“National Strategies for Development of Education Statistics (NSDES) towards developing integrated and improved education data system for the monitoring SDG4”

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Bangkok, 17-19 July 2019
SDG4- “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”

Global and Thematic Indicators Framework

<table>
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<tr>
<th>Target</th>
<th>Concept</th>
<th>Global indicators</th>
<th>Thematic indicators</th>
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**Total** | 11 | 43 |
### THREE KEY DATA PRIORITIES FOR EDUCATION 2030

- **Broad scope across the life cycle:** Indicators for areas which are on the “margins” of the formal education system, but recognized as critically important to achieving the development goals (levels and types)

- **Education quality:** results of learning at all stages of education provision or learning opportunities

- **Equity:** measures that capture those who are excluded from education provision or learning opportunities

### THREE KEY DATA SOURCES FOR MONITORING SDG4

- **ADMINISTRATIVE**
  - ACCESS AND PARTICIPATION (Enrollment, Progression, Teacher training, School Resources, government finance etc.)

- **HOUSEHOLD/Census**
  - Access, participation, completion, Private finance

- **SCHOOL BASED ASSESSMENT**
  - Learning outcomes/achievements
SDG4 and Data challenges

Challenges in producing data
- Only 50% of the data is available for calculating SDG4 indicators
- Weak coverage outside the formal education system
- Fragmented institutional settings and legal frameworks
- Insufficient technical and financial resources available for education statistics
- Low Data Quality
## Cambodia Data source mapping for SDG4

Table 1: Summary report 2. Basic information of statistical surveys identified as possible data sources for calculation of SDG 4 global and thematic indicators.

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<th>Household/Census</th>
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<td>Annual</td>
<td>Annual</td>
<td>Annual</td>
<td>Annual</td>
<td>3-5 years</td>
<td>Annual</td>
<td>10 years</td>
<td>3-5 years</td>
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| Frequency of Data collection | Annual | Annual | Annual | Annual | Annual | Annual | 3-5 years | Annual | 10 years | 3-5 years |

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**UNESCO INSTITUTE FOR STATISTICS**
Complexity in compiling data to generate education indicators

GER for a level of Education = \[
\frac{\text{Total enrollment in the level regardless of age}}{\text{Total Population of the official age group for the level}} \times 100\%
\]

Total enrollment = enrollment in formal education (Public) + enrollment in formal education (Private) + enrollment in TVET + enrollment in non formal
Complexity in compiling data to generate education indicators

- Managed by different department/Ministries
- Level of data collection
- Data processing and statistics production
- Data collection, production timing, pro etc.

Diagram:

- Inefficiency
  - Lack of Quality
    - Inaccuracy
    - Wastage of resources
Effective Data Strategies are needed

• Reliable data is the basis for sound education policy and planning, to:
  ✓ Track progress
  ✓ Identify barriers
  ✓ Ensure that no child is left behind

• Need strong strategies for developing an National Education Statistical system (NESS) to generate quality data

• An average annual investment of US$1.4 million in data per country could yield US$101 million in national savings. (Effective Plans and policies to stop drop outs, quality interventions for quality learning

• The UIS is calling for an increase in funding for national, regional and international education data

#FundData
The investment case for SDG 4 data
UNESCO – UIS – CapED project

- Develop national capacities to align and strengthen national data and education management information systems for monitoring progress towards SDG 4
- Support countries to develop a Holistic Strategies for Education data/statistics in the country - National Strategies for Development of Education Statistics (NSDES)
- Participating countries: DRC, Madagascar, Mali, Mozambique, Senegal, Haiti - Afghanistan, Cambodia, Myanmar, Nepal, and Bangladesh
What and Why NSDES?

A *policy instrument* designed by government and its partners (ie. the EDP) to provide *a medium-term vision* for a strengthened education data system and data management platform in the country: the National Education Statistics System (NESS).

- Strong coordination and collaboration
- Sound methodologies, norms and standards
- *Data integration strategies*—Administrative, Household/census and learning outcomes
- Strong institutional environment
- Dissemination and use of data
Design Process

1. GETTING STARTED
   Using the DQA to design the NSDES

2. DESIGNING THE RESULTS FRAMEWORK
   Step 1. Defining results
   Step 2. Clarifying partners' roles
   Step 3. Identifying assumptions and risk
   Step 4. Identifying resources
   Step 5. Developing a ME&L plan

3. MOVING TOWARD IMPLEMENTATION
   Developing an operational program

Mapping data sources and identifying data gaps in the national SDG 4 monitoring framework

Conducting a situation analysis using Data Quality Assessment instruments

Tool 1. Prioritizing recommendations and setting strategic objectives
Tool 2. Results matrix template
Tool 3. Risk matrix template
Tool 4. M&E matrix template
Tool 5. Costed program plan template / annual work plan (AWP)

Monitoring, evaluation and learning (ME&L)

Learning by doing
Schematic relationship between data sources, NSS and NESS as intended by the NSDES

 NSS

 NESS

 Learning Outcomes data
 Administra tive data
 Household Surveys data
 Finance data

 Desegregations

 Skills
 - Reading and mathematical skills at different levels
 - ICT skills
 - functional literacy skills

 Student/teacher /environment
 - ECCE/Pre-primary
 - Primary
 - Secondary
 - TVET/Tertiary
 - NFE

 Participation/ Completion
 - Education attainment
 - Education participation
 - Completion
 - Literacy

 Investment
 - Expenditure by levels and by types
 - Expenditure by nature
 - Unit cost

 Coordinated Implementation

 National Strategies for Development of education Statistics
By year 2023, develop sector-wide capacities of NESS stakeholders to produce quality statistics from multiple data sources and track life-long learning opportunities for all.

• **Strategic objective 2:** To develop education statistic structure, which enable to collect reliable and accurate data from various data sources, .... which comply with international standards.

• **Strategic objective 3:** To enhance the technical capacity of NESS to compile, produce and disseminate data from single platform.....
By 2023, develop a sector-wide national education statistical system (NESS) in order to produce accurate, timely, reliable, accessible quality statistics.....leading to effective learning outcomes (Myanmar)

• **Strategic Objective II:** Enhance organizational and statistical processes for reliable and accurate data through establishing a sector-wide EMIS ......

• **Strategic Objective III:** Strengthen the technological and technical capacities of the NESS by developing an integrated database system with the appropriate statistical tools and technologies (software and hardware) ......
Key Activities devised in NSDES for data integration in Education

**Process integration**
- Common data standards, codes and level of data production
- Calculation methodologies
- Classification system especially for TVET and Higher education
- Metadata
- Review and integration of appropriate education questions in HHS/Census
- Inclusion of data on disabilities, ethnicity

**System Integration**
- Mainly focusing on Administrative data sources (Student data, teacher data, HRM, Finance etc.)
- Modular approach (Basic Education, Non Formal Education, Higher Education, Student learning outcomes, School characteristics and Resources, Finance and Population)
- Using common questionnaire/tools

**Output Integration**
- Common platform to publish all education related data and indicators
- Administrative data, HHS/Census data, learning Assessment Data
- Tools to generate data and perform analysis linking various data sources
Education Data Management and Structure in Cambodia

- **NFE-MIS**: Department of Non-Formal Education, MoEYS
- **TVET-MIS**: Ministry of Labour and Vocational Training
- **HHS**: National Institute of Statistics, MoP
Strengthening Individual Student based School management Information System to support data integration

- To help track students and teachers’ progress and performances providing unique ids to students and teacher
- Student ID: Created when he/she registered in the school for the first time.
- Teacher/non-teaching staff: Created when they join the job for the first time.
- The students’ and teachers’ IDs numbers remain unchanged throughout their academic career.

- Produce data in more disaggregated levels
- Increase Efficiency in data compilation and production (real Time data)
- Great potential to link with other databases from health and other social protection databases
Data to transform lives

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