



Observatory for the Information Society in Latin America and the Caribbean♦

Report on the Third workshop on Information Society Measurement in Latin America and the Caribbean

Panama City, November 22- 24, 2006

Summary

The third workshop on information society measurement had the presence of participants from 20 National Statistical Offices, seven National Institutions in charge of elaborating, coordinating or fostering the development of statistics on ICT in their respective countries, participants of eight international agencies and other participants from academy, non governmental offices and the private sector. Having in mind that National Statistical Offices (NSO) are the relevant actors to provide statistics on Information and Communication Technologies (ICT) -that are useful, among others, to monitor the policies and development of Latin American and Caribbean information societies-, emphasis was made in the following issues, based on the work carried out by and with NSO:

- i) To build a regional database including statistics produced by NSO and other agencies in charge of measuring ICT in the region. This database will be presented to the Statistical Conference of the Americas (SCA) in July 2007.
- ii) To move forward in the inclusion of more countries in the Compendium of Practices on the on the implementation of ICT statistics. To present the Compendium, together with the list of core ICT indicators, to the SCA in July 2007.
- iii) To present the list of core ICT indicators at the thirty-eighth session of the UN Statistical Commission, 27 February - 2 March 2007, for endorsement.
- iv) The Observatory for the Information Society in Latin America and the Caribbean (OSILAC), together with the Partnership on Measuring ICT for Development, will assist countries through capacity building (technical assistance) and the search for financial resources in order to implement the proposed list of indicators on ICT access and usage.
- v) For all these activities, and with the objective of regional collaboration for the development of harmonized ICT indicators, OSILAC will work coordinately with the Working Group on ICT statistics harmonization, a group of the Statistical Conference of the Americas (SCA) of ECLAC.¹

♦ OSILAC is a joint effort between the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC) and the Institute for Connectivity in the Americas (ICA) of the International Development Research Centre, of Canada (IDRC), with the support of the @LIS program of the European Commission.

¹ Considering the decision of the Regional Follow-up Mechanism of eLAC2007 - during the Third eLAC2007 Coordinating Meeting for the implementation of the Regional Plan of Action, carried out the 27th and 28th of

Background

1. During the last decades, advancements in the access to and the usage of Information and Communication Technologies (ICTs) have been a driving force for changes in the productive and social organization in most countries of the world. While ICT diffusion and usage represents an opportunity for developing countries, the digital divide between societies of advanced and less advanced countries persists, which constitutes a new challenge for development.

2. This challenge has been recognized in target 18 (part of goal 8) of the Millennium Development Goals (MDGs), which states that 'In cooperation with the private sector, make available the benefits of new technologies, especially information and communications'. In this context assessments of progress towards this goal are fundamental; moreover, measuring ICT for development contributes to other MDGs.²

3. In this development context, the Geneva phase of the World Summit of the Information Society (WSIS) highlighted the importance of benchmarking and measuring progress towards the Information Society through internationally comparable statistical indicators.³ The Tunis phase recognized that the development of ICT indicators is important for measuring the digital divide, and called upon countries and international organizations to allocate appropriate resources to ICT statistics and to develop effective measurement methodologies including basic ICT indicators and an analysis of the current state of the Information Society. In particular, member states called for periodic evaluations using a defined methodology referring to the work of the Partnership on Measuring ICT for Development.

4. Within the framework of this global initiative, the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the Institute for

November in Santiago-, of not creating new working groups, and since a working group for ICT statistics harmonization (a group of the Statistical Conference of the Americas (SCA) of ECLAC) already exists, it has been decided, previous communication with the Dirección de Estadísticas y Censo of Panama, that the only working group associated with OSILAC will be the mentioned group created by the mechanism of the SCA, coordinated by the NSO of Dominican Republic, with the participation of Colombia as speaker and Mexico as facilitator, and to which National Statistical Offices of Panama, Cuba, Venezuela, Honduras and Brazil have also joined. OSILAC will coordinate together with this group the activities required in order to implement the issues for future work raised by countries during the Third Workshop."

² See Chapter 5 of ITU's *World Telecommunication/ICT Development Report 2006: Measuring ICT for Social and Economic Development*.

³ The WSIS took place in two phases (Geneva, 10-12 December 2003 and Tunis, 15-18 November 2005). The Geneva Plan of Action (WSIS-03/GENEVA/DOC/0005), states:

"E). Follow-up and evaluation 28. A realistic international performance evaluation and benchmarking (both qualitative and quantitative), through comparable statistical indicators and research results, should be developed to follow up the implementation of the objectives, goals and targets in the Plan of Action, taking into account different national circumstances. (...) f) All countries and regions should develop tools so as to provide statistical information on the Information Society, with basic indicators and analysis of its key dimensions. Priority should be given to setting up coherent and internationally comparable indicator systems, taking into account different levels of development."

Connectivity in the Americas (ICA) of the International Development Research Centre of Canada (IDRC) launched in 2003 the Observatory for the Information Society in Latin America and the Caribbean, thereafter referred to as OSILAC. From 2005, the @LIS project of the European Commission and the PanAmericas program of IDRC, are also supporting this project. OSILAC is developing joint efforts with National Statistical Offices and other national agencies producing statistics in countries of the region to build up a harmonized measurement of ICTs.

5. The main objectives of OSILAC are to (1) Collect data, indicators, methodologies and qualitative information on ICTs from all over the region; (2) Standardize and harmonize ICT statistics compiled at the subregional, national and local level; (3) Increase and improve the quantity and quality of ICT data collected in the region, creating the required capacities among NSO's statisticians in charge of providing ICT statistics.

6. In response to the issues raised by the Millenium Development Goals and the first phase of the WSIS, key stakeholders involved in the statistical measurement of the Information Society joined to form the Partnership on Measuring ICT for Development, thereafter referred to as "the Partnership", which was officially launched during the UNCTAD XI conference (Sao Paulo, June 2004). Current partners are four UN Regional Commissions (UNECA, UNECLAC, UNESCAP and UNESCWA), the International Telecommunication Union (ITU), the Organisation for Economic Co-Operation and Development (OECD), Eurostat, the United Nations Conference on Trade and Development (UNCTAD), the UNESCO Institute for Statistics (UIS) and the World Bank.

7. Similar to OSILAC, the main objectives of the Partnership are: (i) To define and analyse internationally comparable statistical ICT indicators and develop methodologies to collect these indicators; (ii) To assist in building the statistical capacity in developing countries, and (iii) To set up a global database for hosting data on core ICT indicators. To achieve these objectives, the respective partners have combined resources and coordinated activities related to the measurement of the information society.

8. As part of all mentioned initiatives, OSILAC, together with other members of the Partnership prepared a questionnaire with meta-data on ICT statistics in 2003-2004. The questionnaire was circulated to national statistical institutes in 179 developing countries. OSILAC circulated the questionnaire in Latin American and Caribbean countries, ECA, in African countries, ESCWA, in countries of Western Asia, ESCAP, in the Asia-Pacific region, UNCTAD, in European countries which are not members of OECD, while OECD carried out a similar exercise in its member countries. The questionnaire was returned by 86 countries. The results of this exercise are compiled in the document "*Measuring ICT: the global status of ICT indicators*"⁴.

⁴ <http://www.cepal.org/socinfo/noticias/documentosdetrabajo/1/23121/A5-Partnership%20global%20stocktaking.pdf>

The coverage of the stocktaking exercise was assessed in terms of population and share of GDP for the respondent countries, with the following results. Africa: 19 out of 52 countries, 43% of the population, 29% of GDP; Western Asia: 10 out of 13, 83% of the population, 83% of GDP; Asia-Pacific: 18 out of 44, 51% of the population, 50% of GDP; Latin America and the Caribbean: 20 out of 36, 91% of the population, 95% of GDP; Central Asia and Central and Eastern Europe, 19 out of 24, 89% of population, 95% of GDP)

9. Once the exercise involving the questionnaire was completed, a series of regional workshops was launched by the United Nations Regional Commissions in their respective regions: Western Asia (October 2004), Africa (October 2004, January 2005) and Latin America and the Caribbean (November 2004). At these workshops, NSO discussed the situation of ICT statistics in the respective regions and their countries, and proposed regional core lists of indicators for monitoring ICT infrastructure and access, access to, and use of, ICT by households and individuals, ICT use by enterprises, and the ICT sector.

The list of core ICT indicators

10. Based on the proposals put forward at the regional workshops, the Partnership on Measuring ICT for Development consolidated a set of core indicators, which was presented at the WSIS Thematic Meeting on Measuring the Information Society, held in Geneva from 7 to 9 February 2005⁵. This set is recommended by the member organisations of the Partnership as a basis for the collection of ICT statistics that could be comparable at the international level.

11. The final core list of ICT indicators was officially presented at WSIS Tunis (November 2005), during a Parallel Event on Measuring the Information Society organized by the Partnership. The proposed list of core indicators is contained in Annex I. Questions and definitions are explained in the document "Core ICT indicators"⁶

12. The regional lists of indicators were presented for information to the UN Statistical Commission at its 36th session in March 2005 (Report of the Partnership, Document E/CN.3/2005/23).

13. The list of core indicators, presented during the WSIS Thematic meeting in Geneva, was also presented for information to the Third Meeting of the Statistical Conference of the Americas (SCA) in June 1-3, 2005.

14. The list has been disseminated widely and serves as a basis for OSILAC's and the Partnership's work on measuring ICT. The involvement of NSO from both developed and developing countries has been of utmost importance. NSO from developed countries have provided support on methodologies and shared experiences in ICT data collection, analysis and dissemination, primarily through the OECD Working Party on Indicators for the Information Society (WPIIS). NSO from developing countries have proposed a list of indicators according to their necessities and are starting to implement them into their surveys.

⁵ The meeting was attended by 270 delegates from 85 United Nations member countries (primarily NSO), intergovernmental organizations, NGOs and civil society.

⁶<http://www.cepal.org/socinfo/noticias/documentosdetrabajo/6/23116/Partnership%20core%20%20indicators%20English.pdf>

15. The existing list is useful as an internationally convergent data collection process. It has been adopted by UNCTAD for its collection of data on ICT use in businesses and the ICT sector, and by ITU for its collection of data on access to and use of ICT by households and individuals. The core list represents a subset of ICT indicators collected by Eurostat and OECD from their member states. OSILAC is working on foster its collection by NSO from countries in Latin America and the Caribbean.

Current status of ICT indicators collection in the LAC region

16. A number of countries of the region have already integrated the proposed core list of ICT indicators in their existing household and business surveys. Between 2005 and 2006 a group of countries has included an ICT module in their household surveys and a smaller group in their business surveys. Most of the countries collect information about possession of ICT goods in their household surveys and in Census, usually as part of the household or dwelling equipment session. These goods are mainly radio, television, fixed telephone line, and more recently, since 2000, computer, cellular phone and internet.

17. In the Latin American subregion, with a total of 19 countries, seven of them have adopted the list of core indicators on access to and usage of ICT by households and individuals, and four more have adopted part of it. 13 of the countries in the region are including the basic core indicators on access to ICT, as household equipment in Permanent Surveys like Household Surveys of Living Conditions or Multiple Purposes Surveys, and two more will have this results by the beginning of 2007. Regarding the core indicators on ICT usage by business, eight of Latin American countries have adopted them in existent business surveys, although some will have results only by the first term of 2007.

18. In the Caribbean, two countries (Barbados and Trinidad and Tobago) have developed surveys on ICT access and usage by household and business in the past (2003). However Trinidad and Tobago is trying to move forward and is currently developing a business survey with an ICT module. Recently in 2005, Saint Lucia included almost all of basic core indicators.

The Compendium of Practices

19. The Statistical Conference of the Americas of ECLAC (SCA) assigned a high priority on ICT statistics in its 2005-2007 work program, creating for that, the working group for ICT statistics harmonization. OSILAC together with this Working Group, is preparing a “Compendium of Practices on the implementation of ICT questions in households and businesses surveys in the region, with inputs from other sectors”.

20. The objective of this compendium is to present, in a single source, the experience of countries in the region in implementing ICT access and usage questions into their surveys. This tool will be useful for those planning to include changes in their surveys, and also to review the advantages/disadvantages of the proposed list. The Compendium may also be used by the Partnership's capacity building group as training material. It also will include experiences of other leading countries/regions.

Commitments and Future work

The countries of the region ask OSILAC to carry out the following task during the upcoming year. Within the limits of their resources, the involved NSO are committed to assist OSILAC in these tasks, which will be carried out in a collaborative manner:

(1) Data collection and publication

21. A regional database will be developed that integrates all data produced regarding ICT indicators in the region. It will be presented to the SCA in its Fourth Meeting in June 2007.

22. Results produced by each National Statistical Office should be published, printed or placed on-line in the NSO Web Site.

23. OSILAC and the Partnership will provide technical assistance in the presentation of indicators that show the socio-economic characteristics of digital divide.

24. OSILAC maintains a WebSite where the compilation of regional results will be available to information users: www.cepal.org/socinfo/osilac.

(2) Standardize and harmonize ICT statistics

25. During the SCA's annual meeting in June 2007, OSILAC and the Working Group for ICT statistics harmonization will present the compendium of practices and the list of ICT core indicators, for SCA members to endorse it.

26. The core list of indicators will be presented by the Partnership at the Thirty-eighth session of the UN Statistical Commission, 27 February - 2 March 2007, inviting the Commission to endorse the list.

27. OSILAC set up a virtual collaborative space at www.eLAC2007.info, in which questionnaires used, and documents and statistics published by NSO from the region, as well as the information processed by OSILAC, can be shared. This space can be used not only to interchange information, but also to discuss about methodological issues whenever any member of the group require it to the coordinator of the space.

28. The coordination of the space, as well as the coordination of the group's tasks will be held either by OSILAC or a member of the SCA-Working group for ICT statistics harmonization.

29. To develop indicators, questions and methodologies regarding surveys to governmental institutions, in a similar way to the process carried out with household and business surveys during the OSILAC's Regional Workshops on Information Society Measurement.

30. To carry out more specific in-person meetings or on-line forums, in order to discuss -in a separate way- subjects like the validity/reliability of household surveys' sampling for estimating ICT usage statistics, methodologies for calculation of indicators - data processing, integrating ICT questions in business surveys, national projects for methodological quality, etc.

31. To make available for NSO, the methodologies of surveys designed to account on basic information required to elaborate ICT satellite accounts, having in mind recent experiences like the Chilean one.

(3) Increase and improve the quantity and quality of ICT data collected in the region

32. OSILAC and the Partnership will carry out efforts on capacity building for the inclusion of this statistics in existing surveys and will look for resources in order to support those countries which have not yet implemented the core list. Special emphasis will be given to enterprises registries and surveys in business and innovation sector.

33. OSILAC is asked to deliver the benefits of the four task groups of the Partnership to the countries of the region, i.e. on capacity building, database development, and the measurement of ICT in education and government.

34. The Partnership has received requests for technical assistance on ICT statistics from 11 countries in Latin America and the Caribbean and has compiled a roster of experts on ICT statistics. OSILAC is asked to facilitate the delivery of technical assistance for the countries of the region.

35. To facilitate the interchange of applications based on free software, used to collect information and to elaborate cartographies. For that, NSO having knowledge of these applications can let to know other group members about them through OSILAC.

Working topics to be planned by 2007

36. To propone a research to establish the reliability and quality of surveys and samples made to estimate the ICT usage in the countries of the region.

37. Based on the proposal for ICT social usage indicators introduced by the Cuban NSO, to move forward on the harmonization of indicators on ICT access and usage by institutions for education, health centers, cultural centers, sports centers

and public ICT access centers. To take into account the proposal of core indicators developed by UNESCO for educative institutions.

38. To carry out activities of promotion and capacity building for the usage of mobile devices (PDA, DMC, etc.) and other technological tools, to gather information in censuses and surveys, taking into account recent experiences like the Colombian census.

39. To foster the cooperation among countries to develop capacities on several issues, e.g. the collection of data on-line.

40. To look for instances which allow ECLAC, together with UNESCO, to promote more coordination among ministries of education and National Statistical Offices, regarding the subject of ICT statistics in education.

Annex I: Core list of ICT indicators

Core indicators on ICT infrastructure and access

A1	Fixed telephone lines per 100 inhabitants
A2	Mobile cellular subscribers per 100 inhabitants
A3	Computers per 100 inhabitants
A4	Internet subscribers per 100 inhabitants
A5	Broadband Internet subscribers per 100 inhabitants
A6	International Internet bandwidth per inhabitant
A7	Percentage of population covered by mobile cellular telephony
A8	Internet access tariffs (20 hours per month), in US\$, and as a percentage of per capita income
A9	Mobile cellular tariffs (100 minutes of use per month), in US\$, and as a percentage of per capita income
A10	Percentage of localities with public Internet access centres (PIACs) by number of inhabitants (rural/urban)
A11	Radio sets per 100 inhabitants
A12	Television sets per 100 inhabitants

Core indicators on access to, and use of, ICT by households and individuals

HH1	Proportion of households with a radio
HH2	Proportion of households with a TV
HH3	Proportion of households with a fixed line telephone
HH4	Proportion of households with a mobile cellular telephone
HH5	Proportion of households with a computer
HH6	Proportion of individuals who used a computer (from any location) in the last 12 months
HH7	Proportion of households with Internet access at home
HH8	Proportion of individuals who used the Internet (from any location) in the last 12 months
HH9	Location of individual use of the Internet in the last 12 months <ul style="list-style-type: none"> • At home • At work • Place of education • At another person's home • Community Internet access facility (specific denomination depends on national practices) • Commercial Internet access facility (specific denomination depends on national practices) • Others
HH10	Internet activities undertaken by individuals in the last 12 months: <ul style="list-style-type: none"> • Getting information <ul style="list-style-type: none"> ○ About goods or services ○ Related to health or health services ○ From government organisations/public authorities via websites or e-mail ○ Other information or general Web browsing • Communicating • Purchasing or ordering goods or services • Internet banking • Formal education or training activities • Dealing with government organisations/public authorities • Leisure activities <ul style="list-style-type: none"> ○ Playing/downloading video or computer games ○ Downloading movies, music or software ○ Reading/downloading electronic books, newspapers or magazines

	<ul style="list-style-type: none"> ○ Other leisure activities
HH11	Proportion of individuals with use of a mobile telephone
HH12	Proportion of households with access to the Internet by type of access <ul style="list-style-type: none"> • Categories allow an aggregation to narrowband and broadband, where broadband excludes slower speed technologies, such as dial-up modem, ISDN and most 2G mobile phone access. Broadband will usually have an advertised download speed of at least 256 kbit/s.
HH13	Frequency of individual access to the Internet in the last 12 months (from any location) <ul style="list-style-type: none"> • at least once a day • at least once a week but not every day • at least once a month but not every week • less than once a month
<i>Reference indicator</i>	
HHR1a/	Proportion of households with electricity

Core indicators on use of ICT by businesses

B1	Proportion of businesses using computers
B2	Proportion of employees using computers
B3	Proportion of businesses using the Internet
B4	Proportion of employees using the Internet
B5	Proportion of businesses with a Web presence
B6	Proportion of businesses with an intranet
B7	Proportion of businesses receiving orders over the Internet
B8	Proportion of businesses placing orders over the Internet
B9	Proportion of businesses using the Internet by type of access <ul style="list-style-type: none"> • Categories allow an aggregation to narrowband and broadband, where broadband excludes slower speed technologies, such as dial-up modem, ISDN and most 2G mobile phone access. Broadband will usually have an advertised download speed of at least 256 kbit/s.
B10	Proportion of businesses with a Local Area Network (LAN)
B11	Proportion of businesses with an extranet
B12	Proportion of businesses using the Internet by type of activity <ul style="list-style-type: none"> • Sending and receiving e-mail • Getting information <ul style="list-style-type: none"> ○ About goods or services ○ From government organisations/public authorities via websites or e-mail ○ Other information searches or research activities • Performing Internet banking or accessing other financial services • Dealing with government organisations/public authorities • Providing customer services • Delivering products online

Core indicators on the ICT sector and trade in ICT goods

ICT1	Proportion of total business sector workforce involved in the ICT sector
ICT2	Value added in the ICT sector (as a percentage of total business sector value added)
ICT3	ICT goods imports as a percentage of total imports
ICT4	ICT goods exports as a percentage of total exports

a/ Since electricity is not specifically an ICT commodity, but an important prerequisite for using ICT, it is not included in the core list, but included as a reference indicator.