



Education for Sustainable Development

– a strategy for the United Nations Decade 2005-2014



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Foreword

The Danish Ministry of Education hereby launches its strategy for education for sustainable development as part of United Nations Decade of Education for Sustainable Development 2005-2014.

The strategy shall ensure that children, young people and adults become aware of the concept of sustainable development and learn how to act competently through knowledge and skills. In this way, the education sector contributes to enhancing the green profile of the national Government and makes it possible for the education sector to fulfil the goals and ambitions for the UN DESD.

The aim is to introduce sustainable development in all relevant curricula used in basic education, youth education and teacher training in order to establish a link between natural and social sciences and humanities. Different aspects of climate related problems can for instance be introduced in multidisciplinary educational programmes.

The United Nations Educational, Scientific and Cultural Organization, UNESCO, has been designated by the UN to secure the implementation of the Decade of Education for Sustainable Development. The elaboration of national strategies and ensuring its follow-up lies with the national authorities. The present strategy is thus the result of a fruitful co-operation between the Danish National Commission for UNESCO and the Ministry of Education.

Bertel Haarder
Danish Minister for Education
December 2008



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Introduction

In 2002, the United Nations (UN) General Assembly adopted a resolution proclaiming that the period 2005-2014 was to constitute the decade of education for sustainable development. The intention of this resolution was to enhance the efforts to promote sustainable development throughout the world through education and learning.

The international responsibility for the task of coordinating the activities during the decade was assigned to UNESCO (the UN Educational, Scientific and Cultural Organization).

The UN has not drawn up an official definition of the concept of education for sustainable development. This was specifically because there was a wish to make space for a broad interpretation allowing for opportunities for major national differences.

UNESCO's interpretation of the concept of education for sustainable development indicates that education programmes and learning environments must increase the population's competencies and skills in a way that enables them to make decisions based on knowledge and considerations concerning:

- the relationship between the needs and interests of present and future generations
- the relationship between preservation and change
- the relationship between rich and poor
- the relationship between local interests and global considerations

In its follow-up on the resolution adopted by the UN General Assembly, the Committee on Environmental Policy (CEP) of the UN Economic Commission for Europe (UNECE) has drawn up a strategy for the efforts to promote education for

sustainable development. The UNECE strategy was adopted in 2005 by the 56 member states and reaffirmed at a joint session of education and environment ministers in Belgrade in 2007.

UNECE has identified six areas as being important for meeting the aims of the strategy:

- To ensure that national strategies through, for example, ministerial orders and curricula support education for sustainable development.
- To promote sustainable development through formal, non-formal and informal learning¹.
- To promote the motivation and competencies of teachers and other educators to incorporate the concept of sustainable development in their teaching.
- To ensure that adequate tools and materials concerning education for sustainable development are accessible.
- To promote research into, and development of, education for sustainable development.
- To strengthen cooperation regarding education for sustainable development within the UNECE region.

1 **Formal learning** refers to learning at educational institutions that leads to formal recognition of the education programme. **Non-formal learning** refers to learning that takes place outside the established educational institutions and does not typically lead to an exam-based qualification. Examples of such learning include learning in companies and local communities as well as within organizations and groups. **Informal learning** relates to the learning that takes place in everyday life and which is not necessarily organized in a conscious effort to bring about learning and is perhaps not perceived either by the participants as something that develops their knowledge and skills.



National initiatives

The Danish Government Platform, VK (Liberal-Conservative) Government III – “A Society of Possibilities” – which was published in November 2007, states: “That the Government in a new strategy for sustainable development will present a number of initiatives for tackling future challenges.”

In June 2007, the Ministry of the Environment published a green paper on a strategy for sustainable development with the title “Green Responsibility”. The paper contained an overview of what the Government had implemented since the previous Danish strategy from 2002, which had the title “Common future – Development in balance”. Furthermore, a number of new initiatives have been launched that contribute to evolving the Danish sustainable development strategy into an integrated strategic planning framework.

The Brundtland Commission’s goal from 1987 is:

“Sustainable development is development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs.”

In order to achieve the goal, it is important that all parties in society – politicians, the business community and the general public – assume a joint responsibility for contributing towards the promotion of sustainable development.

Closer cooperation has been established between the environment and education sectors with the aim of utilizing both sectors’ competencies in an optimal way. This ensures synergy between the Government’s over-arching strategic planning framework for sustainable development and the sub-strategies that are developed within other sectors, including the education and environment sectors.



The goal of a Danish Strategy for Education for Sustainable Development

The overall goal of the strategy is:

- *To ensure that knowledge for education for sustainable development is disseminated and utilized in practice at all educational levels in the formal education system, and also to engage in special efforts vis à vis the non-formal learning environments and also – where possible – the informal learning environments.*
- *To strengthen the population's understanding, engagement and knowledge regarding the concept of sustainable development that simultaneously incorporates the interrelationship between economic, social, political and cultural elements, thereby ensuring qualified general debate on the subject.*
- *To coordinate a series of Danish educational initiatives that ensures cohesion and synergy in relation to both time and content.*

A number of current Danish initiatives within the education field already support the Strategy for Education for Sustainable Development.

These include, in particular:

- *The report “Et Fælles Løft” (A General Boost), which focuses on strengthening science, technology and health education.*
- *Climate Education 2009*
- *Virtual Galathea 3*

This linkage between the ongoing Danish initiatives must be seen particularly in light of the Ministry of Education's

ambition that scientific knowledge is afforded a more prominent place as part of general education.

A solid grounding in natural science is a prerequisite for the quality of the democratic decision-making process in a society characterized by high-technology and great challenges in, for example, the fields of health care and climate change.

The strategy takes a point of departure in the following messages:

- Personal responsibility and engagement are important for guiding own actions and behaviour.
- Democratic decisions should be made on the basis of sound scientific knowledge.
- The desired economic growth should ideally not damage the opportunities for growth of future generations or other continents.



Initiatives and actions

In Denmark, work has been carried out for a number of years within the areas mentioned in UNECE's strategy and in regard to UNESCO's interpretation of the concept of education for sustainable development. But there continues to be a need for devoting effort to ensuring that pupils and students acquire a broad and in-depth knowledge of science-related issues and the link between these and society's economic, environmental, social and cultural conditions.

In order to achieve the national and international goals, the Ministry of Education has launched the following initiatives:

1. Strengthening of organizational framework for coordination and synergy:

- A formal organizational framework has been created through the establishment of a Dialogue Forum, comprising a broad circle of special interest organizations and a cross-ministerial network. Within this framework, the activities are to be strengthened.
- The cooperation with the voluntary organizations are to be strengthened, so that the strategy is implemented via interaction between central and local government authorities and all relevant stakeholders, including NGOs and the adult education sector.
- A link has been secured between the current initiatives in the education field and education for sustainable development.
- Aspects of sustainable development are to be incorporated in the general value and quality profiles of institutions.
- Local Government Agenda 21 strategies are to be upgraded to ensure that they directly incorporate education for sustainable development in the reports which, according to Section 33 a of the Danish

Planning Act, must be submitted to the Ministry of the Environment for each electoral period.

2. Incorporation of the concept of sustainable development in legislation, regulations and curricula:

- Since 2005, sustainable development has been incorporated in connection with the revision of goal descriptions, curricula and guidelines for primary and secondary education programmes, including also vocational education and training programmes.
- The curricula for the Danish Folkeskole's (primary and lower secondary school) teaching of natural science/ technology, biology, geography and social sciences as well as in the compulsory topic of "*health and sex education and family life education*" are to be integrated at all levels of education, with the aim of strengthening the pupils' interest in the individual subjects and their mutual interconnection.
- Sustainable development is incorporated as an element in the curricula for the subjects of biology, physics, natural geography and social sciences at upper secondary school level. In addition, the widened opportunities to work with different combinations of subjects in upper secondary school education that have been available after the reform in 2005 can be utilized optimally.
- In all education programmes, the participants must address the concept of sustainable development from both a scientific as well as societal, humanistic and democratic perspective.
- In connection with coming changes to curricula, etc., sustainable development will be inserted into relevant parts of education-related legislation, ministerial orders and goal descriptions.
- The adult education sector can use the UN Decade of Education for Sustainable Development as a starting point for teaching about the interrelationship between

natural science, social science, economic, social and cultural aspects.

3. Strategic efforts:

- More targeted efforts are to be made to coordinate the initiatives that are inter-related in terms of time and content.
- As part of the preparations for the Climate Change Conference in 2009, work is to be carried out in the formal and informal learning environments, strategically and substantively, with projects relating to climate change and sustainable development.
- A series of climate change summits targeted at young people are to be planned.
- During the UN Decade of Education for Sustainable Development, action is to be taken to focus and differentiate in relation to other problems than climate change, as well as other age groups than children and young people – e.g. as part of the concept of lifelong learning.
- The collaboration between the Ministry of Education and the Ministry of the Environment is to be enhanced through joint initiatives, such as closer cooperation between schools and nature schools regarding education programmes and teaching materials.
- As part of the efforts to strengthen natural science education, it has been decided to establish a National Centre for Science, Technology and Health Education.
- The Academy for Talented Youth (ATU) offers upper secondary school students the opportunity to pursue 2½ years of intellectual challenges alongside their normal studies. The first group began in January 2008. Read more at: www.ungetalenter.dk.
- It has been decided to establish a National Science Centre at Sorø Academy for talent development and talent nurturing for all in the education sector. The science centre building is expected to be finished in

the 2nd quarter of 2009. Read more at: www.soroe-akademi.dk/.

- Popular participation in aspects of sustainable development can be strengthened through interest groups and the liberal adult education organizations actively incorporating the concept in their ongoing activities. Democratic processes should have a prominent place.

4. Continuing education and training:

- The concept of education for sustainable development contains both well-known, new and, in particular, multi-disciplinary aspects.
- A pilot project is to be implemented on teaching methods for incorporating education for sustainable development across the subjects taught in primary and lower secondary school.
- Providers of continuing education and training include aspects of sustainable development in the programmes they offer and run for teachers, educators and adult education instructors.
- In collaboration with the Ministry of the Environment, earlier concepts for environmental education are to be updated so as to incorporate the concept of sustainable development.

5. Dissemination:

- During the UN Decade of Education for Sustainable Development, the Ministry of Education will strengthen and develop the dissemination activities that have already been launched.
- Closer links are to be established between www.ubuportalen.dk, www.emu.dk, www.Klimaundervisning.dk and www.1tonmindre.dk.
- Contributions of good examples of education programmes and teaching methods will regularly be posted for dissemination at “The Electronic Meeting Place for the Educational Sector” www.emu.dk, which

- incidentally contains more than 300 good examples.
- Conferences and meetings are to be arranged whose content takes a point of departure in central themes highlighted by international organizations such as UNESCO, UNECE, the EU and the Nordic Council of Ministers.
 - In connection with Denmark's presidency of the Council of the Baltic Sea States in 2008/2009, a youth conference is to be held on the theme of democracy, natural science and sustainable development.
 - Through information campaigns, the Ministry of Education will contribute to ensuring that sustainable development becomes a well-known concept which becomes a part of the teachers'/educators' awareness in all educational and learning environments.
 - Joint promotion drives are to be organized within the spheres of the Ministry of the Environment and the Ministry of Education.

6. Research and development:

- A solid, research-based knowledge forum should be established to strengthen education for sustainable development, and the Ministry of Education will therefore recommend increased research in the field.
- The teacher training programme in natural science, technology and health education is to be strengthened through, among other things, development of new teaching methods.
- New multidisciplinary higher education programmes are to be developed that relate to sustainable development.
- Results from the latest research must be made accessible for teaching purposes – e.g. through online dissemination channels analogous with Virtual Galathea 3.
- A project is to be launched that seeks to develop the Green School Green Flag concept (ECO-schools) in the direction of sustainable development.

7. Mobilization of resources:

- The strategy can be implemented within the existing financial framework of the educational institutions. Additional resources may come from action areas that are prioritized annually within the framework of the Experiment and Development Funds (Forsøgs- og Udviklingsmidlerne).
- Special projects which are related to, for example, the Climate Change Conference 2009 may be launched under the Experiment and Development Funds – e.g. for dissemination activities and establishment of networks.
- Initiatives related to strengthening natural science, technology and health education as well as the linkage of these initiatives with aspects of social science courses, sustainable development and environment will, likewise, be eligible to receive support from cross-cutting pools of funding for Experiment and Development.
- Within the framework of the Pools and Lottery Funds, applications can be submitted for grants to projects relating to the Climate Change Conference 2009 and for education for sustainable development.
- The Ministry of Education will call on producers of teaching materials to develop and produce teaching materials that incorporate the concept of sustainable development.
- The Ministry of Education will strengthen the collaboration between the education and environment sectors in order to draw on the resources that are already available, for example, in nature schools and among nature interpreters and green guides.
- The Ministry of Education will strengthen the collaboration with NGOs and in so doing generate synergy between the education sector's resources and the NGOs' resources.

8. Indicators:

- The work on developing indicators will take a point of departure in the existing work, but focus will be placed on developing objective, measurable indicators that can show a progression in the education sector's work on promoting sustainable development.
- A single system of indicators is to be developed that will also be targeted at fulfilling the goals set out in the Government's forthcoming sustainability strategy and the associated sub-strategies.
- 50 % more schools are expected to participate in the Green Flag Green School concept (ECO-schools) by 2014.
- The collaboration between the Ministry of Education and the Ministry of the Environment is to be strengthened through development of joint teaching materials for use in national parks.
- The number of educational institutions that have a sustainability strategy is to increase by 25% by 2014.
- The educational institutions are to establish collaborative relations on sustainable development with partner institutions in other countries and possibly other continents.

9. Goal and process evaluation:

- The Danish Strategy for Education for Sustainable Development will be evaluated, among other things, in connection with reports submitted to UNECE and UNESCO.
- In evaluating the Danish efforts to promote the UN Decade of Education for Sustainable Development, the Ministry of Education will take a point of departure in the indicators that UNECE has proposed.

Links

UNESCO.org:

http://portal.unesco.org/en/ev.php-URL_ID=29008&URL_DO=DO_TOPIC&URL_SECTION=201.html

UNECE.org:

<http://www.unece.org/env/esd/welcome.htm>

ECO-schools:

http://www.eco-schools.org/countries/pages/page_den.htm

Danish Forest and Nature Agency:

<http://www.skovognatur.dk/English>

Danish National Parks:

<http://www.skovognatur.dk/Ud/Oplev/Nationalparker/English>

This publication presents the Danish Ministry of Education's strategy for how the education sector can contribute to implementing the United Nations' Decade of Education for Sustainable Development. The strategy has been drawn up in co-operation between the Danish Ministry of Education and the Danish National Commission for United Nations Educational, Scientific and Cultural Organization, UNESCO.

The strategy shall ensure that children, young people and adults become aware of the concept of sustainable development and through knowledge and skills learn how to act competently.

UNESCO has been designated by the UN to secure the implementation of the Decade of Sustainable Development, while the responsibility for drawing up a national strategy and ensuring its follow-up rests with the national authorities.