# UNITED NATIONS

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**ECONOMIC AND SOCIAL COUNCIL**

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

**DRAFT 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 Consultative Committee on Scientific and Technological Development and Technological Innovation (ESTIC) was held during 29-30 March 2010, at the UN-House, Beirut, Lebanon.

The fifth ESTIC meeting aimed to (a) Review the achievements of the Information and Communications Technology (ICT) Division of ESCWA during the biennium 2008-2009, address its programme of work for 2010-2011, and propose strategic framework for the biennium 2012-2013; (b) Follow-up on Resolution 284 of the 25th ESCWA ministerial session in 2008, related to the establishment of the ESCWA Regional Technology Centre; and (c) overview 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 26th ESCWA session for adoption. The ICT Division 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 (STI), 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, Palestine, Saudi Arabia, Sudan, Oman, Syrian Arab Republic and Tunisia.

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**Introduction**

1.      The fifth meeting of the Consultative Committee on Scientific and Technological Development and Technological Innovation (ESTIC) was held on 29 and 30 March 2010, at the UN-House, Beirut, Lebanon.

2.      The Consultative Committee on Scientific and Technological Development and Technological Innovation was established in 2001, pursuant to Resolution 225 adopted by the Economic and Social Commission for Western Asia (ESCWA) during its 21st ministerial session[1] (10-11 May 2001), and ratified by the United Nations Economic and Social Council in its substantive session of 2001.  Based on its mandate, the Committee, hereby referred to as ESTIC, is formed of distinguished experts in science, technology and innovation (STI), and has been meeting at least once every two years, starting in 2002, which has the main duties of (a) Advising member countries on acquisition of modern technologies; (b) Proposing the appropriate means for strengthening regional cooperation for the transfer, adaptation, and mastering of these technologies; (c) Consulting on the priorities related to the work programme of ESCWA in ICT and in the development of STI capabilities; and (d) Following-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, according to the Secretary-General Bulletin dated 27 December 2002 (ST/SGB/2002/16).  Since the establishment of the Committee in 2001, four meetings were held, in 2002, 2004, 2006 and 2008.  The first meeting was held in Beirut, on 18 July 2002, in conjunction with the Forum on Technology, Employment and Poverty Alleviation in the Arab Countries (Beirut, 16-18 July 2002), and focused on the uses of new technologies, including ICT, for poverty reduction and employment creation. The second meeting was held in Damascus, on 24 November 2004, following the Second Regional Preparatory Conference for WSIS – Partnership for building the Arab information society (Damascus, 22-23 November 2004), and focused on building the information society in the Arab region.  The third meeting was held in Beirut, during 6-7 March 2006), and addressed the subject of the ESCWA Technology Centre (ETC) for Development, subject of the Resolution 254 of the 23rd ESCWA ministerial session (Beirut, 9-12 May 2005), and the meeting outcome submitted a follow-up report on ETC establishment to the 24th ministerial session (Beirut, 8-11 May 2006) that approved the establishment through the Resolution 274.

4.      The fourth ESTIC meeting was held in Manama, Bahrain, during 1-2 April 2008.  It addressed the ICTD achievements and programmes for 2008-2009 and assessed the progress made in the implementation of the Resolutions 273 and 274 (dated 11 May 2006) adopted by the 24th ESCWA ministerial session[2], regarding the follow-up to the development of the information society in Western Asia and the establishment of the ESCWA Technology Centre for Development.  The meeting proposed a resolution to the 25th ESCWA ministerial session[3] related to the finalization of the hosting for the ETC.

5.      The fifth ESTIC meeting aimed to (a) Review the achievements of the ICTD during the biennium 2008-2009, and discuss its programme of work for 2010-2011 as well as the proposed strategic framework for the biennium 2012-2013; (b) Follow-up on the Resolution 284 of the 25th ESCWA ministerial session in 2008, related to the establishment of the ESCWA Regional Technology Centre; and (c) Address technological issues pertaining to climate change, and tackling the 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 26th ESCWA ministerial session for adoption.

6.      The meeting involved the participation of 25 distinguished experts in STI, including ICT, from academic institutions and research centres, as well as governmental and non-governmental organizations and

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[1]  ESCWA, Report of the 21st Session, 10-11 May 2001, E/2001/41-E/ESCWA/21/10, http://css.escwa.org.lb/SessionRep/21st.pdf
[2]  ESCWA, Report of the 24th Session, 8-11 May 2006, E/2006/41 E/ESCWA/24/10, http://css.escwa.org.lb/SessionRep/24th.pdf
[3]  ESCWA, Report of the 25th Session, 26-29 May 2008, E/2008/41 E/ESCWA/25/10, http://css.escwa.org.lb/SessionRep/25th.pdf

enterprises engaged in innovative activities. Participants were from Egypt, Iraq, Jordan, Lebanon, Palestine, Saudi Arabia, Sudan, Sultanate of Oman, Syrian Arab Republic and Tunisia.

## I.  RECOMMENDATIONS

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

### A.  ICTD Work Programmes and Strategic Framework 2012-2013

(a)     As part of the technical assistance activities, studying and strengthening the networking 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)     Emphasising the role that ESCWA could play in building regional capacity to start and host incubators for the creation of new ICT companies;

(d)     Holding awareness workshops on the means for making alliances, partnerships and clusters for software companies that would 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 to address 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 for the launching of its operations to serve the 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 the region's focus areas for development, towards meeting the needs of member countries, and through outsourcing specialised technical services to specialized organizations with which there are established agreements;

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

(e)     Connecting with global and regional initiatives to support country-based technology transfer through 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 Information Society, and (g) Proposed Plans and Resolutions.  The presentations and participants' deliberations are summarized below.

### A.  PROGRESS FROM PREVIOUS MEETING

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

10.     Mr. Mansour Farah, Chief of ICT Policies Section, ICTD, reviewed the progress made in the implementation of the recommendations of the fourth ESTIC meeting and concluded that almost all of these recommendations were implemented.  These recommendations were in three parts, related to the ESCWA Regional Technology Centre (ETC), the ICTD work programme for 2008-2009 and strategic framework for 2010-2011, and the follow-up to the outcome of the WSIS.  The recommendations pertaining to the ETC were reviewed, but details on their implementation were left to the session allocated for the Centre and that will look into the methodology and selection process followed towards the identification of the host country. Programme activities relating to the implementation of each of the recommendations were elaborated upon; examples given include the capacity building activities for women, promoting free and open source software, the establishment of incubators for digital Arabic content projects, as well as the 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, starting by 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 focuses on people.  The expected accomplishments of the 2008-2009 work programmes 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].  To measure the progress of work towards the target objective, the programme relies on indicators of achievement that monitor the number of member countries who have implemented plans of action and policies related to the ICT sector, or 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) Follow-up to and adapt the implementation of the outcome of the WSIS, especially the Tunis Agenda for the Information Society, in order to better serve the Arab region; (b) Conduct analytical studies, convene meetings, implement leading projects, and extend advisory and capacity building services; (c) Evaluate and update the regional plan of action for building the information society; (d) Focus on the use of ICT in thematic applications, such as e-government and digital Arabic content; (e) Strengthening regional cooperation and partnerships towards building the 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.

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[4]  UNGA, A/62/6 (Sect. 21), Proposed programme budget for the biennium 2008-2009

13.     The speaker profiled the programme activities that are divided into standard categories and supported by a number of projects totalling around 42 activities.  Across the years, titles of activities and projects change with the change of priorities and objectives and the categories stay the same for 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, ICTD, on the Work Programme for 2010-2011.  The objective of the 2010-2011 work programmes is similar to that of 2008-2009 work programmes, with emphasis on the outcome of WSIS and the internationally agreed development goals and objectives.  The expected accomplishments of the current work programme[5] 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".

15.     Indicators of progress are mainly related to the number of member countries receiving ESCWA assistance and formulating and implementing ICT strategies and action plans for developing the ICT sectors, initiating partnerships and activities, collecting and producing reliable data on the information society, and analysing these data for reformulating existing policies, strategies and action plans.  Five 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; (e) Knowledge networks through ICT access points for disadvantaged communities, 2010; (f) Development of an Arabic domain names system, 2010; and (g) 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 on Science, Technology and Innovation (STI) Observatories: Importance and Regional Efforts.  Starting with the main objectives of an STI Observatory, he briefed on its main tasks and the design structure and conditions for its establishment.  Without a specific blue print for establishing an STI Observatory, the presentation sets forth a listing questions that can help in establishing a national STI observatory to support evidence-based policy-making.

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, then Syria in 2008, followed by Jordan in 2009.  Technical assistance on establishing an STI Observatory in Jordan is under way, and three national workshops have already been held in Syria, Jordan and Lebanon, and a national workshop is planned for Egypt.

## D.  ESCWA REGIONAL TECHNOLOGY CENTRE

18.     In this session, Mr. Fouad Mrad, Senior Information Technology (IT) Officer, ICTD, profiled the status on the establishment of the ESCWA Regional Technology Centre for Development.  In May 2005, ESCWA made a substantial commitment as Resolution 254 that was adopted at the 23rd ESCWA ministerial session (Beirut, 9-12 May 2005), and resolution 274 adopted at the 24th ESCWA ministerial session (Beirut, 8-11 May 2006) regarding the establishment of the ESCWA Technology Centre for development.  A pre-feasibility study and a regional needs assessments and implementation mechanisms study for the Centre were consecutively conducted in 2006 and 2007.

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[5]  UNGA, A/64/6 (Sect. 21), Proposed programme budget for the biennium 2010-2011

19.    In May 2008, at the 25th ESCWA ministerial session (26-29 May 2008), Resolution 284 was adopted requesting ESCWA Secretariat to finalize the hosting arrangements of the Centre.  Five countries expressed interest in hosting the ESCWA Regional Technology Centre, namely: Hashemite Kingdom of Jordan, Syrian Arab Republic, Sultanate of Oman, State of Qatar, and Kingdom of Saudi Arabia.  A delegation visited these countries, and an assessment took place based on a questionnaire process by an ESCWA internal committee. In August 2009, the evaluation committee recommended the selection of the Hashemite Kingdom of Jordan as the host country for the ESCWA Regional Technology Centre, and the ESCWA Executive Secretary approved that recommendation. In November 2009, letters were sent to the Hashemite Kingdom of Jordan as well as the other member countries to inform them about the evaluation committee recommendation and proceeding decision of the Executive Secretary.

20.    A draft Host Country Agreement and a draft Statute for the 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 to be taken: (a) The ESCWA Technology Centre (ETC) Statute requires approval by the 26th ESCWA ministerial session, that will take place in Beirut, during 17-20 May 2010; and (b) The Host Country Agreement for Centre requires signature by the ESCWA Executive Secretary 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 – a General Perspective.  The presentation included a summary of the challenges that hinder achieving sustainable development in the Arab region and the expected impacts of climate change due to the increase in global temperature and the predicted rise in seawater levels, including socio-economic impacts. The climate change initiatives and the Arab position towards international conventions and negotiation processes, in relation to both adaptation and mitigation were presented; such as the development of national policies and mainstreaming of climate change issues, the Arab Declaration on climate change in 2007, the Arab Ministerial Statement for the UN Climate Change 15th 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.  The issues related to development and transfer of technology on climate change that were dealt with during the 2009 Copenhagen conference were discussed in the presentation.  Focus was on the position of the developing countries and their needs to build their capacity in this field, as well as to develop a mechanism to expedite the process of technology development and transfer, mitigation and adaptation.  Commitments of developed countries as well as those of developing countries to reduce the global emissions were discussed, following the principle of common but differentiated responsibilities, and reporting about the required actions to achieve the set targets.

23.    The second presentation of the session was delivered by Ms. Carol Chouchani Cherfane, Chief of Water Resources Section, 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) Regional coordination mechanism on climate change, highlighting the initiatives sponsored by ESCWA, such as the 2009 adopted project for the preparation of a 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 and observation and management information systems and strengthening national STI systems and plans for mitigation and adaptation.

24.     Mr. Walid Deghaili, Chief of Energy Section, SDPD, gave the third presentation on Technologies for Climate Change Mitigation Related to the Energy Sector, providing an overview of greenhouse gases emissions' contribution to 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 competitiveness evolution of those technologies.

25.     The presentation then reviewed the available measures of improving energy efficiency in different sectors such as building, transport, electricity and industry sectors.  The different stages of carbon capture transport and storage technologies were then 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 were presented, mainly stressing the need to pursue research and development for the current available energy technologies.  The barriers facing the adoption of new energy technologies were explained, and they are mainly 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 aiming 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, SDPD, 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 the water resources sector.  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" (UNFCCC, 2005). The speaker presented some applications of modern technologies in climate impacts assessments such as climate change simulation and modelling, vulnerability assessment of climate change on water resources and related sectors and 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 resources management to adaptation measures at both water supply and demand sides.

27.     The presentation concluded that there is 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; 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, Chief of ICT Applications Section, ICTD, delivered the fifth presentation in this session on "ICT and Climate Change", jointly with the co-author Mr. Mathew Perkins, IT Officer, ICTD. The presentation considered the effective use of technological tools, including manufacturing techniques and teleworking, economies can increase their productivity and reduce pollution.  The use of computers in making business more effective has helped lead to reduced 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 aside-effect of increasing waste.  Through efficiency, recycling and refurbishment programmes, the environmental impact of these devices can be reduced.  This will reduce the carbon footprints, the total number of new devices needed and therefore, reduce the total amount of waste created.

29.     The world economic spectrum is highlighted by great 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 in this country would be economically attractive yet potentially environmentally damaging. The improvement of business processes could facilitate an increase in manufacturing efficiency, which lies behind the ability of industries in the developed world to have less environmental impact in producing the same product.

30.     ICTs play a pivotal role in the business process improvement endeavours, reducing shipping costs, waste due to spoiling of perishable products and therefore environmental impact. In addition, telecommuting reduces costs and environmental impact. Businesses must carefully weigh the costs and benefits of telecommuting policies. By carefully determining which technologies will deliver value and reduce negative environmental impact, business leaders and policy makers can determine which technological tools that can be used to deliver on green ICT goals.

## F.   Launching the Regional Profile of Information Society

31.     During this meeting of ESTIC, the Director of ICTD of ESCWA launched the publication entitled Regional Profile of Information Society in Western Asia – 2009[6]. After acknowledging the collaborative efforts of member countries with the ICTD in the preparation of the 2009 report, Mr. Nusseir highlighted the main and optimistic findings of the report and 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 information society profiling exercise resulting in the production of this report is a follow-up activity to the outcome of WSIS, and the 2009 regional profile is the fourth report published in a series, the first of which was published in 2003.

32.   The report profiled the status in the ESCWA region and progress made towards the building of the information society, and revealed better performance over the past four years, with significant steps taken towards bridging the digital divide. Although great disparities exist among Arab countries in the ICT sector, and the digital gap separates high-income and low-income countries in broadband Internet access, there is 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 the governments are taking bigger role with other concerned parties in the development of 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. The report reveals an increase in literacy rates in most Arab countries, noting however that almost half of all Arab women still suffer from illiteracy, and calls upon Arab countries to focus on learning, pursue the regulation of the communications sector, as well as allow for more competitiveness that could lead to a wider reach of services.

33.     The presentation on the 2009 regional profile was delivered by Mr. Rami Zaatari, First IT Officer, ICTD, and covered the various aspects of the information society profile, 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% at the end of 2008, while mobile penetration rates grew to 62% and exceeded 140% in the Arabian Gulf region. Despite an impressive 77% growth in Internet penetration from 2006 to 2008, the ESCWA region's penetration rate remained modest at 17%. Meanwhile, the gap was widening between the most developed and least developed countries in terms of broadband adoption. The region's broadband penetration rate remained at 1.6%, much lower than the world average at 6.1%.

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

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[6]  ESCWA, E/ESCWA/ICTD/2009/12, Regional profile of the information society in western Asia – 2009,
http://www.escwa.un.org/information/publications/edit/upload/ictd-09-12.pdf

building the information society. In addition, significant investments are underway to increase integration with regional and global communication networks. These efforts will 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 have made greater strides than the rest of the ESCWA member countries in this 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 in this regard.

## G. PROPOSED PLAN AND RESOLUTION

36.     Mr. Yousef Nusseir, Director of ICTD, presented the Proposed Strategic Framework for the Biennium 2012-2013, starting by 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 years 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 target of the programme. The expected accomplishments proposed for the 2012-2013 biennium are a continuation of those of the previous biennium, with focus on developing local capacities, enabling environment, content, e-services, ICT sector, research and development, and on analysing the impact of ICT initiatives on socio-economic development. The Proposed Strategic Framework will be submitted to the 26th ESCWA ministerial session in May 2010 for further review and adoption.

37.     The Draft Resolution regarding Establishing the ESCWA Technology Centre was presented by Mr. Fouad Mrad, including the reference resolutions and declarations. The approved resolution would be the official UN Secretariat decision through which the ESCWA Regional Technology Centre Statute would be adopted. The draft resolution requests the 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 UN 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

38.     Summarized below are the participant's discussions during the meeting, within which experts have made suggestions for consideration and shed light on areas that might need special attention in future work of the committee.

39.     Within the meeting discussions, experts considered the establishment of the ESCWA Technology Centre a "Dream Come True" and perceived it in operation as very promising in terms of sustainability. Among the suggestions were related to the membership on the Board of Directors of the Centre, which could 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.

40.     On the financing of the Centre operations, participants considered in kind contribution of member countries within the framework of Research Councils as more viable than cash budget allocation; however, the operating cost would still be required and the budget would still need to be allocated. Financing from subscriptions to its services and from projects would ensure coverage of its operations. Once established, the board of directors of the Centre can put strategies and direct the work according to the region's needs and priorities.

41.     The concept of regional integration in the work of the Centre is what makes its activities regional and its work holistic. This is apparent in the focus areas, such as digital Arabic content, cyber legislation, knowledge networks, domain names, 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 enhances regional interaction, integration and collaboration for the benefit of the centre and the region.

42.     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, for starting alliances, partnerships and clusters and managing technical work partnerships.

43.     On the establishment of STI observatories, and in spite of the suggestion that STI observatories be independent from public decision makers influence, participants concerns were raised regarding the fact that the host institutions for these national STI observatories are public bodies. However, it was argued that the government support assures independence through any imposed influence on the work of these observatories.

44.     On the Arab region stand in relation to negotiations on climate change, experts raised the need to work on either adaptation or mitigation, both of which require fostering the use of technology and later entails the allocation of financial resources. In order to either adapt to or mitigate climate change impacts, collective efforts are needed as well as an assessment of needs in order to reach a common stand and submit a sound inclusive programme into 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.

45.     The transfer of technology was discussed in terms of the freedom of transfer versus the use of the appropriate technologies and their availability to the public. The arguments differ depending on the type of technology. The situation where even illiterate people could use a computer and Internet is encouraging to spread ICTs to enable digital literacy and in some cases compensate 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

46.     The fifth meeting of the consultative committee was organised by the ICT Division of ESCWA and was held during 29-30 March 2010 at the UN House, Riad El Solh Square, Beirut, Lebanon.

### B.     Opening

47.     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 on 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 in turn based on the region's priorities.

48.     The speech referred to thirteen priorities of action 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 indicators in the 2009 report of the Arab Plan of Action for Science and Technology[7], specifically to the indicators that 50% of Medical Doctors, 23% of Engineers, and 15% of scientists annually migrate abroad in search of job opportunities.

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[7] Draft Plan of Action on Science and Technology (in Arabic) <http://www.unesco.org/science/psd/focus/focus09/astpa.pdf>, accessed on 1/4/2010 through UNESCO Web page: http://www.unesco.org/science/psd/focus/focus09/arab_plan_st.shtml

49.     The limited resources allocated to scientific research in the region make a long road ahead before the contribution of STI to developing the economy and enhancing the quality of lives could be realized.  The speaker 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 crisis.

50.     Mr. Nusseir reaffirmed the commitment of the U.N. to facilitating dissemination of STIs as a key element for development, and that ESCWA's mandate of harnessing new technologies for the development of the region was realized through 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. The ICTs could therefore have a crucial role in meeting one of the region's most pressing needs, creating jobs for the growing young population.  Within this context, the future ICT work programme shows integration between the ICT sector on the one hand and STI on the other.

51.     The Director of ICTD briefly mentioned the aims of the Committee and outlined the meeting sessions, namely covering the achievements of the ICTD during the biennium 2008-2009, and its work programme for 2010-2011, and the proposed strategic framework for 2012-2013.  A meeting session reports on the final arrangements for the establishment of the ESCWA Technology Centre in Amman, Jordan.

## C.     Participants

52.     The meeting was attended by 25 participants of distinguished experts in science, technology and innovation, 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 Arab countries, namely from Egypt, Iraq, Jordan, Lebanon, Palestine, Saudi Arabia, Sudan, Sultanate of Oman, Syrian Arab Republic and Tunisia, and the list of participants is contained in Annex I of this report. 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, on 31 March 2010.

## D.     Documents

53.     The documents submitted to the meeting are listed in Annex II of this report and could be accessed through the ESCWA Web page for the meeting[8].

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

<u>Annex I</u>

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Annex II

**LIST OF DOCUMENTS**

(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