Eco-schools: environmental education and sustainable development

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STORIES OF TRANSFORMATIONAL CHANGE

Inspirational examples highlighting transformations towards greater environmental and climate sustainability

SDG 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.

The Eco-Schools programme is the most extensive programme of its kind, engaging 20 million students and 1.3 million teachers worldwide. Eco-Schools was a concept developed as a response to the 1992 "Earth Summit" in Rio de Janeiro which called upon environmental education and youth-led environmental protection and development, in turn making Eco-Schools a necessity. Building upon a Danish initiative piloted in 1992, the Eco-School programme, with support from the European Commission, was launched by the Foundation for Environmental Education (FEE) in 1994 and expanded to three other countries in Europe, Germany, Greece and the United Kingdom. Since then Eco-systems have expanded to almost 70 countries including in Africa, Asia and South America.

Eco-Schools offer schools a flexible approach for implementing environmental management systems and environmental learning and aim to provide pupils with knowledge, skills, attitudes and the necessary values by integrating sustainable issues with active learning. They place students at the centre of change by connecting pupils, teachers, and community members to real issues such as biodiversity, water, waste, energy, litter, transport, and healthy living. The Eco-Schools programme is also a certification programme in which the prestigious International Green Flag is awarded once the programme is thoroughly embedded in schools.

Impact

Although the programme's origin started in a few European countries, since its founding 25 years ago the Eco-Schools programme has become a global model that is recognised by UNESCO and UN Environment as a world leader in the field of Environmental Education (EE) and Education for Sustainable Development (ESD). The progamme currently includes 59,000 schools across 68 countries and is run by sixty-eight national operators who work with different organisations to fund their activities in Africa, Asia, Europe, North America and the Caribbean. Since 2002, when the United Nations Environmental Programme (UNEP) and FEE organised a workshop on Eco-Schools partnerships for Africa, the implementation of the Eco-Schools programme has become increasingly implemented in less developed countries in which the global effects of climate change and environmental degradation are felt most

"Schools, training institutions and universities are well placed to engage with pupils, parents, and the wider community on the changes needed for a successful transition."

The European Green Deal[1]

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Eco-Schools have improved access to water, nutrition through the development of vegetable gardens and, in turn, health and hygiene.

acutely. In South Africa, for example, the Eco-school's programme, implemented by the Wildlife and Environment Society of South Africa (WEESA), has led to the participation of more than 4,500 schools in all 9 provinces reaching a total of 640,000 students and 4,264 teachers between 2013 and 2017.

Globally, the Eco-School programme has had significant impact, particularly in low-income countries. For example, academic results in Eco-Schools were shown to improve according to a thorough review by the Danish Outdoor Council (DOC) of Eco-Schools in three African countries (Uganda, Tanzania and Malawi). In Malawi, more children successfully passed primary school when attending Eco-Schools; while in Uganda, dropout rates were lower in the Eco-Schools, school attendance increased and student learning improved through higher final examination results[2]. Moreover, students who were previously enrolled in Eco-Schools and moved on to tertiary education soon demanded a similar programme in higher education resulting in the development of the FEE EcoCampus programme. The Malaysia EcoCampus programme has, for example, initiated various youth conferences on Sustainable Consumption and Production, including in 2016 on educating Malaysian youth on their consumption habits in food and fashion[3].

Eco-schools have also improved school grounds and the surrounding environment in turn tackling environmental degradation. In Malawi, the adoption of eco-codes spruced up the school's surrounding environment including new lawns, well-aligned bricks and well managed trees, while in Uganda Eco-Schools have set aside forest reserve areas, including at the St. Kagwa Primary School that set aside an area of 6 acres with 60,000 trees. Thus, environmental and student health has improved at Eco-Schools, including through the development of school vegetable gardens that have improved student nutrition, as well as through student-led actions to improve water access and in turn hygiene. In Uganda, students developed a locally-made device using a re-cycled jerry can (holding litres of water) connected to a wood pedal for hand washing. Consequently, the confidence of students has increased through the Eco-School's active-learning encouraging some students to become innovators themselves of cheap and easy technology.

Eco-Schools have also saved money by consuming less water and energy and produce less waste, such as through water, energy and waste audits led by student monitoring and evaluation. In Uganda, the use of modern energy saving stoves in two schools reduced their firewood consumption by almost

[1] European Commission: Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on The European Green Deal, December 2019, COM(2019) 640 final, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1588580774040&uri=CELEX:52019DC0640

[2] http://www.cecodug.org/doc/best%20practice%20report.pdf

[3] https://www.wwf.org.my/about_wwf/what_we_do/education_for_sustainable_development__esd_/fee_ecocampus_/

50%. And targeted Eco-School initiatives have generated income. In India, for example, Eco-School students and teachers in Pura were involved in the collection of segregated waste (wet and dry) that was used not only as compost for the school garden but furthermore sold generating Rs. 8000 - cash which was used to purchase student notebooks and other supplies[4].

Eco-Schools have shown a capacity for sustaining micro-projects on their own, and even establishing new micro-projects, providing Eco-Schools not only a learning facility outside their schools, but furthermore generating sustainable income. In Malawi, for example, a long running piggery micro-project set up at the Mgwere Eco-school has generated income that the school has used to construct two teachers' houses in efforts to tackle inappropriate teacher accommodation (which required teachers to live far away from the school).

Conditions for transformation

Changing behaviour: A key aspect to facilitate change through Eco-Schools is its focus on developing generations of sustainability-minded and environmentally conscious people through active learning, participation and motivation, ultimately changing behaviour.

Student ownership: By challenging students to tackle environmental problems that lead to tangible results (managing waste, developing school vegetable gardens, etc.) pupils are instilled with a sense of responsibility and ownership to really make a difference when at school, at home, within their community, etc. The Eco-Schools programme has not only increased student learning, but also encourages student engagement, increases student empowerment and confidence and creates leadership and real-life skills (public speaking, problem solving, soft skills, etc.).

Community involvement: Eco-Schools programmes strongly rely on involving local communities by raising awareness on environmental issues, as well as by involving community members (parents, neighbours, governors, etc.) in training and encouraging them to participate in Eco-School actions.

Strong partnerships: The most successful Eco-Schools projects are those that have built strong partnerships with government, non-governmental organisations and the private sector. National operators play

In Uganda, the St. Kagwa Primary School set aside forest reserve area of 6 acres with 60,000 trees.

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In Uganda, parents inspired by their children, created an Eco-Parent association and started constructing replica water tanks to collect rainwater at household level using a self-generated revolving fund.

© Eco-Schools Uganda

[4] https://esllc.exposure.co/government-lower-primary-school-pura

Eco-Schools drive change by developing generations of sustainability-minded and environmentally conscious people through active learning, participation, and motivation.

an important role in facilitating such partnerships, including by providing Eco-Schools with the opportunity to engage in micro-projects that can ultimately generate sustainable income.

Parent empowerment and replication: By raising awareness and training to parents on Eco-School actions (e.g. gardens, beekeeping, etc.), parents have become more involved in their child's learning, encouraging them to support their child's education. Parents further have become inspired and empowered to themselves become involved in and even replicate Eco-school actions. In Uganda, for example, parents who were inspired by their children's collection of rainwater and use of drip-irrigation at school, mobilised themselves to create an Eco-Parent association and started constructing replica water tanks at household level using a self-generated revolving fund.

Spin-offs: over the years, Eco-Schools have taken on several different forms, many now being called sustainable, climate-smart, green or eco-friendly schools. Such spin-offs have broadened their definition, enhanced networks and enlarged impact. For example, the EU-funded Global Climate Change Alliance Plus (GCCA+) Cambodia Climate Change Alliance, aims to improve secondary school climate mitigation and adaptation capacity towards developing climate-smart Eco-Schools (e.g. through bio-gardening, resilient farming, and integration of climate change in national curriculum)[5].

Lessons for the future

The Eco-Schools programme that is centred on active learning through hands-on action provides a flexible approach to facilitate student learning based on local realities. Blending active learning (developing a renewable energy system, government lobbying, enterprise, etc.) with traditional learning (integration with STEM[6] subjects) improves student learning, increases student confidence and develops leadership skills. The provision of teaching resources and curriculum material, as provided by Eco-Schools and other programmes[7], as well as support to teachers and schools to adapt teaching material to local circumstances, is important to support the transition from traditional to active learning.

Collaboration between schools and the government, donors and private stakeholders, such as through micro-project financing, facilitates active student learning while supporting financially challenged schools, particularly in poorer countries. Such income-generating activities provide an important means for schools to improve school infrastructure and learning while improving the environment. National operators, as supported through the Eco-Schools programme, help facilitate the development of such strong partnerships.

Where schools are engaged in micro-financing projects, the development and use of inexpensive and easy technology that reflects the local environment need to be prioritised towards ensuring their long-term sustainability.

Using well-known environmental frameworks, such as by linking the Eco-schools themes to the Sustainable Development Goals (SDG)[8], allows schools to actively seek ways in which they may contribute to global and national priorities to facilitate economic, environmental and social well-being.

Greening EU COOPERATION
Integrating environment & climate change

Environment and climate change mainstreaming is a legal EU requirement, essential to meeting international and internal commitments, and to supporting sustainable development worldwide. The EU is actively doing its part through the European Green Deal and will support partners to do the same.

For advice and training on environment and climate change mainstreaming, contact:

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[5] https://www.gcca.eu/stories/eco-schools-across-cambodia
[6] Science, technology, engineering, mathematics.
[7] https://worldslargestlesson.globalgoals.org/all-lesson-plans/, https://www.ecoschools.global/material and https://www.ecoschools.global/lesson-plans-for-teachers
[8] https://www.ecoschools.global/news-stories/2017/8/15/eco-schools-and-the-sustainable-development-goals