

HOW TO BETTER INTEGRATE ENVIRONMENTAL AND CLIMATE ISSUES INTO EDUCATION AND TRAINING PROGRAMMES



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INTRODUCTION

The environmental degradation and climate change we are currently witnessing are undeniably having a negative impact on the realisation of the right to education. Deforestation, for example, is harmful to school attendance for children and young people – girls in particular – as it is obliging them to spend more time gathering wood. Likewise, in the event of a climate disaster, children and young people often are no longer able to attend school because the buildings are turned into storage facilities or reception centres. And so on.

Education, however, is an essential component of sustainable development, as confirmed

by target 4.7 of the Sustainable Development Goals (SDGs). Throughout their school career, children and young people should acquire knowledge about the sustainable use of natural resources and the adaptation to a changing environment, and develop respectful attitudes and behaviour towards the common good. They will then pass on their knowledge, attitudes and behaviour to their family and community. Safe and secure schools are also important in protecting children and young people during and after a climate disaster. Education is also called upon to train the environment professionals and climate specialists that developing countries need.

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.

TARGET 4.7 OF THE SUSTAINABLE DEVELOPMENT GOALS

Development actors working in education and training face many different challenges. How can environmental and climate issues be incorporated into the curriculum? How can teaching staff and school leaders be prepared for the effective implementation of this curriculum? How can schools be built and maintained without having a negative impact on the environment? How can raw materials be used sustainably in running a school? Above all, how can we instil a feeling of being able to contribute actively towards sustainable development among children and young people?

In search of a response to these challenges and inspired by Louvain Coopération's Environmental Integration Tool (EIT), designed to structure

the thinking on environmental problems linked to productive programmes, the Education and Environment working group of Educaid.be (see the list of member organisations that contributed to this document on page 12) took the EIT as a basis and adapted it for use in an educational setting. The result of the exercise is this methodological sheet, which aims to offer development actors in the education sector a framework for incorporating environmental and climate issues into their interventions, so as to limit the potentially damaging impact of their interventions on the environment – and vice versa. As the education development actors are very diverse in nature, this framework was designed to be rather general so that it can be adapted to specific contexts.

The methodological sheet is structured around specific and concrete questions which can be used to help with the identification, formulation, implementation and evaluation of the intervention, but will be particularly useful during the identification and formulation phases of education and training interventions.

The questions are divided into 4 parts. The first part covers the analysis of the environmental context. What influence do the environment and the climate have on the opportunities and threats related to the intervention? Do these opportunities and threats have varying degrees of impact on vulnerable groups? The institutional framework and the identification of stakeholders are also important.

Parts 2 and 3 focus, on the one hand, on the effects of the environment and the climate on the intervention and, on the other hand, the effects of the intervention on the environment and the climate. The fourth and final part examines partners' capacities to mainstream environmental and climate aspects into their interventions.

At the end of the document, you will find a glossary and a brief list of the resources consulted while developing the sheet.



METHODOLOGICAL SHEET

I. ENVIRONMENTAL AND CLIMATE CONTEXT: DESCRIPTION AND ANALYSIS

- What are the environmental and climate threats and opportunities that are most likely to affect the country or region of your intervention, at the time of implementation or upon finalisation?
- How likely are they to have a positive or ne-

gative impact on the accessibility, quality and relevance of the education and training system (or the educational sub-sector relating to your intervention) in the short or medium term?

- Which groups are especially vulnerable to environmental and climate problems?

ELEMENTS FOR CONSIDERATION

Environmental and climate threats/opportunities at national or regional level (at the level of the area where you are working)

- What are the main threats to the environment in the country/region where you are working? How are they linked to education and training?

For example: demographic growth, urbanisation, unsustainable economic development, etc.

- To what extent and in which ways do the following environmental and climate risks affect access to education or the quality and relevance of education and training: soil degradation or erosion, deforestation, land clearing or overgrazing, overfishing, a decline in aquatic resources or water pollution, hazards (droughts, floods, cyclones, earthquakes, etc.), diseases of environmental origin (in particular those linked to the quality of air or water).

Environmental and climate vulnerability and equity matters

- To what extent and in which ways do environmental and climate threats have an (even

greater) impact on the access to education for: children and young people from poor families, children and young people from rural and isolated communities, girls and young women, children and young people living with an impairment, children and young people belonging to minorities, displaced children and young people?

- This applies in particular to schools in areas that are more sensitive to climate hazards, schools that are isolated and have few resources for climate management and adaptation, schools in regions with a high dependency on agriculture and the seasons for sowing, harvesting, etc.

- Girls are generally more affected by the effects of climate change.

- Children and young people living with an impairment are most affected when the road leading to school or the buildings themselves have been affected by environmental changes.

- Those undertaking training linked to sectors that are dependent on environmental and climate conditions (e.g. agriculture).

- What is the institutional framework linked to the environment (at the national, regional and local level)?
- What is the environmental institutional

framework linked to the education sector (policies, regulations, standards, etc.)?

- Who are the allies/key players/organisations with whom can be collaborated?

ELEMENTS FOR CONSIDERATION

Education and training political framework

- To what extent/in which ways has the government (education ministry) demonstrated commitment towards the Global Action Programme on Education for Sustainable Development (ESD)?
- Do ESD and/or environmental education influence education and training objectives? How?

Professional development framework

- Are environmental and climate issues incorporated into teachers' professional development? And in the development of school leadership? How?

Teaching and learning framework

- Are there any environmental guidelines on the design, construction and management of school buildings, including classroom furniture, waste management, toilets, energy and water?
- Are ESD/environmental and climate aspects incorporated into:
 - Guidelines on health and nutrition in schools? How?

- The curriculum? How?
- Teaching and learning materials? How?
- The assessment system? How?
- School policies and practices? How?
- Lesson plans by/for teachers? How?
- The school's policy? How?

Overview of stakeholders: allies and adversaries

- Who are the environment and climate allies (national and international ESD networks, local environment groups, local businesses, parents, other schools, neighbourhood associations, etc.)?
- Who are the environment and climate opponents (local businesses, parents, other schools, neighbourhood associations, etc.)?
- Potential synergies with other (educational) initiatives/projects/programmes in the same country/region?

2. EFFECTS OF THE ENVIRONMENT AND CLIMATE ON THE INTERVENTION

- What environmental factors of the area of intervention could have a positive or negative effect on the effectiveness, efficiency and/or sustainability of the intervention?

- Explain their causes and effects.
- At the level of different stakeholders/target groups.

ELEMENTS FOR CONSIDERATION

Environmental and climate threats and opportunities at school level

- To what extent are the schools you work with protected from the cold, heat, rain, noise, pollution, risk of flooding/drought, harmful materials, but also from lack of drinking water?
- Environmental constraints which affect school attendance rates (e.g. time spent gathering wood and searching for drinking water) and the physical access to school.

- What are the opportunities to:
 - Increase well-being at school, e.g. through increasing the thermal, acoustic and visual comfort, improving the air quality and carving out green spaces?
 - Use the environment as a learning support, e.g. as part of active teaching methods, learning through play, etc.?

- What solutions can be envisaged to mitigate the risks or make the most of opportunities?
- What are the opportunities for action to re-

duce the vulnerability of the intervention to these factors or to increase the positive impact?

ELEMENTS FOR CONSIDERATION

Infrastructure

- Decision on where to locate buildings.
- Design of buildings that are adapted to the climate conditions, the urban environment (noise, pollution) and with the rational use of resources (ventilation, energy-saving solutions to air conditioning, etc.).
- Greening around the buildings, play areas and sports fields.
- Use of natural resources. For example, reducing and/or streamlining consumption (water, fossil fuels, etc.) and the production of waste.

Access

- Potential adaptation of the school calendar and timetable.
- Assistance on the journey to and from school, school bus services.

Evaluation and risk management in the context of climate disasters

- Development of protocols with the community to deal with climate emergencies.
- Setting up of rapid alert systems.
- Close cooperation with local risks and disaster management councils.

3. EFFECTS OF THE INTERVENTION ON THE ENVIRONMENT AND THE CLIMATE

- What positive or negative impacts could the intervention have on the environment and the climate?

ELEMENTS FOR CONSIDERATION

Educational reform

Does the intervention:

- Include an interdisciplinary holistic perspective with the environment and sustainable development as integral parts?
- Promote the acquisition of the knowledge, values and attitudes needed to be able to participate in prevention and problem-solving activities concerning the environment?
- Meet professional training needs in the environment and related sectors?
- Meet the need of appropriately incorporating environment issues into vocational training programmes, even those that are not related to the environment?
- Supply the practical skills for resolving local environment and development problems?
- Encourage or deter the development and the use of local knowledge, for example, for natural resource management?
- Have a potential positive or negative effect on the environment when new knowledge is applied (particularly important when supporting vocational training)?

Educational materials (production, purchase, use, etc.)

Does the intervention:

- Pollute surface or ground water, soil or air?
- Use chemical products that are difficult to break down (e.g. printing ink, chemical products from laboratories, etc.)?
- Present serious and/or long-term health risks for staff members handling the chemical or other polluting products, or does it reduce the risk?
- Contribute to a situation in which an untrained staff member handles chemi-

cal products, or rather helps to train staff members in handling these products and provides them with protective equipment?

- Organise a reflection on the use of (natural) resources (paper, ink, water, electricity, etc.)?
- Encourage the use of local and/or sustainable and/or recyclable resources and materials?
- Give preference to local suppliers and/or suppliers who respect the environment?
- Try not to contribute towards increasing the volume of waste that is dangerous or impossible to process on-site (for example second hand IT-material)?

Construction and management of school buildings

Does the intervention:

- Include an environmental analysis during the planning stages of a new building project and/or building reconversion?
- Jeopardise major or sensitive ecosystems?
- Degrade or pollute surface or ground water, soil or air (for example, location of buildings and/or management of canteens, toilets, plastic waste, used bulbs, maintenance)?
- Use building materials which generate heavy environmental pressure (for example, wood in places where it is rare or from forests which are not managed sustainably, or bricks which require wood to make them and/or are made with clay taken from sensitive sites)?
- Produce building waste, rubble, organic waste or other types of waste?
- Reduce biodiversity by posing a threat to plant or animal species?

- Carry a risk of spreading diseases or of other harmful effects on human health (for example, after pollution, because of poor

quality building materials, poor sanitation conditions, handling chemical products such as insecticides, etc.)?

- What opportunities for action are there to ensure that the intervention has a positive impact on the environment and the climate (or to reduce its negative impact)?

ELEMENTS FOR CONSIDERATION

Policy-making

- Promote an environment education policy.
- Encourage policies to promote 'green jobs', renewable energy, support research and training on clean forms of technology.
- Organise events at national or other level (for example, a conference on education and the environment/sustainable development).
- Raise awareness, organise training sessions on environmental management and adaptation at a political level, school level and within communities.

Design and implementation of teaching and learning

- Incorporate the environment and the climate (Greening) into curricula, learning targets, training programmes, skills, assessment systems, etc.
- Define educational interventions targeting the environment; organise competitions, visits, events with a link to the environment and to sustainable development.
- Organise waste management in educational institutions, especially the waste produced in the context of technical and vocational training: introduce a waste separation system/recycling of used plastics, batteries and bulbs, etc.
- Draw up environmental management plans, action plans and programmes and allocate budgets to these issues.
- Encourage the careful and sustainable use

of resources, by applying the 4 "R" strategy to all the resources being used.

- Reduce the consumption of resources (raw materials, water and energy).
- Replace non-renewable resources with renewable resources.
- Re-use raw materials or resources to avoid them becoming waste and prevent the use of new raw materials or resources.
- Recycle waste or use recycled materials. The benefit is substantial: protection of resources, waste reduction and job creation.
- Organise capacity-building and awareness-raising events on environmental themes on International Days such as 22 May (biodiversity), 5 June (environment), 8 June (oceans), etc.
- Organise or join volunteer friends of the environment groups to carry out extracurricular activities (awareness-raising, spring cleaning, vegetable gardening, etc.).

Infrastructure

- Apply eco-construction principles when designing infrastructure: "Green schools".
- Improve the hygiene, cleanliness and safety conditions of the institutions.
- Incorporate green spaces and kitchen gardens (both as places of learning and as sources of healthy food for pupils) into the school infrastructure.

Partnerships – networks – exchanges

- Initiate partnerships (local civil society, private sector, etc.) on the environment in the education sector.

- Facilitate networking concerning the environment and sustainable development.
- Set up “communities of practice”.
- Set up community environmental watch committees.



4. PARTNERS' CAPACITIES FOR MAINSTREAMING ENVIRONMENTAL AND CLIMATE ISSUES

- Are the operational partners of the intervention capable of carrying out the activities planned to encourage the mainstreaming of

environment and climate issues?

- What opportunities for action are there to improve these capacities?

ELEMENTS FOR CONSIDERATION

Evaluate (and reinforce if necessary) partners' capacities to:

- Design and manage programmes to prevent, reduce and control pollution.
- Evaluate, reduce and manage risks linked to the environment, based on the precautionary principle.

- Promote environmental sustainability through awareness-raising and educational tools.

- Promote environmental sustainability with the help of economic, legal, regulatory, etc. instruments.



GLOSSARY

Adaptation	The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate harm or exploit beneficial opportunities. In natural systems, human intervention may facilitate adjustment to expected climate and its effects [IPCC].
Biodiversity or biological diversity	The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems [UN-CBD].
Climate change	A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods [UN].
Soil degradation	A change in the soil health status resulting in a diminished capacity of the ecosystem to provide goods and services for its beneficiaries [FAO].
Sustainable development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs [BRUNDTLAND REPORT] There are three important pillars: environmental, economic and social aspects.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit [UN-CBD].
Soil erosion	Absolute soil losses in terms of topsoil and nutrients. This is the most visible effect of soil degradation [FAO].
Species	A set of populations of closely related, morphologically similar individuals capable of reproducing with each other/inbreed. It is the basic unit of biological classification [GEMET].
Environmental management	Management of the productive use of natural resources without reducing its productivity or quality [UNEP].
Pollution	The indirect or direct alteration of the biological, thermal, physical, or radioactive properties of any medium in such a way as to create a hazard or potential hazard to human health or to the health, safety or welfare of any living species [GEMET].
Natural resources	Mineral or biological resources necessary for human life and economic activities. These can be subdivided into two distinct groups: Non-renewable resources, consisting of mineral raw materials and fossil fuels, are exhaustible; renewable resources, which can, in principle, be exploited without exhaustion, being capable of continuous regeneration.
Drought	A long period of abnormally dry weather sufficiently prolonged so that the lack of water causes a serious hydrologic imbalance (such as crop damage, water supply shortage) in the affected area [GEMET].

RESOURCES

- *Climate Change 2014. Impact, Adaptation, and Vulnerability (WGII AR5), IPCC (2014)*
- *Education for Sustainable Development Goals: Learning Objectives, UNESCO (2017)*
- *Education for Sustainable Development Lens: A policy and practice review tool, UNESCO (2010)*
- *Environmental integration tool, Louvain Coopération (2019)*
- *Environment and Education, Irish Aid Key Sheet 07*
- *GEMET – General Multilingual Environmental Thesaurus, European Environment Information and Observation Network (EIONET)*
- *Guidelines for Environmental Impact Assessments in International Development Cooperation, Sida (1998)*
- *Integrating the environment and climate change into EU international cooperation and development, EU, Tools and Methods Series, Guidelines N° 6 (2016)*
- *Practitioners Guide: Capacity Development for Environmental Sustainability, UNDP, Environment, Energy and Capacity Development (2011)*
(with Annex A: Practical Tools for Capacity Development for Environmental Sustainability)
- *Three platforms for girls' education in climate strategies, Brookings, Brooke Shearer Series (2017)*
- *Weathering the storm: Adolescent girls and climate change, Plan International UK (2011)*

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