

**Joint UNCTAD – ITU – UNESCAP Regional Workshop on
Information Society Measurements in Asia-Pacific**

United Nations Conference Centre, Bangkok, Thailand (26-28 July 2006)

Organized jointly by:

United Nations Conference on Trade and Development (UNCTAD)

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)

International Telecommunications Union (ITU)

FINAL REPORT

Introduction

1. The Joint UNCTAD – ITU – UNESCAP Regional Workshop on Information Society Measurements in Asia-Pacific was held at the United Nations Conference Centre (UNCC) from 26 to 28 July 2006. The meeting was opened by Mr. Shigeru Mochida, Deputy Executive Secretary and Officer-in-Charge, a.i., UNESCAP, Dr. Susan Teltscher, Chief, ICT Policy and Analysis Unit, ICT and E-business Branch, SITE, UNCTAD, and Dr. Eun-Ju Kim, Head, ITU Regional Office for Asia and the Pacific, Bangkok, Thailand.
2. It was attended by 91 participants, from 26 countries and nine international/intergovernmental organizations. Participants represented the following countries: Australia; Azerbaijan; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Hong Kong, China; Macao, China; Islamic Republic of Iran; Kyrgyzstan; Malaysia; Maldives; Mongolia; Nepal; Pakistan; Papua New Guinea; Philippines; Republic of Korea; Singapore; Sri Lanka; Tajikistan; Thailand; Tuvalu; Uzbekistan; Viet Nam. International/intergovernmental organizations represented include ASEAN, FAO, ITU, OECD, SEAMEO, UNCTAD, UNDP-APDIP, UNESCAP, and UNESCO,.
3. The workshop was chaired by Ms. Anchalaporn Siriwan, Principal Advisor on Foreign Affairs, Ministry of ICT, Thailand (26 July), Mr. Shahid. R. Din, Information Technology Officer, Information, Communication and Space Technology Division, UNESCAP (27 July morning), and Dr. Thaweesak Koanantakool, Director, NECTEC, Thailand (27 July afternoon and 28 July morning).
4. Building on the work of the *Partnership on Measuring ICT for Development*, the Workshop aimed to advance the availability of comparable data on ICT in the region. The event allowed representatives of the national statistical system, as well as representatives of ministries and regulatory agencies who are producers and/or users of ICT statistics, to discuss the need for comparable data on information society developments, and share best practices in ICT measurement at the regional level. The presentations, country papers and other information about the workshop can be found on the Internet at <http://measuring-ict.unctad.org>.
5. The workshop presented and discussed the list of core ICT indicators that was agreed upon at the 2005 WSIS Thematic Meeting organized by the *Partnership on Measuring ICT for Development* and presented during the WSIS Tunis, along with definitions, methodologies and data collection issues. It addressed challenges related to information society measurements in the Asia-Pacific region, presented possible solutions to overcome these challenges and identify technical assistance needs in this area. It also aimed at increasing awareness both at the political and technical level for the need to measure information society developments and for linking the national policy agenda with the e-measurement agenda, requiring effective cooperation between policymakers and national statistical systems.
6. This summary focuses on the substantive discussions, based on the following thematic sessions:
 - Evidence-based policy making: Linking the ICT policy and ICT measurement agendas
 - Partnership on Measuring ICT for Development
 - ICT household statistics
 - ICT business statistics and ICT sector
 - Other ICT indicators; international data collection

- Roundtable discussion on capacity building needs and technical assistance
- Conclusions, recommendations and next milestones

Evidence-based policy making: Linking the ICT policy and ICT measurement agendas

7. In his keynote speech, H.E. Professor Suchai Charoenratanakul, Deputy Prime Minister and Acting Minister of Information and Communication Technology of Thailand, highlighted the fact that ICT has now penetrated every country worldwide, has become an indispensable part of our modern societies, and has brought great benefits, but also increased competition between countries. In addition, the attention of the participants was drawn to the importance of the measurement issue for ICT policy making. The calls of the WSIS Tunis Agenda for periodic evaluation based on appropriate indicators and benchmarking, using an agreed methodology, was stressed. The speaker also highlighted the need for using internationally agreed ICT indicators in order to obtain internationally comparable data.

Partnership on Measuring ICT for Development

8. The panelists presented the background, objectives and main activities of the Partnership on Measuring ICT for Development. In addition, the link to the WSIS process and its outcomes was highlighted. Speakers also presented the Global ICT Indicators Stocktaking, and main findings. In this context, the need for common ICT indicators was stressed, and the list of core ICT indicators agreed upon the WSIS Thematic meeting in February 2005 was introduced to the participants. During the session, the contributions of ITU and UNCTAD to the Partnership were highlighted.
9. During the discussion that followed, participants required more detailed information about the capacity building activities proposed by the international organizations. The issue of e-government measurement was mentioned both by panelists and participants and the need for common ICT indicators to assess e-government policies was expressed. Speakers pointed out that the Partnership Task Group in charge of e-government issues is planning to make a proposal next year.

ICT household statistics

10. The purpose of the session was to discuss topics related to the definitions, model questions, and data collection of core ICT indicators on access to and use of ICTs by households and individuals and to learn from the experiences of countries/economies who have been involved in the collection and dissemination of ICT household statistics. A number of country experiences were presented by representatives from National Statistical Offices (NSO), along with a detailed presentation of the core ICT household indicators.
11. The session focused on countries' experiences in the ICT household's data collection, and emphasized the need for comparable data and harmonized indicators at the international level. Presentations were made by the Republic of Korea, Malaysia, Hong Kong, Singapore, and Bangladesh.

12. The Republic of Korea's National Internet Development Agency (NIDA) provided an overview of the structure of the country's statistical system and its role in the collection of ICT statistics. It outlined data collection efforts, including the survey process, questionnaire and sampling design, actual fieldwork and dissemination of results. The presentation provided an in-depth picture of how the ICT household survey is conducted. NIDA's direct involvement in the measurement work is inspired by close collaboration with the Ministry of Information and Communication (MIC) which is one of the major users of data in the country. NIDA also highlighted some of the main challenges in the collection of ICT household statistics, which included issues related to sampling error, increasing number of survey questions, and increase of non-response incidents due to confidentiality issues.
13. The Malaysian Communications and Multimedia Commission (MCMC) presented the Annual Household Use of the Internet survey, first conducted in 2005, and other specific user surveys carried out in 2004. It pointed to the role of the regulator in collecting demand side statistics through surveys. The MCMC works closely with Malaysia's Department of Statistics and provides a good example of a country's close relationship and cooperation between different agencies involved in ICT data collection. The presentation highlighted the methodology used which is mainly based on a sample of telephone users. MCMC does not plan to conduct a full ICT household survey, but to conduct the current survey annually. The presentation also highlighted the need for good and timely statistics, and pointed out that much remains to be done in terms of reviewing and maintaining statistical standards and quality assurance. It also recognized the benefits from harmonization of survey concepts and data items across jurisdictions.
14. The experience from Hong Kong, China points to the importance of surveys in understanding the ICT market, in terms of individual and household use. It provided another example of successful coordination between the NSO, the regulator and the ministry in terms of official data collection. Given new technological developments, questions on electronic government services and electronic games were added in the 2005 survey. Major challenges related to the rapid development of ICTs make it difficult to compare statistics on PC/Internet penetration rates over years. The presentation further highlighted the difficulty in balancing the needs of data users and the reporting burden of respondents.
15. The presentation by Singapore (IDA) highlighted the role of the regulator as both producer and user of ICT household and individual statistics. Singapore's decentralized statistical system gives the authority to IDA to carry out the Annual Survey on Infocomm Usage in Households and by Individuals, conducted since 1995. The presentation highlighted the methodology and questionnaires used, survey processes and dissemination of results. IDA also shared some of the lessons learnt from conducting the survey. This included the importance of pilot testing to ensure that the ICT terminologies included in the survey are understood and the length of the questionnaire to minimise respondent fatigue. The presentation further highlighted the difficulties in collecting data from private households due to tighter security at residential premises.
16. Bangladesh does not have a dedicated survey to collect data on access to and use of ICTs by households and individuals. However, this didn't prevent the NSO from collecting some of the main ICT household access indicators. The Household Income and Expenditure Survey (HIES) 2005 conducted by Bangladesh Bureau of Statistics (BBS) collected information on the use of ICT (use of computer, email, internet, telephone, mobile phone etc.) at the household and individual levels. BBS recognizes that the lack of a

comprehensive survey on the use of ICT prevents them from giving a full picture of ICT adoption in the country.

17. The issue of definitions, model questions, and response categories was presented by Sheridan Roberts, representative from the Australian Bureau of Statistics, who was previously involved in the work of the Partnership while working for the OECD. Her presentation covered the collection of statistics for the core ICT Indicators on access to, and use of, ICT by households and individuals, including definitions and model questions, the classification and construction of the core indicators, particular statistical issues associated with the indicators, the survey scope and coverage, some methodological notes, as well as some additional information. Concerning ICT surveys, participants mentioned that they faced the problem of limited financial resources and qualified staff.
18. The last sub-session discussed the status of data collection of ICT household statistics in Asia-Pacific countries, the challenges that countries expect to encounter in the data collection or survey implementation and the views related to the core indicators presented in the previous session.
19. Although a number of countries had successfully initiated a dedicated/stand-alone survey, others do not have a survey in place nor plan to collect the data in the immediate future. Many countries highlighted the lack of financial resources to conduct a survey and the lack of technical capacity to collect data. Some countries plan to include some core ICT household indicators in their existing household surveys. Countries requested international organizations to produce manuals and guidelines to help them understand some of the ICT terminologies used and to conduct technical workshops/training to help national statistics office and their staff to effectively carry out a household survey.

ICT business statistics

20. The purpose of this session was to discuss topics related to the collection of ICT business statistics and the ICT sector, and to share country and regional experiences. Presentations were made by the Philippines, Thailand, Azerbaijan, China and Uzbekistan.
21. The NSO of Philippines provided an overview of a specific survey conducted in 2002, and its main results. The survey (SICT 2002) presented data collected in the following areas: components of ICT resources and their usage, diffusion of ICT into businesses and industries, e-commerce transactions, availability of ICT workers, investment in ICT resources and possible barriers to the adoption of ICT. Concerning the definitions and classification, the NSO used an adapted and expanded version of the OECD definitions. The main problems faced by the country are linked to the conceptual definitions, lack of expertise, sampling frame deficiencies and a low response rate. A survey of business and industry, which will include some ICT data, is scheduled for 2009. The lack of resources is one of the main issues faced to collect specific data on an annual basis.
22. The experience of the Thai NSO in ICT statistics highlighted the importance of coordination between different entities in charge of data collection in a country. The NSO is in charge of producing fundamental statistics, disseminated mostly by census and surveys. But other statistical units in line ministries produce statistics mostly as products of their administration. At the same time, the National Electronics and Computer Technology Center (NECTEC is a statutory government organization under the National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology) has also specific surveys. The Thai NSO started to collect ICT data in 2002, by including a few

ICT questions in existing business surveys. Since 2004, the NSO carries out annual ICT survey. The objectives of the survey are: to collect basic data concerning the usage of ICT in business operation, to study, analyze and draw up ICT indicators, and to evaluate and monitor the country's national ICT master plan. For this survey, the NSO adapted the OECD questionnaire. Concerning the methodology, the NSO conducts face-to-face interviews. The survey covers only enterprises located in Thai municipalities, and includes micro-enterprises. Some of the problems highlighted by the NSO include the difficulty to train staff on ICT-related concepts, as well as the lack of cooperation from some of the establishments surveyed.

23. Azerbaijan is only at the beginning of its ICT statistics collection. The NSO approved the core ICT indicators system (200 indicators covered), as well as the survey methodology in 2005. In January 2006, 20, 200 enterprises have been surveyed, and the data collection process is on going. Azerbaijan was the first CIS country to build an official ICT statistics collection, used mainly by governments and international organizations. The presentation highlighted the need for staff training, as well as the lack of methodology / definitions for e-government, e-education, and e-health.
24. The National Bureau of Statistics (NBS) of China pays much attention to the evaluation and monitoring of ICT. In 2004, a pilot ICT survey was conducted in 10 provinces for the business sector, as well as government and household sectors. At present, NBS is trying to improve ICT statistics and research work, including the efforts to implement an international project with OECD, UNCTAD and ITU. Currently, the NBS is developing an interim project of informatization statistical work, which means adding ICT indicators to conventional on-line reporting forms, and conducting specific ICT surveys. Some results were presented, mainly for large enterprises. In September 2006, an *OECD Seminar on ICT Statistics for China* will be held, and 6 experts from the OECD, UNCTAD and ITU will be invited to visit China. NBS will try to conduct ICT surveys annually.
25. Uzbekistan collects data on ICT uses by businesses (availability of computers, software, networks, information security). Data will be available in mid-2006, but preliminary results were presented. Data are collected on a quarterly basis. Concerning e-commerce, the speaker drew the attention of participants to the fact that the credit card system is brand new in Uzbekistan, so on-line transactions are not really developed for the time being.
26. In the following discussion, participants stressed the growing recognition of the importance of ICT and the increasing demand by policy makers for access to timely data. An example was the need by ASEAN countries to assess e-readiness. Speakers underscored the need for harmonized definitions and the importance of having a core set of common indicators made available by the Partnership on Measuring ICT for Development.
27. The need to keep in mind the difficulties faced by users of model surveys with some technical terms such as "computer mediated networks" or acronyms such as WLAN was noted. In terms of the latter point participants emphasized the need for training for effective surveys as well as follow up where response rates were low or of poor quality. In terms of problems faced in ICT surveys, all speakers noted they were operating with limited financial resources. They added that the dynamic nature of ICTs meant it was hard to keep pace with developments and the needs of policy makers given such constraints. Some countries mentioned the lack of cooperation from enterprises concerning financial data.
28. The issue of definitions, model questions, and response categories was addressed by Sheridan Roberts, representative from the Australian Bureau of Statistics, who was previously involved in the work of the Partnership while working for the OECD. Her presentation covered core ICT Indicators on the use of ICT by businesses, the ICT sector

and trade in ICT goods, including definitions and model questions, the classification and construction of the core indicators, particular statistical issue associated with the indicators, the survey scope and coverage, and some methodological notes. Another presentation highlighted the specific survey vehicles for ICT indicators in the business sector.

29. A roundtable was organized, in which participants shared information on their data collection and on the main challenges they face. The majority of participating countries did not collect specific ICT business data on a regular basis. ICT-related terminology and definitions could be a barrier for countries that have not yet started to collect ICT indicators. The lack of resources to conduct a survey on a regular basis is an issue for most of the countries in the region. The need for technical assistance was widely stressed.

Other ICT indicators; international data collection

30. The purpose of this session was (a) to present other ICT indicators, in particular those related to IT in education, and (b) to present the data collection at the international level. Presentations were made by UNESCO Institute for Statistics (UIS), ITU, and UNCTAD.
31. UIS supports capacity building in the areas of monitoring, assessing and analyzing the disparities in access to education. In particular, it develops tools to support countries in the analysis of education data. Concerning the issue of ICT in education, UIS, as a member of the Partnership, is currently developing a core set of indicators. The UNESCO Asia-Pacific Programme helps countries in the region to develop by 2008 a national ICT in education policy, as well as key indicators to monitor progress and assess strategies. UNESCO is currently developing, pilot testing (India, Philippines, and Thailand) and promoting the institutionalization of indicators for ICT use in education. A manual on using ICT performance indicators (approximately 50 indicators) in assessing the impact of ICT in education is currently being drafted.
32. An overview of ITU data collection was presented during this session. This data collection covers around 100 indicators, via an annual telecommunication questionnaire addressed to government agencies responsible for ICT/telecom or operators, online research, and annual reports. More than 200 economies are surveyed. The main ITU publications were described, as well as the online statistics database.
33. The UNCTAD e-business survey was presented to participants during this session. This survey concerns ICT business data for selected developing countries, and is conducted on an annual basis since 2004. It is based on the list of core ICT indicators (indicators on ICT use in enterprises and the ICT sector). Some of the results were presented, especially some 2006 results for the region. The speaker also drew the attention of participants to the importance of comparability and availability of data. Indeed, the main challenges faced when conducting this survey are the lack of continuity in data collection (one-off surveys), the differences in types of surveys, sampling units, frames, sizes, denominator, the differences in response categories, the issue of availability of data (in 2006, only 13 countries in the region provided data), as well as the lack of coordination between Government entities. Some suggestions for action were made, at the policy level as well as at the technical level. UNCTAD leads the Partnership Task Group on Capacity Building, and proposes some technical assistance activities, such as assisting statistical agencies in developing countries in their ICT data collection and dissemination efforts, via advisory missions; developing and delivering a specialized training course (as well as a manual); and conducting technical workshops at the regional level.

Roundtable discussion on capacity building needs and technical assistance (TA)

34. This session started with a brief summary of the capacity building plans by the Partnership on Measuring ICT for development, as well as an overview of participants' interventions on capacity building and technical assistance needs during the first two days of the workshop. The moderator also cited and introduced the work of Paris 21.
35. The roundtable discussion started by a reminder by the moderator of the objectives of the Partnership Task Group on Capacity Building (TGCB) and of its activities, which include: sending a questionnaire on technical assistance needs, establishing a roster of experts on ICT statistics, initiating contacts with PARIS21 on the possibility of linking the capacity building activities on ICT indicators in the National Statistical Development Strategies, and maintaining a calendar of planned activities by the members of the TGCB.
36. In the discussion, the following issues were addressed: priority fields for technical assistance, specific statistical phases that required capacity building assistance, most appropriate modes of assistance, the integration of technical assistance directly linked to ICT indicators in other ongoing or planned capacity building activities in statistics, the improvement of the technical assistance activities by improving the coordination within the national statistical system, the possibility of grouping countries based on common needs of assistance.
37. The capacity building plans should include activities targeted at the advocacy for ICT indicators to increase the commitment of the national authorities, the improvement of national co-ordination and the sustainability of survey programmes. Delegates from Regulatory Authorities recalled the need of their institutions for being considered in capacity building plans.
38. On the technical aspects, most countries expressed the need for TA in questionnaire design, sampling design and data collection, including the integration of ICT questions into existing households and business surveys. Several delegations, especially from LDCs, mentioned the need for TA on general statistical topics, but it was also mentioned that there are other ongoing initiatives that could cover these needs. The delegations of countries with existing experience required assistance in improving the data analysis and dissemination.
39. Grouping countries with respect to their current capacity and experience in ICT surveys and thematic priorities was seen as a way of increasing the efficiency of TA activities. Countries with existing capacity to implement household and business surveys should be considered separately of countries with less resources and experience. Several countries have strong statistical systems in place (such as the Central Asian countries) but need to improve the sampling design, data analysis and dissemination.
40. Australia, Singapore, and Hong Kong SAR may be countries that could provide technical assistance to other countries. Malaysia and Thailand expressed their willingness of sharing their experiences in national co-ordination among stakeholders (NSO, Regulatory Authorities and line Ministries) for the production and use of ICT indicators. Azerbaijan offered the possibility of hosting a sub-regional training seminar.
41. The international organisations present at the workshop recalled their activities and priorities. The ESCAP Secretariat reminded the need for advocacy in order to sensitize ICT authorities of the importance of developing measurement systems. The ICT Division of ESCAP is planning to collaborate with its Statistical Division and the Statistical Institute of

Asia and the Pacific (SIAP) to provide technical assistance. The UNESCO Institute of Statistics (UIS) rather focuses on education and MDGs in the region, whereas most work on ICT indicators is being done in headquarters in Montreal.

42. The Secretariat of ASEAN recognised the need for ICT indicators, and has been working on a core list for the region. It has a strong collaboration with NSOs of its member countries. The ongoing co-operation with the EU in the field of statistics does not however include ICT statistics.

Conclusions, recommendations and next milestones

43. Dr. Thaweesak Koanantakool, Director, NECTEC, Thailand, made a closing statement to highlight the conclusions of the Workshop and its main achievement. He also draw the attention of participants to the challenges they are facing, and mentioned the need for future technical assistance activities that could be developed in the region. A copy of his concluding statement is provided in Annex.
44. During the Workshop, it has been emphasized that many countries in the region have started to address the issue of ICT statistics, with many similarities in the data collection experience of countries, but also with a lot of differences with respect to resources, technical expertise, and priorities given to ICT statistics collection.
45. Although some of the countries in the region are highly experienced in producing ICT statistics, the number of indicators collected in the region is still limited and the data collection is at its early stage. Therefore, this workshop provided an excellent opportunity for countries to learn about the current debate and status of collecting ICT statistics in the region, and internationally.
46. Participants have recognized that internationally agreed indicators and definitions should be used as a basis for data collection, in order to increase international comparability. The list of core ICT indicators developed by the Partnership and agreed upon at the WSIS Thematic meeting in February 2005 was considered as a good starting point to collect ICT indicators in the region. Nevertheless, further indicators are desired, in areas such as e-education, e-health and e-government.
47. Even though a lot of progress has been made more needs to be done at the national, regional and international levels to raise awareness among policy makers of the need for ICT data. NSOs need to include ICT indicators in their National Strategies for the Development of Statistics. Interaction between statisticians and policy makers at the national level is required. It is important for the different national agencies involved in the collection of ICT data to work in close collaboration with the NSO to ensure precision and quality of the data collected.
48. Lacks of technical capacity, of financial resources, or of expertise in the NSOs on data collection, methodologies and data analyses, are some of the main problems faced by developing countries in the region. In many countries, there is a need for technical assistance and capacity building in all phases of the statistical production of ICT statistics in households and enterprises. The international community is asked to help countries who need assistance in their efforts to collect ICT statistics.

Annex 1: Closing statement of Dr. Thaweesak Koanantakool, Director, NECTEC, Thailand, Chairperson

Chairperson's summary notes

Over the past 2 1/2 days, we have heard many interesting presentations and contributions from all countries present at this workshop. While there are many similarities in the data collection experience of countries, there are also a lot of differences with respect to resources, technical expertise, and priorities given to ICT statistics.

Overall speaking, there seems to be an agreement on the growing importance of ICT for development, and the related increasing demand for ICT statistics from policy makers. Many countries in the region have started to address the issue of ICT statistics, but the number of indicators collected are still very small and the data collection is at its initial stage. Therefore, this meeting has been very timely and provided an opportunity for countries to learn about the current debate and status of producing ICT statistics in the region, and internationally.

We have noted that there has been a shift from collecting ICT supply side indicators (such as the number of telephone lines from telecommunication companies) to demand side indicators (such as the number of employees per telephone line in a company).

There is a broad consensus that internationally agreed indicators and definitions should be used as basis of data collection to increase comparability between countries.

The core ICT indicators developed by the Partnership and agreed upon at the WSIS meeting last year were considered as a good starting point to collect ICT indicators in the region. The publication on the core ICT indicators is a useful document and practical tool for NSOs since it includes precise definitions and methodological information.

It is critical to use such internationally agreed definitions to improve the harmonization and comparability of statistics in the region. The harmonization of data is especially challenging in the collection of ICT business indicators.

Further indicators are desired, in areas such as education, health and government. Hence there is a demand for an expansion of the core ICT indicators list. This will be addressed in the ongoing and future work of the Partnership.

The following issues were raised during the meeting.

Some of the problems countries are facing:

- Lack of technical capacity
- Lack of resources to employ staff for data collection
- Lack of financial resources to guarantee the sustainability of survey programmes
- Lack of expertise in the NSOs on data collection, methodologies and data analyses
- Weak co-ordination among the different organizations responsible for the production of ICT statistics
- Lack of understanding of policy-makers for the need to integrate indicators into the national ICT plans

There is a need for technical assistance and capacity building the collection of ICT statistics in households and enterprises in many countries, although some of the countries in the region are highly experienced in producing ICT statistics and could provide expertise to other countries.

Overall, there is a need for capacity building in all phases of the statistical production: questionnaire design, data collection (sampling frames, sample design, interviewing, training of field staff on basic ICT concepts and definitions), data analysis and data dissemination. Technical assistance could be provided through the provision of manuals, training sessions and advisory missions. Grouping of countries according to their priorities and stage of ICT data production could improve the efficiency of the technical assistance.

The integration of ICT statistics into ongoing statistical capacity building plans such as National Statistical Development Strategies should be considered. Workshops such as this one is considered important in building capacity.

There are different agencies involved in the collection of ICT data. It is important to have close collaboration with the NSO in the country to ensure accuracy and quality of the data collected. The NSO should play a role in both the data collection and dissemination. In countries where several entities are involved in statistical data collection, a clear decision needs to be taken on who is producing official statistics in the country. This also relates to the dissemination of findings, which needs to occur via the official statistical web sites of the country.

Given the dynamic nature of ICTs, there is a need to collect data on a regular basis (at least biannual). Furthermore, rapid changes in technologies presents a challenge for identifying and defining ICT indicators related.

Where do we go from here?

NSOs need to assess their capacities to produce ICT statistics.

NSOs need to include ICT indicators in their National Strategies for the Development of Statistics.

Even though a lot of progress has been made in raising awareness among policy makers and other stakeholder of the need for ICT data, more needs to be done at the national, regional and international levels. For example, the national policy planning body needs to understand the value of quantitative information on the information society for effective strategic planning. This requires a better interaction between statisticians and policy makers at the national level.

The international community, and specifically the organizers of this workshop (UNCTAD, ITU and UNESCAP), are asked to help countries who need assistance in their efforts to collect ICT statistics.

May I conclude using a quote from Lord Kelvin:

"I often say that when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind"

Thank you.

Annex 2: Results of the evaluation questionnaire

Organization

1. Is the Workshop organized efficiently?

Rating scale: Poor (1) Fair (2) Good (3) Very good (4) Excellent (5)

1	2	3	4	5
	1 (3%)		23 (63%)	12 (34%)

Usefulness

2. One of the main objectives of the Workshop is provide a better understanding and to share experience on incorporating ICT policy planning and programming in the development process of the participating countries. In your opinion, to what extent did the Conference achieves its immediate objective?

Completely	Substantially	Sufficiently	Insufficiently
10 (28%)	15 (42%)	9 (25%)	