Reconciling Multiple Data Sources for Effective Dissemination of National Development Indicators, including MDG: Cambodia Experience

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Background and overview (1)

- National Statistical System (NSS) of Cambodia is highly decentralized

- Present NSS is defined by in the Statistics Law, *"integrated statistics data and national statistical programmes; statistical organizations and units within line ministries and institutions of the Royal Government of Cambodia; and their statistical staff and infrastructure"*

- National Institute of Statistics (NIS) – the official statistical policy-making body and coordinator, and empowered to collect statistics through censuses, surveys and utilizing administrative data sources

- National Strategic Development Plan (NSDP), a five-year plan, provides as a national development framework, setting out a list of 136 indicators; of which 72 are core indicators and 64 are additional indicators, and among of these about 43 are Cambodian Millennium Development Goals and MDG (CMDG/MDG) indicators
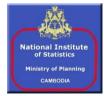
Background and overview (2)

- In 2010, NIS Cambodia was signed MOU with UNSD under the project titled *"UNSD-DFID project on the collation, availability and dissemination of development indicators, including MDGs"*

- In 2012, through the implementation of the above mentioned project, National Working Group for Monitoring and Evaluation of NSDP (NWG M&E) has been established and includes representatives from both statistical units and planning offices of line ministries as a member

- Currently, NSDP indicators were used as a framework for dissemination of national development indicators, and shared these indicators with national and international users through CAMInfo and CountryData website

How NIS work with data dissemination for NSDP indicators

- Collecting and compiling NSDP/CMDG indicator metadata by adopting global MDG metadata structure and localized as national metadata structure and preparation of metadata handbook for NSDP/CMDG indicators

- Collecting and updating NSDP/CMDG indicators by using CAMInfo template as a tool for data reporting and facilitation updating CAMInfo database

- Organizing a series technical meetings and consultative meetings with line ministries and key line ministries through Statistical Coordination Committee (SCC) and Focal Points network

- Jointly organizing and attending technical meeting with General Directorate of Planning of the Ministry of Planning – the leading agency in preparation of NSDP/CMDG report– through National Working Group on Monitoring and Evaluation of NSDP (NWG M&E) mechanism

Example: metadata handbook format

Indicator name	Net enrolment ratio in primary education
Contact point in responsible ministry/agency	EMIS Office, Department of Planning Ministry of Education, Youth and Sport (MoEYS) Address: No. 80, Preah Norodom, 12206, Phnom Penh Tel: (855) 097 958 2472 Fax: (855) 023 217 250 E-mail: khlohvira@yahoo.com Website: http://moeys.gov.kh
Definition	The total number of pupil enrolment in primary education aged 6-11 years expressed as a percentage of the total population aged 6-11 years.
Method of computation	The number of pupil enrolment in primary education aged 6-11 divided by the total population for the same age-group, and multiply the result by 100.
Process of obtaining data	Department of Planning of the MoEYS uses the "Annual School Census Forms" to collect the data. The forms are distributed all schools annually through Provincial and District Education Services. The school principle is responsible for refilling the District and Provincial Offices for collecting, checking and returning the forms to the DoP. Separating survey forms have also been designed and used for gathering data on private education, including primary and secondary schools and tertiary institutions. The Education Management Information System (EMIS) Office of the DoP receives all the forms and manually checks, collates, batches and edits the forms accordingly to pre-determine codes and procedures before entering the data into the computer. The EMIS Office uses Visual dBase for creating the database, SPSS for data analysis and Microsoft Excel for information output.
Treatment of missing values	Data used for measurement the net enrolment rate in primary education covers all types of schools and education institutions, including public, private and all other institutions. However, due to limitation in data collection most private education and other institutions, such as non-government organizations are excluded in this estimation.
Comments and limitations	The estimates net enrolment rate in primary education does not give an indication of the grade or the level of education in which pupils or students are enrolled except when it is calculated by level of education. As specified age-group, difficulties may arise when calculating net enrolment rate that reference date for entry to primary education does not coincide with the birth dates of the entire cohort eligible to enrol at this level of education.
Data availability	Annual
Level of estimates	Estimates are available at the national, urban, rural and provincial levels. Also, the estimates by sexes are available.
Expected time of release	May

Example: data tamplate

Sector	Education				
Class	Primary Education				
Indicator	Net enrolment ratio in primary education (NER)				
Unit	Percent				
Time	Area ID	Area Name	Data Value	Subgroup	Source
1997-1998	KHM	Cambodia	77.8	Total	MoEYS_Education Statistics & Indicators_1998
1998-1999	KHM	Cambodia	78.3	Total	MoEYS_Education Statistics & Indicators_1999
1999-2000	KHM	Cambodia	85.5	Total	MoEYS_Education Statistics & Indicators_2000
2000-2001	KHM	Cambodia	83.8	Total	MoEYS_Education Statistics & Indicators_2001
2001-2002	KHM	Cambodia	87	Total	MoEYS_Education Statistics & Indicators_2002
2002-2003	KHM	Cambodia	88.9	Total	MoEYS_Education Statistics & Indicators_2003
2003-2004	KHM	Cambodia	90.1	Total	MoEYS_Education Statistics & Indicators_2004
2004-2005	KHM	Cambodia	91.9	Total	MoEYS_Education Statistics & Indicators_2005
2005-2006	KHM	Cambodia	91.3	Total	MoEYS_Education Statistics & Indicators_2006
2006-2007	KHM	Cambodia	92.1	Total	MoEYS_Education Statistics & Indicators_2007
2007-2008	KHM	Cambodia	93.3	Total	MoEYS_Education Statistics & Indicators_2008
2008-2009	KHM	Cambodia	94.4	Total	MoEYS_Education Statistics & Indicators_2009
2009-2010	KHM	Cambodia	94.8	Total	MoEYS_Education Statistics & Indicators_2010
2010-2011	KHM	Cambodia	95.2	Total	MoEYS_Education Statistics & Indicators_2011
2011-2012	KHM	Cambodia	96.4	Total	MoEYS_Education Statistics & Indicators_2012
2012-2013	KHM	Cambodia		Total	MoEYS_Education Statistics & Indicators_2013

Issues encountered during the process of data collection for dissemination of NSDP indicators

- Multiple data sources existing in the same indicator and different observation values exist for the same year (e.g. censuses, surveys and administrative records, and time series)

- Lack of harmonized and standardized definitions and methodologies

- Data discrepancies due to different responsible ministries/agencies collected and compiled the same indicator

Selection of data source for dissemination of NSDP indicators: to choose or not to choose one figure? (1)

- NIS has conducted a review and collect metadata of indicators by closely consultation with line ministries/agencies who responsible for compilation of indicators

- Ensuring data quality and transparency: discussed and agreed the source of data, in particular regarding the sustainability of data, frequency and data coverage

- Address some key methodological issues, including the use of population figures in the computation of the indicators and possible regional aggregates

Selection of data source for dissemination of NSDP indicators: to choose or not to choose one figure? (2)

- Key important areas and criteria for selection and decision made:
  - Data sources: surveys or administrative system and its related purpose-based of indicators
  - Responsible ministries/agencies in data collection/compilation of indicators in accordance to statistics law
  - Sustainability of data production: periodicity and frequency of data availability and comparable over time
  - The feasibility of using estimation or imputation methodologies: coverage, consistency, reliability, timeliness and sub-national disaggregation

- Only one data source/data series was decided to choose for reporting and dissemination of NSDP/MDG indicators

- However, in some cases, modeling have been used due to periodicity of data from reliable source is relatively long and most data sources from ad-hoc surveys are comparability more frequent (e.g. HIV prevalence rate)

Future actions: strategy for improving data sources and resolving data gaps and discrepancies (1)

- Continue to conduct a regular meeting through SCC, Focal Points network and NWG M&E mechanisms to discuss key thematic issues regarding the coverage, harmonization, standardized definitions and classifications, methodologies and data reporting mechanisms, and etc.

- Closely work with line ministries to revise and update metadata and data for NSDP indicators and those contents in Metadata Handbook and CAMInfo Database

- Work with line ministries to identify priorities in statistical capacity building, such as statistical literacy training, data collection and data analysis

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Future actions: strategy for improving data sources and resolving data gaps and discrepancies (2)

- Reduce data discrepancies and duplication of data sources through enhancement the NIS role in coordination and implementation of statistics law and other related statistical rules and regulations and adoption international recommendations

- Promote NSDP/CMDG indicators dissemination through update CAMInfo online including translation into local Khmer language and regular update through CountryData maintained by UNSD

- Participate in regional workshops/meetings to learn and share an experience regarding international practices/recommendations on the improving data comparability and discrepancies

Thank you

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