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European Expert Network
on Economics of Education

Harnessing the potential of non- formal education for sustainability

Executive summary

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ABOUT EENEE

EENEE is an advisory network of experts working on economics of education and training. The establishment of the network was initiated by the European Commission's Directorate-General for Education and Culture and is funded by the Erasmus+ Programme. PPMI is responsible for the coordination of the EENEE network. More information on EENEE and its deliverables can be found on the network's website www.eenee.eu. For any inquiries, please contact us at: eenee@ppmi.lt.

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Executive summary

Learning for sustainability

The adoption of the European Council Recommendation on learning for the green transition and sustainable development (2022) notes the critical role of education, and demonstrates the commitment of Member States to the attainment of sustainable futures. This Recommendation established a solid political foundation for co-operation in the European Education Area and formally acknowledged the need for lifelong and transformative learning to address the planetary crisis and the well-being of citizens.

Formal education plays a critical role in learning for sustainability (LfS), with policy-makers paying particular attention to curriculum requirements, teacher education and school attainment. However, learning opportunities also exist outside of formal education. These are found in: communities of practice; cultural, linguistic and scientific institutions; government and private organisations, sports clubs, youth and faith groups, as well as at heritage sites, and in national parks and natural spaces. Such non-formal education offerings present diverse opportunities to experience and connect with people and planet issues; to build sustainability literacy skills and capabilities for active citizenship; to create more hands-on engagement with the natural environment; and to explore sustainable lifestyles. These opportunities extend learning beyond classrooms to involve learners and persons of all ages and backgrounds in sustainability thinking and practice. Despite the significant role played by such offerings, few data and little evidence exist that clearly define the unique contributions or impact of the non-formal education sector on the attainment of the green transition. In the absence of longitudinal data or meta-analysis, a need exists to map existing provision and to extrapolate this potential contribution from current practice.

This report

The present report, commissioned by the European Expert Network on Economics of Education (EENEE), reviews the state of play in non-formal education in the context of learning for sustainability, with a view to informing policy decision-making and guidance in this area. It seeks to identify leading practice as well as enablers that can catalyse the transformative potential of non-formal education for sustainability. The findings and recommendations of the report have been drawn from an extensive literature review informed by scholarship, research evidence, policy reports, case studies and good practice.

The literature search was conducted in the period from August to December 2023, using the search engines such as Web of Science, Scopus and Google Scholar. The search strategy favoured research published in the last five years in the area of environmental sustainability, as well as large-scale comparative studies with a strong European focus. With regard to the study's limitations, no primary data were collected to inform this research – although key informants guided the selection of relevant literature and added detail to the examples presented in this document.

The current state of play

The first section of this report provides an overview of the existing provision and contexts underpinning non-formal education for sustainability. This descriptive analysis is grounded in European experiences and helps to construct a picture of the current opportunities and offerings:

- The study has found great ***diversity in terms of the providers*** of non-formal education experiences in sustainability. Providers vary in terms of their capacity, interests and expertise. Specialist areas include waste and energy, climate science,

biodiversity, heritage conservation, travel and transport, health and well-being, faith, ethics and culture, youth leadership, entrepreneurship and social enterprise, as well as food and sustainable lifestyles, among others. Levels of engagement differ between offerings, with learners as observers, recipients, participants and/or co-creators in the process. Providers are motivated by a desire to share their expertise; to raise levels of awareness; to build a sense of pride and belonging, as well as connections with the physical environment; to offer community service experiences; and to actively engage people in core issues that affect them and the planet.

- **Beneficiaries also vary widely**, and include adults seeking to improve their skills or knowledge for personal or professional development; individuals, groups and families aiming to engage practically with issues that concern them; organisations and institutions developing the mindsets and skills of their members or employees; young people looking for civic engagement opportunities; the elderly seeking to continue their learning journeys; and schools, colleges and universities looking to enrich learning for sustainability experiences for their students.
- It is important to recognise that non-formal education is also **reaching out to disadvantaged or marginalised groups** who have limited access to education. These include individuals with disabilities and the socio-economically disadvantaged; people living in remote or rural areas; minority ethnic or cultural groups; refugees, asylum seekers and displaced populations.
- Non-formal education experiences are often rooted in the learner's local environment, often helping to ground global issues and the scientific learning associated with climate change, biodiversity and other, similar concerns. The literature suggests that these experiences can lead to **authentic learning**, as technical understanding is anchored in the realities of lived experiences and leads to a greater appreciation of the scale of environmental issues and the systems that relate to them.
- Non-formal learning offered in a community setting can also **strengthen bonds**, as it familiarises learners with the unique and distinctive features of the communities and places to which they can relate. This can drive commitment for sustainability and motivate people of all ages to make choices in favour of the environment and the health and well-being of the communities with which they are associated.
- Non-formal education offerings lend themselves well to sustainability learning as they enable the learner to explore **interdisciplinary inquiries and boundary-crossing** concerns that are often hard to pursue in formal education settings. This more systemic view of the context and issues surrounding sustainability favours more grounded forms of learning that recognise the ways in which environmental issues transcend traditional subject boundaries.
- Non-formal education experiences are often interactive and support **participatory pedagogies** such as *place-based learning*, *inquiry-based learning*, *citizen science* and concepts including *action competence*, *social learning* and *eco-justice*. They present opportunities for learners to build the sustainability competences identified in the European GreenComp framework.
- Worthy of note is the role non-formal education plays in **enhancing levels of innovation and bolstering competitiveness** in EU economies. Given the rapidly changing environmental landscape, knowledge acquired through formal education can rapidly become outdated or inadequate, and current formal education practices are insufficient to build the creative or innovation mindsets needed to address the

climate and environmental crises. In contrast, non-formal education providers are well placed to address these issues.

- In parallel to the increased opportunities for local learning for sustainability, we also see a rise in the number of **online learning providers** offering digital non-formal learning on environmental sustainability. This development can be seen within the context of the European focus on the twin digital and green transitions. Non-formal education providers are adopting digital technologies as means to improve access and educational outcomes, as well as making use of visualisation software that brings to life possible scenarios and concerns in relation to environmental concerns. Some of these learning experiences also support the development of digital skills for sustainability, required for active participation in a world that is becoming increasingly digitally connected.

Advancing non-formal education for sustainability

A close analysis of documented research and experiences reveals that although significant variations exist in the focus, quality and value of non-formal education offerings, certain key trends and policy-related observations can be shared. These can inform efforts to advance non-formal education for sustainability.

Key trends:

- **A prevailing focus on knowledge and literacy in relation to sustainability.** Most non-formal educational offerings in sustainability primarily focus on building the learner's interest and literacy in sustainability. Sharing knowledge, helping learners to make sense of complex environmental scenarios and raising awareness of the core social and economic issues that underpin these concerns, were identified as core objectives. Although exceptions can be seen, participatory learning is mostly used as a way to capture the learner's interest and motivate them, rather than to systematically build green competences or educational outcomes.
- **Schools, colleges and universities recognise the value** that non-formal education providers bring to learning experiences during the early years and through to adult education. Whole-institution approaches to sustainability that blur the boundaries between schools and the wider community are gaining ground across Europe, prompting educators to look outwards to non-formal education experiences that enrich classroom learning. At the same time, many challenges exist for teachers and schools in identifying and choosing experiences that align with the requirements of the curriculum.
- Many non-formal education providers bring specialist knowledge and interest in sustainability, but are often **not professionals in education**. This presents difficulties when offerings need to be tailored to the different ages and/or abilities of learners. Scholars have pointed out that the lack of a coherent pedagogical framework for learning for sustainability in non-formal settings represents a major challenge to advancing this vision of education.
- Non-formal education providers are well placed to develop learning experiences within their specialist areas, but **due to a lack of resources or support** they often find it challenging to adopt wider sustainability principles in their operational and management environments. This can mean that providers may not actually be practising sustainability themselves, which in turn presents challenges in terms of their credibility.

Policy recommendations:

- **Cross-sectorial partnerships for learning:** an important means of establishing effective offerings are alliances, consortia and joint projects that engage

organisations of various sizes and from various sectors and represent a diversity of interests. The sharing not only of resources but also expertise is of value to all involved. For example, schools can support non-formal providers in the design of learning activities to align with curriculum requirements. Higher education institutions (HEIs), meanwhile, are well positioned to share research that improves non-formal provision. In turn, non-formal education providers can share their expertise in experiential learning and community engagement with schools, HEIs and their students.

- **Building learning landscapes:** a systems view of learning for sustainability advocates for connected learning across the formal and non-formal education landscape. It recognises that, in the context of sustainability, the boundaries between educational sectors should not be rigid, and that connections should be both strengthened and synergistic. This approach goes beyond the partnership setting and requires the establishment of a coherent and strategic vision for lifelong learning for sustainability. Policy-makers, national authorities and agencies play a critical role in enabling these connected learning landscapes to emerge.
- **Professional development for non-formal education providers:** strategic investment in professional development could help to catalyse the quality and effectiveness of non-formal education offerings. Professional development can take a number of forms, but should focus on educational approaches and frameworks to support best practice in sustainability. This will go some way in shifting the predominant focus from sustainability literacy, towards enhancing the transformative potential of non-formal education. Professional development should be supported by research evidence and the development of best-practice resources that question dominant linear models regarding how knowledge leads to agency, and help to familiarise providers with those green competency frameworks that can assist in the design and evaluation of sustainability learning.
- **Establishing standards and assuring quality:** there is a lack of standardisation, accreditation and recognition in non-formal education when it comes to learning for sustainability. National agencies and local authorities should lead processes that help to define and agree on standards, develop guidance frameworks for enhancing the transformative potential of learning for sustainability, and offer accreditation schemes and/or awards for excellence in non-formal education.
- **Stronger integration into mainstream education policies:** building learning landscapes for sustainability requires a clearer articulation of the value and contribution of non-formal education to learning for sustainability, particularly in policy frameworks and formal guidance. Specific policy strategies and measures are needed to advance non-formal education for sustainability as part of the connected lifelong learning landscape. These should be accompanied by support in the form of funding, which is often crucial to the long-term viability and success of such initiatives.

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