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REPORT

EXPERT GROUP MEETING ON INFORMATION SOCIETY MEASUREMENT: CORE INDICATORS, STATISTICS, AND DATA COLLECTION – ICT INDICATORS IN EDUCATION AND E-GOVERNMENT CAIRO, 13-15 FEBRUARY 2007

Summary

The Expert Group Meeting on Information Society Measurement: Core Indicators, Statistics, and Data Collection – ICT Indicators in Education and E-Government (Cairo, 13-15 February 2007) was organized by the Economic and Social Commission for Western Asia (ESCWA); the UNESCO Institute for Statistics (UIS); the Knowledge Management Branch in the Division for Public Administration and Development Management, Department of Economic and Social Affairs (UNDESA/DPADM/KMB); and the Information and Decision Support Center (IDSC) in Egypt.

The Meeting included two tracks devoted to the use of ICT in education and e-government readiness. Presentations related to the first track covered specific technical aspects of the use and measurement of ICT in education, including statistical data collection methodologies, definitions, and different and emerging practices, together with national and regional perspectives. In particular, the Meeting considered the UIS proposal for a list of core indicators for measuring the use of ICT in education for possible endorsement and adoption into the Partnership list of core ICT indicators. The proposal is based on a number of international projects with well-elaborated methodologies, approaches and definitions. The presentations in the second track focused on establishing a framework for assessing and measuring e-government readiness in Arab countries based on the country and regional presentations, while taking into account the specific characteristics and challenges facing the countries.

The members of the expert group representing ESCWA and other Arab countries issued a number of recommendations, including the approval of the core indicators on ICTs suggested by UIS in education, and recommended that they needed to be included within the Partnership list of core ICT indicators. Moreover, the Meeting asked ESCWA and UIS in partnership with regional stakeholders to plan and carry out capacity-building workshops aimed at helping Arab countries to adopt and collect data for these indicators; and asked ESCWA to provide Arab countries with the technical assistance needed to identify and define core indicators for e-government readiness relevant for policymaking at the national level, as well as to assist them in their capacity-building effort for the collection of data for these indicators using a unified methodology.

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Introduction

1. The lack of a comprehensive comparable set of information and communication technology (ICT) indicators poses a major obstacle to strategic decision-making, including, for example, in terms of identifying priority areas of policy action, assessing and revising ICT strategies, allocating resources, monitoring progress, evaluating impacts, and benchmarking national/regional/global development of the information society. In recognition of that, the Partnership on Measuring ICT for Development developed a list of core ICT indicators through an intensive global stocktaking process.[1] The Partnership list comprises 42 core ICT indicators under four categories, namely: (a) ICT infrastructure and access; (b) access to and use of ICT by households and individuals; (c) use of ICT by businesses; and (d) ICT sector and trade in ICT goods.[2] The agreed-upon list was recognized at the thirty-sixth session of the United Nations Statistical Commission (New York, 1-4 March 2005).

2. However, the list was not intended to be a final list, given that it does not cover all vital sectors of the information society, particular indicators related to education and literacy, culture, science and technology, labour, health, agriculture and public administration/government. In that light, the Meeting was organized to focus on core indicators for ICT in education and literacy and e-government readiness, and to foster the adoption and collection of data for these indicators in Western Asia and the Arab region.[3]

3. Within that context, the Capacity-building Workshop on Information Society Measurement: Core Indicators, Statistics, and Data Collection (Beirut, 7-10 June 2005) called on UIS to develop indicators on the use of ICT in education and literacy.[4] Furthermore, UIS and ESCWA organized a session on core ICT indicators in education and e-government as part of the Partnership's Workshop on Measuring the Information Society at the World Summit on the Information Society (WSIS), which was held in Tunis from 16 to 18 November 2005. The Expert Group Meeting was built on the outcomes of these two workshops.

4. The Meeting included two tracks devoted to the use of ICT in education and e-government. In the first track, which was devoted to the measurement of use and impact of ICT in education, UIS presented a proposal for a list of core indicators for measuring the use of ICT in education, which was considered for possible endorsement and adoption into the Partnership list of core ICT indicators. The proposal is based on a number of international projects with well-elaborated methodologies, approaches and definitions. Within that context, while there are readily-available data on the use of ICT in education, some areas could still benefit from further discussion, including the methodologies appropriate to different circumstances in different countries and/or regions, and the intermediate definitions so that school assessments and administrative data may be better targeted towards measuring the usage of ICT in education.

5. Specifically, the Meeting addressed the availability of data on the use of ICT in education, and country experience in collecting ICT and education data with specific focus on such issues as, among others, sampling and design; and on the implementation by UNESCO of the Literacy Assessment and Monitoring Programme (LAMP), particularly with regard to data on household use of ICT and the importance of its relationship to literacy as a whole and computer literacy. As the proposal is aimed at determining a core set of international indicators, all countries could still require a broader set of indicators determined nationally or regionally.

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[1] United Nations ICT Task Force, "Measuring ICT: the global status of ICT indicators – Partnership on Measuring ICT for Development" (2005).

[2] ESCWA, "Core ICT indicators – Partnership on Measuring ICT for Development" (2005).

[3] The thirty-eighth session of the United Nations Statistical Commission (New York, 27 February - 2 March 2007) endorsed the Partnership list of core ICT indicators and encouraged countries to use the list in their data-collection programmes. Moreover, it encouraged the Partnership to continue to work on improving and updating the list of indicators for measuring use of ICT in education, government, and economic growth and social development; for assessing barriers to the use of ICT; and on assisting countries in their capacity-building efforts aimed at collecting data on ICT indicators.

[4] ESCWA, "Report of the Capacity-building Workshop on Information Society Measurement: Core Indicators, Statistics, and Data Collection" (E/ESCWA/ICTD/2005/WG.1/6).

6. The true assessment of the impact of use of ICT in education is still unavailable. However, the lack of education has been recognized as one of the top ten challenges facing the world.[5] This lack translates as a failure of children to achieve mastery of the basic competencies necessary to strive in a modern, knowledge-based economy. It is within this framework that the impact of the use of ICT in education should perhaps be assessed and measured.

7. The second track considered two interlinked activities aimed at developing e-government in the region. On the one hand, the Meeting provided a forum for disseminating case studies and presenting proposals for indicators on the use of ICT in e-government and its readiness in the region, thereby paving the way for establishing a preliminary regional list to start collecting data for these indicators. Equally, the Meeting engaged interested stakeholders in a dialogue to debate the challenges and opportunities for progress of e-government in the region, and to discuss the compatibility of the concept of the global model of e-government with the specificities of the region. The ideas and suggestions considered in this brainstorming session could be considered as an input to the conceptual framework of a regional report on e-government readiness in the Arab countries.[6]

I. RECOMMENDATIONS

8. At the conclusion of the Meeting, the participants issued a number of recommendations set forth below.

9. In the area of education:

(a) To approve the core indicators on ICT in education suggested by UIS (see table below); and to include them within the Partnership list of core ICT indicators;

(b) To ask ESCWA and UIS in partnership with the Arab League Education, Culture, and Science Organization (ALECSO) and the Arab Institute for Training and Research in Statistics (AITRS) to plan and carry out capacity-building workshops aimed at helping Arab countries to adopt and collect data for these indicators;

(c) To ask ESCWA and UIS to adapt the Bangkok Manual on Indicators for ICT in Education to the needs of the Western Asian region.

(d) To ask ESCWA and UIS to consider developing indicators aimed at measuring directly ICT usage in the teaching and learning process, including (i) establishing a database of questions used in current school surveys; and (ii) developing indicators that reflect direct usage;

(e) To support the proposal by UIS to pursue a set of indicators on information literacy in partnership with ESCWA.

ADOPTED LIST OF CORE ICT INDICATORS IN EDUCATION

Basic core	
ED-1	Percentage of schools with electricity (by ISCED 1-3)
ED-2	Percentage of schools with a radio set used for educational purposes (by ISCED level 0-4)
ED-3	Percentage of schools with a television set used for educational purposes (by ISCED level 0-4)

[5] As identified through the Copenhagen Consensus process, which aims to assess and evaluate the opportunities available to address these challenges. L. Pritchett, "Access to education", in *Global Crises, Global Solutions*, ed. B. Lomborg (Cambridge University Press, 2004).

[6] UNDESA/DPADM/KMB, which is the lead agency of the United Nations for implementation of WSIS on e-government, has embarked on the preparation of regional e-government readiness reports, which will benchmark countries in the region according to a global index, as well as present an in-depth analysis of key issues in ICT for the development of e-government specific to the region. The regional reports for sub-Saharan Africa and Asia are currently under way.

ED-4	Student to computer ratio (by ISCED level 0-4)
ED-5	Percentage of schools with basic telecommunication infrastructure or telephone access (by ISCED 1-3)
ED-6	Percentage of schools with an Internet connection (by ISCED 1-3)
ED-7	Percentage of students who use the Internet at school (by ISCED level 0-4)
Extended core	
ED-8	Percentage of students enrolled by gender at the tertiary level in an ICT-related field (ISCED level 5-6)
ED-9	Percentage of ICT-qualified teachers of the total number of teachers in primary and secondary schools

Note: All indicators should be collected by sex, grade and age.

10. In the area of e-government:

(a) To ask ESCWA to provide Arab countries with the technical assistance needed to identify and define core indicators for e-government readiness relevant for policymaking at the national level, as well as to assist them in their capacity-building effort for collecting data for these indicators using unified methodology;

(b) To ask ESCWA, UNDESA/DPADM/KMB and Dubai School of Government to involve Arab countries in all stages of the production of the regional report on e-government readiness in the Arab region through national reference points identified in consultation with those countries;

(c) To ask ESCWA to seek clarification from UNDESA/DPADM/KMB with regard to the methodology adopted for computing its e-government readiness index.

11. Additionally, the Meeting urged ESCWA and AITRS to translate into Arabic the Partnership's methodological manual on Core ICT Indicators.

II. DISCUSSION TOPICS

12. The Meeting included two tracks devoted to the use of ICT in education and e-government readiness at the national, regional and international levels. Presentations related to the first track covered specific technical aspects of the use and measurement of ICT in education, while those related to the second track focused on the establishment of a framework for the assessment and measurement of e-government readiness in Arab countries, while taking into account the specific characteristics and challenges facing those countries.

13. Two panel discussions, one at the end of each track, focused on the proposals submitted to the Meeting for the adoption of new ICT indicators in education and assessment of e-government readiness, and capacity-building requirements in the two areas. In the panel discussion on the use of ICT in education, the participants emphasized the need for indicators that directly measure ICT usage in the teaching and learning process. In the panel discussion on e-government, there was a general consensus that the lack of information, specifically on the variables/services used in the Web measurement of the e-government readiness index, is detrimental to the value of the index. The participants requested UNDESA/DPADM/KMB to publish all relevant information pertaining to this index on the Internet, including the list of variables/services considered and the methodology employed.

14. The presentations and subjects addressed are summarized below.

A. EDUCATION

1. *ICT and education policy*

15. The first session included two presentations by Jordan and ESCWA that focused on the need and relevance of indicators on the use of ICT in education.

16. The lead presentation of Jordan focused on the need to measure the impact of the use of ICT on learning as a way of determining whether ICT is helping to achieve educational goals and, if so, whether it is worth its high cost. It further highlighted the requirements for integrating ICT in education, including the development of specific ICT programmes, the adoption of ICT-specific strategies and policies, and the procurement and use of specialized hardware and software. The presentation identified three interrelated types of potential ICT indicators in education, namely: input, use and output; and subsequently provided a list of core indicators in these categories that could be used to measure various variables as well as the impact of ICT in education. Jordan concluded by stating that the development of indicators and measurement of the impact of ICT are only effective if carried out within a well-laid national ICT policy with clearly-defined desired outcomes.

17. ESCWA provided a regional overview on the importance of ICT in the field of education and the need for establishing systems of ICT indicators to measure its use and impact on the overall education cycle, based on direct, objective and quantitative standards, thereby allowing for the collection of reliable, practical and disaggregated data. Moreover, ESCWA presented a comprehensive list of possible ICT indicators in education in six categories, namely: ICT policy, ICT infrastructure and access, connection to the Internet, equipment and systems, ICT curricula, and teachers and support staff; in addition to indicators for measuring education outcomes and capacity-building requirements.

2. *Use of ICT in education*

18. The second session was centered around the use of ICT in education in four ESCWA members, namely, Egypt, Lebanon, Palestine and Syrian Arab Republic.

19. The presentation of Egypt focused on the need to use ICT to support pre-university education. Within that context, Egypt elaborated on its performance-based indicators to measure the use of ICT at this educational level. These indicators are grouped into four categories, namely: (a) input, including such indicators as the number of computers delivered by level of education and expenditure on ICT; (b) output, which is subdivided into schools, teachers and communication indicators, and includes such indicators as percentage of schools ready to operate computer laboratories, percentage of teachers with specialized training in the use of ICT in teaching and learning and percentage of teachers with e-mail accounts; (c) outcome, including such teaching and class management indicators as percentage of teachers using ICT in accessing educational resource; and (d) impact on students, including percentage of teachers who agree that ICT can improve the motivation of their pupils. Egypt concluded by presenting a questionnaire that is used to survey the impact of use of ICT applications in education and learning.

20. The presentation of Lebanon provided an overview of its ongoing Education Development Project (EDP), particularly with regard to the identification and measurement of ICT indicators in the Lebanese education system. EDP aims at: (a) improving access to information and knowledge for policymakers and such stakeholders as the Educational Center for Research and Development (ECRD), schools and communities; (b) enhancing the information and knowledge environment by using a full range of high quality analytical techniques aimed at producing useful outputs and decision support tools; and (c) managing information and knowledge in order to meet changing needs. The presentation addressed the use of indicators and data inputs aimed at evaluating regularly the objectives of EDP in view of changing policy requirements.

21. Palestine summarized the steps it adopted to promote the use of ICT in education. Many workshops at the national level were organized in order to harness the major role of ICT in the administrative reform. In addition, many programmes were undertaken to train the teachers on the use of ICT. At the school level, a technology course has been considered as requisite for intermediate students, while a special ICT programme has been devised for high school students. The presentation showed that there has been a notable progress in terms of establishing computer laboratories in schools, and that the school networking project has been implemented in 16 schools. Palestine concluded by exploring its e-learning initiative and its different objectives.

22. The Syrian Arab Republic presented its national directions in using ICT in education, and offered an overview of the challenges facing the higher education sector and the country's vision in that regard. The vision is based on adopting a strategy that aims at harnessing the potential of ICT to reshape the higher education sector in order to respond to the growing demand of higher education, by introducing and expanding open learning, and by developing usage and impact indicators to assess the maturity of ICT-based education. The presentation also provided an overview of the Syrian Virtual University as a case study to highlight the challenges facing this type of education.

3. *Proposal by UIS*

23. In this third session, UIS presented its proposal of a list of core indicators for measuring the use of ICT in education for possible endorsement and adoption into the Partnership list of core ICT indicators. The list aims at providing internationally comparable data based on a number of international projects with well-elaborated methodologies, approaches and definitions. The presentation further discussed how ICTs can be used in education to improve administrative efficiency; to disseminate teaching and learning materials to teachers and students; to improve the ICT skills of teachers and students; to allow teachers and students access the sources of information from across the world; and to collaborate on joint projects and conduct lessons from a remote location. Additionally, it provided information on the surveys carried out worldwide to collect data on the availability of ICT in formal education, and on their costs and benefits, use, equity of access and impact on educational outcomes useful for educational planning.

4. *Collecting ICT and education data*

24. The fourth session addressed issues related to the availability of data, through country presentations delivered by Egypt, Kuwait and Palestine.

25. Egypt presented an overview of its core ICT indicators project to measure the advancement towards the information society. This project is being implemented collaboratively by the Ministry of Communication and Information Technology, the Central Agency for Public Mobilization and Statistics and various line ministries, particularly the Ministries of Education, Higher Education and Administrative Development. The focus of the presentation was on the technical aspects of sampling and design of surveys, specifically as related to the education and e-government sectors. The data collected were presented and discussed.

26. Kuwait presented an overview of the activities carried out by the statistics department of the Ministry of Education, with regard to the collection of relevant data for measuring the use of ICT in education and for monitoring achievements by students.

27. The presentation of Palestine shed light on the important projects implemented by the Ministry of Information and Communication Technology, including "Internet without subscription", and on plans to implement such projects as "Computer for every family". The presentation pointed out that the e-Palestine project, aimed at introducing the use of ICT in education, had to be stopped due to the severe financial embargo faced by Palestine, and the need for financial support and technical assistance in the field of ICT statistics. Within that context, Palestine addressed the responsible parties and requested them to finalize the list of ICT indicators in the near future, determine the methodologies to be used for data collection, produce regional manual classification of ICT goods and services, and establish an advocacy campaign on ICT statistics and indicators in order to produce specialized ICT reports for each Arab country.

5. *Effective use of ICT for education*

28. The fifth session addressed issues related to the analysis and use of ICT data for making needs-based policies on the effective use of technologies for education. Different parties contributed to this session as set forth below.

29. UIS presented a global perspective on the access to and use of ICT in education based on the results of global school surveys that contained ICT-related questions. The questions covered students, teachers and

school principals, and addressed such topics as the availability of computers at home; teacher perceptions with regard to the adequacy of hardware, software and support for the use of computers; and the total number of computers and Internet connectivity in schools. The presentation concluded by highlighting the benefits and drawbacks of these types of surveys. Specifically, while they provide the opportunity to obtain much more detailed information on the access to and use of computers in education, they can provide invalid and unreliable data in cases where these surveys were not implemented carefully. Consequently, in order to take advantage of such surveys, they must be designed adequately by developing instruments, sampling, administering, and by processing, analysing and reporting data.

30. Tunisia presented the plan of action by the Ministry of Education set to improve the efficiency of the Tunisian educational system. The plan focuses on the need to develop a methodology that evaluates the output of the educational system by tracking the sources of deficiency and identifying the different variables that could affect school results. The short-term objective of the plan refers to the evaluation of the yearly output at the different educational levels to detect negative trends, thereby helping to curb them through timely interventions. The mid- and long-term objectives include carrying out research studies and setting up a strategy of intervention aimed at improving the education system as a whole. Within that context, Tunisia presented its survey to follow up on the educational progress of a comprehensive and categorized sample of students. The questionnaire aims at drawing information on students and assessing the impact on them by their families, schools, school principals and teachers, and other socio-economic factors. The follow-up is administered locally, with technical and executive guidance administered centrally.

31. Egypt presented a project on development aimed at building a national network of field surveys and technical studies. The network could help to prevent duplicating surveys by different agencies, enhance the exchange of information among agencies, build statistical capacity of researchers, and enhance awareness of users of surveys and statistical data. The presentation detailed the basic design and functions of the various components of the field survey administration system and the field survey bank, and its underlying database, with a demonstration of an implemented prototype of the network.

32. The presentation of Palestine focused on its vision with regard to the collection of data on the use of ICT in education and e-government. Specifically, Palestine presented an overview of its e-learning initiative and the e-Palestine project for providing e-government services. It presented the scope and statistics for indicators on the availability of ICT in schools and universities, the use of ICT by teachers and students, and ICT-related postgraduate programmes of study.

33. ESCWA presented an overview of the advisory services provided to its member countries related to the use of ICT in education. Additionally, the presentation addressed the indicators that could be determined by ICT surveys that target general education, higher education, and technical and vocational education. It provided sample results and conclusions drawn from the study of the education sector in Saudi Arabia.

B. E-GOVERNMENT

1. *Collecting ICT and e-government data*

34. The measurement of e-government refers to the evaluation of the use of the Internet and the Web for the delivery of Government services at the national level, and its level of telecommunication and human capital infrastructure.[7] This issue was addressed by Egypt, Lebanon, Sudan, Syrian Arab Republic, Tunisia and United Arab Emirates, as summarized below.

35. Egypt presented the different projects being undertaken in this field, including the projects, entitled "Digital Access Indicator" and "Core ICT Indicators for Information Society Measurement". The presentation pointed out the need to exchange experiences at the regional level and provide methodologies for designing accurate surveys at all levels and sectors. In addition, Egypt drew the attention of the

[7] UNDESA/DPADM//KMB, "UN global e-government readiness report 2005: From e-government to e-inclusion", which is available at: www.unpan.org/egovernment5.asp.

participants to the importance of consolidating data collection at a national level in order to avoid contradictory data and allow the exchange of information. In another presentation, Egypt presented an overview of the governorate portal that offers the services of its main governmental bodies. Moreover, it presented the results of a survey aimed at assessing the awareness of citizens on the existence of such services and the level to which they are ready to use them.

36. Lebanon presented an e-government framework that was adopted and explored the progress in this area. The presentation focused on the evolution of the e-government plan of action and various national e-government projects, in addition to its forthcoming update of the national strategy on the information society.

37. Sudan reported on the progress made in that country with respect to e-government. It discussed a survey undertaken on this issue and a comprehensive report compiling the results of this survey mainly in relation to the status of the information society and the impact of use of ICT in various fields. Currently, the Government is in the process of establishing a general plan of action for the e-government project and various supportive projects are being encouraged.

38. The Syrian Arab Republic provided an overview on the indicators currently used to measure the progress of the country towards the information society; and presented data collected for assessing national e-readiness and access, compared to the averages for the Arab region and the world, and the progress made in that area over the past five years. Additionally, it presented the national vision with respect to moving towards the information society, and the development strategies and projects that are being implemented to that end. The presentation concluded by explaining a preliminary proposal for developing the e-readiness index of that country.

39. The presentation of Tunisia detailed its e-government strategy and programme, and focused on the need to evaluate e-government online services. Moreover, it presented a measurement framework that comprises five categories, namely: enabling environment, infrastructure and ICT sector, information structure and content production, readiness and capacity-building, and availability and usage of online services. It drew comparison with various initiatives, proposing a set of 110 penetration and usage indicators in these five categories. Tunisia has recently submitted to Economic Commission for Africa (ECA) a proposal of a set of impact indicators with 194 pertinent indicators, 101 basic indicators and 43 core indicators.

40. The presentation of the United Arab Emirates focused on the make-up and methodology employed for measuring e-government, particularly the measurement of the e-government readiness index. It noted that despite progress in 2005, wide disparities still exist between and among regions and countries in their e-government programmes. Governments in high-income countries are far advanced in their provision of public information, online services, communications and outreach to citizens, and overall electronic access to Government. By contrast, the bottom 32 countries offer rudimentary e-services and show little relative progress. Additionally, the presentation provided an overview of e-government goals, mechanism and evolution in the countries of the Gulf Cooperation Council (GCC), and noted that, in 2005, the United Arab Emirates had posted one of the most impressive yearly gains among all the countries of the world. The presentation suggested a citizen-centric e-government model based on a tripartite of the State, civil society and private sector; and recommended the establishment of a working group to develop balanced progress indicators and confer with the stakeholders on the measures and mechanisms of deployment and reporting.

2. *E-government conceptual framework*

41. UNDESA/DPADM/KMB presented an overview of its report entitled “UN global e-government readiness report 2005: From e-government to e-inclusion”, and discussed its plan to produce regional reports. The presentation pointed out the difference between the global report and regional reports, citing the main objectives of the regional reports, namely: to identify issues and challenges in each specific region; to undertake a comprehensive in-depth analysis of enabling environment for e-government; to provide member countries with analytical findings and policy options; and to create an important document for policy guidance for decision-makers in the region. The report for Arab States will be produced by UNDESA/DPADM/KMB, as the lead agency, in partnership with ESCWA, Dubai School of Government

and, possibly, regional and country offices of the United Nations Development Programme (UNDP) and other regional partners. UNDESA/DPADM/KMB provided an outline of the main activities involved in the production of the report.

III. ORGANIZATION OF THE WORKSHOP

A. VENUE AND DATE

42. The Expert Group Meeting on Information Society Measurement: Core Indicators, Statistics, and Data Collection – ICT Indicators in Education and E-Government was held in Cairo, from 13 to 15 February 2007.

B. OPENING

43. The opening statements of the Meeting were delivered by Mr. Magued Osman, Chairman of IDSC; Mr. Yousef Nusseir, Chief of ICT Division in ESCWA; Mr. Simon Ellis, Head of Special Projects in UIS; and Mr. Aly Fahmy, Senior Advisor to the Minister of Education in Egypt.

C. PARTICIPANTS

44. The Meeting was attended by 48 participants from 11 Arab countries and territories, namely: Egypt, Jordan, Kuwait, Lebanon, Oman, Palestine, Syrian Arab Republic, Sudan, Tunisia, United Arab Emirates and Yemen, in addition to regional and international organizations. The list of participants is contained in annex I of this report.

D. AGENDA

45. Presentations and discussions were made over eight sessions. The agenda of the Meeting is summarized and set forth below.

1. Opening;
2. ICT and education policy: perspectives on the need and relevance of indicators on ICT use in education;
3. Regional and country presentations on the availability of data on the use of ICT in education;
4. UIS proposal on the use of ICT in education indicators;
5. Country experiences in collecting ICT and education data with specific focus on such issues as sampling and design;
6. Analysis and use of ICT data for making needs based policies on the effective use of technologies for education;
7. Discussion and closing session of ICT and education related topics;
8. International, regional and national experiences in collecting e-government related ICT data;
9. Conceptual framework for a regional report on e-government readiness in Arab countries;
10. Discussion and closing session of e-government related topics.

E. DOCUMENTS

46. The list of documents submitted to the Meeting is contained in annex II of this report and is available on the ESCWA website at: http://www.escwa.org.lb/wsis/meetings/13-15Feb07/ main.html.

Annex I

LIST OF PARTICIPANTS*

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Annex II

LIST OF DOCUMENTS

	Title
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	Regional Framework for ICT Indicators in Education
	ICTs and Education Indicators: Suggested Core Indicators Based on Meta-Analysis of Selected International School Surveys
2. *Presentations*	
	Indicators Used to Measuring Usage and Impact of ICT in Education
	ICT in Higher Education: The Syrian Experience
	Using ICTs To Support Pre-university Education: Performance Based Indicators
	Measurement of ICT Indicators in Education
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	UIS Proposal on Use of ICT in Education Indicators
	Core ICT Indicators in Education and E-Government
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	ICTs and Education Indicators of Selected School-Based Surveys
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	Measuring ICT Use in Education
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	The Road Towards E-Government
	E-Government Readiness: a Case Study
	E-Government: an Overview and the Action Plan
	Measuring E-Government Readiness
	UN Global E-Government Assessment
	UN Regional E/M Government Readiness Reports – KMB/DPADM/UNDESA