



# FROM COMMITMENT TO ACTION: INTEGRATING SUSTAINABLE DEVELOPMENT INTO NATIONAL EDUCATION PRIORITIES

A Practical Guide for Policymakers,  
Practitioners, and Researchers



Global Schools  
Program



SUSTAINABLE DEVELOPMENT  
SOLUTIONS NETWORK  
A GLOBAL INITIATIVE FOR THE UNITED NATIONS



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SIEMENS Gamesa  
RENEWABLE ENERGY

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### **SDSN**

The UN Sustainable Development Solutions Network was set up in 2012 under the auspices of the U.N. Secretary-General. SDSN mobilizes global scientific and technological expertise to promote practical solutions for sustainable development, including the implementation of the Sustainable Development Goals (SDGs) and the Paris Climate Agreement.



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The Global Schools Program is an initiative of the SDSN. Global Schools develops the tools, resources, and programs to support schools and educators around the world. The vision of the program is to create a world where every primary and secondary school student is being equipped with the knowledge, values, and skills necessary for shaping a sustainable and prosperous world for all. Global Schools works internationally to support schools and educators with evidence-based training and localized classroom resources in order to integrate sustainable development into school curricula, operations, and activities.



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## Message from Jeffrey Sachs



**Jeffrey D. Sachs**  
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**S**ustainable development is the great challenge of our time. Climate change is accelerating, threatening lives, livelihoods, and ecosystems globally. Communities around the world are still grappling with the health and economic impacts of the COVID-19 pandemic. Wars and violence are causing mass suffering and dislocations. And yet our technologies and tools to end poverty, hunger, and preventable diseases are more powerful than ever. The key to building the future we want lies with the world's young people, who will be the leaders of government, business, academia, and civil society in the years ahead. Our single most powerful investment is in the health and education of today's youth around the world — so that they can grow, develop, and gain technical skills and ethical orientations for a peaceful, prosperous, fair, and sustainable future.

In the years to 2030, educational access and educational quality for all young people should be our great priority. Education for Sustainable Development, ESD, will be key to empower young people with skills and values needed to achieve sustainable development.

As the President of the UN Sustainable Development Solutions Network (SDSN), I am very excited to present this toolkit, which provides a detailed methodology to carry out a comprehensive needs assessment of education policy and curriculum to create meaningful ESD curriculum tailored to the needs of each region and community.

We at SDSN are deeply grateful to Siemens Gamesa Renewable Energy for their generous support. SDSN is also deeply thankful to all the educators, administrators, and students who continue to push for transformative education and sustainable development all over the world.



# Acronyms and Definitions

## **Sustainable Development Goals (SDGs):**

The SDGs are targets for global sustainable development adopted in 2015. The 17 SDGs address issues related to poverty, hunger, health, education, energy, work, industry, inequalities, cities, consumption, climate, ocean life, ecosystems, peace, and partnerships. Achieving these goals requires a profound transformation in the way we live, think, and act. The role of education in achieving all of the SDGs is given heightened emphasis (UNESCO, 2020).

**Transformative Education:** Transformative education involves teaching and learning that motivates and empowers learners to make informed decisions and act at the individual, community, and global levels. With a focus on sustainability and global citizenship, transformative education implies ensuring that curriculum, pedagogy, learning materials, schools, and learning environments are meaningful for the social, political, economic, cultural, and environmental contexts. Transformative education puts in place experiential and explorative learning that involves “head, heart, and hand” through cognitive, socio-emotional, and behavioral dimensions (UNESCO, 2022a).

**Target 4.7:** Constitutes one of the objectives of SDG 4: quality education. Target 4.7 calls for national and local bodies to ensure that by 2030, all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through ESD 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 (UNESCO & Education International, 2021).

## **Education for Sustainable Development (ESD):**

ESD is an integral element of SDG Target 4.7. It empowers learners of all ages with the knowledge, skills, values, and agency to make informed decisions and take individual and collective action to change society and care for the planet. ESD is a lifelong learning process and an integral part of quality education. It enhances the cognitive, socio-emotional, and behavioral dimensions of learning and encompasses learning content and outcomes, pedagogy and the learning environment itself (UNESCO, 2023).

**Global Citizenship Education (GCE):** GCE is an educational approach that nurtures respect and solidarity in learners in order to build a sense of belonging to a common humanity. GCED equips learners with knowledge, skills, values, and behaviors to become responsible and active global citizens in building inclusive and peaceful societies (UNESCO, 2018).

**21<sup>st</sup> Century Skills:** Refer to an overarching concept regarding the knowledge, skills and attitudes citizens need to be able to fully participate in and contribute to the knowledge society. This need is mostly attributed to the changes in society, and more particularly, to the rapid development of technology and its impact on the way people live, work and learn (UNESCO International Bureau of Education, 2013).

**Curriculum:** Curriculum represents a systematic and intended packaging of competencies (i.e. knowledge, skills and attitudes that are underpinned by values) that learners should acquire through organized learning experiences both in formal and non-formal settings (UNESCO International Bureau of Education, 2015).

**Intended curriculum:** A set of formal documents which specify what the relevant national education authorities and society expect that students will learn at school in terms of knowledge, understanding, skills, values, and attitudes to be acquired and developed, and how the outcomes of the teaching and learning process will be assessed (UNESCO International Bureau of Education, 2013).

**Implemented curriculum:** Involves the actual teaching and learning activities taking place in schools through interaction between learners and teachers as well as among learners; that is how the intended curriculum is translated into practice and actually delivered. Also defined as the ‘curriculum in action’ or the ‘taught curriculum’ (UNESCO International Bureau of Education, 2013).

**Attained curriculum:** Comprises the knowledge, understanding, skills and attitudes that learners actually acquire as a result of teaching and learning. It can be assessed through different means and/or demonstrated in practice, and it may also differ from the intended and the implemented curriculum (UNESCO International Bureau of Education, 2013).

**Competencies:** Defined as the sum of skills (basic and new basic skills) needed to live in a contemporary knowledge society (UNESCO International Bureau of Education, 2013). Some of the ESD competencies include collaboration, critical thinking, self-awareness, and integrated problem solving.

**Learning Outcomes:** The measurable skills, abilities, knowledge, or values that students should be able to demonstrate as a result of completing a course or a project are referred to as learning outcomes. They are student-centered rather than teacher-centered in the sense that they describe what students will do rather than what the instructor will teach (University of South Carolina, n.d.).

**Environment:** Conceptual category that refers to holistic notions of physical and human dimensions of the environment and the processes and impact of interactions within it. ESD acknowledges the interrelatedness of environmental challenges in a complex mix of social and economic issues, seeking to empower learners to think critically and make informed actions toward environmental integrity and justice (UNESCO, 2020).

**Economy:** Conceptual category that refers to a complex and multidimensional system of relationships pertaining to SDG 8 *Decent Work and Economic Growth*; SDG 8 includes the production, consumption, distribution, and exchange of goods, of which inclusive and sustainable means of continued growth and employment are imperative (UNDESA, 2023). ESD promotes shared and circular views of the economy as alternatives to unsustainable production and consumer-heavy societies through encouraging learners to explore sufficiency, fairness, and solidarity in the economy (UNESCO, 2020).

**Society:** Conceptual category that refers to society envisioned as human arrangements where every individual has an active role to play, based on the fundamental values of equity, equality, social justice, human rights, freedoms, tolerance, and diversity (UNESCO, 2021b). ESD is recognized as a process of societal transformation, equipping learners with skills, knowledge, and attitudes towards advocating for a just and sustainable society for future generations (UNESCO, 2020).

**Governance:** Conceptual category that broadly refers to the culture and institutional environment in which citizens and stakeholders interact among themselves and participate in public affairs, inclusive of processes designed to ensure accountability, transparency, responsiveness, rule of law, stability, equity and inclusiveness, and empowerment (UNESCO International Bureau of Education, 2015). Governance relating to ESD implicates institutions, particularly learning institutions, in ensuring their governance processes align with sustainable development principles and encouraging collaborative governance among diverse stakeholders (UNESCO, 2020).

# Executive Summary

Given the scale and intensity of global challenges facing future generations, policymakers have a responsibility to transform national education systems in order to better prepare children for such a future. Education for Sustainable Development (ESD) ensures that learners of all ages are equipped with the values, knowledge, attitudes, and skills to shape communities that can not only withstand future challenges and shocks, but also thrive in the global economy. The purpose of this guide is to provide policymakers, practitioners, and researchers working in the field of education with a detailed, practical, and evidence-based methodology for integrating ESD into national educational strategies and curricula. The step-by-step guidance was developed in close consultation with several leading academics and practitioners in the field of education, and empirically tested in a series of pilot studies in Ghana, Turkey, and Morocco.<sup>1</sup> The guide provides readers with a toolkit that includes designing an ESD Curriculum Framework, policy and curriculum analysis, innovative lesson design, detailed evaluation, and a roadmap for efficiently and rapidly scaling up ESD across the national education system.

## Rationale

Research shows that ESD, and its core pedagogical features, can be highly effective tools for enhancing educational outcomes, while also supporting social and environmental objectives (Ardoin et al., 2018). These findings suggest that ESD offers a win-win strategy for governments seeking to prioritize sustainability while also improving their national educational systems. And yet, according to studies by GERM and UNESCO, at this point in time ESD has been largely absent from the K-12 education landscape in most countries around the world (UNESCO, 2016; UNESCO, 2021a). This is a missed opportunity for learners, countries, and the 2030 Agenda.

Given the myriad of potential benefits offered by ESD, its integration into national education systems should be a priority for policymakers. However, the main challenge often lies in the fact that within most countries, national-level curriculum revisions can often take up to a decade to complete, and proposed changes are often extremely slow in reaching classrooms.

Thankfully, experiences from the field have shown that an alternative and potentially more effective approach is available to policymakers seeking to rapidly integrate ESD into educational priorities. Instead of relying on national-level curriculum overhaul, policymakers can build on existing curriculum to scale up ESD efforts. This strategy not only likely increase the speed of integration, but more importantly, it could help ground ESD interventions in local realities, thereby potentially maximizing their relevance and suitability for local actors (i.e. teachers and schools).<sup>2</sup>

With this in mind, the steps presented in this guide aim to provide policymakers and practitioners with the necessary analytical frameworks and tools to help develop evidence-based and locally relevant ESD interventions, and to embed them within existing national curriculum for all grades and subject areas. The guide is divided into seven major subsections:

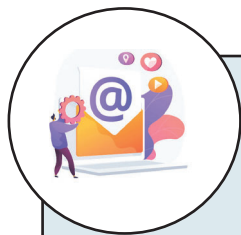
<sup>1</sup>This methodology was developed and tested following expert consultations with leading ESD researchers throughout the world, including Professors Oren Pizmony-Levy (Columbia University), Fernando Reimers (Harvard University), Alan Reid (Monash University), Felisa Tibbitts (Utrecht University), Andy Ofori-Birikorang, (University of Education, Winneba), Mustafa Öztürk (Hacettepe University), and Abdelkrim Marzouk (Al-Akhawayn University) - among others.

<sup>2</sup>Global Schools believes that state-of-the-art ESD should (a) be adapted to local geographical, political, social, and cultural realities; (2) be focused on all dimensions of sustainability, including environmental, social, and economic; (c) encompass all domains of learning, including cognitive, socio-emotional, and behavioral; and (d) draw on innovative pedagogies and experiential learning methods.

## Sections of the Toolkit



Ultimately the authors hope this guide can support Ministries of Education (MoEs) in identifying efficient, effective, and locally relevant approaches to scale ESD in interventions in the classroom and across their national education systems.



Stakeholders interested in using this guide are encouraged to contact Global Schools ([globalschools@unsdsn.org](mailto:globalschools@unsdsn.org)) for further guidance and potential collaboration opportunities. We are also keen to hear your feedback regarding our proposed frameworks and tools. Our aim is to consistently improve and update our methodology in future iterations of this guide, based on your feedback.