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**Economic and Social Commission for Western Asia (ESCWA)**

**REPORT**

**EXPERT GROUP MEETING ON STANDARDIZING INFORMATION SOCIETY  
MEASUREMENT IN THE ESCWA REGION  
BEIRUT, 3-4 MAY 2011**

**Summary**

The Information and Communication Technology Division (ICTD) of ESCWA organized an Expert Group Meeting on Standardizing Information Society Measurements in the ESCWA Region, at the United Nations House in Beirut on 3 and 4 May 2011. The meeting aimed to address the applicability of global benchmarking methodologies for the region. In addition, the role and value of national and regional level analytics were presented and discussed.

Data-driven policy making is a vital tool for good governance and policy making. For this reason, gathering data, evaluating impact and comparing results is a high priority for ESCWA member countries. National level key performance indicators, as well as internationally comparable high-level benchmarking indexes are each significant. The meeting explored the interplay between these tools and the issues associated with each.

Particular emphasis is given to the need to implement standardized definitions of indicators and provide up-to-date data. The effect of inaccurate base data, such as population statistics, on composite indexes and high-level benchmarks were simulated and evaluated. The meeting also identified an under-served area of analysis – the regional level. Between national-level performance and global benchmarks, the regional level is comparatively sparse with data. Because countries in a specific region tend to share common circumstances, there is great value in being able to compare results achieved between countries and other regions. With this in mind, among other recommendations, the meeting called for a regional benchmarking model to be developed to address such data shortages. As an integral part of this analysis, the meeting has reviewed and commented on a draft study prepared by the ICT division at ESCWA, titled: “Information Society Measurement: Building a Common Benchmarking Model”. Recommendations from the meeting will be integrated into the draft, giving participants the opportunity to substantively contribute to the development of future indicators, methodologies and indices. Further, options for database systems supporting the collection and analysis of indicators were demonstrated during the meeting.

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## I. INTRODUCTION

1. Closing the digital divide and bringing the benefits of the information society is very important to member countries of the ESCWA region. For policy makers to accurately determine which developmental strategies will be the most effective, promoting comparability and clarity of the measurement model is vital. In order to pursue these goals in the most effective manner possible, it is necessary to define key indicators and develop statistical models which are able to assess the current status, measure the many facets of the information society, and monitor progress towards its realization. Determining which key performance indicators will be of greatest value is a difficult exercise, combining many points of data into actionable information. In order to be maximally effective, standardized indicators must be relevant to a wide variety of national circumstances and cultural contexts.
2. Several high-level international meetings have emphasized the importance of these issues, including the World Summit on the Information Society (WSIS) and the Geneva Plan of Action. These conferences recognized the need to have accurate statistical information regarding the information society, encompassing a range of basic indicators and including key dimensions. In order to better facilitate policy making, international comparability was one of the key goals. This challenge was difficult, given the need to create a structure which would help both developed and developing countries alike. By taking a collaborative approach these different needs were able to be addressed and well-supported.
3. As a result, the Partnership on Measuring ICT for Development was formed to accomplish several of these goals; first, the definition of internationally comparable ICT indicators, together with data collection methodologies; second, to serve as a capacity-building resource for developing countries; third, to create a global database where these indicators can be effectively collected and used.
4. The basis for the meeting will be the work of the Partnership on Measuring ICT for Development and other international organizations. In particular, models such as the ICT Development Index, among others related to analyzing the information society will be discussed. It should be noted, that while these mechanisms form the basis for discussion of this meeting, international comparability forms part of the agenda.

## II. RECOMMENDATIONS

5. Participants in the meeting highlighted the importance of statistical measurement for the development and growth of the information society and explained that measurement methodologies and indicators for measuring the information society are particular, owing to their rapid and continuous development. This makes both follow-up and data collection difficult procedures for governments and their statistical agencies and organizations.
6. The following is a list of the main recommendations made by the participants and discussed during the meeting:
  - (a) To develop a regional standard for measuring the information society in the ESCWA region, including indicators and methodologies specific to this region, is of high importance. This regional standard must be compatible with global indicators, while highlighting the specificities of the region. Calculation methodologies for population figures and family size, as well as other unique indicators specific to the region should be considered;
  - (b) To revise the main objectives and goals for measuring the information society is very important. In addition, there is a great need to raise awareness of these goals in order to facilitate the process of measuring the information society and utilize its results optimally. The value of utilizing indicators for measuring the information society when devising ICT policies and developmental strategies, and for supporting decision-making and developing the information society, must be acknowledged;

(c) To designate persons that are aware of the importance of measuring the information society at all levels, in order to provide international bodies and private institutions, which conduct field surveys or opinion polls (for example, the World Economic Forum), with relevant and accurate data that highlights the current status of the information society in the context of its challenges and prospects of further development. Raising awareness in the public and private sectors of the importance of measuring the information society and the significance of their positive involvement and participation must be addressed;

(d) There is great need for coordination at the national level between authorities and agencies in charge of measuring the information society. In this regard, the important role played by the National Statistical Offices (NSOs) should be emphasized. In addition, the formation of national task forces for the exchange and harmonization of information and the adoption of national data on information society indicators for dissemination to international bodies is noted;

(e) To provide information for measuring the information society on several levels: international, regional, and national is necessary in order to serve the different and specific objectives of each level;

(f) To give careful consideration to the indicators adopted by the European Community to determine what applicable lessons would be relevant to the Arab region;

(g) Member countries should allocate adequate funds to undertake periodic statistical surveys for measuring the information society;

(h) The importance of transparency and the need for disseminating and publishing national data on measuring the information society is emphasized. In this regard, dedicated websites should provide this data to decision makers, international organizations and the general public;

(i) To form a regional task force which will follow-up on the standardization of measuring the information society. The task force will be overseen by ESCWA in collaboration with the International Telecommunication Union (ITU);

(j) The significance of developing an integrated package of cyber legislation which includes the right of access to information is noted. Such a right will empower government employees, entrusted with national data and statistics relating to the information society, to share and disseminate data;

(k) To publish and provide standardized forms to be used in surveys dedicated to measuring the information society. Forms which have been developed by international organizations could be used as is or adapted for the purpose of undertaking national surveys;

(l) Greater effort is needed in order to harness the positive impact of ICTs on the national economy and gross national income, especially as recent statistics and research on the subject strongly suggests a positive impact. Moreover, special attention is required for the development of indicators in the Arab region, including, indicators for ICT in education, ICT in government, measuring digital content, measuring the safety and security of information, and the impact of ICT on various economic indicators;

(m) Intensify efforts to build the capacities of the Arab region in the area of information society measurement. In this regard, workshops and specialized meetings need to be organized in order to exchange experiences and best practices in the field of measuring the information society in the Arab region;

(n) To develop, adopt and disseminate Arabic terminology in the area of measuring the information society;

(o) Adopt the international standards used for the classification of ICT business and employment in the ICT sector and disseminate such standards in the region for maximum benefit.

### III. PRESENTATIONS AND DISCUSSIONS

7. Meeting presentations were allocated to sessions covering the ICT sector's regional economic perspectives, development initiatives, sector measurements, national strategies and entrepreneurship and capacity building. Meeting sessions included two panel discussions that addressed the impact of the global financial crisis on the ICT sector, challenges facing the sector and their envisaged solutions.

#### A. OPENING

8. This session consisted of two presentations, beginning with the opening speech for the EGM. In these remarks, delivered by Mr. Youssef Nusseir, the importance of benchmarking and data-driven policy making was emphasized. Further, the contributions of the Partnership on Measuring ICT for Development were acknowledged.

9. These remarks were followed by a presentation by Mr. Rami Zaatari focusing on measuring the information society and the requirements for reliable and statistical data. Efforts to measure the information society started before 2003 along with preparations for the World Summit on the Information Society. In 2005, the Tunis agenda focused on the importance of avoiding duplication of efforts and data collection, signalling the establishment of the Partnership in 2004. Efforts first focused on collecting a basic set of core ICT indicators. As efforts progressed, there was a call from the member states to unify individual measurements in an index. Thus, the ITU responded by creating the IDI. Different models for measurement exist, thus the need for a harmonized approach. ESCWA has taken the lead in trying to establish a standardized model for information society measurement in the region.

#### B. CHALLENGES OF MEASURING THE INFORMATION SOCIETY

10. Dr. Abdul Kamli delivered the next presentation, which focused on the application of the current, standardized model to the ESCWA region. Particular attention was paid to understanding variances found at the statistical level. Concern was expressed regarding the portability of the model between countries with significantly different levels of development. The impact of issues such as family size, immigration and the application of systematized definitions of indicators were simulated. Finally, targets and benchmarks for the indicators were discussed.

#### C. COUNTRY SPECIFIC CASES

11. Negwa El-Shenawy delivered a review of the case of Egypt that was structured around a key goal – to improve and develop the measurement of ICT use. Specifically, this included four main steps; (a) build an ICT database; (b) provide decision makers with up to date and accurate ICT indicators to help with setting and following up policies and strategies pertaining to the ICT sector; (c) provide international organizations with the requested data. Recently, a survey was undertaken in an effort to collect necessary data to assess the success of these efforts. The results of these findings were presented.

12. Mr. Mohamed Jallouli gave a presentation which examined the case of the United Arab Emirates. The ICT impact indicators were evaluated in the context of the country's economic development. In particular, the role of ICT in production is calculated using 4 distinct factors. However, robustness of analytical efforts is limited by data quality, reliability and availability. It was recommended that questions more closely related to the economic impact of ICT be included in the data collection surveys on access and use.

13. Mr. Nael Adwan presented the case of Jordan, where he explained data collection and analysis efforts within Jordan are primarily focused around the data requirements of a core indicators framework. Throughout the presentation, indicators related to infrastructure and economic impact were highlighted. Since relevant data must be collected from private telecom operations, the difficulties of compliance regarding information sharing requests present a significant obstacle. For this to be overcome, it is expected

that capacity building will occur through the adoption of international standards and methodologies, as well as through the establishment of a high-quality business register for each country.

#### D. MEASUREMENT AS AN ENABLER FOR POLICY MAKING

14. Mr. Imad Hobballah emphasized that data-driven policy change is under-developed in the ESCWA region and rarely incorporates a human rights approach in its analysis. In particular, child protection, privacy issues and intellectual property matters are rarely collected or addressed. In addition, adopting a policy of openness towards research findings and library-type materials will help to promote human social capital in the member countries through ICTs.

15. Dr. Saleem Zoughbi spoke about the linkages between gathering information and policy making. Consistent with ideas expressed by other experts in the meeting, he highlighted the importance of selecting the issue to be examined before data collection. He advised that a specific issue should be highlighted, after which the task of determining relevant indicators can be undertaken. In contrast, he explained that some approaches currently survey the available data in order to determine what issues are raised. Once such a framework has been constructed, gathering data and evaluating the results at the aggregate level can empower policy-makers to interpret the results. As an integral part of this activity, verification of whether or not results fit the stated policies and strategies should be undertaken. With this evidence-based prioritization and evaluation approach, data can be effectively used to identify and promote the most effective government practices.

16. In the final presentation for this session, Ms. Sukaina Al-Nasrawi delivered a practical review of the ESCWA Statistical Information System to participants. She explained a database-driven analytical engine is available to member states at no cost through a creative commons license. The capacity of the system to meet an organization's data-flow requirements was demonstrated, as well as the ability to support data entry, customized indicators and reporting. In particular, the ability of the system to support the calculation of complex derived indicators was demonstrated.

#### E. BENCHMARKING THE INFORMATION SOCIETY

17. This session began with a presentation by Mr. Matthew Perkins on the criteria for structuring international benchmarking strategies and a survey of the pros and cons of competing factors. Common data sets, available time series and the standardization of approach have historically been identified as key requirements for indicator selection. Owing to the inherent limitations in international benchmarking, he advised that shortcomings should not be considered failures in the process, but rather disadvantages which are mostly unavoidable against current constraints. Instead of viewing limitations as reasons not to utilize international benchmark structures, countries should understand the inherent contextual limitations of a global approach and supplement their data-gathering efforts to include localized information which will, in many cases, be more qualified to illuminate policy-making decisions. When used in tandem, global and local measurement approaches deliver useful results, but are not substitutions for each other.

18. In his presentation titled "Towards a Common Benchmarking Model for the ESCWA Region", Mr. Rami Zaatari highlighted some of the socio-economic and demographic specificities of the ESCWA region. He then presented a set of guidelines with concrete steps leading towards constructing a suitable measurement model for the region. After evaluating previous and current measurement models, highlighting their pros and cons, he introduced ITU's ICT Development Index (IDI) along with a proposed modification in order to make it more suitable for the ESCWA region. Mr. Zaatari concluded with a set of recommendations which aimed to advance the process of measuring information in the region.

19. The session concluded with a presentation by Mr. Ahmed El-Hefnawi, who gave an overview of national and regional level issues in data collection and analysis. Improvements in data collection and analysis are necessary in the region in order to provide effective governance. National level key

performance indicators, focusing on the transparent assessment of national e-strategies are urgently required. Areas of data gathering include direct surveys, expert focus groups and administrative data produced by government agencies. By applying enhanced efforts to this cause, member countries will be better positioned to ensure that their policies are delivering effective results for all citizens.

20. Mr. El Hefnawy called on the “Partnership for Measuring ICT for Development”:

(a) To review ICT indicators periodically in order to determine the requirements for balanced development, also taking into account different levels of income;

(b) To identify indicators for the quality of services, broadband speeds, and the availability of the underlying infrastructure (fiber-optics, spectrum management, Internet exchange points, data centres and others);

(c) To develop benchmarks which illustrate the degree of availability of:

- (i) Policies;
- (ii) Laws and regulations;
- (iii) Strategic plans and their quality;
- (iv) The availability of investment in human capital;
- (v) The latest developments in ICT related infrastructure and services.

#### **IV. ORGANIZATION OF WORK**

##### **A. VENUE AND DATE**

21. The EGM was organized by the ICT division at ESCWA and was held during 3-4 May, 2011 at the UN House, Riad El Solh Square, Beirut, Lebanon.

22. It included a number of general presentations and case studies from selected ESCWA member countries on the above topics as well as discussion sessions focused on Standardizing Information Society Measurement and Benchmarking in the ESCWA region. A set of recommendations concluded the meeting.

##### **B. OPENING**

23. Mr. Yousef Nusseir, Chief of the ICT division of ESCWA, gave a welcoming statement to the meeting in his speech “ICT: A New Challenge for Growth”. After welcoming participants to ESCWA, Mr. Youssef Nusseir indicated that the meeting was the first held by the ICT division in what would be a series of activities dedicated to measuring the information society. The division has dedicated a theme within its 2010-2011 work programme for this purpose, owing to its importance for the region and the positive impact it can have on policies and development strategies aiming to meet the needs and aspirations of citizens.

24. Mr. Nusseir also noted that measuring and evaluating the information society should not focus solely on data pertaining to ICT penetration. The information society is a multifaceted concept and its assessment must go beyond measuring ICT diffusion and should investigate the socio-economic context within which these developments are taking place.

25. He concluded, that in the light of the challenges posed by measuring a multidimensional information society, international standardization efforts become a complex task, especially when taking into account the specificities of different countries and regions of the world. Hence the meeting convened by ESCWA provides a crucial link, as it brings countries in the region together with international organizations in charge of measurement and standardization.

### C. PARTICIPANTS

26. The meeting was attended by 12 participants from 7 ESCWA member countries, including government officials responsible for policy making and the implementation of benchmarking models, together with national and regional experts knowledgeable of the status, problems and prospects of measurement, benchmarking and analysis. The list of participants is contained in Annex I of this report.

### D. AGENDA

27. Presentations and discussions were made over six sessions, and the meeting agenda is summarized and set forth below:

- (a) Opening;
- (b) Challenges of Measuring the Information Society, including system issues relating to measurement structures and the appropriate balance of international benchmarking, regional analysis and national key performance indicators;
- (c) Country Specific Cases, session A, focusing on the experience of Egypt in applying analytics at the national and international level;
- (d) Country Specific Cases, session B, including the lessons learned from the United Arab Emirates, Lebanon and Jordan;
- (e) Measurement as an Enabler for Policy Making, analysing the theory and practice of evidence-based policy making in the region and the methodologies for gaining insight in policy-making through benchmarking;
- (f) Benchmarking the Information Society, which evaluated the complexities of applying measurement techniques to determining the impact of policymaking and optimizing governmental efforts;
- (g) Dedicated panel discussions on the recommendations of the meeting and supplementation for the relevant study;
- (h) Concluding remarks and closing.

### E. DOCUMENTS

28. The documents submitted to the meeting are contained in Annex II of this report and available on the ESCWA Web site.<sup>1</sup>

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<sup>1</sup> <http://www.escwa.un.org/information/meetingdetails.asp?referenceNum=1546E>.



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## Annex II

### **LIST OF DOCUMENTS**

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Title	
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1.	Background Documents:
	<ul style="list-style-type: none"><li>- Agenda</li><li>- Information Note</li></ul>
2.	Key-note Speech: ICT - a new Challenge for Growth
3.	Presentations:
	<ul style="list-style-type: none"><li>- Regional Plan of Action for Building the Information Society: ICT Sector Development</li><li>- ICT as a Contributor to National Economies</li><li>- The Arab ICT Sector &amp; the International Crisis: Risks and Opportunities (in Arabic)</li><li>- Financing of ICT Ventures and Repercussions of the Global Financial Crisis in the Region</li><li>- TRA's Telecommunications Liberalization Roadmap</li><li>- PPP Initiatives for the Development of the ICT Sector in Lebanon</li><li>- Opportunities for Digital Arabic Content Industry (in Arabic)</li><li>- Quantifying the ICT Sector and Contribution to GDP in Egypt (in Arabic)</li><li>- Economic Indicators for the ICT Sector in Palestine and an Industry Based Strategies for Growth</li><li>- Building the Knowledge Economy in Syria - the Contribution of the ICT Sector</li><li>- Egypt's ICT Strategy 2007 - 2010</li><li>- Prospects for the Development of the ICT Sector in Syria in View of the International Economic Crisis (in Arabic)</li><li>- Sudan National Knowledge-based Information Society Strategy (in Arabic)</li><li>- ICT start-ups in Lebanon: case study Berytech fund</li><li>- Towards a clear R&amp;D Strategy for ICT</li><li>- Preparing ICT Graduates for the Workplace</li><li>- Yemeni Public Universities: Working Towards the Development of the National ICT Sector</li></ul>

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