Pattaya Workshop resource persons

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Asia-Pacific Regional Advisor

Mr Nyi Nyi THAUNG
Specialist in Statistical Capacity Building

Mr Michael Koronkiewicz
Instructional Designer and Developer

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Special Project Assistant
Background

- UNESCO Division of Statistics
  - Capacity building:
    - National statistical training seminars
    - 1991 Africa: ADEA-WGES: NESIS, initially 10, then all countries
- 1999 UIS Governing Board, chaired by Joseph Ritzen (former WB Vice president)
- 2001, Director-General inaugurates the UIS in Montreal
- Director, Ms. Denise Lievesley
- Regional Advisor, Dr. Ko-Chih Tung
UNESCO Institute for Statistics

Map showing locations in Montreal, Paris, Dakar, Bangkok, Santiago, Harare.
The role and responsibilities of the UIS

1. International classification systems and standards for statistics in areas of UNESCO mandate (eg., ISCED)
2. Conceptual and methodological development (eg. Indicators)
3. **Capacity building and enhancing good practices in Member States, eg. Coverage, reliability, quality**
4. Collection and dissemination of cross-nationally comparable data
5. Guardianship of cross-national databases
6. EFA Observatory for the Global Monitoring Report
7. Analysis and interpretation of comparative data on global themes, eg. Gender parity
Data flow from schools to governments to global reports and back.

- School reports and school records management systems
- Sub-national data collection and processing systems
- National/federal Statistics Agency enters ISCED standardised data to UIS questionnaire and supervises data collection and processing.
- Governments Ministries submit officially authorised response to UIS/OECD questionnaires
- UNESCO Institute for Statistics data entry and processing, ISCED quality control
- International Database Statistics & Indicators
- International Development Agencies World media and public
- Publications
  - EFA Global Monitoring Report
  - Human Development Report
  - Global Education Statistical Digest, etc.
Our aim is to move countries up to the next level towards better data...

**RUDIMENTARY**
Leadership indifference; Weak statistical infrastructure; inadequate operational budget and staff; little data use; little international comparable data

**INTERMEDIATE**
Basic infrastructure, but fragmented; tasks ill-defined; some data use, but little user-oriented services; limited coverage, timeliness, reliability, relevance; some comparable data

**SELF-SUSTAINING**
Leadership engagement; Integrated & distributed system; user-friendly services, good user-producer relation; responsive to policy issues; international comparisons used widely
EFA / MDG / PRSP / UNCCA UNDAF
Monitoring and Evaluation
Six Thematic Working Groups

1) Education (UNESCO/UNICEF)
2) Poverty Reduction and Social Protection (FAO/UNFPA)
3) HIV/AIDS (UNAIDS)
4) Migration (IOM)
5) Local Governance/Decentralization (UNDP)
6) Environment (UNEP)
CCA
Analysis around key national issues among:
• MD & MDGs
• Global Conferences

National Priorities
UN Support to
• “Nationalization” of MDGs
• Natl. budgets, strategies & plans (including PRSPs)

UNDAF
The UN Strategy in support of national plans
• 3-5 MDG linked outcomes
• Reflecting UN System’s comparative advantage
• Management of UN Agency contribution to UNDAF results

UNDAF-based Country Programmes of UN

Joint Programme
UN projects
UN projects
UN projects
GATHERING INFORMATION
On indicators, policies & plans from
Surveys, research documents, reports

ANALYSIS
Of root causes &
their linkages

SELECTION
Of areas of
cooperation
Example Problem: Low school enrolment rates in border region

Evidence/data based

Causal Analysis
Analysis of policy cycle: from formulation to impact assessment.

- relationship between statistical analysis and policy analysis
- apply policy framework for data analysis
- apply data analysis to assess policy framework
From Theory, Hypothesis, Debate to Evidence-based Policy

Scientific process and research design

- Theory, design and measurement
  - theory $\rightarrow$ model $\rightarrow$ data
  - Measurement validity and reliability

- Causal inference procedure
  - Simple sequential inductive approach
  - Hypothesis testing, reject-confirm iterative approach
  - Causal modelling and path analysis of direct, indirect, conditional and interaction effects as well as spurious correlation
From Theory to Evidence-based Explanation

Operationalization
- Model: concepts
- Units, variables, time, relations

Data collection

Integration

Generalization
- Causal inference
- Data analysis

abstraction

Dissection

Specification
Education Issues and Information Needs for Policy & Management

- Policies & resources
- Access & Participation
- Knowledge & Skills

Social Demand

Quality Standards

Efficiency

Social-Economic Impact

NESIS Indicators Model
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Monitoring</th>
<th>Assessment</th>
<th>Evaluation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>improve implementation/formative</td>
<td>improve learning formative/sum</td>
<td>improve policies and strategies/summative</td>
</tr>
<tr>
<td>Aimed at</td>
<td>operations and management</td>
<td>curriculum design, teachers and course providers</td>
<td>policymaking and leadership</td>
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<tr>
<td>Focus</td>
<td>account of what has been implemented</td>
<td>learning objectives, TL methods and materials</td>
<td>evaluation of policies and strategies vs goals &amp; targets</td>
</tr>
<tr>
<td>Informati on</td>
<td>inputs and process</td>
<td>Learning achievements per objectives, TL process</td>
<td>outcomes and impact</td>
</tr>
<tr>
<td>Indicators</td>
<td>resource input, efficiency, quality of delivery</td>
<td>Learning results per method-materials</td>
<td>learning achievements, socio-economic changes</td>
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## Indicators for Education Sub-sectors

<table>
<thead>
<tr>
<th>Indicator areas</th>
<th>Early childhood</th>
<th>Formal Basic education</th>
<th>NFE Out-of-school youth &amp; adults, literacy, life skills</th>
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<tbody>
<tr>
<td>Demand for education and training</td>
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<tr>
<td>Input of resources and policies</td>
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<tr>
<td>Quality of education delivery process</td>
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<tr>
<td>Access and participation/coverage</td>
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<tr>
<td>Efficiency</td>
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<tr>
<td>Output of knowledge and skills</td>
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<tr>
<td>Impact on individual welfare &amp; health</td>
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<td></td>
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<tr>
<td>Impact on gender &amp; social disparities</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Impact on community development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact on socio-economic systems</td>
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