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**REPORT OF THE EXECUTIVE SECRETARY
ON THE ACTIVITIES OF THE COMMISSION**

**ACTIVITIES OF THE ESCWA TECHNOLOGY CENTRE
IN THE PERIOD 2011-2013**

Summary

This document reports on the activities implemented by the ESCWA Technology Centre during the period 2011-2013.

The activities comprise studies, databases, innovation exchange, networking, meetings, workshops, advisory services and substantive participation in various events related to the mission of the Centre.

Introduction

1. The ESCWA Technology Centre (ETC) was established pursuant to Economic and Social Commission for Western Asia (ESCWA) resolution 294 (XXVI) of 19 May 2010, which was endorsed by the United Nations Economic and Social Council in its resolution 2010/5. On 23 December 2010, ESCWA and Jordan signed the Host Country Agreement. The formal inauguration of the Centre took place in November 2011.

2. According to the statute of the Centre, which is included in the annex to resolution 294 (XXVI), the Centre has the following five objectives:

Objective 1: To assist member States in strengthening their capabilities to develop and manage national science, technology and innovation (STI) systems;

Objective 2: To develop, transfer, adapt and apply technology;

Objective 3: To determine the suitable technology for the region and facilitate its development;

Objective 4: To improve the legal and commercial framework for the transfer of technology;

Objective 5: To enhance the technological and scientific knowledge content of major economic sectors in member States.

3. To achieve those objectives, ETC is implementing a wide range of activities comprising studies, databases, innovation exchange, networking, meetings, workshops, advisory services and substantive participation in various events related to the mission of the Centre.

4. This report presents detailed information on the activities of ETC during the biennium 2012-2013, featuring their objectives their impact and the follow-up actions that were already undertaken. Some of the main activities can be highlighted as follows:

(a) The study entitled “The Broken Cycle: Universities, Research and Society in the Arab Region – Proposals for Change”, assessed the scientific research capacity in Arab countries and proposed schemes for linking the scientific capacity with the local economy;

(b) Two needs assessment studies on the water and energy sectors in the region analysed the technical barriers affecting the development of these sectors and suggested future courses of action in order to attain maximum utilization of water and energy;

(c) A study on STI analysing strengths, weaknesses, opportunities and threats (SWOT) suggested tangible complementary activities based on key strengths and opportunities in selected Arab countries;

(d) Regional technology commercialization tours to Egypt, Jordan, Lebanon, Morocco, Palestine (hosted in Jordan) and Tunisia, during which a total of 51 science and technology-based small and medium-sized enterprises (SMEs) were matched with 29 interested potential investors;

(e) By December 2013, and based on the follow-up of the opportunities identified, 11 partnerships were established;

(f) In preparation for the 2013 Annual Ministerial Review (AMR) under the theme “Science, technology and innovation, and the potential of culture, for promoting sustainable development and achieving the Millennium Development Goals”, the Regional Preparatory Meeting for Western Asia was held at ETC in Amman on 26 November 2012. The meeting, which was organized in cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Department of Economic and Social Affairs, summarized the lessons learned from regional and country experiences and highlighted regional STI priorities. This summary was presented and circulated during the High-level Segment of the United Nations Economic and Social Council, which took place in Geneva in July 2013;

(g) The workshop on Innovation and Commercialization for Economic Development, held in Amman in November 2012, provided the various actors in the field of innovation in the Arab region with capacity-building assistance in the areas of innovation and commercialization, so as to enhance and strengthen their management skills;

(h) Several critical databases were published, highlighting existing regional capacity and including information on incubators, inventions, and research and development.

5. The following table summarizes the activities undertaken by the Centre during the period 2011-2013.

ACTIVITIES IMPLEMENTED BY THE ESCWA TECHNOLOGY CENTRE
DURING THE PERIOD 2011-2013

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Studies and databases							
1. Customizing an innovation intellectual property system				X	X	Building a foundation for developing intellectual property systems for universities and research institutes	Adopted at: - Fez University, Morocco - Birzeit University, Palestine - ASRT, Egypt - CNRST, Morocco
2. Developing an economic model for technology deployment in various productive sectors			X		X		Presented at south-to-south regional workshop, Amman, October 2011
3. Financing a technology transfer and innovation advice road map in the Arab region				X		Commercialization tours and activities developed, based on the road map	Presented at Qatar Research Forum, 2012
4. Technology needs assessment in renewable energy (with HCST, Jordan)			X		X		
5. Technology needs assessment in water (with HCST, Jordan)					X		
6. The Broken Cycle: Universities, Research and Society in the Arab Region – Proposals for Change (with CNRS, Lebanon)	X				X	Generated an ESCWA report on scientific production in Arab countries	Discussed with regional stakeholders at WIPO workshop, Amman, 2012
7. SWOT analysis of STI in Arab countries	X		X		X	Started matching matrix of complementary regional linkages (Libya-Lebanon; Jordan-Palestine)	Discussed with regional stakeholders at a workshop, Amman, 2013
8. Scientific production in Arab countries	X		X		X	Published as OES working paper series	
9. Industrial outsourcing opportunities in Arab countries			X	X		Identified industrial development cases (phosphate fertilizers); Jordanian investors are evaluating these cases with the Chamber of Industry	Discussed at the League at Arab States AIDMO regional forum, Kuwait, 2013

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Studies and databases (continued)							
10. Database on research and development centres in Arab countries (with RSS, Jordan)	X				X	Highlighted available landscape of research entities for STI planning, including ETC	Disseminated at regional relevant events and online
11. Database on business incubators in Arab countries (with RSS, Jordan)	X	X		X		Highlighted available landscape of research entities for planning, including ETC	Disseminated at regional relevant events and online
12. Database on inventions in Arab countries, 2010-2012				X	X	Highlighted available landscape of research entities for planning, including ETC	Disseminated at regional relevant events and online
Innovation exchange							
1. Regional technology commercialization tour 2012 (Egypt, Jordan, Lebanon and Palestine, hosted in Jordan) (with Talal Abu-Ghazaleh Organization, Licensing Executives Society-Arab Countries and EHBP, Jordan)		X		X		11 business deals through partnerships and investments in STI-based enterprises	Matched 35 STI-based SMEs with 18 interested potential investors. The case was accepted and presented at AMR at a high-level STI meeting, Geneva, 2013
2. Subregional technology commercialization tour, 2013 (Egypt, Morocco and Tunisia)		X		X		5 business deals being tracked for partnerships and investments in STI-based enterprises	Matched 15 STI-based SMEs with 12 interested potential investors
Networking/leads							
1. Facilitated contract between IRI Centre for Innovation and Technology, Lebanon, and EHBP, Jordan, innovation voucher programme, 2012		X		X		Contracted professional scientific services for the Centre for Innovation and Technology in Lebanon	Developed and implemented the agreement
2. Facilitated contract between Khayal Production, Qatar, and EHBP, Jordan, intellectual property review for Stars of Science Programme, 2012-2013		X		X		Contracted professional scientific services for Khayal Production, Qatar	Developed and implemented the agreement
3. MoU with Federation of GCC Chambers: Entrepreneurship for Youth Programme, 2012					X	Developed manual in Arabic, used in training some 10 000 participants	Provided technical advice to the Entrepreneurship for Youth programme, 2012
4. MoU with Licensing Executives Society-Arab Countries, 2012	X			X		Over 300 applicants utilized website for commercialization tour	Professional partnerships in 3 activities
5. Facilitated agreement between Prince Faisal Centre for Dead Sea, Mutah University, Jordan, and Cortec Middle East, UAE, 2012		X		X		Researchers in Jordan developing sponsored work for UAE firm	Working visit that finalized the agreement

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Networking/leads (continued)							
6. Introduced a new business relationship between National Information Centre, Yemen, and Knowledge World for Digital Content, Amman, 2012	X				X	Consolidated efforts on same project in 2 different countries	
7. Established liaisons with DESA, UNCTAD, UNEP, UNESCO, UNIDO and WIPO for joint ETC activities in 2013	X		X			Channeled regional STI priorities into international agendas, including Secretary-General policy statement; regional coordination on implementing outcomes among United Nations agencies, 2013	Jordan presented outcomes at ECOSOC AMR, Geneva, 2013; an RCM thematic group was formed
8. ESCWA and RSS established green help desk, Jordan, 2013			X		X	Help desk is open and supplying services to local industry	Continuous support of linking ESCWA SDPD with host RSS in Jordan
Meetings, seminars and workshops							
1. EGM on promotion of south-south cooperation in technology transfer, Amman, April 2011 (with RSS) and Beirut, October 2011 (with IRI and CCIAB)		X	X			Identified technology transfer areas with highest impact in the areas of water, energy, agriculture, and information and communication	
2. Workshop on entrepreneurship for scientists and engineers, Beirut, September 2011 (with IOP-UK, CNRS, Berytech and Association of Lebanese Industrialists)		X			X	Capacity-building on entrepreneurial skills for researchers at Lebanese universities and research institutions	Support commercialization activities of scientific inventions
3. Workshop on intellectual property and technology transfer for universities and research institutes, Amman, November 2011 (with WIPO and UNESCO)		X		X		Capacity-building on developing intellectual property systems and a technology transfer office for universities and research institutes	Advisory requests were received to support technology transfer office establishment initiative
4. Research commercialization unit for Lebanon, Beirut, March 2012 (with CNRS, EHBP, Jordan, and WIPO)	X	X	X			CNRS is integrating the outcome into its present structure and plans	Continuous monitoring of progress
5. Entrepreneurship in engineering curricula, Lebanon, April 2012 (with Lebanese University and QRCE, Jordan)					X	Lebanese University Faculty of Engineering is integrating entrepreneurship in present plans	Continuous monitoring of progress
6. Rapid prototyping, Doha, June 2012 (with Texas A&M University, Qatar)		X			X	Capacity-building for research institutes	ETC sponsored 11 experts in the field from 8 countries

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Meetings, seminars and workshops (continued)							
7. Intellectual venture sessions, Jordan, September 2012 (with EHBP, Jordan)					X	Team of researchers worked together to solve specific technical problems (patent authorship pending)	Two proposals were submitted for online open innovation sources; practice is adopted by stakeholders
8. ECOSOC 2013 AMR regional preparatory meeting for Western Asia, Amman, November 2012 (with UNESCO and DESA, sponsored by CRDF and Makdessi Foundation)	X		X			Channeled regional STI priorities into international agendas, including Secretary-General policy statement. Regional coordination on implementing outcomes in 2013 among United Nations agencies	Jordan presented outcomes at ECOSOC AMR, Geneva, 2013; an RCM thematic group was formed
9. ETC Board of Governors meeting, Amman, November 2012	X					Established linkages with such organizations as Qatar Foundation, AIDMO, KACST, CNRS and others	Work programme sent to different stakeholders in Arab countries
10. Workshop on innovation and commercialization for economic development, Amman, November 2012 (with WIPO and EIB)		X			X	Provided 34 managers of technology parks, incubators and innovation networks with capacity-building on innovation and commercialization activities	
11. ETC Technical Committee meetings, April 2012 and April 2013	X		X			Revised and modified work plan according to needs of Centre; Technical Committee members comprised 11 experts	
12. EGM on STI SWOT analysis in Arab countries, Amman, April 2013	X					Started matching matrix of complementary regional linkages (Libya-Lebanon; Jordan-Palestine)	
13. Arab forum on industrial competitiveness through innovation (with AIDMO and ISESCO, hosted by Ministry of Industry), Kuwait, November 2013		X			X	Ongoing	4 proposals will be prepared by KISR, Kuwait, RSS, Jordan, ASRT, Egypt and AIDMO for fund and investment raising towards implementation
14. Regional workshop on national innovation systems: input, output and impact (with CMI/EIB and World Bank), Amman, November 2013	X		X			National innovation systems will be reviewed in different Arab countries	Follow-up workshop will be conducted in Egypt for the same participants in 2014
Advisory services							
1. AUB, positioning a new technology park (with HCST, Jordan), Lebanon, 2011			X	X		AUB is integrating the outcome into its present structure and plans	ETC will be represented on advisory board
2. Ministry of Industry, industrial competitiveness road map, Lebanon, 2012			X			Ministry set action plan agenda for implementation throughout 2013	Discussed outcomes in national competitiveness SME event, 2013
3. LibanPack, packaging centre, packaging innovation contest jury, Lebanon, 2012		X				Selected winners were supported by local industry	

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Advisory services (continued)							
4. RSS, patent commercialization (with National Instruments, Texas), Jordan, 2011		X				MoU signed based on mutual benefits	Products are produced in Jordan and sold worldwide
5. Technical review for Federation of GCC Chambers of Commerce manual on entrepreneurship and inventions for their 10 000 participants Gulf campaign, 2012					X	Hundreds of youth in GCC opted for starting their businesses	Another 2013 campaign was launched and implemented
6. UAE, study on the planning for adequate spending on scientific research as part of the knowledge economy strategy of UAE, 2012	X			X		UAE Government is establishing STIO	Once established, STIO will be linked with ETC and other STIOs in region
7. Qatar Foundation, jury for Stars of Science television contest for youth innovation, 2012-2013		X				Direct: Yearly, more than 20 young participants start their enterprises; Indirect: Innovation culture is impacted through millions of viewers on TV and social media; ETC is also recognized as a source of expertise in the Arab region	Technical support for programme development to maintain scientific integrity and credibility, as well as mentoring innovators through ETC network
8. KACST, Angel Investment, innovation training programme (with EHBP and RSS), 2013				X		Participants won awards and started businesses	BADIR program for technology incubators is partner with ETC for many activities in Saudi Arabia
9. University of Fez, establishing technology transfer process (with EHBP, RSS, Jordan, WIPO and IOP- UK), 2013		X		X		University adopted the proposed plan and started establishing technology transfer office in 2014	Continuous monitoring of progress
10. Scientific Research Academy in Egypt, assistance in evaluating technology transfer initiatives at various universities, 2013		X		X		26 technology transfer offices were established at Egyptian universities with ETC support	Capacity-building workshop in March 2014 for all relevant parties in Egypt
11. CNRST, setting up a national technology transfer office for Moroccan universities, 2013		X		X		Ongoing	Feasibility study is proposed at national scale in Morocco
12. Birzeit University, Palestine, setting up an intellectual property and technology transfer policy, 2013		X		X		University leadership customized proposed ETC policy	ETC consultant conducted workshop in Amman and will visit university for further support

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Advisory services (continued)							
13. KISR, commercialization activities of research outcomes, 2013		X		X		Ongoing	Survey was conducted on KISR-relevant activities and technical review was supplied to KISR on commercialization road map
14. Ministry of Industry, Trade and Supply, Jordan, setting up industrial map and categorization, 2013	X				X	Ongoing	TOR were developed and a consultant is being identified
15. Jordan Chamber of Industry, technical assistance in areas of packaging, food industry and cosmetics, 2013		X			X	Ongoing	TOR were developed and a consultant is being identified
16. LSTP, intellectual property and technology transfer system, 2013		X		X		Ongoing	Capacity-building workshop was conducted in November 2013 in Tripoli
Substantive participation							
1. QITCOM/Connect Arab Summit, Doha, March 2012	X					Innovation for youth panel with technology suppliers for 600 participants	ICT Qatar linkage with ICTD DAC project
2. Regional conference on digital Arabic content, Amman, March 2012		X					
3. Sixth meeting of ESCWA Consultative Committee on Scientific and Technological Development and Technological Innovation, Beirut, April 2012	X					Participants were original planners of ETC and appreciated implementation of plans	Recommendations were integrated in future ETC programmes
4. Arab advisors ninth convergence summit, Amman, May 2012	X						
5. Industrial physics forum: capacity-building for industrial physics in developing and emerging economies, Italy, April 2012		X					
6. Workshop on financing innovation in SME, Lebanese Association of Banks, Beirut, 2012				X			
7. Technology transfer and intellectual property management, UC Davis, USA, June 2012		X				Capacity-building on technology transfer and licensing was provided to ETC innovation officer	Consultations provided for different stakeholders

Activities	Objectives					Impact	Follow-up
	1	2	3	4	5		
Substantive participation (continued)							
8. Qatar Foundation annual research forum, Doha, October 2012				X			
9. European-Mediterranean innovation strategy, MIRA, Amman and Cairo, October and November 2012	X			X			
10. Research management training, REDINN-EU, Morocco, November 2012		X				ETC was invited to present technology transfer good practices	
11. First Arab innovation network annual conference, UAE, December 2012		X					
12. Arab regional implementation meeting as follow-up on Rio+20, Dubai, May 2013		X			X		TOR for new technology transfer study on Arab region
13. MENA: The road from research and development to commercialization (with World Bank), Cambridge, UK, June 2013		X				ETC was invited to review World Bank innovation project in Lebanon	
14. ECOSOC AMR: STI for development, Geneva, July 2013	X					ECA STI division sought ESCWA help for similar projects	UN partnerships initiative is utilized for networking internationally
15. Global innovators conference (with CNA Qatar), Doha, April 2013		X		X			
16. Arab forum on the ICT sector (with Union of Arab Banks), Tunis, May 2013		X					
17. Digital Arabic content competition (with Jordanian Engineers Association and Mutah University), Jordan, June 2013		X			X		
18. Beirut energy forum, Ministry of Energy, Lebanon, September 2013		X			X		
19. Global clean energy forum (with New York Times International), Doha, October 2013		X			X		
20. Regional workshop on governance and management of science and technology parks in the MENA region (with CMI/WB), Morocco, November 2013	X				X	ETC was invited to present the landscape mapping for the regional incubation system	Workshop in Turkey for same participants in June 2014

ABBREVIATIONS AND ACCRONYMS

AIDMO	Arab Industrial Development and Mining Organization
AMR	Annual Ministerial Review
ASRT	Academy of Scientific Research and Technology
AUB	American University of Beirut
CCIAB	Chamber of Commerce, Industry and Agriculture of Beirut
CMI	Centre for Mediterranean Integration
CNA	College of the North Atlantic
CNRS	National Council for Scientific Research
CNRST	National Centre for Scientific and Technical Research
CRDF	United States Civilian Research and Development Foundation
DAC	Digital Arabic content
ECA	Economic Commission for Africa
ECOSOC	United Nations Economic and Social Council
EGM	Expert group meeting
EHBP	El Hassan Business Park
EIB	European Investment Bank
ESCWA	Economic and Social Commission for Western Asia
ETC	ESCWA Technology Centre
EU	European Union
GCC	Gulf Cooperation Council
HCST	Higher Council for Science and Technology
ICT	Information and communications technology
ICTD	Information and Communication Technology Division
IOP-UK	Institute of Physics, United Kingdom
IRI	Industrial Research Institute
ISESCO	Islamic Educational, Scientific and Cultural Organization

KACST	King Abdulaziz City for Science and Technology
KISR	Kuwait Institute for Scientific Research
LAS	League of Arab States
LSTP	Lebanon Science and Technology Park
MENA	Middle East and North Africa
MIRA	Mediterranean Innovation and Research Coordination Action
MoU	Memorandum of Understanding
OES	Office of the Executive Secretary
QRCE	Queen Rania Centre for Entrepreneurship
RCM	Regional coordination mechanism
RSS	Royal Scientific Society
SDPD	Sustainable Development and Productivity Division
SME	Small and medium-sized enterprises
STI	Sciency, technology and innovation
STIO	Science, technology and innovation observatory
SWOT	Strengths, weaknesses, opportunities and threats
TOR	Terms of reference
UAE	United Arab Emirates
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
DESA	United Nations Department of Economic and Social Affairs
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
WIPO	World Intellectual Property Organization
