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This report presents an overview of education for sustainable development (ESD) in Swedish universities. The guiding principle in gathering information has been to ask a question to wake an idea, a reflection and finally an action. The information, where references are not included, is based on a survey and other communication with university representatives and short interviews with agencies on the national level.

The aim of the report is to present an overview of the many activities that are taking place. It presents, however, not a complete picture of ESD in Sweden, given the short format.

Summary

Give a brief overview of the activities of the last year(s) in relation to the implementation of sustainable development into higher education, and the do's and don'ts that you learned.

National level

In 2006 an amendment to the Higher Education Act (SFS 1992:1434) was made according to which universities in their activities shall promote sustainable development, which means that present and future generations are assured a healthy and good environment, economic and social welfare and justice.

One of the major activities for education for sustainable development on the national level in Sweden was the international consultation, Learning to change our world, with the theme Reflect – Rethink – Reform, which took place in Gothenburg in May 2004 with about 350 people from 70 countries (Regeringen, 2004a). It was organised by a National Committee for Education for Sustainable Development (called later the committee) and was followed by;

- A committee proposal “*To learn for sustainable development*”, which presents characteristics of ESD and that its aim is to make it possible for all learners to gain ability and willingness to act for SD locally and globally (SOU 2004:104).
- A report published by The Swedish National Agency for Higher Education (HSV) “*Perspectives on sustainable development. Experiences from university and business*” (HSV 2004).
- Short lectures and workshops, “*Introduction - education for sustainable development*” arranged by the committee in Stockholm on December 3, 2004 (Regeringen, 2004b).
- A Conference “*Science for sustainable development – starting points, dialogue and critical reflection*” arranged by The Swedish Research Association for Sustainable Development (VHU) in April, 2005. (Frostell (ed.), 2006)
- Short lectures and workshops for representatives of higher education and business sector, “*A holistic view – What does education for sustainable development require?*” arranged by the committee in April 25, 2005. (Regeringen, 2005a).
- The revised Swedish strategy for sustainable development “*Strategic Challenges - A Further Elaboration of the Swedish Strategy for Sustainable Development*,” (Regeringen, 2005b).
- The VHU conference “*Education and learning for sustainable development*” in March, 2006 (VHU, 2006).
- The Swedish translation of the UNECE strategy for Education for Sustainable Development in higher education.

- The quality conference arranged by the Swedish Agency for Higher Education, which had a channel with presentations about ESD in April 2006 due to the recent revision of the Higher Education Act (HSV, 2006).

- Increased activity in several of the national networks for ESD in universities; HU2, LHUT, miljöpedagoger, MLUH, VHU and one for university students; Swedish Ecodemics.¹

University Level

Most universities have been working with education as one of their indirect environmental aspects in their environmental management systems (EMS) according to the directives they have received from the Swedish government among other public agencies since 1997 (Sammalisto et al, 2005).

Most universities have so far offered environmental courses and educational programs on undergraduate and graduate levels. Only a few have offered education which includes the whole concept of sustainable development. Where this has been done it has been in single subject courses or integrated in disciplinary courses.

Six universities use classification of courses and educational programs to get an indicator of SD in education, one of them with a follow up study which indicates that classification can stimulate lecturers to integrate SD in their courses (Sammalisto, forthcoming).

Centres promoting education, research and cooperation both within university and with local, regional, national and international actors in the area of SD have been established at several universities.

Main results

For each activity we would like to know the results, as well as the expected output, the surprises or disappointments.

National level

The concept of SD has generally focussed on the ecological sustainability, but it is being widened to include also social, economic and even cultural dimensions. It is apparent that the revision of the Higher Education Act and the seminars have resulted in discussion about possibilities and problems of integrating SD in higher education and if and how it could be evaluated.

On university level

The survey indicated that of the 28 universities that replied to the survey 27 were aware of the revision of the higher education act, 13 were aware of the UNECE strategy and 22 state they have started working with education for sustainable development.

Even though the “vagueness” of the concepts of SD and ESD causes certain problems, especially the revision of the Higher Education Act together with the national and university level activities has started a process that is now starting to reach university managements and lectures who have previously not been involved. It is finding its place on the agenda of universities and it is being acknowledged that the work for ESD needs to be a priority. Due to the complexity of the very concept of SD it needs to be recognised that various approaches may be needed to allow different disciplinary perspectives and that it is bound to take some time.

The centres that have been established provide inspiration, competence and in some cases opportunities and legitimacy to promote ESD even in disciplinary faculties and courses outside the university hierarchy.

Surprises reported by universities

The universities report that the policy for SD has mostly been received in a positive way, and some universities, especially those educating teachers and engineers, have taken policies that all students have to have SD in their education. According to the universities students appreciate the courses of SD and realize the need of it when they get to analyse their own life style. It is also noted that students are often more farsighted than lecturers.

Resources have been made available for integration of SD and the classification of courses appears to have started an individual process for integration of SD among lecturers. SD is being included in learning objectives to all students.

¹ HU2 (network for ESD in higher education), LHUT (learning for sustainable development), Miljöpedagoger (network for environmental educators), MLUH (network for environmental coordinators in universities), VHU (science for sustainable development), Swedish Ecodemics (student network for sustainable development).

The discussion about SD has stimulated cooperation between education and research and over faculty boundaries.

Disappointments reported by universities

The universities bring up several different disappointments or challenges. They report that the number of students registering to educational programs especially in engineering and natural sciences is reducing which causes economic constraints and less resources for development activities. It is also difficult to recruit students to interdisciplinary courses.

It takes a long time to get acceptance for integration of SD and the interest for ESD among teachers and students varies at the same time as there is a lack of support from the management and resources for ESD. Finally there is a lack of interest among faculty to integrate SD and the enthusiasm among the pioneers is not always appreciated among old ideas and structures.

Information concerning ESD

State of affairs

Where are you now? What has been done, what has to be done? What are your plans for the coming future?

National level

The government, elected in September, will continue the Swedish commitment to ESD, but still needs to formulate guidelines for future work. At this point, new directives have not been given to the national agencies, Swedish National Agency for Higher Education (HSV), Swedish Agency for Networks and Cooperation in Higher Education (NSHU), The Swedish Council for Sustainable Development (Hållbarhetsrådet), dealing with higher education or sustainable development. Due to the fact that the amendment to the Higher Education Act only recently entered into force, the Swedish National Agency for Higher Education considers that it still is too early to evaluate its application in universities within its regular evaluations (Forsberg). SD is presently not included in the agency's national quality evaluation program.

University level

Most universities report that they are in the planning and start up phases while few others have come to the stage in the process where ESD is at least made known to many in the faculty. Commitment from the universities is still low, but from a number of individual lecturers high. There is, however, still a long way to go to get ESD an integrated issue in the whole university structure.

Two main strategies to organise the work with ESD in universities have been identified. When ESD is integrated in their ongoing work with EMS, many universities include the social and economic dimensions of sustainable development in their indirect aspects and have replaced or are replacing their environmental policy with a policy for sustainable development. Some universities have chosen to work only with the direct environmental impact within their EMS and have created task forces specifically for education and research for sustainable development. Most of these are in the initial stage of creating of action plans.

The EMS implementation process based on Government directives has been a driver for many universities to start training their management, faculty and staff. Now arranging dialogues, seminars, conferences etc to increase the awareness about SD and how it affects the university is going on. Those working within the EMS use its structure to set objectives and targets and to follow up in audits and reporting. Those working with action teams have started from university vision and are working on goals that then need to be implemented within action plans.

Some universities have chosen SD as a profile for the whole university or within their university vision and have a strong management commitment with resources for a long term work, whereas in most universities, those already working with ESD, would like to see a clearer management commitment and support and to lift ESD to the agenda for the whole university. They also point out that a long term commitment would also guarantee resources for a continued effort and follow up university-wide.

Also the excessive work required in order to implement the higher education reform following the Bologna process has reduced the possibilities to engage in the ESD but it also offers a possibility to connect the work to the learning outcomes that are important for the Bologna process.

Some universities have taken decisions to provide introduction in SD to new students ranging from two hours to 15

ETCS credits mainly to students of teachers training and engineering study programmes. Integration in courses takes place mostly in traditional ways via quest lectures, seminars, special assignments and papers.

The universities with centres for education, research and cooperation plan to continue and develop the work within them further.

Problems and needs as expressed by universities

- There is no clear definition of SD and there is a discussion about if and to what degree the content can/should be replaced by approach and attitude. This highlights the different traditions and approaches in different disciplines. It creates also a need to cooperate both within and outside the university and exchange ideas and experiences between lecturers, which increases the requirements on individual lecturers.
- Another problem is to assess the students in an examination regarding their competence of SD. Future teachers are expected to have good knowledge and understanding of SD since they will have to be able to teach it further to their students.
- The requirement to integrate several perspectives, for example equality and internationalisation in university education is now including sustainable development is also a problem. But the possibility of including different perspectives under the SD umbrella is also brought up.
- While the work with EMS provides structure for the ESD, there is a risk of the work becoming mechanical and the requirement for a connection and consequences increases.
- It is difficult to make decisions about future activities for ESD due to lack of information about previous efforts.
- SD is seen especially by many representing social sciences as a political buzz word and ESD as a political decision without any real life bearing. There is also an idea that the content of education as well as that of research must not be regulated by political decisions and that they must be assessed within science.

Approach

How are you implementing the UNECE Strategy and Education for Sustainable Development? What is your approach? And why? Which mechanism and measures have been used?

National level

On national level the approach has been to introduce policy documents, revise the Higher Education Act and to arrange conferences and seminars.

The national HU2 network has been allocated resources to work with creating learning outcomes for SD in accordance with the Bologna process.

University level

Several approaches are used both within the EMS structure and in separate SD groups. Some universities are including ESD in the strategic plans for the university. Others are creating objectives and targets, action plans, audit and reporting models, policy documents and guidelines for educational programs and plans, certificates and diplomas etc. Some are working on information databases for lectures with examples of integration. Many provide education and training courses and dialogue processes with SD from different disciplinary perspectives to lecturers to increase awareness and to help in integration in different faculties. There appears to be more focus on the approach and increase in the strategic and interdisciplinary approaches. Two universities include ESD in their quality program.

Why

The aim of all the activities above is to increase awareness among faculty and staff of universities of the wider SD concept with the different dimensions of sustainability and how they can be integrated courses and research from different disciplinary perspectives. Working in an interdisciplinary way helps to see the different perspectives and the complexity of the preconditions of SD. The different perspectives and conflicts of interests contribute to this.

Cooperation

How are policy consultants of the (local) government and universities working together? What are the barriers that you have to face? What works well?

Cooperation

National level

Within the Ministry of Education, an internal network coordinates a vast range of issues concerning education on different levels, among them sustainable development, in their areas of work. As the universities are independent institutions with decentralised powers, the government does not regulate the educational content in detail. Guidelines are given through bills, legislation and certain assignments and the results of the efforts of the universities are

reported to and discussed in dialogue with the Ministry.

University level

Cooperation at university level concerning ESD issues is starting to take form. It is often based on the initiative and cooperation between individuals. Many universities have for a long time had extensive cooperation with national and international actors and mention especially their local municipality, county councils, county administration, other universities, different educational networks, branch organisations etc. Business partners are involved especially in thesis work for the students and as guest lecturers. Also the various centres connected to universities provide coordination and support.

Many universities arrange open seminars or lectures on topics related to SD for their students and those interested.

Barriers

University level

The cooperation between universities and outside actors is largely based on individual efforts so it is impossible for someone to have an overview of the whole situation. Many universities report, however, that there are no barriers in the cooperation with the local actors, except own fantasy, awareness of possible cooperation partners and to see the opportunities when they are opened. The lack of time and the collision of the different time frames and organisational forms in university and outside it form also a barrier. For example a research funding application takes a long time to process and by the time financing is granted the research problem in an organisation outside university has been replaced by another. Also the appreciation system of academia seldom favours cooperation with business.

Another barrier at the moment is the low registration of students in engineering and natural science programs which by tradition have had most cooperation with industry.

Also the concept of SD can be seen as a communication barrier since the concept is understood and is also likely to be applied in different ways in ESD in the various disciplinary contexts. Cooperation requires willingness to listen to and learn from one another and every lecturer has to find a way to approach SD and ESD. This is considered especially important across the disciplinary barriers. The discussion about the meaning of SD may also appear to be a purely academic question to those outside universities.

Leadership

Are the students of today ready for tomorrow? In other words: when leaving the university, do students have the needed competences to take the lead towards a sustainable future? What are these competences?

As ESD becomes introduced in more courses and programmes, students become increasingly aware of the issues related to SD. Many aspects of SD are, however, unresearched and long term effects are still to be determined.

The competency required for SD is according to the survey manifold, but the basis of it is relevant knowledge and an ability to think, act and take responsibility out of a holistic understanding of the preconditions of life on earth in a global perspective. It includes the ability to continuous learning from others and the ability to cooperate over disciplinary and professional borders, to think and analyse critically and to solve problems seeing possibilities and limitations in ones professional role. An important ability is also that of complex thinking and using specialists for different areas. Leaders need to have the ability to create enthusiasm and to think in new creative ways.

Lessons learned

Conclusion and advices; what are the lessons learned so far? Do's and don'ts!!

The broad introduction of ESD into higher education is still at an early stage. National assessments have not been performed yet. Therefore conclusions on lessons learned are difficult to draw. However, advice from university representatives gathered through the survey will be presented below.

Do's as suggested by universities/university representatives.

National level

- Introduce ESD in examination goals, quality assessment guidelines and other national policies.
- Create a national structure to follow up the work with ESD continuously and so to provide feed back and incentives to universities. By emphasising the importance of the issue nationally, university managements are likely to provide support to departments and lecturers who in the end must "own" the question and integrate it in their work.
- The national authorities should also support national networks for ESD, which can form an important arena for

discussion, learning, development and the dissemination of good examples without competition.

- It is also important to show good examples of work and the development of ESD and connect it to daily activities in campus management and in training of faculty and staff.
- Interested students can lobby for ESD at the universities, on national and international level.
- Support the existing regional centres that can mobilize force and become distinct actors for ESD and create new centres where needed.

University level

- Include ESD in local policy documents dealing with educational plans, course plans, quality assessment etc.
 - Continue the discussion of the meaning of SD as such and support efforts to develop methods to implement it.
- It can also be left open to be defined from the basic understanding “we must make sure that the basic human needs are satisfied for all people without damaging the life maintaining systems of the planet” (Kates et al, 2001).
- University managements have to provide active support for the strategic long term work with ESD.
 - Adjust the educational approach of SD to courses and programs to encourage a critical approach in different disciplinary contexts.
 - Interested students can lobby for ESD at universities.
 - Work in a systematic way, gather feedback and experiences.
 - Have patience and distinct leadership

Don'ts as reported by universities

National level

Don't let university managements forget about ESD in the name of decentralisation.

University level

- Do not try to approach all lecturers and students in the same way. Do not forget to be sensitive to the fact the different groups for example from different disciplines need different approaches and focus.
- Do not focus just on methods to integrate SD in for example EMS but also on the content, otherwise there is a risk of the work becoming mechanical.
- Do not provide solutions, but challenges to find solutions.

Plans for the near future

National Government

- A follow up of the Gothenburg conference is planned for 2008.
- Much of the preparatory work for the implementation of UNECE strategy has been done earlier although the plans of the new government still to be clarified. (Jonsson)
- The government is in the process of establishing a Globalisation council and a Sustainability commission with the aim to make the work for sustainable development more efficient and up to date by revising the organisation and policy instruments to promote good initiatives from individuals and businesses, which may have bearing to ESD.
- The Ministry of Education plans to train all staff including senior level in SD and what significance it has on their duties.
- The Ministry of Education is also aiming to complete an action plan to implement the UNECE strategy for ESD in Sweden during 2007.
- The HU2 network has been granted resources to develop learning outcomes for SD in accordance with the Bologna process by the Swedish Agency for Networks and Cooperation in Higher Education (NSHU) for the year 2007.
- A task force of the MLUH network has been working on sustainability indicators for higher education within the EMS and the document has been on remiss among members of the network.

Universities

University level

- The universities that work within the EMS structure plan to continue the work within it and add all the more of the SD aspects in their work with the environment and to continue to follow up the work within EMS.
- Universities were task forces have or are being created for the work with ESD are working to make a review of the situation for example by assessing courses of SD content, working with training and dialogue with faculty.

- Universities will be invited to participate in the HU2 network to create learning outcomes for SD.
- The following international conferences are planned;
 - A follow up of the 2004 Gothenburg conference in 2008
 - 13th Annual International Sustainable Development Research Conference in Västerås June, 10-12, 2007 (<http://www.eki.mdh.se/sdconf07/>)
 - 3rd International Energy conference in Västerås (prel 18-20 June, 2007)
 - Research for sustainable development – the social challenge. VHU conference in Linköping. 6-7 Spetember, 2007. [vhu_konf_2007_forsta_inbjudan_061208_08/12/2006,18:42_248.72_Kb](#)
 - Learning to Change Our World – international consultation on ESD, May 2008.
 - Engineering Education insustainable Development, 2010

Conclusions

There is a great variation of the work with ESD in Swedish universities. The university commitment can still develop, though the commitment of individual lecturers is high. At this point the work is still largely driven by enthusiasts and the topic is rather new for many university managements and most of the faculty. Interest is increasing, however, due to the discussions resulting from the revision the Higher Education Act. Some universities have been working for a long time and have gathered a lot of knowledge and many experiences while others are just starting. Through cooperation and coordination between the universities, the development of ESD could improve and become more efficient. Knowledge, experience, contacts and inspiration could be shared through regional, national and international exchanges.

APPENDIX

ADDITIONAL INFORMATION AND REFERENCES

Method

A survey with open questions about activities and plans to implement ESD was sent to 38 Swedish universities, aimed at placing ESD on agenda in them while providing several actors an opportunity to contribute to the report. Replies were received from 28 universities (74%) seven with just a few lines, twenty one complete and two with quite an extensive documentation. Of those who replied 13 had an administrative function, 10 had a function as a environmental coordinator, environmental manager or a head of a centre dealing with environmental and sustainability education and/or research, 5 of them had an educational function as a professor, lecturer or a head of a program and one was a PhD student on education for sustainable development. The replies represent whole universities, several departments or just for one of them. Replies from 54 members of a national network HU2 (Hållbar Utveckling i Högre Utbildning = sustainable development for higher education) were among the replies from universities.

For insight into the work on the national level 19 short interviews, mostly by telephone, were conducted to find out the about present work and plans for ESD implementation on the national level as well as cooperation between the public agencies. Those interviewed represent of the Ministry of Education, Research and Culture, Ministry of Sustainable Development, Swedish Environmental Protection Agency (SNV), Swedish National Agency for Higher Education (HSV), Swedish Agency for Networks and Cooperation in Higher Education (NSHU), The Swedish Council for Sustainable Development (Hållbarhetsrådet), The Swedish Research Association for Sustainable Development (VHU), Swedish Ecomedics (student network).

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