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ESCWA

Economic and Social Commission for Western Asia (ESCWA)

Knowledge Society

Thematic activities in 2014

Newsletter, Issue No.1, December 2014



Third ESCWA Technology Centre Technical Committee Meeting in Amman, Jordan

Introduction

The aim of the newsletter on knowledge society is to update readers on the main activities of the Technology for Development Division (TDD) of the United Nations Economic and Social Commission for Western Asia (ESCWA). In its first issue, the newsletter provides briefings on the activities of TDD for 2014, under its thematic clusters of work, covering the three TDD entities, namely the Information and Communication Technology (ICT) Policies Section, the Innovation Section and the ESCWA Technology Centre (ETC), as well as the ESCWA regional advisory services on ICT Policies.

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Abbreviations

AFRIC	African Network Information Center
AICTO	Arab Information and Communication Technologies Organization
AIGF-III	Third Annual Meeting of the Arab IGF
AMAG	Arab Multistakeholder Advisory Group
Arab IGF	Arab Internet Governance Forum
DAC	Digital Arabic content
EBJC	Executive Bureau for Joint Coordination
ESCWA	Economic and Social Commission for Western Asia
ETC	ESCWA Technology Centre
GHDS	green help desks
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	information and communication technology
IGF	Internet Governance Forum
KITS	Kuwait Information Technology Society
LAS	League of Arab States
MCIT	Ministry of Communications and Information Technology
NTRA	National Telecommunication Regulatory Authority
PUOS	peaceful uses of outer space
RIPE NCC	Reseaux IP Europeans Network Coordination
SSTs	Centre space and satellite technologies
STI	science, technology and innovation
STIO	Science, Technology and Innovation Observatory
TDD	Technology for Development Division
WSIS	World Summit on the Information Society
CNRS	National Council for Scientific Research

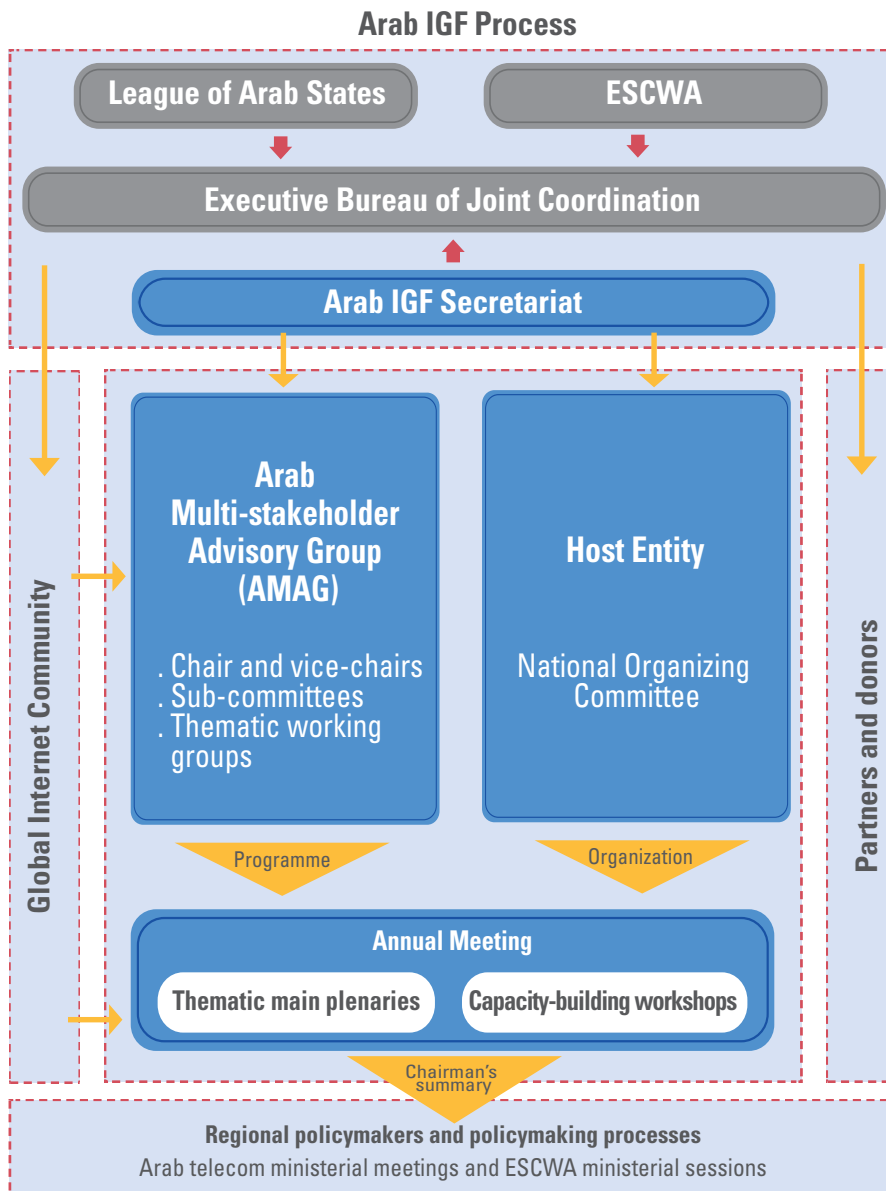
Internet governance



A capture of ESCWA and OGERO-Lebanon teams

The 2014 Internet governance activities are mainly those implemented within the Arab Internet Governance Forum¹ (Arab IGF) by the ICT Policies Section, led by the Chief of Section, Mr. Ayman El-Sherbiny. These activities included one open consultations meeting, three meetings of the Arab Multistakeholder Advisory Group (AMAG), two follow-up virtual meetings of AMAG and the annual meeting of the Arab IGF. The titles and dates of these activities and their related briefings are listed below:

1. The AMAG open consultations and fifth meeting (Cairo, 11-13 March 2014).
2. The AMAG sixth meeting and side-meetings (Tunis, 2-5 June 2014).
3. Virtual AMAG follow-up meetings (WebEx platform, 9 July and 21 August 2014).
4. The AMAG seventh meeting and side-meetings (Istanbul, 29 August-1 September 2014).
5. The Arab IGF third annual meeting and capacity-building pre-event (Beirut, 25-27 November 2014).



About the Arab IGF process

The Arab IGF process was established in 2012 under the joint umbrella of ESCWA and the League of Arab States (LAS); activities are coordinated through a central secretariat hosted by the Egyptian National Telecommunication Regulatory Authority (NTRA). Annual meetings of the Arab IGF process are hosted in a different country each year and their programmes are developed through a series of AMAG meetings. AMAG, established by ESCWA and LAS, was composed of 34 experts from various stakeholder groups in 2014. The Executive Bureau for Joint Coordination was formed in 2013 between the main partners to take decisions related to the path of the process. The Arab IGF addresses key Internet governance issues in the Arab region, including: (a) access: Internet infrastructure and critical resources; (b) international and national Internet public policies; (c) security and privacy: towards a reliable and secure infrastructure; (d) openness: rights and responsibilities; and (e) Internet and youth: a culture of participation and development opportunities.

1. AMAG open consultations and fifth meeting in Cairo

The open consultations and fifth meeting of AMAG were held in Cairo, from 11 to 13 March 2014 and hosted by the League of Arab States (LAS). They were convened within the collaboration framework between ESCWA and LAS, as umbrella organizations of the Arab IGF process, and the Egyptian National Telecom Regulatory Authority (NTRA) as the Arab IGF secretariat. The activity received the generous support of the African Network Information Center

(AFRINIC), the Internet numbers registry for Africa, on remote participation services and from the Kuwait Information Technology Society (KITS). The meetings offered a unique opportunity for open dialogue and engagement of all stakeholders in discussions on Internet governance issues of importance to the Arab region and aimed to identify priority topics to be addressed at the 2014 third annual meeting of the Arab IGF (AIGF-III) and to strengthen partnership



Arab IGF open consultations and AMAG fifth meeting
(Cairo, 11-13 March 2014)

and cooperation amongst the stakeholders towards achieving common development goals.

The open consultations were held on 11 March 2014, where participants reviewed the 2013 round of the Arab IGF process and discussed the proposals on the content and organization of the 2014 AIGF-III. The ideas raised were inputs to the subsequent AMAG fifth meeting, held on 12 and 13 March 2014, and attended by 29 participants, including experts who are either AMAG members or observers from the Arab IGF process. The AMAG meeting reviewed Arab IGF activities and processes and discussed priority themes for the 2014 AIGF-III meeting. The main outcomes of the fifth AMAG meeting included the designation of the Chair and Vice-Chairs of AMAG for the 2014 round of the Arab IGF process, identification and adoption of key thematic priority areas for the Arab region, setting the programme skeleton for the 2014 annual meeting (AIGF-III) and launching the formation of substantive technical working-groups and support subcommittees from members of AMAG and the Executive Bureau for Joint Coordination (EBJC).

2. AMAG sixth meeting and side-meetings in Tunis

The sixth AMAG meeting (Tunis, 3-4 June 2014) was hosted by the Tunisian Arab Information and

Communication Technologies Organization (AICTO) and organized in collaboration with the Tunisian Internet Agency. The meeting was held within the framework of preparations for the 2014 AIGF-III, to follow-up on the progress of work of the AMAG subcommittees and working groups; review the programme of work, focus areas and workshops for the annual meeting; and address the related hosting, financing mechanisms and steps needed.

Within the process towards the identification of a host entity for the AIGF-III annual meeting, the Arab IGF umbrella organizations – ESCWA and LAS – reviewed the situation and expressions of interest received within the timeframe set for the identification of a host. As the process did not result in the selection of a host for AIGF-III, discussions resulted with the AMAG decision to take the alternative path where ESCWA organizes the annual meeting and handles the responsibility of the host for 2014 to ensure the timely convening of the meeting on 26 and 27 November. The meeting also discussed the proposals for the slogan of AIGF-III and agreed on “Arab perspective for shaping the future of the Internet”.

In conjunction with the AMAG meeting, two side-meetings were held on 2 and 5 June 2014, namely a meeting of the Arab IGF EBJC that included ESCWA and LAS, as the umbrella organizations, and the NTRA as the Arab IGF secretariat, and a coordination meeting between ESCWA and LAS.

3. Virtual AMAG follow-up meetings through WebEx

Two virtual meetings were held through WebEx, on 17 July and 21 August 2014, to follow up on the sixth AMAG meeting and preparations for AIGF-III. The timeline and progress of preparations and the tasks of the working groups were reviewed so as to identify the next steps needed before the seventh AMAG meeting, the final one before AIGF-III.



Banner of the AIGF-III event

4. AMAG seventh meeting and side-meetings in Istanbul

The seventh AMAG meeting was held on 30 and 31 August 2014, in conjunction with the ninth global IGF in Istanbul. Two side-meetings were also held, namely an EBJC meeting on 29 August 2014 and the first partners meeting of the Arab IGF on 1 September 2014.

The AMAG discussions on four of the thematic working groups resulted with the identification of speakers for the main plenary sessions of AIGF-III and a preliminary plan for the pre-event capacity-building day, and a briefing on the status of funding and marketing of AIGF-III that resulted with ideas and steps to pursue within the ESCWA preparations for the event. Moreover, briefings on the progress of work of other AMAG working groups were given by the various coordinators.

The EBJC meeting of the main partners of the Arab IGF process resulted with identifying the

priority areas of work in the preparations for AIGF-III and in the ESCWA preparations for hosting the event in Beirut, from 25 to 27 November 2014.

As for the first partners meeting of the Arab IGF, it mainly resulted with receiving confirmations of contributions from existing partners, namely the Internet Corporation for Assigned Names and Numbers (ICANN), the RIPE Network Coordination Centre (NCC) and the Kuwait Information Technology Society (KITS), and expression of interests from additional partners on contributing to the Arab IGF. The meeting was held by ESCWA to brief the various existing and potential partners on the Arab IGF process from its inception through its evolution phases and sustainability efforts, covering the partnership strategies and arrangements as well as the future modalities for the post-2015 period. The first partners meeting was the first ESCWA marketing effort towards the pooling of resources and the convening of AIGF-III.



Participation in the AIGF-III (Beirut, 26-27 November 2014)

5. Arab IGF third annual meeting and capacity-building pre-event in Beirut

The third annual meeting of the Arab Internet Governance Forum (AIGF-III) was hosted by ESCWA in Beirut, on 26 and 27 November 2014, with the strategic partnership of the Lebanese Ministry of Telecommunications and Ogero Telecom and under the joint patronage of the Lebanese Minister of Telecommunications, Sheikh Boutros Harb, and the Executive Secretary of ESCWA, Dr. Rima Khalaf. The organization of AIGF-III was under the joint umbrella of ESCWA and LAS, with the close cooperation of the Egyptian NTRA - the host of the Arab IGF secretariat – and in consultation with AMAG of the Arab IGF process.

AIGF-III was successfully realized through the generous financial in-cash contributions from various partners, namely Ogero Telecom as the National Strategic Partner, ICANN as the Diamond Partner, RIPE NCC as the Gold Partner, and KITS as the Silver Partner. In-kind contributions from other partners were also received, including from Touch, the mobile operator in Lebanon, and the Algerian Ministry of Post, Information and Telecommunications Technologies.

To enable the successful convening of the event, a marketing and funding process was formed in ESCWA to receive in-cash contributions from existing and new partners to cover the operational expenses of holding the meeting in Beirut. This was achieved through internal cooperation among ESCWA divisions and teams, especially the Strategic Partnerships Section, the Budget and Finance Section, the Conference Services Section and the ESCWA Office of the Executive Secretary.

AIGF-III was preceded by a pre-event on 25 November 2014 on capacity-building on Internet governance. AIGF-III included thematic workshops and plenary sessions under the main theme “Arab perspective for shaping the future of the Internet”. It addressed the sub-themes of (a) Internet infrastructure and access; (b) Internet global public policies and national policymaking; (c) openness: rights and responsibilities; and (d) privacy and rebuilding trust.

Over three-days, the AIGF-III and its pre-event brought together over 500 participants from the various stakeholders of the Internet governance society and industry. Participants were from Governments, the business sector, civil society, the technical community, academia and International and regional organizations, and included policy and decision-makers and experts in the area of Internet governance from within and outside the Arab region.

The main outcomes of the 2014 AIGF-III included 21 strategic messages distributed equally under three sections: (1) Public policies related to Internet governance; (2) Policies related to rights, responsibilities and building trust, and (3) Policies related to infrastructure and access. These messages are published in Arabic on the meeting Internet pages and will be included in the Chair’s report that summarizes the content and discussions of AIGF-III.



Workshop on the DAC industry and launching the competition “Thinking digital? Let’s innovate in Arabic!” in United Arab Emirates



Workshop on the DAC industry and launching the competition “Thinking digital? Let’s innovate in Arabic!” in Egypt

Digital Arabic content

The activities in the area of digital Arabic content (DAC) are implemented by the Innovation Section, led by the Chief of Section, Ms. Nibal Idlebi. These activities are listed below:

1. Workshops on the DAC industry and launching the competitions “Thinking digital? Let’s innovate in Arabic!” in Egypt and the United Arab Emirates.
2. Workshop on “Digital content for an inclusive knowledge society” within the World Summit on the Information Society (WSIS)+10 High-Level Event.
3. Digital Arabic Content – New report examines challenges and opportunities.
4. Second regional Forum on DAC in Cairo - Developmental impact of the DAC industry.

1. Workshops on the DAC industry and launching the competitions “Thinking digital? Let’s innovate in Arabic!” in Egypt and the United Arab Emirates

On 2 March and 10 April 2014, ESCWA, in collaboration with its partners, launched a DAC competition under the theme “Thinking digital?

Let’s Innovate in Arabic!” in Egypt and the United Arab Emirates. In Egypt, collaboration was with the Ministry of Communications and Information Technology (MCIT), represented by the Technology, Innovation and Entrepreneurship Centre (TIEC); and in United Arab Emirates, with the Abu Dhabi University and Abu Dhabi Chamber of Commerce and Industry.

These competitions targeted university graduates and young entrepreneurs with innovative DAC ideas in the realms of products, e-services and mobile applications. The workshops at which the competitions were launched focused on raising awareness of the importance of the DAC industry for the development of the information society and knowledge-based economies, as well as the opportunities for young people, especially in the light of the high unemployment rate in the Arab region.

Each workshop concluded with a presentation on the DAC competition in each country, specifically the rules and guidelines, such as the conditions, selection criteria and timeline. The companies acting as incubators for the winners also gave presentations on what the award winners can expect during the incubation period. The workshops were attended by representatives from government agencies, companies involved in

DAC development, academia, fund agencies, as well as a large number of start-ups, young entrepreneurs and university graduates.

Further information on the ESCWA DAC initiative is available through this link:

- <http://isper.escwa.un.org/FocusAreas/DigitalArabicContent/tabid/260/language/en-US/Default.aspx>

News items on the workshops are available through these links for Egypt and the United Arab Emirates respectively:

- <http://isper.escwa.un.org/FocusAreas/DigitalArabicContent/News/DACWorkshopinEgypt2014/tabid/275/language/en-US/Default.aspx>
- <http://isper.escwa.un.org/FocusAreas/DigitalArabicContent/News/DACLlaunchUAEApril2014/tabid/281/language/en-US/Default.aspx>

2. Workshop on the theme “Digital content for an inclusive knowledge society” within WSIS+10 High-Level Event

In collaboration with the International Telecommunication Union (ITU) and the Egyptian MCIT, ESCWA organized a thematic workshop on the theme “Digital content for an inclusive knowledge society” (Geneva, 13 June 2014) as part of the WSIS+10 High-Level Event. The goals of this workshop were to discuss various aspects of digital content and multilingualism, debate current challenges and how they could be addressed in the post-2015 development agenda and share best practices and experiences from around the globe.

The panellists presented selected experiences on digitization and preservation of cultural and



Workshop on Digital content for an inclusive knowledge society (Geneva, 13 June 2014)

historical heritage as well as elaborated on the significance of an appropriate ecosystem and infrastructure, especially broadband, for bridging the digital divide and building the information society. Several panellists also touched on the complexity of measuring digital content and multilingualism and highlighted the need to identify a set of indicators for such measurements.

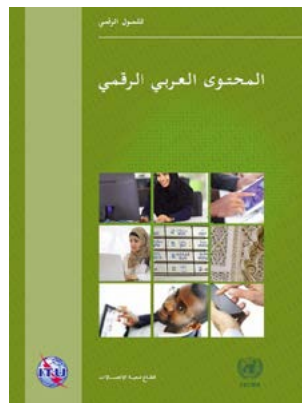
At the end of the workshop, the panellists and participants agreed that digital content is of high relevance in the WSIS+10 review process and that it should be included in the post-2015 development agenda. They also emphasized the need to enhance the enabling environment in developing countries to stimulate digital content industry.

More information about this thematic workshop is available through these links:

- <http://www.itu.int/wsis/implementation/2014/forum/agenda/#?se=253>
- <http://isper.escwa.un.org/FocusAreas/DigitalArabicContent/News/DigitalContentforInclusiveKnowledgeSociety/tabid/282/language/en-US/Default.aspx>

3. Digital Arabic Content – New report examines challenges and opportunities

Digital Arabic content (DAC) is estimated to be at 3 per cent of online content, even though the Arab region represent 5.1 per cent of the world population and around 4 per cent of the global GDP, according to the assessment report entitled “Digital Arabic Content” that was jointly launched by ITU and ESCWA in Geneva, on 13 June 2013, during the WSIS+10 High-Level Event. The report was introduced amidst growing regional interest in digital content in general and DAC in particular and was jointly developed by ESCWA, ITU and a number of regional experts on the subject combining different views, perspectives and experiences of DAC and its industry.



ESCWA-ITU report on Digital Arabic Content

The analytical study essentially examines the share of DAC on the Internet and highlights the challenges and opportunities for its development and growth. Three axes were selected to constitute the core analytical target of the study: public/governmental, commercial and social content. Governments are seen as the main providers of content in general and see public information as an economic asset, while highlighting the opportunity that Governments have as leaders in transforming the digitization and distribution of content. Online DAC offers tremendous opportunities for industry growth, particularly in commercial content, in the Arab region and the study showcases such developments and success stories.

The study concludes with a set of recommendations categorized in line with the three axes identified. For facilitating the development of DAC, the study explains the needed role of Governments

in furthering education, building infrastructure, fostering innovation and increasing public content. As for the private sector, the study recommends the following areas for development: education and learning, content aggregation and curation, public services, entertainment and gaming, and social media. Finally, the study recommends a number of areas for enriching social content whether cultural, heritage, media or personal content.

The report is available in Arabic (and will be available in English later) through this link:

- www.itu.int/ITU-D/arb/RIAP/ADC/ADCR/index.html

4. Second Regional Forum on DAC in Cairo – Developmental impact of the DAC industry

The Egyptian MCIT organized, in collaboration with ESCWA and the Arab Regional Office of the ITU, and under the patronage of LAS, the Second Regional Forum on Digital Arabic Content (Cairo, 12-13 November 2014). The Forum was held in line with the framework of the implementation of the resolution of the Council of Arab Communication Ministers on the promotion of DAC² and has served as a follow-up to the previous Forum that was held in December 2013. Representatives of Arab Governments, international and regional organizations, the private sector, international companies and civil society organizations, working to strengthen and enrich DAC in the Arab world, attended the Forum.

The Forum included six sessions that focused on modern technological trends to enhance the DAC industry, the role of Governments in supporting this industry, media content and electronic publishing, the challenges and prospects of cooperation and regional integration to promote DAC, the role of creativity and innovation in the promotion of national and Arabic economic systems, and the

role of educational and academic institutions in the development of the DAC industry.

The Forum resulted in a number of important recommendations, including calling on the LAS secretariat to adopt a proposal to organize the Forum on a regular basis under the auspices of LAS. The recommendations also included the need to review and amend the intellectual property protection laws in Arab countries to protect DAC and stimulate individuals and institutions to publish in Arabic; support and stimulate innovation and entrepreneurship to establish start-up companies to work in the DAC field; promote regional cooperation by enriching DAC and educational content; update educational curriculums in line with DAC requirements; invite Arab publishers to encourage new talents and help them to publish on trusted Arab platforms; encourage collaboration between private and public entities to collect the products and prototypes made in the Arab region on automatic translation (from and into Arabic); encourage collaboration between academia and the private sector for the production of a high-level automatic translator (from and into Arabic); promote regional cooperation in research and development, especially in the area of Arabic language processing, to stimulate the use of Arabic

on digital platforms and exchange success stories and experiences among Arab countries.

Forum links:

- http://www.mcit.gov.eg/Media_Center/Press_Room/Press_Releases/3340
- <http://www.ahram.org.eg/NewsQ/339013.aspx>
- <http://isper.escwa.un.org/FocusAreas/DigitalArabicContent/News/SecondRegionalForumonDigitalArabicContent/tabid/285/language/en-US/Default.aspx>

Building trust in cyberspace

Capacity-building workshop on promoting a safer cyberspace in the Arab region

The challenges and legal and procedural measures to combat cybercrime and improve cybersafety were explored at the capacity-building workshop on promoting a safer cyberspace in the



Capacity-building workshop on promoting a safer cyberspace in the Arab region (Muscat, 8-9 December 2014)

Arab region (Muscat, 8-9 December 2014). The workshop was jointly organized by ESCWA, the ITU Regional Cybersecurity Center (ITU-RCC) and the Information Technology Authority in Oman.

The goals of this workshop were to build the capacity of decision-makers in Governments and non-governmental organizations in the Arab region on the procedural framework for implementing cybercrime law, combating cybercrime and enhancing cybersafety in the Arab region, discuss new challenges in the field resulting from emerging technologies and share ideas, knowledge and good practices on issues related to cybercrime and cybersafety, including child-online-safety and cyberthreats against women. More than 80 men and women, representing Governments, international organizations and NGOs from 14 Arab countries participated in the Workshop.

A regional framework for enhancing cybersafety in the Arab region, proposed by ESCWA in its recent study entitled "Policy recommendations on cybercrime and cybersafety for the Arab region,"³ was presented for discussion and feedback. Other areas highlighted during the presentations and discussions were the need for intellectual property rights and the right to privacy; the need for awareness raising and training programmes; the need for beyond-border collaboration for the exchange of reliable information required in investigating specific crimes; the role of Internet service providers in cybersafety and in the provision of appropriate data to official investigators; the role of the private sector in developing appropriate solutions for improving cybersafety at the national level; new forms of cybercrimes brought on by rising technologies specifically social media and cloud computing; the urgent need to ensure the safety of children online; and the importance of regional initiatives for strengthening collaboration between Arab

countries and harmonizing legal and regulatory framework for combating cybercrime.

Links related to this workshop:

- <http://isper.escwa.un.org/FocusAreas/CyberLegislation/News/WorkshoponSaferCyberspace/tabid/286/language/en-US/Default.aspx>
- <http://isper.escwa.un.org/FocusAreas/CyberLegislation/News/WorkshoponSaferCyberspace/tabid/286/language/ar-LB/Default.aspx>
- <http://www.escwa.un.org/information/meetingdetails.asp?referenceNum=3518E>

Follow-up on the World Summit on the Information Society

1. Workshop on the Information Society in the Arab Region as part of the WSIS+10 High-Level Event

Within the follow-up on the World Summit on the Information Society (WSIS), ESCWA organized a thematic workshop on the Information Society in the Arab Region – A Decade of Achievements (Geneva, 9 June 2014) as part of the 2014 WSIS+10 High-Level Event in Geneva. The workshop presented the progress made in the information society in the Arab region over the past decade. It featured a panel of experts from Egypt, Kuwait, Lebanon and Tunisia and the launch of the ESCWA 2013 issue of the Regional Profile of the Information Society in the Arab Region.

ESCWA key achievements over the past decade were reviewed, as well as the efforts on the WSIS

action lines and outputs. ESCWA preparations for the WSIS process and follow-up on its outcome were conveyed together with the relevant initiatives and publications. The focus areas of achievements covered measurement and profiling of the information society, cyberlegislation, Digital Arabic content, the ICT sector and transition to the knowledge economy, Arabic domain names and Internet governance that brought about the establishment of the Arab IGF process.

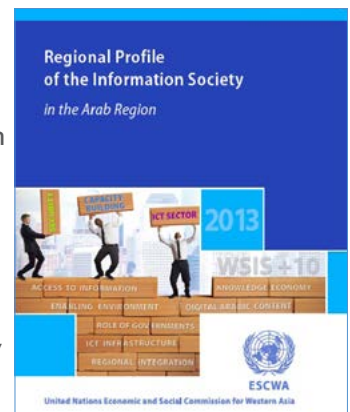
The panel speakers presented their national experiences and achievements following the WSIS outcomes and action lines. The experts gave insights on the WSIS 2005 in Tunisia; the information society in Lebanon and the development of regulatory framework and infrastructure; the Kuwait experience in building the information society with focus on the legal and regulatory framework; Egypt's experience in building the information society with focus on the enabling environment and international cooperation; and the role of the Tunisian Government and stakeholders in the promotion of ICTs for development and international and regional cooperation.

Panel discussions highlighted a number of areas, including the impact and use of, and access to ICTs, the role of innovation and the need to promote the role of civil society in the information society in the Arab region. The importance of strengthening research, development and innovation and digital literacy in the Arab region were also emphasized, together with their linkages to the development processes and the sustainable development goals (SDGs). This was considered to be crucial in creating employment opportunities for skilled and specialized professionals who are migrating in search of employment and exacerbating the brain drain. Few national achievements were pointed out, for example the launching of the Beirut Digital District project and national efforts to establish a computer emergency response team,

the e-transaction law that was passed in Kuwait in February 2014, the inclusion of articles related to cyberspace in the new Egyptian constitution and the formation of a specialized strategy covering e-content in Egypt. Furthermore, the Tunisian experience highlighted activities on ICT for all and on the Tunisian national Internet Governance Forum and the digital strategy.

2. Launch of the 2013 Regional Profile of the Information Society in the Arab Region

ESCWA launched the 2013 Regional Profile of the Information Society in the Arab Region within the aforementioned workshop on the Information Society in the Arab Region – A Decade of Achievements, as part of the WSIS+10 HLE in Geneva.



2013 Regional Profile of the Information Society in the Arab Region

The 2013 issue of the Regional Profile is the sixth in a series of biennial reports that were published since 2003 within the ESCWA preparations for and follow-up on the WSIS. Developed by the ESCWA TDD (formerly ICT Division), the 13-chapter report evaluates specific components of the information society, which align with the WSIS action lines, such as ICT infrastructure, building confidence and security, enabling environment, cultural and linguistic diversity, electronic services, ICT applications and building the ICT sector. The report provides suggestions and recommendations covering all ESCWA member States, substantiated by case studies, success stories and good practices from the region. It also provides a regional and global comparative analysis between the Arab region and other regions.

The report also addresses the challenges facing the realization of the information society and transition to a knowledge-based economy in the Arab region, such as poor broadband penetration and affordability issues, weak and sometimes incomplete legal and regulatory ICT frameworks and the human skills gap in ICT-related fields. These challenges, although differing among countries of the region, need to be addressed through the collaboration of all stakeholders including Governments, the private sector, civil society and academia.

The report's future outlook indicates that all ESCWA member States need to exert considerable efforts to reduce the digital divide in the region, highlighting the greater strides made by GCC countries when compared to non-GCC countries. The recommendations presented in the report urge Arab policymakers to adopt a framework for formulating policies and strategies beyond 2015 while taking into account the outcomes of the WSIS+10 review process and the post-2015 development agenda.

ICT Academy for Government Leaders

Within the capacity building activities of ESCWA, the ICT Policies Section of TDD is implementing the development account project entitled Academy of ICT Essentials for Government Leaders in the ESCWA Region (AIGLE). Extending to early 2016, the project aims to build the capacity of government officials and leaders in the ESCWA region in the area of ICT for sustainable development, through both traditional and online systems, and to enhance the skills necessary for planning, management and funding of development projects. The project provides ICT for development training modules and builds upon the achievements and lessons learned from a similar

academy launched in the Republic of Korea, in 2008, by the Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT)⁴.

During its first phase of implementation, and based on a needs assessment for the ESCWA region, the AIGLE project developed in 2014 four core training modules that will be relied on in extending to government officials and leaders the essential knowledge and skills to leverage ICT for national and regional socioeconomic development. These modules cover the (1) linkages between ICT and development; (2) ICT4D for development policies; (3) e-government policies, strategies and applications; and (4) Internet governance.

Peaceful uses of outer space

Identification of regional priorities in the area of space and satellite technologies

In 2014, the ICT Policies Section explored the best approach for adding the peaceful uses of outer space (PUOS) as an additional theme in its work programme and participated in the fifty-seventh session of the Committee on the Peaceful Uses of Outer Space (COPUOS) (Vienna, June 2014). The purpose is to determine the priorities of the ESCWA region in the area of space and satellite technologies (SSTs), identify experts and entities working in this field and lobby for the first ESCWA meeting on SSTs, scheduled to take place in 2015.

Discussions covered the (a) equal, peaceful, non-discriminatory and long-term sustainability of the use of outer space; (b) prevention of placement

of arms in outer space; (c) potential dangers, management and development of legal mechanism for the regulation of space debris; (d) use of space and satellite technologies in cartography and satellite imagery; (e) production of food in outer space to help with the sustainability of human life on earth; (f) use of space and satellite technologies in food, water and energy security, sustainable agricultural activities, fishing, ocean monitoring, combating desertification, monitoring of arable land, urban environmental planning and disaster prevention; (g) impact of space activity on economic growth and reaching a common understanding of space technology as a catalyst for development; and (h) contribution of space activities to employment, job creation, poverty alleviation, health and other development issues.

Following up on the deliberations of the Committee, ESCWA is particularly interested in the area of space and sustainable development and the use of SSTs within the United Nations system. The organization recognizes the roles of States, intergovernmental organizations, non-governmental organizations and the private sector in the promotion of the safety and long-term sustainability of outer space activities. An assessment of regional priorities indicated a need for a policy coordination role to be played by ESCWA in the field of SSTs. ESCWA can also act as a strategic liaison between the United Nations Office for Outer Space Affairs (OOSA) and regional stakeholders. In 2015, ESCWA will undertake a number of activities related to the peaceful uses of outer space, which will include the following: (a) identification of the main priorities of the region in the field of SSTs; (b) identification of experts to participate in the drafting and presentation of papers for the first ESCWA meeting on the peaceful use of outer space in the Arab region; (c) identification and formation of partnerships with major regional and global partners in the field and the various disciplines and themes of the peaceful uses of

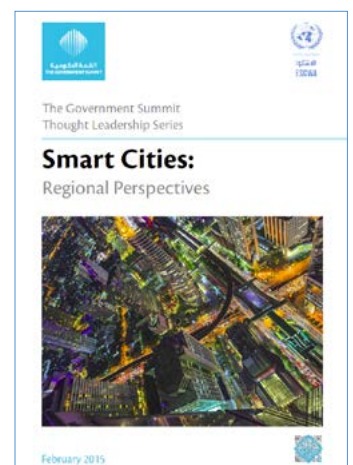
outer space; and (d) organization of the first ESCWA meeting on the subject.

Science, technology and innovation

The following activities were mostly undertaken by the ESCWA Technology Centre (ETC), led by the ETC Executive Director, Mr. Fouad Mrad.

1. Report entitled “Smart Cities: Directives for Arab Countries”

“Smart city” is an increasingly-adopted concept; it could transform societies and enhance their socioeconomic development. The Office of the Prime Minister of the United Arab Emirates and the ESCWA TDD have entered into a cooperation agreement aimed at the promotion of e-government in the Arab region. One of the main components of the agreement is this study that was undertaken by ETC to explore smart city implementation in the Arab region by highlighting the challenges and opportunities of smart cities and showcasing some developments and accomplishments in the region with recommendations on the way forward. This report will be presented at the Government Summit of the United Arab Emirates in February 2015.



Cover page of the Report on Smart Cities

2. Study entitled “Broken Cycle: Universities, Research and Society in the Arab World”

Believing that there is a need for improving the effectiveness of research and innovation activities in the Arab region, ETC conducted this study in collaboration with the Lebanese National Council for Scientific Research (CNRS). The study investigates opportunities for increased research activity and innovation, rejecting the assumption that these processes will come about of their own accord through the organic growth of the academic sector or by simply increasing entrepreneurial activity, and highlighting the interfering aspects leading to under-investment in research and innovation in the Arab region.

Innovation development and management

1. Meeting on the theme “Development of an innovation scoreboard for the MENA region”

While all countries in the region recognize the importance of innovation on the road to a



Meeting on the theme “Development of an innovation scoreboard for the MENA region”

knowledge economy, an articulated understanding of national innovation systems is lacking as few data are available on countries’ capacities and performance on innovation. Emerging from this need, ETC, the Islamic Educational, Scientific and Cultural Organization (ISESCO) and the Centre for Mediterranean Integration (CMI), led by the European Investment Bank (EIB) in cooperation with the League of Arab States, jointly organized an expert group meeting on the “Development of an innovation scoreboard for the MENA region” (Cairo, 19-20 November 2014). The meeting aimed to develop tools for the countries of the MENA region similar to the tools used in western industrialized countries such as: the Global Innovation Index, European Trend Chart and European Innovation Scoreboard. National focal points were identified and committed to systematically nourish the Arab innovation scoreboard with fresh relevant data.

2. Regional workshop – Contribution of the quadruple helix actors to knowledge transfer within science and technology parks

CMI and EIB, in collaboration with ISESCO and ETC, organized the regional workshop on the contribution of the quadruple helix actors⁵ to knowledge transfer within science and technology parks (Ankara, 16-18 June 2014). The workshop sought to benefit from the successful experience of ecosystems in a regional country like Turkey, which has a similar cultural environment to Arab countries. The workshop led ETC to enlist the expertise from ODTU Teknokent, the science and technology park of Turkey to its consultancy pool in supporting the ecosystem in the Arab region. This supports the ETC objectives in assisting member States to strengthen their capabilities to develop and manage national systems, and improve the legal and commercial framework for technology transfer.

3. Seminar on the theme “Commercialization concepts”

The seminar on the theme “Commercialization concepts” (Beirut, 6 May 2014) was held in collaboration with the Centre for Innovation and Technology and the ESA Business School. The seminar was designed and presented by the ETC Innovation and Commercialization consultant for the recipients of the European innovation voucher funding programme, to discuss the various commercialization options to assist participants in selecting the adequate track. From this successful event, ETC has been asked to assist in conducting another workshop on the theme “Open innovation”. The activity supports ETC objectives in improving the legal and commercial framework for technology transfer.

Advisory services

Several advisory and capacity-building services were extended to ESCWA member States and



Qatar Foundation “Stars of Science” MBC TV programme (Doha, 9 September 2014)

are listed below in two parts, the first for the advisory services of the ESCWA Technology Centre and the second for the services extended by Mr. Nawar Alawa as the ESCWA Regional Advisor on ICT Policies. These services have responded to official requests from public institutions and government agencies in various member States.

1. ESCWA Technology Centre advisory services

ETC reviewed the Jordanian Cosmetics Sector/Dead Sea Products study that was conducted by an ETC consultant. The final version of the study will be discussed and published in collaboration with the Jordan Chamber of Industry that initiated this request.

Within the United Nations efforts in the education reform project in Yemen, ETC finalized the STI Observatory Feasibility Study for Yemen conducted by an ETC consultant, based on the feedback of the Ministry of Scientific Research. The final study will be submitted to the UNESCO co-organized seminar in 2015 in Cairo.

With the Executive Director of ETC as a permanent jury member in the Qatar Foundation Stars of Science programme, ETC participated in the launching of this MBCTV programme in its sixth season (Doha, 9 September 2014). The Stars of Science programme aims to harness the media for instilling production and innovation values among Arab youth.

Within the context of establishing technology transfer infrastructure in Palestinian universities, ETC has organized a workshop with iPark Jordan on the theme “IP policy formation” at the Royal Scientific Society in Amman. The workshop was attended by the Birzeit University leadership.

2. Regional advisory services on ICT policies

In Yemen, the following four tasks were carried out during a mission (1-7 March 2014): extending recommendations to the National Information Centre on the national information network implementation; advising the Prime Ministry on a business process re-engineering plan; contributing to a workshop on automation and decision support systems; and advising the Ministry of Higher Education and Scientific Research on the establishment of a Science, Technology and Innovation Observatory in Yemen.

In Tunisia, an advisory mission was implemented from 9-12 March 2014 to provide technical support to the High Engineering School of Telecommunications (Sup Com) on the 2014 entrepreneurship contest. The mission identified several areas of collaboration, such as the establishment of technology incubators and contribution to DAC initiatives.

In Saudi Arabia, the e-services environment at the Ministry of Social Affairs was assessed during a mission that took place from 18-20 March 2014. Policy recommendations were made on ways to enhance the deployment of these e-services.

In Libya, the regional advisor participated in a national workshop on cyberlegislation, held on 13 and 14 April 2014. The workshop was organized by the National Agency for Data Security, the General Information Authority and Libyan Trade Network, and discussed draft national e-transactions and cybercrime laws.

In the Sudan, a mission was carried out to the National Information Centre from 18 to 22 May 2014, to propose an action plan to promote an e-services environment, advise on a plan to improve the existing e-government portal, contribute to a national workshop related to the previous ESCWA advisory report on an e-learning strategy and contribute to a national workshop on national public key infrastructure. During the mission, a meeting with the Minister of Higher Education and Scientific Research was held to discuss cooperation possibilities in the field of science, technology and innovation.

In Lebanon, a mission was carried out to the Ministry of Social Affairs on 17 and 18 June 2014, to conduct a preliminary assessment of the Ministry's automation level, by focusing on ICT infrastructure, ICT applications, and e-services. A plan of action to enhance the automation and e-services was suggested.



Workshop on the Development of national e-Learning Strategy in Sudan (Khartoum, 21 May 2014)



Advisory service to High Engineering School of Telecommunications, El-Ghazala Technopole (Tunis, 9-12 March 2014)

For Iraq, ESCWA held a workshop in Amman, in cooperation with the United Nations Population Fund (UNFPA) and the Iraqi Ministry of Youth and Sports, from 28-29 August 2014. The workshop focused on the main concepts of performance information systems and dashboards and suggested an implementation plan of a system dedicated to monitor the national strategy for youth in Iraq.

In the United Arab Emirates, several activities were implemented. A meeting for Arab e-government programme directors was co-organized in Dubai, by the ESCWA TDD and the Prime Minister's Office, on 9 February 2014. During this meeting, TDD proposed the formation of an Arab e-Government Programme Directors Council. In Abu Dhabi, a mission was made to the Ministry of Finance on 20 and 21 October 2014, to present the main concepts of the Government Electronic and Mobile Services maturity index and discuss its applicability to the Ministry's e-services. The mission identified and evaluated selected e-services at the Ministry. In addition, a meeting with officials from PMO and the Telecom Regulatory Authority was held in Dubai to discuss future cooperation possibilities with TDD.

In Egypt, TDD participated in the preparation of the second regional Forum for DAC in collaboration with the Ministry of Communication and Information

Technology, the Regional Office of ITU and LAS, on 12 and 13 November 2014. TDD delivered a presentation on the status of educational DAC in Arab countries and the opportunities available to start-ups and entrepreneurs, particularly in the field of e-learning and massive open online courses.

Regional and complementary activities

Participating in events on "green production sectors" and "Arab Future Cities" and organizing capacity-building workshops

Additional regional activities were co-organized/ conducted by ETC, including the following:

1. A workshop on the theme "Technological capacity-building in the field of modern technologies in Arab countries" (Amman, 15 December 2014). The workshop was jointly organized by ETC, AIDMO-LAS and the Jordan Chamber of Industry to address the latest



The Third ESCWA Technology Centre Board of Governors Meeting (Amman, 11 March 2014)



Third ESCWA Technology Centre Technical Committee Meeting in Amman, Jordan

- modern technologies in Arab countries and how to benefit from success stories and cooperate where possible. TDD addressed the role of technology in the SDGs within the United Nations framework.
2. The fourteenth meeting of the Coordination Committee of the Industrial Research Centers in Arab countries of the Arab Industrial Development and Mining Organization (AIDMO) (Amman, 2-3 June 2014). The meeting was co-organized and hosted by ETC. It reviewed reports in the fields of research on water, renewable energy and the food industry, approved core plans of cooperation and collaboration among the various committee members representing Algeria, Egypt, Iraq, Jordan and Kuwait and discussed the ETC 2014-2015 work plan and the 2011-2013 report on ETC activities.
 3. The third ETC Technical Committee Meeting was held in Amman. The event was privileged with an intervention by His Royal Highness Prince El Hassan bin Talal, the President of the Higher Council for Science and Technology and the leadership of Her Royal Highness Princess Sumaya bint El Hassan, the president of the Royal Scientific Society and the ETC Board of Governors. The ETC work plan for 2014-2015 was discussed and approved by the ETC Technical Committee.
 4. Regional workshop on the theme "Best practices in supporting green production sectors in the Arab region". ETC contributed to this workshop that was organized by ESCWA and UNIDO in El Gouna, Egypt, to discuss the role of Green Help Desks (GHD) and of other service providers of green production sectors (cleaner production sectors, chambers of commerce and research institutions) present in the Arab region and their potential as supporting mechanisms to transitioning to a Green Economy. Moreover, the participants discussed the Green Help Desk Management Guide developed by ESCWA to support the activities and operations of the GHDs.
 5. The Arab Future Cities Summit (Doha, 7-8 April 2014) which was considered the major Middle East smart cities event. It was organized by the Ministry of Municipality and Urban planning in Qatar and was attended by more than 350 high-level and senior-level executives. It covered the progress and requirements for developing smart and sustainable cities, addressing key challenges in water and energy, transport and mobility, sustainable building, ICT and intelligent urban policy. The ETC Executive Director participated as a speaker in the panel on the theme "Balance between cities growth and sustainability" highlighting key ESCWA initiatives to drive innovation, economic development and global connectedness.
 6. The third ETC Board of Governors meeting (Amman, 11 March 2014) was chaired by HRH Princess Sumaya Bint EL Hassan, the President of the board and the Royal Scientific Society of Jordan. The ETC board members reviewed progress of ETC work and discussed its plans for 2014-2015.

ESCWA coordination activities

These activities involve internal coordination amongst ESCWA entities and include the following:



Regional workshop on "Implementation of Rio Principle 10" in the Arab countries (Amman, 12-13 May 2014)

1. A new project on the theme “Building capacities in developing appropriate green technologies for improving the livelihood of rural communities in the ESCWA region”. The project aims to strengthen the capacity of countries in the ESCWA region to mainstream appropriate pro-poor green technology initiatives into national development programmes and policies, to enhance the livelihood of rural communities. ETC is cooperating with the Sustainable Development Policies Division (SDPD) of ESCWA to implement the project in Jordan, Morocco, Oman and the Sudan.
2. The project entitled “Establishing national technology development and transfer systems in selected ESCWA member States,” to be implemented in 2015-2016. The project aims to enhance national innovation system capacity through updating related policies; establishing national technology transfer offices linked to universities and research institutions; and facilitating the partnership between the research community, the economic development sector, the industry and relevant governmental and non-governmental actors. ETC will be cooperating with public agencies mandated with scientific research and technology policies, major universities and research institutions to execute the project in Morocco, Tunisia, Egypt, Lebanon and Yemen.
3. Regional workshop on the theme “Implementation of Rio Principle 10 in Arab countries” (Amman, 12-13 May 2014). Principle 10 of the Rio Declaration was adopted at the 1992 Earth Summit by heads of State and Government with the goal of strengthening access to information, public participation and justice in environmental matters. The workshop was organized by the United Nations Environment Programme (UNEP) and ETC was a co-organizer. It presented a joint effort to raise awareness among countries in the Arab region on the Rio Principle 10 and the Bali Guidelines. It will be followed by targeted activities to assist interested and committed countries to implement the Bali Guidelines at the national level.
4. The Arab High Level Forum on Sustainable Development (Amman, 2-4 April 2014). The Forum was organized by ESCWA SDPD, UNEP, UNDESA, the Jordanian Ministry of Environment, LAS and ETC. The purpose was to prepare a proposal on the objectives of sustainable development to be introduced at the sixty-eighth session of the United Nations General Assembly in September 2014.

Endnotes

¹ The Arab IGF website and social media links are available from <http://igfarab.org>; www.facebook.com/ArabIGF; www.twitter.com/igfarab; and www.youtube.com/user/ArabIGF.

² The resolution on “Developmental impact of the Digital Arabic Content

(DAC) industry” was adopted at the sixteenth session of the Council of Arab Communication Ministers held in Wahran, Algeria in June 2012.

³ This study should be published during the first quarter of 2015.

⁴ www.unapcict.org/academy.

⁵ The Quadruple Helix Innovation Model comprises academia and technological infrastructures, firms of innovation, Government and civil society.