



**ENVIRONMENTAL**  
**EDUCATION** FOR  
**SUSTAINABILITY**



**YEE**   
YOUTH AND  
ENVIRONMENT  
EUROPE

# ENVIRONMENTAL EDUCATION FOR SUSTAINABILITY



JULY 2014

This project has been funded with support from the European Commission.  
This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Youth  
in Action

The booklet is the follow-up of the training course “Environmental education for sustainability”. The training course and the booklet have been funded with support from the Youth in Action Programme of the European Commission.

Youth in Action is the Programme the European Commission has set up for young people. It aims to inspire a sense of active European citizenship, solidarity and tolerance among young Europeans and to involve them in shaping the Union’s future. It promotes mobility within and beyond the EU’s borders, non-formal learning and intercultural dialogue, and encourages the inclusion of all young people, regardless of their educational, social and cultural background. Youth in Action is a Programme for all.

Source: <http://ec.europa.eu/youth/>

COUNCIL OF EUROPE



CONSEIL DE L'EUROPE

The project has been funded with support from the European Youth Foundation by the Council of Europe.

The European Youth Foundation (EYF) is a fund established by the Council of Europe to provide financial support for European youth activities. Its purpose is to encourage co-operation among young people in Europe by providing financial support to such European youth activities which serve the promotion of peace, understanding and co-operation in a spirit of respect for the Council of Europe’s fundamental values of human rights, democracy, tolerance and solidarity.

Source: <http://www.coe.int/web/european-youth-foundation/home>

## Editorial team:

Lira Hakani  
Tatevik Vahradyan  
Tijana Ljubenovic  
Anna Lepeshkina  
Kristina Huda  
Roxana Nica  
Natalia Luchko

## Trainers:

Richard Irvine  
Milka Gvozdenovic  
Helena Koskova

We are grateful to the  
trainers of the  
training course, their  
sessions were  
a great inspiration for  
the preparation of this  
booklet.

## Support:

Jessica Massucco  
Małgorzata Zubowicz-Thull

## Design:

Shurben Studios

## Pictures:

Photos from the training course “Environmental education for sustainability” by Young Researchers of Serbia.



Printed on recycled paper

The booklet “Environmental education for sustainability” is the follow-up of the training course with the same title which took place in April 2014 in Serbia.

The training course was created for young people who would like to become environmental educators with a special focus on sustainability. During the project enthusiastic young people from different European countries practiced various methods of environmental education and tried to clarify for themselves why they want to teach about sustainability.

This booklet was created by some of the participants of this training course. They wanted to learn more about the topic and decided that researching and writing the articles for the booklet will give them more opportunities to explore the topics of environmental education and sustainability.

Thus, this publication contains both methods and results from the training course and some additional information.

It is not an easy task to create a booklet which will help anyone become an environmental educator. This booklet was created by young people for young people and we tried to include as much information as possible while also reflecting our views of the topics.

The booklet covers several topics: sustainability and its history, environmental education and its methods, the profile of an environmental educator, professional tips for future educators and useful links.

We hope that this booklet will become a useful and interesting source of information for future educators, but also will inspire them to research more on the included topics.

On behalf of the editorial team,

**Natalia Luchko**

<b>2</b>	<b>About the training course “Environmental education for sustainability”</b>
<b>4</b>	<b>Sustainability</b>
5	What is sustainability
8	History of sustainability
13	Why should we teach about sustainability
17	Sustainable stories
17	- Romania (Bio-Mosna)
19	- Albania (Education Center)
20	- Russia (World Day for the Protection of Animals)
21	- Russia (Ecological film festival Ecocup)
22	- Serbia (Supernatural Festival)
23	- Moldova (Energy and Biomass Project)
<b>26</b>	<b>Profile of an Educator</b>
27	Environmental education
33	How to become an environmental educator
37	Interview with an environmental educator
<b>40</b>	<b>Methods of environmental education</b>
41	Environmental education indoors
43	Environmental education outdoors
46	Environmental education online
49	Methods from the training course
<b>52</b>	<b>Useful materials</b>
53	Learn more - films & videos
54	Learn more - books
55	Learn more - websites

The training course “Environmental education for sustainability” was organised by Youth and Environment Europe (the Czech Republic) and Young Researchers of Serbia (Serbia). It took place on 13-20 April 2014 in the small beautiful town of Sremski Karlovci, Serbia.

YEE has been involved in international campaigns on various topics of sustainability such as the preservation of forests, promoting healthy food, an eco-campaign in European schools and many others, alongside trainings in methods of environmental education. That is why we wanted to use this experience and combine the two topics of environmental education and sustainability.

**The training course brought together 28 young people from various European countries: Albania, Armenia, the Czech Republic, Moldova, the Netherlands, Portugal, Russia, the UK and Serbia.**

The participants of this training course turned out to be very interested in the topic of environmental education and passionate about the environment. They wanted to learn the basics of environmental education and practice various methods.

## OBJECTIVES

- \* **to exchange** information and experience about environmental education in different countries
- \* **to encourage** young participants to create their own programme as an environmental educator focused on sustainability
- \* **to discuss** and perceive the role of youth NGOs in environmental education
- \* **to review** the factors that ensure the professional quality of environmental education
- \* **to explore** environmental education in partner organisations
- \* **to practice** various environmental educational methods
- \* **to develop** skills in environmental education focused on sustainability

The aim of the training course was to train young people in methods of environmental non-formal education in order to become efficient promoters of sustainability.

The training course started with sessions dedicated to more general topics of sustainability, values, identifying learning needs and the basics of project management. During the first day the participants also shared the peculiarities of environmental education in their countries.

Further days were dedicated to various practical exercises: discussing and practicing methods of environmental education, organising a workshop for pupils of the local school, sharing activities with the group. The last two days were dedicated to more reflective exercises – looking back at the activities done, evaluating them and thinking about the future.

The participants also took part in a trip to the local national park Fruška Gora where they learned about the nature of the park and introduced some of their own environmental educational activities.



# SUSTAINABILITY



## WHAT IS SUSTAINABILITY

We live in a world where everything we do can be perceived in terms of sustainability. The way we manage our homes, what we eat, how we travel, how we choose to educate children and many more.

**What comes to your mind when you hear the word “sustainability” -**

responsibility, future, consciousness?

Or maybe environmental protection?

Many aspects of sustainability are nowadays related to various global issues, such as climate change, waste management, pollution, energy or use of natural resources. All these aspects imply needs for the society, which is actually what scientists have tried to embody in one of the most commonly known definition of sustainability:

### **Told in a less scientific way...**

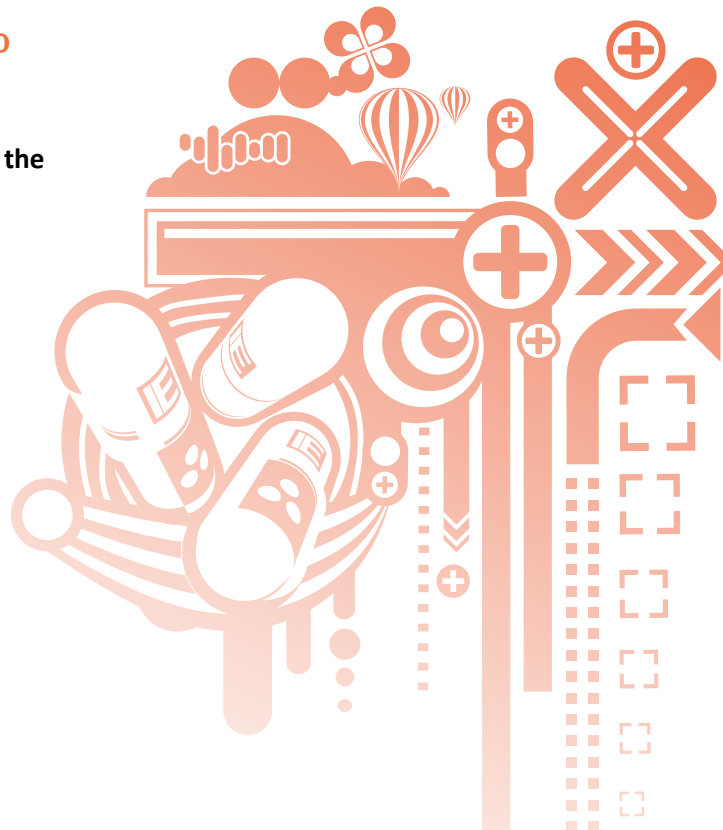
we use sustainable tools, products or have sustainable attitudes towards the communities we live in so that we could keep having a well-balanced life on a healthy planet.

“Sustainability is the ability for society to meet its present needs while preserving the ability of future generations to meet their own.”

## What are the things society can do to promote sustainability?

There are plenty of solutions, but maybe the simplest ones would be the following:

- \* reasonable usage of natural resources,
- \* labelling green products and promoting green chemistry and engineering,
- \* managing materials rather than creating waste,
- \* using green infrastructure,
- \* supporting the sustainable design of communities, etc.



We must also keep in mind that one of the key factors for maintaining the world sustainable is education. Therefore, the emphasis should be on educating people in order to reach the harmony needed for sustainability and to result in a dialogue over the values that lead to sustainable development.

**UNESCO has identified a series of values that can be taught to children and young people regarding education and sustainability, such as:**

- \* “respect the Earth and life in all its diversity”,
- \* “build democratic societies that are just, participatory, sustainable, and peaceful”,
- \* “secure the Earth’s bounty and beauty for present and future generations”, etc.

### Defining sustainability. Online course

“Sustainability, society and you”,

The University of Nottingham

“What is sustainability?”:

<http://www.epa.gov/sustainability/basicinfo.htm>

**Education for Sustainable Development**

– Sourcebook <http://unesdoc.unesco.org/images/0021/002163/216383e.pdf>

# HISTORY OF SUSTAINABILITY



## 1948: Foundation of IUCN

Founded in 1948 as the world's first global environmental organisation. The International Union for Conservation of Nature is the world's oldest and largest global environmental organisation. To deliver conservation and sustainability at both the global and local level, IUCN builds on its strengths in the areas of science, action and influence.

## 1972: Limits of Growth

"(...) under the **assumption of no major change in the present system**, population and industrial growth will certainly stop within the next century, at the latest." This was the main conclusion of the report **Limits of Growth**, published by the Club of Rome in 1972.

## 1972: Stockholm Conference

The United Nations held the **first international Conference on the Human Environment in Stockholm**, which brought together industrialised and developing nations to discuss the right of all humans to a healthy and productive environment.

## 1972: United National Environmental Programme (UNEP)

Out of the Stockholm Conference, the **United Nations Environmental Program (UNEP)** was formed with a mandate to **promote the idea of environmentally-sound development**.

## 1980: World Conservation Strategy

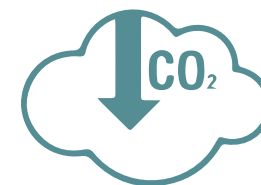
**IUCN** (together with the United Nations Environmental Program and the World Wide Fund for Nature) **collaborate with UNESCO to publish the World Conservation Strategy**.

## 1983: Brundtland Commission

Brundtland Commission, also known as **World Commission on Environment and Development (WCED)**, aimed to **re-examine critical environmental and development problems** from around the world and **formulate realistic proposals** to address them.

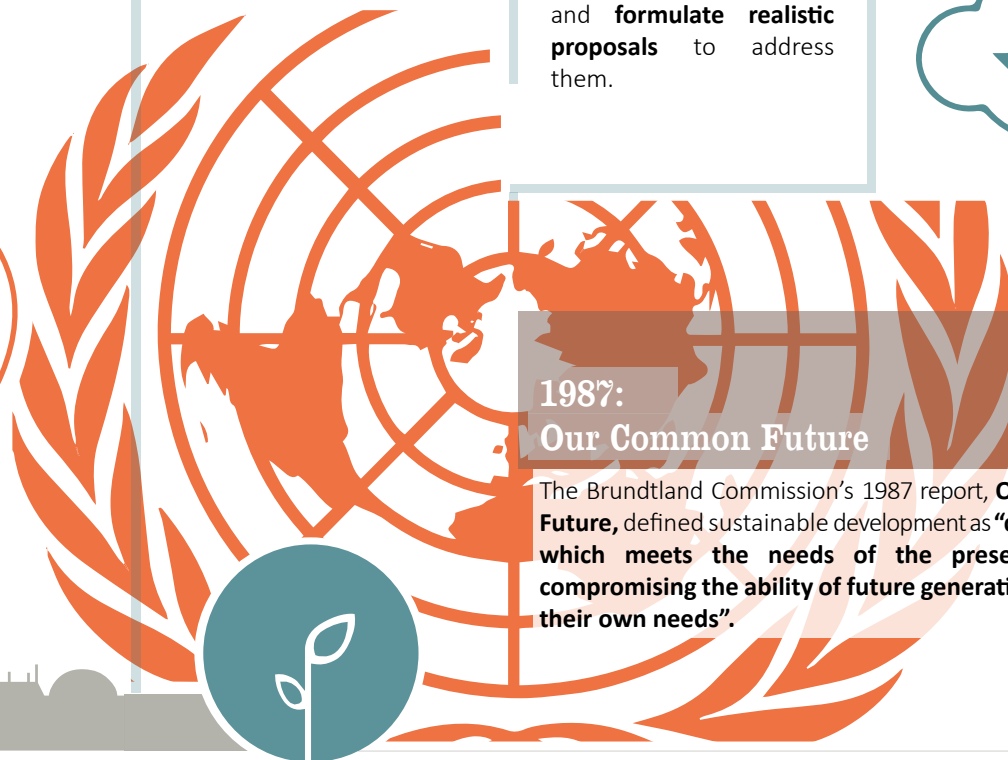
## 1987: Montreal Protocol

The Montreal Protocol is an **international treaty designed to protect the ozone layer** by reducing the production of numerous substances that are responsible for ozone destruction.



## 1987: Our Common Future

The Brundtland Commission's 1987 report, **Our Common Future**, defined sustainable development as "**development which meets the needs of the present without compromising the ability of future generations to meet their own needs**".





## 1988: Establishment of IPCC

The Intergovernmental Panel on Climate Change (IPCC) is a **scientific intergovernmental body under the guidance of the United Nations**. The IPCC produces reports that support the United Nations Framework Convention on Climate Change (UNFCCC), which is the main international treaty on climate change.

## 1992: Rio conference

The United Nations Conference on Environment and Development in Rio de Janeiro in 1992 was the **“first international attempt to develop strategies for a more sustainable pattern of development.”** It is also known as the **Earth Summit**.

## 1994: UNFCCC enters into force

The **UNFCCC** is a “Rio Convention”, one of three adopted at the “Rio Earth Summit” in 1992. The main objective of this convention is the **“stabilization of greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”**.

## 2002: Johannesburg summit

The World Summit on Sustainable Development (WSSD) brought together **tens of thousands of participants** toward meeting difficult challenges, including **improving people’s lives and conserving our natural resources** in a world that is growing in population, with **ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security**.



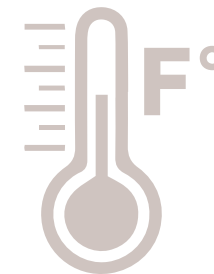
## 2005: UN Millennium Ecosystem Assessment

The Millennium Ecosystem Assessment evaluates the **consequences of ecosystem change for human well-being**. From 2001 to 2005, the MA involved the work of more than 1,360 experts worldwide.



## 2005: Kyoto Protocol (KP) enters into force

“The Kyoto Protocol is an **international agreement linked to the United Nations Framework Convention on Climate Change**, which commits its Parties by setting **internationally binding emission reduction targets**.” It was first adopted in Kyoto, Japan, in 1997, but entered into force in 2005. And it is **currently in the second commitment period from 2013 to 2020**.



Wikipedia article “International Union for Conservation of Nature”: <http://goo.gl/HSqZ7s>

Wikipedia article “Brundtland Commission”: <http://goo.gl/IT4Qie>

Wikipedia article: “Montreal Protocol”: <http://goo.gl/iZCCe7>

Sustainable development. Knowledge platform: <http://goo.gl/xoUPRC>

Kyoto Protocol : <http://goo.gl/60xc6j>







However, it is quite easy to realise that what we are doing now is not even meeting the needs of most of people today. So it is hard to argue that we should change our lifestyles and should educate younger generations to protect the planet.

### Therefore teaching about sustainability can help young people to:

- \* find new innovative solutions and ideas,
- \* develop their critical thinking,
- \* It can also raise questions about the moral and ethical sides of consumerism and raise up a generation of responsible consumers.

### Here are some arguments to support teaching about sustainability to children:

1. They will learn to take responsibility and be accountable. Environmental education teaches how our actions impact the environment and therefore that all of our actions have consequences. Thus the children can learn to make more responsible choices.
2. We are all consumers from the day we are born. Environmental education can teach children to choose sustainable and fair trade products from the early age which will make them responsible consumers when they grow up.

**"Why should we teach sustainability and how should we do it?",**

John Ikerd:

<http://goo.gl/opPFLR>



**Why Environmental Education is important:**

<http://goo.gl/mroqm2>

3. They will learn to appreciate what they have. Children can learn how to reuse things or upcycle them, how to be creative and find new approaches.

4. They will inherit what their parents will have left them and thus they will be more thankful if what they receive is sustainable.

Educating children on sustainability: <http://goo.gl/SrOzYZ>

### Benefits of environmental education:

Environmental education supports creativity and innovative thinking.

Environmental education helps to develop critical thinking as it includes activities with investigating, researching, questioning, developing conclusions and finding solutions.

Environmental education includes team work and therefore builds leadership qualities and communication skills.

Being close to nature improves the ability to focus and concentrate.

Spending a lot of time outside is good for mental and physical health.

Environmental education includes a lot of experiential learning – learning by doing.





BILITY



# SUSTAINABLE STORIES

## Romania: Bio-Moșna



### What was done:

**Bio-Moșna is an ecological traditional household that was established in order to promote a healthy, sustainable lifestyle.**



It is located in Moșna (Meschen) village, in the central part of Romania. The household is run by the Schuster family and it is a micro-farm certified for dairy cattle. They provide other bio products as well, such as fruits, vegetables, herbs or rose petal jam, which is very popular in the community.



Bio-Moșna is part of **WWOOF (World Wide Opportunities on Organic Farms)**, which enables both Romanian and foreign people to volunteer or simply visit the place. The people who come to the household help with the daily activities in return for food and accommodation.

▲ Pictures by Bio-Moșna



### How they did it:

After gaining knowledge in Switzerland on how to start their own ecological household and even how to convert it into a small, sustainable business, the Schuster couple decided to return to Romania and put it into practice. So they bought land and an old German-Saxon house, which they transformed into a micro-farm.

### Why it was successful:

Bio-Moşna is the result of the desire to have a healthier lifestyle and of an ongoing passion about nature and tradition. The success of this local business is, firstly, due to the Schuster family, who is extremely warm, open and kind to all the visitors that want to help around the household, to see how it is to live in the countryside or just to spend a few days in an amazing, natural place. Secondly, there is an increasing demand on the Romanian market in bio products and this initiative offers not only the most natural, healthier products, but actually it provides the whole “bio experience”. In conclusion, the most important part of the success of Bio-Moşna is that it is a business done from the heart.

**Link:** <http://bio-mosna.ro/>

Pictures by Bio-Moşna



### Who did it:

The founders of Bio-Moşna are Willy and Lavinia Schuster, a married couple who decided to have a bio household for them and their five children. Both of them studied Agriculture in Switzerland, which encouraged them to go back to Romania and start their own local bio business.



Picture by EDEN Centre

### Who did it:

Environmental Center for Development Education and Networking - EDEN Centre

### Why it was successful:

This is the best example of the place where children can learn about nature. This Environmental Education centre is equipped with educational materials and tools. There is always an employee at the centre. Children can take part in interactive environmental education activities in this centre and they can enjoy learning about the environment.

## Albania: Ecological Environmental Education Center

### What was done:

Ecological Environmental Education Center

### How they did it:

In 2008 the new Ecological Environmental Centre EDEN was constructed close to the national Zoo in Tirana, Albania. It opened again on 5 June 2014. This ecological center is a unique venue in Albania. Its main aim is to inform children and students who visit the zoo about the environment and how to protect it, how to take care of fauna and flora, and how to learn from nature. This centre also has a variety of environmental educational tools and materials which are used for activities with children. They learn how to measure the height of a tree, how to measure the depth or the clarity of water, how to catch insects, how to be oriented in the environment, what animals eat, etc. This centre is also a great example of sustainable use of resources. Electricity is produced and water is heated by a solar panel. Rain water is collected and used again. The employees of the centre are still working on other ecological ideas.

**Link:** <http://www.eden-al.org/index.php>







Picture by Ecocup Film Festival ▲



## Serbia: Supernatural Festival

### What was done:

SUPERNATURAL Festival is an event that gathers a variety of international and domestic environmental organisations, as well as organic food producers. It is a place where people can have fun, listen to good music but also achieve quality education. Its main purpose is to celebrate the Earth Day in a different way. During the festival there are a lot of workshops for children about recycling, biodiversity, waste, clean energy, organic food, etc. Supernatural promotes sustainable tourism and offers a unique experience in nature. In 2010, they launched Supernatural radio and made a film in order to raise environmental awareness and promote sustainability.

### How they did it:

The idea of the Supernatural festival started in 2005 at the World Expo in Japan entitled “The Wisdom of Nature”, where the Supernatural team was inspired by the main concept of the exhibition. Two years later, the first edition of the festival was held in Belgrade. In order to attract people’s attention, there was new concept every year.

**Link:** <http://www.supernatural.rs/>



Picture by Supernatural Festival

### Who did it:

A group of people formed the environmental movement called SUPERNATURAL. They are a team of people from various backgrounds who want to share love and respect for the environment and their vision of society in harmony with nature.

### Why it was successful:

It gathers numerous environmental organisations, green companies, environmentalists with the main purpose to teach children and citizens about sustainability in appealing ways, while listening to the music and having fun. Until now, around 50, 000 people have visited it.



Picture by Gutta-club

### Who did it:

Energy and Biomass Project is funded by the European Union and co-financed, implemented by UNDP.

Gutta-Club in partnership with Institute for Continuing Education are responsible for the Educational Component in frame of the Energy and Biomass Project since 2011.

## Moldova: The Moldova Energy and Biomass Project

### What was done:

The Moldova Energy and Biomass Project aims to contribute to a more secure, competitive and sustainable energy production in the Republic of Moldova through targeted support of renewable energy in form of biomass from agricultural wastes.

MEBP has launched an Educational Initiative on Renewable Energy and Energy Efficiency promoting the use of renewable energy sources, especially biomass, and the practices for rational use of power resources based on energy efficiency and energy conservation measures.



Picture by Gutta-club



**For example:**

- \* students and teachers have practical and theoretical lessons on the topic,
- \* have common webinars with other pilot-schools,
- \* build samples of installations based on renewable energy,
- \* take part in debates on a variety of topics related to alternative power and energy efficiency,
- \* carry out study-visits to biomass-fired boiler plants and prepare practical papers and topics, etc.



**The course was approved by Ministry of Education, which is a great achievement.**

The most active school students that took part in and won the contest in frame of the project will have the opportunity to take part in topic-related summer school “Energel”.

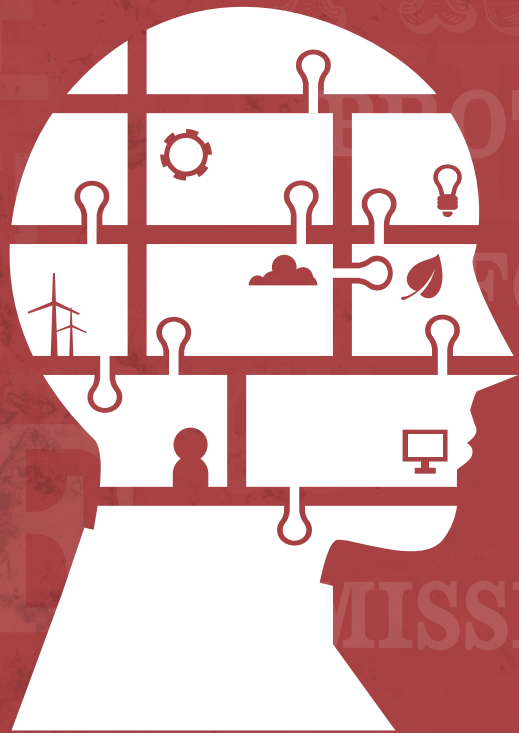
At summer school they can deepen their knowledge on sustainable power and energy efficiency by participating in the following activities:

- \* Practical installations of solar cookers and windmills,
- \* debates,
- \* theatrical performances,
- \* street actions for raising awareness of people from local village,
- \* clean up actions,
- \* eco-festivals and eco fashion shows,
- \* presentations of guests and experts

- that's what youth will remember from the eco-school.

**Link:** [www.undp.md/projects/Biomass.shtml](http://www.undp.md/projects/Biomass.shtml)





## PROFILE OF AN EDUCATOR

## ENVIRONMENTAL EDUCATION

In this part we will try to give a short but informative overview of environmental education. Of course, one chapter cannot describe all the peculiarities of environmental education, so we advise you to research more on the topic by following the links and references.





We can start talking about environmental education by providing a definition for it. There are a lot of definitions for this concept. We are going to follow the definition from the Belgrade Charter (1976):

“Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and has the attitudes, motivations, knowledge, commitment and skills to work individually and collectively towards solutions of current problems and the prevention of new ones.”

The goals and principles of environmental education were defined in the Tbilisi Declaration by UNESCO as the result of the Intergovernmental Conference on Environmental Education.



**The History and Philosophy of Environmental Education**  
by Robert L.Carter and Bora Simmons:  
<http://goo.gl/x72aMv>



### The goals of environmental education are:

- \* to foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas
- \* to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment
- \* to create new patterns of behaviour of individuals, groups and society as a whole towards the environment

### Environmental education focuses on:

**Awareness** - to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.

**Knowledge** - to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.

**Attitudes** - to help social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.

**Skills** - to help social groups and individuals acquire the skills for identifying and solving environmental problems.

**Participation** - to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems.

The Tbilisi Declaration: <http://goo.gl/QDp0WY>

\_\_\_\_\_

© 2015 Pearson Education, Inc. or its affiliate(s). All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage or retrieval system, without prior written permission from Pearson Education, Inc. or its affiliate(s).



**Nicole M. Ardoin, Charlotte Clark & Elin Kelsey (2012):**

<http://goo.gl/6YFej0>



ENVIRONMENTAL  
FRIENDLY  
?

?



“ Environmental educators seeking to grow professionally can start by thinking about their practice, knowledge, and skills, then mapping those against the competencies laid out in the guidelines. ”

- Dr. Bora Simmons,

*Director, National Project for  
Excellence in  
Environmental Education*

## HOW TO BECOME AN ENVIRONMENTAL EDUCATOR

If you are thinking of becoming an environmental educator, here are some tips which might help you:

### 1. Being passionate about the environment

First and essential thing is to be passionate about the nature and environment and eager to pass that love to the others!

Be outgoing and enthusiastic, as well as be ready for action, because environmental educators might do their teaching outside, while hiking or sitting around a campfire for example.

### 2. Develop personal skills

You should be comfortable working with people of all ages, from kindergarten children to elderly people. When you start working as an environmental educator your tool can be loving your surroundings and listening carefully to what others feel and say. It means that you need to be a communicative and tolerant person, as well as a person who is ready to develop their creativity and practicality. **You have to personalise your methodology based on your target group and specific people.**

### 3. Develop pre-professional skills

Loving nature, environment, landscapes and loving teaching are essential but it is not enough for becoming an environmental educator. You have to develop professional skills:

- \* invest your time in developing basic organisational skills,
- \* have good spoken and written communication skills,
- \* manage coordination within environmental groups,
- \* as well as have knowledge of effective strategies in environmental education, design and making instructions more meaningful.

### 4. Background in environmental issues

The background of an environmental educator can be very different, since the trainings they receive are usually not the same. While some environmental educators have a degree in education or even social studies, others are specialised in natural science or resource management.

However, the perfect combination for an environmental educator is a background in both content areas - such as science, geography or social studies - and pedagogical areas - such as teaching styles, learning styles, or assessment. In this way, you will be more competent in what you say and how you act.

### 5. Getting certificate

The worst thing is to proclaim yourself as an environmental educator without having any proof of your competency. It is possible, but you will have to get through a lot of activities to gain experience that each good environmental educator should have. There are courses and trainings organised by a variety of institutions (international networks, NGOs, etc) which can offer you training in environmental education.

---

#### EE Certification

"Why do we need it? What's in it for me?"

<http://www.naaee.net/programs/certification/eecert>

### 6. Job opportunities

First of all, it is up to you if you want to be a freelancer or have a permanent job, thus the range of activities carried out in the role of environmental educator vary hugely from job to job.

Environmental educator can work in schools, universities, nature centres, parks, local organisations or NGOs.

There is a number of great green job portals online that can help you in the job search. Freelancing is also very common since it also gives you an opportunity to participate in various trainings, workshops, conferences, international projects and even volunteer or do internships.

---

#### Environmental Educator

Green Careers Guide.

[www.greenenergyjobs.com/career-guide/](http://www.greenenergyjobs.com/career-guide/)

### 7. Be optimistic

Do not give up and trust yourself. This profession is both satisfying and frustrating, as you encounter difficulties. With a positive attitude towards working, with love for what you are sharing and enthusiasm to achieve constructive results, these difficulties can be overcome.

Thus, be persistent and rely on your opinions, your advice or your suggestions and try to enjoy the surroundings and the people whom you work with as much as you can.

If you are a nature lover with a passion for sharing your knowledge about environmental protection, with good communication and interpersonal skills, then a career as an environmental educator is for you.





ENVIRONMENTAL  
FRIENDLY

?

?

?

## INTERVIEW WITH AN ENVIRONMENTAL EDUCATOR

In this part environmental educator from Armenia, Amalia Hambartsumyan, will share her experience of teaching about sustainability .



**Amalia Hambartsumyan, Armenia**

### **How did you become an environmental educator?**

My choice to become an environmental educator was stipulated by my great desire to illuminate environmental issues among the different target groups. Awareness raising on environmental issues was number one task for me. That is the reason why I made up my mind to become an environmental educator and to bring my contribution in it.

## What do you think are the peculiarities of teaching about environment?

The most significant and common peculiarity for me is Love and Dedication to the nature, people and, generally, to our surroundings. The environmental educator should embed care among people towards nature. It is of the utmost importance, as without care, love and dedication, one cannot deal with environmental education.

The other peculiarity of teaching about the environment is to start doing it from childhood. Parents are also of great importance, so not only schoolchildren and students, but also parents and grown-up people should be on our focus.

Certainly, while speaking about environmental education, the role of the methods also should not be reduced. Choosing the best method for the target group and for the specific case is also important. In general, to teach about environment, one should love and care about the environment, together with the other skills peculiar for the Mission of Teaching.

## What was your most successful education activity?

Let me first speak about one of my most successful experiences as an environmental educator.

## Why do you think we should educate about the environment?

Nowadays environmental challenges, such as climate change, biodiversity conservation, ecosystem approach, sustainable development are the reasons to teach about environment. The main emphasis should be put on the role of the civil society. It should, certainly, be involved in this process. As only in this case we can reach the desired results. Nowadays, environmental education is not only connected with government and educational institutions, but also with the non-governmental organisations, different unions and movements, and why not even individuals.

## Can you give advice for future environmental educators?

My advice to the environmental educators is to try to forward the message to the audience that whenever we deal with environment, there is no “My” and “Yours”, there is “Ours”, and each of us can contribute on it. Let’s do that so that people become less indifferent towards the environment.

Recently, “Khazer” NGO has established a system of solar water heaters in one of the villages of Armenia. Once the system started to operate, we conducted training for the schoolchildren and teachers, introducing them the advantages of the new system, including its environmental and economic benefits. After the training, the teachers and school children came up with questions clarifying the operational mode, as well as economic and environmental advantages of the system. The training proved to be successful as the participants were really engaged in it by asking lots of questions and providing recommendations.

Besides, the training participants were already highlighting the need of repeating these projects. That is why I consider this activity the most successful, as whenever there is a need of replication, for me, it can be considered to be successful.

## What was the worst?

As for the worst activity, I cannot remember a specific case. But, in my opinion, the worst thing with regard to Armenian environmental education system is that environmental education is not mandatory on state educational level. I mean there is no specific subject that is taught at schools, environmental education is taught via other disciplines and it is done on volunteer bases by different educators and above all it is done periodically.





# METHODS OF ENVIRONMENTAL EDUCATION

## ENVIRONMENTAL EDUCATION INDOORS



These ideas are just few examples of various methods and techniques which you can use as an environmental educator. You can think of your own activities which can be similar to the ones in this chapter or come up with some new ideas.

As an environmental educator, you can choose to have the activities with your group indoors.

This can be very advantageous due to several reasons - fewer distractions, a higher feeling of security for the participants, no influence from the weather, more privacy, unlimited access to technology and devices (Internet, projector etc.) and many more.

However, there could also be some disadvantages regarding indoor activities, such as less stimulation, more formality, a tendency to have more theoretical activities, disconnection from nature, limited space or limited number of participants or the costs for the venue.

### Methods for environmental education you can use indoors:

- \* **Organise a lecture, a training course or a presentation** - if you have more theoretical activities in mind, the best way to share the information and teach about specific concepts is to choose a dedicated learning space, where people will pay attention and will have the proper means to take notes, if they wish to.

- \* **Use artistic means (exhibitions, theatre or music performances, fashion shows, etc.)** - a large room can be used as a stage or a gallery and you also have access to practical tools, such as technical devices or electricity.
- \* **Make lab experiments** - indoor spaces enable groups to organise very specific experiments, as all the materials are very accessible.
- \* **Organise an eco nursery** - ask your group to organise the room you use a sustainable way.
- Organise competitions or quiz nights** -
- \* an indoor space can be creatively used for contests among participants.
- Organise an energy audit** - one activity for the group could be to check the energy output of a building, such as a school or an office.
- \*



## ENVIRONMENTAL EDUCATION OUTDOORS

Being outdoors is a good way to learn about ourselves and the planet and how we might live more sustainably on it.

In environmental education outdoor activities are preferred because the space and number of participants are unlimited, while the senses, freedom and creativity are enhanced. Children especially love to be outdoors, so environmental education can be more successful in this context.

**However, an environmental educator can be limited by several factors while being outside with the group, such as :**

Unpredictable weather, more distractions, less interest in theoretical information, more time allocated for preparing the activity or coordinating it, less control over the participants (for example, children can get lost in the forest) or lower feeling of security.





**What methods for environmental education you can use outdoors:**

**Use your senses -**

You can organise activities that involve observing, feeling or navigating, as well as games based on sensory interaction or identification.

**Example:** Game for the sense of touch

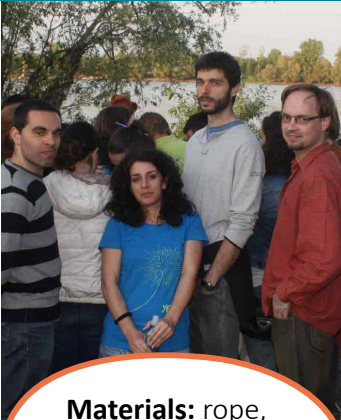
First group should close their eyes. The other group should make sure that they had built the first group's trust so that they can easily walk around holding the rope and touching on their way the things that the other group gives to them trying to feel them and to guess what they are touching.

**Use your mind -**

Propose activities or experiments where participants are asked to compare, search, analyse, find strategies or discuss.

**Example:** "Human node" game

One group of children should stand in a circle and then close their eyes, raise the hands up and walk towards the centre of the circle and join their hands with each other. After having joined the hands they should open their eyes and find a way to make a circle again without releasing their hands.



**Materials:** rope, small things like leaves, papers, garbage, plastic, flowers.

**More:**

<http://www.wilderdom.com/games/EnvironmentalActivities.html>

**Books:**

**Resident Outdoor Environmental Education**

by Jim Parry

**Moving the classroom outdoors**

by Herbert W.Broda

**GET OUT! 150 Easy Ways for Kids & Grown-Ups to Get Into Nature and Build a Greener Future**

by Judy Mollard

**Use your hands and skills -**

Activities include drawing, plating flowers or trees, breeding, cleaning a small part of a forest or of a river bank, etc.

**Example:** Treasure hunt

Divide your group into pairs. Then, each pair will have to go through a series of "obstacles" to receive clues for their final destination point. First, they will have to draw five flowers they can find in a forest. After receiving the clue, they will move to the next challenge, where they will have to collect all the bottle caps from a designated area. After collecting them, they have to say how many they have and, if the number is correct, they will move to the last challenge, which is to make a bird-house using the bottle caps they found. All the teams who complete the three tasks and find the final destination point will be rewarded.

**Do experiments -**

For example, you can monitor the water, air or soil quality. Your students will learn more about the place where they live and will get more interested in the environment around them.

# ENVIRONMENTAL EDUCATION ONLINE

Online education is a modern means that thousands of people are using today. This type of education is mostly spread among young generations. One of the reasons this trend is becoming popular is that it is easy to log in to various courses on the internet during any time of the day and whenever you want.

Along with technology development and accessibility of surfing the internet, new methods of learning and educating have been created, either formal or non-formal. They are also applied to environmental education. Thus, here are some examples of today's online methods:

## Online courses

They allow you to get a certification or diploma without being in the classroom.

## TED

It is a place where experts talk about specific topics and discoveries.

## Websites with useful information/campaigns

They are either made by governmental or non-governmental organisations, as well as other institutions.



## Advantages of online environmental education:

- \* It is free
- \* It involves flexible timing
- \* It is easy to update
- \* It is appealing
- \* It ensures a wider dissemination of information

## Disadvantages of online environmental education:

- \* It implies spending too much time inside
- \* It can generate side effects
- \* It can cause communication problems
- \* Not all information is reliable
- \* It involves huge resource consumption

## Social media

Social media is the social interaction tool among people where they create, share or exchange information and ideas in virtual communities and networks. The most widespread social networks at the moment are Facebook and Twitter.

## Blogs

Disregarding responses and discussions on a written topic, blogs are just another way of publishing information. Recently "multi-author blogs" (MABs) have been developed, including posts written by a large number of authors and professionally edited.

## Online chat/sessions

This tool allows instructors, educators, professors, experts to communicate online in real-time. Chat sessions about various issues involve people from different parts of the world into discussions.

(e.g #EnviroEd)

## YouTube/Vimeo

The great thing about these online websites is that it is possible to find educational programmes that are not part of an academic course, but can be a great source of learning. One example would be tutorials.

## Free online books

There is no need to buy a massive set of encyclopaedias or tutorials anymore, as you can download them for free.

## e-Newsletters

The e-Newsletter is an online tool to spread news and interesting stories among interested subscribers.

## Mobile apps and interactive maps

Since mobile phones are used more often than computers today, they can also be used for educational purposes.

## Augmented reality (virtual guide)

The idea of augmented reality is to improve the view of the real world by overlaying it with computer graphics.

## Forums

Forums are not exactly an online method for environmental education, but they can provide a space to ask for information and instructions on topics you are interested in.



## METHODS FROM THE TRAINING COURSE

### Excursion to the National park

Organise a trip to the local national park where your students can learn more about the place and explore the surroundings by taking part in various activities:

**Find your tree:** divide your students into pairs. One person is blindfolded and another needs to find a tree which reminds him/her of their partner. Then they should take the blindfolded partner to this tree and give them time to get to know it better without looking at it: touching and smelling the tree etc. After that they should go back to where the pair started. Now it is time for the blindfolded person to take off the blindfold and find their tree. Then the pair can swap roles.

**Threshold walk:** invite your students to enjoy the nature around them by observing it. Explain to them that now they are going to visit a special 'magical' place of nature. For that they should cross the imaginary threshold and go into the world where they will be just noticing things and thinking about nature. They should not talk to anyone or use their mobile. Give them 15-20 minutes to enjoy the surroundings. After that make a call which will indicate to the participants that they should come back to the 'real' world by crossing back over the same threshold.



**Playing with clay/mud:** create new creatures with your students using mud, leaves, branches and any other nature objects you can find. Ask your students what type of habitat their creatures live in and how they fit into the ecosystem.

**Bat game:** this is a fun way to teach about echolocation. The participants should make a circle. Invite three to four volunteers to play: one of them will be a bat and the rest will be the moths. All of them will be blindfolded. The task of the bat is to catch all the moths and the moths should escape. The bat can find the moth by echolocation: when the bat says “bat”, the moth should reply “moth”.

### Council

Collect your group around the fire in the evening. Prepare a talking ‘totem’ – any object which will indicate that the person can speak when they have it. Invite the participants to share their impressions from the activity: highlights, special moments of the activity, reflections, wishes for the future, closing words. Start the circle by holding the talking ‘totem’ and explaining the rules, then pass the totem to the person on your left – they can start sharing or can keep silent if they do not feel like talking. Then they should pass the totem to the next person and so on. The circle can be repeated several times. The session can be closed when the totem makes the whole circle in silence – which means that everybody feels that they shared everything they wanted to and there is nothing more to add.

### Competences of an educator:

Think of the ideal environmental educator. What kind of competences should he/she have? Do you know that competences are formed by three parts: knowledge, skills and attitude?

Try to make a list of the perfect environmental educator – what knowledge, skills and attitudes should he/she have?

### Suggested competences from the participants of the training course:

**Knowledge:** constantly updating your knowledge.

**Skills:** practical results, listening, flexibility, going outside, creativity, storyteller, playing guitar, etc.

**Attitude:** non judgemental, positive, thinker, life experienced, motivated, determined, confident, flexible, passionate, inspiring, focused, having a sense of humour, emphatic, nature lover.

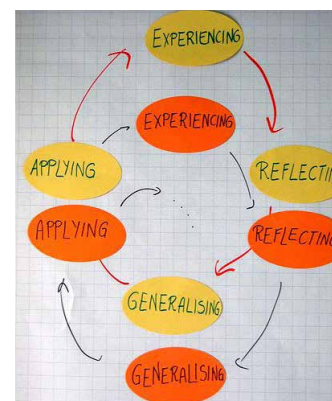
### Learning

Think about something familiar, e.g. a flower. What do you know about flowers? How do you know it?

Try to find out something new about flowers and then evaluate how you did it: by researching online, observing flowers, talking to somebody else about them.

Try to formulate the learning process which you used to learn something new.

Is it similar to the theory of learning styles and experiential learning cycle created by David A. Kolb?



### Looking back

Organise a circle with your participants and invite them to remember the whole activity or event from the first day. Start first by telling how the project began. Then if somebody wants to continue they should give a sign and take the place of the speaker. They should be as detailed as possible. When they want to stop, they should lift their arm to show that they would like to change places with someone else. In this way your students will remember the whole event from the beginning till the end.

### Learning aims

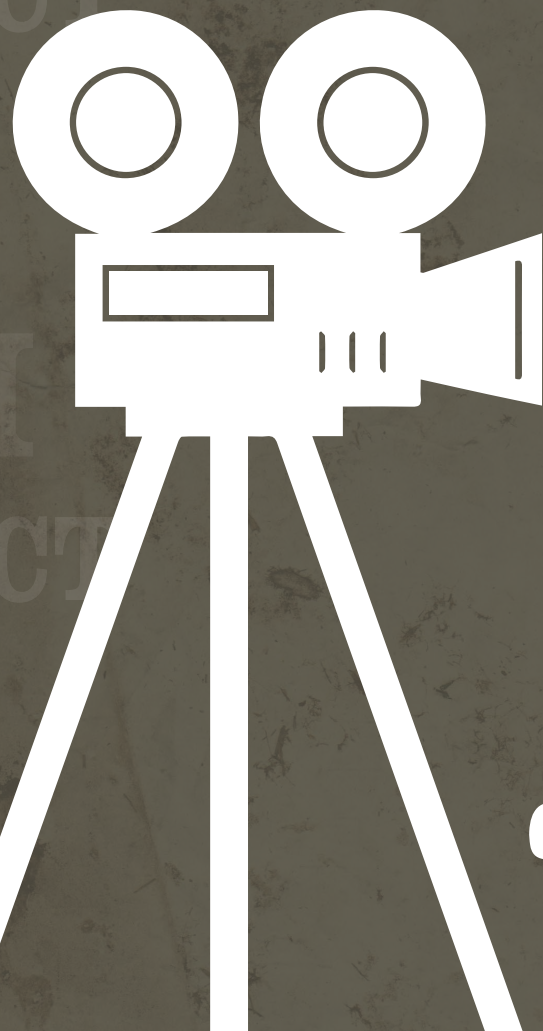
Now it is time to create your balanced wheel of competences which will help you to define your learning needs and set objectives for improvement. Draw a circle divided into slices like pizza. In each slice write a competence which is important for you as an educator. After that, use the graph to evaluate the level of your competences. After you select your grade, colour the part of the slice until the mark. When all the slices are coloured you can see if you have a balanced wheel – if not, now you know which competences you should work on more.

◀ <http://infed.org/mobi/david-a-kolb-on-experiential-learning/>



# USEFUL MATERIALS

---



## LEARN MORE FILMS & VIDEOS

---

To view trailers of the following films/videos, please select the titles below or search in YouTube.

- \* Project Wild Thing
- \* High Tech, Low Life
- \* The Age of Stupid
- \* I bought a rainforest
- \* Garbage Warrior
- \* Food Inc
- \* An Inconvenient Truth
- \* INHABIT: A Permaculture Perspective
- \* No Impact Man
- \* Promised Land

**Ken Robinson - Do  
Schools kill creativity?**

[http://www.youtube.com/  
watch?v=iG9CE55wbY](http://www.youtube.com/watch?v=iG9CE55wbY)

**New education paradigm**

[http://www.youtube.  
com/watch?v=zDZFcdG-  
pl4U#t=113](http://www.youtube.com/watch?v=zDZFcdG-pl4U#t=113)

## LEARN MORE BOOKS

### **Sunship Earth: An Acclimatization Program for Outdoor Learning**

Steve van Matre

### **Experience and Education**

John Dewey

### **Beyond Learning By Doing: Theoretical Currents in Experiential Education**

Jay W. Roberts

### **Ecological Literacy: Educating Our Children for a Sustainable World**

David W. Orr

### **Storytelling for a Greener World**

Alida Gersie, Anthony Nanson and Edward Schieffelin with Charlene Collison and Jon Cree

### **The Great Outdoors: Restoring Children's Right to Play Outside**

Mary S. Rivkin

### **Silent Spring**

Rachel Carson

### **Smart by Nature: Schooling for Sustainability**

Michael K. Stone

### **Out of Our Minds: Learning to be Creative**

Ken Robinson



### **Online Books:**

#### **The Natural Curiosity Manual -**

<http://www.naturalcuriosity.ca/pdf/NaturalCuriosityManual.pdf>

#### **Fascination of fire -**

Claire Warden,  
[http://www.mindstretchers.co.uk/product.cfm/product\\_ID/990/title/Fascination-of-Fire---Charcoal-Print-Book-\(A5\)](http://www.mindstretchers.co.uk/product.cfm/product_ID/990/title/Fascination-of-Fire---Charcoal-Print-Book-(A5))

#### **I Love My World**

Chris Holland

#### **The book can be found for free at**

<http://www.schoolofeducators.com/wp-content/uploads/2011/12/EXPERIENCE-EDUCATION-JOHN-DEWEY.pdf>

## LEARN MORE WEBSITES

### **National Geographic Education:**

[http://education.nationalgeographic.com/education/?ar\\_a=1](http://education.nationalgeographic.com/education/?ar_a=1)

### **Resources:**

<http://www.hawthornpress.com/books/new/storytelling-for-a-greener-world/>

### **Tools and ideas for environmental education:**

<http://www.nea.org/home/ToolsAndIdeas.html>

### **Environmental education resources:**

<http://se-ed.co.uk/edu/resource-home-page/>

### **Project Wild Thing:**

<http://projectwildthing.com/>

### **Resources for kids and teachers:**

<http://www.ecokids.ca/>

### **Roadmap to harmony:**

<http://awesome.good.is/ecosystem/index.html#/home>

### **Further Reading:**

#### **For children:**

[http://www.exploringnature.org/db/main\\_index.php](http://www.exploringnature.org/db/main_index.php)

#### **For teachers**

<http://www.naturalcuriosity.ca/>

#### **Resources for rethinking:**

<http://resources4rethinking.ca/>



**This booklet was designed to help young people who would like to become environmental educators. Inside you can find information about sustainability and its history, inspiring examples of sustainable practices from various countries, introduction to environmental education and what makes an environmental educator.**

**This booklet includes methods of non-formal education used during the training course “Environmental education for sustainability” as well as links for books and films on the topic of environmental education.**



**The training course “Environmental education for sustainability” was hosted by Young Researchers of Serbia.**

Young Researchers of Serbia is a Serbian non-profit, non-governmental organisation founded in 1976, whose vision is to be the driving force for all those whose aim is to make our planet a more peaceful, just and healthy place. Driven by science and education, their mission is to contribute:

- to environmental protection and nature conservation,
- to development of voluntarism and its values,
- to scientific creativity and active participation of the youth.

[www.mis.org.rs](http://www.mis.org.rs)



**This publication was created by Youth and Environment Europe.**

Youth and Environment Europe (YEE) is a network of 45 youth non-governmental organisations coming from 26 European countries. YEE's activities aim to promote sustainable development, environmental protection and nature conservation. All our activities are organised and carried out by and with the involvement of young people under the age of 30. YEE encourages all activities that can increase the knowledge, understanding and appreciation of nature and the awareness of environmental problems amongst young people in Europe.

Find out more about YEE at [www.yeenet.eu](http://www.yeenet.eu)