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TEACHING AND PROMOTING SUSTAINABLE DEVELOPMENT AT THE UNIVERSITY OF MARIA CURIE-SKŁODOWSKA IN LUBLIN, POLAND

1. Introduction

In 1987, the World Commission on the Environment and Development (WCED), which was set up in 1983, published a report entitled "Our Common Future". This document came to be known as the "Bruntland Report" after the Commission's chairwoman, Gro Harlem Bruntland. It developed guiding principles for sustainable development as it is generally understood today. The name "sustainable development" was used for the first time in 1973. The Bruntland Report stated that critical global environmental problems were primarily the result of the enormous poverty of the South and the non-sustainable patterns of consumption and production in the North. It called for a strategy that united development and the environment – described by the now-common term "sustainable development". Sustainable development is defined in the Bruntland Report as follows [WCED, 1987]:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

In 1989, the report was debated in the UN General Assembly, which decided to organize a UN Conference on the Environment and Development [http://www.are.admin.cha/are/en/nachhaltung/international_uno/unterseite02330]. Sustainable development teaching has become an important aspect of promoting sustainability. In this paper, some activities at the University of Maria Curie Skłodowska in Lublin (Poland) in the framework of the Baltic University Programme are presented.

2. Historical background of the Baltic University Programme and the participation of UMCS in BUP

The concept of sustainable development is a way to reconcile two different and sometimes conflicting sets of objectives, *i.e.* development – progress – growth and stability – security – the environment. The Bruntland Commission approached this dilemma by first describing the goal of sustainable development by giving its definition as cited earlier.

Since the presentation of the Bruntland Commission Report concerning sustainable development, several initiatives have been launched to propagate, promote and implement the idea of sustainable development. One of them is the Baltic University Programme (BUP), which was initiated in 1991 and has been coordinated by Uppsala University, Sweden ever since. The purpose of the programme has been to support universities and similar institutions in promoting the development of the Baltic Sea Region (BSR) towards peaceful cooperation, democracy and economic, social and ecological sustainable development [Ryden and Sjostrom, 2001].

The overall goal for sustainable development in the BSR is the following [Ryden and Sjostrom, 2001]:

The essential objective of BSR co-operation is the constant improvement of the living and working conditions of their peoples within the framework of sustainable development, sustainable management of natural resources, and protection of the environment.

This means the following for the region:

- a safe and healthy life for current and future generations,
- a co-operative and prosperous economy and society for all,
- local and regional co-operation based on democracy, openness and participation,
- the restoration or maintenance of biological and ecosystem diversity and productivity,
- neither atmospheric, land nor water pollution exceed the carrying capacity of nature,
- renewable resources are efficiently used and managed, within their capacity for regeneration,
- the material flow of non-renewable resources is made efficient and cyclic and renewable substitutes are created and promoted,
- awareness of the elements and processes leading to sustainability is high among different actors and levels of society.

The Baltic Sea Region recognises its interdependence with other parts of the world and makes its contribution to the fulfilment of sustainable development goals at the global and European level [*An Agenda 21...*, 1998].

The University of Maria Curie-Skłodowska (UMCS) has participated in the Baltic University Programme since it was established at Uppsala University in 1991. More data concerning the programme itself are given below and in detail elsewhere [http://www.are.admin.cha/are/en/nachhaltung/international_uno/unterseite02330] and also in another paper presented at the International Conference EuroEco 2002 [*Baltic University Programme*, 2001].

For the first few years a course entitled "The Baltic Sea Environment" was run by the staff of the Faculty of Biology and Earth Sciences of UMCS. The Baltic University Secretariat at Uppsala provided the faculty with a satellite antenna and teaching materials, such as booklets and videotapes.

In 1997 the Faculty of Chemistry of UMCS implemented a new course "A Sustainable Baltic Region" (SBR). Since that time the course has been run for students every academic year, mainly for those majoring in chemistry (specializing in environmental chemistry) or environmental protection (specializing in chemistry). The Baltic University Secretariat provided the Faculty of Chemistry with booklets and videotapes. The course ends with a written examination and students who pass the exam are issued diplomas.

Within the period 1997–2006, nearly 300 students passed the SBR exam conducted at the Faculty of Chemistry, UMCS, in Lublin. It is worth noting that:

(i) the Faculty of Biology and Earth Sciences has also offered the SBR course for 7 years,

(ii) the Faculty of Biology and Earth Sciences implemented a course entitled "Sustainable Water Management" in 1999. For the last few years a course entitled "The Baltic Sea Region" has also been delivered there,

(iii) during the 1999/2000 and 2000/2001 academic years, the Faculty of Biology and Earth Sciences and the Faculty of Chemistry jointly offered and delivered so-called Open University Lectures. These lectures were given in Polish for the inhabitants of Lublin. The audience at these lectures consisted mainly of university and school students, as well as school teachers. The syllabus of these lectures was similar to that of the Baltic Sea Environment course. But the course did not end with an exam. Nonetheless, the course was very popular and about 150 participants were present at each lecture,

(iv) the "Peoples of the Baltic" course has been taught by the staff of the Faculty of Political Sciences for a few years now. The course ends with an exam and successful students get diplomas.

3. Major activities and events

In December 1997 and December 2004, UMCS was the host of the International Conference organized for Baltic Region Lecturers involved in teaching the SBR course. The conference sessions were held in Kazimierz Dolny. About 80 lecturers from the region participated in the conference. The conferences were mainly financed by the Baltic University Secretariat.

For two years, staff (2 people) from the Faculty of Chemistry were involved in the preparation and running of international summer camps for Baltic University students from the Baltic Sea Region. In 1997 the camp was held in Hel and in 1998 the camp took place in Stegna, both on the Polish Baltic coast. However, it must be admitted that the majority of work organizing these summer camps was done by the Polish Center of the Baltic University Programme in Gdańsk, together with the staff and students of Gdańsk University.

In July 1999, the same staff from the Faculty of Chemistry were involved in an international summer camp organized in Ukraine (the National Conservation Park "Goverla", in the Carpathian Mountains). The role of the UMCS staff was to prepare and run the scientific and technical programmes for the camp, *i.e.* mainly to teach and conduct field research on selected physico-chemical properties and concentrations of pollutants in water, soil and air (for example: pH, NO_2^- , NO_3^- , Fe^{2+} , Fe^{3+} , S^{2-} , hardness, particulate matter in air). The chemicals and equipment required to run this technical programme were supplied by UMCS. However, the main organizer was Lviv University, where the Ukrainian Centre of the Baltic University Programme is located.

UMCS students taking the "A Sustainable Baltic Region" course took part in these international summer camps and workshops (7 in Hel in 1997, 4 in Stegna in 1998 and 5 in Ukraine in 1999).

UMCS students also took part in the Baltic University International annual student conferences organized in Kraków in 1998 and from 1999 till 2006 in Borki, near Tomaszów Mazowiecki, Poland.

Every year, staff from UMCS participate in national conferences and seminars organized by the Polish Center, for lecturers involved in teaching Baltic University Programme courses, including the SBR course. Staff also participate in the international conferences organized by the national centers and the Uppsala Secretariat (for example, in Uppsala, Kazimierz Dolny, Kaunas, Saint Petersburg, Ustroń, Tvarminne zoological Station, Białowieża, Gdańsk, Płock, Słok).

While attending the conference in Uppsala in June 2001, one of the authors of this paper was awarded the extraordinary teacher's prize for 2001 and also a diploma for his pioneering contribution to the creation and maintenance of the Baltic University Programme over its first ten years (1991–2001) of existence as a network of cooperating individuals and universities, promot-

ing international understanding of sustainable development and supporting peaceful coexistence and fruitful collaboration among the countries surrounding the Baltic Sea.

On 23rd March 2000, one of the authors of this paper (Jerzy Niećko), together with I. Zbiciński who is now the Director of the Polish BUP Centre, took part in a video-conference in Łódź organized by the Uppsala Secretariat for the Education Ministers of the Baltic Sea region countries. The conference itself was held in Stockholm, Sweden and the main theme discussed was sustainable development. The Baltic University Programme was presented at this meeting as an example of regional co-operation. The magnitude of BUP activities in the region was demonstrated via a video-conference link directly to the meeting from Kaunas, Łódź and Abu-Turku. Prof. Zbiciński and Jerzy Niećko were given a few minutes to speak to the participants of this conference via a video camera located in the Łódź Technical University video studio. They were seen on the PC monitors and/or wall screens in Sweden, Lithuania, Finland and Poland. At the end of the speech the following "summary" was given:

Finally, I would like to emphasize that sustainable development is one of the moral values which should have priority in modern society to which, I believe, Poland belongs. Therefore, my request to the Polish representative of your conference is to find all opportunities to:

- (1) update and reorient educational programmes and teaching materials to contain elements of sustainable development and concepts from Agenda 21,
- (2) allocate some extraordinary funds to secondary schools and universities to develop programmes for "greening" curricula, and then to implement them at secondary school and university levels. I understand that because of severe budgetary restrictions there are not enough funds to implement all that is necessary. Therefore, allocating money to implement an environmental policy must come from a determined political will, because, as I said, sustainable development is one of the moral values which should have priority in modern society.

It has become a custom that the Vice Rector for Student Affairs of UMCS gives a reward/prize every year to all the students who pass the SBR exam. The reward is a book of value 30–50 PLN.

The granting of diplomas, signed by both the director of the Baltic University Programme and the Vice Rector, is carried out during a special ceremony arranged by the UMCS Authorities. At the same time, students receive their prize with a dedication signed by the UMCS Rectors, the Dean and Vice Deans of the Faculty of Chemistry and the lecturer running the course. The authors of this paper are not going to hide the fact that a small party is organized after the ceremony to celebrate the occasion. During this party both the Authorities of UMCS and students give short speeches.

4. Teaching materials for the SBR course

The course material consists of ten approximately 50-page booklets, ten videotapes of the TV series "Mission Possible", together with about 80 individual reports and a database useful for student work. Student groups regularly co-operate in international seminars using video- and audio-equipment. A computerized conference system, First Class, is also used for direct interaction between students from different countries and locations throughout the Baltic Sea Region.

The titles of the booklets are the following [Sorlin, 1997]: (1) *The Road Towards Sustainability* – a historical perspective; (2) *Energy* – from fossil fuels to sustainable energy resources; (3) *Man and Material Flows* – towards sustainable materials management; (4) *Food and Fibres* – sustainable agriculture and forestry; (5) *Sustainable Industrial production* – waste minimization, cleaner technology and industrial ecology; (6) *Towards Sustainable mobility* – transporting people and goods in the Baltic Region; (7) *Cities and Communities* – the development of sustainable habitation; (8) *Ecological Economics* – markets, prices and budgets in a sustainable society; (9) *The Foundations of Sustainable Development* – ethics, law, culture and the physical boundaries; (10) *From Intention to Action* – implementing sustainable development. The full series of these booklets is available at the National Baltic University Centers and at the Co-ordination Secretariat at Uppsala University. An example of contents of a booklet is given in Table 1. The videos used give practical examples of issues of sustainable development, related to the different booklets [http://www.are.admin.cha/are/en/nachhaltig/international_uno/unterseite02330]: What have we done to the Earth? – on the environmental situation. Oil addiction? – on energy. Do not waste – on material flows. The countryside and the food on our table – on agriculture. Chimneys without smoke – on sustainable industrial production. Transport society – on mobility. A sustainable living – housing and community development. Does money decide everything? – on ecological economics. Can we choose our future? – on the ethics of sustainability. From intention to action – Agenda 21 and implementing sustainability.

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Source: Sorlin [1997].

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