



LIFE02 ENV/FIN/000320

12/2001 – 11/2004

LAYMAN'S REPORT

ENVEDU

**Creation of the Environmental Evaluation System
for Educational Establishments**



www.hrakk.fi/envedu

www.koulujaymparisto.fi

Summary

Schools and educational establishments have an important mission in supporting the growth of their students as environmentally responsible and skilled citizens who are able to consider the aspects of sustainable development in their work and everyday lives. To help schools in this challenging task, the main objective of the Envedu project was to support the incorporation of environmental issues in the management, teaching and maintenance activities of educational establishments. For this purpose, an environmental certification system was created. The certification system consists of a certification body that awards environmental certificates to schools and of a network of registered competent auditors who verify that schools fulfil the environmental criteria and the certification requirements. To support schools in their work in practice, training has been offered throughout the project. External auditors required by the system have also been trained during the project.

The basis for the environmental work and certification system are the Environmental Criteria. The use of the criteria and the certification are voluntary. They have been created as tools and incentives for the development of operation and quality of teaching. The criteria set a standard for environmental performance of an exemplary level. The environmental certification body was set up in the OKKA Foundation, i.e. one of the partners in the project. Guidelines for conducting external audits required by the certification are included in the Auditor's Guide. A tool for self-assessment, which must be carried out before applying the Certification can be found in the Guide "Environmental Certification and EMAS Registration of Educational Establishments". The guide also gives information and guidance on how a certified school can reach the requirements of the EMAS Scheme.

The beneficiary of the project was Hyvinkää-Riihimäki Vocational Adult Education Centre. The project had two main partners, Trade Union of Education in Finland and the OKKA Foundation. Furthermore, 161 educational establishments participating in the training courses organised in the project, also had the partner status. The project received financing from the EU LIFE Environment Instrument and from the Finnish Ministry of the Environment. The sub-contractors used in the project were the University of Joensuu, the University of Oulu, and the Cooperative Eco-One.

Environmental Certification of educational establishments started officially on the 19th March 2004. More information of the environmental certification system and the project can be obtained from: www.hrakk.fi/envedu and www.koulujaymparisto.fi.



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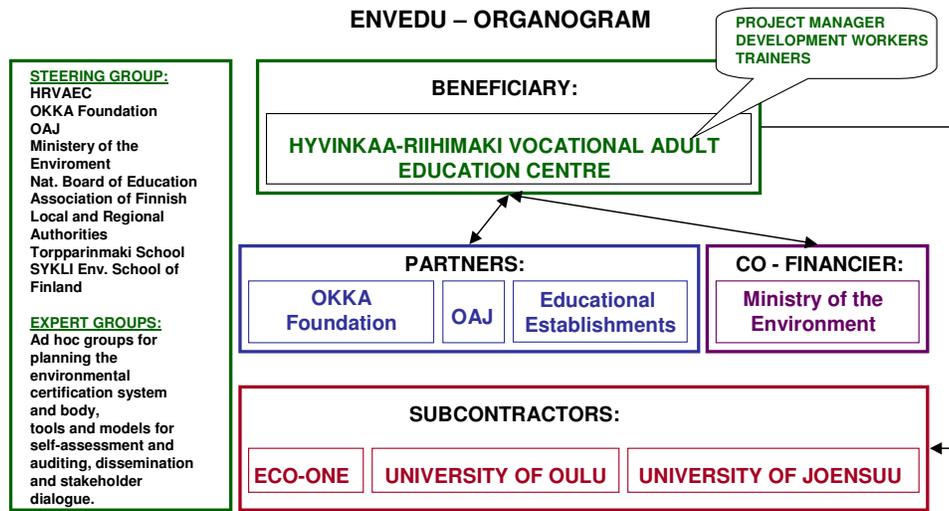


Figure 1. The organogram of the Life ENVEDU Project.

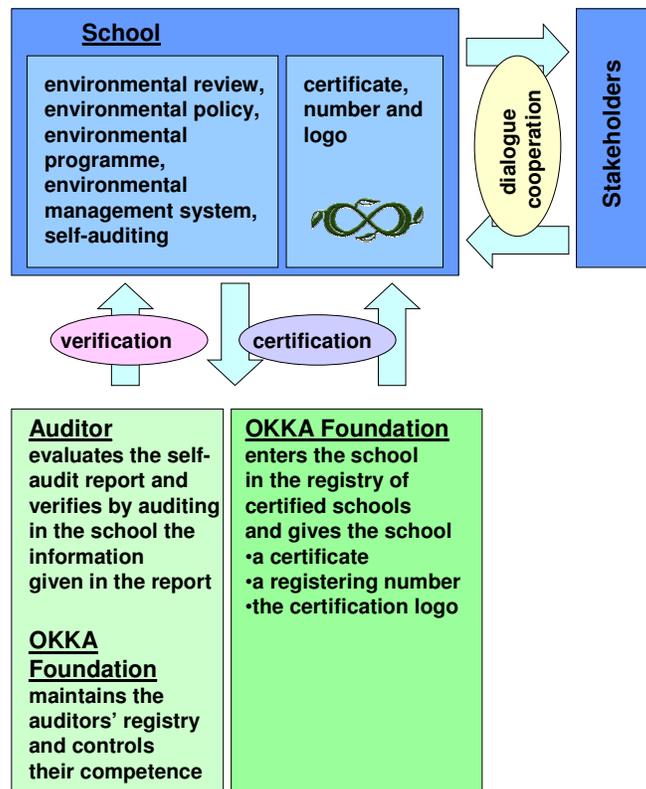


Figure 2. The Environmental Certification System of Educational Establishments.

Description of the methodology implemented

The methodology used in the project was based on the interaction between the developers and users. The Hyvinkaa-Riihimäki Vocational Adult Education Centre as the beneficiary acted as the coordinator of different actors and actions in the project and managed the project. It acted also as an expert in environmental issues, environmental management and certification systems, as well as in teaching and training. Additional expertise and knowledge were received from the three subcontractors. In training courses, some lectures by experts outside the project organisations were also given to maximise the benefit to the participants. Project partners took part in the work in their relevant fields and bore responsibility of steering the development of the project to the right direction. Other outside expertise was used on the ad hoc basis in the working groups.

An important factor in the development of the environmental criteria was the guidelines (core curriculum) for education plans in schools given by the Finnish National Board of Education. The schools in Finland are obliged to follow and fulfil these guidelines. Therefore, the environmental criteria developed in the project had to be in line with these guidelines and education plans developed in schools on the basis of them.

In developing the environmental criteria, the models and the tools for self-assessment and audit systems, the educational establishments whose teachers and other employees participated in the training courses were used as contributors. During the training courses the participants tested, assessed and gave feedback of the applicability of models and tools developed in the project. Discussions, group works and project works were planned in such a way that continuous input was received from the participants. This type of working method ensured that the final products take into account the reality, possibilities and resources available in educational establishments in integrating environmental matters into the management, teaching and learning and maintenance activities in a way that the approved environmental criteria are met. It also enabled developing the system to be applicable in different types of schools and at different level of education.

Two working groups have been used in developing the environmental certification system, self-assessment and auditing, dissemination plan and stakeholder dialogue. The members of the working groups represented expertise on environmental auditing as well as environmental certification (ISO 14001) and registration (EMAS). They also represented environmental and educational authorities, educational establishments and teachers, the Eco Schools system, municipalities, etc. The work of these groups was very efficient, competent and benefiting. The contribution of the members of these two groups made it possible to find excellent practical solutions for the very complicated and difficult issues that they handled.

Description of the results achieved

The tasks in the project form four separate entities: The tasks 1.2 Environmental Criteria, 1.3 Environmental Certification Organisation, 1.4 Auditing System, 3 Training of Auditors and 4 Step-by-Step Guide to EMAS aim at creating the Environmental Certification system. They are not completely independent and separate tasks and, in fact, were developed simultaneously and in parallel; The tasks 1.1 Pre-evaluation and the task 2 Environmental training are kind of supportive activities; The task 5 covers dissemination efforts and the task 6 includes the management and reporting in the project.

Tasks	2001	2002				2003				2004			
	4	1	2	3	4	1	2	3	4	1	2	3	4
Task 1.1 Pre-evaluation		████████████████████											
Task 1.2 Environmental criteria	████████	████████████████████											
Task 1.3 Environmental certification Organisation					████████████████████								
Task 1.4 Auditing system					████████████████████								
Task 2 Environmental training		████████████████████											
Task 3 Training of auditors									████████████████████	████████████████████	████████████████████	████████	
Task 4 Ste-by-step guide to EMAS										████████████████████	████████████████████	████████	
Task 5 Dissemination					████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████	
Task 6 Project management	████████	████████████████████				████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	

Figure 3. The tasks of the project and the progress of work.

The deliverables and outcomes of the different tasks in the project can be grouped in different categories. The deliverables of the tasks 1.2 Environmental criteria, 1.4 Auditor's guide and 4 Guide "Environmental Certification and EMAS Registration of Educational Establishments" are publications that cover items relevant to the Environmental Certification system. The outcome of the task 1.3 is the structure, body, actors, rules and functions of the Certification system. Training of auditors (task 3) is essential for the functioning of the certification system and the task produced a network and a registry of competent auditors. The pre-evaluation (task 1.1) and environmental training (task 2) are supportive processes in the development of the certification system. The pre-evaluation tasks produced a report and the outcome of the environmental training is the numerous schools and teachers who participated in the courses. Communication and dissemination actions (task 5) produced brochures, articles, slide presentations, posters etc. The deliverables of the management task (task 6) are the reports to the Commission.

All publications concerning the certification system and referred to above are available on the website: www.koulujaymparisto.fi. There is also other information related to the environmental certification on that website.

Environmental evaluation system for educational establishments

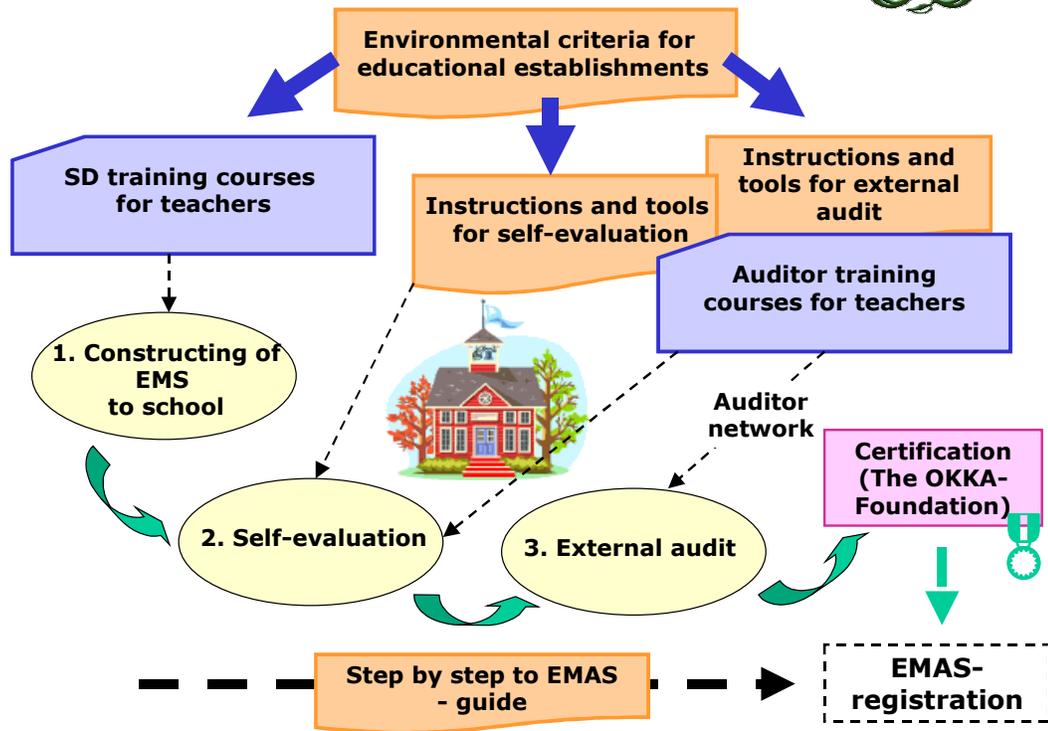


Figure 4. The Environmental Certification System of Educational Establishments, and the tools created and training organised to support the environmental work in schools.

In the Figure 4, the results achieved and deliverables produced in the project can be seen. The Figure also illustrates the whole Environmental Certification System for Educational Establishments. The steps to be taken on the way to certification are:

1. Construction of Environmental Management System
2. Self-evaluation of the environmental performance level
3. Carrying out an external audit
4. Applying for certification and awarding the certificate

Environmental Criteria

Awarding the Environmental Certificate is based on the Environmental Criteria for Schools and Educational Establishments. The criteria focus on the ecological aspect of the sustainable development, i.e. the environmental responsibility, but in the future they will cover also the economical, social and cultural aspects. The criteria can be applied to the general and vocational education at the first and secondary level, but they can be used in other educational establishments as well.

Besides their function as the standard for an excellent performance, the criteria provide a practical tool for identifying the needs and ideas of improvement. The criteria can be used, for example, for elaboration of the curriculum, and introduction of environmentally practices in everyday school life. Furthermore, the criteria provide a

management framework that helps organisations and continuous improvement of environmental issues in the school.

The three entities and the main objectives of the Environmental Criteria are:

1. Planning, organising and development of environmental matters

- Environmental work is continuous and has clear targets,
- Environmental issues are integrated in all activities of the school,
- Internal co-operation between school management, teachers, students and other school staff is active,
- Stakeholder dialogue and co-operation takes place.

2. Teaching and learning

- Environmental issues are integrated in the learning objectives and contents of different teaching subjects,
- Evaluation and improvement of environmental education takes place,
- The students are provided with the opportunity to participate in the planning and implementation of environmental matters.

3. Maintenance activities

- Environmental impacts due to the maintenance activities are reduced by technical means and responsible ways of operation,
- The school environment supports environmental education,
- Co-operation takes place with the service providers and school administrator in development of environmental issues.

Environmental management system

The environmental work in a school is based on continuous improvement, which clarifies and improves other activities of the school as well. The aim is to take into account the environmental aspect in all activities in the school, including teaching and everyday actions.

The environmental management system (EMS) is a tool to manage and develop environmental matters in the school. It helps the school to achieve the performance level required by the Environmental Criteria for Educational Establishments. The EMS helps the school to gain savings in expenses, to improve its image, and to develop the quality of its work. The Environmental Criteria can be used in constructing the EMS. More information can be found in the guide "Environmental certification and EMAS registration of educational establishments". The summary of the guide can be downloaded on the website www.koulujaymparisto.fi.

The first step in constructing the environmental management system (EMS) is to carry out an environmental review in which the important environmental issues and needs of improvement related to teaching and everyday actions in the school are identified. An environmental programme containing the development targets and action plan is elaborated based on the review results. Instructions, communication, education of the students and staff as well as school's internal and external co-operation are needed to support the implementation of the environmental program. Certification requires also carrying out an external audit in the school.

Certification requirements

Before the school can apply for the Environmental Certificate, it has to carry out a self-assessment. Furthermore, an independent, external auditor evaluates the self-assessment report and carries out an audit in the school. The auditor verifies that the school fulfils the Environmental Criteria, and gives the school feedback on its strengths and needs of improvement.

A school must fulfil the mandatory requirements of the Environmental Criteria and receive a minimum amount of points from the scored criteria. The minimum amount of points from the criteria concerning "Teaching, participation, co-operation and learning" varies depending on the type and the level of a school.

The school applies for the Environmental Certificate from The OKKA Foundation. Enclosed with the application must be a verification document signed by the auditor, and a copy of school's self-assessment report. The certificate is free of charge, but the school compensates the auditor for the costs due to planning and implementation of the external audit. The certificate is valid for a three-year period at a time.

Teachers and representatives of other school staff are trained as external auditors in specific training courses. The OKKA Foundation maintains the register of qualified auditors.

Environmental certificate, Eco-Schools and EMAS

The Eco Schools program and the Environmental Criteria can be used parallel, because they support well each other. A certified school can also complement its environmental management system to fulfill the requirements of the international standards ISO 14 001 and EMAS regulation. More guidance for this can be found in the guide Environmental Certification and EMAS Registration of Educational Establishments.

Guides and tools

- Environmental Criteria for Educational Establishments (En, Swe, Fi)
- Question lists for the initial environmental review
- Self-assessment guidelines and questions lists
- Requirements and guidelines for application of certification
- Rules for the Environmental Certification
- Auditor's Guide
- Guide - Environmental Certification and EMAS Registration of Educational Establishments (*covers all issues from the initial review to certification and EMAS registration*) (En, Fi)

Environmental impacts and benefits of the project

Benefits of environmental certification of schools and educational establishments can be seen for the most part after several years. The environmental criteria include requirements for management, teaching and learning and maintenance activities. Some environmental benefits can naturally be received by better maintenance of schools, e.g. less waste, lower consumption of energy and water, decrease in the use of materials and more environmental conscious purchasing practices. Experience has shown that in many organisations improvements have been achieved when the environmental work has become systematic and the results have been measured, monitored and analysed. The criteria concerning the management of educational establishments guide schools towards well-organised and systematic environmental work. They also make the managements of educational establishments to see the importance of the commitment of the management and of allocation of resources to environmental work.

At this stage, it can be said that the pupils in general education are concerned of the environment and therefore interested in the work improving the environmental performance in their school as well as in their private life. The attitude towards environmental issues among students in vocational training is not very remarkable. This may be due to the age of the students and due to the many other things they are interested and have to learn.

The feedback received from schools shows that these results together with the guidelines (core curriculum) given by the National Board of Education are of great assistance to schools in developing their environmental education and their environmental performance in other every day activities. The criteria, tools and guides also help the schools in implementing the guidelines of the National Board of Education.

Cost-benefit discussion on the results

The costs of the system for schools have been an issue on which great attention has been paid. One of the main requirements for the development of the system has been since the beginning that the system must not be expensive for schools. The main concern of schools is the costs of external auditing and applying and maintaining the certificate. In the Environmental Certification, the awarding of the certificate is free of charge. Other sources of financing the system are sought. The schools must bear the costs of external audits. At this stage, it is estimated that in Finland the costs of external audits will vary from 500 euros to 1500 euros, depending of the school, its size and numbers of functions, etc. For schools of general education, the fee will be lower than for the schools of vocational education. The costs of EMAS Registration and ISO Certification with external audits, maintaining and annual fees, etc. are in Finland for an organisation of 10 to 49 employees operating only in location, the registration fee is 1100 euros plus the annual fee of 250 euros. This does not cover the costs of external audits, which are carried out by commercial auditors with quite high fees. Furthermore, many vocational schools are much bigger and operate in several locations. This increases the costs greatly.

Transferability of project results

The certification system can be reproduced in or transferred to other countries and in/to some other areas requiring less strenuous and less expensive certification system than the current commercial systems. Creating, developing and setting up the

certification system does not require huge investments. By reproducing the system as far as possible and by limiting modifications maybe required by national educational systems or curricula to the minimum, other countries would save the money now spent on the development work. Limiting factors can appear due differences in educational systems, curricula and course syllabi in different countries and at different level of education. At the moment, the environmental criteria developed in the project are not applicable in higher education in Finland. On this basis, it is only fair also to assume that the economic feasibility of the project and the certification system developed is very high.