5 Current conditions for raising environmental awareness in the Baltic Sea catchment area

Many international and national actors influence the level of environmental awareness in the Baltic Sea area. To some degree they cooperate with each other but often their activities are overlapping. The overlapping activities can, on one hand, be wasting of available resources, but, on the other hand, they can strengthen the overall effect of those activities.

As mentioned in the introduction, in this project the 14 countries of the Baltic Sea catchment area are grouped into three subregions. The context of these subregions is also taken into account when analysing the current conditions for raising the level of environmental awareness.

5.1 The whole catchment area

5.1.1 Institutional framework

There are numerous international and national actors affecting to environmental issues in the Baltic Sea area: international conventions and agreements, ministerial declarations, intergovernmental organizations, financing institutions and assistance agencies, governmental agencies and parliaments, environmental non-governmental organizations (NGOs) and networks, organizations and networks for co-operation between regions and cities, and organizations and networks for business and trade.

Stephen F. Lintner

BOX 1: International cooperation and organizations around the Baltic Sea [32]

International Conventions and Agreements:

- Basel Convention, Bonn Convention, CITES, Convention on Biological Diversity, Convention on the Law of the Sea, Framework Convention on Climate Change, MARPOL 73/78, Ramsar Convention, Vienna Convention, Montreal Protocol, World Heritage Convention, Bern Convention, Århus Convention, Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Convention on the Transboundary Effects of Industrial Accidents, Espoo Convention, Convention on Long-range Transboundary Air Pollution (LRTAP), OSPAR, Gdansk Convention, Helsinki Convention 1974 and 1992.

Ministerial Declarations of relevance to the Baltic Sea Region:

- HELCOM Ministerial Declarations, Baltic Sea Summits (i.e. Ronneby Conference 1990, Visby Summit 1996, Riga Summit 1998), Council of the Baltic Sea States, VASAB, Barents Euro-Arctic Council, United Nations Conference on Environment and Development (UNCED), Convention on climate change (The Kyoto Protocol), Environment for Europe Process, European Council Presidency Conclusions,

Intergovernmental organizations:

- International: the European Union, Council of Europe, OSPAR Commission, UN ECE (UN Economic Commission for Europe), IMO (United Nations International Maritime Organization, OECD (Organization for Economic Co-operation and Development, OSCE (Organization for Security and Co-operation in Europe), Ramsar Convention Bureau, UN (United Nations), UNCED (UN Conference on Environment and Development,1992 Rio Declaration), UNESCO UN (Educational, Scientific and Cultural Organization), UN ECE (UN Economic Commission for Europe), UNDP (UN Development Programme), UNEP (United Nations Environment Programme), UNEP GRID-Arendal, WHO (World Health Organization, WMO (World Meteorological Organization), WTO (World Trade Organization, formerly GATT)
- Regional: Baltic Council of Ministers, Council of the Baltic Sea States (CBSS), International Baltic Sea Fisheries Commission (IBSFC), Helsinki Commission (HELCOM), Nordic Council of Ministers

Financing institutions and assistance agencies

- International: GEF (Global Environment Facility), World Bank, EBRD (European Bank for Reconstruction and Development), EIB (European Investment Bank), USAid (US Agency for International Development)
- Regional/national: NEFCO (Nordic Environment Finance Corporation), NIB (Nordic Investment Bank), DANIDA (Danish International Development Agency), Finnish Aid, GTZ (German international development agency), Norad (Norwegian Agency for Development Cooperation), SIDA (Swedish International Development Co-operation Agency)

Governmental agencies and parliaments

- National ministries, government agencies and parliaments in the countries within the Baltic Sea Region.
- International fora for parliamentary co-operation: Baltic Assembly, Council of Europe Parliamentary Assembly, GLOBE (Global Legislators Organization for a Balanced Environment), European Parliament, Inter-Parliamentary Union, Nordic Council, OSCE Parliamentary Assembly, Parliamentary Conferences on Co-operation in the Baltic Sea Area

Environmental non-governmental organizations (NGOs) and networks

- International: ACOPS (Advisory Committee on Protection of the Sea),BirdLife, Friends of the Earth International, European Centre for Nature Conservation, EEB (European Environmental Bureau), EPE (European Partners for the Environment), EUCC (European Union for Coastal Conservation), Greenpeace, IISD (International Institute for Sustainable Development), IUCN (World Conservation Union), REC (Regional Environmental Center for Central and Eastern Europe), Taiga Rescue Network, T & E (European Federation for Transport and Environment), WCMC (World Conservation Monitoring Centre), Worldwatch Institute, WRI (World Resources Institute), WWF (Worldwide Fund for Nature),
- Regional/Subregional: ABNP (Association of Baltic National Parks), BALLAD, Baltic Institute of Finland, Baltic Institute (Sweden), Baltic Sea Foundation, Baltic Sea Alliance Interactive Data Workshop, BEF (Baltic Environmental Forum), BSP (Baltic Sea Project), BUP (Baltic University Programme), Baltic Sea Youth Forum, CCB (Coalition Clean Baltic), Environment Brigade, SMF (Stockholm Marine Research Centre), UMF (Umea Marine Sciences Centre), SEI (Stockholm Environment Institute), TEIA (Transboundary Environmental Information Agency)

Organizations and networks for co-operation between regions and cities

- International: CEMR (Council of European Municipalities and Regions), ICLEI (International Council for Local Environmental Initiatives,)
- Regional: BTC (Baltic Tourism Commission), BSSSC (Baltic Sea States Subregional Cooperation),Baltic Seven Islands, ECAT (Environmental Centres For Administration and Technology), UBC (Union of the Baltic Cities)

Organizations and networks for business and trade

- International: E&P FORUM (Oil Industry International Exploration & Production Forum), EURO CHLOR (European Chlor-Alkali Industry), ESPO (European Community Sea Ports Organization), EuDA (European Dredging Association), EFMA (European Fertilizer Manufacturers' Association), ICC (International Chamber of Commerce)
- Regional: BIMCO (Baltic and International Maritime Council), Baltic Sea Business Summit 1998, Baltic Net - Westermann and Partner, BPO (Baltic Ports Organization), Baltic Sea Chambers of Commerce Association

Many of the already existing regional and national information and communication structures and strategies are quite much in line with the current interests of the **European Union** in the Baltic Sea catchment area. These EU interests consist at present mainly of the EU enlargement, the Northern Dimension initiative and the future cooperation with Russia. Moreover, the European Union has one of the most important regional environmental actors, the European Environment Agency (EEA). EU is also an active member of important regional actors like HELCOM and forums like Baltic Agenda 21.

The **European Environment Agency (EEA)** was launched by the European Union in 1993 with a mandate to orchestrate, cross-check and put to strategic use information of relevance to the protection and improvement of Europe's environment. The main objective of the EEA is to provide the European Community and its member states with objective, reliable and comparable information at the European level enabling them to take the requisite measures to protect the environment, to assess the results of such measures and to ensure that the public is properly informed about the state of the environment.[33] Moreover, the objective of the EEA is, to that end, to provide the necessary technical and scientific support.

The first Convention on the Protection of the Marine Environment of the Baltic Sea Area, **Helsinki Convention** was signed in 1974 by the coastal states of the Baltic Sea at that time. In 1992, a new Convention was signed by all the countries bordering on the Baltic Sea and by the European Economic Community. The governing body of the Convention is the Helsinki Commission – **Baltic Marine Environment Protection Commission** – also known as **HELCOM**. HELCOM adopts recommendations to be incorporated in the national legislation of the member countries, launches international programmes and projects and carries out assessments concerning the Baltic Sea area.

BOX 2: European Environment Agency (EEA) [33]

Current membership of the European Environment Agency includes all 15 EU states, as well as Iceland, Liechtenstein and Norway. The geographical scope of the Agency work is not confined to member states of the EU; membership is open to other countries that share the concerns of the EU and its member states and the objectives of the Agency.

The EEA is currently developing the European Environmental Reference Centre (E^2RC). By developing it the EEA aims to establish a public information service that will be recognised throughout Europe as the main gateway to access easily understandable and well structured environmental information, wherever possible in the user's native language. The E^2RC will be launched in the autumn 1999 and will include a series of WWW based services to facilitate public access to information.

The job of data handling, analysis and assessment is not centralised in the EEA but is done by national monitoring centres and other bodies in the European Information and Observation Network (EIONET). The EEA assesses the resulting data and information and distributes them in a streamlined form to would-be users. The EEA also has a duty to ensure the broad public dissemination of these conclusions through regular state of the environment reports, specialised assessment and bulletins and by other means.

Under the HELCOM activities, the **Baltic Sea Joint Comprehensive Environmental Action Programme** (JCP) was approved by the ministers of the environment in 1992. Under the JCP in the Baltic Sea catchment area 132 polluting so-called hot spots were defined, from which 17 have been deleted until now. In the future the activities under the JCP will be even more focused on removing the hot spots from the list. The hot spots include traditional point sources of pollution such as municipal and industrial sources, as well as non-point sources from agriculture, rural settlements, and land-based transportation. Reducing the harmful effects of the hot spots associated with munici-

BOX 3: HELCOM

Main HELCOM activities

Assessment activities:

I Periodic Assessments (every 5 years)
II Pollutant Load Compilation (every 5 years)
III Thematic reports (annual/biennial)

Other activities:

I Marine environmental monitoring and quality assurance in accordance with the COMBINE Programme
II Nature conservation, biodiversity and Integrated Coastal Zone Management
III Evaluation of waterborne and airborne pollutant loads from land-based sources
IV Elaboration of technical measures to reduce discharges into water and emissions into air from urban areas, industry and non-point sources
V HELCOM Recommendations and follow-up of these Recommendations, including harmonization of regulations between HELCOM and the EU
VI Prevention of pollution from ships
VII Elaboration of cooperative actions in combatting of oil spills and other harmful substances
VIII Implementation of the Joint Comprehensive Programme (JCP) with the focus on the polluting hot spots
IX Providing specialized information and analysis as a basis for technical design, political adoption, public acceptance and environmental evaluation of measures to protect the Baltic Sea marine environment.

BOX 4: Baltic Agenda 21

34,35,36

Agenda 21 is a 900 page document describing the way to a sustainable future. Over 100 heads of states agreed on strategies for solving some of the greatest problems the world is facing; destruction of resources, increased poverty and ill-health. The aim of Agenda 21 is that all municipal areas and cities (local level) create their own action plan adjusted to their special needs and circumstances.

Baltic 21 was adopted by the CBSS (Council of the Baltic Sea States) in June 1998, as a local Agenda 21 for the Baltic Sea area. It focuses on the sectors of agriculture, energy, fisheries, forests, industry, tourism, transport and spatial planning. It consists of, among others, an action programme, as well as goals and visions for the Baltic Sea and its environment.

pal and industrial pollution has been relatively successful, although it proved to be difficult in some cases, partially due to financial and technical reasons. Reducing the non-point source pollution has turned out to be a challenging task. This task is directly connected to the level of environmental awareness of a vast number of people whose lives exert a direct impact on the state of the environment. For this reason, the sixth element of the JCP concentrates on the issue of public awareness and environmental education. The aim is to develop a broad and sustainable base of support for the implementation of the JCP and for environmental protection policy issues in general.

Baltic Agenda 21 is an international forum which plays an important role in the Baltic Sea area. Agenda 21 came into being during the first Earth Summit, the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. One of the goals of Baltic Agenda 21 is for different actors and all levels of society to gain a high awareness of the steps and processes leading to sustainable development. The approach is, therefore, to integrate environmental awareness into all the eight sectors of activities in Baltic Agenda 21.

5.1.2 The changes in the roles of regional and international actors

The political and economic changes which took place in the 1990s had an impact also on the regional and international actors active in the Baltic Sea catchment area. When Finland and Sweden joined the EU in 1995, the EU's

role expanded in this area. The countries currently striving for future EU membership will harmonise their national laws with the EU legislation. The harmonisation process has also, to some degree, stimulated the development of environmental awareness and public participation activities in the accession countries. The EU influence is also apparent through the EEA, which was described in Box 2. Moreover, the EU launches and finances cooperation and development programmes targeted to the countries outside the Union, e.g. Tacis and Phare programmes.

The European Union is preparing to strengthen its ***"Northern Dimension"***. This means, among other things, the concentration of more political and financial efforts around the Baltic Sea. The EU member countries situated in the Baltic Sea area have been actively working to strengthen the Northern Dimension within the EU and therefore to improve the relations between the EU and Russia. Russia emerged as a new state along with Belarus, Estonia, Latvia, Lithuania and Ukraine after the disintegration of the Soviet Union. The political and economic changes in Russian society strongly affect the organization and financing of the dissemination of environmental information, and of environmental education and other awareness-raising activities. Also the severe economic crisis that Russia faced at the end of the 1990s, means that progress in improving the situation will continue to be slow. The above mentioned factors increase the importance of international cooperation in these fields of activity. It is important to seek out partners from different interest groups and build up cooperation and synergy among them.

The Northern Dimension concept is still evolving in and developing towards a more practical direction. On the basis of the conference results of the foreign minister-level during Finland's presidency of the EU, in autumn 1999, the European Council is expected to decide on any subsequent measures to make the content of the Northern Dimension more tangible.

5.1.3 Availability of environmental information and public participation

There are many factors, which determine the availability and accessibility of environmental information in the Baltic Sea catchment area. One of them is the **lack of** comparable, reliable and relevant **environmental information**. Very often also the existing data cannot be compared because **different monitoring systems** were used for collection of data. For this reason, the task of harmonising the monitoring and assessment systems, collecting data, setting up databases, preparing informative reports and public information handouts, and delivering these to the various interest groups and through the public information channels has been very demanding for the various international, governmental, business and public organizations around the Baltic Sea.

Another problem is that the existing environmental information is unequally available in the different subregions. For the most part, the reason is that although the development of technology offers new opportunities, such as better telecommunications and the integration of multimedia, the **financial problems** facing some of the countries reduces the chances to buy and use expensive equipment, and to buy books and other printed materials.

Some of the new and relevant environmental information has been excluded from the public domain and discourse, because of the "**knowledge competition**" between businesses and research institutions, including some public universities. Even though environmental management systems and environmental reporting are supposed to provide information on companies' environmental performance,

BOX 5: Northern Dimension [37,38, 39]

Through the enlargement of the EU, the Baltic Sea will become a main internal waterway of the Union, which is one reason why the Northern Dimension is important to the EU. Moreover, the Northern Dimension initiative arose largely from the fact that the EU now shares a common border with Russia. By means of addressing cross-border problems and investigating the opportunities in the Baltic Sea and Barents regions, the Northern Dimension can contribute to the implementation of the EU's general Russian policy.

The Northern Dimension initiative builds upon existing Union instruments, programmes and financing, and upon international agreements. The Northern Dimension concept should be incorporated where there is clear added value, within the existing instruments and frameworks (such as TACIS and PHARE).

The added value of the Northern Dimension initiative can be summarised under eight categories:

- Energy and raw materials – studying the possible future construction of new gas pipelines from north-west Russia. Moreover, north-west Russia is rich in minerals and in forest resources.
- Environment and nuclear safety – promoting the sustainable development of the countries in the region by integrating environmental considerations in other activities. Reducing nuclear risks in north-west Russia, which has approximately 150 nuclear submarines.
- Cross-border cooperation – improving border procedures and preventing illegal trafficking.
- Trade – removal of trade barriers.
- Transport and communication – developing the region's transport infrastructure, telecommunications and postal infrastructures, and increasing access to the Internet.
- Health and other social issues – improving public health systems, fighting against communicable diseases and drug abuse.
- Research – promoting opportunities for young research workers.

some high technology companies are imposing restrictions on new environmental information because of competition with other companies. This problem manifests itself especially in such rapidly developing fields as biotechnology and genetic engineering, but it is also seen in traditional engineering dealing with environmental technology and in the nuclear and military industries. Moreover, in all the countries considered, a new trend has appeared where research institutes or the public administration, which are generally financed by the tax payers, **charge fees** for the previously free data and information they produce.

The accessibility of environmental information in the Baltic Sea area is also determined by the existing **language barriers**. For instance, much of the international work in the Baltic area, like HELCOM's work and Baltic Agenda 21 is done in English and documents are issued in English, as well. This is an obstacle for many people, even though English-language skills have lately become more common in this area. The non-EU countries' inhabitants face the same problem with the EU documents, although most of the major documents are translated into several languages spoken in the EU. Environmental information originating in the non-EU countries is mostly in their native languages – as well as national information all over – which makes it difficult to obtain and utilise by outsiders.

In some Baltic Sea area countries, problems with obtaining environmental information stem from previous **restrictive** administrative and political **practices**, which are slowly changing to be less restrictive.

All the above-mentioned factors have influenced the ability of the decision-makers and the public to take en-

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vironmental concerns into account in their working lives and everyday lives.

An important step in improving the situation is the Convention on Access to Information and Public Participation, which is also called **Århus Convention**. It is a binding and legislative instrument, which will help to establish more open practices in distributing environmental information and facilitating public participation. [41]

In the European Union countries the public's basic rights to receive environmental information are secured in accordance with the EU Directive on **Access to Environmental Information** (90/313/EEC), presently under revision. This directive also specifies reasons for non-disclosure of documents and other information. Another important EU directive with large-scale effects on the access to and spreading of environmental information and hence raising awareness is the **Eco-Management and Audit Scheme (EMAS)**.

The public's right to access to European Parliament, European Council and European Commission documents was established in the **Treaty of Amsterdam** – agreed on by the Member States of the European Union in June 1997 and was ratified in May 1999.[43] The Treaty of Amsterdam provisions reflect, among others, the cross-border nature of environmental problems and stress the importance of public support for action at the European level. According to the Treaty, the achievement of sustainable development becomes one of the explicit objectives of the Union. One means of promoting sustainable development is the integration of environmental protection requirements into the definition and implementation of all Community policies.[44]

5.2 Subregional situation

While the multitude of languages divides citizens throughout the region, there are many features that are shared by the subregional groups of countries like, for instance, their financial situation, international cooperation partners or environmental policy development. The development of environmental policy varies noticeably in the different subregions.

BOX 6: Århus Convention [41]

The **UN/ECE Convention on Access to Information and Public Participation** submitted by the United Nations Economic Commission for Europe, was signed by the Fourth "Environment for Europe" Ministerial Conference on June 25th, 1998, in Århus, Denmark. Signatories before June 1999 comprised the European Community and 35 countries, including the Czech Republic, Denmark, Estonia, Finland, Latvia, Lithuania, Norway, Poland, Sweden and Ukraine.

According to the Convention, the adequate possibilities for public participation require:

- access to information,
- a right to participate in the decision-making process, and
- access to justice.

One of the principle goals of the Århus Convention is to make people aware of their established rights to access to information, public participation in decision-making and access to justice in environmental matters. The Convention should strengthen the position of the public in obtaining the necessary environmental information in most countries in the Baltic Sea catchment area. Additionally, democracy and human rights should benefit from the processes subsequent to the implementation of the Århus Convention. However, the technical development of necessary information systems will take time. It will also take time to develop open administrative practices as suggested in the Convention.

Box 7: EMAS [42]

Eco-Management and Audit Scheme (EMAS) Directive (EEC/93/1836) was devised by the European Communities and came into operation in 1995. It was designed to invigorate the adoption of good environmental management practice in industry, including such methods as life-cycle analyses, integrated pollution control, materials and product substitution, recycling and environmental impact assessment.

EMAS requires an Environmental Policy to be in existence within an organization, fully supported by senior management, and outlining the policies of the company, not only to the staff but to the general public and other stake holders. Information about the policy should be publicised in non-technical language so that the majority of readers can understand it. Additionally, the company has to conduct an environmental review of its operations, establish a programme, implement comprehensive environmental management systems and conduct regular environmental audits of its activities. The audits are to provide additional information in order to exercise effective management of the system and offer an opportunity for improvement. Under EMAS the bare minimum frequency for an audit is at least once every three years. EMAS is not a legally binding but a voluntary practice, that includes a wider publicity than ISO standards. It is useful for companies in their strategy building, management and marketing.

The countries of **subregions 1 and 2** are currently undergoing a process of **environmental policy formation**. In subregion 2 – which embraces the EU applicant countries – the national environmental legislation is being harmonised with the EU legislation and the EU environmental practices are being adopted.

The current stage of environmental policy development in **subregion 3** is **policy evaluation**. For these countries it is important to evaluate the results of international conventions, programmes and initiatives influencing the environment – their achievements and weaknesses. They are also developing further economic and financial means, regulation as well as information for coordinating and directing the market mechanism towards sustainable practices e.g. in energy and climate policy.

5.2.1 Subregion 1 (Russia, Belarus and Ukraine)

- The development of civil society and democracy constitute important presuppositions for promoting and implementing effective environmental policy and for increasing environmental awareness in this region.
- The role of different official organizations in producing and distributing environmental information and organising environmental education and training has been growing. However, there exists a need to accelerate the development. Economic difficulties restrict the planning and implementation of environmental awareness activities.
- The official activities in financing, organising and maintaining initiatives and projects for increasing environmental awareness remain insufficient.
- Different combinations of actors from non-governmental organizations, the media, business, and professional organizations are currently active in the work of raising environmental awareness.
- International cooperation in various investment and other initiatives have a tendency to increase environmental awareness because the project framework or the preconditions of the financing often demand environmental considerations.
- International cooperation enhances the motivation to act, while promoting environmental awareness and helping to carry out action programmes and projects.
- There are several environmental projects in subregion 1 which are in need of financial assistance from abroad. External support is often necessary to help keep the basic project functions operational.
- Since the banking system is still developing in this subregion, money flow is often unpredictable.
- In many international projects the national and local cooperating partners, for different reasons, have sometimes encountered difficulties in carrying out their share of the work.

5.2.2 Subregion 2 (Estonia, Latvia, Lithuania, Poland, the Czech Republic and Slovakia)

- Application for EU membership has stimulated the development of national and international coherent environmental policies, and has motivated national institutions to join, support or initiate international and national environmental projects and other activities.
- The adoption of the EU legislation and standards involves high costs.[1] Therefore, EU financial support is an important factor in the adjustment process.
- There are several environmental projects and initiatives in subregion 2 which are in need of financial assistance from abroad.
- International cooperation in various investment and other initiatives have a tendency to raise environmental awareness because

the project framework or the preconditions of the financing often demand environmental considerations.
- International cooperation enhances the motivation to act, while promoting environmental awareness and helping to carry out action programmes and projects.

5.2.3 Subregion 3 (Denmark, Finland, Germany, Norway and Sweden)

- The European Union plays a relevant role in supporting international projects and other activities that would have been difficult to implement before the last EU enlargement in 1995.
- The Northern Dimension in the EU policy (See Box 5) will offer considerable extra support and resources for the international cooperation around the Sea.
- The Nordic Council has been the traditional forum for cooperation among the Nordic Countries. The Nordic practice of making information available makes it easy for people to increase their environmental awareness. The Nordic countries are thus clearly striving for open access to information, also within the EU framework.
- International cooperation is active since most of the professional and specialist organizations are involved nearly everyday with international contacts.
- The level of public participation within subregion 3 is relatively high. There are several independent environmental NGOs, as well as NGOs partially supported by the state, the EU, or the public.

Katarzyna Kreft-Burman

6 The need for environmental information and education

The inhabitants of the Baltic Sea area influence the state of the environment in their private, professional and political lives (see Fig. 2.4). In all cases individual decisions often touch on vital environmental matters. Therefore, the higher the level of environmental awareness, the more sustainable choices are likely to be made and, in consequence, the better the state of the environment.

Since the countries of the Baltic Sea area have different characteristics of the stages of environmental awareness (as discussed in the chapter 2), the already existing and potential demand for environmental information, education and training is extensive and variable.

6.1 Regional needs for environmental information and education

6.1.1 Public environmental information

According to the respondents of the questionnaire in this project, easily **comprehensible** and **comparable basic information** about the **state of the environment**, and its influence on health and the trends in this field, is constantly needed among the inhabitants of the Baltic Sea area.[1] There is a **need to compare** the condition of the local environment with other areas. People are interested in the condition of their surrounding environment because it exerts a direct impact on their and their children's health and well-being. This fact is often as the stimulus for generating a basic interest in environmental problems. According to the studies conducted, the increasing need for environmental information is often based on health concerns especially in subregion 1, which includes large areas suffering from acute environmental problems.

Once people become worried about the state of the environment, they need information on how to stop the deterioration of the environment and on what their role in this process might be. For this reason, basic information is needed enabling sustainable everyday life practices, such as advice on decreasing water consumption or sorting household waste for recycling purposes. People also begin to demand ecologically clean food and environmentally-friendly products. For the basis of their decisions, consumers need clear environmental information about products and services as well as their actual environmental costs.

Environmental product information should be included in product declarations.
See Chapter 9, the corresponding item no. 5.7

Eco-labelling and certification should be widely applied.
See Chapter 9, the corresponding item no. 5.8

Enhancing consumers' environmental awareness is one of the goals of Agenda 21 for the Baltic Sea area. However, this aim has not usually become a priority for European and national administration – not even consumer organizations. Most consumer organizations still work merely as expert organiza-

tions and not as active campaigners for enhancing consumers' environmental awareness.

Consumer organizations should be founded and other organizations should be taking up environmental consumer issues.
See Chapter 9, the corresponding item no. 5.9

Consumer organizations might participate more actively in building environmental awareness in consumers in the Baltic Sea area. They could strengthen the awareness of the public administration, businesses community and consumers of the fact that environmental quality is an indispensable part of the total quality of goods and products during the production process and during a product's life cycle.

In a democracy, access to environmental information is considered to be a given right. Such information is needed, for instance, while making voting decisions. Those people who actively seek environmental information benefit from the Århus Convention (See Chapter 5, Box 6) resolutions.

Information on the application of the Århus Convention should be made available; information that is public in accordance with the Convention, should be made available.
See Chapter 9, the corresponding item no. 1.2

The implementation of the Århus Convention creates new challenges and possibilities to reduce the differences in the access to information, the scope of public participation in decision-making and the access to justice in environmental matters. Therefore, information on how to implement the Århus Convention should be prepared and disseminated, and relevant environmental material should be made available in accordance with the Convention.

At the moment there are no measurement methods for assessing the level of environmental awareness that could be applied internationally. Because of the abstract nature of the environmental awareness concept, it is difficult to define suitable indicators. Therefore, more extensive studies must be conducted in this field.

Jari Kostet

International measurement methods should be developed and used for assessing the level of environmental awareness; assessments should be made of environmental awareness levels in the Baltic Sea area countries.
See Chapter 9, the corresponding item no. 1.3

6.1.2 Public environmental education and training

Environmental education and training opportunities both for children and adults have grown within the region. This is due to the actual need for personal and professional environmental information among individuals. Environmental awareness should be nowadays considered a valuable part of individual personal development. **High environmental awareness** in the public leads to both **economic and ecological benefits** in the society. For example, the export of German environmental know-how is very strong: Germany is the world's leading exporter of environmental protection technology, with a global market share of 18.7 percent, closely followed by the USA with

European Commission

18.5 percent (1995).[45] Such economic benefits are obtained mostly in subregion 3, but also to some extent in the other subregions. The growing realization of the economic and ecological benefits in the society as a result of higher environmental awareness has considerably increased the **status of environmental education** on different levels of the educational system - kindergartens, primary and secondary education and universities. This in turn has improved the contents and pedagogic practices within this field of education. However, in spite of the positive direction of the changes, the amount and the level of environmental education varies across the region. Many potential activities face obstacles in some of the countries because of economic difficulties.

Kindergartens

Environmental education and training in kindergartens should be supported with appropriate teaching material and facilities.
See Chapter 9, the corresponding item no. 5.10.

Environmental education and training should already start in pre-school. The kindergarten itself and its immediate surroundings offer many possibilities to make children acquainted with environmental matters. The everyday functions of institutions such as food preparation, waste management, heating or cleaning can be used as good examples promoting sustainable practices and ideas. Kindergartens need proper facilities for this kind of activities. Furthermore, taking care of the plants and vegetation outside the building, or handling the compost pile can be included in children' s daily routine. The new skills and ideas learnt in kindergarten can be subsequently adopted at home and indirectly have an impact on the environmental awareness of the parents.

In order to improve the possibilities of raising environmental awareness at the pre-school level of education, it is important to provide the administrators with adequate training and a set of instructions and advice on how to run an environmentally-friendly kindergarten. The kindergarten teachers should be trained and should receive ready-made educational material including examples of games and activities which develop environmental awareness in children. Parents should be informed about the importance of an environmental education and training, and should be actively involved in the process.

Schools and secondary education

Schools should be supplied with integrated environmental curricula, material, training and facilities.
See Chapter 9, the corresponding item no. 5.11

Environmental education at school is the next stage of enhancing children's environmental awareness. In principle, two mutually interactive levels of activities contribute to it. First, the very organization of environmentally friendly schools and, second, the content of an environmental education. As in kindergartens, the school administrators should be trained and provided instructions on sustainable management methods; and the schools should have

appropriate facilities for sustainable practicies. Schoolteachers should from beginning of their basic studies be trained in order to apply the sustainable issues and activities in all education and practice. Moreover, the support of the parents, NGOs and the local administration plays an important role. At this level it must be remembered that children could find nothing more discouraging than, for example, witnessing their carefully sorted "waste" being dumped in an ordinary landfill as mixed garbage.

The success of environmental education depends to a large degree on good professional skills of the teachers and an appropriate curriculum. For this reason:

- teachers' environmental education capacity should be ensured throughout their whole professional career by integrating environmental concerns to other subjects
- easily applicable environmental education curricula and educational material should be prepared and distributed by the ministries of education.
- networks between schools, administration, NGOs and homes should be built up.

Schools with environmental programmes do exist – in different forms and under various names (e.g., Baltic Sea Project, Globe Project) – in most countries around the Sea. These schools have often served as development sites for curricula, methods and material for environmental education. Other schools can take advantage of the experience and expertise of these specialised schools when setting up their own environmental education programmes.

Universities, institutes and public education for adults

Universities, other public education institutes for adults and research/development institutes should be supplied by integrated environmental training, curricula and study material as well as facilities.
See Chapter 9, the corresponding item no. 5.12

Sustainable development has to be integrated into all study programmes and particular courses. For this reason, lecturers need training and assistance in planning environmental education material and courses. Easy-to-use education material with accompanying visual aids, such as video or CD-Roms and information on Internet sites is needed. Therefore, packages of general environmental material for teachers and researchers in the regional level should be produced.

The environmental education material could be adapted to more specific local or professional conditions (with local examples) and translated to local languages for the purposes of schools, universities and other institutes. Therefore, useful environmental education material would be created in a cost-effective way by utilising already existing material from other countries.

Universities and other institutes should also be managed sustainably. One possibility that is considered is implementing environmental management systems at universities, higher education institutes as well as research/development institutes.

6.1.3 Professionally-oriented environmental information

In the project questionnaire respondents gave their opinions about the f**actors that increase the need of environmental information**.[1] The need for environmental information is considered to increase, especially because of cooperation with the European Union and staying professionally up-to date. These are among the most important factors in all professional groups. Other international cooperation, saving resources, legislative changes, health reasons, policy changes and customers demand are, in this order, the next important factors.

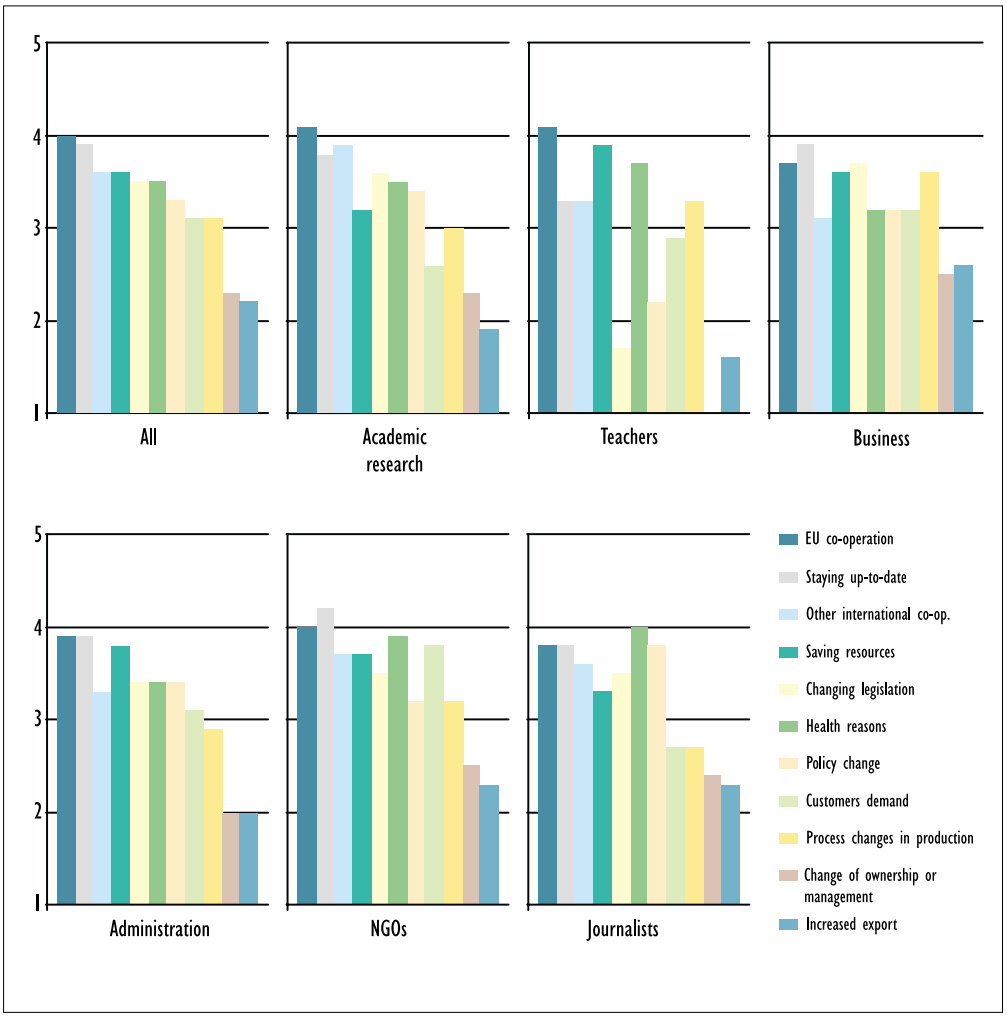

Figure 6.1. Factors increasing the need of environmental information in respondents (138) field of work. Comparison between different professional groups. Scale of evaluations: 1 = "not at all", 2 = "not very much", 3 = "to some extent", 4 = "quite much" and 5 = "very much".

Following distinctions can be made, when comparing the answers from different professional groups (see Fig. 6.1):

- The importance of the cooperation with the European Union (EU) is rather equally important in each professional group.
- For academic researchers the most important factors according to the respondents are the EU and other international cooperation as well as staying up-to-date
- For teachers the EU cooperation, saving resources and health reasons seem to be the most important factors
- For business, industry and trade the most important factors are staying up-to-date, cooperation with the European Union, changing legislation, saving resources and process changes in production
- For administration the most significant factors that increase the need of environmental information are the EU cooperation, staying up-to-date and saving resources
- For NGOs the most important factors are staying up-to-date, the EU cooperation, health reasons and customers demand
- For journalists the most important factors according to the respondents are health reasons, the EU cooperation, staying up-to-date, and policy changes.

Experts, professional groups and interest organizations in the Baltic Sea catchment area should have access to the core information concerning environment and environmental awareness around the Baltic Sea. This information – so-called **backbone information** – will be discussed in chapter 7.1 (p. 72).

6.1.4 Professionally-oriented environmental education and training

Professionals expertise for understanding, analysing and evaluating environmental issues in their work needs to increase. Professionals often need training in order to improve their knowledge and enhance motivation to more sustainable practices in their work. In environmental communication the networks between different professional groups are efficient on all levels. For instance, establishing and maintaining environmental management systems require broad and continuous education and training of the whole personnel. In this chapter the need for professional education is discussed separately for each professional group; for teachers and researchers see chapter 6.1.2 and for people working in NGOs see chapter 7.1.4.

Business organizations

Environmental knowledge and sustainable skills are effectively spreading through business to business activities – such as demands of environmental certificates and sustainable practices for subcontractors – , gradually reaching small companies also. Still, the situation in different subregions varies a lot. Education and training within various industrial associations and separate enterprises is very challenging. This education should include laws and regulations concerning environment as well as the technical and other possibilities to act accordingly. The main aim, especially in subregions 1 and 2, is to increase the environmental awareness inside the industry and business itself.

European Commission

Environmental policies and programmes including education and training should be established for local and international business and industrial companies, preferably as integral parts of environmental management systems and investments projects.
See Chapter 9, the corresponding item no. 5.5

New means of disseminating environmental information and improving environmental education within business and industrial organizations have recently begun to be adopted throughout the whole region. For example, environmental management systems, such as the ISO 14001 standard and the EU's environmental management and audit scheme (EMAS) have become more and more common in European business and industrial organizations.

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Organizations implement these systems to improve their environmental performance. Environmental education and training are integral parts of the environmental management systems. Environmental management systems have therefore a noticeable impact on environmental education and training all over the Europe.

The use of environmental management systems in business and industrial organizations offers opportunities for the present and potential future EU member states in the Baltic Sea area. According to the respondents, subregions 1 and 2 exhibit a strong interest in promoting similar phenomenon throughout all subregions for competitive reasons and for gaining experience in business. One step in achieving this goal is improving the networking between business in the whole area.

Environmental networking between businesses in different subregions would play an important role in the exchange of information and experiences from one subregion to another.

Success stories in combining environmental and business performance need to be well disseminated from one subregion to another.
See Chapter 9, the corresponding item no. 5.6.

The understanding of possible benefits resulting from interaction between environmental and business performance has to be improved, especially in the subregion 1. The need for environmental information and training for business organizations in the Central and Eastern European (CEE) countries ought to be evaluated. According to the respondents, information about environmental material and training possibilities should be distributed directly to the people responsible for environmental and information matters in private enterprises in the CEE countries.[1]

Cooperative projects between national and international business information organizations and Chambers of Commerce would probably have the best chance for success in designing, establishing and implementing environmental awareness programmes in business and industry.

Journalists

One of the characteristics of a democratic society is the free flow of information. To this end, journalists play an important role. All journalists would benefit from greater knowledge of environmental topics and from environmental education.

Key environmental, economic, international, political, etc. journalists should be trained and should be offered exchange programmes.
See Chapter 9, the corresponding item no. 5.14.

Journalists specialising on environmental issues should be able to integrate economic and international aspects into their work. For this purpose, they need adequate training and information. Promoting networking between journalists writing on environment might also improve the situation.

On the other hand, political journalists and journalists writing on economic, general and international matters, often lack sufficient basic knowledge on key environmental issues. More environmental information and up-to-date background material that is written in their "language" and in a journalistic style with graphs etc. would help them to include environ-

mental aspects in their articles or news reports. Moreover, personal contacts and training courses should also be included in environmental education.

The exchange of documents, videos, or programmes on environmental matters for the purposes of media should be organised through established networks of interested actors in the Baltic Sea area; this will be discussed more in chapter 8.1.2.

Administration and political decision-makers

Environmental education and training for administrators and political decision-makers should be promoted.
See Chapter 9, the corresponding items no. 5.1 and no. 3.5

Administrators and political decision-makers should be supported concerning cooperation and communication with other actors of the society.
See Chapter 9, the corresponding items no. 5.2 and no. 3.5

The administrators and political decision-makers need the abilities to analyse the main trends of the state of environment and the matters influencing them. They need to understand what is important and what is their own role in striving to good environment. The administrators and political decision-makers should be given training in environmental matters and should be encouraged to take environment into account in decision-making in their own fields of specialities. Environmental awareness should be an integral part of the professional skills of the administrative staff. In general, the administrators and political decision-makers should also be able to see the civil society as an open society made up of many important actors, and they should comprehend the society's need for information and cooperation. The willingness to communication increases trough understanding the essentiality of environmental matters.

Farmers

The ways and means of encouraging farmers to become more interested in and concerned about the environment has been widely discussed. One solution has been to take a regulatory approach through national legislation and EU directives, as well as applying financial incentives along with the market mechanisms (see Fig. 2.1). For instance, in the EU countries of the Baltic Sea catchment area, farmers are increasingly required to take the environment into account for financial and marketing reasons, such as to receive agricultural production subsidies or to meet the demands of important consumer groups.

Farmers should be assisted in sustainable agricultural practises and in maintaining them.
See Chapter 9, the corresponding item no. 5.3

Ecological farming should be promoted.
See Chapter 9, the corresponding item no. 5.4.

Farmers may benefit more from environmental education and training if its content is closely linked to their professional concerns and local habits. Local advisory networks, farmers cooperatives and associations and the tradition of caring for one's own land, since a farmer's livelihood depends on land, can help and provide motivation for sustainable practices.

6.2 Subregional needs for environmental information, education and training

As mentioned in the chapter 6.1.3, the project questionnaire respondents gave their opinions about the **factors that increase the need of environmental information** in their field of work. The need for environmental information was considered to increase especially

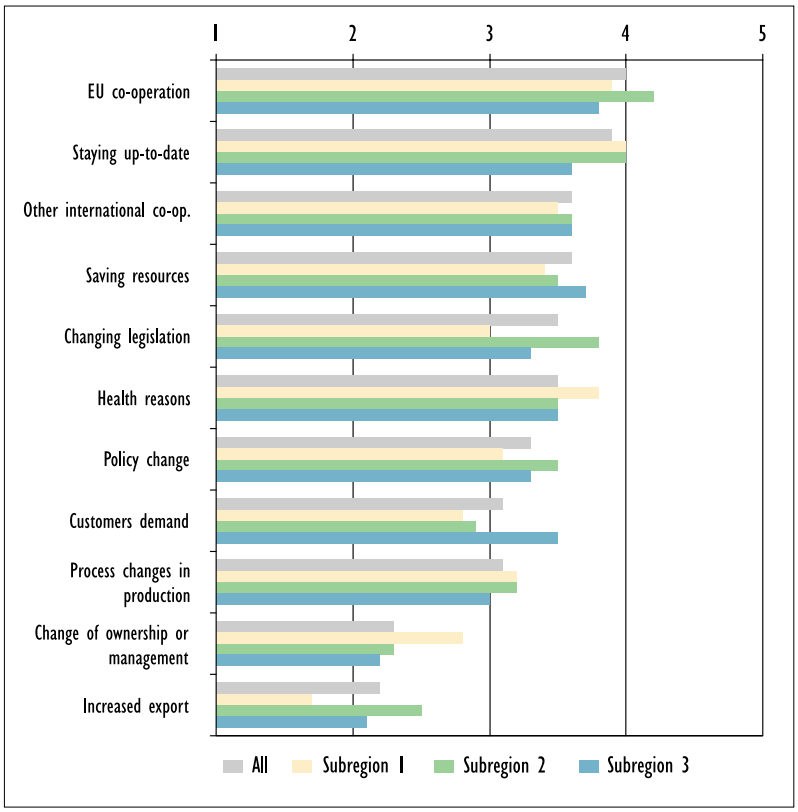

Figure 6.2. Factors increasing the need of environmental information in respondents (138) field of work. Comparison between different subregions. Scale of evaluations: 1 = "not at all", 2 = "not very much", 3 = "to some extent", 4 = "quite much" and 5 = "very much".

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because of **cooperation with the European Union** and **staying professionally up-to date**. These are the two most important factors in all regions. The next important factors were considered to be other international cooperation, legislative changes, saving resources, policy changes, health reasons and customers demand. When comparing the questionnaire answers between different subregions, the following distinctions can be made (see Fig. 6.2):

Subregion 1:

- Staying professionally up-to-date and the EU-cooperation seem to be the most important factors increasing the need of environmental information
- **Health reasons** are estimated to be the third important factor, and are more important than in other subregions.
- **Change of management/ownership** is ranked here higher than in any other subregion. This is probably because of strong structural changes happening both in private and public sectors.

Subregion 2:

- The order of the most important motivating factors is quite similar to the medium order of factors among all respondents within the whole region.
- Staying professionally up-to-date and the EU-cooperation seem to be the most important factors increasing the need of environmental information. The value of the EU cooperation is noticeably strong, probably due to the application for the EU membership.
- **Legislative changes** are considered to be the third important factor in this subregion. This is probably because the legislation has been changing rapidly due to the EU harmonisation.

Subregion 3:

- Staying professionally up-to-date and the EU-cooperation are the most important factors increasing the need of environmental information.
- **Saving resources** is the third important factor, and far more remarkable than in other subregions.
- According to the respondents **customers demand** is noticeably higher than in the other two subregions. This is probably because of the existing well developed market economy with active consumer and customer pressure.

The questionnaire respondents also gave their opinions about **the factors that decrease the ability or motivation to use more environmental information in their field of work**.

Disharmonious legislation, information overload – probably often combined with **too many things to cope with** – and **bureaucracy** are according to the respondents the most important reasons discouraging the use of environmental information in their field of work. In addition, sometimes respondents considered the low priority of environmental issues at work, lack of knowledge in own or other organizations, corruption and lack of competition to be quite or very important factors decreasing the use. When comparing the questionnaire answers between different subregions, the following distinctions can be made (see Fig. 6.3):

Subregion 1:

- According to the respondents, bureaucracy is the strongest de-motivating factor in the subregion 1.
- Disharmonious legislation is here a very important factor.
- Corruption was also experienced more heavily than in the other subregions.
- Lack of knowledge in ones own organization seems to be a strong de-motivating factor.

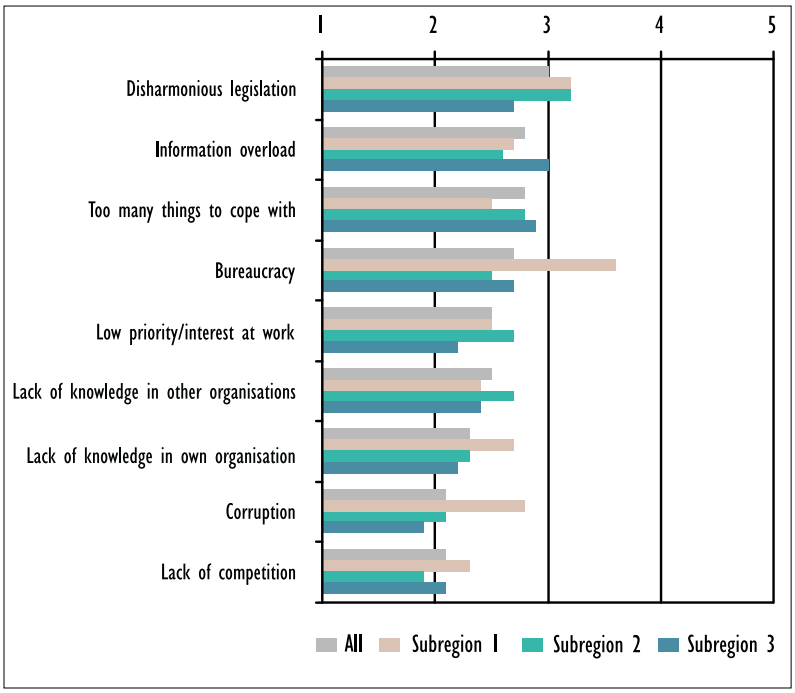

Figure 6.3. Factors decreasing the ability or motivation to use more environmental information in respondents (138) field of work. Comparison between different subregions. Scale of evaluations: 1 = "not at all", 2 = "not very much", 3 = "to some extent", 4 = "quite much" and 5 = "very much".

Subregion 2:

- Disharmonious legislation is according to the respondents a very important factor.
- Low priority at work and the lack of knowledge in other organizations seem to be important factors, too.

Subregion 3:

- Information overload is considered to be the most important factor along with too many things to cope with. Both of these factors were more heavily present than in other subregions.

As mentioned earlier in chapter 2, the countries in the Baltic Sea area are in different stages of environmental awareness. In subregion 1 health concerns and a feeling of helplessness among individual citizens prevail. The social and economic circumstances, characterised by, among others, insufficient environmental legislation and

the need for development of administration and environmental monitoring systems are at present challenges to the acquiring of environmental awareness.

Public environmental awareness, education and training have developed rapidly in subregion 2. The process of democratisation and applying for EU membership have given new impetus to improving the state of the environment and environmental management at every level of the society. National environmental legislation is being harmonised with the EU legislation. Environmental monitoring and information systems are being set up and new comprehensive national environmental policies and programmes are being implemented. Moreover, every country in this subregion signed the Århus convention on public participation and access to information.

Applying for EU membership and taking part in other international cooperation should be fully utilised in environmental awareness work.
See Chapter 9, the corresponding item no. 2.1

Cooperation between different subregions in environmental awareness issues should be promoted.
See Chapter 9, the corresponding item no. 2.2

The environmental legislation and administration are well established in subregion 3 and in a dynamic process of further development. Environmental issues are beginning to be integrated in decision making of various sectors of the society. In this subregion environmental monitoring systems and environmental databases allow for the storage and distribution of information for both official and public use. A lot of information is also comparable because of similar monitoring systems. The EEA organises and coordinates environmental information service for the European Union. This service is meant for national administrations, private sector and the public. In general, the availability of administrative and scientific information for public and business purposes is quite good, and still improving. The need for more sophisticated environmental knowledge and skills is growing. The threats from hazardous substances, global ecological changes and risks are becoming more evident to the decisionmakers and to general public.

6.2.1 Subregion 1 (Russia, Belarus and Ukraine)

This subregion would benefit most from a wide variety of basic and general environmental information. Also specialised information from many fields of study is needed.

According to the respondents, the need for environmental information in this subregion includes for example:

- Basic **scientific** information on pollution prevention and the changes in the state of the environment; for instance, radioactive contamination and chemical pollution, the state of the Baltic Sea environment and respective mathematical modelling of water bodies; general, comparable statistical emission information, and changes in the flora and fauna in polluted areas; comparative environmental data from other European countries.
- Basic **technical** information on pollution prevention and energy production; for example, waste water treatment and relevant technology, technologies for preventing the discharge of substances that cause eutrophication (e.g. denitrification), alternative energy production methods; spatial planning in urban areas; environmental management and quality systems, EMAS-level of environmental quality information.
- **Political** and **social** issues, for example, problems in urban areas; information on legislation, local, regional and national admin-

istrations; research results, and the right to distribute information that might be considered classified or otherwise is not made public – and information on environmental conflict resolution methods, nature reserves, and environmental education programmes.

- **Economic** and **administrative** information on; for example, financial assistance for environmental projects and European cooperation; environmental taxation or fees; business offers of environmental technology, and economic effects of environmental pollution and damages; education/training systems; possibilities to integrate various forms and levels of environmental administration.

6.2.2 Subregion 2 (Estonia, Latvia, Lithuania, Poland, the Czech Republic and Slovakia)

Subregion 2 needs multi-disciplinary and rather sophisticated environmental information along with the general and basic information.

The respondents in this subregion stated for example the need for the following information:

- **Scientific information** about the state of the environment in the Baltic countries and in Europe, HELCOM documents, and reliable scientific research data on pollution and the environment, local emission levels; hazardous wastes and banned chemicals; inland water monitoring (agricultural runoff, semi-urban and rural nitrogen and phosphorus discharges); air pollution from stationary point sources (energy production); health issues relating to the state of the environment and health risks; climate change.
- **Technical information** about; EU and other European legislation and norms; i.e. environmental impact assessment (EIA); environmental management systems and standards (EMAS and ISO 14001); Local Agenda -21; Environmental Technology Databases; waste water treatment, waste processing and circulation; methods to restore the environment; new technologies with proven market potentials; ongoing projects; environmental education methodology.
- Information on **political and social** issues, for instance, public participation and public relations methodologies; environmental policy and comparative legislation and norms in other European countries and the EU.
- **Economic and administrative** information, for example, on ways to control environmental risks in real estate development activities; level of environmental fees for water; project design and financing; contact proposals from international development agencies, financing options.

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6.2.3 Subregion 3 (Denmark, Finland, Germany, Norway and Sweden)

Environmental information needed in this subregion is usually treated as an integrated part of professional skills development. It is often sophisticated and interdisciplinary in nature.

The respondents of the project questionnaire stressed that environmental information should be up-to-date, compatible and reliable. All information on **future developments, early signals** and **raising topics** is considered important. Information which helps to understand the dynamics of ecosystems is in general more needed than barely the information on the state of the environment. According to the studies conducted, the professionals in this subregion need the following type of environmental information:

- **Scientific** environmental data including indicators of water quality; the role of ammonium in the Baltic Sea; industrial and municipal emission levels; information on the causal relation between nutrient loss and pollution; sustainable development in all societal sectors in the region/ country/ or local community; economic analysis of the consequences of the Kyoto protocol (concerning the climate change) on the national economy.
- **Technical information** like environmental management systems and international standards (EMAS, ISO); Environmental Impact Assessment (EIA); cost-benefit analysis of environmental investments; practical information on implementing Agenda 21; environmental performance of industrial production; pollution control methods; educational brochures and handbooks for professional groups like farmers, teachers, journalists, administrators, business; the contents and results of the public awareness and environmental education projects; comparisons of legislation in different countries.
- **Political and social** environmental information that can be applied to solving environmental problems, especially local examples and initiatives (for educational and public awareness purposes), short summaries "in every field", possibilities for joint international projects and initiatives, advice on how to start municipal garbage awareness campaigns by taking the existing level of awareness into account, ideas about the relationship between politics, the economy and the environment; the latest news on international treaties, sustainable way of life of a citizen.
- **Economic and administrative** information like advice and assistance for farmers who are preparing their environmental plans, information on financial assistance for environmental investments and actions; advice on how to support farmers and other occupational interest organizations in the countries with economies in transition.

6.3 Information for local purposes and public participation

Raising the level of local environmental awareness requires the development of **civil society** and **democracy**. It also needs the existence of **independent local actors**. Such actors should be able to define their positions and opinions according to their own understanding of the problems. Subsequently, they should be able to make independent decisions taking into consideration the local reality.

On the other hand, local and municipal actors ought to have contacts to wider networks and structures in order to get relevant, comparable information and up-to-date views concerning environmental issues.

Individuals should be motivated and trained to adopt environmentally friendly behaviour.
See Chapter 9, the corresponding item no. 4.2.

Active public participation in local decision-making should be promoted.
See Chapter 9, the corresponding item no. 4.3.

According to the results of the analysis of the project questionnaire, local communities need:

- basic information on the state of the local environment compared to other areas
- information increasing the understanding of the socio-economic infrastructure of the community
- information about economic, technological and other means of improving the state of the environment
- information on current projects including the results of the public participation in local decision-making
- information on financing projects and initiatives.

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