



Who Observes Science and Technology in Jordan?

Prepared by: Prof. Adel Tweissi
Secretary General, Higher Council for
Science and Technology (HCST)

2009

1



Outline

- Historical Background of Science and Technology in Jordan.
- Who Collects STI Data in Jordan?
- Science and Technology Potential and Requirements Survey
- Future Plans

2

Historical Background

- **1961: Scientific Research Council**
 - Planning, promoting, and financing research.
 - Identifying national research priorities.
 - Promotion of Scientific research culture.
 - Enhancing science & technology cooperation with other countries.
- **1977: Directorate of Science & Technology as part of the National Planning Council ⇒ Ministry of Planning**
 - Preparing the science & technology policy, plans, and programs.
 - Linking scientific activities to developmental objectives.
- **1978: Jordan's Science & Technology Policy Conference**
⇒ Recommendation:
Jordan should institutionalize science & technology activities under national umbrella
- **1987: The Higher Council for Science & Technology (HCST).**

3

Who Collects S,T,&I Data in Jordan?



- The Higher Council for Science and Technology through:
 - ✓ Conducting Science and Technology Potential and Requirements Surveys
 - ✓ EU Projects (e.g ESTIME)

4

Who Collects S,T,&I Data in Jordan?



- The Ministry of Higher Education and Scientific Research (Reports of Higher Education Institutions)
- Department of Statistics (Employment , Sectoral Economic data)
- Individual researchers (e.g., Saleh, Nabil (2008): S&T Indicators in Arab States; Dr. Adnan Badran and Dr. Moneef Zoubi (2008))

5

Science and Technology Potential and Requirements Surveys



- ✓ The first study was conducted over a two year period (1996-1998).
- ✓ The latest study was conducted during the period 2003-2004 following up activities and initiatives on scientific and technological cooperation.

6

Contents of Science and Technology Potential and Requirements Survey (2003)



- Information about STI system in Jordan
- Key players: HCST and its affiliated centers, public and private universities, research centers, entrepreneurship support programs, technology based incubators, technical advisory centers, and professional and business associations.
- Mandate, main activities and size in terms of budget and no. of employees of these institutions.
- Some S&T indicators like spending on S&T activities per capita or as percentage of GDP, etc.
- Main programs on S&T International Cooperation.
- S&T policy orientation in Jordan.

Science and Technology Potential and Requirements Survey (2003)



Study conducted during the period 2002-2003 and revealed the following:

- ✓ 835 national institutions dealing with S&T activities in 2003 to be compared with 524 in 2006 as reported in ESTIME report
- ✓ The total no. of employees working in S&T activities in 2003 was 42,151
- ✓ No. of engineers and scientists working in R&D amounted to 1,464 FTE (Full time Equivalent) equivalent to 2.7 per 10,000 populations
- ✓ Total S&T expenditures on S&T activities in 2003 as a percentage of GDP was as follows:
 Total S&T expenditure: 7.3% of which: basic and applied research: 0.34%, training and education: 1.6% & S&T services: 5.4%



ESTIME Project (Evaluation of Scientific and Technological Capabilities in Mediterranean Countries)

- This project aimed at analyzing S&T status in the Mediterranean countries . ESTIME project was completed in 2007 and a report about S&T and innovation system in Jordan was prepared as a part of this project.
- The report contains information about RDI institutors in Jordan, human and financial resources devoted to research, international cooperation in research and government initiatives in support to S&T development.

9



Future Plans

- Establishment of National Information System for Science, Technology and Innovation (NISSTI) with the following objectives:
 - Continious updating of STI information
 - Building a comprehensive database about research facilities (labs, equipment, etc)
 - Networking the researchers, entrepreneurs, investors and industrialists
 - Adapting a new methodology for evaluating the projects
 - Assessing the status of R&D
 - Proper documentation of S&T outputs
 - Assessing the academic status in the kingdom
 - Identifying the requirements of R&D
 - Analysis , proper documentation and storage of information

10

Future Plans



- Cooperation with International Agencies (ESCWA, UNISCO)
- Cooperation with EU coming projects (e.g: EU-JORDANNET: A bilateral project which aims at enhancement of Jordan-European S&T partnerships through several activities among which an S&T Observatory on Jordanian Research and Technology co-operation with Europe will be developed, enabling the research institution in Jordan to grasp in quantitative and qualitative terms its position in Jordanian and world scientific and technological production)

11

What do we need?



A Central National S, T & I Observatory



Thank you