core set should address this effect.
 - Concerns that if many private agencies are engaged in producing and publishing ICT data, problems arise if those figures contradict official ICT statistics.
 - How large amounts of collected ICT statistics can be transformed into policy decisions.
 - How response burden can be reduced in spite of large data requirements for ICT purposes.
 - The need for up-to-date and more detailed definitions in fast developing areas, such as m-commerce, to allow for their inclusion in ICT statistics.
 - The need to consider environmental aspects in ICT statistics, leading to "green ICT" indicators. Some efforts exist, such as monitoring the reduction of electricity use, the use of screensavers etc., but others such as recycling could be added.
 - If/how the work on the refined digital divide index can be integrated into regular data collection.

Session 4: Measuring the Information Society

20. The session, which was chaired by Mr. Gary Dunnet from Statistics New Zealand, provided an overview of the work achieved in the area of ICT infrastructure and household statistics.
21. The presentation made by Ms Esperanza Magpantay from the ITU, provided an overview of the collection and dissemination of ICT infrastructure and household statistics, the standards and materials developed to help countries in their data collections and the outcome of the Expert Group on Telecommunication/ICT indicators (EGTI) meeting held in March 2010, particularly the indicators agreed upon during the meeting. These indicators were included in the 2010 ITU long questionnaire and will be presented in the World Telecommunication/ICT indicators meeting (WTIM) in November 2010. The presentation also highlighted the different challenges related to data collection and provided some suggestions on how to address them. The suggestions included cooperation between the different stakeholders (policymakers, regulators and national statistics offices) when designing ICT household surveys; and using internationally agreed indicators, standards and materials such as the ITU household manual and telecommunication/ICT indicators handbook when starting or enhancing national data collections.
22. Mr Christian Madsen from Denmark, who chaired the ITU EGTI meeting, presented the detailed outcomes of the meeting held in Geneva in March 2010. He highlighted that the meeting, which was attended by representatives of both developed and developing countries, provided an opportunity to discuss the indicators and their definitions taking into consideration the different situations of countries. The presentation provided specific details on the revised definitions of both the fixed (wired) broadband and wireless broadband indicators. It emphasized the new wireless broadband indicators and their definitions, which were adopted from the OECD definitions. He stressed that the indicator on standard mobile broadband subscription covers only mobile cellular subscriptions that have actively used broadband Internet in the last three months - and not the potential users of this service. The presentation further described the indicators that had been included previously in the fixed broadband category, such as WiMax and satellite subscriptions, and provided illustrative examples of the effect of their exclusion from the fixed (wired) broadband indicator.
23. The third presentation by Ms Sheridan Roberts, independent consultant, provided an overview of the ICT household indicators, their sub-categories, definitions and classificatory variables. She highlighted the issues related to the collection of these indicators as well as the challenge related to updating the definitions given the fast-changing nature of the technologies and services. The presentation further highlighted the lack of data for many developing countries. In the second part, special attention was given to the new area of measurement related to child online protection. In particular, ITU is currently developing a new framework to define indicators that could be used to measure child online protection aspects. The presentation also included some suggestions on potential new areas of measurement that could be included in the ICT household model survey such as barriers to ICT access and use, ICT expenditure by households, ICT skills and ICT security.
24. In the subsequent discussion, many participants requested clarifications on the difference between the two mobile broadband indicators that resulted from the ITU EGTI meeting (and were included in the ITU 2010 questionnaire), particularly the difference between active use and potential use (access). ITU explained that both indicators will be collected until the active use indicator (271mb_use) is collected by all countries. Other questions referred to the estimation of data included in the ICT Development Index (IDI) for countries that do not collect ICT household data. Participants further highlighted the need for capacity building in improving ICT household statistics, in addition to the suggestion related to cooperation between different national stakeholders.

25. The second part of the session consisted of three presentations, including two country cases and a presentation from EUROSTAT on using ICT household micro data to analyze the digital divide.
26. Mr Anirood Bundhoo from Mauritius presented the experience of the Central Statistics Office in collecting household ICT statistics using a module attached to the Continuous Multi-Purpose Household Survey (CMPHS). The data collection started in 2006, and was repeated in 2008 and 2010. However, the regularity of the survey depended on demand from policy makers and users of the statistics. The presentation also presented the different stages of the survey and some results illustrating the availability of ICT in the country.
27. In her presentation, Ms Sureerat Santipaporn from Thailand showed how their success in collecting household ICT data turned into a regular activity of the statistics office. Demand for statistics from policymakers is the main driving force in collecting and enhancing data in this area. The ICT household survey, which started in 2001, now covered several areas that specifically described the adoption of ICT in Thai society. The presentation further offered an overview of the results and the progress made in the use of ICT in the country.
28. Mr Albrecht Wirthmann from Eurostat presented the results of a joint effort by Eurostat and OECD in using micro data to analyze the digital divide, particularly among disadvantaged groups (elderly people, etc). The study, which covered 19 European countries as well as Canada and the Republic of Korea, illustrated how data collected from ICT household surveys can be used to produce detailed analysis on selected subjects, in addition to providing an overview of the level of availability and usage of ICT in a country. However, there were certain issues related to the confidentiality of the data that have to be dealt with when using micro data from countries. In the EU, the issue of confidentiality is included at the national level in the mandate to collect and disseminate data. The Republic of Korea, which participated in the exercise, did not provide the micro data but had instead run the analysis using the software programme provided by the OECD/Eurostat. This arrangement/experience could be explored when considering the analysis of micro data from developing countries where confidentiality of data may be a similar constraint.
29. Overall, the session provided a comprehensive overview of the work done in improving availability and quality of both ICT infrastructure and household statistics. The sharing of experiences was particularly helpful for countries in designing their data collection and dissemination programmes. The session also illustrated that ICT household micro data can be useful for analyzing specific information society developments, which can help policymakers make informed decisions and design appropriate policies.

Session 5: Measuring the Information Economy

30. This session on ICT statistics was related to the information economy and covered the ICT sector, ICT trade and ICT use by businesses. It was chaired by Mr Candido Astrologo Jr from the National Statistical Coordination Board of the Philippines. Six presentations were made.
31. The first presentation by Mr Ramachandran Ramasamy conveyed results from a study conducted by the Association of the Computer and Multimedia Industry (PIKOM) of Malaysia and reported on the dynamics of the ICT sector in the country. The study had been conducted in partnership with the Department of Statistics Malaysia and the Network of UNESCO Chairs in Communication (ORBICOM). The presenter noted the differences between the ICT sector definition used in the paper and the one internationally agreed upon. The speaker showed the key role of the ICT sector in the Malaysian economy and noted that since 2000 the share of value added in ICT manufacturing had shrunk while that of ICT services had increased. New data had enabled the analysis of employment, output and productivity trends in the sector.
32. The second presentation by Ms Payal Malik introduced a project of the Central Statistical Organization in India, in collaboration with ORBICOM and the University of Delhi, to

measure the ICT sector. The project sought to make use of official statistics using international definitions and clarifications related to the ICT sector. Currently, there are many public and private sources of data, which are not always comparable. The project showed the significance of the services component of the Indian ICT sector, which in 2007-2008 amounted to almost 95%. The presentation highlighted some of the issues encountered, including the treatment of ICT-enabled services. It also noted the need for additional coordination and harmonization among different providers of ICT data and statistics in the country.

33. The third presentation was delivered by Mr Vincenzo Spiezia from the OECD and discussed recent developments with regards to the measurement of trade in ICT goods and services. It was noted that there are two core ICT indicators in this area, both of which concern trade in ICT goods. It was mentioned that there is a need to move towards the development of indicators related to ICT services trade. Reference was further made to changes in the classification of goods, moving from the Harmonized System (HS) 2002 to HS 2007 and related changes in the Central Product classification moving from Version 1.1 to Version 2, as well as differences in the industry classification between ISIC Rev.3.1 and ISIC Rev. 4. This had triggered a need to recalculate the time series for the volume and composition of trade in ICT goods.
34. Following these three presentations, the floor was opened for a plenary discussion. Several comments were made, including on the need to improve the measurement of trade in ICT services, but also not to make the definition of ICT services too broad. In India, for example, while private sector data on "IT and IT-enabled services" were useful to estimate the size of offshoring and outsourcing, they were too broad to be linked to the ICT sector in a strict sense. The discussion illustrated the challenges associated with the development of new indicators related to ICT trade in services and the need for further work in this area. The use of different definitions of the ICT sector was noted. For example, wholesale trade in ICT goods had not been included in the two country cases presented in the session. Such discrepancies complicate international comparisons. Changes in the treatment of trade in goods for further processing were noted as a potential challenge for the measurement of trade in ICT goods and services.
35. The fourth presentation was delivered by Mr Roberto Neves Sant'Anna from the Brazilian Institute of Geography and Statistics (IBGE) and referred to the new enterprise-level survey on ICT use in Brazil. The concepts and methodologies used in the survey reflected the recommendations made by the Partnership on Measuring ICT for Development, particularly the UNCTAD Manual for the Production of Statistics on the Information Economy. At the same time, the questionnaire will include several additional questions used in previous surveys on business use of ICT undertaken in Brazil, as well as other countries. The presenter described the scope and characteristics of the survey, which will be conducted in early 2011. A pilot phase had been launched in July 2010 with 1,200 business respondents. The results of the survey were expected to be released in 2012.
36. The next presentation was delivered by Mr Mohamed Amine Jallouli from the National Institute of Statistics of Tunisia, and was also related to the survey of ICT use by enterprises. The intervention provided a background to the survey and explained how Tunisia had dealt with key questions related to sampling, data editing and measurement of ICT impact indicators. The speaker stressed the useful role of the UNCTAD Manual for the Production of Statistics on the Information Economy and made several concrete recommendations on ways to further improve the Manual.
37. The final presentation was made by Ms Sheridan Roberts, an independent consultant. She reviewed some of the main measurement challenges, especially with regards to business surveys of ICT use. Some of the main issues highlighted included the variable industry profile and size of the businesses included in the survey; the technical nature of many of the indicators; aggregation and reporting of data; and continuous gaps in the availability of data, over time and across countries. The speaker further listed a number of additional

indicators for possible inclusion in the list of core ICT indicators, including related to the use of mobile phones, barriers to ICT use, ICT investment and ICT security in businesses.

38. A lively discussion followed and touched upon the issue of measuring networks rather than establishments; criteria for selecting enterprises to be covered by a survey; possibilities to complement enterprise survey data with other data sources; the use of different models to measure the impact of ICT use; and the treatment of agricultural enterprises, which often are excluded from business registers. In conclusion, the chair stressed that it was now up to national statistical offices to make use of available standards, definitions and technical guidelines (notably the UNCTAD Manual) and produce relevant statistics on the information economy.

Session 6: The Future of ICT Measurement

39. Session 6, which was organized by the Partnership on Measuring ICT for Development and chaired by Mr Henri Laurencin from UNCTAD, focused on recent and emerging areas related to ICT measurement. These included ICT in education, e-government, online security and green ICTs. It also took stock of what has been achieved over the past decade in terms of ICT statistics and identified future priorities.
40. The session started with a presentation delivered by Ms Mariana Balboni of ECLAC on behalf of the UNESCO Institute of Statistics (UIS) on measuring ICT in education. UIS had identified 54 indicators in its "Guide to measuring ICT for education", which serves as a methodological reference material and facilitates the operational implementation in school censuses. Of those, eight indicators had been included in the Partnership core list of ICT indicators. A pilot survey had been conducted by UIS in 25 countries, covering both developed and developing countries, to test the indicators. Results showed that developing countries were still in the e-readiness stage whereas most developed countries had now reached the e-impact stage.
41. The next two presentations were devoted to the subject of measuring e-government. It was noted that the UN Statistical Commission, when adopting the core list of ICT indicators in 2007, had called upon the Partnership to continue its work and develop indicators on measuring ICT in education and government. While core indicators on education had been finalized, the indicators on e-government were in the final stage of consultation. This meeting provided a good opportunity for NSOs, international organizations and other stakeholders to provide comments and feedback.
42. Mr Makane Faye of UNECA, which leads the Partnership Task Group on e-government (TGEG), presented progress on the development of a core set of indicators on e-government. While work in this area dated back to 2006, the consolidation of the indicators had recently taken place, reflecting work carried out by ECLAC and Eurostat. A proposed list of 12 core indicators on e-government was presented. The indicators were still under discussion and the preparation of definitions, classifications and other methodological issues would continue until September 2010, when the indicators were to be tested in Government offices in Addis Ababa. The final framework and core list were to be presented at the 8th ITU WTIM, which will take place in Geneva on 24-26 November 2010. Participants were invited to comment on the proposed framework and core list of indicators on e-government.
43. The second presentation on measuring e-government was given by Mr Nasser Masaaod Al-Khayari from Oman, which had carried out a survey on ICT usage in Government in early 2010 (reference year 2009). The survey covered 100% of Government entities with a response rate of 75%, reflecting a substantial amount of follow-up efforts. Several of the

indicators collected overlapped with those in the proposed Partnership core list of indicators. According to Oman, the results of their survey had provided very useful inputs into the further work planning of the Information Technology Authority (ITA).

44. A lively debate followed the presentations on e-government. In particular, a number of issues concerning the proposed core list of e-government indicators were raised and many constructive suggestions were made, including the following:

- It was important to look at the functions carried out by government employees over the Internet/ICTs and not only at whether they had access to ICTs.
- A key challenge was to define the scope of “government entities” or “government institutions” to be covered by the indicators (e.g. whether schools should be included; whether regional and local level entities should be included, etc.). These definitions would impact on the kind and level of service offered. Moreover, clear and precise definitions were needed to ensure international comparability.
- It was suggested that some government services (for example, answering requests through telephone phone calls, fax and email) should not be included in e-government.
- Issues related to the data collection; for example, questions on investment and resources spent on ICT would be very difficult to answer.
- Some participants questioned the usefulness of including questions on the availability of ICT staff in government entities and argued that it would be more important to know about the capabilities of staff to do analysis.
- Brazil had carried out a survey on e-government and offered to share the challenges and progress.
- It was proposed that supply vs. demand-side indicators should be collected separately. Currently most indicators covered the supply side. The Partnership Task Group could develop two more detailed modules on the demand side, one for households and one for business use of e-government services.
- Some participants questioned the usefulness of including questions related to the ability of government to report on the interoperability of standards.
- There was a need to retain indicators on government employees using computers and the Internet, since these were distinct from the indicator on government employees’ ICT skills.
- Concerning the indicator on Government institutions offering services and the respective response categories, it was important to take into consideration the denominator; for example, only relatively few public entities offer health or justice services.
- Participants were encouraged to submit their comments and suggestions concerning the core indicators on e-government in writing to ECA (email: mfaye@eca.org).

45. The second part of the session focused on new topics related to ICT measurement developed in the EU and OECD countries. Measuring online security and trust was increasingly gaining attention and Eurostat had included questions on this topic in its 2010 ICT use surveys (enterprises and households/individuals). The questions included in the enterprise survey covered ICT-related incidents, such as unavailability of services or corruption of data due to hardware/software failures, virus attacks from outside or malicious software. In the household survey, questions addressed both experience with ICT related security incidents, as well as behaviour or action taken in this regard. Another emerging area of measurement concerned the environmental impact of ICTs. Eurostat

distinguished conceptually between the possible environmental impacts of ICT use and the use of ICTs to reduce possible environmental impact of business processes. Questions covered issues such as the reduction of the amount of paper, energy reduction, replacing physical travel by telephone calls, web or videoconferencing, or enterprise policies related to teleworking.

46. The final presentation by Mr Vincenzo Spezia of the OECD took stock of the current work of the OECD Working Party on Indicators for the Information Society (WPIIS) in terms of ICT measurement and possible next steps. Overall, while OECD countries were very good in measuring e-readiness, and to some extent e-intensity, they still had to make progress in measuring impact. Challenges ahead included the conceptual framework, scope of measurement, type of measurement and survey design. Measuring impact still lacked a well-defined conceptual framework. Questions include, for example, what the main channels are that determine the social impact of ICT; how ICT networks function; and what the main drivers are for e-business. The current scope of measurement was too narrow to capture the effects of ICTs as general purpose technologies, including their role in R&D, the convergence of technologies, and ICT capital/intermediaries flows. In order to measure impact, categories were sometimes too broad, for example in the case of ICT use (duration, type). Data collection from the Internet offers huge potential, and some pilot work in this regard had been done by EC/Eurostat/OECD. Data availability could also be enhanced through establishing partnerships with the private sector. Finally, measuring impact requires linking different surveys. This could include working with micro data (on enterprises and households), and collaborating with researchers at the national level who have access to such data.
47. The subsequent discussion addressed, among other issues, the usefulness of combining surveys for measuring impact; the difficulty of measuring the impact of information (rather than the technology by itself); the need to raise awareness in enterprises on the topic of green ICTs; and the extent to which e-waste has been measured. While one delegate expressed concern about the speed by which the sector develops and therefore the need for constant adaptation of measurement, participants were reminded that huge progress had been made in the past ten years on setting statistical standards on ICT. Indeed, progress had been much faster than in most other statistical areas.

Session 7: Enhancing Data Availability (Regional perspective)

48. The session was chaired by Mr George Sciadas, Statistics Canada/Orbicom, and comprised three presentations related to regional perspectives on the need to enhance ICT data availability.
49. The first presentation was made by Ms Mariana Balboni of the Economic Commission for Latin America and the Caribbean (ECLAC) on progress and challenges related to measuring ICT in that region. It provided an overview of the Information Society activities of ECLAC, noting in particular the Observatory for the Information Society in LAC (OSILAC), the regional action plan for the Information Society (eLac) and the inclusive political dialogue. The presentation underlined the importance of rooting the work on developing indicators and data corresponding to needs identified by policymakers. Concerted efforts throughout the region resulted in significant progress in the availability of core ICT indicators, though significant gaps still remained, especially in the Caribbean. The speaker noted that, for the future, it is important to seek synergies and coordination among different institutions and to secure sufficient financial support in order to produce additional ICT data in an efficient manner.
50. The representative of Research ICT Africa (RIA), Ms Alison Gillwald, highlighted the significant absence of official data on ICTs in large parts of Africa. This had led RIA, with the financial support of IDRC (Canada), to collect both supply and demand-side ICT-related data. The presentation gave examples of price comparisons, regulatory environment

assessments and usage analysis. The speaker highlighted challenges involved in accessing data, particularly the sampling frame from the NSOs in some countries of the region. Often, it was necessary to pay to be able to use the sampling frame data. RIA would continue the data collection work until the country data from official sources become available, specifically ICT data from household surveys.

51. The final presentation of this session was made by Mr Rohan Samarajiva who provided the perspective of LirneAsia on the current state of ICT data availability and the need for new indicators in South Asia. LirneAsia had undertaken work on indicators since 2006, including in the area of ICT prices (including for leased lines and broadband), quality of ICT services, and recently on mobile broadband. The speaker called for more frequent and more complete reporting of data in several areas, highlighting the fast moving nature of the ICT industry. Priority needs mentioned included mobile broadband, leased-line prices, ICT investment, use indicators, and quality of service indicators. It was further highlighted the importance of using internationally agreed definitions at the national level.
52. In the discussion that followed, ITU mentioned that some of the issues raised by the last speaker had already been considered in the ITU Expert Group on Telecommunication/ICT indicators (EGTI), in which LirneAsia was an active participant. This included the mobile broadband (access) and investment indicators. The indicator on Internet users had been improved using household survey data collected by the national statistical offices. Furthermore, experts were encouraged to provide comments on quality of service indicators that were currently discussed in the EGTI online discussion forum. Some questions were also raised with regard to how RIA's analysis had influenced the telecom environment in certain countries. There was some agreement that demand-side information is more useful than the supply-side data, although the latter was often more up-to date. One challenge noted was the lack of familiarity with the topic of measuring ICT within NSOs, which sometimes made it difficult to formulate survey questions. A concrete proposal was made that every new policy initiative in the ICT area should include a certain amount allocated to measuring ICT impact. This could help fund work related to the production of statistics.

Session 7 (cont.): Enhancing Data Availability (Round Table)

53. The second part of session 7 was dedicated to a roundtable discussion with participants on how to improve the data availability on ICT statistics at the country level, including by leveraging the support provided by the international community. The round table included representatives from the ITU, UNCTAD, UNSD, ECLAC and ECA and was chaired by Mr George Sciadas from Statistics Canada/Orbicom. After a short introduction by UNCTAD on the work of the Partnership in the area of capacity building and technical assistance, participants were invited to share their views and suggestions, guided by the following questions:
 - Has your country collected any of the core indicators?
 - if yes, what are the main challenges faced?
 - If no, what are the main reasons for not (yet) collecting any ICT statistics?
 - Are ICT statistics included in the national strategies for development of statistics (NSDS)?
 - How can the international community assist your country in the area of ICT measurement?
54. The following countries shared their experiences and views to the points mentioned above:
 - a. Spain highlighted that the availability of ICT data in the country improved considerably when the three agencies in charge of collecting ICT data, the National Statistics Office, the Spanish Observatory for the Information Society (red.es), and the regulatory

agency (CMT) were legally empowered to request the data. The representative stressed the importance of having a legal framework that mandates respondents to provide the information and identifies the agencies to collect the data. He further indicated that Spain collected data on the core ICT indicators, and that the topic of ICT statistics was included in the national statistical strategy. He added that the international community could help by continuing the important work related to the standardization of definitions and methodologies.

- b. The Philippines indicated that their data collection on ICT business statistics had first started in 2003 and had been re-initiated in 2008. It was now part of the regular data collection of the national statistics office. In addition, data on ICT in government statistics had been collected in 2004 by the National Computer Commission (NCC), but discontinued due to budgetary constraints. Some indicators on ICT household statistics were included in the existing household surveys and in the 2010 population census. Furthermore, the country was interested in conducting an ICT household survey and was looking for financial resources to carry out a pilot survey, which is an area where the international community can help. The delegate added that based on experiences from other types of surveys, the pilot survey was often conducted using external contributions, and later the survey could be included in the regular budget of the national statistics office. He highlighted that ICT statistics had been included in the NSDS in 2008, which was currently being updated based on the guidelines of PARIS21. ITU indicated that it did not provide financial resources but could provide assistance through trainings, which are usually delivered at the regional level. The representative from ECA supported the delegate from Philippines and mentioned that in many African countries financing was needed to conduct the first survey.
- c. Denmark indicated that they were collecting most of the data included in the core list of ICT indicators. One of the challenges the country faced was the large number of indicators requested. Furthermore, it would be difficult to collect the data on a quarterly basis (as had been suggested by an earlier speaker). In the case of ICT surveys, it was often difficult to add more questions in existing questionnaires. The Denmark representative highlighted that the international community could help by harmonizing indicators and by reducing the number of indicators, focusing mainly on indicators that are most relevant to policy makers.
- d. New Zealand mentioned that the NSO was facing budgetary cuts and that the ICT division had reduced staff resources. As a result, the country had to prioritize among the indicators to be collected. He added that the international community could help by raising awareness on the importance of ICT statistics, for example at the UN Statistical Commission.
- e. Thailand stressed that in their country, ICT statistics were considered very important for policy making, in particular for the national ICT Master Plan. Due to budget constraints, they needed to prioritize among the surveys conducted. Currently, surveys on ICTs in households, ICTs in businesses and e-commerce were conducted regularly.
- f. Malaysia (the representative from the national statistics office) mentioned that they were planning to collect household ICT data in 2011, as part of a module of an existing survey. ICT statistics were included in the NSDS. The speaker indicated that training was an area where the international community could help. She further added that the regulator (MCMC) also conducted Internet user surveys that should be considered and used. The international community could help by providing detailed feedback on the experiences when using the data collected and disseminated by the national statistics office.
- g. The United Arab Emirates representative mentioned the good cooperation between different agencies involved in ICT measurement in the country. He added that surveys had been conducted in 2008 covering both ICTs in business and ICTs in households, followed by a second round in 2009. A major challenge faced by the country was

related to the sampling frame, given the large number of foreign workers in the country. In addition, he mentioned that timing was an issue in the production of national data and the implementation of international standards. He requested the international community to provide more time for countries to learn and implement the new standards. Lastly, he noted that both ESCWA and ESCAP were absent in the seminar.

- h. The Netherlands supported the suggestion to reduce the number of indicators. The representative added that due to budget cuts, they had chosen to collaborate with Universities and private companies in the data collection.
- i. Saudi Arabia proposed that resources needed to conduct ICT surveys could be raised by asking regulators, operators and consumers to allocate one cent from each call made, to research and development. The funds collected could be used to support ICT data collections under the theme "sharing is caring".
- j. India indicated that the main challenge they were experiencing in the country was the lack of coordination between different agencies collecting the data. She encouraged the international community to ensure that all agencies collecting ICT data in the country be represented in international seminars and workshops. She also confirmed that ICT statistics were included in the NSDS.

- 55. The chair of the session mentioned that lack of resources was a common issue for several countries. In this situation, NSOs needed to set priorities. It was suggested that the Partnership should continue to raise awareness on the importance of collecting data in the ICT area. He stressed the importance of collecting data based on demand from policymakers.
- 56. UNSD stressed the points previously mentioned by the chair and added the importance of integrating the topic of ICT statistics in the NSDS. By doing this, countries would be able to use this as an argument when soliciting funds from donors.
- 57. ITU mentioned that although ESCWA and ESCAP were not present, the Partnership was working with the UN Regional Commissions to help countries build capacity in collecting ICT statistics, and mentioned the experience of ECLAC in advancing ICT statistics through their regional intergovernmental statistical work. ITU added that ESCAP had re-installed a Committee on Statistics, and that countries in the region should consider including the topic of ICT statistics in the Committee's work programme. Furthermore, between now and 2015, there would be a growing need for ICT statistics to help monitoring the WSIS targets, and therefore more demand for data collection.
- 58. UNCTAD added that it was important to advance in the area of measuring the impact of ICT as this would help policymakers see the value of having ICT data. Reference was made to the work of Eurostat and OECD on micro data analysis as a concrete illustration.
- 59. ECA added that ESCWA was working with the Partnership and was part of the process of building capacity in their region to collect ICT statistics. Oman's experience in the data collection of e-government statistics was an example of ESCWA's assistance in this area. The representative also mentioned that although ESCAP was not present in the seminar, countries should help in pushing the importance of ICT statistics in the region. He stressed the importance of assistance from donors and that NSOs should tap the resources of the regulators, which often had resources that could help finance the ICT data collection.

Closing

- 60. Mr Cheol Hwan Seo, Director General of the Research Institute of Statistics Korea, represented the host country during the closing session. He thanked the organizers for the coordination and cooperation and the national representatives for their active participation during the seminar. He encouraged participants to continue the work in this area.

61. Mr Ralf Becker from UNSD acknowledged the excellent discussions during the seminar. The representative reiterated the willingness of UNSD to continue its cooperation with the international organizations working on the subject to help countries in producing ICT statistics. He mentioned that although progress had been achieved, more work was needed due to the fast changing nature of ICT and the need to revisit existing indicators. He stressed the important role of the UN Statistical Commission in all statistical work. As the recognition of ICT statistics in the international statistical community depends on its support by the Commission, participants were encouraged to bring this topic to the attention of their national heads of statistics. Lastly, he thanked all the co-organizers and hosts for the successful conduct of the seminar.
62. Mr Torbjörn Fredriksson from UNCTAD reiterated the points previously made and expressed appreciation to all chairs, speakers and participants for a productive workshop. The representative highlighted in particular the interactive nature of discussions, the efficient management of the sessions, and the useful mix of both producers and users of ICT data.
63. Finally, Ms Susan Teltscher from ITU thanked participants for the very constructive discussions made during the seminar. She confirmed ITU's commitment to work with partners and member states in improving the data. Concerning the follow-up to the meeting, she stressed the importance of finalizing the work on the core e-government indicators and invited participants to send comments and suggestions to ECA. She also provided information about the online discussion forum and invited participants to sign-up to the Partnership Task Group on the WSIS targets and encouraged everyone to participate and make suggestions on the proposed indicators. She also informed the audience about the 8th ITU World Telecommunication/ICT Indicators meeting, which would be held in Geneva from 24-26 November 2010, and encouraged everyone to attend. She thanked KOSTAT for the excellent hosting of the seminar, UNSD, UNCTAD and the Partnership for the fruitful collaboration, and the participants for their active and useful contributions.

**International Seminar on
Information and Communication Technology Statistics**

**Seoul, Republic of Korea
19-21 July 2010**

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