



Baltic 21 Series No 02/2002

**Agenda 21 for the
Baltic Sea Region
Sector Report –
Education (Baltic 21E)**

CONTENT

ABBREVIATIONS USED IN THE REPORT	3
FOREWORD.....	4
0 SUMMARY OF THE BALTIC 21- SECTOR REPORT, EDUCATION	6
1 INTRODUCTION.....	11
1.1 BACKGROUND.....	11
1.2 SOME BASIC DATA.....	12
1.3 CROSS-SECTORAL ISSUES AND INTERLINKAGES	13
1.4 THE EDUCATION SECTOR NETWORK	13
2 THE HAGA DECLARATION: CONCEPT AND DEFINITIONS	14
2.1 THE HAGA DECLARATION – AN EXTRACT.....	14
2.2 CLARIFICATION OF KEY WORDS.....	17
2.3 CONNECTION BETWEEN ENVIRONMENTAL EDUCATION AND EDUCATION FOR SUSTAINABLE DEVELOPMENT	17
3 GOALS FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT.....	18
3.1 OVERALL GOAL FOR SUSTAINABLE DEVELOPMENT IN THE BALTIC SEA REGION	18
3.2 OVERALL GOAL FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT.....	18
4 AN OVERALL VIEW OF THE CURRENT SITUATION.....	20
4.1 DIVISION OF WORK AND DEMARCATION OF THE FIELD.....	20
4.2 METHODOLOGY OF WORK IN THE WORKING GROUPS	21
4.3 FINDINGS.....	23
4.4 OBSTACLES, GAPS AND OPPORTUNITIES	30
5 STEPS FORWARD	33
5.1 POLICY IMPLICATIONS	33
5.2 ACTION PROGRAMME.....	35
5.3 INDICATORS	42
6 FINANCING.....	43
7 ORGANIZATION OF THE IMPLEMENTATION OF BALTIC 21E AND ITS ACTION PROGRAMME	44
7.1 ACTORS AND RESPONSIBILITIES.....	44
7.2 STEERING, CO-ORDINATION AND FOLLOW UP.....	44
ANNEX 1-6	46
1 THE HAGA DECLARATION IN TOTAL.....	46
2 REPORTS FORM WORKING GROUPS:	46
2.1 WORKING GROUP 1 (WG1)	46
2.2 WORKING GROUP 2 (WG2).....	46
2.3 WORKING GROUP 3 (WG3).....	46
3 LIST OF CONTACT PERSONS FOR BALTIC 21- EDUCATION, LEAD PARTIES AND EDUCATION SECTOR NETWORK, NOMINATED PERSONS IN RESPECTIVE WORKING GROUPS AND PARTICIPATION IN MEETINGS	46
4 THE GENERAL STRUCTURES OF EDUCATION PER COUNTRY IN THE BSR	46
5 EXAMPLES OF GOOD PRACTICE	46
6 CLARIFICATION OF KEY-WORDS AND CONNECTION BETWEEN EE AND ESD	46

Abbreviations used in the report

Some of the most commonly used abbreviations in the following are:

BSR = Baltic Sea Region

Educators = teachers, lecturers, trainers and voluntary education leaders

Education = formal and non-formal education and training

EE = environmental education

ESD = education for sustainable development

FE = formal education

ICT = Information and Communication Technology

IGOs = intergovernmental organisations

IHEs = Institutions of Higher Education

Learners = pupils, students and participants

NFAE = non-formal adult education

NFE = non-formal education

NGOs = non-governmental organisations

ODL = open and distance learning

SOG = Senior Officials Group (steer the whole Baltic 21 co-operation)

Schools = formal education/training (pre-school to upper secondary education, including initial vocational training, and formal adult education)

WG = working groups of Education sector network

WG1 = Working Group 1: Pre-school to upper secondary education (incl. initial vocational education) and formal adult education

WG2 = Working Group 2: Universities and university colleges and other institutions of Higher education

WG3 = Working Group 3: Non-formal education (mainly at adult level)

Foreword

The Rio Declaration and the global Agenda 21, adopted in 1992 at the United Nations Conference on Environmental Development (UNCED), outlined a comprehensive action plan for the global transition to sustainable development. Education plays an important role in all parts of the document. Since Agenda 21 is more indicative than operational, several efforts have subsequently been made to translate its intentions and perspectives into concrete policies and actions. Baltic 21 is one such initiative.

In 1996, the Heads of Government of the Baltic Sea Region and the Ministers of Foreign Affairs of the Baltic Sea Region (BSR) agreed to draw up an Agenda 21 for the BSR – Baltic 21 – with a view to achieving sustainable development in the region. Baltic 21 comprises Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russia and Sweden. Only the north-western region of the Russian Federation is included. The European Commission also contributed to the development of Baltic 21. Baltic 21 represents a long-term commitment, one that must involve many people and organisations if transition is to become a reality.

Thus in the fall of 1996, the Ministers for the Environment set up sector working groups in seven sectors crucial for sustainable development: Agriculture, Energy, Fisheries, Forests, Industry, Tourism and Transport and Spatial planning. Baltic 21 is a democratic, open and transparent process. It is steered by the Senior Officials Group (SOG), with members from the Governments of CBSS and the European Commission, NGOs, intergovernmental organisations such as HELCOM, VASAB, International Baltic Sea Fishery Commission (IBSFS), Nordic Council of Ministers and the international development banks (World Bank, EBRD, EIB, NIB, BNEFCO): All Baltic 21 documentation; background documents, SOG meeting reports, workshop reports, draft texts, are published on the Baltic 21 website (<http://www.ee/baltic21>).

The emphasis in Baltic 21 is on regional co-operation and on the environment and its bearing on the economic and social aspects of sustainable development. For each sector, goals and scenarios for sustainable development have been elaborated, as well as action programmes (including time frames, actors and financing). The responsibility for the sector work is distributed among the SOG members. The lead parties of the seven sectors are *Agriculture* (HELCOM and Sweden, 1998 Poland replaced Sweden in 1998), *Energy* (Denmark and Estonia), *Fisheries* (IBSFC), *Forestry* (Finland and Lithuania), *Industry* (Russia and Sweden), *Tourism* (Estonia, Finland and Baltic Sea Tourism Commission and from 2001 Sweden and Germany), *Transport* (Germany and Latvia) and *Spatial planning* (VASAB 2010).

All seven sectors have presented their work in a sector report and a Spatial planning report. The sector reports, and other working papers constitute the background for the integrated and comprehensive Agenda 21 for the Baltic Sea Region. However, these reports are not an integrated part of Agenda 21 for the Baltic Sea Region.

An Agenda 21 for the Baltic Sea Region and an action programme based on selected proposals from the seven sectors and spatial planning was drawn up and adopted by the Foreign Ministers in June 1998 (Document Baltic 21 Series No1/98). Joint action involving more than one sector was also approved. A part of the action programme, *Joint action 7*, is aimed at strengthening public education and increasing public knowledge of sustainable development in the Baltic Sea Region.

Following a Swedish initiative, the Ministers of Education of the Baltic 21 countries met in March 2000 at Haga Palace in Stockholm. The purpose of the meeting was to examine the

feasibility of creating a network comprising ministries, appropriate authorities and educational institutions dedicated to the implementation of sustainable development through education and training. As a result of the meeting the Haga Declaration was adopted including among other things the creation of the Education sector network and Lithuania and Sweden were appointed as lead parties.

The Prime Ministers of the Baltic Sea States met in Kolding, Denmark on 12 to 13 April 2000 and designated *education* as an additional sector of crucial importance for sustainable development in the region.

The foundation for work within Baltic 21 has also been considerably strengthened through the conclusion of the Göteborg European Council on 15-16 June 2001 with regard to the development of a strategy for sustainable development. In this conclusion, the European council invited Member States and candidate countries to draw up their own national sustainable development strategies and underscored the importance of consulting all relevant stakeholders and also putting forward sustainable development as a goal in bilateral cooperation.

This report is the result of the work carried out in the education sector. All Baltic 21 countries and the following organisations: Baltic Local Agenda 21 Forum, Coalition Clean Baltic, Keep Baltic Tidy, Nordic Folk Academy, Union of the Baltic Cities and WWF International Baltic Programme have participated in this work.

This report constitutes the background for the integrated and comprehensive Agenda 21 on Education for Sustainable Development in the Baltic Region (Baltic 21E).

Summary of the Baltic 21- Sector Report, Education

Introduction

Education, Training and Research are important horizontal tools for attaining sustainable development and for the integration of sustainability aspects in all sectors. As horizontal policy areas, they are required to be supportive and catalytic. Accordingly, these policy areas need to be incorporated into the strategies of the seven policy areas currently involved, as a means of achieving the strategy objectives. The development of an economically, socially and environmentally sustainable society can be promoted by equipping citizens with relevant education, training and other measures to raise public awareness. This will make it possible for each and everyone to take responsibility for choices as critical and conscious consumers, employees, students, parents and voters, maintaining and increasing the quality of life for their own generation as well as for generations to come. Education for sustainable development must take account of local, regional and national characteristics and may therefore place varying degrees of emphasis on the three aspects of sustainability – economic, social and environmental aspects.

Background

In 1996, the Heads of Government of the Baltic Sea Region and the Ministers of Foreign Affairs of the Baltic Sea Region (BSR) agreed to draw up an Agenda 21 for the BSR – Baltic 21 – with a view to achieving sustainable development in the region. Baltic 21 comprises Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russia and Sweden. Only the north-western region of the Russian Federation is included. The European Commission also participates in Baltic 21. The work was divided into seven sectors for sustainable development (Agriculture, Energy, Fishery, Forest, Industry, Tourism and Transport as well as into Spatial planning).

The Ministers of Foreign Affairs of the Council of the Baltic Sea States in Nyborg in June 1998 adopted Agenda 21 for the Baltic Sea Region – Baltic 21 including an Action programme with a component aimed at strengthening public education and increasing public knowledge of sustainable development in the region.

At a meeting at the Haga Palace in Stockholm in 2000, the Ministers of Education of the region agreed to develop an Agenda 21 Education Programme, and a network of ministries, authorities and institutions. Working groups for formal education, higher education, and non-formal education (mainly at adult level) respectively were given the task of conducting surveys of existing practice and provision. Lithuania and Sweden were appointed as Lead Parties.

The Prime Ministers of the Baltic Sea States met in Kolding, Denmark on 12 to 13 April 2000 and designated *education* as an additional sector of crucial importance for sustainable development in the region.

Each of the three working groups has created a survey regarding the situation on environmental education/education for sustainable development (EE/ESD) in the region. Such surveys are built on contributions from each member country. The joint work has been carried out at three or more meetings and/or by using e-mail. At three education sector network meetings, common discussions regarding the sector report prepared by the lead parties, have been held. A lecture (by Associate Professor Dr. Arjen Wals, Wageningen) under the heading Education for Sustainable Development: critique, promise and guide posts has also been given to the participants. The fourth sector meeting, with participation only of lead parties, chairs and secretaries for the three working groups and representatives of the Ministers of

Education in the BSR was devoted to preparing the final sector report and Agenda 21E including its Action Programme.

The survey – a brief summary

As a first step in the work the relationship between EE and ESD was discussed in all working groups. All three working groups created the framework for a questionnaire. Within this framework each country could draw up a questionnaire based on the situation in the country. In most countries, the questionnaire was sent to a selected number of schools, institutions and organisations. In addition to the results from these questionnaires, other relevant existing material such as reports, have been used to get a clear picture of the situation concerning education for EE or ESD in the region. Some additional activities were included in the process aiming at widening participation in the process. These activities include discussions on websites, seminars for HE teachers, and interviews.

SD is an overriding political issue in all the BSR countries. In the general document for education, concern for the environment is expressed. According to national documents governing formal education, EE/ESD should be integrated as a compulsory part of many subjects but is most commonly integrated in natural science subjects. Introduction courses in SD are offered in most IHEs either as optional or compulsory. A range of teaching methods are used in delivering education, although interdisciplinary methods including economics and social issues are still in process of development. The extent to which EE/ESD is included in initial teacher training varies, but it is included in the majority of educational programmes in the region. Co-operation is a normal activity and especially through networks. Such co-operation seems to have an important impact on the development of education as a whole. As for non-formal education, many of the activities are attached to the general activities of the specific group, and often methods are highly oriented to learning-by-doing.

The main obstacles to the integration of SD in all education seem to be a lack of understanding regarding the concept of SD and in particular a lack of integration of environmental, economic, and social aspects as well as cultural aspects in SD. The lack of incentives for such an integration in education in both schools and IHEs is noted. The contents of teacher training should thus be further considered. There is a need for increased opportunities for teachers, trainers and voluntary leaders to participate in in-service training and continuing education where contents, methods and teaching materials on SD and ESD are in focus. Obstacles are found in the scope for covering the needs of EE/ESD in regular education, where design of the curriculum is the focus for consideration. Research on teaching and learning regarding SD and ESD has to be strengthened. The lack of clear intentions from local and national authorities on the importance of SD and ESD is still another obstacle to be solved.

Goals for Education for Sustainable Development

The education sector covers a broad field of actors with different regulatory management systems also within different countries. They are geared as well to people of different ages and in different positions in life. Thus it was found most appropriate to create overall goals that are common to the whole education sector and goals for each field in the sector.

Overall goal for Education

All individuals should have competence to support the development that meets the needs of the present without compromising on the ability of future generations to meet their own needs.

Education for sustainable development should be based on an integrated approach to economic, societal and environmental development.

Goal for schools

The individual learner should have the knowledge, values and skills to be active, democratic and responsible citizens and to participate in decisions at individual as well as at different levels within the society, locally and globally, to create a sustainable society. Learners in vocational education should also have skills and competencies relevant to their future professions.

Goal for higher education

The individual learner should have such skills and competence relevant to their future professions and future roles as decision-makers. Higher education should also play an active role locally, nationally, and internationally in enhancing knowledge and action competence regarding sustainable development through research and education in co-operation with surrounding society.

Goal for non-formal education

Learners are capable of influencing their life situation, taking part in societal development, being aware of sustainable development and learning for sustainable development.

Actions for the future

The key to creating a more sustainable and peaceful world is learning. Change towards sustainability depends on changes in understanding.

The *Haga Declaration* endorses the direction to and paves the way for work in education in the BSR for a sustainable future. In the light of this experiences gained from the survey must be the foundation for future steps.

The *result of the survey* indicates that there is considerable interest among teachers, trainers and voluntary leaders, as well as among students and participants in EE/ESD. This is very promising and should be encouraged. There is to some extent a need to clarify or strengthen the national regulatory documents e.g. laws, ordinances, national curricula and time frames. Also there seem to be a lack of understanding among teaching personnel in the concept of SD and the approach to integrating environmental, economic social aspect as well as the cultural dimension in ESD. There is also a need for clear incentives to integrate SD in education.

New knowledge, understanding and skills in many professions of key importance is needed for the development of our societies. There is much both as regards general and detailed technical knowledge in SD that not until now has been a part of education for these professions. Also competence development and continuing education for professionals need to be part of Agenda 21 in the education sector. Many of the other sectors in Baltic 21 co-operation have expressed their demand for updating, refreshing or extending knowledge and skills regarding SD.

Effective education for sustainable development depends upon a combination of factors, i.e. legitimacy through the curriculum, new ways of learning, competence of staff, institutional development, partnerships and finances. Awareness of ESD within the educational community should be emphasized as an initial step.

Strengthening current policies

Political call for and support at national and local level is crucial for success in the pursuit of sustainable development, and the democratic process underpinning sustainable development needs to be further strengthened. Politicians at all levels should be encouraged to give strong and clear signals on the importance of education for sustainable development within the main

aspects of legal frameworks, strengthening interdisciplinary approaches, pupil/student participation in the process and training of teaching personnel.

Issues to be further addressed

The Haga Declaration emphasizes the need for an integrated approach to environmental, economic and societal issues. The need for multicultural coexistence is today more evident than ever. The common problems facing our earth - the threat to the environment, human beings, violence, inequality – must be solved taking into account cultural diversity as well as biodiversity. But the obstacles are numerous and can only be overcome by furthering learning to live together for the common good. The difficult task for education is to put knowledge and contemporary moral and ethical issues into a context that affects and is related to our own time.

There is a need to ensure that education is accessible to everyone and embraces a deep concern for the fundamental goals and purposes of education, for the relevance of learning contents and process, and for modes of learning that reinforce common values. In this respect ESD in the Baltic region should be seen as part of the programme on Education for all as agreed on in the World Education Forum in Dakar, Senegal (April 2000).

Action Programme

The emphasis of the Baltic 21 Education sector programme is on strengthening capacity for knowledge building in the region as a solid foundation for the common long-term transition to sustainable development in the BSR. The proposed key action plan aims at filling the gaps that have been identified in the survey. The focus is on giving strong political signals concerning the need for ESD as well as support to educational institutions at all levels of policymaking bodies. The aim is to achieve genuinely integrative learning with regard to natural science, social science and culture based on a democratic approach and using modern learning methods.

The Baltic 21 Action Programme for the Education sector is in the first instance divided into a framework of five action areas, which are common for the whole sector:

- I. *Policies and strategies,*
- II. *Competence development within the education sector,*
- III. *Continuing education,*
- IV. *Teaching and learning resources and*
- V. *Research on and development of ESD.*

Within these areas each part of the sector making up schools, higher education and non-formal education, needs to create specific actions according to their role in the education system. Effective implementation of the Action Programme will require that its priorities be integrated into the planning processes used by co-operating national and local governments, schools, institutions of higher education and associations. They should also be made a key element of investment and management strategies of those delivering education and awareness activities. The diversity contained in the Action programme implies that project financing will need to be addressed on a case-by-case basis.

Indicators

Efforts on the development of indicators for education are under way in many different national bodies and international organizations such as the OECD, EU and UNESCO. Indicators for sustainable development within the other sectors of Baltic 21 co-operation are already in use. Such indicators should, of course, also be used in Baltic 21E where relevant. However, in order to identify the specific aspect of ESD there is a need for additional indicators. The Education sector has proposed indicators concerning the agreed goals.

Financing

In general, financing of the implementation of Baltic 21E should be borne by each respective country. Many of the suggested actions can be included in ongoing development work in the education sector. However in order to promote and be able to disseminate such work, bilateral and multilateral organizations could be addressed to assist countries, especially those with economies in transition (CITs) in the region.

To properly judge the significance of costs and revenues for carrying out the proposed action programs, it is necessary to understand the value of education in introducing sustainable strategies in society. Education might be seen as an investment that will later be repaid in terms of better performance. In some cases this is very concrete and can easily be evaluated e.g. in industrial production, building industry and the agriculture sector.

Organization of the implementation

Actors and responsibilities have been set for three levels, state, local authorities and specific institutions (board of IHEs and schools and institutes/departments of IHEs). As for non-formal education, states/governments should define the area of the non-formal education field, which deserves to be supported and assign responsibility for implementation.

Regarding steering, co-ordination and follow up, it is recommended that relevant sector ministers be involved and that SOG should include work within the Education sector in its work. It is recommended that general co-ordination of the implementation should be assigned to appointed Lead parties. It is also recommended that each country nominate one representative as national co-ordinator and additionally nominate a representative for each field of education to act as responsible co-ordinator in the field.

Educational institutions/NGOs are recommended to promote co-operation in partnership with colleagues in the region, as well as other parts of society. Criteria and common reporting elements have to be developed and agreed by the SOG preferably before December 1, 2002.

1 Introduction

1.1 Background

Agenda 21, the strategy of sustainable development was adopted at the UN Conference on Environment and Development, Rio de Janeiro, in 1992.

As stated in Agenda 21, Chapter 36, “Education, including formal education, public awareness and training should be recognised as a process by which human beings and societies can reach their fullest potential. Education is critical for promoting sustainable development and improving the capacity of the people to address environment and development issues.”

In 1996, the heads of governments in the countries of the Baltic Sea Region agreed to draw up an Agenda 21 programme with a view to achieving sustainable development in the region. All countries and other actors were invited to take part in the work. The work was divided into seven sectors for sustainable development (Agriculture, Energy, Fishery, Forest, Industry, Tourism and Transport as well as Spatial planning). The Ministers of Foreign Affairs of the Council of the Baltic Sea States adopted the action programme in 1998. In the Agenda 21 for the Baltic Sea Region – Baltic 21, among gaps and obstacles, it was pointed out “...the lack of knowledge, training and awareness regarding sustainable development within the public and private spheres, as well as among the general public, is a fundamental obstacle that needs to be overcome.”

The Ministers of Education of the Baltic 21 Countries met in March 2000 at Haga Palace in Stockholm. The purpose of the meeting was to examine the feasibility of creating a network, comprising ministries, appropriate authorities and educational institutions, dedicated to the implementation of sustainable development through education and training. At the Haga meeting, the Ministers agreed to establish a sector network with the mandate of developing an Agenda 21 for Education in the Baltic Sea region (The Haga Declaration). The sector network is headed by two Lead Parties (Lithuania and Sweden). Since there are many forms of education involving different actors, three working groups were set up. Each group is chaired by different countries and comprises various nominated representatives of member countries:

1. Pre-school to upper secondary education (incl. initial vocational training) and formal adult education - *Chair Sweden*
2. Universities and university colleges and other institutions of higher education - *Chair Finland*
3. Non-formal education (mainly at adult level) - *Chair Denmark*

The first meeting of the education sector network - within the framework of the Baltic 21 activities - was held on 4-5 September 2000 in Vilnius, Lithuania. All countries in the Baltic 21 Region were represented except Iceland who will follow the work although not attend the meetings. The EU Commission was represented through its Delegation to Lithuania. Also the Baltic 21 Secretariat and representatives from four of eight invited NGOs participated in the meeting.

The Baltic 21 Education Sector Network as well as Working groups’ Mandate and Terms of Reference was introduced at the meeting. The Baltic 21 Education Sector Network undertook the actions required to establish the three Working Groups mentioned above. Sweden was appointed as chair of WG 1, Finland - as chair of WG 2. Later on Denmark reported to the Lead Parties that it was prepared to chair WG 3.

The second Education Sector Network meeting took place in Karlskrona, Sweden on June 18-19, 2001. All countries except Iceland and Russia participated, as well as representatives from two NGO/IGOs and the Nordic Folk Academy. The meeting concluded by approving the draft Format for the Sector Report and draft Education Sector Workplan for the remaining period. The draft format for the Agenda 21 E and Action programme was also adopted.

The third Education Sector Network meeting was held in Gdansk, Poland on 19-20 October 2001. All countries except Iceland participated. The meeting adopted the second draft Sector Report, Appendices – Annexes 2-5 to the Report, the first draft Agenda 21E and Action Programme. This meeting was the last meeting of the Education Sector Network that included participants in the three working groups. The next meeting was devoted to the preparation of final documents for the meeting of Ministers of Education from the Baltic 21 Region and was held on 15-16 November 2001 in Vilnius, Lithuania. This was a meeting of Lead Parties, chairs and secretaries of the three working groups and representatives of the Ministers of Education in the BSR.

1.2 Some basic data

Population (in thousands), density in the countries of Baltic 21, year 2000 (1999 for some countries)

Country	Area of country km ²	Density persons km ²	Population			Enrolled in	
			Total	aged 0-19	aged 20-30	Formal education	Higher education
Denmark	43,094	123.7	5,330	1,262	798	846	187
Estonia	45,227	32	1,377	368	207	253	50
Finland	338,145	17	5,181	1,268	633	1,377	253
Germany	356,733	230	82,037	16,779	10,488	12,696	1,820
Iceland	100,260	3	282	77	22		12
Latvia	64,589	37.5	2,424	612	335	408	90
Lithuania	65,300	56.6	3,700	983	536	688	100
Norway	386,639	14.7	4,500	1,160	612	974	179
Poland	312,680	123.6	78,644	10,629	6,578	3,620	1,415
NW Russia	211,500	20.2	31,895	6,322	2,377		2,471
Sweden	410,934	19.7	8,802	2,049	1,228	2,002	275
<i>Total</i>			<i>181,172</i>	<i>41,509</i>	<i>23,814</i>	<i>2,864</i>	<i>2,427</i>

This table could serve as a picture of the challenges and opportunities of reaching all inhabitants in a country regarding ESD. It could also be a source for common indicators.

The Educational structure in each country in the BSR can be seen in annex 4.

1.3 Cross-sectoral issues and interlinkages

Education, training and public awareness is recognised as underpinning all the cross-sectoral themes of Agenda 21 and represents an important means of implementing relevant strategies within Baltic 21.

All sectors, including Spatial Planning, have in their action programmes pointed to the need for improved knowledge or awareness of sustainable development. Education is certainly important to all sectors, as new knowledge and skills need to be developed in order to face the challenges of SD in society.

1.4 The Education Sector Network

In accordance with the statement of the Haga Declaration, the Education Sector Network was established.

The following tasks for the Education Sector Network were defined:

- Undertake the actions required to establish its three working groups and appoint their chairs.
- Co-ordinate the work in the three working groups by providing common guidelines and a common timetable.
- Based on input from the three working groups, produce a sector report on education for sustainable development, covering i.a. the topics specified in the Haga Declaration.
- Using the sector report as the basis, produce a shorter Agenda 21 document on Education for sustainable development in the Baltic Sea Region.
- Act as the Senior Officials Group (SOG) negotiating committee with a mandate to negotiate Agenda 21 in the Education document.
- Report to the SOG on progress in elaborating Agenda 21 in the Education document.
- Submit Agenda 21 to the Ministers of Education for adoption.

The lead parties were committed to initiating, organising and co-ordinating sector activities.

Countries, NGOs and IGOs were invited to nominate their representatives to the Sector Network and to the three working groups.

2 The Haga Declaration: Concept and Definitions

2.1 *The Haga Declaration – an extract*

DECLARATION

THE MINISTERS OF EDUCATION OF DENMARK, ESTONIA, FINLAND, GERMANY, LATVIA, LITHUANIA, NORWAY, POLAND, THE RUSSIAN FEDERATION AND SWEDEN OR THEIR REPRESENTATIVES MEETING AT HAGA, STOCKHOLM, SWEDEN, 23–24 MARCH 2000.

1. Preamble

1.1. Reaffirming that education, training and public awareness are critical for promoting sustainable development and increasing the capacity to address economic, environmental and social issues, and that therefore the further implementation of Chapter 36 of Agenda 21 will influence progress in implementing all other chapters of Agenda 21;

1.2. Recognising decisions taken by the United Nations Commission on Sustainable Development (CSD) at their sessions 6 and 7;

1.3. Welcoming the outcome of the Visby Summit, 3–4 May 1996, as reflected in the Presidency Declaration and the subsequent adoption of the Action Programmes for the Baltic Sea States by the Ministers of Foreign Affairs at their meeting as the Council of the Baltic Sea States (CBSS) in Kalmar, 2–3 July 1996, and the call for the development of an Agenda 21 for the Baltic Sea Region as expressed on these two occasions;

1.4. Welcoming the outcome of the Environment Ministers' Meeting and the meeting of the Ministers for Spatial Planning in Saltsjöbaden, 20–22 October 1996, as reflected in the Saltsjöbaden Declaration and the Stockholm Declaration;

1.5. Also welcoming Agenda 21 for the Baltic Sea Region – Baltic 21 – adopted at the seventh session by the Ministers of Foreign Affairs as the Council of the Baltic Sea States (CBSS) in Nyborg, 22–23 June 1998;

1.6. Also recognising that education for sustainable development in the Baltic Sea Region must take account of the EU dimension, i.a. as presented to the sixth session of the UN Commission on Sustainable Development, 20 April–1 May 1998;

1.7. Recognising that economic, environmental and social issues are included in the concept of 'sustainable development' and also recognising the importance of cultural issues as reflected in decisions taken by the UN Commission on sustainable development; education for sustainable development is thus a broader concept than environmental education, which focuses on protection of, and care for, the environment; education for sustainable development must take account of diverse local, regional and national situations and may therefore place varying degrees of emphasis on these three aspects;

1.8. Also recognising that education and training for sustainable development (ESD) is about the learning needed to maintain and improve our quality of life and the quality of life for generations to come;

1.9. Recognising the need for broad co-operation at the international, regional and national level and to involve important players in the field such as the educational community, business and industry as well as youth;

HAVE AGREED ON THE FOLLOWING:

2. An Agenda 21 for Education for sustainable development in the Baltic Sea Region (BSR)

2.1 To develop and implement an Agenda 21 for Education in the Baltic Sea Region.

2.2. The objective of Agenda 21 for Education in the Baltic Sea Region is sustainable development which will require an integrated approach and broad participation.

2.3. To implement and achieve sustainable development in the region will require basic understanding, competence and skills that have to be developed in our societies for the general public, the schools, vocational training, universities and through continuing education at workplaces.

2.4. The emphasis of an Agenda 21 for education in the BSR should be on regional co-operation. It must find its own logical structure and bring added value to the process. The Agenda 21 for Education should emphasise that:

- The creation of knowledge on and awareness of sustainable development must be seen as a lifelong process and should address people of all ethnic groups, ages and both genders. It must include all levels of education, formal as well as informal, from pre-school to higher education and adult education, as well as awareness-raising measures through actions by non-governmental organisations and informal modes of teaching and learning, e.g., within the family and through the media.
- ESD should be pursued at all levels of education; it should be included in all curricula or equivalent instruments corresponding to the level of education. Such education should rest on broad scientific knowledge and be both integrated into existing disciplines and developed as a special competence. It demands an educational culture directed towards a more integrative process-oriented and dynamic mode emphasising the importance of critical thinking, and of social learning and a democratic process.
- ESD should be based on an integrated approach to economic, environmental and societal development and encompass a broad range of related issues such as democracy, gender equity and human rights. This broad approach should be recognised in both the natural sciences and the social sciences, and should complement and build on existing initiatives in environmental education.
- Teachers and educators have a key role in education for sustainable development. Training programmes for educators and teachers should take into account the concept of sustainable development and promote suitable learning methods based on research in the area. Further research on education for sustainable development should be encouraged.

- All educational institutions have an important role in the further implementation of Agenda 21 and should aim at being linked to internationally or nationally recognised development strategies or the equivalent; to have staff fully trained and competent in education for sustainable development; and to provide all students with relevant opportunities and methods for learning about sustainable development.
- Intergovernmental (IGOs) and non-governmental organisations (NGOs) as well as the media have a key role in raising public awareness for sustainable development.
- ESD should also be regarded as an important tool for achieving sustainable consumption and production patterns as well as for necessary lifestyle changes.

2.5. Good practices of existing networks of educational institutions and citizens' organisations are important and could serve as sources of inspiration.

2.6. The process of developing Agenda 21 for education in the BSR should be democratic, transparent and open to participation by all actors.

2.7. Reports on progress in the development of an Agenda 21 for Education in the Baltic Sea Region should be prepared for the Baltic Sea State Summit. Progress reports and a final report should also be communicated to the CBSS.

2.8. An Agenda 21 for Education in the Baltic Sea Region should be ready for consideration and adoption by the Ministers of Education in the autumn 2001.

2.2 Clarification of key words

In order to avoid misunderstanding there is a need for clarification of some key words, which can be seen in annex 6.

2.3 Connection between Environmental education and education for sustainable development

Environmental education (EE) and education for sustainable development (ESD) is considered by many to be equivalent. In practice there are, however, often clear differences. EE typically focuses on environmental impact of society - pollution, waste water, emissions from cars, factories etc, their causes, effects and how to reduce them, as well as concern for nature and nature protection. ESD more often focuses on the use of natural resources. That resources are renewable (sustainable) is important. Different methods of mapping resources such as ecological footprints or material flows are pedagogical tools in ESD especially at university level. Negative environmental impact is in the first instance seen as a consequence of unsustainable use of resources. It is also recognized that a good environmental situation will not develop unless people have a decent social and economic situation, and that a good environment is a prerequisite for a healthy economy in the long-term. Thus environmental, social and economic aspects are knit together in ESD. Ethics and justice, as expressed in democratic government and social and global responsibility, become important components in the larger context of ESD, although up to now this has seldom been introduced in regular education.

The view of environmental issues in the educational system has gradually changed from being a knowledge problem into being seen as a conflict between man and nature and today also as a conflict between different human interests (ESD). This has implications for the approaches to be used. In education in early EE, the transmission of scientific facts was the most common method used. This approach was later further developed and combined with active student involvement and problem-solving approaches. Today the conflict-oriented perspective of ESD, based on society as a whole, implies a focus on the democratic process. An important approach is thus a discussion among students in which different views are aired and debated. The purpose is to ensure that students actively and critically evaluate alternatives and develop skills in forming arguments based on knowledge and related ethical issues.

Since there is no general agreement on the concept of ESD, several sources have been consulted to give a broad overview of the discussion today. At the same time the concept of EE and its connection with ESD has been studied and can be seen in annex 6.

3 Goals for Education for Sustainable Development

3.1 Overall Goal for Sustainable Development in the Baltic Sea region

This overall goal has been elaborated in the Baltic 21 process of the Senior Officials Group (SOG) that steer the work in Baltic 21 co-operation and has been adopted by the Ministers for Foreign Affairs of the BSR.

The essential objective of Baltic Sea Region co-operation is the constant improvement of the living and working conditions of their peoples within the framework of sustainable development, sustainable management of natural resources and protection of the environment. Sustainable development includes three mutually interdependent dimensions – economic, social and environmental. This means for the region:

- A safe and healthy life for current and future generations.
- A co-operative and prosperous economy and a society for all.
- That local and regional co-operation is based on democracy, openness and participation.
- That biological and ecosystem diversity and productivity are restored or maintained.
- That pollution to the atmosphere, land and water does not exceed the carrying capacity of nature.
- That renewable resources are efficiently used and managed within their regeneration capacity.
- That the material flow of non-renewable resources is made efficient and cyclic, and that renewable substitutes are created and promoted.
- That awareness of the elements and processes leading to sustainability is high among different actors and levels of society.

The Baltic Sea Region recognizes its interdependence with other parts of the world and makes its contribution to the fulfilment of sustainable development goals at the global and European level.

3.2 Overall Goal for Education for Sustainable Development

The education sector covers a broad field of actors with different regulatory management systems also within different countries. These systems are geared as well to people of different ages and in different positions in life. Therefore it was found most appropriate to create a goal that is common to the whole education sector and goals for each field in the sector. The goals are related to actual policy formulation. Their use calls for divisions into sub-goals or criteria. Ultimately, they are to guide the selection of actions proposed to contribute to making the course of BSR development sustainable.

3.2.1 Overall goal for Education

All individuals should have competence to support the development that meets the needs of the present without compromising on the ability of future generations to meet their own needs.

Education for sustainable development should be based on an integrated approach to environmental, economic and societal development.

3.2.2 Goal for schools

Individual learners should have the knowledge, values and skills to be active, democratic and responsible citizens and to participate in decisions at individual as well as at different levels within the society, locally and globally, to create a sustainable society.

Learners in vocational education should also have skills and competencies relevant to their future professions.

3.2.3 Goal for higher education

Individual learners should have such skills and competence relevant to their future professions and future roles as decision-makers. Higher education should also play an active role locally,

nationally, and internationally in enhancing knowledge and action competence regarding sustainable development through research and education in co-operation with surrounding society.

3.2.4 Goal for non-formal education

Learners are capable of influencing their life situation, taking part in societal development, being aware of sustainable development and learning for sustainable development.

4 An overall view of the current situation

4.1 Division of work and demarcation of the field

4.1.1 Subdivision of the Education Sector Network

Formal and non-formal education are two areas for delivering purposeful education or awareness raising. The education sector covers a very broad field that is of utmost importance in striving for a sustainable future. In order to be able to cope with this broad field, it was decided that three working groups should be established:

- Pre-school to upper secondary education (incl. initial vocational education/training) and formal adult education, (WG1)
- Universities, university colleges and polytechnics (WG2)
- Non-formal education (mainly at adult level), (WG3)

The task of the working groups is to provide input to the sector report and the Agenda 21 document, following the common guidelines and timetable provided by the sector network. Each working group is chaired by a representative from a different country. The task of the working group chairs and secretaries is to initiate, organise and co-ordinate the work of these international groups.

4.1.2 Fields and governing of education

The working group for Schools (WG 1) found that in all countries Parliament and the Government have the overall responsibility for publicly funded education (In Germany the responsibility lies in the different Bundesländer). This means that the state in all countries provides the legal framework for education covering aims and objectives of education. The government also has a financial responsibility. Usually this responsibility is shared with the municipality. In a few cases financial responsibility also lies at the regional level. The main target group is made up of more than 41 million individuals. In addition to this, the number of adults in formal adult education should be included. This gives an idea of the importance of making ESD a part of regular school work and the essential role this could mean in the process towards SD. There are approximately 4 million teachers that should transfer knowledge in this respect.

Responsibility for salaries, books and teachers' in-service training lies in a few cases with the state, but usually these types of responsibilities lie with the municipality.

The working group for higher education (WG 2) noted that institutions of Higher Education (IHE) in the BSR include universities, university colleges, polytechnics and specialist institutions. In many of the countries the number of IHEs has changed considerably during the 90s due to reforms in the existing educational system or because new IHEs have been established. Most of the new institutions in the region are university colleges or polytechnics. IHEs are both public and private, whereas universities are mostly public. Most research activities are carried out in universities.

The number of IHEs is probably in the region of 1000-1500 (which includes 497 IHEs in Germany and as an estimate about 200 in the north-west of the Russian Federation). The number of students in these institutions could be approximated to 4.5 – 4.8 million. A simple conclusion to be drawn from this is that IHEs could fulfil an even more essential role in the process towards SD. Students becoming professionals and as such well acquainted with SD and its meaning it would create effective opportunities to work on SD.

In most countries the autonomy of universities is high, which means that universities can independently decide on contents of their education and research. The university colleges have often stronger regulations, and these include regulations for professions e.g. in engineering, health, teaching, and social work. It could be noted that in some countries teachers' education is in lower HE, whereas in some other countries teachers are educated at university level. Being autonomous, universities are still accountable to the community. Thus continuous and organised co-operation among various stakeholders (students, industry etc.) for developing study programmes, research and dissemination of results will be an important activity for further development.

The working group for non-formal education (WG 3) concluded that in the Baltic region, there are thousands of providers of non-formal (adult) education. In non-formal education (folk high schools/study associations/NGO's etc), the contents are decided by providers and participants themselves. There are in general no curricula/syllabuses, though often some educational standards and conditions – especially if the provider receives financial support from public authorities. However, providers can be divided into two types:

- a) Institutions, organisations and associations who have (adult) education as their main activity. (Study associations, folk high schools etc.).
- b) Institutions, organisations and associations who among other activities provide education – often in a broad sense. (NGOs, radio, TV and Internet).

WG 3 has used the following delimitation of the field:

- The Group will focus on non-formal education/learning activities mainly for adults, but also for other ages.
- (Non formal) training of people in companies to act sustainably could be included. Teacher/staff training is included.
- Cultural activities are part of the work in many study organisations - therefore they should be included as they are one of the pillars of sustainable development/awareness.
- Information, mass media and internet activities are included, if the WG III member considers they are educational
- National NGOs working with sustainability as a broad concept should be included if they (the NGO) or the rapporteur (the WG3 member) considers (parts of) the activity as educational.

4.2 Methodology of work in the working groups

Summary: As a first step in the work, the relationship between environmental education (EE) and education for sustainable development (ESD) was discussed in all working groups. All three working groups created a framework for a questionnaire. Within this framework each country could form a questionnaire based on the situation in the country. In most countries, the questionnaire was sent to a selected number of schools, institutions and organisations. In addition to results from these questionnaires, other relevant existing material such as reports have been used to obtain a clear picture of the situation concerning education for EE or ESD in the region. Some additional activities were included in the process in order to secure broader participation in the process. These activities include discussions on websites, seminars for HE teachers, and interviews.

The working group for schools (WG 1) as the first step in its work made a comparison between EE and ESD so that all participants should have the same understanding as a foundation for further work.

The working group elaborated a common “Framework for evaluation” based on the Haga Declaration. It was regarded as important to study the situation in respective countries, both with respect to general and educational goals concerning environmental care and sustainable development. Also the way EE/ESD was actually carried out in school with regard to content,

organisation and methods was studied. In order to identify obstacles and gaps, questions were asked regarding competence of staff, support, partnerships and material.

Based on this common Framework for evaluation, many of the countries elaborated their own questionnaire. Some other countries used already existing information. Additional information for the WG 1 report has been obtained from other existing reports, network reports, and projects. Based on the results of the survey (obstacles, gaps and opportunities) the working group has developed an action plan for developing and implementing ESD in each country and considered opportunities for co-operation between countries.

The working group tried to clarify what kind of education would promote sustainable development and has defined goals parallel with this work.

The report from *the working group for higher education (WG 2)* is based on ten country reports and complementary information sources and gives an overview of education and research regarding sustainable development within higher education in the Baltic Sea Region (BSR). Most of the country reports were based on a questionnaire, which was sent out to the institutions of higher education (IHEs). This questionnaire was prepared by the working group and then, in most countries, adapted to the national situation in the different countries. The results from the questionnaires were supplemented by a description of national political initiatives to support development towards sustainability in education (laws, committees, development grants etc). Additionally, interviews, seminars and websites were used to supplement and widen the discussion as well as participation in the process.

The reports were not intended to provide a comprehensive view of the situation of EE and ESD in each country. For such purposes and given the timetable for the preparation of Agenda 21 for education in the BSR, time and other resources were too limited. Instead the reports provide a general view (cross-section) of the present situation, and due to different situations in different countries, they also focus on slightly different items.

The working group for non-formal education (WG 3) had to begin with a discussion on the meaning of EE and ESD and on the basis of this clarify the working field of the group. From that result the group started to create a common framework for a questionnaire.

In some countries/regions, there are statistics on participation in non-formal adult education etc., in others not. Thus it was not expedient to lay down a common procedure specifying which methods should be used for collecting different information/data.

However, it was important to agree on common questions and formats (i.e. how answers were to be presented and how they could be easily transformed into an integrated transnational report). The solution was that a common "format for collection of information" was used:

A: National reports Questions to be answered by WG3 members (national representatives)/ The Ministry of Education in each country

B: NGO reports Questions to be answered by the WG3 members (regional NGO representatives)

C: National/regional institutions, organisations and networks (Questions to be adapted to national conditions, translated into national languages, sent out, collected, analysed and reported by WG3 members)

D: Individual institutions (Questions to be adapted to national conditions, translated into national languages, sent out, collected, analysed and reported by WG3 members)

A thorough, valid, quantitative investigation of the non-formal educational area concerning Baltic 21/education was not possible (due to large number of providers). This was among other things due mainly to three reasons: lack of resources for contacting the large number of providers, the topic of SD is in many cases an integrated part of courses/circles and many NGO activities (even if their goals are directly or closely directed to sustainability) are hardly measurable in terms of the number of participants, number of hours etc.

The report is based on reports from eight countries, two regional networks and the Nordic Folk Academy. The reported activities cover especially EE, ESD issues such as social inclusion/exclusion, active citizenship, health promotion etc. which are often not regarded as falling within the domain of sustainability. In different countries, questionnaires and (telephone) interviews were used to a varying extent. In some countries existing information (reports and statistics) were used.

4.3 Findings

Summary: SD is an overriding national political issue in all the BSR countries. In the general document for national education concern for the environment is expressed. According to national documents governing formal education EE/ESD should be integrated as a compulsory part of many subjects, but is most commonly integrated in natural science subjects. However, there is considerable interest among teachers, trainers and voluntary leaders as well as among students and participants in EE/ESD. This is very promising. But in reality full implementation of the legal regulations is still under way. Introduction courses in SD are offered in most IHEs either on an optional or compulsory basis. A range of teaching methods are used in delivering education, however, interdisciplinary methods including economics and social issues are being developed. The extent to which EE/ESD is included in initial teacher training varies, but it is included in a majority of educational programmes in the region. Co-operation is a usual activity and especially in the form of networks. Such co-operation seems to have an important impact on the development of education as a whole. As for non-formal education, many of the activities are attached to the general activities of a specific group, and often methods are highly oriented to learning-by-doing.

4.3.1 Legal frameworks

Summary: All countries in the region have various documents with national policies covering environmental protection. General documents for national education in the region seem to cover concern for the environment, although sometimes the link between ecology, economic and social aspects is mentioned. However, development towards integrating ESD in national documents is under way.

The working group for schools (WG 1) concluded that the national policies of all countries in the BSR contain goals concerning environmental protection. In this context the importance of saving natural resources is very often brought up. Sustainable development is mentioned in all the policy documents. It is either seen as a way of achieving environmental protection or the outcome of environmental protection resulting from sustainable use of national resources. Many countries bring up the importance of integrating the environmental perspective with social, cultural and economic aspects.

All countries have in their curricula or equivalent documents, goals concerning environmental education (EE), which can be considered to be a good starting point for developing education for sustainable development (ESD). EE is usually further explained:

- for pre-school level, children's relation to nature is stressed as well as their caring attitude to nature
- for basic and upper secondary level, it is usually stated that EE should give knowledge, skills and attitudes and promote a desire to act for the environment.

In some cases the links between ecology, economic and social aspects are mentioned and that education should contribute to SD. This is mentioned in just about all national documents on education. Many countries have also presented components of ESD, which are already part of

the national documents. In some countries, development work has just started on integrating ESD in their national documents.

The higher education working group (WG 2) states that national policies for the promotion of environmental protection and/or SD have been approved in most countries. In several countries these policies are followed up by systems that support IHEs in their activities regarding implementation and improvement of SD and ESD. Examples that could be mentioned are funding of research projects and projects for the enhancement of integration of SD in education as well as support for networking. There are also examples of countries where such programmes have not been followed by any special commitments or other measures (financial, material development, or similar) for EE or ESD. The impression from several of the national reports is that as regards SD issues, IHEs need more support at the national level.

Actions in the direction towards a sustainable development (SD) from the IHE side include strategies, policies and plans for environmental issues concerning SD. Such documents are found at different levels within the IHE. However, often they still focus on the technical aspects of SD rather than on education.

The non-formal education working group (WG 3) found that sustainability and education seem to be connected to each other, however it is approached very differently in the respective countries in the BSR. There is in all countries a policy, a programme or even an act on sustainable development, and all these official documents stress how important education is for the development of a sustainable society. All countries have – to a greater or lesser extent – included the non-formal education (NFAE) sector as an important partner in reaching the goals of a sustainable future. Non-formal ESD is supposed to give high priority to such activities that aim at bridging educational gaps and to give special attention to people who are educationally, socially and culturally disadvantaged.

The definitions and objectives of NFAE differ considerably in the BSR and thus a common definition is hard to formulate. However, there seems to be general agreement that the aim of NFAE is to enable the development of the individual's personality and ability to take part in society, and that NFAE complements the formal school system and even expands the range of opportunities and finally that typical of NFAE is that no state recognized certificate is awarded on completion.

4.3.2 Organization

Summary: According to national policy documents for formal education, EE/ESD should be integrated in all teaching. In many countries EE/ESD is a compulsory part of many subjects, but most commonly is integrated into natural science subjects. However, a common way of organising EE/ESD is through project work, which in some countries – due to an overloaded schedule in school is organised as after-school activities.

Introductory courses concerning SD are offered at most IHEs in the BSR, either as optional or compulsory courses. National reports on SD describe education in environmental issues with some SD "flavouring", as the most common approach to ESD in higher education. It thus seems that a genuine interdisciplinary approach including economic and social issues in the education is under way. In most BSR countries some efforts are put into staff development in sustainable development issues by the institutions of higher education.

In many BSR countries, students participate in senate, boards and committees, which are important for their education.

In non-formal education the impression conveyed is that the approaches tend to focus on certain parts or aspects of SD or certain environmental problems due to their action-orientedness.

The working group for schools (WG 1) realized that according to the national documents, EE/ESD should be integrated in all teaching. It is formulated in slightly different ways in different countries; EE/ESD is a cross-curricular issue, a central aim, and an integrated theme, integrated into other instructions or a general perspective.

In addition, EE/ESD is in many countries a compulsory part of many subjects; Natural science subjects being the most common. Also other subjects such as social science subjects and vocational subjects can include goals on EE/ESD. Some countries present their organisation for EE/ESD at different levels. In the pre-school and early school years, nature studies play an important role as well as practical work for the environment. In higher levels EE/ESD is integrated primarily in natural science subjects, but also integration in social science subjects and vocational subjects is common. Working for an environmentally friendly school can be an important topic in these countries.

A common way of organising EE/ESD is through project work. International organisations like the Green Flag, Coast watch and Baltic Sea Project are considered to play an important role in providing support for schools. In some countries these projects can be part of the regular schoolwork, but in many countries teachers regard the overloaded schedule in school as a major obstacles to including these issues into regular work. As a result EE/ESD activities are organised as after-school activities. This seems to be an important part of EE in school in the eastern countries of BSR. Similar activities in the western part of BSR are part of regular schoolwork.

The higher education working group (WG 2) found that introductory courses concerning SD are offered at most IHEs in the BSR, but there are differences in how accessible these are for the students and the value placed on them by institutions. Most often the courses are optional, sometimes provided as part of a degree, although there are institutions and disciplines where the introductory courses on SD are compulsory. For the further development of EE and ESD there is a need for change in the structures of higher education in order to facilitate interdisciplinarity.

The national reports on SD describe education in environmental issues, with some SD "flavouring" as the most common approach in higher education. It seems that a true interdisciplinary approach including economic and social issues in education is still in process of development. It is also evident that the provision of single discipline courses can be very large, but still the responsibility for integrating their contents lies mostly with students. However, IHEs do attempt to provide education where different aspects of SD are integrated into regular subject courses. According to the national reports, anywhere from 40% to nearly all IHEs integrate environmental or SD issues in courses. In recent years student interest in courses on SD has declined in Norway and Sweden, while for instance the Baltic countries have not experienced the same change.

There is great potential for universities to put SD on the agenda. SD could be used as a facilitator regarding, for instance, updating the curriculum, recognition of student needs, and creating interdisciplinary approaches and collaboration outside the institution.

In most BSR countries some efforts are put into staff development in sustainable development issues by institutions of higher education. These efforts include staff participation in open lectures and seminars, continuing education courses etc.

In many BSR countries students participate in senates, boards and committees, which are important for their education. Students have formal representation in decision-making bodies of IHEs in nine of the countries in the BSR.

There have been several international declarations by university leaders with commitments to SD. Among these, the CRE-Copernicus Charter for SD seems to have a more significant impact than others when it comes to signatories with 89 in the BSR. All of the declarations view IHEs as important actors towards a sustainable society.

The non-formal education working group (WG 3) state that the approaches that schools, institutions, NGOs and other providers take on EE and ESD vary from focusing on narrow concrete issues within environment or sustainability to broader coverage of holistic concepts of environment and sustainable development. However, there is an impression that because of their action-orientedness, the approaches tend to focus on certain parts or aspects of sustainable development or certain environmental problems. Often it is emphasized that the issues and knowledge have to be concrete and applicable, if students, activists or participants are to be involved, and if educational activities should lead to changes and action. In this sense the approach is probably more subject-oriented than interdisciplinary. As it will be if the concrete issues covered are based on knowledge from several scientific disciplines. There are national differences, which might be illustrated by the following four examples: In *Latvia* the non-formal sector traditionally puts the emphasis on subject-specific courses, although there are also examples of holistic approaches. In *Denmark* an action-oriented approach was found in most of the examples: Many (respondents) stress the need for connecting theory with action, i.e. if a course is about restoration of rivers and wetlands, then the core of the activities is practical. In *Sweden* EE and ESD are often integrated in other subjects. In *Poland* the non-formal sector often interacts with institutions of higher education and there is a trend to more and more interdisciplinary and problem- and project-oriented approaches.

4.3.3 Working methods

Summary: A range of teaching methods are used for teaching aspects of SD and in ESD. Specific subjects or courses seem to be the most common method of teaching EE/ESD. There are, however, to some extent indications that true interdisciplinary methods including economic and social issues in education are still in process of development. Already new conceptual and practical tools for teaching SD have been developed, but there is a need for further development, as well as for disseminating findings and making them readily accessible to teachers in higher education. For non-formal education participatory and/or action- and project-oriented methods are more prevalent primarily because a great deal of ESD and EE is connected to general environmental and sustainability activities and initiatives in NGOs.

The working group for schools (WG 1) saw that a single-subject approach still seems to be the most common method in schools. Natural science subjects are still the basic subjects in EE. Scientific knowledge and scientific studies seem to be the most important part of EE, and transmitting these facts still seems to be a common method in schools. There are, however, many indications that development has started to move methods used in education towards ESD. Many methods were mentioned in the report that could transform the educational culture into a more integrative and dynamic mode, in line with the Haga declaration. Thematic work is a common method and is becoming more frequently used. Other methods

mentioned are: interdisciplinary, solving problems, research, working groups, excursions and study visits. Some schools see the importance of social learning and involving the students in discussions.

Being in touch with the real world (contextual) and building action competence are important components of ESD. The efforts in many schools to relate theory with practice in making the school environmentally friendly and in working with the local environment should be seen in this light.

Involving students in the decision making process in school is important training for democracy and is becoming more and more common in schools in the BSR. This could be on an individual basis in a class-room situation or on a collective bases in student council work.

The higher education working group (WG 2) noted that in higher education a range of teaching approaches are used in ESD from student-active methods, such as project-based learning, to the more traditional lectures. Each teacher decides what approach he/she wants to use, based on the material to be presented, objectives for the course etc. As teaching approaches differ so very much, and are independent of discipline, institution or country, the national surveys did not include questions about teaching methods. However, this should by no means be interpreted as a lack of interest. The development of appropriate teaching methods and research into teaching methods that are effective in ESD is of great importance. Already new conceptual and practical tools for teaching SD have been developed, but there is a need for further development, as well as for disseminating the findings and making them readily accessible to teachers in higher education.

In the agenda process, the participatory element is strongly emphasized. This has also been emphasized regarding teaching and learning methods for EE and ESD, which need to be reorganised from a one-way communication towards more interactive methods. But participation could also be seen as an opportunity for students to influence their situation in the IHE, including study contents and methods. In many BSR countries, students participate in senate, boards and committees that are important for their education.

The non-formal education working group (WG 3) consider that many activities take place in the learning-settings of study associations, folk high schools, folk day high schools etc. The methods here are varied (a mix of class room education/debate, study circles, group work, excursions, project work, problem orientation etc.). The impression is that activities as a whole essentially reflect the broadness and qualities that the goals prescribe. Relation to action and project-making, networking, open-ended processes, embeddedness in everyday life and concreteness are some of the features that in various ways can be perceived from the accounts and descriptions in the reports.

Many activities are attached to the general activities of a specific group, and often the methods are very oriented to learning-by-doing. If the general task of (NGO) organizations, for instance, is to further ecological building projects then educational activities should be based on practical instruction and projects highlighting the techniques used in such building projects as a core-activity. The more theoretical accounts of techniques, materials etc. is weaved around practical tasks.

4.3.4 Competence of staff

Summary: The competence of the staff is of crucial importance for education of high quality, which needs to be focused on initial teachers training, continuing education for professional teachers, as well as research on SD and ESD. The extent to which EE/ESD is incorporated in

initial teacher training varies but it is included in a majority of educational programmes in the region. Teachers who received their initial teacher training a long time ago need to be able to get in-service training in ESD. In continuing education, teachers update and gather new information and knowledge regarding SD and ESD. The production of new knowledge through education and research is especially important for SD as it challenges the means by which research is conducted in an interdisciplinary context, and the goals which emphasise skills and action competence. Problem oriented and project based education and case-studies are areas where new research must be carried out.

The working group for schools (WG 1) stated that the competence of staff is very much dependent on when the teachers received their initial training. Training in EE/ESD has become more common in some countries during the last 5-10 years. To a certain extent the situation has improved for older teachers with the help of in-service training. Still, in all countries, teachers underlined the need for further training. Knowledge about the environment and sustainable development, a problem-oriented approach and modern didactic approaches were mentioned as very important fields for in-service training.

The higher education working group (WG 2) found that academic staff development is an important element in implementation of SD in IHEs. This is emphasized in international university declarations, such as the CRE-Copernicus. In most countries some efforts are put into staff development in SD issues. Activities include staff participation in other activities of the IHE, such as open lectures and seminars, continuing education courses etc.

As to the situation regarding teachers' initial training, the level of to which EE/ESD is incorporated in training varies. IHEs in most countries cover EE/ESD to 50% or more in the main subjects of the teacher-training programme. Not all countries have reported on this issue. Professional teachers can upgrade and develop their competence at their workplaces, through continuing education, as in-service training etc. However, these opportunities are rather limited in several countries, due to the lack of financial support from employers and/or authorities, lack of material etc. This is seen as one of the areas where regional cooperation is to be recommended.

The non-formal education working group (WG 3) consider that while the NFAE sector recruits teachers with formal qualifications as well as persons with 'alternative' qualifications, the picture is blurred. In some countries, courses for teachers and volunteer leaders are rather developed, in others they are scarce. However, there is a wish for more opportunities for instructors, teachers and activists from the non-formal educational sector to participate in courses, vocational training and other educational activities (concerned with environment or sustainability) in the formal education sector – either by extended financial support and/or by easing formal requirements for admission.

4.3.5 Research on education

In the Haga Declaration, the encouragement of research on education for SD is strongly emphasized. The role of the universities is to provide education based on research and as a result of this, some aspects are included in the WG2 report but this gives only a fragmentary picture of the situation supplemented by a number of good examples.

The production of new knowledge through research is especially important regarding SD, as this new theme will create a demand both for new basic knowledge and new ways of conducting research in an interdisciplinary context. Jüdes (2000) states that among the different stakeholders in the SD discourse, it is science that has the challenging task of developing a theoretical framework for the analysis of different perspectives on sustainable

development and for aggregating them into a transdisciplinary theory. For such purposes, a systems approach seems likely to be helpful. Science can also adopt the function of an “early warning system” to accompany the process of SD and in this way recognize and eliminate disturbing factors as early as possible. Issues of special importance to be raised in SD research include integrated resource management, sustainable livelihoods, vertical and horizontal equity, and economic sustainability.

Special attention should be paid to research that aims to advance ESD and research that brings together different dimensions of SD. Here the approaches (problem-oriented, project-based) should include elements that in themselves promote SD. The case study method is also mentioned in several country reports as an example of a good method to be further developed in education for SD. Likewise, there is a need to monitor the effectiveness of ESD in society.

4.3.6 Partnerships

Summary: On school level municipalities and NGOs are the most frequent co-operation partners, while for higher education partnerships could be seen in three main groups e.g. producers from industry, consumers which means the general public, and planners that is municipalities and authorities. Moreover, IHE activities with various partners are based more on networking than formal partnerships. In addition to networking among IHEs, there are traditionally a large number of professional and scientific societies where academic staff nationally and internationally work for the promotion of issues they regard as important.

The working group for schools (WG 1) found that municipalities and NGOs are the most common partner for schools in the BSR. Municipalities provide environmental information and encourage green actions in school. NGOs organise activities for students as well as teaching material. Other contacts are local business, universities, newspapers and other schools.

The higher education working group (WG 2) recognized that IHEs role in local and regional development has been emphasized in recent decades, and in some countries it is becoming one of the main tasks of IHEs, alongside research and education.

In this regard, IHE partnerships (with other actors) could roughly be divided into three main categories: 1) partnerships with producers (industry, agriculture); 2) partnerships with consumers (general public) and 3) partnerships with planners (municipalities, authorities). These activities at the same time pave the way for IHEs to involve education for instance in project based education. Often these activities include involvement in local agenda 21 processes or similar. Moreover, IHEs activities with various partners are based more on networking than formal partnerships. For example, EU and other international financiers have established special programmes for networking several partners from various countries. IHEs have bi- and multilateral agreements with each other. In addition to networking among IHEs, there are traditionally a large number of professional and scientific societies where academic staff nationally and internationally work for promotion of issues they see as important.

However, conclusions on the role of IHEs in local and regional development in separate countries cannot easily be drawn. The countries differ in too many parameters, such as population, geographic magnitude, size and structure of national economy, and structure of the education system. Consequently, "local and regional" can be understood quite differently.

Internationalisation of research and education in IHEs has been intensive during recent decades. The BSR is often a natural region for cooperation, alongside other European and global activities. There are different kinds of IHE cooperation in the BSR at an institutional

level, such as the Baltic Sea Rectors Conference (CBUR), or in research and education. From the national reports, it can be concluded that there is a large number of bilateral projects across the Baltic Sea. In addition to a large number of bi- and trilateral projects, there are some sectoral projects, such as Baltech (technical universities in Denmark, Estonia, Germany, Latvia, Lithuania and Sweden), the Euro Faculty Programme and Novabova (a research network for sustainable agriculture). The Baltic university programme, which is mentioned in almost all of the national reports as a good example of ESD, is the largest IHE network in the region in the area of research and education for a regional SD.

For students, internationalisation of education is often supported financially via different grant systems. Besides financial problems, one of the main obstacles is the lack of recognition between HE in different countries, which would enable students to move between different IHEs.

The Bologna declaration, signed in 1999 is an undertaking to reform the structure of IHE in their countries in such a way that overall convergence could emerge at the European level. The actions include an accreditation system, the introduction of undergraduate and postgraduate study phases and a general credit transfer system. Following the Prague minister-conference in the Bologna process in May 2001, emphasis is also being put on European accreditation-networking.

The non-formal education working group (WG 3) found the overall picture to be that the various actors in the field maintain good relations with surrounding society and have many different collaboration partners. For NGOs working with environmental issues or with questions of sustainable development, it is fair to say that increased establishment of networks and partnerships with other NGOs in the field and with research centres, municipalities, ministries and certain individual persons seems to be crucial. Also educational institutions (folk high schools, study organisations, adult education centres and the like) establish contacts as well as authorities, NGOs and other actors. Some relations are constant and involve the exchange of information and experience and other relations grow out of mutual involvement in specific projects. One conclusion to be drawn from this is that giving good conditions for developing projects in collaboration also stimulates networks.

4.4 Obstacles, gaps and opportunities

Summary: The main obstacles for the integration of SD in all education seem to be a lack of understanding of the concept of SD and in particular a lack of integration of environmental, economic, cultural and social aspects in SD. The lack of incentives for such an integration in education in both schools and IHEs is noted. The contents of teacher training should thus be further considered. There is a need for increased opportunities for teachers, trainers and voluntary leaders to participate in in-service training and continuing education where contents, methods and teaching materials on SD and ESD are focused on. Obstacles are found in opportunities for covering the needs of EE/ESD in regular education and here curriculum design is a main focal point. Research on teaching and learning regarding SD and ESD has to be strengthened. The lack of clear intentions from local and national authorities on the importance of SD and ESD is still another obstacle to be solved. Many teachers and headmasters have reported that they regarded environmental and development issues as important. Also students have shown an interest. This means that there is considerable potential for developing ESD.

The working group for schools (WG 1) found that one of the main obstacles is the lack of knowledge and understanding among teachers and other officials in school about educational content and appropriate approaches concerning ESD. Teachers are acquainted with the term

SD, but there is a lack of understanding of their meaning and contents. Many teachers also feel that environmental issues are becoming increasingly complex. Although many teachers have received training in EE, most teachers lack appropriate training in ESD. There is also a lack of time to develop their knowledge and they are not supplied with sufficient resources and suitable teaching material.

Another great obstacle is the low level of support from local authorities and headmasters as well as the organisation and structure of education at upper secondary level. In particular, it is hard to ensure good conditions for development of co-operative relationships between teachers of different subjects. The overloaded curriculum is seen as another major obstacle. In upper secondary level strict curriculum requirements in many subjects, tend to restrict more widespread use of cross-curricular working methods and more time consuming working methods such as project work which are considered to strengthen ESD. One problem is that EE/ESD has to compete with other pressing issues in school and has thus sometimes been given low priority. For students the lack of progression in EE is seen as tiresome and boring and is thus an obstacle to improving EE/ESD.

Suggestions for the future; In general, it is important that all actors in society contribute in order to provide the legal framework and working conditions in school for making ESD successful. One fundamental measure is to ensure that curriculum requirements contain goals on ESD, and solve the problem teachers see in an overloaded curriculum and make possible cross-curricular approaches.

Targeted funding is needed in order to get development started such as - time for teachers to improve their knowledge and to discuss and work together

- teacher training courses
- development of teaching material
- research on best practise
- support to regional co-operation.

In the view of *the higher education working group (WG 2)* one of the gaps lies in the definition of SD and ESD. Considering the change towards the SD perspective in education, there is generally a need to further integrate natural sciences, social sciences and the arts. In addition, the interdisciplinary approach and the competencies expected of the students create a need to develop teaching and learning approaches for SD. So far, EE in the BSR is seen to be mostly concerned with the natural sciences, and to some extent it is also becoming a scientific discipline of its own, which again can cause difficulties in involving the other dimensions of SD.

In HE the shift from single-discipline to interdisciplinary activities is a great obstacle, and needs efforts at every level in order to be solved. The second big gap was found to be the lack of financing and underestimating the importance of EE and ESD by local and national authorities.

Other obstacles could be classified in two groups 1) structural 2) knowledge, skills and attitudes.

1. Structural obstacles e.g. lack of personal resources, lack of time, lack of clear state demands to connect the subject into IHE programmes and lack of support from governmental institutions.
2. Knowledge, skills and attitudes; e.g. lack of knowledge and competence (teachers), lack of recognition of the term sustainability, low level of awareness, ignorance of the problems and lack of information.

Suggestions for the future; e.g.:

- Collaboration between universities and municipalities should be continued and increased,
- In-service training for all educators should be prioritised with special attention paid to SD
- Curricula development where SD issues are integrated
- Basic courses in SD included in the curricula
- Increased emphasis on value interpretation and clarification and ethical issues, and more cooperation with universities and institutions nationally and abroad
- Attention should be given in particular to programmes in the humanities, social sciences and economics
- Active participation should be given condition and challenges to approaches within EE, especially within initial and in-service training of teachers,
- A need to create relevant alliances, nationally and internationally
- Funding and encouragement from the national level
- Extended information on the concept of SD in society.
- Providing opportunity for the obvious need for new knowledge, understanding and skills in many professions that will be of key importance in developing our societies. These include for instance people working in planning, building, and administration, not least at the local, municipal, level, as well as teachers. There is much general and detailed technical knowledge on SD that not until now has been a part of the education for these professions, and competence development and continuing education for professionals need to be part of an Agenda 21 in the education sector.

The non-formal education group (WG 3) consider that in general, the public authorities are criticized for lack of focus, interest and/or legislative initiatives. Generally it is stated, that interest in these matters is relatively low: "...lack of request or interest in such topics", "...People who need most ESD because of their negative attitudes never come to courses on such issues" etc.

Some countries, especially the Nordic state that interest in ecological and sustainable issues has declined within the last ten years – people are “fed up”. The Swedish folk high schools conclude: “There is a passivity among the population, and the terms “environment” and “sustainable development” discourages people; they have to be hidden in other subjects.” The Finnish report states: “The slogan “sustainable development” has become worn out during the last ten years and the term itself is a barrier to successful work for promoting sustainable development.”

Most countries complain of lack of resources (time, money and qualified staff). Some countries find that there are insufficient or inadequate competences or knowledge of certain involved persons, organisations or institutions. In other country reports, it is emphasised that the supply (human and material resources) is available and sufficient, while demand is small.

The suggestions for overcoming these barriers are the following:

- * better economic conditions and frameworks (including legislation which promotes this)
- * better in-service training and consultancy – including seminars and dissemination of ideas
- * improving networks and cooperation among providers.

5 Steps forward

5.1 Policy Implications

The key to creating a more sustainable and peaceful world is learning. The change towards sustainability depends on changes in understanding.

The *Haga Declaration* endorses the direction to and paves the way for work for education in the BSR for a sustainable future. The experience gained from the survey must be the foundation for future steps.

The *result of the survey* indicates that there is considerable interest among teachers, trainers and voluntary leaders, as well as among students and participants in EE/ESD. This is very promising and should be encouraged. There is to some extent a need to clarify or strengthen national documents e.g. laws, ordinances, national curricula and time frames concerning ESD. Also there seems to be a generally felt need to clarify and refine the concept of SD and the approach to integrating environmental, economic and social aspects as well as the cultural dimension in ESD.

There is in addition a need for new knowledge, understanding and skills in many professions of importance in developing our societies. There is much general and detailed technical knowledge on SD that until now has not been a part of the education of these professions. Also competence development and continuing education for professionals needs to be part of an Agenda 21 in the education sector. Many of the other sectors in Baltic 21 co-operation have in their reports or action programmes expressed their demand for updating, refreshing or extending knowledge and skills regarding SD.

Effective education for sustainable development depends upon a combination of factors, i.e. legitimacy through the curriculum, new ways of learning, competence of staff, institutional development, partnerships and finances. Awareness of ESD within the educational community should be emphasised as an initial step.

Strengthening current policies

Political call for and support at national and local level is crucial for success in the pursuit of sustainable development, and the democratic process that underpins sustainable development needs to be further strengthened. Politicians at all level should be encouraged to give strong and clear signals on the importance of education for sustainable development with the following aspects:

- a. All levels of education need an enhanced national regulatory framework where sustainability aspects are clearly incorporated e.g. education laws, ordinances, curricula/standards, syllabuses.
- b. Strengthening the connection between natural and social science and economics is important both in interdisciplinary and in specialised studies. Interdisciplinary and specialization must be properly balanced.
- c. Further initiatives must be taken in school development regarding content and methods. Students should be given greater opportunity to influence and take responsibility for their own learning. It is important that the role of students should be changed into active participants and that the role of the teacher into more of a

facilitator and active co-learner. Other important approaches are critical reflection and discussion.

- d. Students/pupils should be given the opportunity to influence and take part in the preparation of all school/IHE work. They must acquire knowledge about practical cooperation in different ways and in democratic decision-making and practice it. Such participation should also be seen as a possibility for the students/pupils to influence their work in the IHE/school including study contents and methods.
- e. Aspects of sustainability should be incorporated in initial teacher training programmes while considering the evolving nature of ESD. Increasing efforts should be made over in-service training with regard to the aspect of sustainability. Such in-service training programmes/courses are important and should be promoted to teachers at all levels of education including teacher trainers at IHEs. Provision of in-service training and consultancy – including training programmes should be offered for non-formal educators with regard to SD.
- f. IHEs should be encouraged and supported to offer opportunities for academic staff to enhance their knowledge in sustainable development concepts and appropriate teaching methods and to incorporate SD in as many courses and programmes as possible.
- g. Encouragement should be given research regarding content and methods in education for sustainable development as well as on the integration of sustainability aspects in different academic disciplines.
- h. Increased efforts should be made to raise public awareness of SD leading to necessary lifestyle changes e.g. more sustainable consumption patterns by i.a. supporting non-formal modes of learning.
- i. Strengthening co-operation with different actors (e.g. media) and disseminating examples of good practice.
- j. Strengthening and extending BSR co-operation with regard to ESD.

Issues to be further addressed

The Haga Declaration emphasizes the need for an integrated approach to economic, environmental and societal issues. The following aspects must be taken into consideration when planning for ESD in the BSR.

- k. The need for multicultural coexistence is today more evident than ever. The common problems of our earth - threat against the environment, human beings, violence, inequality - must be solved taking into account cultural diversity as well as biodiversity. But the obstacles are numerous and can only be overcome by the encouragement of learning to live together for the common good. The difficult task for education is to put knowledge into a context that affects and is related to our own time and contemporary moral and ethical issues.
- l. ESD in the Baltic region should be seen as part of the programme on Education for all as agreed on in the World Education Forum in Dakar, Senegal (April 2000). There is thus a need to ensure that education is accessible to everyone and embraces a deep concern for the fundamental goals and purposes of education, for the relevance of learning contents and process, and for modes of learning that reinforce human values.

5.2 Action programme

5.2.1 Overall nature of the Action Programme

The emphasis of the Baltic 21 Education sector programme is on strengthening the capacity of knowledge building in the region as a solid foundation for the common long-term transition to sustainable development in the BSR. The proposed key action plan aims at filling the gaps that have been identified in the surveys. The focus is on giving strong political signals for the need for ESD as well as support to educational institutions at all levels of policymaking bodies. The aim is to achieve genuinely integrative learning with regard to natural sciences, social sciences, economics and culture with a democratic approach and using integrative, process-oriented and participatory learning methods. The education sector consists of a broad field of actors with different regulatory management systems also within different countries. They are geared as well to different ages of peoples and in different positions in life.

The Baltic 21 Action Programme for the Education sector is firstly divided into a framework of action areas, which is common to the whole sector. Within these areas each part of the sector made up of schools, higher education and non-formal education, needs to create specific actions according to their role in the education system (for further information see under each area and annex 2.1 – 2.3 to the sector report).

Effective implementation of the Action Programme will require that its priorities be integrated into the planning processes used by the co-operating national and local governments, schools, institutions of higher education and associations. They should also be made a key element of investment and management strategies of the actors involved in education and awareness activities. The diversity contained in the Action programme implies that project financing will need to be addressed on a case-by-case basis. As indicated in the Haga Declaration in general, financing of the implementation of Baltic 21 E should be borne by each respective country using different resources. Financing for some of the actions of other projects developed might be sought through supplementary resources from programmes of the European Union and other forms of international co-operation as far as appropriate.

5.2.2 Common action areas

I. Policies and strategies

The creation of knowledge on and awareness of sustainable development should be seen as a lifelong process for the individuals and thus include all levels of education from pre-school to higher education and adult education, awareness-raising measures through actions by non-governmental organizations as well as through continuing education. It is necessary that politicians at all levels in the country give strong and clear political signals in order to achieve broad implementation of the ideas underlying sustainable development in education.

Considerations on including ESD into ordinary school activities should be encouraged. All managerial documents whether they are laws, ordinances, national curricula or equivalent documents, core curricula or syllabi are a prerequisite for realization of ESD. There is also a need to invite politicians and civil servants to be actively involved in the development of local supportive structures for teaching in schools.

Support of school management, teachers' knowledge in their subject and ability to use an interdisciplinary approach and motivate students to participate in the process are considered to be essential to the quality of education for sustainable development. Support should be given to efforts made in schools to inculcate the idea of sustainable development. IHEs should be encouraged to include sustainable development issues in the programmes for undergraduates and postgraduates, as well as for professional education and continuing education students.

Non-governmental organisations should be encouraged to broaden their activities to contain environmental, economic, social and cultural aspects in an integrated approach.

ACTIONS

Joint action headings (included in Baltic 21E)

1. Each country in BSR should adopt a framework for ESD for schools and higher education
2. Each country in BSR should develop guidelines regarding ESD for the field of non-formal education
3. Stimulate the development of co-operation, especially international co-operation, for curricula program and course development at all levels of education.

Specific actions suggested by the working groups:

WG1:1 Strong political signals from the government on the importance of SD and ESD in school. The existence of relevant governing documents is of fundamental importance for effective ESD.

Actors: All policy levels should give strong signals in policy documents and in support of development. The main actor in the development of policy documents is the Parliament, the government (or government agencies) and concerning local/school level the local authorities, headmasters and teachers/students.

Time frame: 2002-

Monitoring: Every three years an evaluation of the situation in the countries should take place starting in 2005.

WG2:1 Each country in the Baltic Sea Region should adopt a national strategy for sustainable higher education in line with the Rio process. The strategy should be communicated to the institutions for higher education (IHEs) and published on the Internet portal described in one of the actions under teaching and learning resources.

Action implemented by 2004.

Time frame: 2002-2004. A strategy in place by 2004.

WG 3:1 Development of national strategies for ESD

Countries who do not have such a national strategy should be encouraged to start the process of negotiating this with stakeholders, education authorities and organizations including all sectors.

Actions

Guidelines on education and support to NGOs should include SD.

Actors: Authorities

Time frame: 2002-

Monitoring: Monitoring group appointed in respective country

II. Competence development within education

The potential of education in the development of a sustainable Baltic Sea Region is high.

Already a number of good initiatives have been taken, as can be seen in the reports from the three working-groups within the Baltic 21 Education Sector. However, to be a strong positive force more competence-building efforts are necessary at all levels in the education system, in the formal, as well as in the non-formal. To begin with, leadership and decision-makers at all levels in education need to increase their knowledge about education for sustainable development, and be able to give the appropriate guidance and support in development work ahead. Similarly, offering opportunities and incentives for teachers and facilitators to enhance

their awareness and knowledge of sustainable development, of sustainability aspects in their subject areas and appropriate teaching methods is a necessary prerequisite for change. With this increased competence, teachers and trainers can work with and support pupils and students to take responsibility for their own learning and in their development of knowledge, values and skills regarding sustainable development. When learners leave education situations the aim should be that they have knowledge and tools to act for sustainable development in their personal life, as well as in their professional life. In this context lifelong learning plays an important role.

ACTIONS

Joint action headings (included in Baltic 21E)

1. Stimulate competence development for personnel in the educational system, including actions to increase the awareness of SD issues among officials, headmasters/principals and staff
2. Support co-operation in BSR between educators, researchers and practitioners to promote knowledge in SD and skills in ESD
3. Introduce and develop management systems for SD in educational institutions, including schools, and IHEs, as well as non-formal education actors.

Specific actions suggested by the working groups:

WG1:3 Competence development

There is an extensive need for training in ESD for headmasters and teachers as well as for local decision-makers.

Actions

It is important that all people connected with education have an awareness of the importance of SD in education.

1. Increase the awareness of SD issues among officials, headmasters, teachers etc
2. Improve if necessary the competence of teacher trainers
3. Give new teachers basic training in ESD
4. Provide in-service training to staff in ESD
5. Initiate co-operation between the countries in the BSR

Actors: Governments, universities, teacher training institutions, local authorities, schools, NGOs

Time frame: Initiated in 2002 and on-going

Monitoring: Every three years an evaluation of the situation in the countries should take place starting 2005.

WG2:2 Knowledge enhancement opportunities for academic staff in SD. Institutions for Higher Education should provide opportunities for academic staff to enhance their knowledge in sustainable development concepts and appropriate teaching methods, in preparation for integrating sustainable development aspects of their subjects in courses of study for all undergraduate and postgraduate, as well as for professional education and continuing education students.

Actors: IHEs

Time frame: Action on-going from 2003.

Initiated in co-operation with the Baltic Rectors Meeting.

WG2:3 Undergraduate education should be organized in such a way that all students encounter aspects of sustainable development in their fields of study and acquire experience of project-oriented learning, in order to increase their capability to identify problems related to sustainability and develop solutions.

Actors: IHEs

Time frame: Action initiated by 2003.

Monitoring: By the national/länder ministries of education/related ministries.

WG2:6 Co-operation between teachers, researchers and practitioners for SD. Teachers and researchers at IHEs should be encouraged to co-operate with practitioners in developing curricula, research initiatives and outreach activities to support a sustainable future, as well as find new solutions to problems related to sustainability.

Actors: IHEs

Time frames: Starting 2002 and onwards.

Monitoring: By the governments and relevant ministries.

WG3:2 Improvement of training of trainers and development of “sustainable management” (in NFE institutions)

General action areas for SD are relevant for the education sector (i.e. “hidden curricula”: How do you deal with energy resources, waste, decision-making, policy-making process etc.)

- This should contribute to awareness raising among staff and participants.

Actions

More focus on guidelines

Actors: Authorities, any provider of/or staff in NFE

Time frame: 2002-

Monitoring: Monitoring group appointed by the Baltic21-EDU authorities.

III. Continuing education

The development of new knowledge and the need for new skills is continuous in dynamic societies such as the countries in the Baltic Sea Region. Continuing education has a very important role to play in this development. It has two main activity areas: the upgrading of knowledge and skills and the provision of new competencies needed in different professions. Therefore it is essential that continuing education, which involves knowledge building where the aims among others, are a better understanding of relevant sustainability issues, improved skills on sustainable strategies and a sharing of new research and techniques are introduced in all professions. This enhancement of professionally related skills and knowledge on sustainable development should preferably take place on a continuing basis and consequently should be part of the lifelong learning of individuals. Continuing education is one of the areas, which would benefit from cooperation between the education sector, the stakeholders (including students, employers, professional organizations) and the community. The actions below include furthering initial vocational training, continuing education/training for all levels where appropriate.

ACTIONS

Joint action headings (included in Baltic 21E)

1. Promote continuing education for professionals, which should include sustainability related knowledge and skills
2. Develop strategies for introducing sustainability related knowledge and skills in the fields of planning, management, building and production in all parts of society
3. Promote international co-operation to improve and support the implementation of sustainability related professional knowledge and skills in the entire region.

Specific actions suggested by the working groups:

WG2: Provision of continuing education The education sector, including formal as well as non-formal education, should engage more actively in continuing education for professionals which should include sustainability related knowledge and skills and be developed in co-operation with the community and stakeholders.

Actors:

Time frame:

Monitoring:

IV. Teaching and learning resources

Learning and teaching sustainable development at all levels will require access to resources. These include basic texts, but also cases studies, good examples of all kinds, media, web-resources etc. The quality of an educational program for sustainability will be critically dependent on the quality of its material. Such material is, however, not available in many fields and considerable efforts should be devoted to developing them. Material can in general be used in the region as a whole and regional cooperation should be favoured.

The actions include common actions such as production of a website opening access to information and resources on sustainability (a portal for EDU 21). Production of school books, films and other teaching materials. Material for IHEs both for general courses and specialist education in professions of importance and teaching material and material for self studies in non-formal education.

ACTIONS

Joint action headings (included in Baltic 21E)

1. Stimulate the production of printed materials, internet-based material and other ESD material for schools
- 2 Stimulate the production of printed materials, films, internet-based material for ESD for higher education and training, as well as methodological, pedagogic and didactic material to support ESD
- 3 Create an internet portal to give easy access to educators, learners and researchers
4. Support and extend existing BSR regional networks for ESD, especially in the use of common resources wherever possible.
5. Promote the possibilities for media in all countries to inform about and debate issues for SD to reach the general public

Specific actions suggested by the working groups:

WG1:4 Material for school

Actions

Stimulate the production of books, Internet-based material and other material on EE/ESD.

1. Stimulate the production of methodological material. The result of the ESD development could be used (Action 2).
2. Develop an Internet based portal with information on existing material in the region.

Actors: Government, local authorities, NGOs, Book publishing companies, Television, Radio

Time frame: All the actors should be informed of the need for revision of material and production of new material.

Monitoring: Every three years an evaluation of the situation in the countries should take place starting 2005.

WG2: 4 Internet portal for ESD in the BSR. The countries around the Baltic Sea Region should support an Internet portal where teachers, students and researchers can find teaching/learning resources as well as have easy access to international and national/state sustainable development policies, strategies and regulations for the Baltic 21 sector areas. (Including information about financial support available, a virtual forum for discussions, networking support, resource centres, research findings, good examples of staff development on sustainable development, etc.)

Actors:

Time frame: Internet portal to be running by 2003, and updated continuously. It could be made part of the Baltic 21 website.

Financing: Financed as a joint venture between Baltic Sea Region states and the EU.

Monitoring: By the Baltic 21 Education Sector

WG3:4 Internet-portal

Actions

- * Links to Baltic-EDU-initiatives
- * Links to virtual libraries (including ODL-initiatives and teaching materials)
- * Links to relevant websites/Virtual SD platforms
- * Examples of best practice (e.g. including cases described by WG3, methodology collections, curricula, etc.)
- * Other relevant databases and virtual platforms
- * Sustainable development training resource-guides should be prepared and updated, with information on training programmes, methodologies and evaluation results at the local, national, regional and international levels.

Actors: Anybody

Monitoring: Monitoring group appointed in each country

Time frame: 2002-

WG3:6 Partnerships and networks

Actions

Support to establishment and maintenance of partnerships and network activities.

Actors

Anybody

Monitoring: Monitoring group appointed by the Baltic21-EDU authorities

Time frame: 2002-

V. Research on and development of education for sustainable development

Already excellent work is being done and findings which are useful in the change-over to a sustainable society are being implemented in society/for example in industry, in education, in community settings, by individuals and by society at large and in a context of life-long learning. However, there is a need for more research to strengthen the base for the development of society and to advance development in other Baltic 21 sectors.

The Haga Declaration recognizes the need for research particularly on education for sustainable development, which involves education in the formal education system and in higher education, in training of professionals, in consciousness-raising and knowledge-building of individuals and of the general public. More knowledge is needed in such areas as, for example, effective learning and teaching approaches for ESD, suitable self-evaluation instruments, formation of attitudes and values, school development and implementation of ICT to support ESD and the development of a sustainable society.

Significant for SD and ESD is the need for interdisciplinary co-operation and conducting research in an interdisciplinary context. Similarly, there is a need for increased co-operation and partnerships between stakeholders in research and development, from identifying issues to work with to making new knowledge known and used. Naturally, the results of research and development efforts should be disseminated to actors locally, regionally and globally, and incorporated where relevant, including in the different parts of the education system.

Development based on research is important but of equal importance is experience-based development and development initiated out of a wish for change or improvement. Increased co-operation between stakeholders is needed also in this work, and it is essential that the results are disseminated in an effective way and incorporated in relevant systems and structures. In addition more examples of best practise need to be identified and analysed as another way of supporting development efforts.

ACTIONS

Joint action headings (included in Baltic 21E)

1. Initiate and promote research and development on contents and methods for ESD, as well as stimulate the dissemination of results of research on issues concerning SD with priority for research that brings together the different dimensions of SD, as well as focuses on issues of local development
2. Stimulate international co-operation regarding research and development of ESD, and support and initiate networks for experience sharing and joint activities at all levels
3. Stimulate and support different approaches in education covering an interdisciplinary approach, ways of including aspects of SD in different subjects, involving education in a local context, as well as collecting and disseminating examples of good practice
4. Stimulate the development of management systems for sustainable development in educational institutions, including schools, and institutions of higher education, as well as non-formal education institutions.

Specific actions suggested by the working groups:

WG1:3. Start research and development work regarding content and methods concerning ESD

It is necessary for each country to start development work from where teachers are today. Priority should be given to research on content and methods of ESD and on development of different educational approaches. The development of new approaches must take place in connection with the actual work in school. New ideas should be developed and tested by

teachers in cooperation with universities and NGOs. Already existing networks like the BSP can be used to disseminate new ideas.

Actors: The main actors are research institutes, universities and schools.

Time frame: 2002 and onwards. Research and development is an important starting area where the result has an impact on competence and material development. The work in this area should start as soon as possible.

Monitoring: Every three years an evaluation of the situation in the countries should take place, starting 2005.

WG2:7 Research programme. Priority should be given to programmes and projects that aim to advance education for sustainable development (ESD). The research should also include a focus on regional development.

Actors: Parliament, government and local authorities, research financiers, researchers, IHEs

Time frame: Action initiated in 2003.

Financing: Financed by national and international funding.

WG2:8 Dissemination IHEs should establish partnerships with other institutions and actors in society, in order to disseminate results of research and development activities concerning sustainable development.

Actors: Government and local authorities, research financiers, researchers, NGOs, stakeholders

Time frame: Action initiated in 2003.

Monitoring: Each Baltic 21 sector monitors the research in its field.

WG3:5 Research and development

Actions

Monitoring and evaluation of progress in EE/ESD shouldn't 'walk on two legs'.

a) Self evaluation instruments for institutions/organizations should be developed, improved and disseminated.

b) Indicators for overall monitoring and evaluation of EE/ESD in the Baltic region should be developed, and a practice for collating information should be developed.

With regard to quality improvement at local level, guidelines should be developed, for instance on how to evaluate activities, or how to work out strategies for the organization (e.g. strategies for SD, learning strategies and management strategies), or on how to develop motivation, and also guidelines for becoming a self-learning organization.

Regarding quality improvement at Baltic (regional) level, the Baltic states should be committed to collecting the sort of information which has been collected for the WG reports frequently (every fourth year – some of the key information annually).

Guidelines for evaluation, collection of information (annually and/or every fourth year) should be developed.

Actors: Governments, local authorities

Monitoring: Monitoring group appointed by the Baltic21 EDU authorities

Time frame: 2002-

5.3 Indicators

Efforts on the development of indicators for education are under way in many different national bodies and international organizations such as OECD, EU and UNESCO. Indicators for sustainable development within the Baltic 21 co-operation are already in use. Such

indicators should of course also be used in Baltic 21E where appropriate. However in order to identify specific aspects of ESD, there is a need for additional indicators. The Education sector having agreed on common key or action areas as a first step, finds the most adequate way of monitoring the implementation of these actions in the action programme is by using indicators. The Education Sector has proposed indicators with a view to monitoring the agreed goal. Indicators can be formulated in the following areas:

1. Sustainability is clearly included in all national policy documents for education at different levels (national laws, ordinances, national curricula or equivalent documents, core curricula and syllabi)
2. Pupils/students/participants and teaching personnel possess competence in SD
3. SD aspects are clearly included in initial teacher training and in-service training for teaching personnel
4. Research and development activities on ESD are carried out
5. The school/IHE/association interacts with society.

6 Financing

In general, the financing of the implementation of Baltic 21E should be borne by each respective country. Many of the suggested actions can be included in ongoing development work in the education sector.

However, in order to promote and be able to disseminate such work, bilateral and multilateral donors could be addressed to assist countries, especially those with economies in transition (CITs) in the region and in particular request the following EU programmes, PHARE, Instrument for Structural Policies for pre-Accession (ISPA), Special Accession Program for Agriculture and Rural Development (SAPARD), TACIS, SOCRATES and LEONARDO da Vinci; as well as the Nordic Council of Ministers, the Nordic financing institutions, the Nordic Environmental Financing Corporation and the Nordic Environmental Fund to support education sector actions.

To properly judge the significance of costs and revenues for carrying out the proposed action programme, it is necessary to understand the value of education in introducing sustainable strategies in society. Education might be seen as an investment that will be paid back later in terms of better performance.

In some cases this is very concrete and can easily be evaluated. In industrial production, for instance, knowledge and competence in environmental management, a component of sustainable strategies in this sector, is repaid concretely as decreased resource use and decreased pollution. Typically some 10-30 % of energy and water can be saved, and pollution decreased substantially. The value of this is obviously enormous and far exceeds the investment in education. A similar decrease in resource consumption is seen in the building industry as new strategies are applied. Today average agricultural production in the eastern part of the Baltic Sea region is close to half of what we see in the west. This is not in the first place due to fertilizers, genetic varieties, machinery etc. It is much more a question of competence of the farmer. So called Good Agricultural Practice, GAP, according to recent

studies account for almost all of the difference in productivity. It is obvious that the value of better competence of farmers and a consequent increase in the quantity and quality of production would far outweigh any costs of education.

Even if the basic principle is that each country carries its own costs for introducing the action program in the educational sector in Baltic 21, some actions would be more easily carried out as regional-wide common projects. This will include the production of teaching/learning material. Such material can be used in many countries when they have been produced. The considerable efforts that will be needed to produce such material, should be of value throughout the entire B21 region. A similar approach should be applied to setting up the common Internet portal and website for Baltic 21 education. This is a regional project and should best be financed as a regional initiative.

7 Organization of the implementation of Baltic 21E and its Action programme

7.1 Actors and responsibilities

7.1.1 Governments and Authorities

The responsibilities of governments for the implementation of Baltic 21E will be according to the provisions of this document. In addition, governments will play a proactive role in their respective countries as regards promoting and facilitating the work of the implementation of Baltic 21E.

7.1.2 Local educational authorities and board of IHE

In the implementation of Baltic 21E, local educational authorities and central IHE level are assigned the responsibility for facilitating the Action programme and monitoring.

7.1.3 Schools and IHE

Headmasters and department leaders of IHEs are assigned the responsibility of actively supporting staff in their work on the implementation of the action programme.

7.1.4 Non-formal education

Governments should define the areas of the non-formal education field, which deserve to be supported and promote assignment of responsibility for implementation and follow-up of the action programme.

7.1.5 Partnership

Sustainable development is a responsibility for the whole of society, including all responsible actors and stakeholders. They have to be involved and take on responsibility for their parts. It is therefore recommended that educational institutions/NGOs seek co-operation in partnership with colleagues in the region, as well as other part of the society.

7.2 Steering, co-ordination and follow up

7.2.1 The political and ministerial level

The Baltic 21 process has its origins in the political commitment made by the countries of the Baltic Sea Region at the meeting of Prime Ministers in Nyborg 1998. The Prime Ministers should receive a progress report, including a review of progress in fulfilling the goals set-up, approximately every 5th year for consideration and for

decisions on any additional action needed. The review should be based on the agreed indicators and follow-up system.

The initiative to create Baltic 21E was taken by the Ministers of Education in the BSR. Education, Training and Research are important horizontal tools for attaining sustainable development and for the integration of environmental considerations in all sectors. Sustainable development is by its nature cross-sectoral. In order to fulfil the vision of a sustainable Baltic Sea Region, there is a strong need for full involvement of relevant sector ministers.

The Senior Officials Group (SOG) should include work within the Education sector in its work as is stated in the Report Baltic 21 Series No 1/98.

7.2.2 Co-ordination

It is recommended that the general co-ordination of the implementation be assigned to appointed Lead parties.

Each country is recommended to nominate one representative as national co-ordinator to be contact-persons for the lead parties. This person should also be responsible for reporting to the lead party representative on the proceedings in his/her country.

Additionally, each country is recommended to nominate one representative for each field of the three working groups in order to be the responsible co-ordinator in each field of education in the country, as well as for activities in collaboration with other countries in the BSR.

7.2.4 Follow-up of implementation

The follow-up of the implementation (monitoring) of the Baltic 21E objectives and action programme will require regular reporting from the responsible actor. Criteria and common reporting elements have to be developed and agreed by the SOG preferably before December 1, 2002.

Annex 1-6

- 1** *The Haga Declaration in total*
- 2** *Reports form working groups:*
 - 2.1** *Working group 1 (WG1)*
 - 2.2** *Working group 2 (WG2)*
 - 2.3** *Working group 3 (WG3)*
- 3** *List of contact persons for Baltic 21- education, Lead parties and Education Sector Network, nominated persons in respective working groups and participation in meetings*
- 4** *The general structures of education per country in the BSR*
- 5** *Examples of Good practice*
- 6** *Clarification of key-words and Connection between EE and ESD*