ENVIRONMENTAL EDUCATION
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ENVIRONMENTAL EDUCATION

MAIN OBJECTIVES

In settings of emergency, chronic crisis and reconstruction ...

- To foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas.

- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.

- To create new patterns of behaviour of individuals, groups and society as a whole towards the environment.

CONTEXT AND CHALLENGES

In emergency situations, where large numbers of people may live in a densely populated area, the effect on the environment is frequently severe. Degradation occurs with rapid emergency movement of people (refugees and IDPs), especially if the safe haven is a fragile environment that cannot support large numbers of people. Degradation will also occur as a result of conflict. Access to natural resources such as cultivable land and clean water may be scarce, which may lead to increased conflict. Protecting the hosting environment is an important strategy in the protection of refugees and internally displaced people (IDPs).

Without proper sanitation facilities and practices, for example, water sources can become polluted, which is harmful to the environment and can also lead to negative health impacts for those living nearby. Similarly, the need to gather firewood for cooking can also result in serious environmental consequences as an area becomes quickly deforested. These effects, and others, can be mitigated by an environmental education programme. The goal of such a programme is to change the behaviour of learners ‘and to translate acquired knowledge into action’ in order to preserve or minimize the detrimental effect on the environment (Talbot and Muigai, 1998: 243). Environmental education may be offered as part of the formal school curriculum, as an extracurricular activity (perhaps through environmental clubs), and through non-formal educational activities.

All environmental education activities should be undertaken as part of a comprehensive environmental management programme in the
affected areas. In the case of refugees, “agencies aim increasingly to prevent, mitigate and rehabilitate negative refugee-related impacts on the environment. Such a commitment requires the integration, to the greatest extent possible, of sound environmental management practices into all phases of refugee operations” (UNHCR, 2002: 7).

**SUGGESTED STRATEGIES**

**Summary of suggested strategies**

**Environmental education**

1. Determine whether an environmental protection plan has been developed as part of the emergency response by consulting with relevant government ministries.

2. Identify people within the education ministry who are (or will be) responsible for environmental education. Ensure that they receive any necessary training.

3. Assess environmental education needs and develop skills-based environmental education curricula/programmes based on the assessment.

4. Identify modifications required in the current curriculum to ensure inclusion of the environmental education component.

5. Facilitate the development or improvement of materials and methodologies for environmental education, and the testing and implementation of these programmes.

6. Provide guidance to educational authorities in emergency-affected areas and to civil-society organizations on the conduct of environmental education programmes.

7. Provide resources and train teachers for environmental education.

8. In refugee or internal displacement situations where environmental education programmes are being implemented in camps, establish programmes for neighbouring populations.
Guidance notes

1. **Determine whether an environmental protection plan has been developed as part of the emergency response by consulting with relevant government ministries.**
   - Have the specific areas of environmental degradation been identified?
   - Have all stakeholders been included in planning an environmental education response?

2. **Identify people within the education ministry who are (or will be) responsible for environmental education. Ensure that they receive any necessary training.**
   - Draw upon expertise in other ministries responsible for environmental management as well as environmental NGOs, to ensure that all environmental educational activities are harmonized with the goals of the national environmental action plan.

3. **Assess environmental education needs, and develop skills-based environmental education curricula/programmes based on the assessment.**
   - Undertake a baseline study to determine the behaviours and attitudes of the population – both the local and the displaced communities – with regard to the environment and the use of natural resources.
   - Conduct a review of environmental education programmes being conducted under government auspices, through civil-society organizations and external agencies and NGOs.
     - Identify features of the curriculum that teach knowledge, skills and behaviours that are constructive (or destructive) to the care of the environment.
     - Does the curriculum meet the needs of all the students (e.g. girls, religious/cultural groups, language groups, special needs groups) with regard to the knowledge required for sustainable use of the environment before those groups leave the formal education programme?
     - Are there content areas where the skills of environmental education are incorporated?
     - Does the training incorporate conflict resolution skills? Since the roots of many conflicts are based in scarce resources, these skills may be necessary to avoid or deal with future conflicts over resources. (See also the Guidebook, Chapter 25, ‘Education for life skills: peace, human rights and citizenship.’)
• Establish a joint working group to prepare good practice guidelines for environmental education providers.

• Determine environmental themes, e.g. conservation of soil, water, vegetation and energy; sustainable shelter; environmental health; and local laws and traditions on natural resource use. See also ‘Typical topics in refugee environmental education programmes’ in the ‘Tools and resources’ section of this chapter.

• Determine whether environmental education will be taught as part of the formal curriculum or through extracurricular activities. For example, in some countries environmental clubs and magazines are used to reach both schoolchildren and their families with simple ecological messages conveyed through activities that are fun as well as educational (Talbot and Muigai, 1998).

EXPLORATORY ENVIRONMENTAL EDUCATION

For many refugee school programmes, fieldwork need not be restricted to the familiar school tree planting and vegetable garden. Solutions to environmental problems (such as water shortage, deforestation, soil erosion and desertification) can be studied first-hand, often by taking a short stroll outside the classroom. Practical field studies bring the textbook to life and promote a sense of moral engagement that is vital to the success of environmental awareness campaigns.

Evidence has shown that children can be important actors on environmental issues given their natural drive towards learning and demonstrating their knowledge within the family and the community context. Thousands of African and Central Asian refugee children, as well as children in the refugee hosting communities, have benefited from environmental education activities and out-of-the-classroom activities, including management of school gardens, competitions and kitchen gardening. To boost the out-of-the-classroom activities, UNHCR and UNESCO are currently developing generic materials such as environmental games, comic strips, drama and scientific measures to make the learning more engaging.


4. **Identify modifications required in the current curriculum to ensure inclusion of the environmental education component.**

(See also the Guidebook, Chapter 20, ‘Curriculum content and review processes’.)

• Will environmental education be taught as a separate subject as part of the formal curriculum? If so, will it be an examinable subject?

• If environmental education is not taught separately, which other subjects (e.g. science, geography, agriculture, etc.) can ‘carry’ the environmental education programme?

• Are these taught early enough in the curriculum to ensure that the message, and therefore the desired changes in behaviour, is being conveyed to the population?
• If environmental education messages are taught by a number of teachers in different subjects, this should be carefully planned in order to prevent repetition. For example, teaching about soil erosion may be done in science lessons or geography lessons. Consideration must be given to which teacher will be responsible.

5. **Facilitate the development or improvement of materials and methodologies for environmental education, and the testing and implementation of these programmes.**

• Local adaptation of existing materials, such as those that have been developed by UNESCO-PEER, may be an effective way to begin an environmental education programme. When adapting existing materials, consider whether:
  • The programme is acceptable to the community. (Is it culturally appropriate?)
  • The programme builds positive and constructive skills and behaviours.
  • The programme is a sustained learning experience (i.e. not an occasional programme).
  • There is a teacher-training component to ensure valid teaching.

• Ensure full community participation and ownership of any proposed environmental education programme.
  • Establish focus groups, ensuring that all elements of the community (including minority groups, women, religious leaders, community leaders and caregivers), actively participate in the development of an environmental programme.
  • Include host populations in discussions related to environmental education programmes for refugees as this will help minimize potential conflicts over the use of scarce resources.
  • Consider environmental education programmes that have been developed by international youth movements, such as the Red Cross and Red Crescent Youth, the World Organization for the Scouting Movement and the World Association of Girl Guides and Girl Scouts.

6. **Provide guidance to educational authorities in emergency-affected areas and to civil-society organizations on the conduct of environmental education programmes.**

7. **Provide resources and train teachers for environmental education.**

• Successful environmental education programmes incorporate participatory and exploratory teaching practices.
8. In refugee or internal displacement situations where environmental education programmes are being implemented in camps, establish programmes for neighbouring populations.
1. **Typical topics in refugee environmental education programmes**

The following seven broad topics are the subject matter of most refugee environmental education programmes:

- **Energy conservation** – focus is on household sector, where the aim is to reduce consumption of fuel, principally wood, for cooking and warmth.

- **Sustainable shelter** – housing requirements account for a small but significant proportion of wood use in refugee camps, especially in the early stages of an influx. In some places there are projects involving design and construction of sustainable refugee housing using alternative materials.

- **Conservation of trees and other vegetation** – energy conservation and sustainable shelter as well as protection and restoration of vegetation through promotion of domestic tree planting, etc.

- **Soil conservation** – topics include the causes and effects of soil erosion as well as physical and biological methods of erosion control.

- **Water conservation** – crucial concepts include control of water loss by physical and biological measures and protection of water sources.

- **Environmental health** – includes topics such as disease prevention through appropriate sanitation and water hygiene with a major focus on cholera prevention – link with health education.

- **Local laws and traditions on natural resource use** – to minimize conflicts with host communities, refugees and other displaced should be aware of local laws and traditions regarding natural resource use. Topics that could be covered are: traditional resource-management practices of the local people, regulations governing access to and exploitation of reserve lands/national parks, laws on wildlife protection, fire regulations, grazing rights, rights over both wood and non-wood forest products.

2. Key points on environmental education and awareness-raising

General

- **Education has long-term impacts and should be supplemented with short-term regulatory measures and public information messages on environmental protection.**
  
  Environmental education should be seen as a continuous and multi-sectoral process, as well as a tool for stimulating reflection, discussion and decisions on environmental issues and problems. As it focuses on changes in perceptions and attitudes, environmental education does not generate rapid impacts. It should be supplemented with short-term regulatory measures and public information campaigns to limit immediate damage to natural resources.

- **Environmental education should build upon existing ecological knowledge and skills.**
  
  Refugees and host communities have considerable environmental practices to share with one another. Effective environmental education should target community groups, including women’s groups and youth associations, which have the capacity and will to promote sound environmental management.

- **Formal and non-formal approaches should be harmonized for better results.**
  
  Non-formal approaches will be more effective if a ‘whole school approach’ to environmental education is adopted. Schools must not be treated as isolated islands of knowledge; they must be seen as part of the community. Likewise, the community must be brought into the schools, for example, through camp/settlement environmental working groups. Topics should be related to day-to-day life.

- **Environmental education and awareness-raising should be closely tied to broader environmental programmes.**
  
  Environmental education should be fully integrated with ongoing efforts to promote environmentally sensitive behaviour. Linking environmental educational programmes to particular aspects of refugee life is not always easy, particularly when curricula are nationally standardized and examination-oriented. Building such linkages can broaden the refugee and local community’s interest in environmental concerns.
Non-formal environmental awareness-raising

- **Early, targeted environmental awareness campaigns are valuable in setting the parameters for sound environmental behaviour.**
  
  Awareness programmes should be introduced before refugees have established environmentally damaging systems of behaviour that are difficult to change: for example, in the styles of shelter they build, the areas in which they cut trees, or the cooking systems they use. Messages to be communicated typically relate to local and/or national laws, for example, on which practices are permitted and which are discouraged or prohibited.

- **When new settlements are established, refugees must be informed of regulations regarding natural resource use.**
  
  Rules concerning natural resource use should be made clear from the outset. These may relate to tree cutting, charcoal making or management of wood-harvesting areas. One strategy is to record each tree above a certain diameter on every refugee plot, and assign responsibility for their protection to respective families. This approach requires the timely presence of an environmental agency, working in collaboration with the camp management agency, and subsequent introduction of incentives and disincentives. Ideally, the refugees themselves should record all relevant information.

- **Environmental awareness-raising can promote participation in environmental problem solving.**
  
  Environmental activities, which involve target communities in problem identification and analysis, planning, implementation and evaluation, are more likely to have the desired positive impact.

- **Multiple entry points are available for environmental awareness-raising.**
  
  Non-formal environmental education can be channelled through health programmes, adult literacy classes, video sessions, religious services, notice boards, drama and poetry festivals, competitions, etc. Networks of community service and health workers can be particularly effective in passing on appropriate environmental messages, given adequate training.

- **Signs and posters communicating rules, regulations and sound environmental practices must be supported by, and linked with, other activities.**
  
  Public awareness of the regulations governing the way in which refugees are permitted to harvest natural resources can be communicated through a number of channels. Signboards, for example, can be posted at a variety of locations in the camps and surrounding areas. They should be designed by the refugees wherever possible, should be multilingual and must convey the intended message in an appropriate and unambiguous manner.

- **Environmental awareness raising and training must include measures to empower communities and their management institutions.**
  
  Training and educational initiatives undertaken with local communities will have limited impacts if these communities are unable to put the lessons into practice. Land access rights, institutional capacity and appropriate incentives can better ensure participation in sustainable management activities.
Formal environmental education

- **Environmental concepts can be integrated into formal education programmes.**
  Possible approaches to formal environmental education include supplementing the existing curriculum with additional environmental materials, or developing a separate package of awareness-raising materials. Decisions on whether to introduce environmental education as a separate theme should be made as early as possible. Perhaps surprisingly, evidence from past efforts suggests that infusing environmental concepts into an already overloaded curriculum may be less appropriate than introducing an entirely new subject.

- **Environmental education should be relevant to the needs of refugees and local communities.**
  Refugee situations occasionally call for the development of new educational materials to address the teaching and content needs of refugee and returnee audiences and situations. In developing such materials, it is important to work closely with refugee teachers, implementing partners and often local actors, as this promotes a sense of ownership.

- **Environmental education activities should minimize reliance on materials not locally available.**
  Acknowledging that educational facilities and teaching resources in refugee situations are often limited, the incorporation of locally available materials for environmental education and reference to local situations and problems can promote greater uptake, applicability and sustainability. Environmental education activities should be made simple and locally appropriate in order to minimize the likelihood of dependence on external support for their continuation.

- **New teaching methods may require improvements in teachers’ competencies.**
  In some cases, it may be appropriate to adopt new teaching approaches (e.g. activity-based and problem-solving approaches) to environmental education. These approaches may demand new skills and competencies from teachers and trainers, with a likely shift away from didactic to teacher-centred methods. Capacity building may be required to develop teaching methods and resources.


The Decade of Education for Sustainable Development (DESD) is a far-reaching and complex undertaking. Its conceptual basis, socioeconomic implications, and environmental and cultural connections make it an enterprise, which potentially touches on every aspect of life.

The overall goal of the DESD is to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behaviour that allow for a more sustainable and just society for all.

The basic vision of the DESD is a world where everyone has the opportunity to benefit from education, and learn the values, behaviour and lifestyles required for a sustainable future and for positive societal transformation. This translates into five objectives, to:

1. Give an enhanced profile to the central role of education and learning in the common pursuit of sustainable development.
2. Facilitate links and networking, exchange and interaction among stakeholders in ESD.
3. Provide a space and opportunity for refining and promoting the vision of, and transition to sustainable development – through all forms of learning and public awareness.
4. Foster increased quality of teaching and learning in education for sustainable development.
5. Develop strategies at every level to strengthen capacity in ESD.

The concept of sustainable development continues to evolve. In pursuing education for sustainable development, therefore, there must be some clarity in what sustainable development means and what it is aiming at. This plan presents three key areas of sustainable development – society, environment and economy with culture as an underlying dimension.

Society: an understanding of social institutions and their role in change and development, as well as the democratic and participatory systems which give opportunity for the expression of opinion, the selection of governments, the forging of consensus and the resolution of differences.

Environment: an awareness of the resources and fragility of the physical environment and the effects on it of human activity and decisions, with a commitment to factoring environmental concerns into social and economic policy development.

Economy: a sensitivity to the limits and potential of economic growth and their impact on society and on the environment, with a commitment to assess personal and societal levels of consumption out of concern for the environment and for social justice.

ESD is fundamentally about values, with respect at the centre: respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit. Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect. Along with a sense of justice, responsibility, exploration and dialogue, ESD aims to move us to adopting behaviours and practices that enable all to live a full life without being deprived of basics.

ESD is for everyone, at whatever stage of life they are. It takes place, therefore, within a perspective of lifelong learning, engaging all possible learning spaces, formal, non-formal and informal, from early childhood to adult life. ESD calls for a re-orientation of educational approaches – curriculum and content, pedagogy and examinations. Spaces for learning include non-formal learning, community-based organizations and local civil society, the workplace, formal education, technical and vocational training, teacher training, higher education educational inspectorates, policy-making bodies ... and beyond.

The outcomes of the DESD will be seen in the lives of thousands of communities and millions of individuals as new attitudes and values inspire decisions and actions making sustainable development a more attainable ideal. For the DESD process as such, eleven expected outcomes are derived from the DESD objectives and relate to changes in public awareness, in the education system and in the integration of ESD into all development planning. These outcomes form the basis for indicators used in monitoring and evaluation; however, stakeholder groups at each level will decide on specific indicators and the kinds of data needed to verify them. Qualitative indicators must figure equally with quantitative indicators to capture the multiple connections and societal depth of ESD and its impact.

Source: UNESCO (2005: 5-8).
REFERENCES AND FURTHER READING


CHAPTER 23

SECTION 5

GUIDEBOOK FOR PLANNING EDUCATION IN EMERGENCIES AND RECONSTRUCTION