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The picture made by students of Photo Workshop, BSP Summer Camp, Lübeck (Germany)

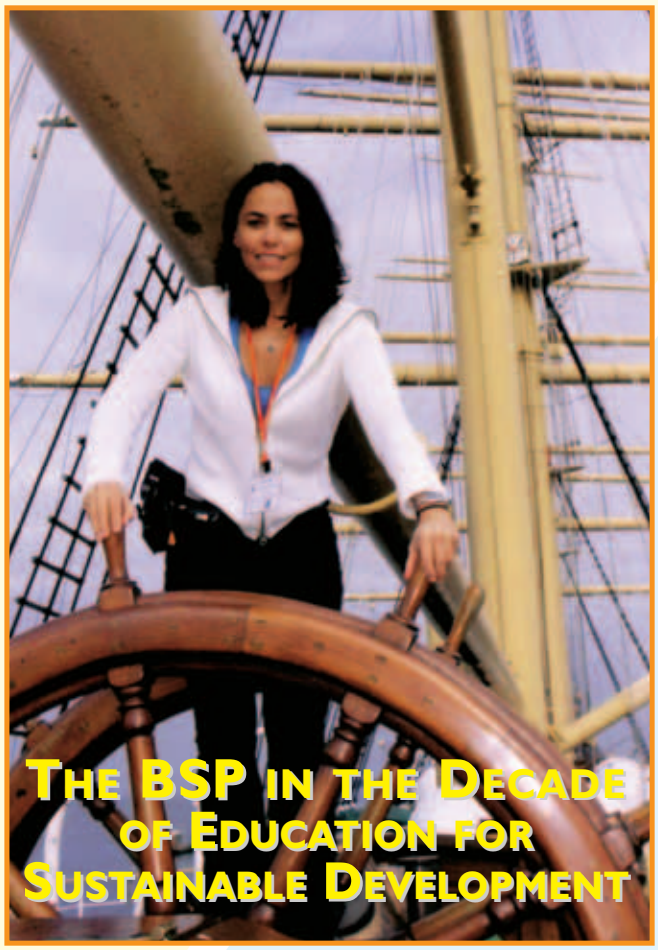

Photo: Lutz Reinecke

The BSP in the Decade of Education for Sustainable Development

Jolanta Mol
BSP General Coordinator 2003-2006

I have very fond and clear memories of that eventful day three years ago, when the German General Coordinaor, Ute Grönwoldt, presented her farewell speech at the Plön conference. Ute was not only our leader, our boss, but also our advisor, colleague and friend.
I remember tears that came to my eyes when Ute was thanking the people who supported her in her coordinator's duties; her voice was tender, she seemed deeply touched and did not forget a single person. The huge hall, filled with hundreds of participants, was totally silent. Everyone was listening intentively to this fascinating woman who had done so much good to so many people, who had won teachers and students' deepest respect and admiration, who had never failed anyone...

I was also sitting there, listening, with my mind filled with doubt – will I ever live up to the standards set by Ute? Will I manage to continue successfully the great work commenced by Ute, Birthe, Siv and Liisa? I knew it my turn had come to introduce myself and put forward the plans for the coming years, the plans that would offer the participants ideas of major interest for them. Back then I had already been involved in the project for ten years, I had read – from cover to cover – twenty-three BSP Newsletters and five Learners' Guides, I had participated in many international meetings, workshops and two – out of four – final conferences: in Nyköping, Sweden, and Plön, Germany. I suddenly felt that the amount of work done by hundreds of people during the past fourteen years and its astonishing effects, as well as enthusiastic and eager teachers and coordinators would give me strength to carry on with the new responsibilities. I knew I could count on help and support of friendly, reliable, well-educated people.

In August 2002 Ute and I participated in the World Summit in Johannesburg. We had an opportunity to listen to lectures and meet people of different ethnic and cultural backgrounds. What did the Johannesburg Summit give us?

"The Johannesburg Declaration and the plan of implementation from the Summit underscored the need to integrate the economic, social and ecological aspects as interdependent pillars in sustainable development. Poverty eradication, changing consumption, and production patterns and protecting and managing the natural resource base were recognized as objectives and necessary requirements for sustainable development. Targets were established for energy, water, fishery, chemicals and biodiversity. A ten year programme was decided upon for sustainable consumption and production. In the implementation plan from the World Summit, it is said that sustainable development should be integrated into education systems at all levels as a key agent for change. In December 2002 the United Nations General Assembly proclaimed a UN Decade of Education for Sustainable Development 2005-2014. UNESCO was named as the lead agency to promote the Decade. The key themas for the UNESCO decade include biodiversity, fresh water management, environmental conservation and protection, rural transformation, health promotion, sustainable production and consumption, human rights, peace and international understanding" see: http://portal.unesco.org/education).

I thus suggested that the schools should develop cooperation within education for sustainable development. It was not a new topic for the BSP. It had already been introduced by Siv Sellin after the biggest UN conference ever: the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June 1992. The results of the work done by schools were already noticeable after five years, during the final conference "From Words to Action" in 1997, in Nyköping. The participants had used different chapters of Agenda 21 as starting points, they also discussed and formulated actions to increase awareness and influence local politicians.

The full range of the involvement of the Baltic schools in education for sustainable development, lectures, descriptions of workshops and discussions between students and polititians constitute the major part of Learners' Guide No. 3 "From Words to Action", published in Sweden in 1998.

The following three years belonged to Denmark and Birthe Zimmermann. They may be characterized as the years of rapid increase in interest in education for sustainable development in the Baltic countries, with the next final conference, "Baltic 21. An Agenda 21 for the Baltic Sea Region". Learners' Guide No. 5 (Demark, 2003), a detailed, 147-page-long account of the conference, was presented at many international conferences on sustainable development and translated into several languages.

Ute Grönwoldt's (Germany) three years started work on recycling and sustainable consumption. Soon a new Learners' Guide No. 7, "Recycling" is about to be published, in which you will find a variety of projects prepared by the BSP schools.

Polish coordination (2003-2006) marks the time of deepened interest in developing the Environmental History programme. Per Eliasson published Learners' Guide No. 6 "Environmental History" and a few workshops were held to teach people how to use this book effectively. All coordinators were busy introducing education for Sustainable Development in their countries. Many international workshops for students and teachers took place. Soren (Denmark) organized several workshops on Sustainable Fisheries and Sustainable Sugar Production, Ute on Sustainable Consumption an Recycling, Susanne and Rolf (Sweden) on Saving the Baltic Cod, Velga (Latvia) and Reet (Estonia) on Water Quality and Coast Watch BSP programmes, Liisa (Finland) on Diversity of Algae in the Baltic Sea, and last but not least, Simo (Finland) organized Meri-Pori Environmental Camp every year in May.

I would like to express my deepest gratitude for all your hard work, cooperation, help and support. Without you, dear friends, there would be no future for the BSP. It would have withered years ago.

Now we are facing a new task – a new final conference, "Diversity and Sustainability", and then passing on the coordinator's task to Lithuania. So we still have some time together before the ultimate farewell.

I would like to dedicate this quote by Robert Baden-Powell (1991) to you, dear friends, presenting you with this issue of the Newsletter: "This is us, Earth. We realize it sooner or later, but there is no getting around it. If we do not learn to live in harmony with the food chains, with the ecosystems, then gradually they will come out of balance, and then they will die. It is all a circle and we are in it; we cannot escape".

See you in Katowice and Złoty Potok!
Jolanta Mol


Photo: J. Mol

Siv Sellin
BSP General Coordinator 1992–1997

FROM MY TIME AS THE GENERAL COORDINATOR 1992–1997

One of the best memories from my time as a general coordinator was the big conference "Save the Baltic Sea" 1994 for teachers and students from all the nine countries around the Baltic Sea.

The aim of the conference was to further environmental activities in focusing interest on the Baltic Sea. It aimed at increasing the knowledge about causes of environmental pollution and the connection to life style and political planning. The conference also aimed at creating the interest in and knowledge about what political decisions are needed for a sustainable future. During the school year the participating schools had prepared for the meeting by identifying environmental problems in local field studies, by investigating and creating solutions and preventive measures to the Baltic Sea pollution and by presenting their results to the school and locally.

One hundred and fifty students from some fifty schools and about one hundred teachers, coordinators, lecturers and some other representatives from all the countries around the Baltic Sea took part in the conference. Important parts of the conference were the exhibition of the students' work during the school year and the international round-table discussions for students. The students met in groups of 15 students and discussed their suggestions for solutions to the Baltic Sea pollution. The students formulated questions for the panel discussion and also formulated common suggestions for solutions of the Baltic Sea pollution. In the panel discussion the Ministers for Environment or representatives from the Ministries for the Environment from countries around the Baltic Sea answered questions from the students on how to make a healthier Baltic Sea.

Each participating school had an excellent poster exhibition, showing that the students had both insights and the ability to use their knowledge to develop and present proposals for solutions to the environmental problems associated with the Baltic Sea. It was obvious from the 36 questions to the panel and the multitude of solutions arising from the students' discussions that creativity flourished. The seven questions the panel had time to answer were concrete ones that indicated an understanding of the complex problem. The final words of the chairman of the panel discussion showed how big an impression the students had made:
" … Next time we have to consider to put the students in the panel and give the politicians an opportunity to ask questions."

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Highlighted Moments as BSP General Coordinator in the Years 1997–2000: Enhancing Students' Action Competence and in-service Teacher Training and What Comes to my Mind


Photo: Anatoly Kharitonov

Birthe Zimmermann
BSP General Coordinator 1997–2000

It started in Sweden in June 1997. I took part in the BSP conference "From Words to Action" in Nyköping, Sweden, as a teacher of biology and English, together with 25 of my students and 2 team-colleagues. We had prepared by working interdisciplinary with Agenda 21 issues in many lessons, and we showed the results at a huge poster exhibition. During the active week the students worked with great enthusiasm in workshops, presenting and discussing the issues of changing our lifestyle with many students from around the Baltic Sea, with people in Nyköping, and with students from other regions of the world. At the closing ceremony I was given the baton as the general coordinator of the BSP.
My students came up to me and asked, "When can we help organise an event like this where students, teachers, politicians, citizens from all the Baltic Sea States and from the UNESCO networks in other parts of the world can meet each other, discuss and work together, and try to give solutions to the many environmental problems that face our Baltic Sea Region or even our planet? – we would really like to help!"

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With Baltic 21 and Education for Sustainable Development the moment came at the turn of the Millennium, when in June 2000 the "On the Threshold – Baltic 21" conference marked the end of the Danish general coordination. Students, colleagues, and the entire community assisted when Sonderborg Municipality and my school hosted the 4-day workshops on sustainable agriculture, sustainable energy, sustainable fisheries, sustainable forestry, sustainable industry, sustainable tourism and sustainable transport.
In the years between 1997 and 2000, however, in-service teacher training brings to my mind vivid memories of input and empowering. The aim of organising teacher training for BSP teachers was to further develop the interdisciplinary and holistic approach on the joint programmes that have been developed for use in the entire Baltic Sea region. All national coordinators cooperated willingly and helpfully, hosting courses and using the expertise in their countries, respectively. They welcomed teachers and students to their countries during the three years: Air Quality courses were organised in Sweden and in Poland; Sustainable Fishery and Water Quality in Denmark; Teachers learnt new methods through Environmental Drama courses in Germany. River courses were carried out in Finland, Lithuania, and in Latvia and led to development of another Learners' Guide based on the ideas and suggestions from the participants. Bird Ecology and Coast Watch courses with new perspectives for education were held in Estonia. Environmental History courses, which helped develop the perspectives in environmental work by adding the needed time dimension and bringing new subjects and teachers into the project, were held in St. Petersburg, Russia, in Sweden and in Denmark.
I have stopped counting how many courses or how many teachers took part over the three years, but I like to pursue the thought that each teacher brought new inspiration to many students. How many young people would have been affected altogether, I sometimes wonder?
One course stands out in my memory because students were teaching the teachers! It is not only what students learn at school that counts, but more importantly how they manage to use the achieved knowledge. Gaining action competence is perhaps the most important result of the innovative ideas created in the BSP. My memories will remain focused on the many good examples: Diversity makes the BSP worthwhile – and sustainable!

BSP teachers attend a Sustainable Fishery course in September 1999.
At low tide in the wadden sea you can reach the blue mussel beds on foot, walking on the bottom of the ocean. To-day the blue mussels face a major threat due to the invasion of the Pacific oyster, Crassostrea gigas, settling on them.

Photo: Birthe Zimmermann

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PANTA RHEI
CYCLE PROCESSES IN NATURE

Ute Grönwoldt
BSP General Coordinator 2000–2003

Our accommodation and workshops were organised on the Passat – an old sailing bark in Lübeck

Photos: Lutz Reinecke

"Everything flows and nothing abides, everything gives way and nothing stays fixed." "One cannot step twice into the same river, for other waters and yet others go ever flowing on." What does that mean? This was the theme of the Baltic Sea Project summer camp "Recycling" from September 18th to 23rd in Travemünde/Lübeck. In six different workshops pupils and teachers from all over the Baltic Sea area had the opportunity to work on the theme of the conference in their individual and differing ways.

SUNDAY

Everything starts with one single event. Our project started with a warm welcome on the Passat, an old sailing bark in Lübeck, by Ute Grönwoldt: "Hello everybody! Everyone has worked a lot during the last year and now it is time to present your work and go one step further, so here we are".
There we were, one group of motivated German girls. Everybody had read the description of this summer camp and we were definitely ready to tango!
Following our daily plan, a BSP day looks as follows:
8:00 breakfast
9.30 –11.30 workshop session
12.00 lunchtime
15.00-17.30 workshop session
18.30 dinner
20.00 team meeting

Afterwards – daily presentations, parties, endless discussions…

Each time a BSP summer camp starts, the air is full of emotions. Emotions that are shown in this poem:

With A Friend

I can talk with a friend
and walk with a friend
and share my umbrella in the rain
I can play with a friend
and stay with a friend
and learn with a friend
and explain
I can eat with a friend
and compete with a friend
and even sometimes disagree
I can ride with a friend
and take pride in a friend
A friend can mean so much to me!

Photo: J. Mol

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Monday:

Lets get down to work and throw ourselves into our workshops, because there is so much work to do! On this day we chose our workshops. Eight workshops were on offer.
For your understanding I would like to give you a short résumé on what each workshop was about:

Photo Workshop

In this workshop you took twelve pictures of different topics, which were all connected to the main theme "Recycling" and to the story of Genesis (Gen 1). The results were presented during the big show at the end of the conference.

Photo: Lutz Reinecke

Lutz (dressed in white) with participants of the Photo Workshop

Photo: Jolanta Mol

Dance Workshop

Here you learned to know different elements of an Indian dance. Together with the photo workshop this workshop was the visual part of the presentation on Thursday. It showed the development of the Earth during the first seven days when God created the Earth and the final seven days when "man" decided to take his fate into his own hands.

The most important event during The BSP summer camp was the performance, which I prepared with my friends. We were working hard for four days. It was the first time when I could scream and sing with other people. At the beginning it was fun, but later it was very hard work.

Photo: Lutz Reinecke

Photo: Lutz Reinecke

Performance workshop "Environmental Genesis"

This workshop was a vocal performance of poems by Martin Buber and Jörg Zink about creation and destruction of the world. We learned how to use our voices to express ourselves.

Waste as art

Here you recycled waste and created funny, funky and fuzzy sculptures and pictures. The results had visionary character.

Historical aspects of Recycling

In this workshop you learned about the background and historical aspects of recycling. The workshop members travelled from "pre-industrial societies to consumer societies".

Calculating climate changes

Here you had the opportunity to calculate climate changes with a special computer program, developed by a group of students.

Waste Products

This workshop investigated McDonald's recycling machinery. They learned a lot about the role of fast food in our society and developed an understanding of material and energy flows within this industry.

Documenting Summer camp 2005

What did we create in five days' work? This question was answered by the documentary workshop.
You can see how difficult it was to decide on your own workshop, because they all sounded interesting. Our group split up and so we were members of the "performance workshop", "waste as art" and "dance workshop".

All photos, this page Jolanta Mol

Tuesday

This day included a "one-day-out trip" to Hamburg. Hamburg and Lübeck belonged to the Hanseatic League. Its beautiful sights and attractive Shopping Miles fascinated us. We were warmly welcomed to the town hall and enjoyed the whole blessed day. After the official part we had time to explore Hamburg while taking a boat trip and a long walk to "Landungsbrücken", one of the many tourist attractions in Hamburg. Lastly, we had an enlightening invitation to an evening of music and entertainment at the Gymnasyium Allermöhe.

Photo: Lutz Reinecke

I think that the most important event was the trip to Hamburg. There we listened to a very useful lecture. And the group work was useful, too.

Culture

Cultured are you
Cultured is me
Cultured are we
Cultured is to be

Culture is what we do
Culture is living too

Culture is the songs
Culture is the rights
Culture is the wrongs

Culture is the masses
Culture is the classes

Culture is war
Culture is peace
Culture is the living feast

Culture for the rich
Culture for the poor
Culture is freedom's door

Culture is rich
Culture is poor
Culture is for evermore

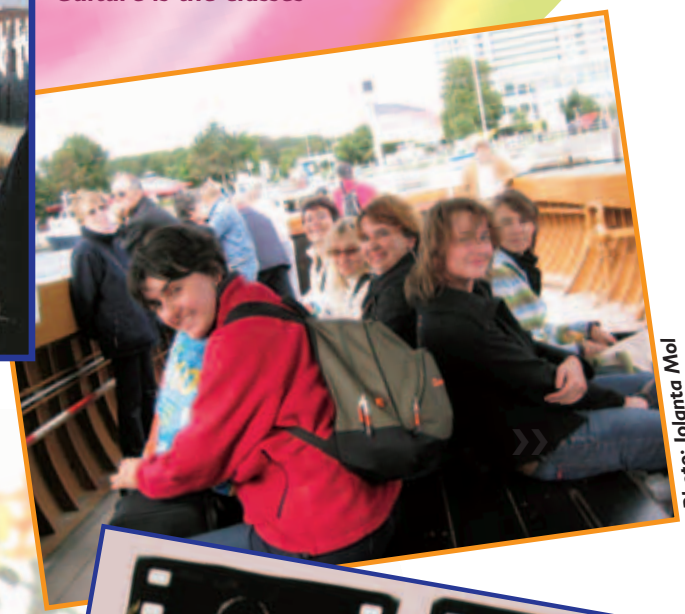

Photo: Jolanta Mol

Wednesday

This was the hardest day concerning our workshop work. Within our "performance workshop" we trained our vocal cords by singing while the dance workshop improved their Indian dance movements. In the evening we had the chance to dive into the world of Indian dance, presented by Radha Sarma and her son. As a matter of fact, everyone was more or less exhausted. Everyone? Well, some participants were still talking and sharing experiences.

Thursday

Finally the great day came. Last preparations were made for the workshop presentation and the air was filled with pleasant anticipation. Finally the rising tension culminated in our manic performance of the creation and destruction of the world. This show was supported by three workshops, the "dance workshop", the "photo workshop" and the "performance group". Everybody was very excited and nervous, but I have to say that the show was definitely great!!!!
Afterwards we had a wonderful farewell party, everybody was laughing, dancing, learning words from each other's languages and exchanging telephone numbers.

Photo: Lutz Reinecke

Friday

The next day was definitely the hardest part of the camp. To say Good Bye seemed impossible after all this fun. Nobody wanted to leave, because everybody felt so close to each other. Finally the Swedes, Lithuanians, Estonians, Finns, Poles, Russians, and Germans were hugging and crying.

As esu tikrai laimingas, kad furejan galimybe dalyvant BSP. (I'm really happy that I had the opportunity to take part in the BSP). The summer camp influenced largely my own point of view in a lot of ways. I had the best time of my life – THANK YOU!

Judith Rudolph, Germany

Photo: J. Mol

Dr. Włodzimierz Sokół

SUSTAINABLE REVITALIZATION OF BROWNFIELDS

Sustainable development seems to be a very popular slogan used by politicians, or local and regional managers, but how to make it work is usually a question without an easy answer. According to RESCUE[1] definition, sustainable brownfield regeneration is the management, rehabilitation and return to beneficial use of the brownfield land resource base in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations in environmentally non-degrading, economically viable, institutionally robust and socially acceptable ways.

A former dolomite open mine in Bytom

Dolomite Sports Valley, Bytom, in winter

The assurance of sustainability of a revitalisation process of brownfields has to be satisfied during specific stages of the process and addressed to the following basic revitalisation aspects:

- management of contaminations and reuse of soil and debris,
- land use and urban design on brownfields,
- management of existing buildings and infrastructure,
- planning processes and methods for citizen participation,
- management of brownfield projects.

For each aspect it is necessary to address a set of sustainability objectives. It is assumed that the sustainable revitalisation of brownfields is assured while the revitalisation projects represent Best Practice level i.e. the implementation of this project leads to achieving sustainability objectives with defined convergence. The sustainability objectives should be evaluated by stakeholders during the workshops organised at least twice – the first time during the initial phase of the process, when awareness of revitalisation appeared in people minds, and then while specific projects are being prepared for implementation. The stakeholders participating in workshops should represent:

- the local government,
- local businesses,
- public institutions,
- organisations, associations and media.

The Best Practice Methodology was developed by the author[2] to enable easy to use sustainability assessment of revitalisation projects by the projects' authors (self-evaluation), by stakeholders (during the workshops) and by funding organisations before taking the decision on funding. In BPM 5th generally all revitalisation aspects mentioned above are evaluated by means of a set of indicators that

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» are scored using special checklists (qualitative or quantitative questions to each indicator) and then are weighted by stakeholders during the workshops, authors of the projects or self-evaluation and funding organisation respectively. The project assures sustainability of revitalization processes if it satisfies the Best Practice sustainability criterion i.e.:

- Minimum Acceptance: $40 \leq$ scores > 25
- Good Practice: $40 <$ scores ≤ 60
- Best Practice: scores > 60

This methodology was used for evaluation of two Polish revitalisation projects. In the photos you can see the revitalisation process of a former dolomite open mine into a splendid Dolomite Sports Valley (DSD) in the city of Bytom in the Upper Silesia region in Poland (www.dsd.pl). We can observe what this site looked like over a hundred and thirty years ago while it was still a place to excavate dolomite, then the degraded nature after closing of the mine, changes implemented during revitalisation works and finally – a present picture of the valley, filled with happy children, young and old people skiing in summer and winter, not aware how awfully degraded this place was only a few years ago.

Dolomite Sports Valley, Bytom, in summer

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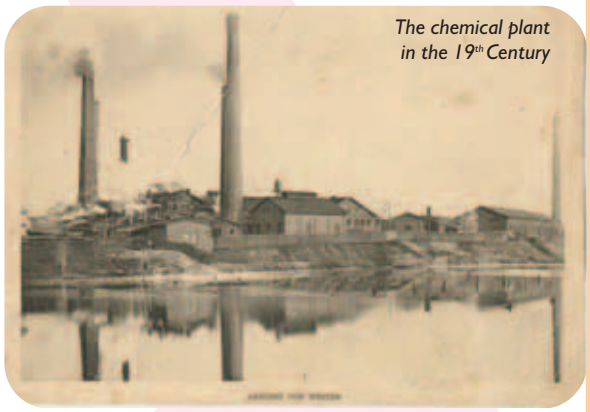
A big "Thank you" to "Municipality of Bytom" and DSD for the permission to publish photographs.

[1] RESCUE -"Regeneration of European sites in Cities and Urban Environment" – contract nr EVK4-CT-2001-00068 - Report: "Sustainability Assessment Tool for Brownfield Regeneration Projects", August 2004. Project details, partners, editorial board and others are available on www.rescue-europe.com

[2] Sokół W.A.: "Evaluation of projects representing Best Practices of Revitalization process of brownfields". International Conference: "Revitalisation of Post-Industrial Sites". Kraków, 1st-2nd May 2006

CHEMICAL PLANT „TARNOWSKIE GÓRY" – DEACTIVATED ECOLOGICAL BOMB



The chemical plant in the 19th Century

Chemical Plant "Tarnowskie Góry" – we really enjoy this topic and thanks to that we started gathering some information about this place. We spoke with a lot of people who work there, and visited Internet pages about chemical plants.

Ania and Oscar at the plant's gate. In the background – area recultivation plan

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These are some of the things that we now know about these enterprises: The areas occupied by Chemical Plant "Tarnowskie Góry" had earlier been the place of an industrial activity. At first, silver and lead ores were extracted there with a slow development of production of potash alum and sulfuric acid. In the second half of the 19th century the first furnaces of iron works were activated there and operated until 1892. The plants were then the property of Earl von Donesmarck, who – in the year of completing the operating period – started the production of silk paper. The paper was exported to Japan and China on a mass scale, yet the production was terminated in 1919. During the interwar period there was, among others, production of oil color paints, barium chloride, barium sulfate, zinc oxide, zinc sulfate and sodium perborate. In 1943 the production of active soot was started and right after the war, the production of sodium salt and lithopone. In the following years, chemical soot and strontium carbonate were additionally produced there. The plants managed to monopolize the production of barium and boron compounds. In the 60s the plants were nationalized. Only until the 80s did the authorities pay attention to the pollution and in 1991 there was groundwater monitoring introduced. This resulted in putting the plants onto the so-called list of "the 80 polluters", a national list of the biggest polluters. Thus the plants started to lose the outlet, which resulted in a difficult financial situation. The impossibility of activating a new production line led to the decision in 1995 to start the liquidation proceedings of the plants.

During their activity, the Chemical Plants managed to achieve many "successes" in the field of the environmental pollution. The forest, which initially occupied 2/3 of the plants' areas, has been degraded by destructive production of the plants. The "Chestnut Alley", which had consisted of very old and impressive specimens, died out. After a few years, when somebody finally noticed the visible results of the poisoning of the trees, the forestry management started to save the situation by planting special species of the willow. However, no success has been yet achieved. Also the fauna suffered from the situation, as the cut and degraded forest had once been the home for many animal species like hares or roe deer. At present there is a "dead" area and the animals have moved back to the forests in Strzybnica.

Chemically contaminated area, subject to recultivation

The substances and compounds used and produced in the plans proved harmful to the workers themselves. There were two or three serious accidents every year. There also were fatalities, which emphasizes the harmful activity of the plants to human beings.

In 1995 there were 8 waste dumping grounds, occupying 900 000 square meters, within the plants premises. Among the waste there were compounds of barium, strontium, chloride, sulfate, zinc, copper, arsenic and iron. In 1998, another set of 9 waste dumping grounds was discovered. Cumulatively there were 1,5 million cubic meters of waste that reached the ground water next to the General Reservoir of the Ground Water 330 – Gliwice and 327 – Lubliniec – Myszków. The air was also polluted with the dust coming from dangerous dumping grounds. It is not difficult to imagine how big sums of money will be required to restore the area's initial state. Despite the European Union program, which aids the liquidation process, the State bares the costs, which, to a large extent, charge the national budget.

It is worth asking whether this contamination could have been prevented. In our opinion, yes. We do not mean that the plants should have been liquidated earlier or not opened at all, but we think that it is vital to obey the security rules during the activity of the plants and respect the nature. It is not so difficult to store waste in special places or containers, invest in purification plants or install the filters on chimneys. These undertakings would definitely diminish the pollution. Here, the safety regulations were slightly bent. Many accidents could have been avoided but for the recklessness of the people responsible for safety. Well… we need to ask one question: whether and at how high costs this ecological bomb will be deactivated. Let time answer this question.

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Photos: Anna Engel and Oskar Cichoń,"Towarzystwo Przyjaciół Ziemi Tarnogórskiej" and http://www.zchtg.top.pl/galeria.php

The Hammaroe Project
– an interesting approach to environmental problems


Trygve Forssten

Hammaroe, an island on lake Vaenern in Sweden, is carrying out an interesting and creative EU LIFE project that could serve as a model also elsewhere. It is unique worldwide as a novel concept to handle wastewater and organic household waste. To the best of our knowledge this concept does not exist anywhere else today. Besides providing innovative solutions to many environmental problems, the method is very cost effective, compared to traditional wastewater treatment.

Wastewater and organic waste cause serious environmental problems not only in the Baltic Sea, but all over the world. It is a well-known fact that one of the main problems in the Baltic Sea is the eutrophication, which is caused by the discharge of phosphorus and nitrogen. Every new effective method to treat wastewater and organic waste is therefore welcome.

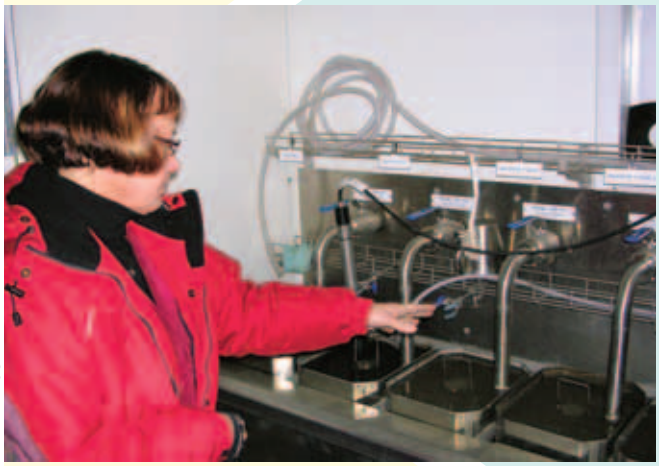
Photo: Trygve Forssten

Engineer Karin Eklund, Gaevle, Sweden, checks instruments situated in the central site of the sewage plant, destined for measurements and analysis. Since water from all parts of the sewage plant is pumped to this site, only one set of analysis equipment is necessary. Due to the use of the HFO-CP method, the chemical costs are reduced by approximately 100.000 /year.

Local solutions

The aim in Hammaroe is to create a local system with total recycling of all organic waste as well as a decentralised treatment of wastewater. An important factor has been the rapid development of the ability to control the processes, using new computer technology. Earlier, for example, the waste was treated one set a time in basins. Today it is possible to treat the wastewater with a perpetual flow through one single basin, while continuously controlling the whole process on-line.

On the island there is one main sewage plant where the treatment process is integrated with a new form of wet compost process. Several local plants transport sludge to the main plant after a biological treatment and after removal of water.

Water from the sewage plants is directed to specially designed wetlands, according to varying purification requirements for the water. At the same time the wetlands provide security during potential operational disturbances.

In the wet compost process, new advanced techniques performed in several steps are used. Organic waste is transformed to nutritive substances and there is also a hygienic treatment of the sludge.

All material, including organic household waste, is treated as a local resource that should be recycled.

The decentralisation of water treatment means that there is less need for piping systems. As a consequence of this, there is less need for energy consuming transportation with emission of gases, heavy metals, noise pollution and other environmental effects.

The remaining household waste is sorted in local recycling centres. The project is pedagogically demanding, because knowledge and understanding in combination with personal responsibility is important. One example: how should chemicals in the household be used – for example, how much washing powder is utilized during one wash?

The Hammaroe method provides the following advantages:

- ecologically sustainable model for recycling wastewater and organic waste
- elimination of contamination of soil, groundwater and water supply
- decreased emission of greenhouse gases
- reduction of damage due to eutrophication
- decreased emission of heavy metals and organic substances
- results from purification wastewater plant:
  P = 95%; N = 70%; BOD = 95%
  including wetland: P > 98%; N > 95%; BOD > 99%.
- decreased waste transport by 70%.

HFO is a new effective method of wastewater treatment. The HFO (High Frequent Oscillations) is an important part in the Hammaroe project. The HFO method is a new innovation, which uses anaerobic and aerobic processes in the same basin for reduction of nitrogen and phosphorus. Besides its efficiency, the method is cost effective.

HFO consists of two processes: HFO-CN (carbon-nitrogen removal) and HFO-CP (carbon-phosphorus removal).
The method is possible due to the development of the process model, which enables an advanced control of the processes. Normally the aerobic and anaerobic processes are performed in different basins.
In the HFO method the two processes are, interestingly enough, carried out in the same basin.
The nitrogen reduction is accomplished in two steps in the basin. First, there is nitrification in the presence of oxygen ($NH_4^+ \rightarrow NO_2^- \rightarrow NO_3^-$).
The second reaction, when nitrogen is transformed to gas (N_2), is anaerobic.
In a similar way there is a phosphorus reduction, when phosphorus accumulating organisms (PAO) are exposed alternatingly to oxygen rich environments and to anaerobic environments.
The process model makes it possible to adapt the process to different amounts of wastewater. This makes the processes much more effective.
The HFO method has many advantages i.e.:

- it is effective (see above)
- energy costs are reduced
- it applies to different wastewater amounts
- the use of a single basin enables considerable cost reductions
- minimized costs when rebuilding plants
- less use of chemicals, which means large economical savings.

I believe that the Hammaroe project could interest everyone with responsibility for sewage plants, because of its efficiency and the possibility to reduce costs for upgrading existing plants or for building new plants.

The Hammaroe is an interesting step towards a sustainable society in ecological balance with nature.
For more information, see: www.localrecycling.hammaro.se

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THE EARTH DAY in a POLISH BSP SCHOOL

On 14th April 2005 in III Secondary School in Głogów we celebrated the Earth Day. That celebration was an opportunity to distribute prizes among students who had taken part in competitions, which were organized especially for the event. This year we have joined an all-Polish project organized by the Main Board of the League of Nature Conservation entitled "Forget-me-not as a symbol of our attitude towards nature and sustainable development" also including a competition called "Protection of water sources". Thus I announced the following contests at school:

- a film or PowerPoint presentation about water sources of our administrative district and the surroundings of Głogów
- a picture and a slogan about water sources
- an essay about water sources.

All photos: Danuta Madroszkiewicz

The aim of the contest was to get familiar with the regional water sources, perhaps even legends connected with them, but especially with protection of water sources, because water is the cleanest at its source. The best compositions were rewarded.
Students from classes I B, I D and II B prepared a performance entitled "Gods' meeting" (Water, Wind, Sun, Earth – as alternative energy sources). This year's Earth Day celebration was sponsored by Forest Inspectorate in Głogów with Mr. Jerzy Borysiwicz as a leading person.
The ecology class got a gift of a mug with the forget-me-not symbol (*Myosotis palustris*), a so-called "decalogue" of an ecologist and a message from Mother Earth written by myself. Traditionally, the 3rd class gave a tree of friendship to the 1st class, which was planted behind the school building after the celebration.

Cleaning up the forest 2005

Every year in Poland an event called "Clean up the World" is organized. Poland has taken part in it since the very beginning. Last year we decided to clean up Głogów's neighbouring forests, which belong to the Forest Inspectorate of Głogów. At that time we cleaned the forest in a small village of Serby on the main route from Głogów to Poznań and we gathered a lot of rubbish – 12 tonnes during only two days. There was everything that civilization had produced: couches, tyres, washbasins, tiles, TV sets, wires, glass and plastic.
This year, on 14th and 15th September we cleaned forests in the neighbourhood of Kotla and Głogówko, and we revisited last year's clean-up area in Serby.

It was a little bit better, although people living there don't treat the forest as a temple, as professor Shafer (a well-known Polish naturalist and botanist) used to call it, but as a rubbish dump. And this year, just like last time, we found: glass, plastic, clothes, parts of couches, TV sets, car batteries, tyres and more.
We helped Mother Earth but there is a question for how long. How long will Mother Earth patiently look at the human behaviour? We should remember that the Earth was given to us as a garden to take care of.

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SALIX VIMINALIS – A CHANCE FOR THE POORER REGIONS OF EASTERN AND CENTRAL EUROPE

Agnieszka admires a huge *Salix viminalis* plantation

Photo: Leszek Terlecki

Table 1. The cost of producing 1 GJ energy from different fuels.

Fuel	The cost of production of 1 GJ of energy (Polish Zloty)
Hard coal	21
Oil	47
Natural gas	33
Energetic willow	19

The energy industry can be considered as the one with a leading role among all other branches of economy. It is energy that enables civilization's development. Therefore, the concern for its reasonable obtaining and usage is our common interest. Over the last decades, the problem of unrenewable energy sources running low has been getting worse. According to scientific predictions, at the current level of exploitation, hard coal will suffice for 195 years, brown coal for 291 years, and natural gas for approximately half a century and crude oil only for 40 years! In the face of this menace, the world has no other choice, but to reach for alternative sources of energy, for example for biomass. One of the species of energetic plants is *Salix viminalis* – energetic willow. It is one of the most economical and environmentally friendly sources of energy. It can be used in private houses as well as in heat and power stations.

The cost of producing 1GJ energy from *Salix viminalis* is the lowest among all kinds of fuels (Table 1).

Depending on the cycle of harvesting, willow's biomass can contain a different number of calories, water and ashes. Parameters such as chemical composition (e.g. content of water, ashes, lignin) and energetic efficiency (the ratio of calorific value of crop to amount of energy used in the process of production) depend on the cycle of harvesting. The willow can be cultivated in one-, two- or three-year series. The third option, which can be seen in table 2, gives the best results.

Industrial entities using biomass instead of traditional energy resources do not pay for polluting environment.

The region of Varmia and Masuria, situated in the North-East of Poland, holds the inglorious title of the region with the highest level of unemployment in the country. A considerable percentage of people staying out of job, are inhabitants of rural areas, former "PGRs" – State-owned Farms that existed in Poland in the times of communism.

Inception of willow cultivation would be an opportunity to lead profitable business and to improve the living standard of village dwellers.

Energetic willow's production is profitable not only from the point of view of the economy. The willow as a source of energy is also a benefit for the environment. The amount of carbon dioxide that is emitted in the process of burning this kind of wood is equal to the amount assimilated by vegetation. That is why CO_2 concentration in atmosphere does not increase. Moreover, the ashes emission is only 1,5 percent of burnt biomass (in comparison: ashes from burning hard coal can amount to even 20% of the coal's mass). These ashes can be used as fertilizers, enriching soil with calcium and potassium.

What is more, *Salix viminalis* is a suitable species for creating "green protective walls" around sources of pollutions such as: factories, highways or landfill sites. The willow's roots absorb toxic wastes and metals, making them part of their organisms. Another advantage of the discussed plant is the ability to utilize sewage and liquid manure, which protects ground waters from contamination. Therefore the willow plantations could be set around sewage treatment plants. The willow roots degrade even 80% of noxious substances.

Table 2. Cycle:	Calorific value of willow's wood (MJ/kg.)	Content of water (%)	Content of ashes (%)	Chemical composition (%)			Energetic efficiency
				cellulose	lignin	hemi-cellulose	
Annual	18,56	53,15	1.89	45,58	13,34	13,53	22.5
Biennial	19,25	50,14	1,37	48,02	12,58	13,39	33,6
Triennial	19,56	45,98	1,28	55,94	13,79	13,96	41.9
Average	19,12	49,76	1,51	49,84	13,24	13,63	32,67

Summing up, undertaking the energetic willow's cultivation is a reasonable decision that could satisfy economists, ecologists and people who are looking for employment.

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EARTH DAY

34 Nicholas Copernicus Primary School in Katowice, Poland – our suggestions and ideas

In Poland the Earth Day celebrations (22nd April) are meant to develop pro-ecological attitudes and love for the world of nature. People organize competitions, conferences, lectures, parades, and festivals. All these events are supposed to help people see how fast our environment is devastated. Major problems discussed on that day are: waste management, recycling and pollution.

A popular practice – also in our school – are trips to the forest, where we can plant new trees. Some classes, like 5c, 3c and 1a went to our local forest (in a place called "Zadole") this year, too.

We would like to put forward a proposition to celebrate the Earth Day by organizing at schools (in April) a set of competitions promoting environmental protection and interest in nature.

COMPETITIONS LIST:

- "Forest – the Earth's green lungs" – art competition for the most beautiful postcard,
- "Healthy food = long life" – competition for the most creative advertisement or commercial of a healthy food item,
- "Monument of our civilization" – art competition for a sculpture from waste materials,
- "Eco-Fashion Show" – competition for the most creative item of clothing made of scrap materials or wastes of different kinds,
- "Listen to us, Earth" – a music competition for the best environmental song,
- "My grandma's delicacies" – a competition for old-fashioned traditional cookery books containing recipes using natural ingredients,
- "Nature around us" – photography competition for the best photo presenting some chosen aspect of nature from around where we live,
- " Become a friend of the Earth" – a competition of ecological and environmental knowledge,
- "The Man of the Earth" – a creative writing competition for the best essay presenting the person who has done most to preserve and protect the environment,
- "Green Puzzle" – a competition for the most interesting ecologically-oriented crossword,
- "Let's recycle" – a group competition in collecting scrap paper, plastic and glass. The class to collect more money from selling the scrap materials – wins!

This is only a sample list. You are welcome to add other competitions to it and make sure you share your ideas with us!

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Environmental education should be introduced as early as possible. Children aged 7-9 learn how to plant trees.

All photos: Małgorzata Zabiełło-Grochowska

ECO-LABELS AND SUSTAINABLE CONSUMPTION INVESTIGATED BY POLISH STUDENTS

We are the members of "Demeter", the ecological club of the Konopnicka Upper Secondary School in Katowice. We were concerned with the problem of sustainable consumption. If we are talking about sustainable consumption, we have to say something about ECO-labels on the products which we consume. The variety of articles on the market gives everyone access to many goods. When we shop, we must think about the environment, because our future depends on it. Labelling guarantees that during the production process there was no contamination of water, soil or air. Also, ECO-labels indicate that the product or its parts are suitable for recycling. In this way, knowing how important it is to take care of the environment, ECO-signs and their functions became a matter of focus for us.

Alicja (left) has chosen only eco-labelled products (e.g. not tested on animals).

Tania has bought the cheapest ones.

Photo: Jolanta Mol

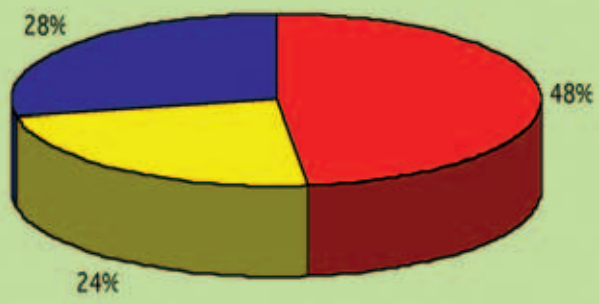
To have a closer look at this problem we chose three groups of products that represent a variety of articles and their ECO-labels. The first product is the deodorant. We can observe on deodorant containers words such as: "PZH attested", "ozone friendly" and "not tested on animals". Further declarations indicate the manufacturer's awareness of responsibility concerning recycling. In this case the package is made from aluminium, and there is a suggestion to recycle it. There is labelling about Polish and European norms of aerosol containers. The next products were food products. For example, on cereal packaging we can read "take care of the environment" and there is recognition of the manufacturer's responsibility to recycle. The last product is coffee. On these packages, we can only see information on recycling. But concerning coffee, much more could be done. A small number of manufacturers pay attention to the natural environment of coffee and its cultivation in the shade provided by trees. That kind of care is not only rewarded by an ECO-label, but also carries other benefits such as better tasting coffee, due to the fact that it stays ripe longer when it's not in the full sun.

To determine the ecological consciousness of people of various ages, we questioned randomly chosen people who were returning from a shop. We questioned 50 people of different ages (Diagram). A lot of people think that the word "sustainable" is an idea of somewhat eccentric people and consider only the price or the quality of the product. Six people said that the protection of biodiversity and natural resources was really important. Twenty-year-old Agata agreed to show us all the products that she had just bought. We noticed there were yoghurts with an "excellent food maker" label. There was also water with a recyclable symbol and cocoa which was "bird friendly". The rest of the products were not marked with any sign.

We inquired about the past as well. Sixty-year-old Henryk told us that 30 years ago taking care of the environment had been just an unattainable dream, and the "ECO- labels" idea didn't even exist. Today, for the biggest part, Polish consciousness about sustainable consumption and biodiversity is still insignificant.

If we want to introduce any changes, we must pay attention to the things that we buy, and their concern for the environment as indicated on the containers. We should use only products with ECO-labels. Then we can know that we are contributing less to the environmental pollution. As the young generation that has always wanted changes, we are hopeful for a better tomorrow, which will lead us to a life in harmony with nature. In our minds tomorrow looks, against all odds, rather bright.

Diagram presents the answers of the Polish people to the question: "What is sustainable development?"



- People who don't know what sustainable development is and don't care about the environment
- People who know what sustainable development is and are consciously trying to improve the environment.
- People who know what sustainable development is but for whom an ecological way of life is meaningless

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VITAMINS IN OUR DIET AND THEIR BALANCED CONSUMPTION

Karolina Warzybok, Poland

Natural vitamins are an inseparable element of our diet – they are indispensable for life. We supply our body with them every day by eating vegetables and fruit. Since we have an enormous variety of them in our shops, we have been wondering what vegetables and fruit are eaten by the average Pole and if there is any thought given to the choice between native or imported products.

Which girl is more interested in protecting the environment?

Alicja (left) has bought imported products, while Tania always gets only Polish fruit and vegetables.

Photo: Jolanta Mol

At the beginning we carried out a public opinion poll in the streets on the subject of vitamins. We asked people of different age groups whether they paid attention to the presence of vitamins in their everyday diet. It turned out that most of the respondents paid bigger attention to the taste of dishes or to the amount of calories in eaten dishes than to the supply of an optimum quantity of vitamins. Having obtained this information we came to the conclusion that although vitamins are an indispensable component of out diet we do not use them on an everyday basis. Therefore, we decided to deal with the problem. Our next step was to gather information on vitamins and products that contain them. Above all we concentrated on vegetables and fruit, which – as everybody knows – are one of the main sources of vitamins. It turned out that there was not much difference between the quantity of vitamins in native and imported vitamins. This made us go back in time to the moment when imported fruit and vege tables were not available at all. Basing on this observation we looked into the matter by interviewing several elderly persons from the family and neighbourhood. Our talks concerned the availability of vegetables and fruit previously and now and its influence on diet diversity. We found out that home-grown products cultivated in home gardens, which was possible due to smaller environmental pollution, were the main source of vitamins. Another reason was the difficult access to exotic fruit, including citrus fruit, which aren't considered anything special today. We then summed up the present situation. Imported fruit is readily consumed due to its taste, appetizing looks and easy access. To a great extent it has replaced our own native home-grown fruit. However, one should ask the question whether this is a favourable phenomenon. Do we realize what happens to the fruit before being delivered to the shop and how long is it kept there? We cannot be sure that these products are properly stored, that they have been grown 100% naturally, in an ecological way.

Upon analysing the vitamin content in selected native and imported fruit and vegetables we found that it is comparable in both product groups. Why then do we keep replacing our native readily available products with foreign products? We came to the conclusion that, if this process continues, we will oust important and natural sources of vitamins from our diet. It is not a matter of giving up imported vegetables and fruit completely but of balancing their consumption. What should be done to achieve this? Above all, it is necessary to draw people's attention to the important role of vitamins in their diet, their variety and necessity of providing the body with a whole range of vitamins. This is possible by using native products as well as vegetables and exotic fruit in the diet in similar proportions. We hope that in the future people will pay more attention to the matter of variety of vitamins and products that supply them.

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UN DECADE FOR EDUCATION FOR SUSTAINABLE

To mark the beginning of the UN Decade for Education for Sustainable Development, the Danish UNESCO schools decided to start a relay across the country with the Danish Ministry for Education as their final destination.
On Thursday 13th October last year, the Minister for Education, Bertel Haarder, was handed the relay baton by 30 Danish students and their teachers. It contained several suggestions for sustainable development. By then, the relay had travelled across the country and visited more than 30 Danish UNESCO schools.
The relay was launched at 5 different locations around the country and passed on each week to a new school until it finally ended its route in Copenhagen.
The students brought the Minister for Education three items from each school:
1. The relay baton in a shape of a globe.
2. Written recommendations from each school with motivated accounts of five most important focus areas in connection with the decade, and a proposal for action for the chosen areas.
3. An illustration from each school suggesting what sustainable development is.

One of the schools launching the relay, Sønderborg Amtsgymnasium (Sonderborg Upper-Secondary School) has been a member of the BSP network from the very beginning. The recommendation from its students to the Minister was to produce guidelines for a Certificate to be used in educational institutions working with the term "Education for Sustainable Development".
The recommendation was fastened at the back of the calligraphic maxim "For a Sustainable World", which had already tra-velled halfway across the world from Lijang in China to Sonderborg in Denmark.

• **The Relay at Sønderskovskolen**

Sønderborg Amtsgymnasium passed the relay baton on to Sønderskovskolen (Sonderskov Elementary and Lower-Secondary School), which is also a BSP network school. In addition to the relay baton, the 6th grade students were given a calendar for the year 2006, showing examples of how sustainable development has become an integrated part of the teaching process during a three-year period at BSP partner schools in Tartu, Estonia, Gdansk, Poland and Kandel, Germany.
The students at Sønderskovskolen agree that a subject called "Sustainable Development" ought to be introduced in the Danish schools. In their recommendation to the Minister they write: "We find it important to have a separate subject about sustainable development in the schools. That way everyone can learn the importance of taking care of the environment."
The five relays passed from school to school until they reached the Ministry for Education at a reception, where the Minister thanked the students for their viewpoints. He emphasized that he found their opinions essential and took them seriously. In his speech he also focused on the importance of acquiring knowledge and looking into the problems connected with the future Sustainable Development at all school levels.
After the formal presentation some of the students were allowed to share their viewpoints in a discussion with the Minister. The Danish Minister for Education, Mr. Bertel Haarder, discussed sustainable development with pupils from Nørre Gymnasium.

• **The Relay at Nørre Gymnasium**

A class of 25 students from Nørre Gymnasium(NG) in Copenhagen travelled to Amtsgymnasiet in Sønderborg in Jutland in September, to attend the start of the relay. This visit was also part of a continued collaboration on sustainability between our two BSP schools.
In October, NG received the baton from Niels Steensen's Gymnasium (NSG). At NG, 200 students gathered to attend this event, together with a class of students from NSG. It turned out to take hours, during which students shared information, we received information from an expert, and the topics were related to the local action.
First, students from NSG told about their work on sustainability and what they had learned about the topic during a recent visit to Brussels. Then they handed over the baton in the shape of a globe, with their own material about sustainability, along with the materials received from the previous schools in the relay. After this ceremony our invited guest, Christian Friis Bach, international Head of DanChurchAid, took over and gave a lecture to all the students about global dilemmas. He talked about the need for strong global institutional collaboration and public control of the global economy. He shook some of our preconceived opinions, in a balanced and well-argued talk. In this context he also spoke about Kyrgyzstan in the former Soviet Union, from which he had returned on the very same day. Kyrgyzstan was of great interest to all Danish high-school students at that moment, because they were all going to work a day in November to collect money for the schools in this country. Actually, Danish students collected around one million Euros that day. This is an ongoing campaign (see www.od.dk) in all Danish high schools every year. In 2006 the focus is South Africa.
At the end of the gathering at NG, representatives from the Danish Refugee Council, who had taught some classes at NG in the morning, made an appeal to the students to help collect money for their annual fundraising campaign in November.
The week after the event at NG, four students from NG handed over the baton, together with illustrations and recommendations from the schools, to the Danish Minister for Education. Some of the recommendations from NG urged the Minister to help schools to develop a sustainable use of resources in the schools, and to both provide inspiration and develop materials for related educational activities in schools.

Photo: Susanne Blegaa

The relay project also led to a specific suggestion, regarding how to ensure the future work with sustainable development. The suggestion is that all schools establish a school board, which should attend to the schools' commitments in these matters. Members of the board should be students, teachers, technical staff and Heads of each school.
The board should inspire, initiate and assess the school's activities within the following areas:

- teaching for sustainable development

DEVELOPMENT STARTED IN DENMARK WITH A RELAY

- co-operation with local organisations in connection with sustainable development
- global outlook both through the ethnic diversity of the students and the global partner schools
- global engagement (i.e. through Operation Day's Work)
- sustainable maintenance of the school buildings and outdoor areas

Parts of this recommendation are already implemented in Nørre Gymnasium's plan of operations this year.

Pupils from Norre Gymnasium discussing sustainable development with the Danish minister for education

The Relay seen through the Eyes of the Pupils

The ozone layer is disappearing, the environment is threatened, terrorism has become a part of everyday life, and we are getting dangerously fatter and fatter in the Western World while more and more people in the Third World are starving. When looking at the condition of the world, there are numerous problems to focus on and they can seem so overwhelming that it is tempting to just shut your eyes to them. But the problems you shut your eyes to have a tendency to grow bigger.

Therefore our two 10th grade classes at SPF invited all the problems of the world into our classrooms and for a period of time, we focused on what problems we found most important to deal with.

We started by studying a folder on sustainable development presenting the problems in different ways. We divided the problems between us and each pair was given the task to present them to the rest of the class. During this presentation we became particularly aware of some thought-provoking numbers related to our consumption.

To us, girls, it was scary to realize how much money we annually spend on make-up, compared to how relatively little is needed to ensure clean drinking water for all. Other information worth mentioning was that the winning of gold for one single wedding ring produces close to 3 tons of toxic mine waste. Dressing up with make-up and jewellery suddenly took on a whole new dimension.

From this discussion we expressed several topics that we again divided between us, working this time in groups. We could choose freely between the topics, but the areas that we were particularly interested in were terror, hunger, education for all, the discharge of Freon, consumption, child labour, the maltreatment of women, equal rights, waste, and ecological farming. The hard part of the process was, after the presentations, to choose the five suggestions that should be passed on with the relay to Bertel Haarder. The worst part of choosing is that every time you include something you exclude something else. Our choice was made with the assumption that if the chosen problems were solved, the effects would spread like circles in the water.

We chose:

• Poverty • Education • Over-consumption • Hunger • Child labour

We were picked to be the students representing SPF and passing the five mentioned recommendations on to the Minister for Education. The day before the meeting we practised intensively on how to present the five topics, and here the butterflies found their way to our stomachs. We saw it as an exciting experience and were anxious to meet the Minister himself.

At 12 noon we were standing, ready to present the globes, together with the other students from the relay. When Bertel Haarder walked into the room with his familiar face, it felt quite unreal. This man, whom we had only seen on television or in the magazines, was now standing in front of us ready to hear our viewpoints on sustainable development.

He greeted us nicely and sat down to hear our presentations. Our presentation went really well. We explained the ideas behind our posters and spoke about our five recommendations. Finally, we presented him with the five globes and told him that we needed five globes to survive the consumption as it is taking place nowadays. The Minister for Education thanked us, promised that he would find a place for each globe and ended the event by giving his view on sustainable development. He stressed the importance of not seeing sustainability as isolated areas of action, but as a whole. We can only agree with that point of view and hope that with his help a better background can be made for the work with sustainability and global issues at schools.

When we look back on the course of sustainable development, we find that our knowledge on the matter has increased considerably. The course was carefully planned and it was a good idea to let 30 schools work on the topic. That enabled us to inspire each other and to look at the topic from different perspectives.

We became familiar with the expression "sustainable development" and now have a notion of what actions need to be taken in order to create a development that can "sustain the World".

We found out that we can easily change many things in our daily life ourselves, like the use of paper, metal, plastic and Freon. In addition, we have an increased focus on how our world is connected to the rest of the world. We have a responsibility as individuals and as a society, and the big differences between the Western World and the Third World cannot continue.

But the most important thing of all was that we were given an answer to the question: Can we do anything to take part in the sustainable development?

YES – we can do a lot and the most important thing we can do is to put the future of the world on the timetable – in order to increase each student's knowledge, insight and consideration in relation to the condition of the world.

A relay has already started – and we hereby pass it on.

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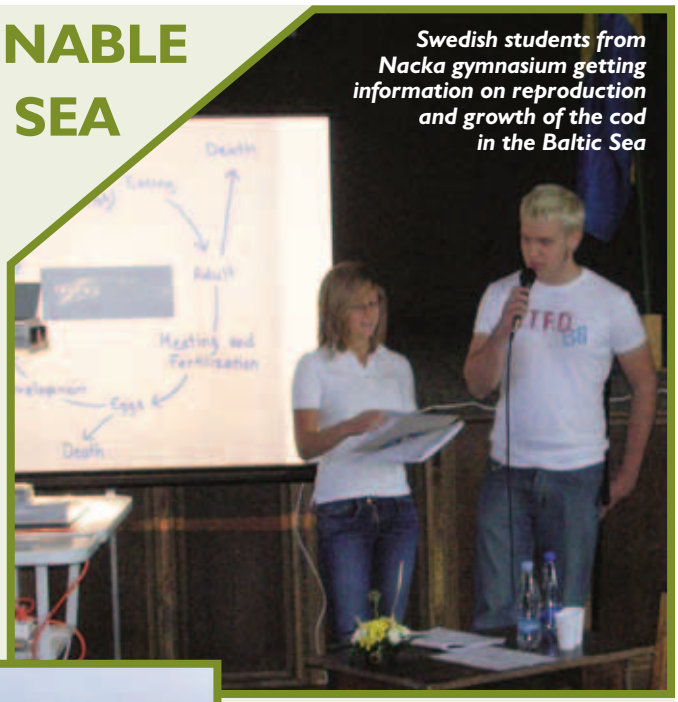
TOGETHER FOR SUSTAINABLE FISHING IN THE BALTIC SEA



Swedish students from Nacka gymnasium getting information on reproduction and growth of the cod in the Baltic Sea

In this issue of The Newsletter and one year after the "Nacka Cod Conference" the last manuscripts summarizing the thematic studies done by the eight workshop groups at the meeting have finally been published. We can thereby end the discussions on sustainable fishing in the Baltic Sea. However, there will certainly be reasons for all of BSP to return to this topic in the future.

The Baltic Cod is yet not saved. Meanwhile, the information on which the manuscripts are based is stored and available on the net (www.nackagymnasium.nacka.se) and could be used for thematic studies wherever and whenever suitable in particular BSP schools.

Visit to the fishing harbour of Klaipeda

There were no schools, teachers or students from Lithuania present during the conference in Nacka and for that reason one of the conference financiers, The SI/Visby Program, made it possible for a class from Nacka gymnasium to travel to Lithuania and meet fellow students in Vytautas Didysis gymnasium in Klaipeda in order to discuss the Baltic Cod issue.

The students from Nacka gymnasium studied the eight cod themes (see above) and prepared themselves theoretically in the spring 2005. During the first weeks of the new school year in the next autumn they trained to present their findings orally in English and in September it was time to go overseas for a final multidisciplinary exam in Biology, Oratory and English.

We, the teachers and the students, were very well received by our hosts, especially by the teachers Mrs Rita Kisieliene and Mrs Stasé Alenskiené and the Headmaster of Vytautas Didysis gymnasium. They had prepared two days of activities for us all. It all started with a tour of the school and visits to the historical and natural science collection rooms. Then we had a half-day full of presentations and discussions on the eight cod themes. After lunch we all went to the fishing harbour of Klaipeda, where Mr Erlandas Lendzbergas from the Fisheries Control Division informed us about fleet and catch sizes etc. He also took us on a guided tour to see the quays and fishing boats. The fishermen were all working to prepare themselves and their fishing equipment for the next day, which was the start of the coming fishing season after four month of fishing stop. We felt sorry for the cod. The next day we all went to see the Kursiu National Park and the Marine Aquarium. We thank The SI/Visby Program and all our new friends at Vytautas Didysis gymnasium for interesting days together for the sake of sustainable fishing in the Baltic Sea.

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Photos: Jac Anjou

EUROBIRDWATCH 2005

Dear friends from BSP. Last year I wanted to encourage you to take part in the European Birdwatch organized by BirdLife International. I don't know how successful I was, but Estonia has joined the Euro Birdwatch this year for the first time. Almost 40,000 people took part in the EuroBirdwatch 2005 and nearly three million birds were observed at a single weekend. Euro Birdwatch is an opportunity for people to feel close to nature through watching birds, which is a fascinating, ever-changing activity that increases our awareness and appreciation of natural wildlife.

This year Euro Birdwatch was held on the 1st and 2nd of October. BirdLife in Turkey coordinated this event on behalf of the BirdLife European Partnership, with 35 BirdLife organisations running their own national events.

The wide variety of events across the continent included bird watching excursions, special bird watching events, contests for children on identifying birds by their song, excursions to watch birds in national parks, and many more activities.

EuroBirdwatch 2005 statistics (by the courtesy of BirdLife International) show that:

- the country with the largest number of events was **Germany,** where 391 events were organised,
- the country with most participants was **Spain,** where 22,500 participants were involved,
- the country with the largest number of birds seen was **Sweden,** where 788,620 birds were counted,
- the country with the most diverse bird list was **Sweden,** where 259 species were observed,
- the most frequently observed species were:
  - Common Starling, *Sturnus vulgaris*
  - Common Coot, *Fulica atra*
  - Chaffinch, *Fringilla coelebs*

In Poland:

2345 participants were involved
103 794 birds were counted
The most frequently observed species were:
- Common starling, *Sturnus vulgaris* - 20858
- Common coot, *Fulica atra* - 9165
- Mallard, *Anas platyrhynchos* - 6100

Eray Caglayan from BirdLife in Turkey, who coordinated this year's event, was delighted with the results. "***EuroBirdwatch 2005 has been a resounding success and demonstrates people's growing fascination and interest in birds. This is such a great network that millions of people from all over Europe are becoming one body for birds,***" he commented.

I kindly invite all of you to participate in the next European Birdwatch.

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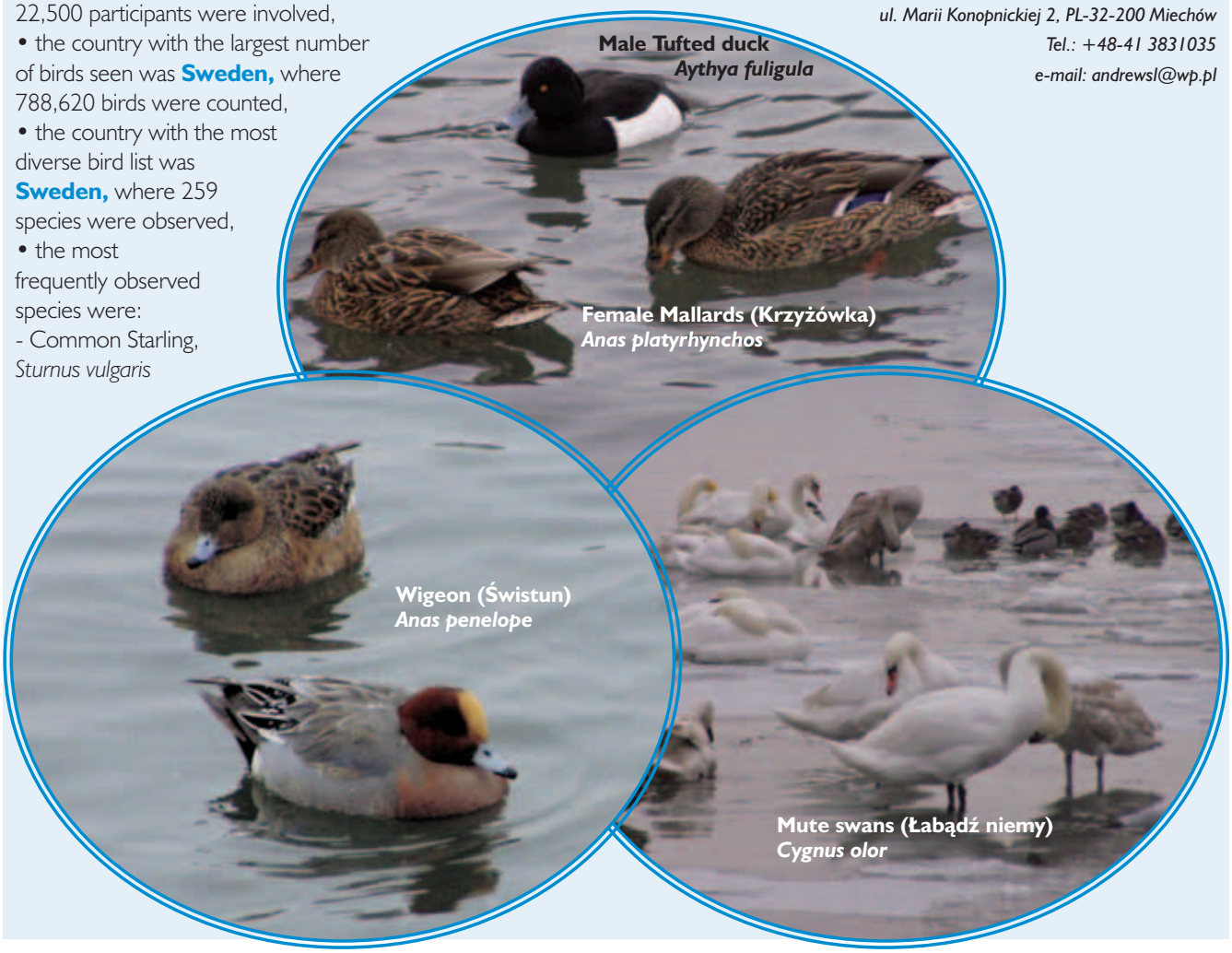

DENMARK:	**Counting of midwinter birds - 2006.**
School:	**Amtsgymnasiet i Sønderborg, Grundtvigs Alle 86, DK 6400 Soenderborg, Denmark**
Phone:	**+45-74420501 Fax: +45-7443 3238 www.ags.dk**
Teachers:	**Birthe Zimmermann & Niels Kornum**
	e-mail addresses: bz@ags.dk nk@ags.dk
Date:	**Thursday 26 January 2006.**
Observation area:	**From Trillen along Soenderborg Bay along Gendarmstien on foot**
Observation time:	**1:30 – 5:30 pm**
Temperature:	**-1.8°C**
Ice cover:	**No ice cover on Sonderborg Bay, solid ice on the inlake at "Trillen"**
Visibility:	**Excellent > 5000 meters.**
Clouds:	**Clear, later partially cloudy**
Wind:	**1028.9 hPa; 6m/s ↙**

DENMARK: Counting of midwinter birds - 2006

Photos: Birthe Zimmermann and Niels Kornum

Birthe Zimmermann and Niels Kornum observing birds at the bay near Trillen and Hoeruphav. Due to improved equipment – the telescope – a species was observed for the first time in a small group of goosanders: a female Mergus albellus

Danish name	Latin name	English name	A	B	C	D	E	F
Toppet lappedykker	Podiceps cristatus	Great crested grebe		1	1		13	
Storskarv	Phalacrorax carbo	Cormorant	2				2	42
Knopsvane	Cygnos olor	Mute Swan						11
Sangsvane	Cygnis cygnos	Whooper Swan						
Gråand	Anas platyrhyncos	Mallard ♂		1	1		1	26
Gråand	Anas platyrhyncos	Mallard ♀		1			1	27
Krikand	Anas crecca	Teal						
Taffeland	Anas ferina	Pochard ♂						
Taffeland	Anas ferina	Pochard ♀						
Troldand	Aythya fuligula	Tufted duck ♂				100*		
Troldand	Aythya fuligula	Tufted duck female				100*		
Bjergand	Aythya marila	Scaup ♂						
Bjergand	Aythya marila	Scaup ♀						
Hvinand	Bucephala clangula	Goldeneye ♂			5			3 + 50 flying
Hvinand	Bucephala clangula	Goldeneye ♀			5			3 + 50 flying
Ederfugl	Somateria molissima	Eider ♂		6	4	12		3
Ederfugl	Somateria molissima	Eider ♀		7	6	3		
Lille skallesluger	Mergus albellus	Smew						1
Stor skallesluger	Mergus merganser	Goosander ♂			2	2	1	4
Stor skallesluger	Mergus merganser	Goosander ♀				2	1	4
Toppet skallesluger	Mergus serrator	Redbreasted goosander ♂	1	2	1		4	9
Toppet skallesluger	Mergus serrator	Redbreasted goosaander ♀		2	1		4	9
Blishøne	Fulica atra	Coot						4
Alm. ryle	Caladris alpina	Dunlin						
Mudderklire	Actitis hypoleucos	Common sandpiper						
Rødben (mørk form)	Tringa totanus	Redshank (Icelandic)						
Svartbag	Larus marinus	Great black-back gull					1	2
Sildemåge	Larus fuscus	Lesser blackbacked gull						
Sølvmåge	Larus argentatus	Herring gull		2		1		1
Hættemåge	Larus ridibundus	Blackheaded gull		3	3		1	2
Fiskehejre	Ardea cinerea	Heron						2

Numbers = Observed; Letters A -F refer to locations:
A: Grundtvigs Allè; B: Fiskerhytten; C: Klinten i Sønderskoven; D: Sønderskoven East; E: Alfredslund/Lambjergskov; F: Trillen inlake frozen, so all on the bay. Please note that: * marks estimated numbers, **First time observations**

Comments: Winter in Denmark has lasted approx. three weeks with snow and frost leaving no waders on the shores. Probably they migrated further south.
Again this year some of the significant winter guests are absent: the whooper swans, the scaups for instance and few eiders are observed in the entire bay area.

By Birthe Zimmermann & Niels Kornum