

# Finland's Ministry of Education

## **A national strategy and guidelines 2006–2014 for education for sustainable development**

The strategy presented in this paper is included in the memorandum Sustainable development in education; Implementation of Baltic 21E programme and Finnish strategy for the Decade of Education for Sustainable Development 2005–2014 (2006:6), by the Ministry of Education's Committee for Education for Sustainable Development

Published in May 2006: <http://www.minedu.fi/julkaisut/koulutus/2006/tr07/tr07.pdf>

# Abstract

The plan for piloting the Baltic21E programme in Finland, devised by a Ministry of Education committee (Opetusministeriön työryhmien muistioita 36:2002), was implemented from 2002 to 2005.

This second report of the committee (2006) combines (1) the Finnish Baltic21E action plan and the plan for implementation of sustainable development in education and research according to the national Development Plan for Education and Research with (2) the Finnish strategy for the Decade of Education for Sustainable Development (DESD). The report begins with a description of the pilot phase 2002–2005, drawing on the experiences and tacit knowledge gained. Chapters 1–8 report and assess the pilot implementation of the national Baltic21E programme and Chapter 9 presents the vision and strategic lines for ESD in the education system, which were informed by national education policy documents and policy, Baltic21E, the ESD Strategy of the United Nations Economic Commission for Europe (UNECE), and the University Charter for Sustainable Development (Copernicus Charter). The committee puts forward proposals for the implementation of the strategy and action lines in general, liberal adult, vocational, polytechnic and university education and in R&D.

The committee members were representatives of the Ministry of Education and the ESD coordinators of the different education sectors. As sectoral experts, the coordinators were responsible for the planning and coordination of the national pilot and the conclusions drawn from it. Thus the signatories of this report have largely influenced its content.

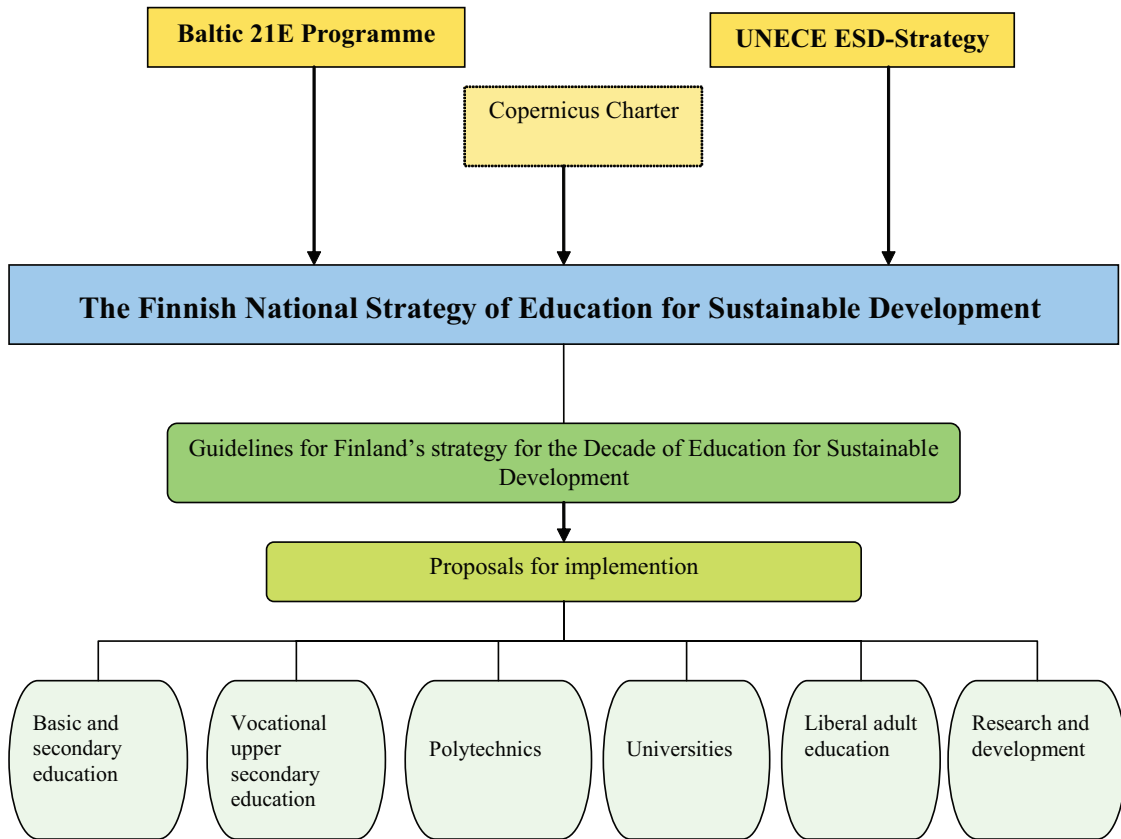
The vision for the Finnish education system is that all individuals can contribute to sustainable development which satisfies the needs of today's populations without jeopardizing the possibilities of future generations to satisfy theirs. The promotion of ESD is founded in a holistic view of development which addresses the ecologic, economic, social and cultural dimensions. Finnish DESD policy comprises the following elements: (1) the promotion of SD (incl. sustainable consumption and production) in education at all levels; (2) institutional commitment at policy, steering and practical levels; (3) ethical and integrated approach: all activities address the ecologic, economic, social and cultural considerations as mutually supporting dimensions; (4) integration: the SD outlook is included in all activities; (5) staff development training; (6) interdisciplinarity; (7) dissemination of information; (8) increased networking and other cooperation; (9) participation: empowerment of citizens; (10) research, postgraduate and continuing education programmes; and (11) the utilisation

of innovation. The committee proposes that a follow-up group be set up to monitor and assess the implementation and organise national reporting.

The mode of reporting proposed by the Committee (Chapter 10) can also be used to monitor the national implementation of the international Baltic21E programme and the UNECE ESD strategy. The promotion of ESD is taken into account in the core funding of the different education sectors. The promotion of SD is also considered in the Ministry's performance management procedure.

The whole report will be published in English by the end of the May 2006: <http://www.minedu.fi/julkaisut/koulutus/2006/tr07/tr07.pdf>.

## Diagram of the The Finnish National Strategy of Education for Sustainable Development



# Finland's ten year strategy and guidelines 2006–2014 for education for sustainable development

Adopting a way of life based on the principle of sustainable development is one of the biggest national and global challenges we face in the coming decades. The UN's World Summit on Sustainable Development in 2002 set goals whereby we commit ourselves to building a humane, equitable and caring global society, cognizant of the need for human dignity for all.

Education is an essential way in which to nurture critical thinking, to empower people to handle both local and global questions related to development and to find solutions for sustainable development problems. Mutual respect between generations forms the basis of sustainable development. In order to honour our commitment to the Johannesburg Declaration, we have to include the whole population within our education policy; everyone must acknowledge their responsibility when it comes to creating an ecologically, economically, socially and culturally sustainable future. An education policy based on the principle of life-long learning strengthens society, gives citizenship new meaning and increases welfare. A commission set up in 2003 by the Ministry of the Environment and the Ministry of Trade and Industry (Kestävän kulutuksen ja tuotannon toimikunta, KULTU: Commission for Sustainable Development and Production) designates the education system as an important way of transmitting values, information and skills.

There is no universal model of education for sustainable development. It is important that the educational guidelines for sustainable development be drawn from the region's indigenous culture as well as from the local social, economic and environmental circumstances. Nevertheless, it is equally important that the global aspects of education for sustainable development be kept in mind.

The strategy presented in this chapter is included in the memorandum *Sustainable development in education; Implementation of Baltic 21E programme and Finnish strategy for the Decade of Education for Sustainable Development 2005–2014* (2006:6). It is based on the Finnish government's commitment to the UN's Decade of Education for Sustainable Development (DESD), on Unesco and UNECE documents related to the DESD's implementation and on the Baltic 21E programme. Chapters which include the background

information will be translated later. These chapters include information on how the strategy has been developed and they report and assess the pilot implementation of the national Baltic 21E programme. They also explain the political and administrative steering found within the Finnish education sector.

## **9.1 The education system's vision and strategic guidelines for sustainable development**

The Finnish education system has a vision of people committed to living in a sustainable manner. The motivation, knowledge and skills they acquire will be through education and training imbued with the principle of education for sustainable development. Citizens committed to sustainable development will live in a responsible manner throughout their lives and they will apply the principle of sustainable development whenever devising a new procedure or developing the environment. They will also be able to weigh out the ecological, economic, social and cultural consequences of their choices in practical situations. Finland is a society that cherishes humanity's physical, psychological, social, cultural and economic well-being, but not at the cost of nature's biodiversity or nature's carrying capacity.

Before we can embark on our national education system's vision of education for sustainable development, the following goals based on the Baltic 21E programme must be achieved first:

All individuals are to be capable of contributing to sustainable development which satisfies the needs of today's populations without jeopardising the possibilities of future generations to satisfy theirs. Furthering sustainable development through education is based on an all encompassing view of a development that takes into consideration the economic, social and environmental aspects.

The aim of education and training for sustainable development is to have people assume a sustainable lifestyle and to have people understand what are the essential elements needed for building a sustainable future. The aim is to increase awareness of the inter-relationship between welfare, the environmental efficiency of the economy and environmental protection. Similarly, people should be able to detect changes and analyse the reasons and consequences of such a change. They should also be committed to a sustainable lifestyle and they should feel motivated enough to participate and make a difference. In addition, people with a professional training will have acquired the skills and readiness to take sustainable development into consideration in their work.

A person with a university degree will have the basic know-how and skills needed in the professional world and to work as an expert. They will be capable of acting as active citizens and they are capable of influencing decision making. They can also keep themselves up-to-date with the innovations and research conducted in their own field – and this according to the principle of sustainable development.

An adult participating in evening classes and other classes on a voluntary basis will gain a wider understanding of the role sustainable development has in building a future. They will be more empowered and their chances of participating in the development of society will improve.

In order for the vision to become a reality, the education sector must receive funding to raise an awareness of sustainable development and sustainable work practices among staff. Innovations, forums where new alternatives can be discussed, and sustainable alternatives are what make sustainable development possible. A sustainable future cannot happen without effective national and international steering, but individual citizens must also become more active, responsible and co-operative on a global level.

Finland's decade of education for sustainable development is based on both national strategies and guidelines as well as on regional plans related to the promotion of sustainable development in education. It is based on the UN's European strategy for education for sustainable development and the strategy behind it, that is to say, the Baltic 21E programme. In addition, the following guidelines intended for the whole education sector take into consideration the sustainable development Copernicus Charter for universities.

Here are the guidelines for Finland's decade of education for sustainable development:

- 1 Promote sustainable development in education and training: education and training for sustainable development will be one of the focal areas of the education system, and this includes sustainable consumption and production. This will apply to both compulsory education and vocational education, to polytechnics, universities and adult education.
- 2 Commit to sustainable development on an institutional level (political, administrative and practical level): Show a real commitment to the principles and practices of sustainable development in developing and implementing education policy.
- 3 Endorse an ethical and integrated line of approach: in all matters take into consideration the ecological, economic and socio-cultural aspects whilst keeping in mind that all three are complementary.
- 4 Transparency: Sustainability has to be integrated into all aspects of education. We must formulate programmes, means and methods that further education for sustainable development, and we must have all teachers, researchers and students participating at all educational levels. Everyone should be aware of the challenges related to society, the environment and development regardless of which topic one is studying, teaching or researching. Our society needs citizens that know the basics of sustainable development just as much as it needs sustainable development experts.
- 5 In-house training: Offer staff in schools, educational institutions and universities courses and training in matters related to sustainable development. Just encouraging them is important too. Give them the means to do their job in an ecologically, economically, socially and culturally responsible way.
- 6 Interdisciplinarity: Encourage schools and other educational institutions to engage in interdisciplinary education as well as in teaching and research projects related to sustainable development so that these form a core function of all education in schools and educational institutions. Children and teenagers should be brought up as responsible citizens by approaching different subjects in a holistic manner using different means and teaching methods. Tradition and skills should be transmitted and made good use of.
- 7 Disseminate information: devise easily accessible teaching material and teaching programmes, organise lectures open for the general public, and collaborate with the media. Develop internet services so that the goals of sustainable development and the means for achieving these goals can be widely spread through virtual teaching and web course platforms. Widely accessible internet services should also be used to disseminate

information to private persons, businesses, corporations and the public sector on how to participate in building a sustainable future and who to contact.

- 8 Networking and increased co-operation: Reinforce the local, national, regional and international network of interdisciplinary education experts for sustainable development in order to collaborate within the framework of teaching and research programmes. This means that pupil, student and researcher exchange programmes should receive sufficient support as well. Develop co-operation between other relevant actors in society, plan and implement co-ordinated strategies and action plans. Improve implementation and make it more transparent through wide collaboration between different professional groups.
- 9 Participation: Create genuine opportunities for citizen's to participate and influence decision-making through non-governmental organisations. Enlarge the learning environment to encompass the surrounding society and working life.
- 10 Research, graduate and further education: Promote research as to advance sustainable development. Devise specific programmes for different target groups, such as teachers, the business world, public administration, NGOs and the mass media.
- 11 Putting innovations to good use: Encourage the use and incorporation of innovative, sustainable development friendly technologies in teaching.

## **9.2 Proposals on how to implement the strategy and guidelines, education sector by education sector**

Every education sector has its own place in society as well as its modus operandi, responsibilities and way of governance. That is why the goals pertaining to education for sustainable development and the action plans that will help to achieve these goals will be presented separately educational institution by educational institution.

### **9.2.1 Basic and secondary education**

The aim of education for sustainable development is to raise environmentally aware citizens that are committed to a sustainable way of life. They must be able to detect changes in the well-being of humans and the environment, and they must be able to identify the causes and consequences of these changes both at a local and global level. Education must develop critical and innovative thinking and students should be given opportunities to experience what taking responsibility means and what participation and having an influence is like.

Both the Baltic 21E programme and Finland's national plan for launching the Baltic 21E programme stated that sustainable development should become a central tenet of Finland's education policy. The strategy in education and training for sustainable development is in line with this aspiration.

By 2014, sustainable development will be a focal point of the Ministry of Education's research and education strategy, of the National Board of Education, of the further education of school management and teachers. The same will apply on a local level.

Teachers need constant support in the teaching of and education for sustainable development. Regional development centres and partnership networks are needed to map out the needs of schools, to collect and distribute good practices, to provide support in terms of information and methods, to organise development work and to take care of communication.

Create a central development network from already existing organisations in collaboration with other administrative sectors.

One of the biggest challenges facing the syllabus reform is the better integration of schools into the enviroing society. Integration is not only about creating learning paths throughout compulsory education but also about collaboration between different school subjects and the bringing together of teaching and school cultures. New action plans, partnerships and ways of collaborating are needed so as to extend the learning sphere into the surrounding society.

Create partnership models and disseminate information on the successful models so as to give all students the possibility of participating and influencing decision-making in schools and that all schools have functional ways of collaborating with the surrounding community by 2014.

Working in a multidisciplinary and multiprofessional working environment means gaining new insight into producing teaching material first. New initiative is needed in both the pedagogy of sustainable development and schools need to tie new partnerships outside school walls. More resources are needed to maintain and develop the internet service on sustainable development found on the education website edu.fi.

Map out and evaluate the sources of information and teaching material on sustainable development that are currently being used in schools: how they enable the portrayal of different aspects, how they guide students to live in a more sustainable manner and how they fit in with partnership projects involving people and institutions from outside the traditional educational sphere. The aim is to lay out a plan of what needs to be developed further so that a comprehensive whole regarding education for sustainable development be ready by 2015.

In the meantime, the basic curricula of elementary and secondary schools and upper secondary schools will have been developed and schools will also be run in a more progressive manner.

Schools will work in a consistent manner and good ideas will be worked on whilst striving to learn and develop a sustainable society in which to live in. Many projects and programmes related to promoting sustainable development are already under way. It is important to continue supporting these projects and programmes and to pass on the good ideas that these networks produce. There are also several other networks that are co-ordinated by other instances and that give rise to new ideas. The National Board of Education's support is especially instrumental in this regard.

Make a plan for gathering, developing and distributing innovations as well as information and experiences between different networks, and thus bring about new methods and content for promoting education for sustainable development.

A well thought-out and comprehensive action plan for sustainable development that the whole personnel can really commit to is achieved in the best way when the ground work for the plan has been worked on together in the working community.

By the year 2014, the environmental certificate of educational institutions will have been extended to include the social and cultural aspects of sustainable development.

The aim is that by 2014, all schools and educational institutions will have their own sustainable development action plan and that 15% of schools will have received outside recognition or a certificate from an independent organisation for their efforts to achieve sustainable development.

### 9.2.2 Vocational upper secondary and vocational liberal adult education

Sustainable development is included in the so called common emphasis part of the basic curricula of vocational education programmes. Other "common emphasis" areas include internationality, being able to use technology and information technology, quality customer-orientated service, consumer know-how, work safety and looking after one's health.

The goals of sustainable development have been described in the following manner in the introductory part of the curricula:

"The aim of sustainable development is to have the student know the principles of sustainable development, and to motivate the student to abide by them in his/her studies, work and as a citizen. S/he is aware of environmentally friendly ways of working and living, and lives and works accordingly. Such a person will especially recognise what constitutes problem waste and will know how to dispose of them adequately. S/he will appreciate nature's biodiversity and understand the economic, social and cultural aspects of sustainable development, and s/he will know how to act accordingly."

Free choice studies within the common curriculum in vocational education include environmental science studies (0 to 4 credits). The courses lay special emphasis on preserving nature's biodiversity, on ecologically sound consuming and positive action for the good of sustainable development. Education for sustainable development has also been adapted according to the special needs of each vocational education programme.

From August 2006 onwards, all diploma students will have to go through a practical exam where they must demonstrate their skills in order to graduate. The exam is planned, prepared and evaluated by the school in association with professionals actively working in the given field, and the exam is either a work situation or work process. During this competence-based test, the student demonstrates his/her skills by performing real life tasks, and this is measured up to the goals set in the curricula with regard to the skills needed in a given profession in working life. Such an exam is a compulsory part of all vocational education (90 credits), and students must pass the exam in order to graduate.

One of the criteria used during the evaluation of these exams is sustainable development. Since professionals from outside the school itself form part of the jury, it is all the more important that all members of the jury agree on what is a satisfactory, good or excellent

demonstration of sustainable development in a job performance.

Follow-up how well sustainable development permeates through practical job performance exams into the professional world by 2014. Continue to diversify the production of teaching material and provide further training in sustainable development for teachers and work place counsellors operating in different professionals fields.

Every educational institution that offers vocational education must include an implementation plan for sustainable development in its core studies syllabus. Work on the curriculum related to sustainable development and the incorporation of environmental systems necessitate constant training, revision of teaching material and further networking. The National Board of Education's support is especially instrumental in this regard.

The environmental certificate system of educational institutions shall be developed further. By 2014, their environmental certificate should encompass the social and cultural aspects of sustainable development.

Ideally, by 2014 15% of educational institutions will have acquired some certificate or diploma in recognition for their efforts for sustainable development.

This means that teachers working in vocational education have to be provided with sufficient supplementary education.

21 schools offer nature and environmental vocational education programmes. One such programme is a study programme in environmental protection where students graduate as Environmental Operatives. One can also specialise in the nature sector whereby one becomes an Entrepreneur in Nature-based Services. There are also vocational programmes especially designed for adults where students can either become wilderness or nature guides by doing a vocational skills demonstration. One can also become an Entrepreneur in Nature-based Production.

Vocational education for jobs within the nature and environmental sector has only recently been introduced and details are still being worked on. Getting the programmes up and going has demanded a lot of resources and has strengthened the environmental know-how of these teaching units.

Investments made into nature and environmental teaching units should also benefit the wider public; therefore, these units should become resource centres for environmental and sustainable development know-how by 2014.

Competitions that demonstrate the professionalism of people who have a vocational education, such as the Skills Competitions, are held every year. They are a display of what true professionals can do at their best. It is important that sustainable development be more and more acknowledged in these competitions, as performances that are qualified as top performance send a message to future professionals on what are accepted ways of performing a job sustainably.

The aim is to incorporate sustainable development into the planning and implementation of different Skills events by 2014.

### 9.2.3 Polytechnics

Several of the programmes on offer at polytechnics have their teaching, on-the-job training, competence-based tests and research and development designed so as to bring about sustainable development in practice. The same cannot be said, however, for co-operation between polytechnics, which have widely varying teaching programmes – common principles and evaluation models based on sustainable development are only just being elaborated.

Within the framework of the next performance agreement periods, all polytechnics must base all their procedures related to education on the principle of sustainable development so that students as well as all staff will be able work and act according to the targets set out in the performance agreement that has been commonly agreed on.

Especially teachers have lacked the opportunity to increase and incorporate their expertise on sustainable development in their teaching.

Both new and experienced teachers must urgently receive additional training in sustainable development.

Whenever possible, students must also take into account the possible effects of sustainable development on the phenomenon they are observing in their diploma work. The role of the teacher must in this regard be defined more clearly in the syllabus.

Setting up the administration and follow-up as well as developing and consolidating the structure of polytechnics during the past ten years has demanded a lot of time and resources from the schools themselves, from administrators and from the Ministry of Education.

By the end of this decade, polytechnics will have had to heavily incorporate the furthering of sustainable development as well as research and development on sustainable development into their agendas and budget frameworks. That is why polytechnics must devise common ways of gathering qualitative and quantitative data on their different activities both for informative and evaluative purposes.

By 2012, every polytechnic must have a head teacher that is responsible for education for sustainable development, sustainable development research, and for the co-ordination of co-operation between all polytechnics on sustainable development.

Regional and international influence in sustainable development projects has got off on a good start, but is still more the result of coincidence and is rather dispersed on a geographical level.

The research and research co-operation of staff in polytechnics and universities must be improved on swiftly in projects related to sustainable development. This aspect must be emphasised when comparing different projects.

By 2012, polytechnics must reach a considerable level of expertise on local problems related to sustainable development and they must be committed to international expertise as well. Polytechnics must ensure that their staff can maintain a sufficient level of expertise by providing them with adequate work and travelling opportunities and by maintaining good relations with international experts.

## 9.2.4 Universities

The strategy for sustainable development in universities is based on the advancement of science, on the ethical application of scientific information, on permeability, and on the respect of the autonomous position that universities have in society. Research is aimed at gaining a deeper understanding of what sustainable development is and on having sustainable development permeate all activities. The following goals along with appropriate guidelines are suggested for universities:

By 2009 all university departments will have looked into the possibility of incorporating sustainable development into all teaching and research as well as into degree requirements and research projects.

Universities must fulfil this goal independently. Nevertheless, the Academy of Finland, the Finnish Funding Agency for Technology and Innovation (Tekes), the Finnish National Fund for Research and Development (Sitra) and ministries are asked as public funders to lend a helping hand to universities in achieving this ambitious goal. Seen from a permeability point of view, the dilemma between research questions on sustainable development and research itself is how to interpret the results within a framework that takes into consideration the relationship between man and nature without neglecting social relationships that are inherent to man. The aim is to make a report that outlines how universities have achieved this objective.

By 2012, every university will have formed a partnership based on development co-operation with at least one other university. Universities are to help these partnership universities in their scientific endeavours and in developing their teaching programmes.

Development policy and furthering sustainable development are deeply entwined and are mutually beneficial. In addition to the goals set above, the Ministry of Education – in co-operation with the Ministry for Foreign Affairs, the Academy of Finland and other universities – will develop steering and financing mechanisms to fulfil these objectives.

By 2009, universities will have gone through their environmental programme concerning their working environment and they will have incorporated goals related to sustainable development in it.

Universities will go through their environmental programmes in co-operation with their contract service providers and Senaatti-kiinteistöt (Senaatti real estate). They will formulate sustainable consumption objectives with regard to the amount of paper and electricity used and they will revise their problem waste treatment. In addition, universities will work out

evaluation and implementation methods related to the goals of their environmental programme.

By 2015, the pre-conditions necessary for sustainable development will have been integrated into every university's strategy.

Universities will implement this goal independently so that the pre-conditions necessary for sustainable development will have been adopted in a permeating fashion in all teaching and research; sustainable development will then only be one criteria among many, and will no longer be treated superficially as a separate entity.

### 9.2.5 Liberal adult education

Institutions that provide liberal adult education must include sustainable development in their documents, strategic guidelines and curricula. Strategies must mention the need to increase citizen awareness of sustainable development. This means that the definition of sustainable development has to be clarified, and that it must be defined so that citizens understand the significance it has in building our future. Any explanation must be based on matters that are important and meaningful to citizens themselves. Only then can citizens be truly motivated to follow courses on sustainable development.

Education for sustainable development should also be seen as the key to a functioning democratic society. The aim of any course or programme should be to enlighten citizens; citizens should be able to critically evaluate any local or global solution related to sustainable development and they should be able to make their personal choice based on that evaluation.

The Ministry of Education should include a definition of sustainable development in its annex on further education and liberal adult education when making its budget proposal for 2007. Sustainable development should be named as one of the general aims of societal influence, and it should be apparent in the annex of the yearly budget proposal when steering education for sustainable development and other activities. This should also be taken into consideration in the guidelines pertaining to liberal adult education.

Education for sustainable development makes it more likely that people will really understand the importance of living in sustainable manner, which in turn means that people will more readily absorb information and skills that will make a sustainable society a reality. In order to encourage such a trend, national central organisations could set up sustainable development follow-up groups within their own sector. These groups would keep an eye on whether activities supporting sustainable development are working and whether they are having an influence on society.

Central national organisations and local educational institutions that provide liberal adult education are to abide by the UN's Decade of Education for Sustainable Development 2005–2014. Seminars, training programmes, courses and material production on sustainable development will be made available.

Between 2006 and 2012, the social and cultural aspects of sustainable development will be highlighted. Results acquired from numerous pilot projects during the testing phase of sustainable development 2005–2006 will be put to good use in planning, education programmes and in writing new course material adapted for mature students.

People working in liberal adult education should form networks and build partnerships with companies and scientific communities. Novel ways of co-operating render education

for sustainable development more meaningful both in formal and non-formal education, and they are a real alternative to a diploma or degree-orientated education. People who participate in liberal adult education are often motivated for personal reasons, which means that they are more motivated than degree students and they are willing to put in the effort, because they feel a genuine need for change.

### 9.2.6 Research and development

The most important aims of research on sustainable development are the following:

- to produce information on the environment, society and cultures so that the precursors of as well as possible hindrances to sustainable development can be identified and analysed;
- to produce information and to develop action plans and technology that advance sustainable development, including education and training content and method;
- to create know-how whereby people can assimilate and apply research results that have been produced elsewhere;
- to help as a nation those in a weaker position and to make an effort in solving global problems.

Research on sustainable development is needed both in terms of basic research and applied research. The principles of sustainable development should, however, permeate research throughout. Permeability in research can be achieved by evaluating and weighing all research results in light of the principles of sustainable development. Basic natural science research on the sustainability of the environment needs to be continued and it must be increased in areas that are currently not well represented in research (the atmosphere, outer space within close proximity to Earth and the oceans and seas). Basic research on sustainable development is also needed in the social, economic, cultural and health sciences. Applied research on sustainable development should be linked to basic research through multi-disciplinary research projects or larger clusters.

Passing research results to citizens and decision-makers so that they actually have an impact on how citizens behave and how political and economic decisions are made is a particularly daunting challenge. Setting sustainable development as a goal means giving up on economic and technological laissez-faire and restricting the abuse of nature and other humans. Such decisions necessitate solid basic knowledge and a commit to the principles of sustainable development based on scientific knowledge. So as to make research more influential, the end-users of research results need to be part of the research process already during the planning phase.