

The concept of sustainability and its contribution towards quality transformative education

Thematic paper

This document, prepared by UNESCO Section on Education for Sustainable Development with the contribution of Thomas K.J Macintyre and Arjen Wals, is part of several thematic papers developed by UNESCO to inform the Revision of the [1974 Recommendation concerning education for international understanding, co-operation and peace](#).

These papers focus on topics that are not currently covered in the Recommendation but that require greater attention in the revised version in view of ensuring it addresses contemporary challenges to lasting peace.

For more information on the revision visit the dedicated [website](#).



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Transforming education in an unsustainable world

Executive Summary

This thematic paper explores the concept of sustainability and its contribution towards quality transformative education, and serves as a background document to clarify the scope and depth of the revised 1974 Recommendation. Specifically, this document presents the need to update and broaden the scope of the 1974 Recommendation by introducing the concept of sustainable development, and discussing the role of education in addressing contemporary global challenges in particular climate change and climate justice, peace, biodiversity loss, poverty and inequality, and discriminations and human rights.

In the early 70s, two parallel streams of global concerns emerged, with ecological concerns on the one hand, and themes of peace, human rights and social justice on the other hand, the latter becoming the focus of the 1974 Recommendation. Over the subsequent years, perspectives and practices in the field of education have evolved substantially, with the increasing prominence of environmental challenges in international agendas. With the realization that environmental issues and issues of poverty, social justice and fairness are deeply interconnected and mutually reinforcing, a convergence of the two streams occurred in the 80s and 90s under the umbrella of sustainable development. In terms of understanding peace and human rights, the paradigm of sustainability and sustainable development demands an integrated approach to tackling global challenges through considering economic, and social factors which are respectful of the planetary boundaries set by environmental and ecological parameters. Furthermore, considering the complex and interconnected nature of sustainability challenges, ESD emphasizes the transformative role education plays in moving individuals and societies towards a more equitable, inclusive, plural, healthy, peaceful and, ultimately, a more sustainable world (UNESCO, 2021a).

Over the last few decades, the concept of sustainable development has grown out of the interconnected environmental, ecological, social and economic challenges facing the planet, and has increasingly coalesced into a driving paradigm in policy, governance and education. Regarding the latter, emerging educational movements such as Education for Sustainable Development (ESD), call for an education that is transformative, which empowers lifelong learners with the knowledge, attitudes, values and competencies to not only make informed decisions but also to bring about the individual and collective change required to positively impact our societies, particularly in face of the climate crisis. ESD is an integral element of SDG4 Quality Education, of the United Nations 2030 Agenda for Sustainable Development, and is considered a key enabler of all the 17 SDGs, since their realization will depend to a large degree on the levels of literacy, empowerment and competence in relation to the challenges they seek to address.

Much like the 1974 Recommendation, ESD emphasizes interdisciplinarity, but seeks to extend this by highlighting interlinkages between society, economy, and the environment, and the need to address societal challenges within the context of a finite planet. Such a planetary perspective transcends disciplinary boundaries as these challenges are highly complex and can only be meaningfully addressed when adopting a more holistic and integrative approach that spans different disciplines, sectors and ways of knowing. In science there are already many examples of boundary crossing in working towards more sustainable forms of development. For instance, ecologists now speak of social learning in natural resource management and conservation (e.g. Cundill and Rodela, 2012), education scientists speak of learning ecologies (e.g. Jackson and Barnett, 2019), while climate scientists talk about climate justice and climate refugees (e.g. Gonzalez, 2020; Sultana, 2022).

Underlying these shifts and new understandings in science and governance is the need for a transformation in education, as highlighted in the recent UNESCO report, *Reimagining our futures*

together – A new social contract for education (UNESCO, 2021a). In the face of the COVID-19 pandemic, and global geopolitical realignments, there is a unique opportunity for Member States to rethink education: its role, purpose, content and pedagogies in view of ensuring it supports the advancement of more equitable, inclusive, just, peaceful and sustainable development models. The key point this thematic review paper proposes for the reframing of the 1974 Recommendation is that quality education, anchored in SDG 4.7 and as an enabler for all 17 SDGs, along the lines of the Berlin Declaration (2021b) can provide a strong foundation for the required transformation towards empowering lifelong learners with the knowledge, attitudes, values and competencies to become change agents for sustainable development, underpinned by cross-cultural and environmental sensitivity, peace and justice, and an ethic of care.

Introduction

In the early 70s, two parallel streams of global concerns emerged. One stream revolved around rising ecological concerns, of which the seeds were planted by Rachel Carson's seminal 'Silent Spring' (1962) and environmental concerns as expressed in the Limits to Growth report by the club of Rome (Meadows et al., 1972) and the 1972 Stockholm conference. The other stream revolved around the themes of peace, human rights and social justice with the Cold War and the Vietnam war as a backdrop, as well as ongoing racism and sexism. The latter stream became the focus of the 1974 Recommendation. In the subsequent years, environmental challenges not only featured more on the international agenda, they were also increasingly connected to issues of poverty, social justice and fairness. During the 80's and 90's there was a convergence of the two streams under the umbrella of sustainable development as articulated in the IUCN's World Conservation Strategy, the report Our Common Future by the World Commission of Development, and during the UNCED Earth Summit. This convergence also led to the current realization that an integrated approach, which takes into consideration economic, environmental and social factors is needed to address complex societal challenges. Today, sustainable development as described in the United Nation's Agenda 2030, has become the paradigm that reflects this. In both streams as well as in the new paradigm, education is considered vital in developing a citizenry that is knowledgeable, caring, capable and willing to address these complex societal challenges. The revised 1974 Recommendations will need to acknowledge both the convergence of the two streams and the newly emerged sustainable development paradigm as well as the vital role of education. To this end, this thematic paper acts as background document to clarify the scope and depth of the revised 1974 Recommendation, as they concern the area of sustainability and education. Part I explores the changing context of education from 1974 until the present; Part 2 presents some of the most pertinent emerging issues and trends in education in relation to SD; Part 3 discusses how ESD, as advocated by UNESCO, can inform the revised 1974 Recommendation through implementation in five priority action areas, while Part 4 presents concrete articulations for how these recommendations can be included in the revised document.

Part I: Background - the emergence of education in relation to sustainable development

There are wide-reaching and long-standing efforts to reorient education towards justice, peace and sustainability, whereby context plays a fundamental role in the development of educational systems as we know them today (Lotz-Sisitka et al., 2022). A good place to start is in the early 1970s, with the 1972 UN Conference on the Human Environment in Stockholm, which called for environmental education (EE) to be used as a means to address environmental problems in its Recommendation 96.

The concept of 'sustainable development' entered the international policy scene in the Our Common Future Report (also referred to as the Brundtland-report) in 1987, although the concept had been introduced years earlier in the IUCN's World Conservation Strategy (IUCN, 1980). ESD emerged as an educational response to sustainable development in Agenda 21's Chapter 36, which was a key outcome of the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 (UNESCO, 1993). Much in line with the earlier Belgrade charter (UNESCO, 1975) and the Tbilisi Declaration (UNESCO-UNEP, 1977), both focusing on Environmental Education, ESD combined ecology and environment, with economic and social vantage points, and further emphasized North-South inequities and interdependencies. Rather than reinforcing separate tracks of international understanding, co-operation and peace, and education in the original 1974 Recommendation, education in the context of sustainable development seeks to weave issues around alternative economic structures, environmental ethics, inequality, environmental and social justice, and health and well-being together, with a focus on the responsibility for the future (Michelsen et al., 2016).

In 2002, the UN General Assembly adopted a resolution that called for a Decade of Education for Sustainable Development (DESD) 2005-2014, with the aim 'to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behavior that allow for a more sustainable and just society for all' (UNESCO, 2005). This shift in the international education agenda emphasized an expansion from a focus on access to education towards quality and relevance of education (Leicht, Heiss, and Byun, 2018). This was followed in 2015 by the United Nations 2030 Agenda for Sustainable Development, with 17 Sustainable Development Goals (SDGs). ESD is explicitly stated in SDG 4 on quality education, in target 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. Under SDG 12 - Ensure sustainable consumption and production patterns - target 12.8 also refers to ESD: By 2030 ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature. Last, SDG target 13.3 relates to ESD in the need to "improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning."

In November 2019, following the Global Action Programme on ESD (GAP) (2015–2019), the 40th session of UNESCO General Conference adopted a new global framework on ESD called 'Education for Sustainable Development: Towards achieving the SDGs' or 'ESD for 2030'. Noting the fundamental need for transformation in education, this framework aims to scale up action from the United Nations Decade of ESD (2005–2014) and GAP, and as indicated by its name, is directly connected to the United Nations 2030 Agenda. In 2021, the Berlin Declaration on Education for Sustainable Development was adopted, reiterating the fundamental transformation needed in education and society to move towards a sustainable future (UNESCO, 2021b). ESD has been acknowledged in other global agendas, for example, in Article 6 of the United Nations Framework Convention on Climate Change (UNFCCC), which states the importance of teaching and training for enabling citizens' contributions to local and global efforts to meet the climate change challenge (UNFCCC, 2022).

It is important to note that the change of emphasis and language from the 1974 Recommendation mirrored against our present context today reflects the ever more precarious state of planet Earth

and the diminishing prospects for the quality of life it can support for humans as well as for millions of other species. While the context of the 1974 Recommendation was that of ongoing wars and the need for peace building and cooperation, the largely unheeded warnings of rapid loss of biodiversity, pollution of water, soil and air and, more recently, climate change over the last 50 years have resulted in systemic sustainability challenges. Major ecological systems that have been formed over billions of years are altered by one single species, homo sapiens, in only a few hundred years. These alterations have greatly impacted humans themselves as people need to escape extreme weather, lack food security due to erosion of soils, have no access to clear drinking water, and compete with one another for scarce resources. The latest IPCC report emphatically states that climate breakdown is accelerating rapidly, that many of the impacts such as flooding, droughts and heatwaves will be more severe than predicted, and there is only a narrow chance left of avoiding its worst effects (IPCC, 2022). The latest IPBES report points at nature's dangerous decline referring to unprecedented species extinction rates with 1,000,000 species being threatened with extinction, noting that 'transformative changes' are needed to restore and protect nature (IPBES, 2019).

The convergence and acceleration of ecological, social and economic challenges means that education in a context of sustainable development compels us to ask existential questions about what kinds of futures we want, what kinds of values and ethics will support such futures, and what does the education that will bring us there look like.

Part 2: "Transforming the World" - Issues and trends in Education for Sustainable Development

Current understandings of ESD

ESD is the preferred educational framework used in UNESCO documents, and can be understood as forms of education that encourage changes in knowledge, skills, values and attitudes to enable a more sustainable and just society for all (UNESCO, 2020). It is the holistic approach to changing mindsets and worldviews towards more sustainable ways of thinking and acting that makes ESD particularly relevant to International Understanding, Co-operation and Peace, and warrants an inclusion in the revised 1974 Recommendation. In line with the growth of the concept of sustainability and sustainable development, ESD has gained momentum over the last two decades, with increasing interdisciplinary research and collaborations around the world (Grosseck, Țîru, and Bran, 2019). As an inclusive concept, ESD has been used in many contexts, and there are lively, critical debates which ESD engage in, concerning fundamental, structural tensions in education debates today. An illustrative example is the role of learning, whereby Wals (2012; 2014) notes two vantage points from which to view an education that contributes to a more sustainable planet: An *instrumental* perspective which emphasizes the potential of education to influence and shape human environmental behavior in predetermined directions, and the *emancipatory* perspective, which emphasizes the potential of education in strengthening people's capacities and confidence to enable them to help determine how to live together in ways that do not further undermine the carrying capacity of the earth.

Alongside the views of scholars such as Griffiths (2021), this paper considers ESD is a logical, albeit imperfect, umbrella for achieving sustainable development, whose transformational language invites spaces for critical debate and reflection. ESD can be viewed as a tool for reorienting education towards sustainable development, underpinned by a moral compass of fairness, justice and care.

This view calls for exploratory, critical and inclusive learning processes that also involve unlearning and relearning, as well as creating space for action taking and transformation.

It is important to recognize the presence of adjacent educations focusing on issues that connect to sustainable development, for instance peace (Cremin, 2016), social justice (Mills and Ballantyne, 2016), human rights (Bajaj, 2011), global citizenship (Goren and Yemini, 2017) and health (Fitzpatrick and Tinning, 2014). These educations have their own traditions and genres, sometimes connecting to ESD when interpreted broadly, sometimes remaining separate when interpreted narrowly (Wals, 2012).

Lastly, alongside some of the adjacent educations mentioned above, ESD has contributed to the urgency of realizing a fundamental transformation in education and learning, that actively engages learners in sustainability challenges in ways that affect their inner-being and their positive impact on the world of which they are part. An important part of this is transformative learning, which refers to deep learning that simultaneously affects cognitive and social emotional processes and creates both the dissonance and the will that is often required to realize a shift in thinking and can trigger action (e.g. Gustavo and Barth, 2020).

Sustainability competencies for quality education

The Berlin Declaration on Education for Sustainable Development states that "ESD enables learners to develop their cognitive and non-cognitive skills, such as critical thinking and competences for collaboration, problem solving, coping with complexity and risk, building resilience, thinking systemically and creatively, and empowering them to take responsible action as citizens, fulfilling their right to quality education as defined in SDG 4 -Education 2030" (2021: point 4)

Viewed as such, ESD is considered a key element of quality education, with cross-cutting competencies in cognitive, socio-emotional and behavioral dimensions of learning (Vare, Lausset, and Rieckmann, 2022). Some scholars refer to the importance of paying attention to inner sustainability (the qualities and capacities one needs to be well and to do well) and outer sustainability (the qualities and capacities that can shape the world of which one is part in a more sustainable direction) (Horlings, 2015; O'Brien, 2018). Bundiers et al. (2021) reviewed literature on sustainability competencies and developed a model that shows how the following competencies are related: systems thinking, values thinking, strategic thinking, future thinking, interpersonal competence and integrated problem solving. Other scholars also refer to the importance of action competence (Almers, 2013). It can be observed that these competencies as well as notions of inner and outer sustainability also are highly relevant for adjacent educations like peace, development, global citizenship, and human rights education.

In addition to the focus on competencies, creating educational spaces that can invite the development of qualities and values like empathy (Jensen, 2016), mindfulness (Gómez-Olmedo, Valor, and Carrero, 2020), courage (Macintyre and Chaves, 2017) and agency (Ojala, 2017) for the common good can help advance SDG 4 towards the future where education contributes not only to the successes of individuals on the labor market, but also to the collective survival and prosperity of the global community. Such a focus will also help the global education agenda move away from an exclusive focus on access and quality as defined in terms of measurable or testable learning outcomes that tend to privilege cognitive learning and particular behavioral outcomes (Wals et al., 2022), towards an increased emphasis on learning contents and processes, as well as value-based education, and their contribution to humanity and planetary well-being (UNESCO, 2020: 60).

Issues in and for ESD

The following is a selection of societal issues at the intersection between education and sustainability, which are important in the context of the revised 1974 Recommendation. Addressing these issues will ensure the recommendation instrument is relevant and effective in terms of informing the design and implementation of relevant policies. The following list is by no means exhaustive, with many interrelationships between them.

Climate change: Human induced climate change is the existential threat of our time, with the latest IPCC report the bleakest to date, stating that half of the world's population are "highly vulnerable" to serious impacts from the climate crisis (IPCC, 2022). Climate action is one of the key thematic priorities of 'ESD for 2030', and the UN's work on Action for Climate Change (ACE) whereby education is crucial to climate action through empowering learning to become 'agents of change'. In line with the interdisciplinary focus of the 1974 Recommendation, and the holistic vision of ESD, it is vital to view climate change not as a specific environmental thematic area, but rather as a planetary challenge which cuts across all sectors of society, and relevant to issues of peace, human rights, economic structures, diversity, justice, and mental and physical health.

Biodiversity loss: A significant impact of human intervention on ecological systems is the loss of biodiversity. ESD training increases skills and the capacity to promote sustainable livelihoods and to conserve natural resources and biodiversity, particularly in threatened environments. Building on the 1974 Recommendation emphasis on respecting different cultures and their perspectives and ways of life, education to promote biodiversity should emphasize the value of indigenous knowledge and ways of knowing in finding a new balance with nature and conserving biodiversity.

Poverty and inequality: Eliminating all forms of poverty remains one of humanity's greatest challenges, highlighted by the SDG 1 goal of "No poverty". Equally worrying, inequality is rising, exacerbated by the COVID-19 pandemic, with serious effects on education (Lotz-Sisitka et al., 2022). The ESD approach highlights that education aimed at combating such poverty and inequality must be aligned with forms of economic development and environmental protection which does not increase pressure on planetary limits. This highlights the need for the revised 1974 Recommendation to address underlying structural causes of poverty and inequality (such as unjust economic systems), and work towards an educational vision which appreciates the existential interlinkages and well-being of all peoples, including our dependence on one another. This will involve educational systems that develop both critical thinking skills and the action competence needed to investigate the root causes of poverty and inequality and to begin to uproot, confront and address them.

Human rights and discrimination: Human rights lie at the core of the SDGs, for example, SDG 16: Peace, Justice and Strong Institutions, whereby ESD plays a vital role in promoting just, peaceful and inclusive societies. While certain themes from the 1974 Recommendation remain, such as racism, issues such as gender discrimination are becoming much more prominent, and there are debates today around species-ism (one species feeling exceptional and superior to others) and posthuman perspectives on how humans relate to non-human animals and non-animal species (Lindgren and Öhman, 2019). Addressing human rights and discrimination means focusing on intercultural understanding, dialogue, and promoting global citizenship education, while in the future these rights may need to be expanded to Earth rights and the rights of nature.

Boundary crossing: As the world becomes more fluid and hybrid where distinctions are blurring between formal, informal and non-formal learning, between genders, between generations, between disciplines, between sectors of society, and between different knowledge systems (for

example, scientific, indigenous, and local/experiential), education needs to be reconfigured to accommodate this phenomenon in order to remain relevant.

Fake news and polarization: Propaganda, misinformation and fake news have become a major societal concern in the age of the Internet and social media (Peters et al., 2018). This issue connects deeply with the 1974 Recommendation themes of peace and human rights, as fake news and misinformation undermine public trust in science and governance, leading to polarization and conflict in society. Forms of education such as ESD play a fundamental role in addressing misinformation and fake news through building the critical capabilities of learners to reflect and act on their convictions, such as in addressing misinformation about climate change.

The rise of anxiety, fear and hopelessness: With an apparent cognitive and emotional overload of pressing global issues, like climate urgency and loss of security, many people, young people in particular, suffer from (eco) anxiety, fear and a loss of hope for the future (Lehtonen and Pihkala, 2021; Ojala et al., 2021; Soutar and Wand, 2022). Education needs to find responsible, regenerative and hopeful ways to deal with such emotions to avoid the rise of paralysis, apathy and withdrawal.

Emerging trends in ESD

Transgressive ESD: Branching out from the focus on transformative learning and education, the transgressive strand notes that in addition to developing agency and citizenship competencies to live equitably and meaningfully within planetary boundaries, a disruptive streak is needed to help learners to critique and 'transgress' systems and structures that normalize unsustainability, thus addressing the root causes of unsustainability (Lotz-Sisitka et al., 2015; Macintyre et al., 2018; O'Donoghue, 2014).

Relational ESD: Moving beyond the anthropocentrism of the western worldview, a posthuman, relational strand is emerging that emphasizes the importance of decentring the human and becoming aware of our inevitable entanglement with nature and other species (Wals, 2021). More relational worldviews have already made their way into UNESCO documents such as Buen Vivir (UNESCO, 2016), and Ubuntu (UIL, 2022). A relational approach also puts emphasis on establishing deep connections as a source for mutual respect and joint meaning making, suggesting that it is through our connections that we come to know, understand and appreciate the world.

Holistic and systemic ESD through a Whole Institution Approach (WIA): WIA constitutes an emerging framework that re-orientates and redesigns education in light of emerging global sustainability challenges. With roots in health education, citizenship education and sustainability education, the WIA invites a holistic, systemic, co-creative and reflexive effort by all stakeholders involved in education to meaningfully engage students in complex sustainability challenges (Wals and Mathie, 2022). A WIA prevents issues like climate change, peace, justice and biodiversity from becoming topics that are added on to the curriculum to be taught but rather as examples of complex and urgent challenges that require new forms of engagement, competencies, pedagogies, school-community relationships, professional development, and a commitment from the school to implement the actions students and staff identify to help resolve those challenges. Schools and universities ideally become a living laboratory for sustainable living.

Part 3: Implementing Education for Sustainable Development in Practice

The five ESD priority action areas (elaborated by GAP) - policy, education environments, building capacities of educators, youth and local level action - serve as useful entry points for developing long-term perspectives on the implementation of transformative and inclusive education (see UNESCO, 2020). In addition to these traditional priority areas, and emerging action areas of scaling and monitoring ESD, and paying attention to values, ethics and moral dilemmas.

Advancing Policy: There has been growing international recognition of ESD as an "integral and transformative element of inclusive quality education and lifelong learning and an enabler of sustainable development" (UNESCO, 2014b, para.6). That said, implementing forms of education which address the structural barriers to sustainability requires far-reaching changes in the education system, which has major implications for policy. There is the need to increase the number of countries that integrate ESD into education and sustainable development policies and strategies (Stratford and Wals, 2020), also in relation to climate urgency (McKenzie, 2021; UNESCO, 2021a).

Recognizing the need for a new social contract in education, member states commit to evidence-informed policies developed through multi-sectoral, multi-level and inter and trans-disciplinary collaboration on ESD at all levels of governance, to ensure a well aligned whole-of-government approach.

Transforming learning and training environments: As a new action area to be added to the revised 1974 Recommendation, an increasing area of interest is around learning spaces or ecologies of learning, whereby transformations in education across school, community and other institutional contexts of ESD are taking place. There is the emergence of learning environments that are more participatory, reflexive and learner-led, and quickened by the COVID-19 epidemic, an increased blurring between formal, non-formal and informal education (Schnitzler, 2019; Wals, 2019). This can also be seen in the increasing prominence of life-long, life-wide and life-deep learning, including intergenerational learning, and learning across sectors, such as with local communities. The focus on learning environments also acknowledges that it is not just teachers and educators that teach but also the places, spaces, objects, other humans and even other species that are part of these learning environments.

Building capacities of educators and trainers: Fundamental for ESD is building the capacities of teachers and educators to implement transformative as well as system-oriented pedagogies in their teaching of ESD. Interesting innovative approaches can be found within the context of ecopedagogies (Misiaszek, 2015; UIL, 2022) in relation to the former and in relation to systems thinking in relation to the latter (Schuler et al., 2018). While teachers appear ready to teach themes such as human rights and cultural diversity and tolerance (aligned with the 1974 Recommendation), they feel less ready to teach themes of climate change and sustainable consumption and production (more aligned with the revised 1974 recommendation) (UNESCO, 2021c). In terms of future capacity building of educators and trainers, it is important to recognise the increasingly complex roles educators must negotiate in terms of balancing the politicization of education with the needs of learners. More focus is needed on intercultural competencies in an increasingly connected world, and the need for support and self-assessment tools. It is also critical that teachers have the freedom and space to teach and to develop their own localized curricula that connect with the existential issues their learners are challenged by (Wals et al., 2022).

Empowering and mobilizing youth: As the key stakeholder of sustainable development, youth are increasingly voicing their concerns and leading the transformative action for a more environmentally

sound, socially equitable and economically just future (Kowasch et al., 2021). An important role for member states is to provide the resources needed to ensure that the global voices which youth bring to the local level can be implemented, while at the same time bringing the voice of youth in the international arena by considering youth involvement in educational programmes and support their participation in the implementation of internationally agreed framework and objectives (for example, the UNESCO youth forum, or Youth Climate Summit).

Accelerating sustainable solutions at local level: "Think globally, act locally" - national and local governments, working together with communities and civil society organizations, are fundamental and necessary to strengthen learning opportunities to empower stakeholders to resolve sustainable challenges facing their communities. This connects with the earlier Local Agenda 21 initiatives, as well as participatory learning methodologies, which promotes forms of education and learning which involve actors at all levels of society through a whole-society-approach.

Scaling ESD: Despite the Decade of Education for Sustainable Development (DESD, 2005-2014) kickstarting ESD activities around the world, and evidence that ESD is gaining momentum as a research domain (Grosseck, Țîru, and Bran, 2019), ESD is still not mainstreamed in many educational sectors (Leicht, Heiss, and Byun, 2018). This is in part due to different priorities in education at the country level and a lack of understanding of its meaning and its potential significance in reforming education and learning in times of global sustainability challenges (Wals, 2021). To scale up education which effectively deals with sustainable development challenges there is a need to accelerate collaboration between policy-makers, funders, researchers and practitioners, and through different dimensions, such as horizontal and vertical scaling.

Monitoring ESD: A theme that has become stronger after the original 1974 Recommendation is the importance of monitoring progress of member states. Monitoring ESD is a significant challenge, whereby it has been noted that traditional evaluation methods are incompatible with ESD, as they evaluate the acquisition of knowledge, while ESD's holistic and pluralistic approach requires evaluating behaviors, values and ways of being within the paradigm of sustainable development (Ssossé, Wagner, and Hopper, 2021). Alternative forms of assessment, including arts-based ones (Acevedo et al., 2022) are highly needed and currently in development, as well as exploring how other actors apart from self-reporting governments, such as civil society organizations can contribute to monitoring.

Paying attention to values, ethics and moral dilemmas: Education aimed at respecting difference and diversity, the environment, and the finite planet we live on is fundamentally about values (UNESCO, 2006) As demonstrated by the Earth Charter (see <https://earthcharter.org/>), reflection on the moral compass that guides people's choices and actions is critical if people are to move towards a more just, caring, peaceful and sustainable world. Teachers and other educators often find it difficult to enter in conversations about values and ethics with their students, sometimes because they do not know how, sometimes because of a fear of indoctrinating or being political (Van Poeck, Östman, and Öhman, 2019) but sustainability issues by nature are political and value-laden. ESD needs to support teachers' capacities to engage students in discussions about values, ethics and moral dilemmas.

Part 4: Concrete recommendations for the revised 1974 Recommendation

This closing section distills some key recommendations for the revised 1974 Recommendation in light of emerging paradigms of sustainability and sustainable development. The recommendations are drawn through the lens of an inclusive and transformative perspective on education and begin with the alignment with the 2030 Agenda for Sustainable Development.

1. *We reaffirm the 2030 Agenda for Sustainable Development, adopted by the United Nations (UN) General Assembly in 2015, and are committed to achieving the 17 Sustainable Development Goals (SDGs), in particular the commitment to SDG 4, to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'. In addition, we commit to achieving the 16 recommendations of the Berlin Declaration on Education for Sustainable Development adopted in May 2021.*

As the preferred educational framework used in UNESCO documents, Education for Sustainable Development (ESD) can be defined as:

2. *All forms of education that encourage changes in knowledge, skills, values and attitudes to enable a more sustainable and just society for all (UNESCO. 2020. Education for Sustainable Development: A Roadmap. Paris: UNESCO.)*

The following points (3-10) are concrete recommendations for the proposed action areas in the revised 1974 Recommendation. Action Area 1 - National Laws, Policies and Strategies:

3. *Recognising the need for a new social contract in education, member states commit to evidence-informed policies developed through multi-sectoral, multi-level and inter and trans-disciplinary collaboration on ESD at all levels of governance, to ensure a well aligned whole-of-government approach.*

Action Area 2 - Curriculum and Pedagogy: Noting the expanded notion of education in terms of addressing the diversity of learners and learning environments,

4. *Member states commit to learner centric and challenge/concern-driven education which promotes relevant, non-discriminatory and gender-responsive curricula that incorporate emerging fields of education and learning such as citizenship education, education for sustainable development, climate change education, education for health and well-being and critical media and digital literacy.*
5. *Member states commit to providing spaces for more contextualized, localized and self-determined forms of curriculum, whether provided in person, online or from a distance, that can connect with the existential concerns and issues learners are confronted with in their everyday lives and for action-oriented and empowering pedagogical approaches that can help learners respond to these issues in a hopeful and effective way.*

Action Area 3 - Learning and Teaching Materials and Resources: Considering the increased focus on gender responsiveness, lifelong learning and agency in learners,

6. *Member states commit to developing relevant, non-discriminatory and gender-responsive teaching materials and resources that motivate and equip citizens to become lifelong and life-wide learners who, actively participate as agents of change in co-creating a culture of peace and non-violence who are mindful of planetary boundaries and the wellbeing of nature.*

Action Area 4 - Teacher Development: Appreciating the crucial role of teachers and educators in ensuring transformations towards sustainability, while noting the increasing pressures placed on teachers in terms of work responsibilities and negotiating the politics of education,

7. *Member states commit to investing in capacity development of teachers and educators to further professionalize educational training, particularly in the domain of Information and Communication Technologies (ICT), and sustainability capabilities, highlighting the critical role of teachers and educators in ensuring the necessary transformation of education.*

Action Area 5: Assessment, Monitoring & Evaluation of Learning and Learning Environments: Taking into account the increased focus on monitoring and assessment, alongside non-traditional forms of evaluation that align with the holistic objective of ESD,

8. *Member states strive to pay equal attention to both summative and formative forms of assessment and evaluation paying equal attention to cognitive (head) social-emotional (heart) and action-related (hands) learning outcomes.*

Action Area 6: Whole Institution Approach:

9. *Bearing in mind that issues around climate, justice, peace, human rights, and conservation of biodiversity are intricately connected and that learning about them requires active engagement, participation, and ethos of care and solidarity, as well as an organizational culture that reflects this, member states endorse the use of a Whole Institution Approach that supports the systemic and integral development of these issues.*

Action Area 7: Research and Higher Education. Noting the importance of evidence informed decision making, including scientific and other forms of knowledge,

10. *Member states support emerging forms of research and higher education that are transdisciplinary and transformative in nature to do justice to the complexity, connectedness and the deep learning and understanding that is needed to contribute to all aspects of sustainable development. The emerging forms of research and education acknowledge and utilize different ways of knowing and different kinds of knowledge, including indigenous knowledge and wisdom.*

Conclusion

In this paper we have highlighted the importance of including the concepts of sustainability and sustainable development into the revised 1974 Recommendation. Vital to this endeavor is expanding our understanding of what education is or should be, and how more inclusive and transformative forms of education of which ESD is a powerful exemplar, can address emerging societal challenges such as runaway climate change and accelerating biodiversity loss through encouraging changes in knowledge, skills, values, attitudes and action competence, to enable a more sustainable and just society for all.

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Annex - List of participants in the Expert Consultation Meeting on Education for Sustainable Development on 4 April 2022

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- **Menna Mosbah**, Youth activist, Arab region ESD Youth network, Egypt
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