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Economic and Social Commission for Western Asia (ESCWA)

REPORT

FIFTH MEETING OF THE ESCWA CONSULTATIVE COMMITTEE ON SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT AND TECHNOLOGICAL INNOVATION
BEIRUT, 29-30 MARCH 2010

Summary

The fifth meeting of the ESCWA Consultative Committee on Scientific and Technological Development and Technological Innovation (ESTIC) was held on 29 and 30 March 2010 at United Nations House in Beirut.

The fifth ESTIC meeting aimed at the following: (a) reviewing the achievements of the Information and Communications Technology Division (ICTD) of ESCWA during the biennium 2008-2009, addressing its programme of work for 2010-2011 and proposing a strategic framework for the biennium 2012-2013; (b) following up on resolution 284 of the twenty-fifth ESCWA ministerial session in 2008 related to the establishment of the ESCWA Regional Technology Centre; and (c) reviewing the technological impact of ICT and other technologies on climate change.

The meeting resulted in recommendations relating to the implementation of the ICTD work programme and a draft resolution related to the ESCWA Regional Technology Centre to be submitted to the twenty-sixth ESCWA session for adoption. The ICTD work programme for 2010-2011 and the proposed strategic framework for the biennium 2012-2013 were reviewed without changes to their content.

Participants included 25 experts in science, technology and innovation, including ICT, from academic institutions and research centres, as well as governmental and non-governmental organizations and enterprises. Participants were from Egypt, Iraq, Jordan, Lebanon, Oman, Palestine, Saudi Arabia, the Sudan, the Syrian Arab Republic and Tunisia.

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Introduction

1.   The fifth meeting of the ESCWA Consultative Committee on Scientific and Technological Development and Technological Innovation (ESTIC) was held on 29 and 30 March 2010 at United Nations House in Beirut.

2.   ESTIC was established in 2001 pursuant to ESCWA resolution 225 of 11 May 2001, and ratified by the Economic and Social Council in its substantive session of 2001.[1] Based on its mandate, ESTIC comprises experts in science, technology and innovation (STI), and has been meeting at least once every two years, starting in 2002, with the following principal duties: (a) to advise member countries on the acquisition of modern technologies; (b) to propose appropriate means for strengthening regional cooperation for the transfer, adaptation and mastering of these technologies; (c) to discuss the priorities related to the work programme of ESCWA in ICT and in the development of STI capabilities; and (d) to follow up on international and regional resolutions related to STI and their implementation in member countries, especially those related to the World Summit on the Information Society (WSIS).

3.   The Information and Communications Technology Division (ICTD) of ESCWA provides substantive servicing to the Committee, in line with the Secretary-General's Bulletin of 27 December 2002 (ST/SGB/2002/16). Since the establishment of the Committee in 2001, four meetings have been held, namely, in 2002, 2004, 2006 and 2008. The first meeting (Beirut, 18 July 2002), which was held in conjunction with the Forum on Technology, Employment and Poverty Alleviation in the Arab Countries (Beirut, 16-18 July 2002), focused on the uses of new technologies, including ICT, for poverty reduction and employment creation. The second meeting (Damascus, 24 November 2004), which was held following the Second Regional Preparatory Conference for WSIS – Partnership for Building the Arab Information Society (Damascus, 22-23 November 2004), focused on building the information society in the Arab region. The third meeting (Beirut, 6-7 March 2006) addressed the subject of the ESCWA Technology Centre (ETC) for development pursuant to ESCWA resolution 254 (XXIII) of 12 May 2005, and the meeting outcome submitted a follow-up report on the establishment of ETC to the twenty-fourth ministerial session (Beirut, 8-11 May 2006), which subsequently approved the establishment through resolution 274 (XXIV).

4.   The fourth ESTIC meeting (Manama, 1-2 April 2008) addressed the achievements of ICTD and the work programme for 2008-2009; and assessed the progress made in the implementation of ESCWA resolutions 273 and 274 (XXIV) of 11 May 2006 regarding the follow-up to the development of the information society in Western Asia and the establishment of ETC.[2] The meeting proposed a resolution to the twenty-fifth ESCWA ministerial session related to the finalization of the hosting for ETC.[3]

5.   The fifth ESTIC meeting aimed at the following: (a) reviewing the achievements of ICTD during the biennium 2008-2009, addressing its programme of work for 2010-2011 and proposing a strategic framework for the biennium 2012-2013; (b) following up on resolution 284 of the twenty-fifth ESCWA ministerial session in 2008 related to the establishment of the ESCWA Regional Technology Centre; and (c) reviewing the technological impact of ICT and other technologies on climate change. The outcome of the meeting, including the proposed strategic framework for the biennium 2012-2013 and a draft resolution related to the ESCWA Regional Technology Centre were submitted to the twenty-sixth ESCWA ministerial session for adoption.

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[1] ESCWA, "Report of the twenty-first session" (E/2001/41-E/ESCWA/21/10), which is available at: http://css.escwa.org.lb/ SessionRep/21st.pdf.

[2] ESCWA, "Report of the twenty-fourth session" (E/2006/41 E/ESCWA/24/10), which is available at: http://css.escwa.org.lb/SessionRep/24th.pdf.

[3] ESCWA, "Report of the twenty-fifth session" (E/2008/41 E/ESCWA/25/10), which is available at: http://css.escwa.org.lb/ SessionRep/25th.pdf.

6.   Participants included 25 experts in STI, including ICT, from academic institutions and research centres, as well as governmental and non-governmental organizations and enterprises engaged in innovative activities. Participants were from Egypt, Iraq, Jordan, Lebanon, Oman, Palestine, Saudi Arabia, the Sudan, the Syrian Arab Republic and Tunisia.

I. RECOMMENDATIONS

7.   Based on the meeting discussions, the following recommendations were proposed relating to the work programme of ICTD and strategic framework 2012-2013, and the establishment of the ESCWA Regional Technology Centre:

(a)   *ICTD work programme and strategic framework 2012-2013*

(a) Participating in technical assistance activities, studying and strengthening networking opportunities between Arab funding organizations and scientific research councils in various fields of sciences, including ICTs;

(b) Conducting a study to identify regional needs and priorities for research and innovation, as an activity that complements the establishment of STI observatories;

(c) Emphasizing the role that ESCWA can play in building regional capacity in terms of starting and hosting incubators for the creation of new ICT companies;

(d) Holding awareness-raising workshops on the means for creating partnerships and clusters for software companies that could enable the development of large projects;

(e) Advocating and promoting quality education, starting from the school base to the higher education levels in order to enable innovation among youth in a way that fuels their intellectual capabilities throughout their university education;

(f) Promoting investments for job creation at the macro level, and setting national policies and mechanisms aimed at addressing the means for broadening the experience across various sectors of the economy;

(g) Supporting the application of proper scientific methods in production systems within the process of promoting science and technology parks;

(h) Addressing the challenges of climate change within each of the production processes and considering technology transfer to support mitigation and adaptation measures.

(b)   *ESCWA Regional Technology Centre*

(a) Reaffirming the importance of the establishment of the ESCWA Regional Technology Centre and the continued follow-up efforts with the host country aimed at launching operations to serve member countries;

(b) Enabling in-kind contributions of member countries within the financing modalities of the Centre, especially considering the limited budget and possibility of contribution through the work of experts and partnerships for the implementation of activities;

(c) Building professional communication channels covering regional focus areas for development, towards meeting the needs of member countries, and through outsourcing technical services to specialized organizations within the framework of established agreements;

(d) Studying the structural and operational experiences of similar technology centres, especially the funding support system or models that sustain their operations;

(e) Connecting with global and regional initiatives to support country-based technology transfer by supporting needs assessment, facilitating information exchange and providing capacity-building services.

II. PRESENTATIONS AND DISCUSSIONS

8.   The meeting presentations were contained under the following principal themes: (a) progress from the previous meeting; (b) ICTD work programme; (c) science and technology for development; (d) ESCWA Regional Technology Centre; (e) climate change and technology; (f) launching the Regional Profile of the Information Society; and (g) proposed plans and resolutions. The presentations and deliberations are summarized below.

A. PROGRESS MADE SINCE THE FOURTH ESTIC MEETING

9.   Mr. Yousef Nusseir, Director of ICTD, introduced the work of the Division by highlighting the main focus areas, the international trends in ICT and the main activities through which the ICTD work programme seeks to address and respond to the region's needs and priorities.

10.   Mr. Mansour Farah, Chief of ICT Policies Section within ICTD, reviewed the progress made in the implementation of the recommendations of the fourth ESTIC meeting and concluded that almost all of these recommendations had been implemented. These recommendations were in three parts, namely: (a) the ESCWA Regional Technology Centre (ETC); (b) the ICTD work programme for 2008-2009 and strategic framework for 2010-2011; and (c) the follow-up to the outcome of WSIS. While the recommendations pertaining to ETC were reviewed, details of the implementation were left to the session that was allocated for the Centre and aimed specifically at looking into the methodology and selection process for the purpose of identifying the country that will host ETC. Programme activities relating to the implementation of each of the recommendations were elaborated upon, with examples including capacity-building activities for women, promoting free and open source software, establishing incubators for digital Arabic content projects, and undertaking studies, conferences and follow-up reports.

B. ICTD WORK PROGRAMME

11.   Mr. Mansour Farah delivered the first presentation of this session on the ICTD work programme results for 2008-2009, beginning with the objective of the programme, namely, to reduce the digital divide in the region and build an inclusive information society that is development-oriented and that focuses on people. The expected accomplishments of the 2008-2009 work programme were to achieve "increased implementation of the Regional Plan of Action for Building the Information Society, particularly in relation to the ICT sector" and "enhanced capacity of member countries to provide e-services in Arabic targeting socio-economic development".[4] In order to measure the progress of work towards the target objective, the programme relies on indicators of achievement that monitor the number of member countries that have implemented plans of action and policies related to the ICT sector, or that are measuring the core ICT indicators. Indicators also include those related to activities directly linked with ESCWA technical assistance and field project activities.

12.   In 2008-2009, the main areas of work towards achieving the ICTD programme objectives included the following: (a) following up and adapting the implementation of the outcome of WSIS, especially the Tunis Agenda for the Information Society, in order to better serve the Arab region; (b) conducting analytical studies, convening meetings, implementing leading projects and extending advisory and capacity building services; (c) evaluating and updating the Regional Plan of Action for Building the Information Society;

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[4] United Nations General Assembly, "Proposed programme budget for the biennium 2008-2009" (A/62/6 (Sect. 21)).

(d) focusing on the use of ICT in such thematic applications as e-government and digital Arabic content; (e) strengthening regional cooperation and partnerships towards building an inclusive information society that focuses on people and development; and (f) contributing to the pooling of financial resources towards fostering the use of ICTs for socio-economic development.

13.   The speaker profiled the programme activities that are divided into standard categories and supported by a number of projects, totalling some 42 activities. Over the years, while the titles of activities and projects change in line with changes in priorities and objectives, the categories remain unchanged for the purpose of standard programme management. The programme categories include parliamentary documents, experts meetings, recurrent publications, non-recurrent publications, technical material, technical assistance, interagency documents, training workshops and field projects.

14.   The second presentation in the session was delivered by Ms. Nibal Idlebi, Chief of ICT Applications Section within ICTD, on the work programme for 2010-2011. The objective of the 2010-2011 work programme is similar to that of the previous biennium, with an emphasis on the outcome of WSIS and on internationally agreed development goals and objectives. The expected accomplishments of the current work programme are to achieve "perceptible improvements in the region's ICT production and service sectors, substantiated by the implementation of ICT strategies and action plans, with special focus on the provision of e-services in Arabic"; and "enhanced capacity of member countries to measure and benchmark their progress towards the realization of the information society, and realign policies and strategies accordingly, giving due consideration to gender dimensions".[5]

15.   Indicators of progress relate mainly to the number of member countries that receive ESCWA assistance and formulate and implement ICT strategies and action plans for developing the ICT sector; that initiate partnerships and activities; and that collect and produce reliable data on the information society, and analyse these data for reformulating existing policies, strategies and action plans. Several field projects were listed to be under implementation in the 2010-2011 biennium, namely: (a) regional harmonization of cyber legislation to promote the knowledge society in the Arab world, 2010-2011; (b) digital Arabic content for the socio-economic development of local communities, 2010-2011; (c) promotion of digital Arabic content industry through incubation – phase II, 2010-2011; (d) knowledge networks through ICT access points for disadvantaged communities, 2010; (e) development of an Arabic domain names system, 2010; and (f) support to the ESCWA Regional Technology Centre, 2010-2011.

C. SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

16.   In this session, Mr. Mansour Farah gave a presentation entitled: "science, technology and innovation (STI) observatories: importance and regional efforts". Starting with the main objectives of STI observatories, he briefed participants on the main tasks, design structures and conditions for their establishment. In the absence of a specific blueprint for establishing STI observatories, the presentation set forth a list of questions destined to help in creating national STI observatories that support evidence-based policymaking.

17.   The speaker reviewed the regional efforts and backgrounds in establishing STI observatories, all of which were based on member country requests. The first of these requests came from Lebanon in 2006, followed by the Syrian Arab Republic in 2008 and Jordan in 2009. Technical assistance on establishing an STI observatory in Jordan is underway, and three national workshops have already been held in Jordan, Lebanon and the Syrian Arab Republic, while a national workshop is planned for Egypt.

D. ESCWA REGIONAL TECHNOLOGY CENTRE (ETC)

18.   In this session, Mr. Fouad Mrad, Senior Information Technology Officer within ICTD, profiled the status of ETC, whose establishment was endorsed by ESCWA resolutions 254 (XXIII) of 12 May 2005 and

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[5]   United Nations General Assembly, "Proposed programme budget for the biennium 2010-2011" (A/64/6 (Sect. 21)).

274 (XXIV) of 11 May 2006. A pre-feasibility study and a regional needs assessments and implementation mechanisms study for the Centre were consecutively conducted in 2006 and 2007.

19.   In May 2008, ESCWA resolution 284 (XXV) of 29 May 2008 requested the secretariat to finalize the hosting arrangements of the Centre. Five countries expressed interest in hosting ETC, namely: Jordan, Oman, Qatar, Saudi Arabia and Syrian Arab Republic. A delegation visited these countries and an assessment was undertaken based on a questionnaire that was processed by an ESCWA internal committee. In August 2009, the evaluation committee recommended the selection of Jordan as the host country for the ESCWA Regional Technology Centre, and the Executive Secretary of ESCWA approved that recommendation. In November 2009, letters were submitted to Jordan as well as other member countries to inform them about the evaluation committee recommendation and decision of the Executive Secretary.

20.   A draft host country agreement and a draft statute for ETC were prepared to formalize the hosting arrangements and finalize the establishment of the Centre. The host country agreement and statute documents were reviewed by the United Nations General Legal Division and the Government of Jordan. All comments were integrated and the following steps are set to be taken: (a) the Statute of the ESCWA Technology Centre (ETC) requires approval at the twenty-sixth ESCWA ministerial session (Beirut, 17-20 May 2010); and (b) the Host Country Agreement for the Centre requires signature by the Executive Secretary of ESCWA and the Government of Jordan.

E. CLIMATE CHANGE AND TECHNOLOGY

21.   Ms. Anhar Hegazi, Director of the Sustainable Development and Productivity Division (SDPD) of ESCWA gave the first presentation of this session on climate change challenges for development in the Arab region. The presentation included a summary of the challenges that hinder the achievement of sustainable development in the Arab region and the expected impacts of climate change stemming from the increase in global temperatures and the predicted rise in seawater levels, including socio-economic impacts. The presentation incorporated climate change initiatives and the Arab position towards international conventions and negotiation processes in relation to both adaptation and mitigation, including the development of national policies and mainstreaming climate change issues, the Arab Declaration on Climate Change in 2007, the Arab Ministerial Statement for the United Nations Climate Change Fifteenth Conference of the Parties (COP-15) in Copenhagen in 2009, and the preparation of the Arab Framework Action Plan on Climate Change.

22.   ESCWA contributed to this Action Plan in coordination with the League of Arab States and other regional and international partners by preparing substantive reports on the energy and transport sectors. This presentation discussed the COP-15 issues related to development and transfer of technology on climate change, with a focus on the position of developing countries and their needs aimed at building capacity in this field and at developing a mechanism to expedite the process of technology development and transfer, mitigation and adaptation. Moreover, the discussions underscored commitments of developed countries as well as those of developing countries to reduce the global emissions in line with the principle of common, albeit differentiated responsibilities; and the need to report on the actions required to achieve the set targets.

23.   The second presentation of the session was delivered by Ms. Carol Chouchani Cherfane, Chief of Water Resources Section within SDPD, and entitled "Overview of climate change initiatives and related technology development and transfer measures". The presentation covered the following: (a) United Nations coordination on climate change at the global level and its focus areas; (b) a regional coordination mechanism on climate change, highlighting the initiatives sponsored by ESCWA, such as the 2009 adopted project for the preparation of the Regional Vulnerability Assessment of the Impact of Climate Change on Water Resources; and (c) technology transfer under the United Nations Framework Convention for Climate Change (UNFCCC) and the COP-15 draft decision on "enhanced action on technology development and transfer". The draft decision calls for cooperative action on technology; promoting the establishment of technology innovation centres and partnerships, including regional and international technology centres and networks;

and for the support of activities that enhance technological capabilities, observation and management information systems, and strengthening national STI systems and plans for mitigation and adaptation.

24.   Mr. Walid Deghaili, Chief of Energy Section within SDPD, gave the third presentation on technologies for climate change mitigation related to the energy sector, which provided an overview of the impact of greenhouse gas emissions on climate change, and of the different climate change mitigation measures. These mitigation measures include the following: (a) energy efficiency and cleaner fuels; (b) renewable and new energies; and (c) carbon capture and storage techniques. The speaker highlighted various renewable energy technologies, such as solar/photovoltaic, concentrated solar power systems and wind energy technologies, in addition to increasing competitiveness of those technologies.

25.   The presentation reviewed the available measures of improving energy efficiency in such different sectors as building, transport, electricity and industry. The different stages of carbon capture transport and storage technologies were explained, in addition to a summary of the best energy technologies adopted worldwide. Innovative emission reduction projects were listed, and a forecast concerning the future of energy technologies was presented, which stressed the need to pursue research and development on prevailing energy technologies. The barriers facing the adoption of new energy technologies were highlighted, which can be largely divided into technical, economic, financial, societal and institutional barriers. The speaker recommended increasing public awareness and building capacities on energy efficiency and renewable energy technologies, and adopting legislations and policies aimed at improving energy efficiency and adopting renewable energy technologies. Recommendations also tackled the importance of technology transfer and financing.

26.   The fourth presentation of the session was delivered by Mr. Tarek Sadek, First Economic Affairs Officer within SDPD, and entitled "Overview of technologies for climate change adaptation related to the water resources sector". The presentation defined the terminologies of adaptation to climate change and adaptation technologies and summarized the possible impacts of climate change on water resources. According to UNFCCC, adaptation technologies are "the application of technology in order to reduce the vulnerability, or enhance the resilience, of a natural or human system to the impacts of climate change". The speaker presented some applications of modern technologies in climate impacts assessments, including climate change simulation and modelling, vulnerability assessment of climate change on water resources and related sectors, use of Geographic Information Systems and remote sensing, and data and information management systems. Examples of climate change adaptation technologies for water resources were categorized in the context of water resource management to adaptation measures at both the supply and demand sides of water.

27.   The presentation concluded that there was a need to strengthen regional and international cooperation on adaptation technologies in order to improve access to best available information on the likely impacts of climate change, and to enhance access to financial resources and adequate funding mechanisms for developing countries to improve national and local capacities on adaptation technologies. It is essential to enhance research and development and access to technologies for adaptation to climate change, taking into account the needs and specificities of the ESCWA region.

28.   Ms. Nibal Idlebi and Mr. Mathew Perkins, respectively, Chief of ICT Applications Section and Information Technology Officer within ICTD, delivered the fifth presentation in this session on ICT and climate change. The presentation considered the effective use of technological tools, including manufacturing techniques and teleworking, economies that can increase their productivity and reduce pollution. The use of computers in making business more effective has helped to reduce energy requirements for production, and more effective greening technologies for handling pollution. The widespread use of technology in the most economically developed countries has created a side effect of increasing waste. Through efficiency, recycling and refurbishment programmes, the environmental impact of these devices can be reduced. This in turn can reduce the carbon footprint and the total number of new devices needed, thereby reducing the total amount of generated waste.

29.   The global economy incorporates significant differences between developed and developing countries. In developed countries, manufacturing processes generally become more efficient over time as techniques are refined and developed. When a developing country has low labour and energy costs, combined with limited pollution control and shipping costs, manufacturing is economically attractive if potentially damaging to the environment. The improvement of business processes can facilitate an increase in manufacturing efficiency, which lies behind the ability of industries in developed countries to have less environmental impact in producing the same product.

30.   ICTs can play a pivotal role in limiting the environmental impact of companies by improving business processes, including telecommuting and reducing shipping costs and waste that stems from perishable products. Within that context, businesses must carefully weigh the costs and benefits of telecommuting policies. By carefully determining those technologies that can deliver value and reduce negative environmental impacts, business leaders and policymakers can determine which technological tools can be used to deliver on green ICT goals.

F. LAUNCHING THE REGIONAL PROFILE OF THE INFORMATION SOCIETY

31.   During this meeting of ESTIC, Mr. Yousef Nusseir, Director of ICTD, launched the publication, entitled *Regional Profile of the Information Society in Western Asia – 2009*.[6] After acknowledging the collaborative efforts of member countries with ICTD in the preparation of that report, he highlighted its salient points and optimistic findings, and the practical recommendations that could support the regional efforts, including the Regional Plan of Action for Building the Information Society in Western Asia. He mentioned that the biennial profiling exercise for the information society, which had resulted in the production of that report, represented a follow-up activity to the outcome of WSIS and was the fourth such report in the series, the first of which was published in 2003.

32.   The report profiled the status in the ESCWA region and progress made towards building the information society, and revealed better performance over the past four years, with significant steps taken towards bridging the digital divide. While significant disparities exist among Arab countries in the ICT sector and the digital gap continues to separate high- and low-income countries in broadband Internet access, there is a wider use of ICT coupled with lowering of costs and more focus on building the ICT sector. Reliance on ICT applications and e-services is increasing and governments are playing bigger role with other concerned parties in developing the information society. Investments are allocated to connect between regional and international networks in order to build capacities and allow for the presence of digital Arabic content. Moreover, the report revealed an increase in literacy rates in most Arab countries, noting, however, that almost half of all Arab women still suffered from illiteracy. The report called upon Arab countries to focus on learning, pursue the regulation of the communications sector and allow for more competitiveness that could lead to a wider reach of services.

33.   The presentation on the Regional Profile was delivered by Mr. Rami Zaatari, First Information Technology Officer, ICTD, and covered various aspects, namely, ICT infrastructure, ICT capacity-building, building confidence and security in the use of ICTs, enabling environment, ICT applications, linguistic diversity and local content, and building the ICT sector. The existing disparity in the region is in most ICT services. While fixed-line penetration rates were slightly declining, Internet and mobile phone penetration rates grew rapidly in most ESCWA member countries. Fixed-line penetration rates reached 11 per cent at the end of 2008, while mobile penetration rates grew to 62 per cent and exceeded 140 per cent in the Gulf subregion. Despite an impressive 77 per cent growth in Internet penetration from 2006 to 2008, the ESCWA region's penetration rate remained modest at 17 per cent. Meanwhile, the gap widened between the most developed and least developed countries in terms of broadband adoption. The region's broadband penetration rate remained at 1.6 per cent, which was much lower than the world average of 6.1 per cent.

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[6] ESCWA, *Regional Profile of the Information Society in Western Asia – 2009* (E/ESCWA/ICTD/2009/12), which is available at: http://www.escwa.un.org/information/publications/edit/upload/ictd-09-12.pdf.

34.   The importance of ICTs throughout the region has grown. Telecommunication penetration rates have drastically increased, costs are lower, the adoption of broadband technologies is on the rise and more attention is being given to the ICT sector. Consequently, the region has witnessed a growing adoption and use of ICT applications and e-services, and a greater participation of governments and stakeholders in building the information society. In addition, significant investments are underway to increase integration with regional and global communication networks. These efforts are set to facilitate tackling issues related to access to information and knowledge, capacity-building, regional integration and the increase of digital Arabic content. While bright spots have been observed in realizing the information society in the region, the presentation clearly indicated that GCC countries had made greater strides than other ESCWA member countries in that regard. Nevertheless, all ESCWA member countries, including the most advanced ones, have still to exert considerable efforts before reaching the levels attained by developed countries.

G. PROPOSED PLAN AND RESOLUTION

35.   Mr. Yousef Nusseir, Director of ICTD, presented the proposed strategic framework for the biennium 2012-2013, starting with the objective and covering the expected accomplishments and indicators of achievement, the focus areas and work strategy, and the list of the thematic activities for the two-year period. The objective of the proposed plan is almost the same as that of the previous biennium, with the addition of the knowledge-based economy as a target of the programme. The expected accomplishments proposed for the 2012-2013 biennium are a continuation of those of the previous biennium, with a focus on developing local capacities, the enabling environment, content, e-services, ICT sector, and research and development; and on analysing the impact of ICT initiatives on socio-economic development. The proposed strategic framework requires approval at the twenty-sixth ESCWA ministerial session (Beirut, 17-20 May 2010).

36.   The draft resolution regarding the establishment of ETC was presented by Mr. Fouad Mrad, including the reference resolutions and declarations. The approved resolution represents the official United Nations decision through which the Statute of the Centre would be adopted. The draft resolution requests the ESCWA secretariat to ratify the hosting country agreement with the Government of Jordan; establish the first founding board of governors with member countries; establish the administrative regulations based on the adopted Statute and United Nations regulations; and follow-up with the Government of Jordan on the implementation of the Centre and hosting agreement, including funding, staffing, facilities and equipments, and launching.

H. DISCUSSIONS

37.   Summarized below are the discussions during the meeting, with suggestions by participants aimed at shedding light on areas that could require special attention in the future work of the Committee.

38.   During the meeting, participants expressed satisfaction with regard to the establishment of the ESCWA Technology Centre and perceived its operation as a very promising development in terms of sustainability. Among the suggestions made was the eventual membership of the board of directors of the Centre, which would be nominated by member countries. The Centre could involve the education sector and implement cooperative initiatives and projects in partnerships with stakeholders from the region.

39.   In terms of financing the operations of the Centre, participants considered in-kind contributions of member countries within the framework of research councils as being more viable than cash budget allocations. However, the operating costs would still be required and the budget would need to be allocated. Financing from subscriptions to its services and from projects could ensure coverage of its operations. Once established, the board of directors of the Centre could formulate strategies and direct the work according to the region's needs and priorities.

40.   The concept of regional integration in the work of the Centre was set to impart a regional and holistic dimension through its activities. This would be apparent in such focus areas as digital Arabic content,

cyberlegislation, knowledge networks, domain names and telecommunication centres. The experience of similar technology centres established in Africa or Asia could be sought in order to replicate and learn lessons and experiences that had enhanced regional interactions, integration and collaboration, thereby benefitting the Centre and the region.

41.   Addressing the incubation of project ideas for the creation of new ICT companies, it was considered that the lagging economic situation would require the capabilities that enable the incubation of large projects. This would require building regional capacity among incubators of ICT companies and entrepreneurs aimed at starting partnerships and clusters and at managing technical work partnerships.

42.   On the establishment of STI observatories and despite the recommendation that STI observatories needed to be independent, participants raised concerns that the host institutions for these national STI observatories were public bodies. However, it was argued that such independence, particularly in terms of the work of these observatories, could be guaranteed through government support.

43.   On the Arab region stand in relation to negotiations on climate change, participants raised the need to work either on adaptation or mitigation, both of which require fostering the use of technology and, subsequently, entailing the allocation of financial resources. In order to adapt to or mitigate climate change impacts, collective efforts are needed as well as an assessment of needs aimed at reaching a common stand and at submitting a sound and inclusive programme to the forthcoming climate change conference in Mexico. Questions were raised regarding whether the priority sector areas could be identified for technology transfer, promoting scientific research on water desalination and renewable energy. The areas of water use management and renewable energy were considered to require significant public awareness campaigns for development.

44.   The transfer of technology was discussed in terms of the freedom of transfer versus the use of appropriate technologies and their availability to the public. The arguments differed according to the type of technology. The situation whereby even illiterate people can use a computer and access the Internet is encouraging given that this helps to spread ICTs, promotes digital literacy and, in some cases, compensates for illiteracy. The dissemination of ICTs for the benefit of the public is essential and requires a change in the cultural perceptions of people through education, training and awareness.

III. ORGANIZATION OF WORK

A. VENUE AND DATE

45.   The fifth meeting of the ESCWA Consultative Committee on Scientific and Technological Development and Technological Innovation (ESTIC) was organized by the ICTD and held on 29 and 30 March 2010 at United Nations House in Beirut.

B. OPENING

46.   Mr. Yousef Nusseir, Director of ICTD, made the inaugural statement on behalf of Mr. Bader Omar AlDafa, Under-Secretary-General of the United Nations and Executive Secretary of ESCWA. After welcoming participants, he considered the meeting an opportunity to assess the progress achieved since the previous committee meeting, and to direct future strategies towards maximizing benefits from fostering the use of ICTs in the development processes. He commended the allocation of a session to address the role of technologies in climate change, which is a priority area in the strategic framework for the work of ESCWA that is based on the region's priorities.

47.   The speech referred to 13 priorities that were selected by the Federation of Arab Scientific Research Councils, and elaborated on the need to use technologies for the benefit and support of all sectors of the economy and the effectiveness of development efforts, towards reducing the development divide between the

Arab region and other regions in the world. Reference was made to the indicators set forth in the "Draft Plan of Action on Science and Technology" (in Arabic), specifically to the indicators that 50 per cent of physicians, 23 per cent of engineers and 15 per cent of scientists migrated abroad ever year in search of job opportunities.[7]

48.   Given the limited resources allocated to scientific research in the region, the speaker described the long road ahead before STI would be able to contribute to developing the economy, thereby enhancing quality of life. He concluded that directing efforts and development initiatives to human capital development could make the strong foundation for investments that builds their shield in the face of crises.

49.   Mr. Nusseir reaffirmed the commitment of the United Nations aimed at facilitating the dissemination of STIs as a key element for development, and that ESCWA's mandate of harnessing new technologies for the development of the region had continued since the establishment of the ICT programme in 2002. ICTs are effective tools for enhancing and enabling access to the technologies needed by the science and biological sectors, and are noticeably the driving engine of the economy and knowledge-based society. Industries and services are established around ICTs and they in turn enable other sectors of production and services to be more efficient and competitive. ICTs therefore played a crucial role in meeting one of the region's most pressing needs, namely, creating jobs for the growing young population. Within that context, the future ICTD work programme shows integration between the ICT sector on the one hand and STI on the other.

50.   The Director of ICTD briefly mentioned the aims of the Committee and outlined the meeting sessions, namely, the achievements of ICTD during the biennium 2008-2009, ICTD work programme for 2010-2011, and the proposed strategic framework for 2012-2013.

C. PARTICIPANTS

51.   The meeting was attended by 25 experts in science, technology and innovation (STI), including ICT, from academic institutions and research centres, as well as governmental and non-governmental organizations and enterprises engaged in innovative activities. Participants were from Egypt, Iraq, Jordan, Lebanon, Oman, Palestine, Saudi Arabia, the Sudan, the Syrian Arab Republic and Tunisia. Two of the experts taking part in the fifth meeting of the Consultative Committee also attended the first meeting of the Regional Arab Network of the United Nations Global Alliance for ICT and Development (GAID) that took place in Beirut, 31 March 2010. The list of participants is contained in annex I of this report.

D. DOCUMENTS

52.   The documents submitted to the meeting are listed in annex II of this report and are available online.[8]

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[7] The report, entitled "Draft Plan of Action on Science and Technology" (in Arabic) can be accessed through the UNESCO portal and is available at: http://www.unesco.org/science/psd/focus/focus09/astpa.pdf.

[8] See http://www.escwa.un.org/information/meetingdetails.asp?referenceNum=1224E.

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LIST OF DOCUMENTS

Title

(a) Background documents

- Information Note
- Agenda

(b) Presentations

- Progress made in the implementation of the recommendations of the previous ESTIC4 meeting (in Arabic)

- ICTD Work Programme Results for 2008-2009 (in Arabic)

- Work Programme for 2010-2011 (in Arabic)

- Science, Technology and Innovation Observatories (STIOs): Importance and Regional Efforts

- ESCWA Technology Centre for Development

- Climate Change and the Challenges for Development in the Arab Region – General Perspective (in Arabic)

- Overview of Climate Change Initiatives and Related Technology Development and Transfer Measures

- Technologies for climate change mitigation related to the energy sector (in Arabic)

- Overview of Technologies for Climate Change Adaptation related to the Water Resources Sector

- ICT and climate change

- Launching the Regional Profile of Information Society in Western Asia – 2009 (in Arabic)

- Proposed Strategic Framework for the Biennium 2012-2013 (in Arabic)

- XXVI Draft Resolution: Establishing the ESCWA Technology Centre