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

4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies (b) curricula (c) teacher education and (d) student assessments

Definition:

Extent to which countries mainstream global citizenship education (GCED) and education for sustainable development (ESD), including climate change education, human rights and gender equality, in their education systems, specifically in policies, curricula, teacher education and student assessment.

It seeks to measure the quantity and quality of country inputs as well as whether the quality of GCED and ESD provision is adequate to fulfil their transformational potential.

The indicator is intended to go beyond the level of ‘existence’ or ‘mentioning’ of GCED and ESD in policy, curricula, teacher education and student assessment.

Education for Sustainable Development (ESD): empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity. It is about lifelong learning, and is an integral part of quality education.

Global Citizenship Education (GCED): nurtures respect for all, building a sense of belonging to a common humanity and helping learners become responsible and active global citizens. GCED aims to empower learners to assume active roles to face and resolve global challenges and to become proactive contributors to a more peaceful, tolerant, inclusive and secure world.

Purpose:

The indicator provides important information on the level of national commitment towards the attainment of this target (for example whether political will/decisions and resources available have
been translated into concrete policies, curricula, assessment) as well as whether the quality of the programmes provided, can predict the likelihood that desired student outcomes will be achieved.

**Calculation method:**

This indicator is based on an evaluation of reports submitted by countries to UNESCO as part of the monitoring process for the 1974 Recommendation concerning Education for International Understanding, Co-operation and Peace Education relating to Human Rights and Fundamental Freedoms that occurs every four years. These reports describe how countries are mainstreaming global citizenship education and education for sustainable development in their education policies and systems.

Countries’ responses to selected questions in a standardised questionnaire developed for the monitoring of the 1974 Recommendation are used to calculate the four components of this indicator: (a) national education policy, (b) curricula, (c) teacher education and (d) student assessment. The curricula component is sub-divided into two sub-components: (i) curricular content and (ii) curricula resources.

Scores for each question were standardised to lie between 0 and 100 using a Min-Max procedure as follows:

\[ Z_{ij} = \frac{(x_{ij} - \text{min}(x_i)) \times 100}{\text{max}(x_i) - \text{min}(x_i)} \]

where

- \( Z_{ij} \) = standardised score for question \( i \) for country \( j \)
- \( x_{ij} \) = actual score for question \( i \) for country \( j \)
- \( \text{min}(x_i) \) = minimum score for question \( i \) reported by any country
- \( \text{max}(x_i) \) = maximum score for question \( i \) reported by any country

For a given component of this indicator, the simple mean is calculated of the standardised z-scores for the questions contributing to the given component. The results for all responding countries are then divided into approximate terciles to give the following categories for reporting:

- Upper tercile = making strong progress
- Middle tercile = Progress is under way
- Bottom tercile = Has more room for progress
Results are reported for each component or sub-component separately but are not combined into an overall score on the grounds that strong progress in one component does not compensate for weak progress in another. Analysing each component separately is more useful and informative in identifying the areas in which more efforts are required.

The questions that are used for each component are as follows (based on the 2016 reporting round):

**National education policy**

Q1. To what extent are the guiding principles of the 1974 Recommendation (e.g. cultural diversity and tolerance, equality and non-discrimination, peace and non-violence, justice, human rights and fundamental freedoms, human survival and well-being, caring for our planet/sustainability, etc.) reflected in your constitution or domestic legislation?

A1. 1 = not at all, ..., 5 = fully

Q2. To what extent are the principles of the 1974 Recommendation reflected in your country’s current education policy/ies and frameworks?

A2. 1 = not at all, ..., 5 = fully

Q25. How would the current overall implementation of the principles of the 1974 Recommendation be rated?

A25. 1 = not yet implemented, ..., 5 = fully implemented

**Curricular content**

Q7. Which of the following, or similar, principles and topics are taught in your formal educational system as part of the curriculum? (please tick all that apply)

A7. One point is awarded for each of the 12 boxes ticked.

Peace and non-violence:
- friendly relations among nations
- preventing violent extremism
- preventing other forms of violence, including bullying, gender-based violence, school-related gender-based violence, etc.

Human rights and fundamental freedoms:
- equality, inclusion and non-discrimination
- justice and fairness
- ethics, morals and values.
Cultural diversity and tolerance:
   (a) international understanding, solidarity and cooperation
   (b) intercultural and interreligious dialogue
   (c) global citizenship.

Human survival and well-being:
   (a) climate change
   (b) environmental sustainability, caring for the planet
   (c) sustainable development, consumption and livelihood.

Q23. What opportunities are provided at school level for students to participate in decision-making processes that concern them? (please tick all that apply)

A23. One point is awarded for each box except (d) which is ticked.
   (a) school governance/decision-making
   (b) student council or similar bodies
   (c) student clubs
   (d) none
   (e) other, please specify

Curricula resources

Q11. Overall, are the number of teaching hours for the principles and topics mentioned in Q7 (peace and non-violence, human rights and fundamental freedoms, cultural diversity and tolerance and human survival and well-being) estimated to be sufficient?

A11. 1= not at all, ..., 5 = fully.

Q18. To what extent are there adequate teaching and resource materials (including ICTs and audio-visual materials) to teach/deliver the principles below and engage learners? (please tick all that apply)

A18.
   (a) peace and non-violence (1 = not at all, ..., 5 = adequately)
   (b) human rights and fundamental freedoms (1 = not at all, ..., 5 = adequately)
   (c) cultural diversity and tolerance (1 = not at all, ..., 5 = adequately)
   (d) human survival and well-being (1 = not at all, ..., 5 = adequately)
   (e) other, please specify (1 = not at all, ..., 5 = adequately)

Teacher education

Q12. To what extent are the principles and topics mentioned in Q7 (peace and non-violence, human rights and fundamental freedoms, cultural diversity and tolerance and human survival and well-being) reflected in the curriculum of pre-service teacher training?
A12. 1 = not at all, ..., 5 = fully.

Q13. Teachers for which level of education received training that reflects the principles and topics mentioned in Q7 (peace and non-violence, human rights and fundamental freedoms, cultural diversity and tolerance and human survival and well-being)? (please tick all that apply)

A13. One point is awarded for each box which is ticked.
   (a) pre-primary
   (b) primary
   (c) secondary
   (d) post-secondary/tertiary
   (e) other, please specify (e.g. adult education, TVET, etc.)

Q14. Please indicate the overall percentage of teachers estimated to have been trained on the principles and topics mentioned in Q7 (peace and non-violence, human rights and fundamental freedoms, cultural diversity and tolerance and human survival and well-being) through in-service training and teacher professional development.

A14. 1 = 0-20%, 2 = 21-40%, ..., 5 = 81-100%

**Student assessment**

Q15a. Are the principles and topics mentioned in Q7 (peace and non-violence, human rights and fundamental freedoms, cultural diversity and tolerance and human survival and well-being) included generally in student assessments/examinations?

A15a. 1= yes, 0 = no or no information.

Q15b. If yes, please indicate which of the following dimensions of learning were included in the last student assessment/examinations. (please tick all that apply)

A15b. One point is awarded for each box which is ticked, except (e) and (f).
   (a) knowledge
   (b) skills and competencies
   (c) values and attitudes
   (d) behaviours
   (e) none
   (f) no information available

Q16. Which of the following dimensions of learning is your country planning to reinforce in student assessment/examinations in the next five years in the principles and topics mentioned in Q7 (peace and non-violence, human rights and fundamental freedoms, cultural diversity and tolerance and human survival and well-being)?
A16. One point is awarded for each box which is ticked, except (e) and (f).
   (a) knowledge
   (b) skills and competencies
   (c) values and attitudes
   (d) behaviours
   (e) none
   (f) no information available

Interpretation:

Acknowledging that evidence on how the policy guidance and implementation in policy, curricula, teacher training and student assessment actually work and what impact they may have, progress might be interpreted in relation to the comparative/ipsative priority and emphasis assigned to these areas over time, i.e. if and how existence, frequency, priority and scope of implementation change from one collection to the next.

Type of data source:

Country responses to a standardised questionnaire for the reporting of the implementation of the 1974 Recommendation concerning Education for International Understanding, Co-operation and Peace Education relating to Human Rights and Fundamental Freedoms.

Disaggregation:

By each component or sub-component of the indicators: (a) national education policy, (b) (i) curricular content, (b) (ii) curricula resources, (c) teacher education, and (d) student assessment.

Data required:

Information on the extent to which a given country is mainstreaming global citizenship education and education for sustainable development in their education polices and systems.

Data sources:

In reference to UNESCO's mandate to monitor the implementation of the 1974 Recommendation concerning Education for International Understanding, Cooperation and Peace and Education relating to Human Rights and Fundamental Freedoms, every four years a survey questionnaire is sent to 195 UNESCO Member States. This is an established mechanism, on the basis of which countries systematically report to UNESCO on the status of implementation of the 1974 Recommendation; the survey questionnaire covers almost all aspects of the proposed indicator, as per the specific recommendations. UNESCO has been analysing the survey results and reports to its General Conference on country status. In 2016 UNESCO revised the terminologies and the format of the survey.
tool to make it more relevant to the present time and easy to use, which will increase the response rate.

Salient guiding principles on sources and collection approaches as well as experiences on this topic can be derived from the global monitoring and evaluation work conducted as part of the decade for education for sustainable development (DESD, 2005-2014). Other human rights monitoring frameworks, education sector reviews or other thematic studies can also serve as additional sources for this indicator.

**Limitations and comments:**

The indicator does not verify whether the national measures taken lead to desired changes in learning outcomes and does not assess learning outcomes directly. However, education policies, curricula, teacher education and student assessment, demonstrated in the indicator, are key intermediate outcomes of national commitment and effort to effectively implement GCED and ESD and to provide a conducive learning environment.
4.7.2 Percentage of schools that provide life skills-based HIV and sexuality education

**Definition:**

Percentage of schools providing life skills-based HIV and sexuality education within the formal curriculum or as part of extra-curricular activities.

**Purpose:**

To assess progress towards implementation of life skills-based HIV and sexuality education in all schools. This indicator tracks the proportion of schools that provide life skills-based HIV and sexuality education within the formal curriculum or as part of extra-curricular activities. This indicator reflects curriculum delivery in support of national HIV prevention programmes.

**Calculation method:**

The number of schools at each level of education providing life skills-based HIV and sexuality education is expressed as a percentage of all schools at the given level of education.

\[ PSHIV_n = \frac{SHIV_n}{S_n} \]

where:

- \( PSHIV_n \) = percentage of schools at level \( n \) of education providing life skills-based HIV and sexuality education
- \( SHIV_n \) = schools at level \( n \) of education providing life skills-based HIV and sexuality education
- \( S_n \) = total number of schools at level \( n \) of education

**Interpretation:**

A high value indicates that a large number of schools at the given level of education provide life skills-based HIV and sexuality education to students.

**Type of data source:**

Administrative data.

**Disaggregation:**

By level of education.
**Data required:**

Number of schools at each level of education providing life skills-based HIV and sexuality education and total number of schools at the same level.

**Data sources:**

Administrative data from schools and other providers of education and training.

**Limitations and comments:**

While the indicator potentially provides a good measure of coverage, considering which schools have provided life skills-based HIV and sexuality education, at the minimum required levels, due to the range of topics and the set minimum package of topics, this indicator is quite complex to calculate using the method of measurement suitable for school-based surveys. It does not capture how much time is actually spent on each of the topics. If only school head teachers report on this indicator, many may not know which topics are taught if life skills-based HIV and sexuality education is not a standalone and assessed subject.
4.7.3 Extent to which the framework on the World Programme on Human Rights Education is implemented nationally (as per the UNGA Resolution 59/113)

Definition:

The extent to which countries have implemented the World Programme on Human Rights Education and, specifically, the 5-year action plans for each phase of its implementation. The action plan for the period 2015-2019 focuses on:

(i) consolidating actions in the previous two stages: human rights education in primary and secondary schools (2005-2009); and human rights education for higher education and human rights training programmes for teachers and educators, civil servants, law enforcement officials and military personnel (2010-2014); and

(ii) promoting human rights training for media professionals and journalists.

It seeks to measure the quantity and quality of country actions and commitment to mainstreaming human rights education.

Purpose:

The indicator is a measure of government commitment to ensuring that learners at all levels of education have the opportunity to gain the required knowledge and skills in the area of human rights in order to promote sustainable development.

Calculation method:

The method of reporting this indicator has still to be defined. It will be based on an evaluation of reports submitted by countries describing how they are implementing the World Programme on Human Rights Education.

Interpretation:

To be determined.

Type of data source:

Administrative data.

Disaggregation:

None.
**Data required:**

Information on the extent to which a given country is implementing the World Programme on Human Rights Education. The exact format of reporting has still to be defined.

**Data sources:**

National evaluation reports and other evaluations of the implementation of the action plan for each stage of the World Programme on Human Rights Education submitted periodically to the Office of the High Commissioner for Human Rights (OHCHR).

**Limitations and comments:**

To be determined.
4.7.4 Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability

Definition:

Percentage of students of a specific age group or level of education (to be determined) showing adequate understanding of issues relating to global citizenship and sustainability.

Purpose:

The indicator is a direct measure of the learning outcomes achieved in global citizenship education (GCED) and education for sustainable development (ESD), critical for the promotion of sustainable development. Furthermore, GCED and ESD encompasses all the other subjects, including climate change education, human rights and gender equality, covered by the target so it can be argued that the indicator will measure these items as well.

Calculation method:

The indicator is calculated as the number of students of a given age/education level achieving or exceeding the minimum level of understanding of issues relating to global citizenship and sustainability, expressed as a percentage of all students of that age/education level.

\[ PEGCS_a = \frac{E_{a,GCS}}{P_a} \]

where:

- \( PEGCS_a \) = percentage of students in age group \( a \) with knowledge of global citizenship and sustainability
- \( E_{a,GCS} \) = students in age group \( a \) with knowledge of global citizenship and sustainability
- \( P_a \) = population in age group \( a \)

Interpretation:

A high value indicates a large number of students in the relevant age group have at least a given level of understanding of issues relating to global citizenship and sustainability.

Type of data source:

Learning assessments.
**Disaggregation:**

By age and sex and others as available.

**Data required:**

Number of students by single year of age (or education level) and their level of knowledge in the areas being measured.

**Data sources:**

This indicator is collected via skills assessment surveys. The main existing source of data for this indicator is the IEA's International Civic and Citizenship Education Study (ICCS). In 2015, the IEA General Assembly endorsed and encouraged efforts to work towards the inclusion of the global dimension of citizenship and sustainable development in future cycles. The ICCS questionnaire is currently being revised to meet this objective. IEA may advance the next round or add an interim round of the ICCS in 2018.

Other sources of data could be explored such as the World Values Survey, with the long-term goal of collecting comparable information about students' knowledge, skills, values and attitudes in multiple assessment formats.

**Limitations and comments:**

The subjects assessed are considered key for the promotion of sustainable development. Further developmental work will also be needed to ensure that the knowledge being assessed and the proficiency levels are relevant in all parts of the world. Currently the indicator is only calculated for those in formal education and school settings.
4.7.5  Percentage of 15-year old students showing proficiency in knowledge of environmental science and geoscience

**Definition:**

Percentage of 15-year-old students achieving at least a minimum proficiency level in environmental science and geoscience.

**Purpose:**

The indicator is a direct measure of the learning outcomes achieved in two key subjects relevant to the promotion of sustainable development.

**Calculation method:**

The indicator is calculated as the number of 15-year-old students achieving or exceeding the minimum proficiency level in environmental science and geoscience expressed as a percentage of all 15-year old students.

\[
PEESG_{15} = \frac{E_{15,ESG}}{P_{15}}
\]

where:

- \(PEESG_{15}\) = percentage of students aged 15 years with knowledge of environmental science and geoscience
- \(E_{15,ESG}\) = students aged 15 years with knowledge of environmental science and geoscience
- \(P_{15}\) = population aged 15 years

**Interpretation:**

A high value indicates a large number of students aged 15 years have at least a given level of proficiency and knowledge of environmental science and geoscience.

**Type of data source:**

Learning assessments.

**Disaggregation:**

By age and sex and others as available.
Data required:

Number of students aged 15 years and their level of knowledge in the areas being measured.

Data sources:

This indicator is collected via skills assessment surveys. One possible source is OECD's Programme for International Student Assessment (PISA). TIMSS 2015 and 2019 provide a framework for measuring the indicator although the focus is on other age groups. National assessments could be used to report once the policy descriptors have been defined. Other sources should also be explored, with the long-term goal of collecting comparable information about students' knowledge in multiple assessment formats.

Limitations and comments:

The subjects assessed are considered key for the promotion of sustainable development. A first step towards meaningful measurement is agreement on a Global Content Framework to serve as an umbrella to guide teaching and learning, while respecting differences in context and user cases. This would ensure that the knowledge being assessed and the proficiency levels are relevant in all parts of the world. This will be the base for reporting of national assessments. The age group is another possibility for adjustment, taking into account secondary education.