ESCWA Statistical Information System (ESIS): a tool for Measuring the Information Society
Introduction

• Originally based on a prototype ICT indicators database system, ESIS was developed, deployed and tested during 2004-2005;

• Has been adopted and used by ESCWA internally and was disseminated to several member countries with hands-on training;

• In 2010, ESIS went through a major upgrade in order to address various statistical needs of EMCs;

• The upgraded version shall be available before mid-May 2011.
Introduction

• ESIS was lately adopted as a model for building the Arab ICT Indicators central database, linked to national databases, in order to transfer and update national ICT data periodically.

(Meeting on ICT Indicators & Capacity-building for ICT measurement in the Arab Region Amman, Jordan, September 2010)

Main Objectives of ESIS

• Increase the accessibility of comparable statistics and indicators on the region relating to various sectors, ICT, social, economic, and other areas of interest;

• Provide a tool to help in making informed, evidence-based decisions, about development issues in the region; and

• Facilitate statistical data exchange between ESCWA and its member countries as it allows for organizing, storing and displaying data in a standard way.
ESIS Architecture

– Desktop interface:
  • Makes it possible for users to create new indicators, update values and undertake various necessary functions;
  • Includes a bilingual tabular and graphical reporting mechanism that facilitates data interpretation and manipulation.

– Web interface:
  • Gives decision-makers across the region and the world access to ESIS content;
  • Increases services to member countries by making indicators and relevant data more readily available to policymakers and interested parties across the region.

ESIS Design

• ESIS provides a powerful database system used as a single entry point for statistical data and disseminate information simply and attractively.

• Main dimensions of ESIS comprise a 3D space whereby the three axes represent:
  • Time
  • Country or Region (group of countries).
  • Indicators

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ESIS Design

- ESIS comprises three main components:
  
  - Administration
  - Data management
  - Reporting

ESIS Users & Administration

- Users are divided into groups
- Each group of users has different access privileges for security purpose;
- ESIS administration module takes care of indicators’ specifications and categorization.
ESIS Data Management

- Data can be **stored / updated** in the DB by:
  - Direct Manual entry;
  - Imported from Excel spreadsheets in standardized format;

- **Computation** is done:
  - Individually (on the cell level);
  - In mass through the derivation and aggregation functionalities available in the system.

- **Data integration** and **Data harmonization** are maintained while storing/computing data.

ESIS Data Management

- ESIS can group indicators **Modules, Categories and Sub-categories** if need be.
ESIS Reporting

• ESIS has a simple and user-friendly reporting module used to query the database.

• Reports could be created:
  – In tabular and/or graphical formats;
  – In English and/or Arabic;
  – With or without metadata.

• Reports could be exported to XLS, HTML, PDF, MHT, Text, RTF files & others.
ESIS Reporting

Tabular and graphical report in En and Ar exported in MS Excel format.
ESIS Technical Requirements

**Server Side**
- **Database Server:**
  - Windows XP server or Advanced server
  - SQL Server 2005 Enterprise Edition or advanced
- **Web Server:**
  - Windows XP server or Advanced server
  - Internet Information Services (IIS)
  - .NET Framework v2

**Client Side**
- **Personal Computer:**
  - Windows XP (SP2) or Advanced
  - Microsoft office 2003 or above (Eng and Arabic)
  - LAN connection to the database server

ESIS Web Interface

- ESIS web component is a read-only, bilingual and portal;
- It facilitates the dissemination of indicators to EMCs, policy and decision makers.

Accessible at: [http://esis.escwa.org.lb](http://esis.escwa.org.lb)
ESIS Modules – ESCWA Database

- Energy resources and use
- Sustainable management of environment
- Water resources and use
- Sustainable agriculture and rural development
- Industry, private sector and production
- Science and technology
- Information and communication technology
- National Accounts
- Population and development
- Social indicators
- Labor force
- Health and vital statistics
- Gender
- Education and Literacy
- Transport
- Trade
- Finance

To a certain extent 13 of the 17 modules are available and populated with data

ESIS Deployment

- ESIS has been disseminated to a number of countries in the region;
- 6 Training workshops were held so far:
  - Jordan: Arab Institute for Training and Research (AITRS), April 2008;
  - Iraq: Central Organization for Statistics and Information Technology (COSIT) for Iraq, May 2008;
  - Kuwait: Central Statistics Office (CAS), March/April 2009;
  - Syria: Central Bureau of Statistics (CBS), July 2009;
  - Oman: Information Technology Authority (ITA), April 2010;
  - Jordan: Telecom Regulatory Commission (TRC), March 2011;
Thank You