

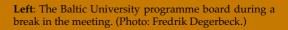


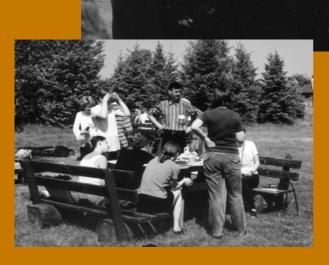




Left. The Baltic University ten years celebration in Uppsala in June gathered participants from the entire region. Dr Ludmila Koleshova from Minsk National Technical University is posing in front of the reappearing Linneaus (Hans Odö) and colleagues from the region. (Photo: Lars Rydén.)

Below: Break in the ten-years conference during the session in the Uppsala University main building. Delegates from Lithuania, Sweden, Latvia, and Slovakia around project manager Maria Winkler from the Baltic University secretariat. (Photo: Lars Rydén.)





Above: Participants at the planning meeting on Environmental English and Intercultural communication in Vitebsk in January. The Belarusan winter required proper clothing. Baltic University vice-director Paula Lindroos up front is project coordinator, and Dr Alena Korshuk from Minsk (far left) expert. (Photo: Lars Rydén.)

Left: Students at the Borki student's conference in April, during a group work on city democracy and development. In the 2001 conference 100 students from 13 countries and 40 universities participated. Many new friendship bonds were formed. (Photo: Lars Rydén.)

The Baltic University Programme

Annual Report 2001

Production

The Baltic University Programme Secretariat, Uppsala University

Editor

Lars Rydén

Layout

Magnus Lehman

Printing

Ditt Tryckeri i Uppsala AB, 2002

Language editing

Miles Goldstick

The Baltic University Programme, Uppsala University Box 256, SE-751 05 Uppsala, Sweden Visiting address: Öfre Slottsgatan 1

Phone: +46-18-471 18 40. Fax: +46-18-471 17 89

E-mail: info@balticuniv.uu.se
Web page URL: http://www.balticuniv.uu.se

Summary

Participation

During 2001 the Baltic University Programme had its ten year anniversary. It was active in the entire Baltic Sea drainage basin. There were activities in 14 countries and 174 universities. The activities were coordinated by the secretariat at Uppsala University together with the 13 Baltic University national centres.

Education

The centres reported 220 course groups and 6,500 students, including both undergraduate and graduate courses. The master's level course on sustainable water management recruited more than 500 students, and a second master's level course on sustainable community development was run in a pilot version at five universities in the region with 60 students. The use of information and communication technologies expanded as video, audio, and computer conferencing was used in all master's level course groups and many of the undergraduate groups as well.

Teachers

in the network gathered in conferences in Poland, Sweden, Latvia and Belarus, to discuss environmental English, sustainable community development, culture, politics and societies in the region, student project work, and the development of the Baltic University Programme itself.

Students

gathered in conferences and summer camps and courses. A student parliament started as 100 students from 11 of the countries met in Borki outside Lodz in Poland for three days.

Most spectacular was the 10 year anniversary conference in Uppsala that celebrated the ten years of the Baltic University Programme with participation of many other Baltic region cooperation programmes, such as the Union of Baltic Cities, the Programme network of educational TV stations, and Baltic 21.

Publication

During the year steps were taken to start the BUP publishing company, Baltic University Press. The company will start in 2002 with more than 30 titles in four languages - English, Russian, Polish and Latvian - as well as close to 60 hours of TV programs.

Alliances

Several steps were taken in cooperation with other actors in society. The SUPERBS project, that focuses on sustainable community development and urban planning, finalised nine TV programs and 35 cases studies in cooperation with 10 cities in eight countries in the region. A new project on environmental management systems to be used in industry started with partners in Sweden, Denmark, Germany, Poland, Lithuania, and Belarus. Training in chemicals management and toxicology is being developed in cooperation with the Swedish Chemicals Inspectorate. The EU financed project BEIDS published environmental information for the Baltic Sea region on its Website and published bi-weekly newsletters throughout the year.

Financing

The economic turnover of the Baltic University Programme during 2001 was 8,0 MSEK. The incoming balance from the year 2000 and grants and income for the year amounted to a total of 10.8 MSEK, and the outgoing balance was 2.8 MSEK. Main funders were the Swedish government, Uppsala University, Sida, the Swedish Institute, and Interreg IIC.

Basics of the Baltic University

A regional university network coordinated by a secretariat at Uppsala University The Baltic University Programme is a network of more than 170 universities and institutions of higher education in the Baltic Sea region. The Programme is coordinated by a secretariat at Uppsala University, Sweden.

The Baltic Sea region is understood as the drainage basin of the Baltic Sea. There are 14 countries completely or partially within the basin, including the Nordic and Baltic states, Russia, Poland, and Germany, as well the major inland states of Belarus, Ukraine, and the Czech and Slovak republics. The region has 85 million inhabitants and constitutes 15% of the population of Europe.

Background in the historical changes 1989-91

The Baltic University Programme was initiated by Uppsala University in 1991. It has its roots in the major changes in the Baltic Sea region at the end of the Cold War. Only then was it possible, after more than 50 years of isolation, for the universities in the region to actively communicate with each other.

The global efforts to promote sustainable development started in the same period, with the World Summit for Environment and Development in Rio in 1992. Sustainable development, that addresses environmental, economic, and social issues, became a widespread goal during the changes in the Baltic Sea region.

Supporting democratic and sustainable development through education and cooperation

Universities, where the new generation receive their education, and with a long tradition in internationalism, have a major role in the changes towards a democratic, peaceful, and sustainable development in the region. The main goal of the Baltic University Programme is to support this development.

The Programme has mainly worked through producing and offering courses for studies of the region, its environment, political change, and sustainable development. The Programme produces curricula and problem oriented teaching materials, books, booklets, and TV programs. All courses have an element of regional studies and are interdisciplinary. The Programme relies on information technology, from satellite TV to Internet based conferencing.

Cooperation with other actors in society in applied projects is part of studying and developing sustainable strategies, and promotes competence development at large.

A resource for the region

The Baltic University Programme network intends to be useful to many sectors of society. The activities and materials have been used in many of the countries as a resource to develop national strategies of sustainable development. It has also been a resource in the development of many cities.

Baltic cooperation

The Baltic Sea region as a "higher education sphere"

Cooperation in the Baltic Sea region seems to be coming of age. There have been many recent signs that interest for strengthening ties in the region is mounting.

On the intergovernmental level the Council of Baltic Sea States, CBSS, and its Stockholm secretariat now has a stronger mandate than before, as it is coordinating all intergovernmental processes. The Baltic Agenda 21 process, one important activity of the CBSS, is growing.

Universities in the region are also interested in developing stronger networks. University cooperation has been the main topic for several recent conferences. The German presidency in the CBSS underlined this in Berlin in May 2001. On the agenda was a "higher education sphere" in the Baltic Sea region: be strong through knowledge!

Several northern German universities are in the midst of building networks. The Polish Ministry of Education have expressed interest for networking in the region. Finnish initiatives have been taking place for some time. In June 2001 Tartu University in Estonia arranged the Conference of Baltic University Rectors.

Uppsala University a long tradition of regional cooperation. Several decades long exchange programme with Tartu University and the Jagellonian University in Krakow was a resource when planning for the Baltic University Programme from 1989 and its start in 1991.

In this landscape of cooperation projects it is important that the Baltic University Programme expresses its own goals, and relates them to the goals set by others.

A major concern of many is creation of common curricula. Study programmes should be similar enough to allow students to use credits at one university at another university. There is also the wish to modernise curricula. The Eurofaculty in Tallinn, Riga, and Vilnius, and now also Kaliningrad, are working on this in the fields of economics, law, and public administration. In engineering education, the same is done in the Baltech network in e.g. Sweden, Finland, Estonia, Latvia, and Lithuania.

All of these efforts are concerned with the major subjects taught at universities. The Baltic University Programme differs in that we address a new area - regional studies with an emphasis on sustainable development and democracy - which has not existed in the past at most universities. The Programme is highly interdisciplinary, and attempts to expand cooperation with actors outside the universities, particularly practitioners. Relevant study material is lacking in most subject areas. To help fill this information gap, the Baltic University Programme has spent much time producing material. This, in brief, is our profile.

Student mobility, one of the general goals of university cooperation, was not significantly boosted by these regional activities. Few westerners study in the east. In the Baltic University Programme, mobility is more virtual than physical. This is important as in the best case, not more than some 10% of students study abroad - physically. The communications technologies used in the Baltic University courses provide the opportunity for all students get some experience of internationalisation.

There is no need to duplicate efforts. The Baltic University is interested in cooperating with everyone who shares the same interests. So far we have established cooperation with the Baltech consortium of technical universities. Everyone else is welcome to join forces and make us all stronger.

Lars Rydén, Professor, Director, Baltic University Programme

The Baltic University in Belarus



When you started, what attracted you in the Baltic University Programme?

Actually, it started in 1993. I was then impressed that the programme was so open and invited Eastern European Universities, both to take part and to develop educational material at our own universities.

At that time in Belarus contacts with universities in other countries were lacking and much needed. The conditions for introducing a course on environmental protection was good. The first BUP course on environment was very good as were the later produced courses. The educational material fitted us completely. Books, videos etc could be used without changes.

How large is participation in the Programme in Belarus?

When we organized a centre for BUP in Belarus in 1996 about 13 universities took part. Since then this figure has doubled to 26 universities in eight cities. The large expansion of the programme has happened the last few years. Today about 2,000 students study BUP courses every year.

We have at the moment more than 40 universities in Belarus, state and private. My previous contacts with colleagues at various meetings about the environment gave me a very easy way to reach them. I could explain the aims and methods of BUP to specific people in specific departments. For that reason, many units of different universities became interested. If we add to that the possibilities BUP offers to participate in teacher's conferences and student events in countries abroad, it is easy to understand why more than half of the universities in Belarus now participate in the Programme.

Is it a problem that English is the language used? After all English in not so established in Belarus?

It was first of all a problem for the teachers. In the beginning of the 1990s noone used English. But after some time every teacher understood that English will be the international language for communication, and step by step teachers and students went through this barrier to use English.

Of course still not everyone understands English. We often have to divide the studies in two parts. For the study of sustainable development and environmental issues, we do it in the national language. Secondly, we use the BUP material to learn English in practice.

Teachers and students mostly ask for Russian translations of the BUP books. Our intention is to push studying English

A talk with Prof. Sergey Dorozhko, head of the Department of Ecology at the National Technical University in Minsk, Belarus. He successfully established the Baltic University Programme in Belarus and is the Director of the Belarusan BUP Centre.

in different ways. For example the new course in Environmental English give us a hope to achieve a better level of English of students. Everywhere in the whole region English language problems still exist. We just hope that a new generation of students and teachers will be more clever and be able to use the BUP material fully.

We know that you have used the material for education of professionals. How did it work?

Of course our activities are not only connected with universities. Different authorities, the Ministry of Environment and the municipality of Minsk, use the BUP material. They thank us for giving them educational material and involving them in different conferences, seminars, and projects.

In recent years we have organized meetings and conferences with participants from outside the universities three, four, or five times per year.

It is important to have interesting material for professionals who can not speak English. We had to think about that as well, and it was a correct decision to translate and publish a textbook on sustainability in Russian. Now we can give any interested party books on, for example, water management and they can use it in practice.

Does the Baltic University Programme contribute to the development of Belarusan society?

Yes. In particular the SBR course - A Sustainable Baltic Region – is useful. It is so practical, and much in it can be applied immediately. It is the best course on sustainability I have seen up to now. It is basic material for finding ways to create new national strategies for sustainable development in Belarus.

One key example concerns industry. Existing courses or knowledge in Belarusan industry is in general still old and not so good when it comes to environmental matters. People working with environmental problems in industry need examples on how to deal with environmental problems. The project we are now working on to develop an educational programme in environmental management looks promising. It is much needed by our industry.

For us now the most interesting topic is water management. Belarus has plenty of water courses, lakes, wetlands, etc., but the water quality is not so good. Water issues are a first priority to solve of the environmental problems in the country.

And what about democracy?

Of course everyone knows that in Belarus several basic features of a western democratic society are lacking. In the Baltic University material we find many issues to raise in seminars and discussions. We find many good examples and experiences from other countries on what is useful for the development of democracy in the Belarusan situation.

Organization

Co-ordination Secretariat and Board

The Programme is led by an international board that meets biannually. Day to day activities are coordinated by a secretariat at Uppsala University, and 13 national centres in the region. Each participating university is responsible for its own courses.

The Secretariat

The BUP secretariat at Uppsala University coordinated the ongoing projects and networking of course groups, kept the network up-to-date on ongoing activities, developed course materials, and maintained statistics for the network. The secretariat expanded slightly during the year, with positions relating to information and administration.



The Co-ordination Secretariat is housed on the top floor in a 17th century building (the former post office) right in the middle of academic Uppsala. (Photo: Fredrik Degerbeck.)



Board members former minister Görel Thurdin, Sweden (left), Associate professor Linas Kliucinickas, Lithuania (middle) and Professor Pawel Migula, Poland (right) discussing at the board meeting. (Photo: Lars Rydén.)

The Baltic University Programme Secretariat 2001

Lars Rydén, Professor, Programme Director
Paula Lindroos, PhD, Programme Vice Director, Åbo/Turku, part time
Maria Winkler, MA Econ., Financial and Network Manager
Magnus Lehman, BA, video production, book production
Fredrik Degerbeck, MSc, Information, part time
Anna-Karin Sjöström Prost, MA, Information part time
Arne Viklund, MA Law, Project leader, Baltic Meeting Point II, part time
Christian Andersson, PhD, BEIDS project assistant, Trondheim
Dorota Wlodarczyk, Dr, SUPERBS project assistant, part time, Gdansk

Baltic University Programme Board 2001

Prof. Bo Sundqvist, Rector Uppsala University (chair)

Prof. Claes-Göran Granqvist, Advisor to Vice-Chancellor, Uppsala University (vice-chair)

Prof. Peter Wallensteen, Uppsala University

Assoc. Prof. Lars-Christer Lundin, Uppsala University

Mr Ingvar Karlén, County Council Commissioner, Uppsala County Council

Rector Per Thullberg, Södertörn University College

Ms Görel Thurdin, former Minister of Planning, Nordingrå

Prof. Olle Anckar, Vice-Rector, Åbo Akademi University, Åbo, Finland

Prof. Pawel Migula, University of Silesia, Katowice, Poland

Assoc. Prof. Siarhei Darozhka, Belarusan National Technical University, Minsk

Ms **Dzamila Bienkowska**, CEMUS, Uppsala University (student member)

Organization

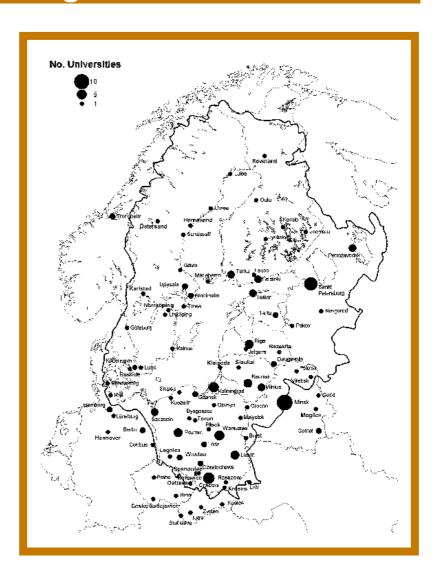
The network

The University network

The number of universities participating in the Programme was during the year 174. The universities are located in 91 different cities. Different kinds of universities are active within the programme: classical, technical, agricultural, and pedagogic are among the larger categories. The majority of the universities took part by offering Baltic University courses, others by the active participation of several researchers, while a few did not offer courses in 2001 but requested to stay in the network.

The centres

The 13 national BUP centres spread information on courses and develop the BUP activities within their countries. They are also providing expertise on issues dealing with university cooperation in the Baltic Sea region, and on environmental and sustainable development issues. The directors of the centres had three common planning meetings during the year



Baltic University Programme Centres 2001

| Area | University | Director |
|----------------------|-------------------------------------|----------------------------------|
| Finland | Åbo Akademi University; Turku | Paula Lindroos, PhD |
| Estonia | Tallinn Technical University | Tatyana Polyaeva, Assoc. Prof. |
| Latvia | University of Latvia | Andris Spricis, Prof |
| Lithuania | Kaunas Univ. of Technology | Linas Kliucininkas. Assoc. Prof. |
| Northwestern Russia | St Petersburg State University | Victor Ionov, Prof. |
| Kaliningrad region | Kaliningrad State University | Elena Kropinova, PhD |
| Belarus | Belarusan Polytechnical Acad. Minsk | Siharei Darozhka, Assoc. Prof. |
| Western Ukraine | Lviv State University | Natalia Ivanchuk, Dr |
| Slovakia & Czech Rep | Slovak Agricultural Univ., Nitra | Pavol Elias, Assoc. Prof. |
| Poland | Lodz Technical University | Ireneusz Zbicinski, Prof. |
| Germany | Hamburg-Harbug Technical Univ. | Walter Leal Filho, Prof. |
| Denmark | Copenhagen University | Uffe Jakobsen, Assoc. Prof. |
| Sweden | Umeå University | Per-Anders Bergqvist, PhD |

Education

Courses

The courses in the Programme consist of basic and master's level courses, and specialisation courses for professionals and teachers. During 2001, more than 100 universities registered more than 6,500 students.



A student group on the the streets of Lodz discussing urban environment. (Photo: Ireneusz Zbicinski.)

Basic courses

Environmental Science for the Baltic Sea Basin

15 ECTS credits on basic environmental science. From fall 2002.

Content: How the environment works, environmental impacts of society, environmental engineering, economics, law, politics, and sustainable development.

The Baltic Sea Environment

7.5 ECTS credits basic course on the environment of the Baltic Sea basin with a focus on the Baltic Sea itself. Since 1991. **Content**: The geography and history of the region, the biology of the Baltic Sea, eutrophication, chemical pollution and ecotoxicology, environmental economics and law, and water management.

The Baltic Sea Region - Cultures, Politics, Societies

15 ECTS credits on cultures and societal development in the Baltic Sea region. From fall 2002.

Content: Regional development, history, culture, language, democracy, majority and minority cultures, peace and security, social conditions, and economic development.

Peoples of the Baltic

7.5 ECTS credits on the peoples around the Baltic Sea. Since 1993.

Content: The region, its history, religion, languages, multicultural societies, minorities, minority rights and human rights, democracy, and security.

A Sustainable Baltic Region

7.5 ECTS credits on sustainable development in the Baltic Sea region. Since 1997.

Content: Sustainable development, energy, material flows, agriculture, industry, transport, habitation, ethics and law, and Agenda 21.

Master's level courses

Sustainable Water Management

15 ECTS credits on sustainable water resources in the Baltic Sea region. Since 1999. The course consists of three modules:

- 1. The Waterscape hydrology and water quality.
- 2. Water use and management water provision in agriculture, cities, and industry.
- 3. River basin management water and cities, transport, fishing, tourism and nature protection, institutions and legal regulations, management plans, water conflicts and international cooperation.

Sustainable Community Development and Urban Planning

15 ECTS credits on sustainable urban development in the Baltic Sea region. From fall 2002. The course consists of three modules:

- 1. The city urbanisation, administrative cultures, and sustainable development.
- **2. Building sustainable communities** architecture, urban planning, rebuilding, and city ideals.
- 3. Sustainable urban management indicators, energy, water and waste, social, and cultural and economic development in cities.

Education

Course statistics

The Baltic University Programme, statistical information, academic year 2000/2001

Annual student statistics are collected. Preliminary results from the 2001/2002 academic year indicates an increase of about 800 students, or 12% over the previous year.

Mentors

A network of mentors, one for each course, was organised as support for the BUP teachers. The mentors were contacted with questions regarding course organisation, exams, etc. The mentors for all courses met in February 2001 to discuss course quality assurance, course materials, and the role of mentors.



Mentors meeting in Katowice, Poland. (Photo: Ireneusz Zbicinski.)

Students statistics

| Country | Universities | Cours groups | Teachers | Students | Diplomas |
|--------------|--------------|--------------|----------|----------|----------|
| Finland | 14 | 11 | 5 | 177 | 8 |
| Estonia | 5 | 6 | 8 | 125 | 18 |
| Latvia | 9 | 10 | 22 | 226 | 0 |
| Lithuania | 10 | 13 | 18 | 521 | 223 |
| NW Russia | 12 | 34 | 28 | 598 | 253 |
| Kaliningrad | 5 | 7 | 12 | 321 | 38 |
| Belarus | 26 | 79 | 59 | 2,704 | 78 |
| Ukraine | 4 | 9 | 10 | 102 | 18 |
| Slovak+Czech | 13 | 8 | 10 | 83 | 0 |
| Poland | 45 | 53 | 70 | 1,368 | 531 |
| Germany | 8 | 2 | 2 | 53 | 5 |
| Norway | 1 | 0 | 0 | 0 | 0 |
| Denmark | 4 | 1 | 1 | 25 | 0 |
| Sweden | 18 | 13 | 15 | 152 | 19 |
| Total | 174 | 246 | 260 | 6,455 | 1,191 |

Course statistics

| Country | BSE | POB | SBR | SWM | SCD | Total |
|--------------|-------|-----|-------|-----|-----|-------|
| Finland | 48 | 0 | 73 | 56 | 0 | 177 |
| Estonia | 40 | 15 | 58 | 12 | 0 | 125 |
| Latvia | 70 | 0 | 130 | 20 | 6 | 226 |
| Lithuania | 287 | 17 | 177 | 28 | 12 | 521 |
| NW Russia | 285 | 30 | 196 | 87 | 0 | 598 |
| Kaliningrad | 40 | 35 | 240 | 6 | 0 | 321 |
| Belarus | 1,004 | 241 | 1,164 | 295 | 0 | 2,704 |
| Ukraine | 0 | 30 | 65 | 7 | 0 | 102 |
| Slovak+Czech | 40 | 0 | 33 | 10 | 0 | 83 |
| Poland | 673 | 139 | 424 | 102 | 30 | 1,368 |
| Germany | 23 | 0 | 0 | 0 | 30 | 53 |
| Denmark | 0 | 25 | 0 | 0 | 0 | 25 |
| Sweden | 41 | 77 | 23 | 6 | 5 | 152 |
| Total | 2,551 | 609 | 2,583 | 629 | 83 | 6,455 |

Students

Students from cities as far apart as Stockholm in the northwest to Vitebsk in southeast of the Baltic Sea region gathered in Borki, Poland to exchange information, knowledge, and experiences.

Thoughts about "Borki 2001"

Why should 100 young people from different countries in the Baltic Sea region meet in Poland? Especially, why should they meet again in a small village called Borki that seems to be totally unknown even to Polish people?

Students from Baltic Sea region gathered in Borki to take part in the conference to learn and share ideas about sustainable city planning - how to improve our cities in order to move towards environmental excellence.

I think that the programme was very rich in its agenda. To be able to cover all the topics about city planning and give delegates the opportunity to "learn by doing" the days were really intensive - full of lectures, interactive games, and role playing, and the nights were used to bring the mental and physical effort into balance through dancing.

I think that a very valuable part of the conference was the role-playing where the purpose was to build a sustainable city model. Delegates had to represent different interest groups - city council, environmentalists, corporate people, and a local housing organisation. It was valuable because it gave us the opportunity to see all these stakeholders in a system, how all these stakeholders influence the final outcome, and how all the sides behave. It is an important experience for life because sometimes in these big planning processes everybody wants get their ideas through and maximise their own welfare, and at the same time they do not see the value of cooperation.

Another very valuable part was the visit to Lodz (which actually in Polish sounds "Udsh" and caused a lot of confusion among delegates). It gave another and very positive perspective of Poland. The organised lectures about Lodz gave us a good overview of how one city has developed through time and it probably created a lot of thoughts in our heads about the city from a sustainability perspective.

Most important about the conference was that young people with different backgrounds and from different cultures met and expressed



Planning and constructing a sustainable city demands cooperation and a lot of patience. (Photo: Lars Rydén.)

their ideas. I got a wider perspective of what has been done in different cities in terms of sustainability. The conference created a powerful feeling that we are not alone with our thoughts and ideas. There are so many people with whom to share our ideas and grow something valuable out of it.

This kind of conference is definitely of great importance. Environmental thinking and awareness is not yet strong in all the countries in the Baltic Sea region. Therefore, in order to increase the environmental awareness here, in the Baltic Sea region, it is important to create communication among the youth. When the participants of the conference get back home, they can through their motivation, create interest towards environmental issues among other people.

Krista Lillemets, Uppsala student, Sweden, kristalillemets@hotmail.com

Students

Students' views on education for sustainable development

Students from Lviv State University interviewed 62 students from 10 countries during the Baltic University student's conference in Borki in April 2001. Here follows an excerpt from their report.

University leaders and administration play an important role in the implementation of education for sustainable development. If university administration doesn't pay much attention to the issue, then students' organizations do. Non-governmental organisations, NGOs, always played a key role in involving students in their activities. Such a situation is typical for Russia, Belarus, and sometimes Poland, the Baltic States, Ukraine, and Slovakia. A high level of activity (projects and courses) is typical for students from specialised faculties and departments (environmental engineering, biology, etc.). Students' environmental organizations in St. Petersburg are very active and mostly students from these departments are their members.

An issue which could be addressed more frequently is the difference between environmental education (EE) and education for sustainable development (ESD). In countries in transition this is not fully understood. ESD has not been recognized fully yet at the legislative level. Sometimes officials simply substitute EE for ESD making blunt mistakes. The public is not aware of the issue and NGOs should work more actively to inform people. A Pan-European campaign for environmental rights, and to implement the Aarhus Convention (European Eco-Forum, European Environmental Bureau) is a good example.

The role of universities in shaping environmental awareness and promoting sustainable development seems to be a little overestimated. Solemn declarations are adopted but they don't create obligations for the governments. Perhaps international legally binding instrument are needed. Students are the most active part of society but a conservative and sometimes passive attitude of university administrations (at non-technical universities) creates obstacles and hinders universities becoming leaders in promoting sustainable development via education.



Students arranged posters and presentations with information about their home towns. (Photo: Lars Rydén.)

Education for sustainable development is a concept that requires recognition in Central and Eastern Europe. In the Scandinavian countries elements of ESD have already been introduced and their models can serve as example for other countries. In countries in transition people often take EE for ESD, so much work still needs to be done.

It's difficult to raise public awareness by oneday actions or projects. The best way is to start educating people at an early age, in the family, to shape their consciousness of the issues. That's why strong governmental educational policy in this area is desirable. The life-long education models like in the Scandinavian countries result in high environmental public awareness.

Universities have many facilities for developing ESD: research centres, staff, experience; but some of them lack financial resources. Sometimes a conservative and passive attitude of the university administration is an obstacle. Signing a university Charter for Sustainable Development (the Copernicus and Talloires declarations) and other documents create moral obligations for university administrations to implement sustainable development, but not all students or staff in these universities actually became aware of sustainability issues.

Baltic University 10 years

| 1991 February | The first meeting in Kalmar; 33 universities took part, in the shadow of the attack on Vilnius a few weeks earlier. |
|----------------|--|
| 1991 October | The course on the Baltic Sea Environment started with a first satellite TV broadcast viewed by 3,600 students in 10 countries. |
| 1991 December | The fist satellite TV bridge with Uppsala, Turku, and Gdansk; 200 students in three countries debated environmental issues; the Soviet Union was dissolved soon after. |
| 1992 May | A BUP Geographical Information Systems, GIS, network of five laboratories was established in Uppsala, St. Petersburg, Tartu, Riga, and Kaunas. |
| 1992 October | History, democracy, and security in the region was discussed at a teacher's conference in Uppsala, and developed into the Peoples of the Baltic course. |
| 1993 October | The Peoples of the Baltic course started with a satellite TV broadcast in Visby, Gotland; the programs were also broadcast on Latvian, Lithuanian, and Polish TV. |
| 1994 May | A student conference in Riga was the first to use role playing and projects to develop democracy in practice; it was made into a TV program. |
| 1995 June | A team of 10 TV producers from equally many countries met in Poland to develop the first common TV series on sustainability. |
| 1995 October | A BUP conference in Gdansk gathered researches from 11 countries, for the first time with Belarus and Ukraine, to discuss Baltic region security and remember 50 years of peace. |
| 1996 June | BUP's five year anniversary; a core team of teachers met in St. Petersburg to establish the first BUP national centres, and new course material for environmental science. |
| 1997 January | Onehundred BUP teachers meet in Kaunas, Lithuania, to discuss sustainability; a 500 page study material and 10 TV programs were introduced over the spring. |
| 1997 spring | Ten satellite TV programs and 10 satellite radio programs were broadcast; which marked the end of satellite broadcasting as the Tele X satellite was taken out of orbit. |
| 1998 April | Researchers and urban planners met in Uppsala over two weeks to join forces between cities and universities to discuss sustainable urban planning and management. |
| 1999 January | The first master's level course on Sustainable Water Management was run at 27 universities; ISDN video conferencing was routinely used. |
| 2000 April | The first fullscale books – three books on sustainable water management - were introduced in the BUP courses. |
| 2000 September | The SUPERBS project involving 11 cities in the region included travelling seminars to Gdansk, Berlin, Hannover, and Hamburg. |
| 2001 June | BUP's ten year anniversary; ten year anniversary conference in Uppsala. |

Baltic University 10 years

Anniversary conference: celebrating Ten years of hard work, fun, and success

On the 15th of June 2001 friends, colleagues, and invited guests began to arrive at the Uppsala secretariat to take part in the Baltic University "Ten year anniversary conference." After being served a cold buffet in a friendly atmosphere the participants received maps and room keys and went to Fyrishov Camping. In a beautiful camping area close to the centre of Uppsala

and next to the river Fyrisån, more than 50 persons from 10 countries stayed in cottages for four nights.

The next day the celebrations started with a seminar session with more than 70 participants on the topic "BUP courses in a 10 year perspective." Director Lars Rydén made the opening speech and the day continued with numerous plenary presentations and workshops. At the end of the day the invited students reported their conclusions in front of a pleased audience. The evening continued with dinner and dances ending in several late night discussions in the cottages, especially no. 14.

On Sunday morning a bus took the participants to the Linnaeus Garden with its orangery, where the mini symposium "BUP and society" was held. Among the interesting lectures given, one particular "walk" or stroll along the street without speaking gave a new perspective of sound (not noise) as an important factor in the planning of a city.

At mid-day an old man dressed from another time period was seen in the rainy garden. He was immediately recognised as the famous botanist Carl von Linné, who lived in Uppsala during the 18th century and created the *Systema Naturae*. The participants gathered around him and took photos while he willingly began to speak of his life, escapades, and deeds. With a charismatic performance he lectured for nearly an hour with a mix of jokes and sincerity to everybody's great satisfaction.

In the late afternoon the group went to Old Uppsala Historical Centre located close to the old Viking burial mounds, one of Sweden's and Scandinavia's most unusual and legendary ancient monument areas.

The next day the Baltic University Programme anniversary seminar was held at the Uppsala



The famous botanist Carl von Linné joined the largest regional university network, BUP. (Photo: Fredrik Degerbeck.)

University main building with Uppsala University Rector, Prof. Bo Sundqvist as the first speaker. Prof. Martin Sherwin from Tufts university, USA, spoke about one of the first projects that used TV satellite bridges for conferencing between students at universities in the West and East - Boston and Moscow. Presentations followed on the Cold War, and nature and society in focus. Then, Prof. Lars Rydén made a presentation on challenges for the Baltic University during the next decade, and former Minister of Planning Görel Thurdin discussed visions of development for the region.

In the evening Rector Bo Sundqvist hosted the anniversary dinner at SNärikes Nation, an old exquisite student fraternity house. More than a hundred invited guests celebrated until midnight with a delicious meal, singing, speeches, gifts, and diplomas to the assembly, etc. Two new BUP prizes was introduced, one for an extraordinary teacher and the other for extraordinary contribution to the programme. The awards were presented to Dr. Jerzy Niecko at Maria Curie-Sklodowska University in Lublin, Poland and Leonid Tikhomirov at St. Petersburg University, Russia

Fredrik Degerbeck

Education for sustainability



The author, Paula Lindroos, discussing education for sustainability at a meeting in Hamburg. (Photo: Lars Rydén.)

Baltic 21 was introduced in 1996 as the Agenda 21 for the Baltic Sea region. Very early, education and information were identified as key factors for the success of the process. As a consequence, in spring 2000, education was introduced as a new sector in Baltic 21. All levels of education are included, from kindergarten to adult education. Higher education, being in a central position regarding research and education on SD, is represented in a separate working group. The two others are schools and vocational education, and adult education.

The first step in the preparation of Agenda 21 for education was a survey of the present situation regarding education for SD in the participating countries, then to compile the experiences and to agree on goals and actions for all educational levels. The final agenda was adopted by Ministers of Education in January 2002.

Within this process, BUP was in spring 2001 contracted to prepare the report on higher education on sustainable development in the Baltic Sea region. The report was based on national reports and the expertise in the BUP network. The results showed that there were clear differences between the countries. In some countries there are national strategies which are followed up by economic and other incentives for universities to introduce SD in their education and research. Several universities have introduced environmental standards in their environmental management procedures, a couple are certified according to environmental standards, and a number

Baltic 21 education

findings on higher education

have introduced the standards (EMAS or ISO 14001) at the department or faculty level. In other countries there is an obvious lack of a clear demand to include SD into educational programmes and a lack of study materials and competence among teachers.

Among the obstacles and gaps identified one could mention - in addition to the lack of economic and human resources - the limited credit for interdisciplinary studies, and difficulties to conceptualise and translate the term SD into national languages, a fact which was brought up for instance in the Lithuanian report:

"One of the main gaps is in the definition of sustainable development. The term SD is considered to be too wide and abstract and without sufficient scientific background, and even a fashionable word combination."

Another main obstacle identified is the unclear relationship between education for sustainable development and environmental education. The strong traditions in natural science are identified as obstacles for the involvement of the other dimensions of SD, i.e. economics, social science, and humanities.

In a majority of the national reports, BUP and the course A Sustainable Baltic Region was mentioned as a good example of education on SD, including the study materials and teacher's courses as good support for the students and teachers.

Among the opportunities that were identified are the possibilities to create relevant alliances, national and international, with universities, municipalities (Agenda 21) and enterprises. There are unique opportunities to introduce new teaching and learning approaches. Methods that are relevant in the education for SD are project based, participatory, and include the handling of complexity, in situations where the answers are not given in advance.

Paula Lindroos

Education for sustainability

Examples of education for sustainable development in the Baltic Sea region

The interdisciplinary approach is a core aspect of education for SD. This is a clear statement in the Haga Declaration which was signed by the Ministers of Education in the Baltic Sea region, on March 24, 2000, saying that,

"Education for SD should be based on an integrated approach to economic, environmental, and societal development, and include a broad range of related issues, such as democracy, gender equity, and human rights. It should complement and build on existing initiatives in environmental education."

The relation between education for SD and environmental education has, however, been rather controversial. There are opinions claiming that environmental education in full-scale comprises the aims and content of education for SD. In addition, there are those who administratively consider environmental education and education for SD to be identical, and to have a strong link to natural sciences.

Despite these obstacles, roughly calculated, about half of the students in the Baltic Sea region have participated in environmental or SD courses. Education on SD is given as *introduction courses*, which are found in many universities, and in some universities they are even compulsory for all students. In some cases the courses can be seen as part of the environmental management system of the university. The BUP course, *A Sustainable Baltic Region*, which is an undergraduate course, is the most frequently mentioned course in this category, and it was studied by approximately 3,000 students at about 70 universities in 2001.

Furthermore, there are examples in the region of forerunners, where education on SD is given as complete *study programmes on SD*, or as a *specialisation at the master's level*.

In the further development of education for SD, and in parallel with the specialists' education, focus is most probably going to be to *the integration of SD issues into existing education*.

One key issue pointed out in the Haga Declaration is the need for *teachers' competence development*. The possibilities for school teachers to study SD issues in their basic education is still rather limited in the region, partly depending on lack of study material. The need for competence development is also apparent among the university teachers, where the teaching methods and the interdisciplinary approach are new and partly even controversial in the academic world.

The role of universities in *transferring knowledge and know-how to the surrounding society* is emphasized regarding SD issues because much new knowledge is produced, which needs to be transferred to professionals in enterprises, municipalities and authorities, as well as to the general public. BUP has implemented this so-called third task of the universities through cooperation with municipalities, as in the SUPERBS project, and most course productions. Further, the film material has been produced in cooperation with TV companies and also televised in national or regional TV channels in several countries in the region.

The dominating university course on sustainable development in the region was the Baltic University course A Sustainable Baltic Region. During the year it also became available in four languages, English, Polish, Russian and Latvian.

The course matierial consists of ten booklets of a total of 500 pages and 10 video tapes each 45 minutes in length.

Paula Lindroos

Conferences and events during 2001

During 2001 close to 500 researchers, teachers and students took part in 15 conferences, seminars, and other meetings arranged within the Programme.

| Date | Event | Place | Host |
|------------------------|--|--|---|
| Jan. 26-28 | Environmental English and Intercultural communication: Planning Seminar | Vitebsk, Belarus | Belarusan BUP centre, and Vitebsk State University |
| Feb. 2 | BUP Finland Centres' meeting | Turku, Finland | Finnish BUP Centre at Åbo Akademi University |
| March 15-18 | BUP Centres Meeting, Sustainable Development in university education | Hamburg, Germany | German BUP Centre, Hamburg Harburg Technical University |
| April 6-12 | Third SUPERBS Travelling Seminar | Riga-Jelgava-Livani- Tartu-Novogorod- St. Petersburg | Jelgava City & Univ., Livani Univ., Tartu City & Univ., Novogord & Univ. BUP Centre for NW Russia |
| April 18-22 | Student conference - City Cultures in the Baltic Region | Borki, Poland | Polish BUP Centre, Lodz Technical University |
| May 4-9 | Baltic Meeting Point II Seminars and Study visits | Uppsala, Sweden | BUP Secretariat, Uppsala University |
| June 15-18 | Baltic University Programme 10 years | Uppsala, Sweden | BUP Secretariat, Uppsala University |
| June 18 | BUP Board Meeting | Uppsala, Sweden | BUP Secretariat, Uppsala University |
| June 18 | BUP Centres Meeting | Uppsala, Sweden | BUP Secretariat, Uppsala University |
| July 15-25 | Student camp | Djerzinsk, Belarus | Belarusan BUP centre, Belarusan Polytechnical Academy, Minsk |
| August 30 - Sept. 1 | Planning Meeting: education in Toxicology and Chemicals Management | Uppsala, Sweden | BUP Secretariat, Uppsala University and Swedish Chemicals Inspectorate, Stockholm |
| Nov. 2-4 | BUP Centres' Meeting | Trakai, Lithuania | Lithuanian BUP Centre, Kaunas University of Technology |
| Nov. 19 | BUP Board Meeting | Uppsala, Sweden | BUP Secretariat, Uppsala University |
| Nov. 29 - Dec. 2 | The Baltic Sea region - Cultures, Politics, Societies Teachers' conference | Ubrzycko, Poland | Adam Mickiewicz University, Poznan |
| Dec. 13-16 | Environmental Management Systems: Planning Meeting | Stockholm and Uppsala, Sweden | Royal Inst. of Technology Stockholm, BUP Secretariat, Uppsala University |

Strategic alliances 2001

Cities - The Superbs project

Universities cooperate with other institutions in society to promote competence development, develop new knowledge, and implement applied projects. The development of such cooperation, the creation of "strategic alliances," have in the Baltic University case started with cities. Cities have a key role in sustainable development. Cities are today the scene of fundamental changes in the entire Baltic Sea region.

The Baltic University initiated in 1998 a two week research conference on urban development in which both urban planners and researchers took part. It led to the Sustainable Urban Patterns Around the Baltic Sea (SUPERBS) project. Sustainability was studied in 11 places in eight countries, and a total of 35 case studies have been carried out on these sites. All sites were visited by travelling seminars, and nine TV films, each 30 minutes, were made as local seminar reports.

Three books are under production. Manuscripts have been written for the first book "The City."

During the year. based on the material produced, a 15 ECTS credit university course "Sustainable Community Development and Urban Planning" was conducted in a pilot version in Gdansk, Jelgava, Kaunas, and Uppsala, and partly

in Hamburg Harburg. A teacher's conference for planning a regular version will be organised, and the course offered in a regular format beginning in the fall of 2002.

Industry - Environmental Management Systems

During 2001 a project began, financed by Sida, to develop education in environmental management first at universities and later in companies and industries. Four teams were organised and started work in Sweden, Denmark, Germany, Poland, Lithuania, and Belarus.

Authorities - Chemicals Management in the Baltic States

The Swedish Chemicals Inspectorate took in 2000 the initiative to develop competence for chemicals management and toxicology in the three Baltic States in preparation of European Union membership. BUP joined the project as course organizer in cooperation with the Uppsala University Department of Ecotoxicology and the Karoliska Institute. The project includes participation from Sweden, Finland, Estonia, Latvia, and Lithuania, while Poland has a status of observer. Financing is pending.



A discussion on urban planning during a walk through Kaunas city in Lithuania under guidance of head planner Saulius Lukosius with the Superbs project group. (Photo: Lars Rydén.)

Financial report

Financing and costs

The economic turnover of the Programme during 2001 was 8.0 MSEK (see the Table below). The incoming balance from 2000 and grants and income for the year amounted to a total of 10.8 MSEK and the outgoing balance was 2.8 MSEK.

Basic organization

The basic organization included the secretariat at Uppsala University for which the costs were 3.7 MSEK, secured mainly by funding from the Ministry of Foreign Affairs, Uppsala University, the Swedish Institute, and external projects. Funding of the Programme was largely secured for two years, that is 2001 and 2002. The costs of network activities were 0.76 MSEK, funded by the Swedish Institute.

In addition many network activities were supported by the organizing institutions in the network. All centre meetings, all student activities, and several of the teacher's conferences had local support. Åbo Academy University made the most significant contribution through a grant from the Nordic Council of Ministers, although universities in Poland should also be mentioned.

Education

The costs for teaching courses to 6,500 students over the year was covered by the teaching institutions. The value of this, including teaching hours, administration, premises, etc., was estimated to correspond to about 5 MSEK. This sum is not included in the Table below.

Universities in the eastern part of the region, i.e. Russia, Estonia, Latvia, Lithuania, Belarus, Ukraine, Poland, Slovakia and the Czech Republic, were provided with course material free of charge, covered by funds from Sida and the Swedish Institute. Students from the other countries bought material as normal. The production of course material is one of the largest activities of the Programme and up to present it is estimated that about 280,000 copies of booklets and books have been printed.

Teacher and student conferences were carried out without costs to the participants. Extreme care was always taken to make all arrangements at reasonable prices.

Projects

Development of the new courses in Environmental Science and Culture, Politics and Societies in the Baltic Sea region continued with funding granted before 2000. A major fund from Sida made possible the several translation projects.

The SUPERBS project had a total budget of 5.7 MSEK. The Baltic University Programme Secretariat was responsible for administration of funding to Phare and Tacis partners and was paid by the Interreg IIC partners. The lead partner, Turku City, paid the Programme Secretariat a total of 0.6 MSEK for coordination and execution of the project.

The Baltic Meeting Point was funded mainly by Uppsala City and Uppsala County Council. The entire budget was administered by the Baltic University Programme. The costs for the project was 1.68 MSEK.

Financial report

Status of account Costs and income for the period 010101-011231

All figures in Swedish Crowns (SEK)

| Secretariat | | Balance 001231 | Funding 2001 | Costs 2001 | Balance 011231 |
|-----------------------------|----------------------|-----------------------|--------------|------------|----------------|
| Secretariat | | 45,890 | | 3,697,478 | |
| Secretariat | Swedish Government | | 2,000,000 | | |
| Secretariat | Uppsala University | | 986,358 | | |
| Secretariat, | Högskoleverket | | 163,456 | | |
| Travel support | Swedish Institute | | 110,000 | | |
| Board meetings | Swedish Institute | | 30,000 | | |
| Toxicology meeting | Swedish Chemical | | | | |
| 8,7 8 | Inspectorate | | 19,000 | | |
| Baltic Meeting Point II | Uppsala Kommun | | 191,748 | | |
| SUPERBS | Swedish Institute | | 150,000 | | |
| Sale of BUP material | | | 74,475 | | |
| Total | | 45,890 | 3,725,037 | 3,697,478 | 73,449 |
| Network | | | | | |
| Sailing, summer 2001 | Swedish Institute | | 175,000 | 0 | 175,000 |
| Centra | Swedish Institute | 98,645 | 210,000 | 214,673 | 93,972 |
| Students conference, 2001 | Swedish Institute | 70,040 | 150,000 | 226,543 | -76,543 |
| 10 year anniversary | 5 wedish histitute | | 150,000 | 220,343 | 70,040 |
| conference, Uppsala | Swedish Institute | | 300,000 | 318,964 | -18,964 |
| BUP Network | Nordic Council | | 300,000 | 310,704 | -10,704 |
| DOI NELWOIK | of Ministers | 300,000 | 0 | 300,000 | |
| Total | | 98,645 | 1,135,000 | 760,180 | 473,465 |
| Projects | | | | | |
| Baltic Sea Environment, | | | | | |
| updating | Sida | 383,214 | 0 | 48,065 | 335,149 |
| Master's thesis | Sida | 363,214 | U | 40,003 | 333,149 |
| Water Management | Swedish Institute | 49,952 | 70,000 | 2,835 | 117,117 |
| SUPERBS | Swedish histitute | 390,667 | 598,998 | 677,436 | 312,229 |
| Peoples of the Baltic | | 390,007 | 390,990 | 077,430 | 312,229 |
| updating | Swedish Institute | 421,855 | 0 | 256,238 | 165,617 |
| BEIDS | Interreg IIC | 115,161 | 0 | 288,841 | -173,680 |
| Baltic Business Communities | Swedish Institute | 80,000 | 0 | 0 | 80,000 |
| Environmental Management | 5wedish histitute | 00,000 | O | O | 00,000 |
| conference | Sida | 59,261 | 0 | 0 | 59,261 |
| Environmental Management | Sida | 39,201 | U | U | 39,201 |
| course | Sida | | 1,500,000 | 318,359 | 1,181,641 |
| Toxicology conference | Swed. Chemical Insp. | 90,695 | 90,695 | 0 | |
| Printing translations | • | | | | |
| of course material | Sida | 397,030 | 0 | 247,531 | 149,499 |
| Baltic Meeting Point II | | 600,000 | 1,079,978 | 1,679,978 | 0 |
| Total | | 2,497,140 | 3,339,671 | 3,609,978 | 2,226,833 |
| | | | | | |

The quest for sustainability

what happened during the 1990s?

The middle level was most successful

Sustainable development doesn't go very fast. We have read about the climate negotiations since 1992. It took almost 10 years to reach an agreement and then major partners, such as USA, dropped out along the way. Solutions to save tropical forests, or limit fishing are equally slow in making progress. Did we in fact achieve anything at all?

Yes, on one level, the middle level, it has been successful. That is the level below international and national actors and above individuals. Examples are many. In municipalities around the world Local Agenda 21s have been adopted. The Baltic Sea region did well. In Sweden, all of the 289 municipalities developed such an agenda. Also the other countries in the region have been active. City twinning between cities in the East and West have supported this process.

Companies have also developed during the 1990s. Thousands of companies have introduced environmental management systems all the way to certification using the ISO 14001 standard or the EMAS. Environmental management is a road to sustainability. A key component is an audit, to look carefully at origins of waste, and use of resources such as water and energy. Wherever there are leaks and inefficiencies, they should be dealt with. This process is economically valuable. The attitude is that resources coming into a process should leave as some type of production not pollutants.

How sustainable is the Baltic Sea region?

In a recently published global overview of sustainable development from Columbia University in New York 150 countries were rated. The list features Finland in the first place, Norway in second, while Sweden is number four. The other countries in the Baltic Sea region are not too far behind (positions 20-30), with the exception of Poland and Belarus which are on the lower half (due to high consumption of coal). As a whole the Baltic Sea region is doing quite well.

Energy management is a key question

Energy issues have a key position in sustainable development. Today, use of fossil fuels are not sustainable. Emission of carbon dioxide causes global warming, acid rain, and overload of nutrients in our environment - eutrophication.

There are many possibilities to improve energy management that are economically advantageous. Energy costs money and if it is possible to make do with less, it is of course cheaper.

Energy use can be divided roughly equally between three parts: housing and businesses, transportation, and industry. Interesting improvements in energy use have been made in all of these but perhaps the most far reaching in housing. In fact, heating houses does not need to be a very important part of the energy budget. For example, Kalmar University Institute for Science and Technology is a zero energy building down to -8 degrees, and the Visby new city library, also used by the university, which opened in November 2001 is also a zero energy building. These buildings are designed to prevent heat loss and the indoor atmosphere is very pleasant.

Interesting developments are also taking place in the transportation sector. Cars, trucks, and buses that run on gasoline and diesel are among the worst polluters of the air in cities, but alternatives are being developed. Biogas buses - and cars - have little emissions and better fuel economy. Biogas, from fermentation of organic waste, is today produced in four Swedish cities, among them Uppsala, on a regular basis. Ethanol is another alternative.

Waste

Waste is especially interesting when it comes to sustainable development. Some years ago, no-one was interested in waste. Street cleaners were the lowest class in society. Today the waste trucks proudly announce that they "work for a better environment," as they take the waste to new uses. Paper is recycled in paper mills. Newspaper is made up of 60% recycled and 40% virgin fibres. It is easy to understand that this saves many trees. Waste that can not be recycled is burned in energy plants to become heat and electricity. Organic waste is fermented to become biogas. This in turn is used to run buses and cars and for heating purposes. A city where all these flows are organised properly is in fact a small industrial ecosystem.

Today, in many Swedish cities waste containers are located in front of homes and shops, to be easily picked up. This is different from several years ago when garbage cans were placed in the backyard. This is a symbol of the new attitude: waste is a resource.

What cities may look like

Cities are a very active arena in the effort to introduce sustainability. Cities undergo a constant change and adaptation. In cities it is easy to see the connections between environment, economics, and social issues. Restoration of residential areas often introduce not only a good environment, but also new places of employment, and improve the social situation.

The economic dimension of the ongoing change of societies in the direction of sustainable development is enormous. Since 1996 the Swedish government has invested 600 million Euro in municipalities for city restoration projects for sustainability, on condition of equal financing provided by the municipalities. The value of investments needed to "rebuild Sweden to sustainability" was once estimated by a governmental white paper to be 200 billion SEK, or 20 billion Euro. Sweden represents only 10% of the inhabitants in the region. The rebuilding in the so-called new democracies will be even larger as the inhabitants wish to achieve a better standard of living as their economy develops.

These investments are paralleled by investments in the industrial sector as well as in other parts of society. Obviously, all these investments correspond to products to be bought. A market for sustainable technologies is developing.

New competence is needed – transformative education and democracy

New development does not only require investments and production. It also requires new knowledge and competence. City planners, engineers, mangers, and economists need new knowledge and skills. In fact a major effort to pursue education for sustainable development from the school to university education and professional training needs to be undertaken. In the context of the Baltic Sea region this has been proposed in the context of the Baltic 21 process.

This new competence includes people's participation in the development of society. The new competence for everyone requires a "transformative education," an education that develops competence for change, participation, and common responsibility. It is an education for democracy. It is only recently that such issues started to be discussed. The Baltic 21 sector for education will hopefully develop into a forum for this discussion.

Lars Rydén



Left: Cities and towns have a key role in the sustainable development of the region. Carrying out this role successfully requires a new comptetence. The Baltic University Programme project SUPERBS, in which cities and universities in the region cooperate, has produced a master level course Sustainable Community Development to be fully implemented during 2002. Here the SUPERBS team celebrate during a lunch in Jelgava. (Photo: Lars Rydén.)

Right: Cooperation in the Baltic Sea Region requires that we get to know each other, The division of the region during the Cold war makes this even more important. The Baltic University course Peoples of the Baltic focuses on history, culture, language, minorities and democracy in the region. Here, Arnolds Ubelis and Lars Rydén (right) and (left) uphold Latvian tradition by offering a garland of flowers to the Daugava river, during spring.







Above: Improved water management was a first priority in the states in transition and took a large share of the environmental investements during the 1990s with very positive results. The Baltic University master level course Sustainable Water Management, which attracts about 500 students yearly, was introduced in full scale in spring 2000. The Himmerfjärds wastewater treatment plant, south of Stockholm. (Photo: Jozef Trela.)

Left: Environmental and sustainability issues are the focus of the Baltic University. Here a teachers group study a mobile air monitoring equipment in Kaunas. The car equipped with monitoring instruments allows taking occasional samples of air quality at selected locations. (Photo: Lars Rydén.)



The Baltic University Programme is a network of more than 170 universities and institutions of higher education in the Baltic Sea region. The Programme is coordinated by a secretariat at Uppsala University, Sweden.

The network widely uses ICT for communication between course groups. In the first years satellite TV with space bridges and simultaneous broadcasts was used to reach everybody and to create interactivity. Today video-, audio- and computer conferences connect study groups in the network. Case studies give the regional perspective to the courses. English is the common language, and the courses are interdisciplinary, problem-oriented and thematic.

The Programme has mainly worked through producing and offering courses for studies of the region, its environment, political change, and sustainable development. The Programme produces curricula and problem oriented teaching materials, books, booklets, and TV programs. All courses have an element of regional studies and are interdisciplinary.

Cooperation with other actors in society in applied projects is part of studying and developing sustainable strategies, and promotes competence development at large.

All universities and institutions of higher learning in the region are invited to join the Baltic University Programme. The material is available to anyone interested in arranging a course and can be ordered from the national centres or from the main secretariat at Uppsala University. The Programme subsidises the participation of universities in Central and Eastern Europe.

The Baltic University Programme, Uppsala University Box 256, SE-751 05 Uppsala, Sweden Visiting address: Öfre Slottsgatan 1 Phone: +46-18-4711840. Fax: +46-18-4711789

E-mail: info@balticuniv.uu.se

Web page URL: http://www.balticuniv.uu.se