# Training Course about the 4th sustainable development goal indicators (SDG4) related to the quality of education



First day, 20/11/2023

## Outline – 1<sup>st</sup> Day

- Review course objectives and expected results
- Introduction of the 4th sustainable development goal (SDG4)
- Data sources and international comparison
- SDG4 indicators: target 4.1
- SDG4 indicators: target 4.2
- Discussion and questions

## Course objectives and expected results

## Overall goal:

 Reviewing the indicators of the 4th goal of the global sustainable development goals and the mechanisms for monitoring education in Arab countries.

 Providing training on Goal 4 indicators, adapting them to national contexts, and developing relevant recommendations.

### Course objectives and expected results (Cont.)

#### Course objectives:

- Training on the mechanism of calculating indicators and the descriptive data for each indicator.
- Discussing the challenges facing Arab countries in monitoring and measuring the indicators of the fourth goal.

#### The expected results:

- Building the capabilities of participants in ways to measure the indicators of the fourth goal.
- Access to a specific mechanism for providing data for the indicators of the fourth goal.

## Introduction of the 4th sustainable development goal (SDG4)

#### Education for All Goals: 2000–2015

Over the fifteen years, significant progress has been made towards achieving the development goals for all, but they have not been achieved by the 2015 deadline.

#### • Sustainable Development Goals: 2015–2030

In September 2015, in New York, during its Conference on Sustainable Development, the Member States of the United Nations officially adopted the 2030 Agenda for Sustainable Development. This plan includes 17 goals, including a new global goal in the field of education (SDG 4), which is *'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'*, accompanied by seven goals and three means of implementation. The setting of this target was the result of an extensive consultative process conducted by Member States, but with broad participation from civil society, teachers, unions, bilateral agencies, regional organizations, international organizations, the private sector, and research institutes and institutions.

- Goal 4: Ensure that everyone has equal access to quality education and promote lifelong learning opportunities for all.
- The fourth goal focuses on acquiring foundational and higher-level skills and achieving more equitable access to technical and vocational education and training, life-long training, and the skills, knowledge and values necessary to engage well with and contribute to society.

## Introduction of the 4th sustainable development goal (SDG4) – Cont.

## SDG4 Targets

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

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

4.3

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

## Introduction of the 4th sustainable development goal (SDG4) – Cont.

- 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

- 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

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

- 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

## Introduction of the 4th sustainable development goal (SDG4) – Cont.

#### Means of implementation

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

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.



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.

## Data sources and international comparison

#### **Data Sources:**



## Data sources and international comparison

#### Differences Between Data Sources:

#### Administrative records

- It is the data that government institutions collect daily for various administrative purposes, such as registering births and deaths and building permits.
- •The cost is much lower compared to other sources
- High quality due to its reliance on official documents
- An organized periodical of data and statistics, so that monthly, quarterly, or annual indicators can be produced from these records.
- Speed of data production, as the processes of many stages of producing statistics (training, data collection, data processing) are shortened.

#### Census

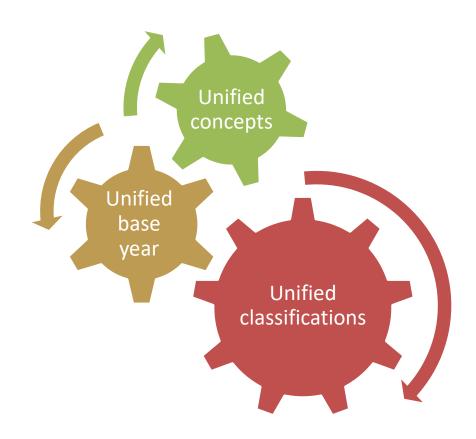
- •A method of collecting data that includes the entire population
- The data collected is accurate and detailed
- An expensive and slow process because it involves studying the entire population
- This type is usually performed after several years

#### Survey

- · Partial or representative sample
- Not expensive
- It does not require much time to implement
- It can be performed repeatedly
- The information obtained from surveys is not detailed by not collecting data from the entire population.
- •The success of the survey depends on the selection of the sample

## Data sources and international comparison

Requirements of international comparison



## SDG 4.1 indicators:

- Target 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
- Indicator 4.1.1: Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex
- Indicator 4.1.2: Completion rate (primary education, lower secondary education, upper secondary education)

#### Definition:

Percentage of children and young people achieving at least a minimum proficiency level in (i) reading and (ii) mathematics during primary education (Grade 2 or 3), at the end of primary education, and at the end of lower secondary education. The minimum proficiency level will be measured relative to new common reading and mathematics scales currently in development.

#### Concepts:

Minimum proficiency level (MPL) is the benchmark of basic knowledge in a domain (mathematics, reading, etc.) measured through learning assessments. In September 2018, an agreement was reached on a verbal definition of the global minimum proficiency level of reference for each of the areas and domains of Indicator 4.1.1

#### Minimum proficiency levels defined by each learning assessment

Reading			
<b>Educational Level</b>	Descriptor		
Grade 2	They read and comprehend most of written words, particularly familiar ones, and extract explicit information from sentences.		
Grade 3	Students read aloud written words accurately and fluently. They understand the overall meaning of sentences and short texts. Students identify the texts' topic.		
Grades 4 & 6	Students interpret and give some explanations about the main and secondary ideas in different types of texts. They establish connections between main ideas on a text and their personal experiences as well as general knowledge.		
Grades 8 & 9	Students establish connections between main ideas on different text types and the author's intentions. They reflect and draw conclusions based on the text.		

#### Minimum proficiency levels defined by each learning assessment

Mathematics			
Educational Level	Descriptor		
Grades 2-3	Students demonstrate skills in number sense and computation, shape recognition and spatial orientation.		
Grades 4-6	Students demonstrate skills in number sense and computation, basic measurement, reading, interpreting, and constructing graphs, spatial orientation, and number patterns.		
Grades 8 & 9	Students demonstrate skills in computation, application problems, matching tables and graphs, and making use of algebraic representations.		

- Data sources
- School based learning assessments
- e.g: TIMSS, PISA

- Population based learning assessments.
- e.g: MICS6, PAL network

#### Method of computation

- The number of children and/or young people at the relevant stage
  of education n in year t achieving or exceeding the pre-defined
  proficiency level in subject s expressed as a percentage of the
  number of children and/or young people at stage of education n, in
  year t, in any proficiency level in subject s.
- where:
- MP<sub>t,n,s</sub> = the number of children and young people at stage of education n, in year t, who have achieved or exceeded the minimum proficiency level in subject s.
- $P_{t,n}$  = the total number of children and young people at stage of education n, in year t.
- n = the stage of education that was assessed.
- s = the subject that was assessed (reading or mathematics).

Comment and limitations

International comparability is not yet applicable since data are reported at the national level only.

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#### Definition:

Percentage of a cohort of children or young people aged 3-5 years above the intended age for the last grade of each level of education who have completed that grade.

#### **Concepts:**

- The intended age for the last grade of each level of education is the age at which pupils would enter the grade if they had started school at the official primary entrance age, had studied full-time and had progressed without repeating or skipping a grade.
- For example, if the official age of entry into primary education is 6 years, and if primary education has 6 grades, the intended age for the last grade of primary education is 11 years. In this case, 14-16 years (11 + 3 = 14 and 11 + 5 = 16) would be the reference age group for calculation of the primary completion rate.

#### Data source:

The data can be obtained from population censuses and household surveys that collect information on the highest level of education and/or grade completed by children and young people in a household. Typical questions in a survey to collect data on educational attainment are:

- What is the highest level of education [name of household member] has attended?
- What is the highest grade of education [name of household member] has completed at that level?

- Method of computation:
- The number of persons in the relevant age group who have completed the last grade of a given level of education is divided by the total population (in the survey sample) of the same age group.

Formula: 
$$CR_n = \frac{P_{C_n,AG_{a+sts}}}{P_{AG_{a+sts}}}$$

where:

completion rate for level n of education:

- population aged 3 to 5 years above the official entrance age a into the last grade of level n of education who completed level n
- population aged 3 to 5 years above the official entrance age a into the last grade of level n of education
- ISCED level 1 (primary education), 2 (lower secondary education), or 3 (upper secondary education)

#### Comment and limitations:

- **First,** the age group 3-5 years above the official age of entry into the last grade for a given level of education was selected for the calculation of the completion rate to allow for some delayed entry or repetition. In countries where entry can occur very late or where repetition is common, some children or adolescents in the age group examined may still attend school and the eventual rate of completion may therefore be underestimated.
- **Second,** as the indicator is calculated from household survey data, it is subject to time lag in the availability of data.
- Third, when multiple surveys are available, they may provide conflicting information due to the possible presence of sampling and non-sampling errors in survey data.

## Practical Example of Calculating 4.1.2 "Palestine as a case study"

#### Data source:

Labour Force Survey, 2022 (LFS)

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- . Typical questions in a LFS to collect data on educational attainment are:
- Pr3: How many years did (name) successfully complete?
- Pr4: What is the educational attainment?
- We depend on the years of Schooling that the individual successfully completed to calculate completion rate.

## Practical Example of Calculating 4.1.2 "Palestine as a case study"

 Method of Calculation of Completion Rate for Each level of Education:

Level of education	Last grade	Age at the last grade	Method of calculation
Primary	4 <sup>th</sup>	9	Percentage of individuals (12-14) years who successfully completed at least 4 years of schooling
Lower Secondary	9 <sup>th</sup>	14	Percentage of individuals (17-19) years who successfully completed at least 9 years of schooling
Upper Secondary	12 <sup>th</sup>	17	Percentage of individuals (20-22) years who successfully completed at least 12 years of schooling

Note: The official entry age of School in Palestine is 6 years old

## SDG 4.2 indicators:

- Target 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
- Indicator 4.2.1: Proportion of children aged 24–59 months who are developmentally on track in health, learning and psychosocial wellbeing, by sex
- Indicator 4.2.2: Participation rate in organized learning (one year before the official primary entry age), by sex

• **Definition:** The proportion of children aged 24 to 59 months who are developmentally on track in health, learning and psychosocial well-being.

#### Concepts:

- The domains included in the indicator for SDG indicator 4.2.1 include the following concepts:
- Health: gross motor development, fine motor development and self-care.
- Learning: expressive language, literacy, numeracy, pre-writing, and executive functioning.
- **Psychosocial well-being:** emotional skills, social skills, internalizing behavior, and externalizing behavior.

- Mothers or primary caregivers are asked 20 questions about the way their children behave in certain everyday situations, and the skills and knowledge they have acquired.
- The indicator derived is the proportion of children aged 24 to 59 months who have achieved the minimum number of milestones expected for their age group.

The minimum number of milestones expected for each age group, defined as follows:

Age group (in months)	Minimum number of milestones
24 - 29	7
30 - 35	9
36 - 41	11
42 - 47	13
48 - 59	15

- Data sources:
- Household survey programmes such as UNICEF-supported Multiple Indicator Cluster Surveys (MICS) and the Demographic and Health Surveys (DHS).
- Method of computation:
- The number of children aged 24 to 59 months who are developmentally on track in health, learning and psychosocial well-being divided by the total number of children aged 24 to 59 months in the population multiplied by 100.
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#### Definition:

The participation rate in organized learning (one year before the official primary entry age), by sex is defined as the percentage of children in the given age range who participate in one or more organized learning programme, including programmes which offer a combination of education and care. Participation in early childhood and in primary education are both included. The age range will vary by country depending on the official age of entry to primary education.

- Data sources:
- Administrative data from schools
- household surveys on enrolment by single year of age in early learning programmes; population censuses and surveys for population estimates by single year of age (if using administrative data on enrolment); administrative data from ministries of education on the official entrance age to primary education.

#### Comment and limitations:

- Participation in learning programmes in the early years is not full time for many children.
- The indicator does not measure the intensity of the programme.

#### Method of computation:

The number of children in the relevant age group who participate in an organized learning programme is expressed as a percentage of the total population in the same age range.

$$PROL_{0t1,AG(a-1)} = \frac{E_{0t1,AG(a-1)}}{SAP_{AG(a-1)}}$$

#### where:

- $PROL_{0t1,AG(a-1)}$  = participation rate in organized learning one year before the official entry age a to primary education
- $E_{0t1,AG(a-1)}$  = enrolment in early childhood or primary education (ISCED levels 0 and 1) aged one year below the official entry age a to primary education
- $SAP_{AG(a-1)}$  = school-age population aged one year below the official entry age a to primary education

Thank you for Jistening!



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