Introduction

The profession of "Environmental Education Worker" may seem rather new in V4 countries. However, the profession has existed for many decades, if not longer. It was born when experts in nature and environmental conservation began to share their observations and knowledge with the general public, pointing out the impact of human society on nature. These are, for example, national park guides and interpreters, mountain guides, authors of museum exhibitions and their guides, staff of zoological and botanical gardens, geoparks, staff of national park visitor centres, or eco-educators from environmental/ecological education centres.

Environmental education workers have been here for a long time but it is only in recent years that there has been an effort to define it precisely and to identify meaningful, purposeful content. It is because the importance of the profession is increasing in direct proportion to the growing human impact on the natural environmental. And, at the same time, there is a growing need to set a minimum standard of knowledge, skills, and attitudes for the profession of "Environmental education worker".

The key questions are: What should professionals in the field of environmental education know? And what skills and attitudes should they have so that their work has impact, and fulfills the basic goals of environmental education - increasing the environmental literacy and nature conservation skills of the broadest public. That is why this CZ - HU - SK project has been implemented to find answers to these questions.

One of the outputs of the project is this Qualification Standard for the profession Environmental Education Worker, representing the consensus of our Erasmus+ international community.

The basic starting point for this work was the long defined Czech Qualification Standard. We have tried to enrich this source material with insights from the Slovak and Hungarian eco-pedagogical scene and to complement it with current topics in the field of environmental education.

We are aware that each country has its own priorities, problems and legislative settings and that it is therefore not possible to use this qualification standard without adjusting it to the specifics of each country. This standard reflects those topics that are of common interest to all of us and also aims to be an inspirational material for other EU countries.

Thanks to all who contributed to this work, not only from the CZ - HU - SK project teams, but also to the experts from these countries who provided their valuable insights, suggestions and comments.

Qualification standard: Environmental education worker

Profile of an Environmental Education worker:
An environmental education worker is a person who interprets knowledge from the field of ecology and environmental science in the wider context of sustainable development (SD). Workers in environmental education contribute to the fulfillment of the goals of the non-formal environmental education. They support individuals or groups in creating a deep relationship with nature, and building ties to the local environment. They help learners understand ecological processes, global environmental problems and their connections with everyday life and human behavior. Last but not least, they develop the competence to act and actively influence one's surroundings for the benefit of the environment and sustainable development. Activities of workers in environmental education are implemented through various educational and awareness-raising activities and programs, using activating experiential methods and forms.

Working activities:
• Interpretation of knowledge from the field of ecology and environmental science in the broader context of sustainable development to various target groups;

• Implementation of various activities of environmental education (programs, festivals, campaigns, publications, etc.) focused on various topics in the field of informal education;

• Activities related to the implementation of environmental education – developing of programs, organization, tutoring, evaluation of success, publicity and promotion, self-education, financial and administrative issues, facilitation, project management, methodological, planning or research activities;

• Developing the goals of informal environmental education – competences for responsible behavior in favor of good environment and sustainable development

• Cooperation and networking with various actors of environmental education at the local, regional, national or international level.

Environmental education worker can (summary of competencies):

1. Environmental issues and basic concepts of ecology and environmental science
1.1. Use current and verified sources of information and professionally relevant concepts in the field of ecology, environmental science and sustainable development.
1.2. Implement eco-friendly processes and services at one's workplace a in one's professional life.

2. Environmental education: The system and mission
2.1 Identify key players in the environmental education system, and is able to approach the relevant authority, institution or NGO with a question or for support.
2.2. Advocate the necessity, relevance and irreplaceability of environmental education in teaching, extracurricular education, but also in education of public.
2.3. Cooperate with other organizations and institutions in the system of environmental education in fulfilling its goals.

3. Methodology of environmental education
3.1. Assess the knowledge and interests of the participants, and decide for and implement further learning and methods accordingly.
3.2. Implement education activities to inspire by own example.

4. Preparation and delivery of environmental programs
4.1. Design and deliver environmental programs on appropriate topics for various target groups with clearly defined learning outcomes, using effective educational methods and methodologies.
4.2. He/she has sufficient communication and teaching skills, and can deal with unexpected situations and challenges.
4.3. Use environmentally friendly tools and materials, and choose learning environments in a way that develops participants' relationship with nature and environmental protection.

5. Inclusive and supportive learning environment
5.1. Deliver environmental education programs to participants with respect to their specific needs and abilities, using strategies and practices that promote inclusion.
5.2. Treat each learner with respect, regardless their views.
5.3. Create a positive and motivating environment.

6. Evaluation
6.1. Use an evaluation method appropriate to the subject and group.
6.2 Work systematically with results of evaluation to improve the quality of instruction and teaching skills.

7. Personal professional growth
7.1. Develop his/her methodological, communication and organizational skills, continuously acquire information on current topics and cooperate with experts and organizations in developing his/her knowledge and skills.
7.2 Look critically at their own knowledge, skills, attitudes and learn from personal experience as an environmental educator.

8. Financial matters and marketing of environmental programs
8.1 Cooperate on the project management and writing a project application.
8.2 Use different communication channels and tools to promote environmental education activities.
8.3 Explain and describe his/her work, its importance and the vision of his/her organization.

9. Safety principles, risk elimination and accident prevention
9.1 Environmental education worker can (competencies)
9.2 Handle basic conflicts, and react calmly in a variety of unexpected situations.
9.3 Apply safety rules in the implementation of environmental programs, and deal with basic health problems.

Environmental Education Worker: description of knowledge, skills, and competences

1. Environmental issues and basic concepts of ecology and environmental science

1.1 Worker in environmental education knows (has knowledge): SK
1.1.1. The current state of the local, regional, national and global environmental problems, and is familiar with its problems and possible solutions.
1.1.2. Basic concepts in the field of ecology, environmental issues and sustainable development.
1.1.3. Has a general overview in the field of environmental legislation and current environmental policy of the EU, state and region.

1.2. Environmental education worker can (skills):
1.2.1. Use up-to date and relevant information sources.
1.2.2. Explain impacts of human systems on the environment, based on knowledge of both the natural and social sciences.

1.2.3. Explain reasons and consequences of the climate change and biodiversity loss, and present solutions.
1.2.4. Demonstrate abilities and skills for exploring nature and the environment.
1.2.5. Link ecological events and laws with everyday life.
1.2.6. Explain eco-friendly lifestyle (eco-brands, responsible shopping, conservation of resources and adaptation measures, voluntary modesty).

1.3. **Environmental education worker can (competencies):**
1.3.1. Use current and verified sources of information and professionally relevant concepts in the field of ecology, environmental science and sustainable development.
1.3.2. Implement eco-friendly processes and services at one's workplace a in one's professional life.

2. Environmental education: The system and mission

2.1. Worker in environmental education knows (has knowledge):
2.1.1 Knows the current system of environmental education, legislation, methodology guidelines and other pedagogical documents, and the goals of environmental education (formal, non-formal, and informal).
2.1.2. Has an overview of current trends in environmental education and training.
2.1.3. Has an overview of subjects active in environmental education (who is who).
2.1.4. Knows the processes of creating methodological materials and strategic documents in the field of environmental education, and knows the possibilities to participate in them.

2.2. Environmental education worker can (skills):
2.2.1. Identify key players in the field of education and especially in the field of environmental education, and describe their competencies: individuals, organizations, institutions and agencies providing environmental education programs, including formal and informal programs.
2.2.2. Define what is (and what is not) environmental education and its goals.
2.2.3. Identify key competencies in the field of environmental literacy and civic participation skills.
2.2.4. List relevant organizations and initiatives in the field of environmental education at national level for building partnerships.

2.3. Environmental education worker can (competencies):
2.3.1 Approach the relevant authority, institution or NGO with a question or for support.
2.3.2. Advocate the necessity, relevance and irreplaceability of environmental education in teaching, extracurricular education, but also in education of public.
2.3.3. Cooperate with other organizations and institutions in the system of environmental education in fulfilling its goals

3. Methodology of environmental education

3.1. **Worker in environmental education knows (has knowledge):**
3.1.1. Has basic knowledge of pedagogical and psychological principles of formal, non-formal and informal education, based on age.
3.1.2. Understands that environmental education takes place in a variety of settings, and that program requirements, educational methods, and other factors vary based on needs of learners and other factors.
3.1.3. Knows different educational approaches and their elements *(Annex 1).*
3.1.4. Knows the multiple advantages of outdoor education.

3.2. Environmental education worker can (skills):
3.2.1. Apply the principles of non-formal education and training, experiential and activating methods, inclusive approach, and principles of civic participation and activism.
3.2.2. Apply new trends and digital tools in the creation and implementation of environmental education activities and programs
3.2.3. Use various effective methods suitably combined and alternated, respecting the needs and abilities of the participants. (*Annex 2*)
3.2.4. Create and implement educational activities with an awareness of the gradual steps of environmental education from sensory perception to engagement for a better environment.
3.2.5. Motivate participants to accept personal co-responsibility for the state of the local environment.

3.3. Environmental education worker can (competencies):
3.3.1. Assess the knowledge and interests of the participants, and decide for and implement further learning and methods accordingly.
3.3.2. Implement education activities to inspire by own example.

4. Preparation and delivery of environmental programs

4.1. **Worker in environmental education knows (has knowledge):**
4.1.1. Knows the structure of a good environmental program.
4.1.2. Knows the specifics of environmental education programs (short or long-term, campaigns…)
4.1.3. Is aware of the importance to use environmentally friendly products and services as well as prevent waste production and damage of natural resources during implementation of environmental education programs.

4.2. Environmental education worker can (skills):
4.2.1. Define goals and learning outputs of the environmental program.
4.2.2. Reflect on hotly discussed topics, take into account the local, economic and social context of problems, local culture and traditions.
4.2.3. Create one's own environmental program using effective methods, following the educational goals, depending on the age of the participants and other conditions.
4.2.4. Describe the structure of an environmental education program based on a selected learning model
4.2.5. Deliver own environmental program and describe the ways of implementing its individual activities.
4.2.6. Create and use diverse settings for environmental education (e. g. classroom arrangement, outside of the classroom, school gardens), depending on different learning outcomes and available resources.
4.2.7. Modify and adapt activities or programs in environmental education to the current requirements of environmental policy, the needs of various target groups as well as the environment in which they take place.
4.2.8. Has skills in communication, presentation and teamwork.

4.3. Environmental education worker can (competencies):
4.3.1. Design and deliver environmental programs on appropriate topics for various target groups with clearly defined learning outcomes, using effective educational methods and methodologies.
4.3.2. He/she has sufficient communication and teaching skills, and can deal with unexpected situations and challenges.

4.3.3. Use environmentally friendly tools and materials, and choose learning environments in a way that develops participants' relationship with nature and environmental protection.

5. Inclusive and supportive learning environment

5.1. Worker in environmental education knows (has knowledge):
5.1.1. Knows the strategies and procedures that support inclusion in the implementation of environmental education programs.
5.1.2. Is aware of the necessity to find out information about participants and their special needs before the program.

5.2. Environmental education worker can (skills):
5.2.1. Use the strategies and procedures that support inclusion in the implementation of environmental education programs.
5.2.2. Create opportunities for learners to have personal experiences exploring the world around them.
5.2.3. Create safe environment for each participant to express their own opinion, attitude or emotions.
5.2.4. Create motivating environment and support collaboration of learners.
5.2.5. Use techniques that encourage learners to ask questions and explore a variety of answers.
5.2.6. Communicate in a way that promotes a sense of belonging among participants.

5.3. Environmental education worker can (competencies):
5.3.1. Deliver environmental education programs to participants with respect to their specific needs and abilities, using strategies and practices that promote inclusion.
5.3.2. Treat each learner with respect, regardless their views.
5.3.3. Create a positive and motivating environment.

6. Evaluation

6.1. Worker in environmental education knows (has knowledge):
6.1.1. Knows basic approaches and tools in evaluating the effectiveness of environmental education programs.

6.2. Environmental education worker can (skills):
6.2.1. Use a variety of techniques and strategies for assessing learning outcomes.
6.2.2. Explain the importance of ongoing evaluation as means to modify and improve future instruction.
6.2.3. Explain the importance of final evaluation (at the end of longer program) as a tool to measure effectiveness of environmental education programs.

6.3. Environmental education worker can (competencies):
6.3.1. Use an evaluation method appropriate to the subject and group.
6.3.2. Work systematically with results of evaluation to improve the quality of instruction and teaching skills.

7. Personal professional growth - CZ

7.1. Worker in environmental education knows (has knowledge):
7.1.1. Knows relevant resources and opportunities for personal and professional growth.
7.1.2. Knows various organizations and initiatives dealing with further education in the field of environmental education at various levels.

7.2. Environmental education worker can (skills):
7.2.1. Obtain information about current topics and events in the field of environmental education from relevant sources.
7.2.2. Cooperate with experts or organizations with the aim of increasing qualifications in the field of the environment.
7.2.3. Develop methodology skills, communication skills, organizational skills, critical thinking and interpersonal skills.

7.3 **Environmental education worker can (competencies)**
7.3.1. Develop his/her methodological, communication and organizational skills, continuously acquire information on current topics and cooperate with experts and organizations in developing his/her knowledge and skills.
7.3.2. Look critically at their own knowledge, skills, attitudes and learn from personal experience as an environmental educator.

8. Financial matters and marketing of environmental programs - CZ

8.1 **Worker in environmental education knows (knowledge):**
8.1.1 Knows the possible sources to finance environmental education programs.
8.1.2. Knows possibilities for promotion of environmental education programs.
8.1.3. Knows basics of the project management.

8.2 **Environmental education worker can (skills):**
8.2.1. State currently demanded programs and topics based on current priorities.
8.2.2. Cooperate on writing a project.
8.2.3. Use different communication channels and tools to promote environmental education activities.
8.2.4. Can present his or her work, its benefits and the vision of own organization.

8.3 **Environmental education worker can (competencies):**
8.3.1. Cooperate on the project management and writing a project application.
8.3.2. Use different communication channels and tools to promote environmental education activities.
8.3.3. Explain and describe his/her work, its importance and the vision of his/her organization.

9. Safety principles, risk elimination and accident prevention - HU

9.1 **Worker in environmental education knows (knowledge):**
9.1.1 Has knowledge in the field of safety rules, physical and mental health protection, as well as prevention of accidents and damage to health, the environment and property.

9.2 **Environmental education worker can (skills):**

9.2.1. Adapt environmental education activities and programs in various environments to reduce health risks.
9.2.2. Deal with basic health conditions.
9.2.3. Apply the principles of safe movement and stay in nature.
9.2.4. Cope with basic emotionally tense situations.

9.3. **Environmental education worker can (competencies)**
9.3.1. Handle basic conflicts, and react calmly in a variety of unexpected situations.
9.3.3. Apply safety rules in the implementation of environmental programs, and deal with basic health problems.

Annexes:
1/ Methodological approaches used in environmental education:

- Community-based learning
- Creative education
- Experiential learning
- Inquiry-based learning
- Interpreting local heritage
- Outdoor learning
- Participatory environmental education
- Peer education
- Place-based learning
- Problem-based learning
- Project-based learning
- Service learning
- Value-based learning
- Other methodological approaches used or inspired by EE

2/ Methods used in environmental education:

- Critical thinking
- Demonstration
- Discussion
- Ecology and environmental (science) apps
- Environmental sensitivity activities
- Field research
- Fieldtrip, excursions
- Groupwork
- Hands-on activities
- Philosophy for children
- Questing
- Role-play
- Simulation games
- Other methods

3/ Glossary:

- citizen science
- critical thinking

- eco-friendly lifestyle
- evaluation in education
- formal education
- inclusive pedagogy
- informal education
- non-formal education
- sustainable development
- tutoring

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