



# Education for Sustainable Development and the SDGs

## *Learning to Act, Learning to Achieve*

Policy Brief

### Advancing ESD Policy

January 2018

*“Education will be the lynchpin of a sustainable development agenda whose success relies on individuals, throughout their lifetime, acquiring relevant knowledge and developing positive attitudes to address global challenges”.<sup>1</sup>*

Education is essential in supporting the implementation of the sustainable development agenda, and its importance for human development is well recognised in Sustainable Development Goal 4 on education. Across the targets of all of the Sustainable Development Goals (SDGs), education can provide a valuable means in supporting their implementation and achievement. Education, and in particular ESD helps individuals to better understand the environmental and social impacts of their daily lifestyle choices, and it can support cooperative learning and critical examination which leads to collective reimagining of lifestyle practices and identification of sustainable solutions. Through education, learners are able to gain critical life skills and the capacity to be active in the pursuit of sustainable development. This brief examines how *education for sustainable development* policies may be advanced to support the implementation and achievement of the SDGs, and ultimately help empower a learning society for sustainability.

### Key Messages

- 1) Education for Sustainable Development provides a valuable framework and methodology for achieving the goal of “quality education ... for all” as stated in SDG 4.
- 2) As a means of implementation, education is an important tool to support the achievement of each Sustainable Development Goal.
- 3) Improvements in the quality of education and equitable access to it can have a wide diversity of development benefits that demonstrate a high return on investment.
- 4) Educational policies play a primary role in the effective implementation of ESD and framing how it influences and benefits the curriculum, teacher training, development of learning materials, and the learning environment.

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<sup>1</sup> Global Education Monitoring Report 2015: 294

## Learning for sustainability

Education has a significant and vital role to play in the global effort to halt climate change and set humanity on a course for sustainable development. Thus, education policy needs to be aligned with national commitments towards contributing to the 2030 Development Agenda and the Paris Agreement. Quality education for sustainable development has the potential to support transformative learning and bring about fundamental change. In order to achieve this, countries must first consider how to develop plans and actions that will harness education as a powerful means of implementation, and ultimately reform education policy towards the advancement of sustainable development.

In order to ensure coherence, ESD policies and mandates must address several aspects of the education system. Key to framing the effective implementation of ESD is how it is addressed in the curriculum, teacher training, development of learning materials, and the learning environment. Additionally, there are four implementation modalities to address: 1) governance, accountability and partnerships; 2) effective coordination; 3) monitoring, reporting and evaluation for evidence-based policies; and 4) financing (UNESCO, 2015a). ESD policies must not only give authority for the implementation of ESD, they also need to ensure the necessary institutions, resources and capacities for its effective delivery. For example, if a country establishes a strong policy mandating ESD, but it is not supported with ESD-linked teacher training or ESD learning material development, there will be a significant shortcoming in implementation.

### Unpacking SDG 4- Target 4.7

**Goal 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

#### **Target 4.7 Education for sustainability and global citizenship**

by 2030 ensure all learners acquire 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

## The role of education in SDG implementation

The 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) were adopted by the 193 Member States of the UN General Assembly on 25 September 2015. The 17 SDGs serve as *“a comprehensive, far-reaching and people-centred set of universal and transformative goals and targets”*<sup>1</sup> with the aim of achieving them globally by 2030. The magnitude of this agenda and its vision for global change towards sustainability is challenging. As the world works towards fundamental changes across the social, economic and environmental dimensions of sustainable development, a re-envisioning of socio-cultural values, norms and standards must accompany this shift, as well as the development of new knowledge and skills.

Education has a long history as an international priority, and the right to education was first enshrined in the *Universal Declaration of Human Rights* in 1948. The SDGs reaffirmed the need to improve education and ensure all people are afforded a high standard of education. Education has two critical roles to play in supporting the implementation of the SDGs. First, education is addressed as a standalone goal in SDG 4 especially as a primary driver of human development. Second, education is also understood as a highly effective means of implementation across all of the Goals by serving as a vehicle to raise awareness, increase knowledge, and develop capacity of actors around the world to play active roles in the work of the 2030 Development Agenda. Improvements to the quality of education can catalyse the transformative learning needed for realising a sustainable future for all.

## Education and human development

Education is championed as a vehicle for human development, and this is well supported by evidence showing that increased educational attainment has positive correlations with poverty reduction, economic growth, health improvements and reductions in child mortality rates (Lochner, 2010; Mattos, MacKinnon, & Boorse, 2012; Polacheck, 2007). At an individual level, each additional year of schooling strengthens individual earning potential by an average of 10% (Polacheck, 2007). At a national level, an increase in average school attainment by one year has a demonstrated correlation to a 0.58% increase in national GDP per capita growth rates (Hanushek & Woessmann, 2008).

Improving the quality of education can provide an even more significant boost to economic growth than simply increasing attainment.

*“For countries and communities that embrace the need to bring quality education to all, the benefits are enormous”* (UNESCO, 2015a: 2).

The development benefits that education supports are most notable in those countries where achievement is most lacking. One study estimated that a 12% reduction in global poverty could be achieved merely by ensuring that all children in low-income countries leave school with basic reading skills – this is the equivalent of lifting 171 million people out of poverty (EFA Global Monitoring Report, 2011: 8). Furthermore, education is linked to improvements in civic participation, engagement in decision-making processes, greater political stability and reduction in civil war (Center for Global Development, 2006; Collier & Sambanis, 2005).

## Education and sustainable development

In addition, education is an important means of implementation for sustainable development. It helps harmonize the tensions between economic, social and environmental development and integrate them into a single concept and pursuit. ESD can thus help address the fact that as countries achieve higher levels of education, they not only experience economic growth but also rapid increase in resource and energy usage. In order to do so, however, education must be viewed as a cross-cutting means of implementation to strengthen achievements across many SDGs. A broader understanding of education encompassing formal, non-formal and informal structures creates a strong mechanism for supporting social learning and change.

As a social process, ESD can help engender a culture respectful to the principles of sustainable development. All forms of education play an important role in cultural and social reproduction, but ESD can provide a forward-looking orientation in relation to the 2030 Development Agenda and the SDGs. ESD promotes reform towards quality education to enhance students' lifelong learning, critical reflexivity, cooperative learning relationships, and holistic interpretations of knowledge.

*“Quality education is about what and how people learn, its relevance to today’s world and global challenges, and its influence on people’s choices. Many now agree, quality education for sustainable development reinforces people’s sense of responsibility as global citizens and better prepares them for the world they will inherit” (UNESCO 2014: 28).*

## ESD advancing quality education

ESD addresses important thematic topics such as climate change and sustainable consumption, but it also advances value and skill-based learning. Applying action-oriented and problem-based learning, ESD supports the critical examination of practices and behaviours. This aims for learners to achieve sustainable living through practical, daily actions and develop their capacities to become effective agents of social change.

Both literature and practice now underscore the value of quality education on people’s ability to live healthier, happier and more productive lives in a sustainable manner. No other development goal provides greater return on investment. Quality education outcomes have higher influence on economic growth than school enrolment rates, and improving quality can be more cost effective as it depends on systematic knowledge investments more than new resource allocation. Quality education for sustainable development supports higher order learning thus strengthening competencies to analyse, synthesise and evaluate complex information in decision-making, planning and problem solving (Ofei-Manu & Didham, 2014).

*“Across all levels and types of education – formal, non-formal, informal – ESD is also helping to advance the change in teaching and learning processes, bringing in approaches that ‘stimulate pupils to ask questions, analyse, think critically and make decisions,’ that are cooperative rather than competitive and that are more student-centred” (UNESCO 2014: 65).*

## What is ESD?

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. ESD is holistic and transformational education, which addresses learning content and outcomes, pedagogy and the learning environment. It achieves its purpose by transforming society.

**Learning content:** Integrating critical issues, such as climate change, biodiversity, disaster risk reduction (DRR), and sustainable consumption and production (SCP), into the curriculum.

**Pedagogy and learning environments:** Designing teaching and learning in an interactive, learner-centered way that enables exploratory, action oriented and transformative learning.

**Societal transformation:** Empowering learners of any age, in any education setting, to transform themselves and the society they live in.

**Learning outcomes:** Stimulating learning and promoting core competencies, such as critical and systemic thinking, collaborative decision-making, and taking responsibility for present and future generations.

In order to enable measurable improvements in learning targets and performance-based outcomes, a stronger focus on quality education that is holistic and practical solutions-based is more effective. Nevertheless, in countries where enrolment rates are still a concern, the pursuit of quantitative improvements alongside qualitative improvements remains essential.

Qualitative reform of education requires progressive and dynamic curricula and the establishment of effective learning spaces that support collaborative and experiential learning. This employs a comprehensive approach to educational improvements with respect to learning content, the approach for knowledge and skill transfer, the status of learning environments and the context in which learning takes place.

### Education integrated across the SDGs

The Global Action Programme on ESD identifies two parallel objectives for ESD defined as 1) integrating sustainable development into education, and 2) integrating education into sustainable development (UNESCO, 2014).

For the 'integration of education into sustainable development', the value and benefits that education bring to the achievement of the other SDGs needs to be more clearly elaborated and galvanised. This requires an understanding of education that extends beyond the boundaries of formal education institutions, and expands the opportunities for life-long learning, continuing professional development, and community-based/social learning. An appreciation of education as a 'strategic development investment' is also required.

Education can be advanced to support sustainable development at multiple levels. Clarifying a framework for ESD that jointly demonstrates its role in: 1) developing the capacities required to achieve the SDGs, and 2) advancing the quality of educational practice through improved pedagogies and practical-relevance of learning, would clarify the important roles for ESD both within SDG 4 and across all of the SDGs. Subsequently, national governments can respond to these international agendas through appropriately contextualising them in national policies and strategies, thus allowing ESD's roles to be more clearly elaborated and integrated in national sustainable development strategies, national education plans, and education curricula. Integration of a quality education for sustainable development perspective into implementation processes and monitoring and evaluation frameworks will further strengthen the execution of these recommendations.



## Education Targets and Indicators across the SDGs

### SDG 3 – Health and Well-being

Target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

### SDG 5 – Gender Equality

Global Indicator: Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education.

### SDG 8 – Decent Work and Economic Growth

Target 8.6: By 2020, substantially reduce the proportion of youth not in employment, education or training.

### SDG 12 – Responsible Consumption & Production

Target 12.8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

### SDG 13 – Climate Change Mitigation

Target 13.3: Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

## Recommendations for Advancing ESD Policies

- SDG 4 may be recognized as offering the potential for countries to galvanize ESD as a stimulus for a larger qualitative turn in educational reform and advancement.
- The promotion of ESD, especially as a vehicle for the advancement of the quality and relevance of education, depends on clearly defined strategies and policies formulated in a holistic and integrated manner to carry out systematic and unified improvements.
- The overall efficacy of ESD depends on various aspects including reforming educational systems, strengthening curriculums, innovating pedagogies and teacher training, transforming learning environments, building diverse partnerships, and creating local learning opportunities.
- Ensuring flexibility in the curriculum allows for more opportunities to align teaching with real-world issues, increases the practical relevance of learning, and promotes effectiveness of ESD implementation with stakeholder involvement.
- Eight overarching competencies for sustainability are identified, and these can be used 1) to frame the core goals of the curriculum including progressive learning objectives, and 2) to coordinate both disciplinary and interdisciplinary aspects of the curriculum. The eight sustainability competencies are:
  - ❖ Systems thinking competency,
  - ❖ Anticipatory competency,
  - ❖ Normative competency,
  - ❖ Strategic competency,
  - ❖ Collaboration competency,
  - ❖ Critical thinking competency,
  - ❖ Self-awareness competency, and
  - ❖ Integrated problem-solving competency (UNESCO, 2017).
- Education practice should be framed around using progressive pedagogies and cooperative learning approaches with specific focus on student-centred learning, critical reflection and problem solving. For this to be possible, teachers must be equipped with appropriate pedagogical skills and methods through both pre-service and in-service training.
- Enhanced capacities are needed among policy makers and authorities, curriculum developers, school administrators, assessment experts, and teachers as these important stakeholders hold the key to the successful development and mainstreaming of ESD curriculum.
- The supportive institutions and implementation structure of the education system must be strengthened to deliver more effectively and efficiently on these policy improvements, and key to this is the establishment of safe and effective learning environments.

### Resource Materials

UNESCO Global Action Programme on Education for Sustainable Development clearinghouse:

<https://en.unesco.org/gap>

10YFP Sustainable Lifestyles and Education programme:

<http://www.scpclearinghouse.org/sustainable-lifestyles-and-education>

UNESCO. (2017). *Education for Sustainable Development Goals: Learning Objectives*. Paris: UNESCO.

<http://unesdoc.unesco.org/images/0024/002474/247444e.pdf>

UNESCO. (2015). *Education 2030: Incheon Declaration and Framework for the implementation of Sustainable Development Goal 4*. Paris: UNESCO.

<http://unesdoc.unesco.org/images/0024/002456/245656E.pdf>

Educated a Child. (2016). *Education and the SDGs*. occasional paper #2; Doha: Education Above All (EAA).

<http://educationaboveall.org/uploads/library/file/2a8e15847d.pdf>

Ofei-Manu, P., & Didham, R. J. (2014). *Quality Education for Sustainable Development: A priority in achieving sustainability and well-being for all*. Policy Brief, No. 28; Hayama, Japan: Institute for Global Environmental Strategies (IGES).

<https://pub.iges.or.jp/pub/quality-education-sustainable-development>



## References

- Buckler, C., & Creech, H. (2014). *Shaping the Future We Want: UN Decade of Education for Sustainable Development (2005-2014) - Final Report*. Paris: UNESCO.
- Center for Global Development. (2006). *Education and the Developing World: Why is education essential for development*. Washington, D.C.
- Collier, P., & Sambanis, N. (Eds.). (2005). *Understanding Civil War: Evidence and analysis*. Washington, D.C: The World Bank.
- EFA Global Monitoring Report. (2011). *Education Counts: Towards the Millennium Development Goals*. Paris. Retrieved from <http://unesdoc.unesco.org/images/0019/001902/190214e.pdf>
- Hanushek, E. A., & Woessmann, L. (2008). The Role of Cognitive Skills in Economic Development. *Journal of Economic Literature*, XLVI.
- Laurie, R., Nonoyama-Tarumi, Y., McKeown, R., & Hopkins, C. A. (2016). Contributions of Education for Sustainable Development (ESD) to Quality Education: A Synthesis of Research. *Journal of Education for Sustainable Development*, 10(2), 1–17.
- Lochner, L. (2010). *Non-Production Benefits of Education: Crime, health, and good citizenship* (CIBC working paper No. 2010–7). London, Ontario.
- Lotz-Sisitka, H. (2013). Conceptions of Quality and “Learning as Connection”: Teaching for Relevance. *South African Journal of Environmental Education*, 29, 25–38.
- Mattos, T. V., MacKinnon, M. A., & Boorse, D. F. (2012). *The Intersection of Gender, Education, and Health: A community-level survey of education and health outcomes for women in southeastern Togo*. Massachusetts.
- Ofei-Manu, P., & Didham, R. J. (2014). *Quality Education for Sustainable Development: A priority in achieving sustainability and well-being for all (IGES Policy Brief, No. 28)*. Hayama, Japan. Retrieved from <http://pub.iges.or.jp/modules/envirolib/view.php?docid=4966>
- Polacheck, S. W. (2007). *Earning Over the Lifecycle: The Mincer earnings function and its application*. Bonn.
- UNESCO. (2015). *Framework for Action Education 2030: Towards inclusive and equitable quality education and lifelong learning for all (draft)*. Incheon: UNESCO.

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### GAP Partner Network 1 – Advancing Policy<sup>2</sup>

- Beydaar Society and Echo Change
- Centre for Environment Education, India
- German Federal Ministry of Education and Research
- Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES)
- Hard Rain Project
- Institute for Global Environmental Strategies (IGES)
- International Union for Conservation of Nature (IUCN)
- Mediterranean Initiative for Environment and Sustainability (MEDIES)
- Ministry of Public Education, Costa Rica
- Ministry of Education, Culture, Sports, Science and Technology, Japan - National Commission for UNESCO
- Ministry of Education, Science and Technology, Kenya
- Ministry of Environment, Green Development and Tourism, Mongolia
- Ministry of Education and Training, Vietnam
- National Council on Climate Change and Clean Development Mechanism, Dominican Republic
- Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura (OEI)
- UN Alliance on Climate Change Education, Training and Public Awareness (Secretariat UNFCCC)
- UN CC:Learn coordinated by UNITAR
- United Nations Economic Commission for Europe (UNECE)



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\* The ideas and opinions expressed in this brief are those of the authors, they are not necessarily those of UNESCO and do not commit the Organization.