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Economic and Social Commission for Western Asia

REPORT

CAPACITY-BUILDING WORKSHOP ON INFORMATION SOCIETY MEASUREMENT: CORE INDICATORS, STATISTICS, AND DATA COLLECTION
BEIRUT, 7-10 JUNE 2005

Summary

The Capacity-building Workshop on Information Society Measurement: Core Indicators, Statistics, and Data Collection (Beirut, 7-10 June 2005) was organized by the Economic and Social Commission for Western Asia (ESCWA), the International Telecommunications Union (ITU) Arab Regional Office and the Arab Institute for Training and Research in Statistics (AITRS). The Workshop was the first on building the capacity for statistical measurement of the information society in Western Asia and the Arab region. Moreover, it represents the first of a series of capacity-building workshops planned by the United Nations regional commissions, leading to the Tunis phase of the World Summit on the Information Society (WSIS).

The Workshop focused on developing capacity in terms of defining, adopting and collecting information and communication technology (ICT) indicators in Arab countries. Within that context, the Workshop considered the definitions and data collection methodologies of core ICT indicators in a number of areas and sectors, including infrastructure, access, household, individual, business and ICTs. Techniques and recommendations for the design of model questionnaires and surveys aimed at collecting ICT statistics were also considered. The ESCWA Statistical Information System (ESIS) was demonstrated, and its application was discussed with regard to capacity-building endeavours for both ESCWA sub-programmes and ESCWA member countries.

The Workshop provided a forum for disseminating case studies, thereby highlighting the successes and challenges of countries engaged in building capacity in indicator collection. The sharing of relevant information by Egypt, Iraq, Mauritania, Oman, Palestine, Qatar and Tunisia provided practical insight into actual needs of Arab countries, and helped identify the critical dimensions and recommended actions for capacity-building planning in Western Asia and the Arab region. The recommended actions form a capacity-building plan for stakeholders in order to promote the adoption and collection of core ICT indicators in support of policymaking at both the national and regional levels. The capacity-building plan is an ESCWA contribution aimed at fulfilling the mandate of the global "Partnership on Measuring ICT for Development", which in turn seeks to enhance the capacities of national statistical offices (NSOs) in developing countries and to build competences to develop statistical compilation programmes on the information society, based on international indicators.

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Introduction

1.   The availability of reliable statistical data and indicators regarding societal e-readiness, and the use and impact of information and communication technologies (ICTs) is essential for the formulation of sound strategies for ICT-driven economic growth and social development. Moreover, such availability and application of data can help place countries on the road towards the information society. To that end, Governments approved a Plan of Action (PoA) during the first phase of the World Summit on the Information Society (WSIS), held in Geneva in December 2003. The PoA called for all countries and regions to develop the tools that provide statistical information on the progress made towards the realization of the information society. Additionally, it required that priority be given in terms of establishing coherent and internationally comparable indicator systems, while taking into account varying levels of development.

2.   Following the first phase of WSIS, a number of key international stakeholders involved in the statistical measurement of ICTs joined forces to create the global "Partnership on Measuring ICT for Development". The Partnership was formally launched during the eleventh United Nations Conference on Trade and Development (UNCTAD XI), which was held in Sao Paulo, Brazil, in June 2004. The Partnership is aimed at bringing together the main international stakeholders interested in the statistical measurement of ICTs in order to work towards closing the data gap at the international level, particularly in developing countries.

3.   Specifically, the Partnership has three interlinked objectives, namely:

        (a)   To develop sets of core ICT indicators relevant to various stakeholders, which will be harmonized and agreed upon internationally, and which will constitute the basis for a database on ICT statistics;

        (b)   To enhance the capacities of national statistical offices (NSOs) in developing countries and to build competence in the area of statistical compilation programmes on the information society;

        (c)   To develop a global database on ICT indicators and make it available on the Internet.

4.   These objectives are aimed at devising appropriate variables, enhanced measuring mechanisms and supporting instruments needed to evaluate and monitor the evolution of the information society at national, regional and international levels.

5.   The work of the Partnership has so far focused on fulfilling its first objective, namely, the harmonization of the lists of core ICT indicators developed regionally. This has been achieved by specialized international organizations in their respective fields of expertise and in accordance with their mandates. Within that context, the International Telecommunications Union (ITU) has long been at the forefront in terms of collecting telecommunication indicators worldwide. Equally, ESCWA organized the Roundtable on Information Society Indicators and Profiles for Western Asia (Beirut, 4-5 October 2004), during which the NSOs of its member countries adopted a list of core ICT indicators. This list comprises a global core that preserves compatibility with international efforts, in addition to a regional supplement that addresses regional specificities. This list from the ESCWA region, along with lists from Africa, Asia-Pacific, Latin American and the Caribbean, was submitted to the WSIS Thematic Meeting on Measuring the Information Society, (Geneva, 7-9 February 2005). The outcome of the Meeting was a list of forty-two core ICT indicators under the following four categories: (a) infrastructure and access; (b) households and individuals; (c) businesses; and (d) ICT sector. Moreover, this core list was subsequently recognized during the 36th session of the United Nations Statistical Commission (New York, 1-4 March 2005).

6.   The Capacity-building Workshop on Information Society Measurement represents the first such activity to be held on building the capacity for statistical measurement of the information society in Western Asia and the Arab region. Moreover, it is the first of a series of capacity-building workshops planned by the United Nations regional commissions, leading to the Tunis phase of WSIS. The overall aims of the Workshop were as follows: (a) to introduce participants to the process of developing indicators with relevance to policymaking and decision support, particularly in terms of monitoring progress, measuring output and assessing impact; (b) to familiarize them with available indicators and basic definitions, data collection methods, and data management and information dissemination devices; and (c) to help with the formulation of national and regional capacity-building plans.

I. RECOMMENDATIONS ISSUED BY THE WORKSHOP

7.   During the course of the Workshop, several dimensions were recognized as critical to successful capacity-building planning in Western Asia and the Arab region. These critical dimensions translate into recommended actions that stakeholders need to follow through in order to promote the adoption and collection of the core ICT indicators within a framework of evidence-based policymaking at both national and regional levels. The recommended actions are summarized below and relate to the following areas: (a) international guidelines and technical assistance programmes; (b) regional cooperation and national coordination; (c) the global-regional-national ICT indicators database system; (d) definitions, methodology and model questionnaires; and (e) future indicators.

A. INTERNATIONAL GUIDELINES AND TECHNICAL ASSISTANCE PROGRAMMES

8.   The recommended actions are as follows:

(a) ESCWA needs to engage the Partnership with the aim of presenting recommendations to the Expert Group on the 2010 World Programme on Population and Housing Censuses. These recommendations are particularly vital given that they are set to include ICT variables to the Partnership list of core ICT indicators;

(b) ESCWA, ITU Arab Regional Office and AITRS need to encourage Arab countries to prepare and submit to ITU information proposals for future ICT household surveys covering the points listed above;

(c) ESCWA needs to engage UNCTAD on organizing a regional capacity-building workshop on e-business statistics and surveys with the aim of launching an e-business survey in Western Asia and the Arab region.

B. REGIONAL COOPERATION AND NATIONAL COORDINATION

9.   The recommended actions are as follows:

(a) ESCWA and AITRS need to engage the chief statisticians in Arab NSOs with the aims of increasing awareness of the ongoing work on the collection of ICT statistics, and of highlighting its significance for policymaking in national and regional development. Within that context, there needs to be more awareness concerning the collection of indicators related to the Millennium Development Goals (MDGs), particularly in the area of ICTs (Goal 8, target 18 of the MDGs);

(b) ESCWA, ITU Arab Regional Office and AITRS need to encourage Arab NSOs and Arab information and telecommunications ministries to establish multidisciplinary teams and observatories that focus on the information society measurements, especially in terms of monitoring the progress, measuring the output and assessing the impact of national ICT policies, with particular emphasis on gender issues and empowerment of women;

(c) ESCWA, ITU Arab Regional Office, and AITRS need to engage Arab countries to establish national reports that can be updated on the status of collection of ICT statistics. Drawing on the lessons learned from the global stocktaking endeavour that was undertaken by the Partnership, ESCWA is encouraged to cooperate with AITRS in order to develop further its NSO database and make it accessible online. This online database facilitates continual follow-up and update, improves response rates and promotes the work of participating NSOs and telecommunications entities;

(d) ESCWA and other United Nations regional entities, particularly the United Nations Development Programme – ICT for Development in Arab Region (UNDP-ICTDAR), are encouraged to develop an Arab portal on information society measurement;

(e) Taking note of the different modalities for capacity-building efforts offered by ESCWA and the Arab League Educational, Cultural and Scientific Organization (ALECSO), as well as the respective merits

of each method, ESCWA and ALECSO are encouraged to cooperate on developing training courses that combine effective participation and wider dissemination.

C. The global-regional-national ICT indicators database system

10.   The recommended actions are as follows:

(a)   ESCWA needs to continue its development effort by providing an industry-compliant open source prototype of ESIS, taking into consideration its possible adoption by the United Nations regional commissions and its tailoring for the needs of NSOs;

(b)   Through its Programme Planning and Technical Cooperation Division, ESCWA needs to prepare plans to carry out advisory missions aimed at helping NSOs to tailor ESIS to their specific needs, and fitting it within their data collection and information dissemination systems;

(c)   ESCWA needs to engage the Partnership to formulate a development project aimed at providing the resources needed to build and deploy the global ICT indicator database.

D. Definitions, methodology and model questionnaires

11.   The recommended actions are as follows:

(a)   AITRS needs to develop and issue a "How to" series on the collection and dissemination of ICT statistics in Arabic to reflect the regional context. This series is to address the following: (i) definitions and methodology; (ii) survey implementation and data collection; (iii) data verification; and (iv) database development and analysis;

(b)   AITRS, with the support of ESCWA as a member of the Partnership, needs to engage the Organization of Economic Cooperation and Development (OECD) and the Statistical Office of the European Communities (EUROSTAT) to seek their permission for the purpose of translating into Arabic their methodological manuals;

(c)   ESCWA needs to develop a methodological manual for measuring the information society.

E. Future indicators

12.   The recommended actions are as follows:

(a)   ESCWA and the League of Arab States (LAS) must spearhead projects and programmes aimed at developing tools, including an Arabic Domain Name System (ADNS), and relevant content to help increase the use of Arabic on the Internet;

(b)   ESCWA needs to engage the UNESCO Institute of Statistics (UIS) with the aim of following up on the development of ICT usage and impact indicators in education and literacy;

(c)   ESCWA, ITU Arab Regional Office and AITRS need to cooperate with LAS on the development of an Arab list of core ICT indicators, including usage and impact indicators.

II. DISCUSSION TOPICS

A. Developing indicators for evidence-based policymaking

13.   ESCWA presented an overview of the process of developing indicators in connection with national ICT policymaking, and highlighted a case study of a current national ICT policy in a member country. It focused on the importance of creating clear and achievable national ICT policies in the region, which in turn can lead to the following: (a) promote an enabling environment to improve economic and social benefits;

(b) optimize the use of resources; (c) build or enhance domestic technological capabilities; and (d) encourage rational decision-making. Moreover, ICT indicators need to be identified, defined and collected regularly in order to verify the current status of the information society; monitor the progress of the implementation of an ICT policy; measure both direct and indirect outputs; and assess the impact of policies on economic growth and/or on societal improvements. Additionally, ESCWA illustrated the vital role censuses play in providing policymakers with current statistics, sample frames for updating the collected statistics, and other indicators that can be used for policy adjustment and measurement of related outputs.

B. Definitions, methodology and model questionnaires

1. *Infrastructure and access indicators*

14.   ITU presented an overview detailing its mandate and methodology to produce statistics covering the telecommunications sector. In order to accomplish this task, ITU conducts two telecommunication indicator questionnaires every year that are addressed to governmental agencies responsible for national ICT/telecom sector; and gathers information through annual reports and online research. This data collection process is centred on telephone networks, mobile services, traffic and tariff, quality of service and staff, revenues and investment, broadcasting and information technology (IT). Within the context of IT, the data includes information relating to the number of personal computers, Internet subscribers and users, and broadband and bandwidth. This ITU database is regularly updated to cope with the rapidly evolving ICT environment; and new indicators are always considered. ITU highlighted the fact that the liberalization of fixed lines is still comparatively low, while the growth rate of mobile services had reached 68.6 per cent in the Arab region.

15.   ITU indicated the challenges it is facing in terms of collecting internationally comparable data that could be common with ICT data collection in other categories. ITU highlighted the fact that the response rates to the telecommunication indicator questionnaires varied according to the length of the questionnaire. Typically, shorter questionnaires obtained higher response rates. In addition, data on traffic and investment/revenues were still significantly scarce, and ITU needed to make considerable efforts to obtain such data. Another challenge related to the work needed to aggregate the data of national operators. To circumvent this problem, operators must be encouraged to provide their data to their respective NSOs and statistical institutes, without concern that such dissemination represents a breach of business confidentiality. Moreover, the collected data does not always meet ITU definitions for the indicators, which hinders comparisons with international data. Finally, low-income countries have not conducted any Internet user surveys aimed at indicating statistical and digital divides in those countries.

16.   ITU described the different categories of access and infrastructure indicators. The indicators were categorized as follows: (a) availability of infrastructure to use ICTs; (b) affordability; (c) quality of service; and (d) universal access. In addition, two extended core indicators were included, namely, number of radio sets per 100 population, and number of television sets per 100. Basic definitions and methods of computing these indicators were provided. The ensuing discussion dealt with the Purchasing Power Parity (PPP) used in connection with mobile cellular tariffs and Internet access tariffs. ITU explained that the price comparison is expressed in a commonly used currency, typically the United States dollar, which is then converted either at the average exchange rate or at PPP rates. This is possible given that the PPP exchange rate derives from the relative value of a "basket" of goods that a national currency can buy. Typically, the prices of many goods are considered and weighted according to their importance in the economy. The PPP is defined through the International Comparison Programme (ICP) of the World Bank. Other participants expressed concern with regard to the calculation of the indicator on the proportion of localities with public Internet access centres (PIACs) broken down by the number of inhabitants (rural/urban). Specifically, Sudan indicated that more than one-quarter of its population is concentrated in and around Khartoum, which would give misleading values for the indicator. Egypt is faced with a similar situation with the majority of its population centred on Cairo.

17.   Additionally, ITU asserted that it planned to continue computing the Digital Access Index (DAI), albeit under a different name in its forthcoming 2006 report. The name was being changed to Digital Opportunity Index (DOI) to reflect the development speed of countries.

2. *Households and individuals indicators*

18.   OECD highlighted issues related to partnership strategies and presented a core list of indicators related to households and individuals. Both households and individuals were proposed as statistical units in the proposed methodology. It engaged the participants with regard to the most convenient survey scope and coverage, including, among others, the issue of upper or lower age limits on the sample of a given survey. Comments were requested from participants with respect to the wording of the questions relating to the list of core indicators. While various participants expressed their interest in adding an indicator concerning investments in the list of core indicators, they admitted that from experience respondents did not readily provide such data. Other comments focused on using an indicator or index that models the intra-digital divide, which is defined as the divide between the different sections in a country. Such an indicator could indicate the national strategy in terms of spreading ICT use in different areas.

19.   ITU addressed the issue of basic definitions and methodologies aimed at estimating the number of users for direct subscriber lines (DSL) and leased lines. The definition of subscribers related to the one used by ITU in its regularly updated list of indicators. In the area of methodologies, ITU stated that there was no exact methodology for estimating the number of Internet users in the region owing to the lack of reliable data. However, in developed countries, there were an estimated two users for each subscriber. Moreover, ITU explained that the metric "Internet Host" was becoming of minor importance and was set to be removed in forthcoming ITU reports.

20.   UIS provided an overview of areas regarding the measurement of the information society from its perspective. The presentation focused on the feasibility and potential problems of data collections in developing countries and aimed to strengthen the applicability of the OECD guide, thereby creating a more standardized mechanism for collecting comparable cross-country data. It listed some guiding principles that govern measurement activities in developing countries, and highlighted some key issues with regard to measurements of ICT products, infrastructure, supply, content and demand by businesses, households and individuals.

3. *Business and ICT sector indicators*

21.   UNCTAD presented an overview of the global stocktaking exercise aimed at assessing the status of the information society statistics in NSOs of various regions. Moreover, it presented the comparative analysis of all responses gathered by the regional commissions. However, the analysis was inconclusive as to the extent that certain ICT business indicators relate to the level of demand in countries, and to the extent that such indicators relate to the level of resources available to NSOs. While the analysis did not provide much information on the comparability of ICT business indicators, it revealed that ESCWA member countries were among the most active in planning for data collection. However, despite this encouraging finding, more progress could be made to raise awareness at the policy level concerning the need for and relevance of ICT statistical data. This awareness can strengthen the collection of indicators, particularly with respect to access and use of ICTs in the business sector.

22.   UNCTAD, with the participation of OECD, presented the basic definition and methodology of computing access and use of ICTs by business indicators. Additionally, it presented suggested questions and metadata corresponding to the core indicators. The suggested model questionnaire provided the logic, definitions and notes, with references to the business indicators targeted by the questions.

23.   OECD presented the basic definitions for the ICT sector indicators, detailing the current ICT sector principles and classification of both manufacturing and services industries and related activities. It also explained the guiding principle in defining ICT goods, namely: ICT goods must be intended either to fulfil the function of information processing and communication by electronic means; or to detect, measure, control and/or record physical phenomena by using electronic processing. ICT goods are grouped into the following broad categories: (a) telecommunications equipment; (b) computer and related equipment; and (c) electronic equipment, including, among others, audio and video equipment. Additionally, OECD provided key statistics on the top exporters of ICT goods worldwide and in the Arab region both in terms of volume and as a percentage of total trade.

24.   The presentations highlighted the need to collect national data by type, thereby assisting policymakers to respond to real or perceived usefulness of such data. For example, countries with explicit ICT-related development policies or with active ICT sectors could need indicators that are more specific to policy evaluation or benchmarking.

4. *Future indicators*

25.   UIS gave a presentation on its experience and lessons learned from collecting education and literacy statistics worldwide. The presentation aimed at providing an account of some of the pilot surveys it conducted, existing data on education and literacy, as well as help with understanding some of the fundamental principles underlying ICT use in education and the relevant variables that needed to be measured. It indicated that it was in the process of developing core ICT usage indicators in education and literacy, which is intended be completed prior to the forthcoming WSIS in Tunis.

C. REGIONAL CAPACITY-BUILDING: INDICATORS FOR THE ARAB REGION

26.   Country reports were presented by the following: Egypt, Iraq, Mauritania, Oman, Palestine, Qatar and Tunisia. This information sharing provided practical insight into the actual needs of Arab countries and territories, and helped to identify the critical dimensions and recommended actions for capacity-building planning in Western Asia and the Arab region.

27.   Egypt reported that the collection of information society statistics was aimed at showing the impact on the different sectors of the country. It presented its comprehensive survey on measuring ICT statistics carried out jointly by the Central Agency for Public Mobilization and Statistics (CAPMAS) and the Ministry of Communications and Information Technology (MCIT). The survey adopted both national and international indicators in the following key sectors of the society: telecommunications infrastructure, households, public sector, education, graduates and industry. It implemented filtering techniques for the sake of transparency and was undertaken in response to the increased demand for ICT in different country sectors. As an outcome of the survey, a database will be built to support decision-makers in formulating strategies aimed at developing the society socially and economically and at contributing towards closing the inter- and intra-digital divide.

28.   Iraq provided an overview of the problems it encountered as a result of regional conflicts and sanctions during the past two decades. Despite these difficulties, a new national policy was enacted, a new ministry of science and technology was established and Internet penetration was increased, all of which upgraded significantly the national ICT infrastructure. Specialized surveys were carried out, including an Internet survey that collected data on the number of Internet users and the types of services available for 2003 and 2004.

29.   In Oman, two different sources for gathering ICT data were highlighted, namely, administrative registries for collecting data on basic telecommunications infrastructure; and household surveys and censuses for collecting data on the access and use of ICT appliances, computers and the Internet in households and establishments. Within that context, Oman presented relevant results from its 2003 census in which handheld devices were used for data collection for the first time in the Arab region. Additionally, Oman has established an ICT task force to coordinate the efforts of its NSO and other national offices working on ICT indicators. This task force adopted the fourty-two core indicators as listed and defined in Geneva for future data collection. Furthermore, Oman explained its collaboration with ALECSO aimed at conducting a survey on indicators for which no data currently exist.

30.   Palestine presented its national statistical framework. Specifically, it described the establishment of the Palestinian Central Bureau of Statistics whose mandate is to serve as an instrument of guidance for diagnosing problems and evaluating the progress made in that area. Additionally, Palestine highlighted the national ICT projects undertaken; the challenges facing ICT data collection in the territories; and the importance of partnerships as the best means towards building and advancing the Palestinian telecommunications sector. ICT statistics collected from the computer, Internet, and Mobile Survey in 2004 were presented.

31.   Qatar reported on the outcome of its latest survey in 2004. During the Workshop, it distributed a compact disk containing all the information compiled from the census. Another disk containing information on foreign trade for 2000 was made available.

32.   As the host country for the second phase of WSIS, one of the primary objectives of Tunisia is to enhance ICT services and data collection. The National Statistics Institute (NIS), the Ministry of Communication Technologies (MCT) and the Tunisian Internet Agency (TAI) collect data on basic telecommunications infrastructure, access and uses by households and individuals, the national park of computers and the ICT sector. Moreover, ICT-related data on investment, trade and education can be found in the administrative registeries of the corresponding line minstries. Tunisia highlighted its plans to carry out surveys for collecting data for business-related indicators.

33.   Mauritania presented its experience in collecting ICT statistics through relevant surveys in 2004 on access and use by private and public establishments, and by households and individuals. The results showed that a high proportion of establishments have access to the Internet, which ranks one of its cities first among all Arab cities with regard to the number of establishments with Internet access. By stark contrast, the survey found a significantly low proportion of households with Internet access.

34.   ITU Arab Regional Office presented a detailed account of its current activities and future plans with regard to collecting and disseminating basic telecommunications infrastructure statistics in the Arab region. Additionally, it demonstrated its web-based database of these statistics.

35.   ALECSO gave a brief expose of its activities in the field of statistical indicators, focusing on the use of the VSAT system for the purposes of training via distance learning and narrowing the digital divide. The VSAT system comprises a station in ALECSO headquarters, four external offices with TV receive-only stations, and 15 VSAT stations in 15 Arab TV and radio stations. The Arab Satellite Communications Organization (ARABSAT) links the terminal stations in 17 Arab countries. Moreover, ALECSO laid out its medium and long-term plans for its current and future activities, including holding a special training seminar via VSAT on statistical indicators for measuring the progress made in narrowing the digital gap in Arab countries.

D. ESCWA STATISTICAL INFORMATION SYSTEM

36.   ESCWA provided an overview of ESIS, which was developed to meet the statistical needs of both ESCWA sub-programmes and member countries. Moreover, ESIS serves as a model that could be used to address ICT indicator issues with a view to helping capacity-building efforts. The demonstration illustrated the conceptual model used for dealing with multilingual indicators, flexible time-series definition and thematic sub-groupings of data. The web-based reporting engine was also demonstrated as a potential methodology for all Arab countries to make their indicator data interactive and accessible to a wider audience.

37.   The design principles of the System were reviewed in order to facilitate participants to identify the salient issues when modelling similar systems and/or customizing ESIS for their specific needs. Within that context, issues of data sharing and synchronization were reviewed with a view to helping lay the groundwork for the development of a regional indicator database. The characteristics of ESIS make it suitable for adoption by all United Nations regional commissions and by NSOs to help with the statistical interlacing of their data. The task of fulfilling the Partnership objective of building a global ICT indicator database can therefore be realized by interlinking nationally tailored ESISs with their regional counterparts, and collating all regional components into a distributed or multiple database system.

E. PLANNING CAPACITY-BUILDING

38.   An open forum considered the critical dimensions for capacity-building planning, including the role of international guidelines and technical assistance programmes in capacity-building endeavours.

39.   The mandate of the Expert Group on the 2010 World Programme on Population and Housing Censuses to carry out the revision and update of the global Principles and Recommendations for Population and Housing Censuses was brought to the attention of the participants. The Population and Housing Censuses is the primary source of information on the social, demographic and economic characteristics of the population of a given country. These Censuses provide critical statistical information on the population and housing situation at various administrative levels, thereby enabling evidence-based policymaking. Consequently, these Censuses represent an essential tool for data collection for measuring the information society. Given that Egypt, Palestine and the countries of the Gulf region are scheduled to hold censuses in 2006, 2008 and 2010, respectively, there is a need to establish new guidelines that include ICT variables related to the Partnership list of core ICT indicators.

40.   Several international programmes for technical assistance with particular emphasis on statistical capacity building currently exist. In addition, other such programmes were proposed during the Workshop. Specifically, ITU announced a technical cooperation programme to those Arab countries participating in the Workshop and that were interested in carrying out an ICT household survey and require specific training and capacity-building.   Interested countries were informed that they needed to submit a brief information proposal to ITU, covering the following points:

    (a) Description of the organization that would carry out the survey, for example an NSO;

    (b) Overview of the current situation of ICT measurement, including available data types and methods of collection. This must specifically address the list of core ICT indicators identified by the Partnership;

    (c) Description of the survey format, namely, whether a standalone survey or attached to an existing survey. Where the planned survey is attached to an existing household survey, the proposal must describe the salient features of the previous survey, including sample, coverage and estimated cost;

    (d) Commitment by the organization to undertake subsequent ICT household surveys, where resources and capacity building have been provided for the initial survey;

    (e) The type of capacity building and level of assistance that the country estimates is needed to carry out the survey.

41.   The initiation of this programme is contingent upon the outcome of negotiation between ITU and prospective donors.

42.   Furthermore, given that it has no national offices, UNCTAD indicated its willingness to participate in capacity building for collecting e-business statistics at the regional level.

III. ORGANIZATION OF THE WORKSHOP

A. VENUE AND DATES

43.   The Workshop, which was organized by ESCWA, ITU Arab Regional Office and AITRS, was held at United Nations House, Beirut, during 7-10 June, 2005.

B. OPENING

44.   The Workshop was opened by Mr. Omar Bizri, Chief of the Information and Communication Technology Division (ICTD) in ESCWA, who raised the context and objectives of the Workshop and focused on the role of partnerships in promoting ICT-related statistics. Within that context, he issued a call to decision-makers and experts in the field of ICT and statistics, including policymakers in national public bodies, researchers in NSOs and higher scientific institutes, telecommunications regulatory authorities in Arab countries, and experts from international and regional organizations, to support the process of strategic national and regional planning for the development of the information society. Specifically, he suggested the

establishment of national science and technology observatories that focus, among others, on measuring the information society and assessing the impact of national ICT policies.

45.   Mr. Khaled Khawaja, Director General of AITRS, delivered a speech that focused on the context and objectives of the Workshop. He stated that this Workshop was aimed principally at exploring the scientific means, the international recommendations and best practices in terms of measuring the impact of ICT use on the life of individuals.

46.   Mr. Khalil Abu Rizik, Regional Officer of ITU Arab Regional Office, emphasized that the Workshop was held in response to requests with respect to measuring ICT indicators. He explored the importance of ICT indicators as a tool to measure the information society and their usefulness in bridging the digital divide.

C. PARTICIPANTS

47.   The Workshop was attended by a total of 48 participants from 16 countries, including 11 ESCWA members. The partcipants were middle and top-level managers, researchers and practitioners with expert knowledge in statistics and/or telecommunications disciplines from Arab NSOs, and Arab information and telecommunications ministries, regulators and operators. Moreover, the Workshop was attended by experts from a number of international and regional organizations, including the Partnership members, namely, ITU, OECD, UIS and UNCTAD; in addition to ALECSO, UNDP ICTDAR and UNESCO Regional Office in Beirut (see annex I for the list of participants).

D. AGENDA

48.   The agenda of the Workshop is summarized and set forth below:

"1.   Opening.

2.   Policymaking and decision support: from policies to indicators – monitoring progress, measuring output and assessing impact.

3.   Global perspective on core ICT indicators: partnership, stocktaking and harmonization.

4.   ITU world telecommunications indicators: data collection and dissemination.

5.   Indicators for ICT use in education: a way forward.

6.   Infrastructure and access indicators: definitions, methodologies and model questionnaires.

7.   Household and individual indicators: definitions, methodologies and model questionnaires.

8.   Business and ICT sector indicators: definitions, methodologies and model questionnaires.

9.   Measuring the Information Society: applying the OECD standard.

10.   ICT indicators in the Arab region.

11.   Using VSAT for distance learning and training.

12.   Country reports and best practices (case studies from Egypt, Iraq, Mauritania, Oman, Palestine, Qatar and Tunisia).

13.   ESCWA Statistical Information System (ESIS).

14.   Capacity-building planning: open forum.

15.   The road ahead and closing: panel discussion on: development of future indicators; and capacity building for Western Asia and the Arab region."

E. DOCUMENTS

49.   A list of the documents that were submitted to the Workshop is contained in annex II of this report.

LIST OF PARTICIPANTS

A. PARTICIPATING COUNTRIES

Egypt

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Annex II

LIST OF DOCUMENTS

Symbol	Title
E/ESCWA/ICTD/2005/WG.1/2	Briefing paper on the partnership activities of ESCWA
	Partnership list of ICT indicators
No symbol	ESCWA comments on the proposal for a core list of ICT indicators
No symbol	ITU Core indicators: Basic access and infrastructure
E/ESCWA/ICTD/2005/WG.1/3	Methodologies and model questions: Household and individual core ICT use indicators
E/CN.3/2005/23	Report of the Partnership on Measuring Information and Communication Technologies for Development
DSTI/ICCP/IIS(2005)4	Draft Guide to Information Society Measurement
E/ESCWA/ICTD/2005/WG.1/5	Methodologies: ICT sector core indicators
	Policymaking and decision support: From policies to indicators - Monitoring progress, measuring output, and assessing impact
	Global perspective on core ICT indicators: Partnership, stocktaking, and harmonization
	ITU World Telecommunications indicators: Data Collection and Dissemination
	ICT indicators in Education
	Core set of Indicators: Basic access and Infrastructure
No symbol	Methodologies and model questions: Household and individual core indicators
	Core ICT Business Indicators
	Adapting the indicators
	ESCWA Statistical Information System (ESIS)
No symbol	ICT indicators in the Arab region
No symbol	(VSAT) :

Country reports and best practices:

Symbol	Title
( )	
	ICT indicators in the Sultanate of Oman
	Palestine National experience in the collection and dissemination of ICT statistics
( )	
	Qatar Census 2004: Population, buildings, residential units, and establishments
:	
	Tunisian experience in ICT indicators collection

FEEDBACK FROM PARTICIPANTS ON SUBSTANTIVE ISSUES OF THE WORKSHOP

This annex presents the feedback of participants on some of the substantive issues of the Workshop. The questions and responses are set forth below. A total of 37 participants responded to the set questions, representing a response rate of 75 per cent.

To what extent did the workshop achieve its objective of introducing the available lists of core ICT indicators, and the process of developing them?

Fully	Mostly	Partially	Not at all
13%	65%	22%	0

In your opinion, to what extent will the ICT indicators be effective in measuring the Arab information society?

Fully	Mostly	Partially	Not at all
22%	46%	32%	0

To what extent was the workshop suitable for the development of capacity-building plans for the ESCWA and Arab regions?

Fully	Mostly	Partially	Not at all
14%	49%	34%	3%

To what extent did the plans presented in the workshop meet the needs of the Arab region for developing the Arab information society?

Fully	Mostly	Partially	Not at all
49%	24%	24%	3%

In your opinion, to what extent will these plans be implemented?

Fully	Mostly	Partially	Not at all
44%	6%	44%	6%

In your opinion, what types of difficulties will face the implementation of these plans (Multiple choices are allowed)?

Financial	Administrative	Political	Technical	Other
62%	54%	43%	43%	5%

To what extent did the workshop promote understanding and common goals between statisticians and ICT practitioners?

Considerably	Largely	Partially	Not at all
35%	41%	19%	5%

PARTNERSHIP LIST OF CORE ICT INDICATORS

Infrastructure and Access			
Basic Core			
A-1	Fixed telephone lines per 100 population		A-1
A-2	Mobile cellular subscribers per 100 population		A-2
A-3	Computers per 100 population		A-3
A-4	Internet subscribers per 100 population		A-4
A-5	Broadband Internet subscribers per 100 population (fixed and mobile)		A-5
A-6	International Internet bandwidth per population		A-6
A-7	Proportion of population covered by mobile cellular telephony		A-7
A-8a	Internet access tariffs (20 hours per month), in US$	( )	A-8a
A-8b	Internet access tariffs (20 hours per month) as a percentage of per capita income	) (	A-8b
A-9a	Mobile cellular tariffs (100 minutes of use per month), in US$	) (	A-9a
A-9b	Mobile cellular tariffs (100 minutes of use per month) as a percentage of per capita income	( )	A-9b
A-10	Proportion of localities with public Internet access centres (PIACs) by number of population (rural/urban)	(/)	A-10
Extended Core			
A-11	Radio sets per 100 population		A-11
A-12	Television sets per 100 population		A-12

Access and Use by Households and Individuals			
Basic Core			
HH-1	Proportion of households with a radio		HH-1
HH-2	Proportion of households with a TV		HH-2
HH-3	Proportion of households with a fixed line telephone		HH-3
HH-4	Proportion of households with a mobile cellular telephone		HH-4
HH-5	Proportion of households with a computer		HH-5
HH-6	Proportion of individuals that used a computer (from any location) in the last 12 months		HH-6
HH-7	Proportion of households with Internet access at home		HH-7
HH-8	Proportion of individuals that used the Internet (from any location) in the last 12 months		HH-8
HH-9	Location of individual use of the Internet from all locations in the last 12 months: • At home • At work • Place of education • At another person's home	: • • •	HH-9

	• Free Public Internet Access Centre (specific denomination depends on national practices) • Charged Public Internet Access Centre • Others	• • • •	
HH-10	Internet activities undertaken by individuals in the last 12 months: • For communicating • For getting information • Purchasing or ordering goods or services • Internet banking or other financial services • For education and learning • For dealing with government organizations/public authorities • For leisure activities	: ( ) • • • • • • •	**HH-10**

Extended Core

HH-11	Proportion of individuals with use of a mobile telephone		**HH-11**
HH-12	Proportion of households with access to the Internet by type of access from home. Response categories should allow an aggregation to narrowband and broadband, where broadband will exclude slower speed technologies, such as dial-up modem, ISDN and most 2G mobile phone access, and which will usually result in a speed of at least 256 kbit/s.	) ( ) (	**HH-12**
HH-13	Frequency of individual access to the Internet in the last 12 months (from any location): • 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	: – – – –	**HH-13**

Reference Indicator

HH-R1	Proportion of households with electricity		**HH-R1**

Access and Use by Businesses			
Basic Core			
B-1	Proportion of businesses using computers		**B-1**
B-2	Proportion of employees using computers		**B-2**
B-3	Proportion of businesses using the Internet		**B-3**
B-4	Proportion of employees using the Internet		**B-4**
B-5	Proportion of businesses with a website (or web presence where the business has control over the content)	) (	**B-5**
B-6	Proportion of businesses with an INTRANET	( )	**B-6**

	Access and Use by Businesses		
	Basic Core		
B-7	Proportion of businesses receiving orders over the Internet		B-7
B-8	Proportion of businesses placing orders over the Internet		B-8
	Extended Core		
B-9	Proportion of businesses accessing the Internet by modes of access. Response categories should allow an aggregation to narrowband and broadband, where broadband will exclude slower speed technologies, such as dial-up modem, ISDN and most 2G mobile phone access, and which will usually result in a speed of at least 256 kbit/s.	) ( ) (	B-9
B-10	Proportion of businesses with a Local Area Network (LAN)		B-10
B-11	Proportion of businesses with an EXTRANET	( )	B-11
B-12	Proportion of businesses using the Internet by type of activity: • Internet e-mail • Getting information • Performing Internet banking or accessing other financial services • Dealing with government organizations/public authorities • Providing customer services • Delivering products online	: – – / – – – –	B-12

	ICT Sector		
	Basic Core		
ICT-1a	Proportion of male workforce of the total workforce involved in the ICT sector		ICT-1a
ICT-1b	Proportion of female workforce of the total workforce involved in the ICT sector		ICT-1b
ICT-2	Value added in the ICT sector (as a percentage of total value added)	) (	ICT-2
ICT-3	ICT goods imports as percentage of total imports		ICT-3
ICT-4	ICT goods exports as percentage of total exports		ICT-4