UNESCO OpenEMIS

Generic and Open Source Software Application for:

EMIS - Education Management Information System
Outline

• EMIS
  ▫ What for?
  ▫ Basics
• “Generic” OpenEMIS
  ▫ What is it?
  ▫ Current status
  ▫ Future plan
• OpenEMIS: Mongolian experience
Background

- A set of sound data and information is the basis for
  - Evidence-based policy
  - Planning
  - Implementation
  - Evaluation

- Without data
  - No operational decision can be taken
  - Therefore no system can function rationally

- EMIS (Education Management Information System) can be defined as procedures:
  - not only to collect, store and process information
  - but also to help in education policy-making
  - by providing relevant and accessible data and information.
## EMIS Status

### Elapsed Months between Data Collection and Data Release

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<th>Education Finance</th>
<th>Pre-School, Primary &amp; Secondary</th>
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- = More than 30 Months
- = 20-30 months
- = 11-20 months
- = 0-10 months

**Source:** SABER pilot survey in East and South East Asia, 2010-2011

Based on data submitted to UIS
Use of Data and Information

Policy and planning
- Strategic decisions for planning the education system
  - Vision, medium and long term objectives
- Allocation, management and control of resources.
  - Translates general objectives into technical operations

Management and control

Operational activities
- Daily activities, closer to school.
  - Often, local decisions with intermediate reach

Macro Level
Intermediate
Micro Level

Quantity of information to use

Information flow
EMIS Functional Components

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

- Deficiency and weakness of ICT-based EMIS (i.e. Education Management Information System) in many countries
- High demand for support in building EMIS in Member Countries
  - Especially in low income countries
  - But no only
- Time-consuming exercise to build a new EMIS
  - Especially EMIS software application
  - Thence, felt need for EMIS software package with basic features common to most countries
- UNESCO OpenEMIS project was re-launched in 2010
OpenEMIS: Main Characteristics

- **A generic tool in its initial design**
  - Methodological guidance
  - Comprising basic features common to all education systems
  - Adaptable to various country contexts (administrative & education structure), either in centralized or decentralised system

- **Open source**
  - Available without any restriction for further customization (open source code)
  - Free software packages

- **Sector-wide**
  - Can integrate data and information for all levels and types of education

- **User needs at various levels** (central, regional, local)
  - Facilitating entry, analysis and use of data and information
  - According to the needs of different layers of administration
  - Easy connection with other national databases

- **Both online and offline mode**
  - Offline for countries with weak IT infrastructures.

- **Available in 4 languages:**
  - English, French, Russian, Mongol
OpenEMIS: Three Components

- **OpenEMIS Database**: a generic database structure customizable to the national context/structure (administrative and educational)

- **EMIS Builder**: allows Ministry administrators to customize the software to the country context & information needs

- **EMIS User**: allows users from schools to central level to:
  - Enter/Process and view data
  - Calculate indicators
  - Produce reports and dashboards, export data
  - Manage user rights & data dissemination policy
### OpenEMIS: Information stored

<table>
<thead>
<tr>
<th>Level of Information</th>
<th>Type of datasets (examples)</th>
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<tbody>
<tr>
<td>Statistical (aggregated Datasets)</td>
<td>• Pupils</td>
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<td>• Teaching and non teaching staff</td>
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<td>• Classes</td>
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<td>• Buildings</td>
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<td>• Rooms</td>
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<td>• Equipment</td>
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<td>• Textbooks</td>
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<td>School management system-SMS (Individual Registers)</td>
<td>• Educational institutions</td>
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<tr>
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<td>• Pupils</td>
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<td>• Teaching and non teaching staff</td>
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<td>• Financial operations (at school level)</td>
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</table>
OpenEMIS Status: Current and Future

• Current progress:
  ▫ Successful pilot test in Mongolia in 2010-2011
    ➢ In a sample of educational institutions (100 schools from kindergarten to upper secondary level)
    ➢ Feedback from users to fine-tune the tool (undertaken)
    ➢ On-going discussions to extend the pilot nationwide
  ▫ Other countries interested in pilot testing OpenEMIS. Examples:
    ➢ Uzbekistan
    ➢ Tunisia

• Future plans:
  ▫ To sustain the OpenEMIS initiative through partnerships:
    ➢ On-going discussions with DevInfo Support Group
    ➢ More partners sought
  ▫ Addition of new functionalities:
    ➢ Access to the datasets through a web based interface
    ➢ Import/Export to sd.mx (UN standard data exchange format)
  ▫ Improvement of the reporting modules
For further information

- Website: http://openemis.codeplex.com (mirror or housed at UNESCO Bangkok website)
  - Source code and setup files
  - Documentation
  - Support Forums
  - Software development community

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  - p.chapelet@unesco.org

- UNESCO Bangkok
  - epr.bgk@unesco.org