Using ICT in policy planning and management for lifelong learning: UNESCO experiences

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What is lifelong learning?
Four pillars of education planning and management for LLL

* Pillar 1: Creating enabling legal and institutional framework
* Pillar 2: Ensuring coherent connection between policy, planning, and budgeting
* Pillar 3: Improving system relevance, efficiency and effectiveness through good sector management
* Pillar 4: Ensuring adequate, equitable and efficient sector financing

Source: UNESCO Bangkok
Why use ICT in education planning and management?

1. Stock taking/Comparing
2. Policy formulation/planning
3. Implementation
4. Monitoring

ICT can facilitate information collection and analysis
Education Management Information System (EMIS)

1. Data Collection
2. Data Processing
3. Data Analysis (construction of indicators and tools for decision-making)
4. Dissemination and distribution of information
Types of EMIS

- Centralized EMIS
- Decentralized (e.g., provincial) EMIS
- NFE-MIS (literacy and non-formal education)
- ECCEMIS (pre-primary education)
- Teacher MIS
- And so on...
UNESCO’s initiatives: OpenEMIS

- **Why OpenEMIS?**
  - Deficiency and weakness of EMIS in many countries (lack of robust information system)
  - Time-consuming to build a new EMIS system from scratch
  - Need for database with basic features common to most countries

- **OpenEMIS Main Characteristics:**
  - A generic tool, designed by UNESCO: Adaptable to various country contexts (administrative & education structure, customized indicators…)
  - Available to member countries without any restriction for further customization (open source code)
  - Strong database engine to handle multi-year large datasets (nationwide)
  - Facilitate the building of an EMIS fitting users needs at various levels (central, regional, local)
  - User friendly interface

- Pilot tested in Mongolia and Uzbekistan
OpenEMIS is a generic open source Education Management Information System (EMIS) developed by UNESCO.

In order to contribute to educational policy formulation and planning, based on data and evidence, UNESCO Division for Planning and Development of Education Systems (ED/PDE/PER) engaged in the design of generic Education Management Information System (EMIS) software called OpenEMIS. The software was meant to constitute a basic, customizable and affordable EMIS tool for countries with weak statistical database to be able to adapt it to the needs of specific national contexts. The first such tool was tried out and disseminated some two years ago, but soon bugs and needs for improvement appeared. In response to the repeated requests of data managers and planning experts in education ministries for an improved version of OpenEMIS, efforts to fix the problems and to further improve the software have been made. In January 2011, an improved, functional version of OpenEMIS has been released.

This portal has been created to host the software code and its documentation.

If you are planning to use this product in a real country context, please contact the project coordinator.

If you are representing a country, an agency or a private company interested in the funding of this project, please contact the project coordinator.

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Simulation is used in education planning to enhance knowledge, to “explore” the future, to help design policy and strategies and to estimate resource implications.

It can facilitate:

- Exploring possible options for correcting the past shortcomings
- Ensuring sufficient financial resources required for policies
- Negotiation with and consensus building among stakeholders on policy and resources
- Development of a credible, justifiable costs plans
When to use simulation?

... AT ALL STAGES OF STRATEGIC PLANNING
Simulation
Can Help...
Developed by UNESCO in 2001 as a generic simulation model

- Excel-based
- Currently, EPSSim version 2.9 is available

EPSSim allows countries to:

- Simulated financial and human resources required for a set of reforms
- Estimate financial gap between available resources and required resources overtime

UNESCO provided technical support to many countries, including Mongolia (review and update of education sector plan), Vietnam (preparation for GPE), Cambodia (review and preparation of a new education sector plan), and Myanmar (revision of Education Law and preparation of a new education sector plan)
What EPSSim can do...

Gross Enrolment Ratios by Education Level

Pre-primary GER:
Primary GER:
Junior secondary GER:
Senior secondary GER:
Tertiary GER:

Total resource needs (mln)
Recurrent costs (mln)
Total gap (%)
Recurrent gap (%)

Financing gap

Total costs (mln)
Recurrent costs (mln)
Total gap (%)
Recurrent gap (%)

0%
20%
40%
60%
80%
100%
120%
140%

Pre-primary GER:
Primary GER:
Junior secondary GER:
Senior secondary GER:
Tertiary GER:

Inter-Agency Network on Education Simulation Models (INESM)

- One-stop shop for education simulation models
- Existing models can be downloaded
- Share information, e-discussion etc

http://inesm.education.unesco.org/
Summing up…

- Evidence-based policy planning and management is crucial to improve access to and quality of education and ensure opportunities for lifelong learning for all.
- Timely, accurate, and relevant information related to students, teachers and schools is needed.
- Since education sector is highly complicated, reforms can bring unexpected outcomes.
- ICT is not a panacea, but it can help the process (e.g., EMIS, EPSSim).
- ICT can also facilitate information sharing, hence enhancing transparency.
THANK YOU!