

# Thematic and Global Monitoring of Education

#### **Albert Motivans**

Chief, Education Indicators and Data Analysis
UNESCO Institute for Statistics



#### APMED data and monitoring day

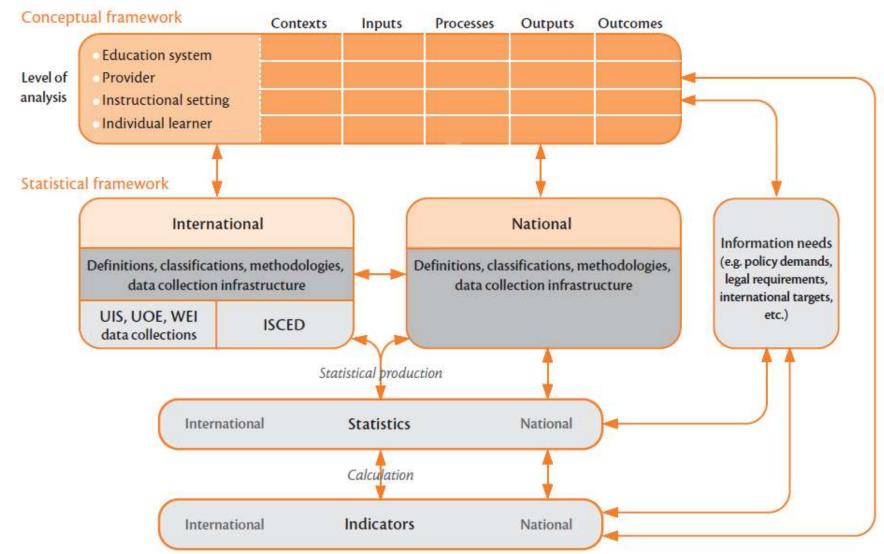
The objective is to inform the formulation of roadmaps to guide towards better national and cross-national data

- consider the content and challenges of thematic and global indicator frameworks
- understand existing national data availability
- identify national challenges and needed responses to improve data
- share a range of national and development partner initiatives that aim to improve data



#### Indicators start from policy frameworks

Conceptual and statistical frameworks for education statistics -





## Roadmaps for better data – from rhetoric to action

- Grasping the enormity of the task and the need to break it down into manageable and achievable pieces – a roadmap
- Recognising that it will get "easier" when reaching a critical mass of national and regional technical capacity (e.g., Latin America)
- Recognising that demand for data is as important as supply
- Planning for indicator development where concepts and measures still need strengthening
- National champions and committed development partners can help to break the path over the medium term



#### 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 development goals
- Education quality: results of learning at all stages of education provision or learning opportunities; other aspects of quality
- Equity: measures that capture those who are excluded from education provision or learning opportunities



#### Proposed levels of monitoring

**National** Regional Broad set of indicators for Thernatic **Education** the range of sectoral 2030 priorities (43 indicators) Global Small set of globally comparable indicators 1 indicator per target

Link to national plan; consult national stakeholders; recognise context and address inclusion and broader learning goals

Indicators to monitor frameworks validated by regional groupings (AU 2063, EU2020)

**SDGs** 

\*UN Secretary General's Synthesis Report, December 2014



#### Current indicator proposals

Proposals generated in two parallel but strongly linked tracks

- Thematic indicators (education community)
  - Current TAG proposal has 43+ indicators
- Global indicators (UN member states)
  - Overall 100-120 indicators for global development framework for 169 targets
  - Current proposal for SDG global monitoring
    - 10-12 indicators for all targets and MOIs



#### The Technical Advisory Group

- Formed in March 2014 to provide guidance on indicators to the EFA Steering Committee
- Initially chaired by UIS and included key international education stakeholders (EFA GMR, OECD, UNESCO, UNICEF, World Bank)
- Conducted global consultation on initial proposal
- Produced three indicator proposals:
  - Muscat Agreement
  - World Education Forum, Incheon, Republic of Korea
  - Education 2030 Framework for Action



## Criteria used by the TAG to select indicators

- **Relevance:** to reflect the most critical policy themes in the targets. Emphasis is placed on measuring learning with equity.
- **Alignment**: The construct to be measured must be valid and reliable, such that the indicator has the same meaning and significance in all settings.
- Global comparability: Global tracking is most effective when the data are collected on a regular basis and all or nearly all countries routinely collect the data in a similar manner.
- **Communicability:** The indicators selected must be easily understood and lend themselves to the construction of a clear narrative regarding progress towards the goals and targets

In scoring target indicators, Education was rated second only after health for most achievable according to UNSD criteria, out of the 17 targets.



#### The extended TAG

- Elaborated the last proposal for thematic monitoring framework for Education 2030 Framework for Action, by:
  - identifying potential improvements to the preliminary TAG proposal
  - agreeing on an approach to further consult Member States
- Approach
  - Co-chaired by UIS and UNESCO
  - Added twelve Member States and CSO representative (EI)
  - Two in-person meetings: 30-31 July and 22-23 September
  - Consultation carried out by regional focal points, India and China representing Asia and the Pacific
- Will continue to ensure that final proposal is linked to global in 2016



# Global SDG indicators: initiation

- **UN Statistical Commission** (UNSC) mandated to oversee the development of the global framework of indicators for SDG monitoring (December 2014)
- **UN System** provided recommendations of indicators to be included in the global set via the UN Technical Support Teams to the UN Statistical Division (February 2015)
  - Proposed education indicators were based on the work of the Technical Advisory Group
  - A subset of the thematic indicators for education (1-2 per target)
- UN Statistical Commission conducted rating exercise of UN-proposed indicators and endorsed the establishment of an Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) (March 2015)



# Global SDG indicators: identification

- Inter-Agency and Expert Group on SDG indicators (IAEG-SDGs) established by UNSC to develop the proposal (May 2015)
  - Members: 28 regionally-representative UN Member States represented by their national statistical offices
  - Observers: International and regional organizations and agencies, civil society and NGOs, and academia
  - First IAEG-SDGs meeting: 1-2 June 2015
  - Open consultation on IAEG's first indicator proposal (11 August 11 September)
  - UN system consolidated set of indicator proposals one indicator per target (5 September)
  - Internal IAEG consultation on results (21 September 15 October)
  - Second IAEG-SDGs meeting: 26-28 October 2015
  - IAEG's final proposal submitted to UNSC (mid-December 2015)



# Global SDG Indicators: Approval and Adoption

- **UN General Assembly:** Approval of the new SDGs by Heads of State (25 September 2015).
- UN Statistical Commission reviews and endorses IAEG's global indicator framework (March 2016)
- ECOSOC adopts global indicator framework (July 2016)
- **71**<sup>st</sup> **UN General Assembly** adopts/notes global indicator framework (September 2016)?

#### 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Learning	1. Percentage of children/young people (i) at the end of primary and (ii) at end of lower secondary achieving at least a minimum proficiency level in (a) reading and (b) mathematics	•	TAG supports indicator 1 as the global indicator for this target in alignment with the UN consolidated Submission.  No consensus on the inclusion of early grades as a point of measure
	2. Administration of a nationally-representative learning assessment (i) in primary education; (ii) at the end of primary and (iii) at the end of lower secondary	•	Standards need to be developed for all assessments
Completion	3. Gross intake ratio to the last grade (primary, lower secondary)	•	Indicators 3 and 4 are current and retrospective measures of
Completion	4. Completion rate (primary, lower secondary, upper secondary)		completion, respectively, by level of education
Doubisingtion	5. Out-of-school rate (primary, lower secondary, upper secondary)		
Participation	6. Percentage of children over-age for grade (primary, lower secondary)		
Provision	7. Number of years of (i) free and (ii) compulsory primary and secondary education guaranteed in legal frameworks		

**Bold:** indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).

**Red**: difference introduced in the UN System's consolidated proposal on the IAEG's list (5 September).

#### 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

Readiness	8. Percentage of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being	<ul> <li>Wide conceptual support</li> <li>Currently tracked via the Early Childhood         Development Index available from MICS for 3- to 4-year- olds but work is needed to examine alternatives     </li> <li>Basis to develop a set of questions for use across</li> </ul>
	9. Percentage of children under 5 years of age experiencing positive and stimulating home learning environment	surveys
Participation	10. Participation rate in early childhood care and education in a given period prior to entry into primary education	<ul> <li>Targets ECCE, which is a solid and wide concept to cover education before the primary level</li> <li>Significant data challenges</li> <li>Some overlapping with 11</li> </ul>
	11. Gross pre-primary enrolment ratio	
Provision	12. Number of years of (i) free and (ii) compulsory pre-primary education guaranteed in legal frameworks	

<sup>\*</sup>Bold: Indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).



#### Thematic indicator framework

Target	Number of indicators	Concepts	Need of development
		Learning	
4.1	7	Completion	2
4.1	/	Participation	Z
		Provision	
		Readiness	
4.2	5	Participation	3
		Provision	
4.3	3	Skills	2
A A	2	Completion	1
4.4	Z	Equity	1



## Thematic indicator framework, cont.

Target	Number of indicators	Concepts	Need of development
4.5	Parity indexes		3
4.5	4	Policy	3
4.6	3	Skills	2
4.0	3	Provision	Z
4.7	5	Provision	4
4.7	3	Knowledge	4
<b>4.</b> a	5	School environment	3
4.b	2	Scholarships	1
4.c	7	Teachers	4
TOTAL	43		25



## Many new issues will need to be addressed

- Who will be responsible for monitoring specific targets at the national level?
   Or disaggregated data?
- Which data sources need to be especially targeted? Who manages these data sources?
- What are the standards for comparable indicators in areas which rely on indicators from household surveys or learning assessments?
- What baselines can be established at this stage?
- Are there comparable indicators for learning outcomes?
- What is the roadmap for the region?



#### Advancing the education monitoring agenda

- Efforts should build on the principal of national ownership
- Agree on a common language and understanding of the concepts
- Measurement frameworks which are reached by consensus
- Data collection that is sustainable and is built into planning
- Recognise technical capacity needs
- Partnerships are essential



#### Aim is for countries to move up to the next level towards better data quality...

#### **SUSTAINING**

**SELF-**

#### INTERMEDIATE

Lacking statistical infrastructure; Little government commitment and use of data; less need for intl. comparable data

**BASIC** 

Basic data channels in place; some commitment to data use; data fragmented across ministries; coverage and relevance; regional comparisons

Stable information system, good links between users and producers of data, responsive to relevant policy issues, but the demands are more complex. Intl comparisons used widely



#### Questions for discussion



- What are the strengths and weaknesses of the proposed thematic monitoring framework for the post-2015 education goals?
- What will be issues in implementing the framework, such as capacity needs?
- What is still missing from the proposed thematic monitoring framework?
- What needs to happen next to formulate an overarching roadmap for measurement and monitoring?



#### Thank you!

Albert Motivans
UNESCO Institute for Statistics
<a href="mailto:a.motivans@unesco.org">a.motivans@unesco.org</a>

@UNESCOstat



#### 4.3. By 2030, ensure equal access for all women and men to affordable quality, technical, vocational and tertiary education, including university

Participation	13. Gross enrolment ratio for tertiary education	Widely available
	14. Participation rate in technical-vocational education programmes (15- to 24-year-olds)	<ul> <li>Data are available on TV enrolment in upper secondary, post-secondary non-tertiary and short-cycle tertiary education.</li> <li>Challenges in collecting TVET data in settings other than formal schools/ universities.</li> </ul>
	15. The percentage of youth and adults participating in education and training in the last 12 months, by type of programme (formal and non formal) and by age group	<ul> <li>Calculated for a range of age-groups and for types of programme (e.g., TVET, tertiary, formal and non-formal adult learning education and training, etc.)</li> <li>The most reliable measure of qualifications in the workforce as a whole is a question on the highest level of education completed (education attainment), usually included in national surveys such as the Labour Force Survey, and National Population Censuses. Further standardisation of this question is required to confirm fully to ISCED 2011 including the specific mentioning of TVET completions. These surveys allow breakdown of the resulting data by age, sex, and other social groupings (eg excluded/disadvantaged groups).</li> <li>Some overlapping with 14 but provides the flexibility for gradual development by type of programme.</li> </ul>

<sup>\*</sup>Bold: Indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills,
including technical and vocational skills, for employment, decent jobs and entrepreneurship

Skills	16.1. Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills	Considerable efforts will be required
	16.2. Percentage of individuals with ICT skills by type of skill	<ul> <li>Proposed global indicator. Will be derived from ITU's survey, but based on self-declaration of individuals about having undertaken certain computer-related activities in a certain reference period</li> </ul>
	17. Adult educational attainment rates by age groups and levels of education	Widely available new indicator in the framework

#### Alternative indicators: Percentage of active population with TVET qualifications

- a) Percentage of workforce whose highest level of education completed is at secondary school or higher
- b) Proportion of workforce whose highest level of education completed is a TVET programme

\*Bold: Indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

Equity cross targets	Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status and conflict-affected as data become available) for all indicators on this list that can be disaggregated  Where possible, other indicators should be presented in relation to the their distribution across the study population	
	18. Percentage of students in primary education whose first or home language is the language of instruction	<ul> <li>Conceptually adjusted based on "first home language" instead of "mother tongue"</li> <li>Major efforts required</li> </ul>
Policy	19. Existence of explicit formula-based policies which aim to reallocate education resources to disadvantaged populations	A framework will be required
	20. Education expenditure per student by level of education and source	New wider indicator replacing the one which focused on households only
	21. Percentage of total aid to education allocated to low-income countries	

<sup>\*</sup>Bold: Indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).

#### 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

Skills	22. Percentage of the population of a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills	•	With exception of STEP and PIACC countries, a cost-effective tool needs to be inserted in other surveys for use across countries. The target ages are 15-24 years for youth, 15+ years for adults but other age groups are also possible
	23. Youth/adult literacy rate	•	The target ages are 15-24 years for youth, 15+ years for adults but other age groups are also possible
Provision	24. Participation rate of youth/adults in literacy programmes	•	Currently data are only available on adult education in European Union countries.

<sup>\*</sup>Bold: Indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

Provision	25. Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies (b) curricula (c) teacher education and (d) student assessment	DS
Knowledge	26. Percentage of students of a given age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability	Indicator is conceptually well-specified but there is not currently a survey that collects the necessary data
	27. Percentage of 15-year-old students showing proficiency in knowledge of environmental science and geoscience	Included as a placeholder, as data are available, until more relevant indicators are developed
	28. Percentage of schools that provide life skills-based HIV and sexuality education	DS
	29. Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per UNGA resolution 59/113)	DS

<sup>\*</sup>Bold: Indicator proposed in the IAEG's preliminary list of suggested global indicators (11 August).



4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

		30. Percentage of schools with access to (i) basic drinking water; (ii) basic sanitation facilities; and (iii) basic handwashing facilities (as per the WASH indicator definitions)	DS
Re	Resources	31. Percentage of schools with access to (i) electricity (ii) Internet access for pedagogical purposes and (iii) computers for pedagogical purposes	
		32. Percentage of schools with adapted infrastructure and materials for students with disabilities	• DS
	Environment	33. Percentage of students experiencing bullying, corporal punishment, harassment, violence, sexual discrimination and abuse	<ul> <li>The indicator is available (Global School-based Student Health Survey)</li> </ul>
		34. Number of attacks on students, personnel and institutions	• DS



4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

Pasaureas	35. Number of higher education scholarships awarded by beneficiary country	DS
Resources	36. Volume of official development assistance (ODA) flows for higher education scholarships by	This indicator only measures some sources of scholarships
	beneficiary country	



4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

Qualified	<ul><li>37. Percentage of teachers qualified according to national standards by education level and type of institution</li><li>38. Pupil-qualified teacher ratio by education level</li></ul>	<ul> <li>DS</li> <li>Qualified teachers have at least the minimum academic qualifications required by national standards for teaching a specific subject</li> </ul>
Trained	39. Percentage of teachers in (i) pre-primary (ii) primary (ii) lower secondary and (iv) upper secondary who have received at least the minimum organized and recognised teacher (i.e., pedagogical) training preservice and in-service required for teaching at the relevant level in a given country, by type of institution	<ul> <li>DS</li> <li>Trained teachers have received at least the minimum pedagogical training required by national standards to become a teacher</li> </ul>
	40. Pupil-trained teacher ratio by education level	
Motivated	41. Average teacher salary relative to other professions requiring a comparable level of education qualification	DS
	42. Teacher attrition rate by education level	DS
Supported	43. Percentage of teachers who received in-service training in the last 12 months by type of training	DS