

ESCWA TECHNOLOGY CENTRE

Amman, Jordan

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Historical



- ESCWA 24th ministerial session 2006:
“approved, in principle, the establishment of the ESCWA TC”
- ESCWA 25th ministerial session 2008:
“Requested To finalize hosting arrangements;”
- Five countries showed interest in hosting the Centre: Jordan, Syria, Oman, Qatar, Saudi Arabia.
- In August 2009, evaluation committee:
recommended **Jordan as the host country**

- ESCWA resolution 294 (XXVI) May 2010: adopted the statute, requested Executive Secretary to conclude agreement between Jordan and the United Nations;
- 42nd plenary meeting July 2010, ECOSOC resolution 2010/5, endorsed ESCWA resolution 294 (XXVI)
- ESCWA and the Government of Jordan **signed on 23 December 2010 the Host Country Agreement**
- The Royal Scientific Society in Jordan prepared and equipped a location inside the El Hassan Science City as of **March 2010**.

What are major regional needs?

Job generation
Eradication of poverty and
Socio-economic development

Acquisition of scientific &
technological capabilities
associated with
Industrial Development

The benchmarking of STI
progress through agreed upon
set of indicators

What are major regional needs?



- **Con't**

Create linkages between supply and demand
Identify priorities & diffuse best practices

Facilitate agricultural and industrial
growth and competitiveness

Improve management of resources
and the environment

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The Global Competitiveness Index Ranking for some ESCWA Member Countries covered by the report

<u>Country</u>	<u>Rank 2010-2011 (139 countries)</u>
Qatar	17
Saudi Arabia	21
UAE	25
Oman	34
Kuwait	35
Bahrain	37
Jordan	65
Egypt	81
Lebanon	92
Syria	97

Arab Countries Constraints and Facts



- Technology policy based: Spare parts and maintenance are not transferring technology but sustaining consumption!
- Published data on R&D and STI spending are **not** accurate.
- Historic listed obstacles are History:
 - Intellectual Protection laws.
 - Awareness of importance of STI role in development.
 - Education critical role.
 - Available educated skillful workforce.
 - Importance of export and international standards.

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Arab R&D System is Promising Potential



- Between 1970 and 2010, Arab R&D output increased 33 fold.
- By 1950 only 10 universities, over 500 in 2010.
- Underutilized: in 2007 Arab Scientific Publications 15,000 (level of Brazil and S Korea in 1985) ⁽¹⁾.
- In 2008 Arab spent \$16.26 Billion on higher education for 6.62 Million students ⁽²⁾.
- Arab S&T resources are not raising issues and finding solutions.
- Challenging to utilize over 200 Mil literate and over 200,000 PhD holders Unable to connect with local economy:
 - Emigrate (80% of Arab PhD)
- Arab recruiting massively abroad while unemployment is threatening, 2/3 Arabs <25 yrs old and around 20% unemployment? ⁽³⁾.

⁽¹⁾ SCOPUS 2007

⁽²⁾ UNESCO May 2009 Conference, Cairo.

⁽³⁾ A. Zahlan, *Science and Sovereignty: Prospects for the Arab World, 2010*

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Impact of Science, Technology, and Innovation in Arab Countries!



- Impact of STI investment is disappointing and not meeting expectations
- Socio-economic development indicators:
 - IMPROVED: Literacy, Digital connectivity, education, health, languages, etc
 - POOR: income levels, employment, productivity, political stability, security, food, water, environment, etc

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Impact of Science, Technology, and Innovation in Arab Countries!



- Researchers aim at publishing in International (EU or USA) Journals / Conferences.
- IF Successful: cases are Published in the West
- Locally celebrated cases are mostly ignored in the Developed Scientific community.
- IF cited for further work / usefulness in the West and definitely not local.
- HENCE: almost ZERO local impact of best local research.

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ESCWA TECHNOLOGY CENTRE FOR DEVELOPMENT

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Mission

- To Assist member countries and their public and private organizations to acquire the necessary tools and capabilities to accelerate socio-economic development in order to attain technological parity with other nations and regions.

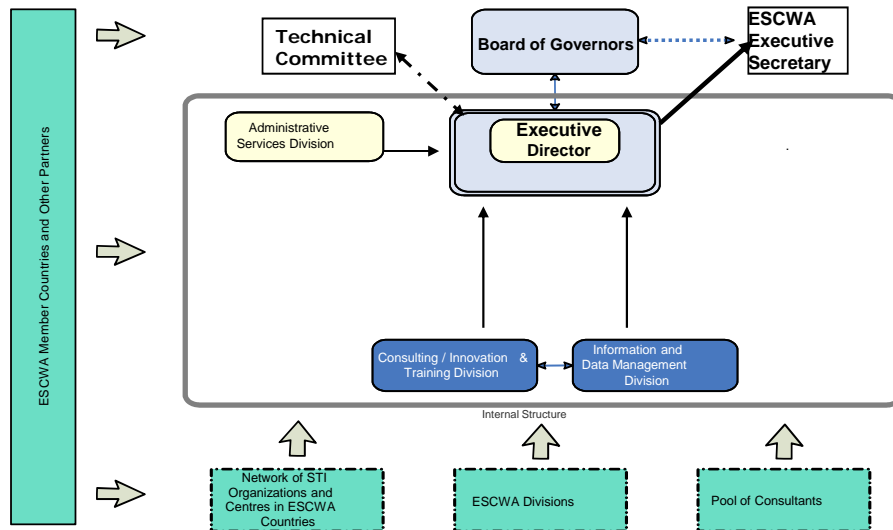
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- To contribute to the strengthening of national STI systems
- To develop capabilities in problem solving and policy formulation
- To foster synergy and complementarity at the regional level in the application of technology

Activities

- Science, Technology and Innovation Information services
 - STI Observatory support
 - Technology Advisory services
 - Technology Foresight
- Innovation Development and Management services
 - Technology Exchange Market (matching)
 - Innovation capacity building and protection
 - Promoting finance for S&T innovation
- Technology System for the Region
 - Group licensing for protected technology utilities
 - Outsourcing
 - Arabic language tailoring
 - Technology maintenance and training

ESCWA Technology Centre, Amman - Jordan



Domains of Attention

- Construction industry
- Industrial technologies
- Energy
- Information and Communication Tech
- Agriculture
- Water
- New materials
- Etc...

ETC Contributes to:



1. Science, Technology, and Innovation (STI) development, and management
2. Increasing STI in traditional economic sectors
3. Increasing productivity, innovative capacity and competitiveness in manufacturing and services industries
4. Education and Human Capital Development with relevant connectivity to community
5. Intensifying STI deployment in governance
6. Enhancing entrepreneur development and facilitate growth
7. Networking of financing mechanism and support system for commercialization of scientific research outcomes
8. Developing a culture for creativity and innovativeness towards a productive society
9. Enhancing knowledge contributions and management
10. Harnessing Science, technology and innovation for socio-economic development

Funding Schemes



Alternatives / Combinations

- Endowment Fund
- Yearly contributions by Member Countries
- Contributions by Host Country: Jordan
- Contributions by direct beneficiaries
- Partnerships with regional and international programs

SCIENCE IS TOO IMPORTANT TO BE LEFT TO **SCIENTISTS AND TECHNOLOGISTS ALONE !**

Omar Abdul Rahman
Coordinator, STI Policy Malaysia
UNESCO's Ministerial Round Table on
"Structure, Organization and Funding of Scientific Research:
the Role of the States"
World Science Forum 2009, Budapest, Hungary

Thank You