



Innovative Environmental Education ECO-COMPASS MODULE 1

Ecological skills and competences in individual life

Theoretical background for lecturers and advisors

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Inovatívne budovanie ekologického povedomia a kultúry rozvíjaním environmentálnych zručností a formovaním postojov občanov s mentálnym postihnutím

Innovative building of ecological awareness and culture by developing environmental skills and shaping the attitudes of citizens with mental disabilities



Innovative Environmental Education ECO-COMPASS – Theoretical background for teachers and lecturers

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The main objective of the project is to support social inclusion and lifelong learning of people with mental disabilities by developing their environmental skills and competencies, shaping their environmental attitudes and responsibilities through education based on international experiences. The project specifically focuses on supporting and developing international cooperation of participating organizations, building, and strengthening partnership networks and professionalization of organizations.

Innovative Environmental Education ECO-COMPASS ensures developing the environmental skills and competences of professionals and people with mental disabilities, shaping their environmental attitudes and environmental responsibility through innovative education based on international experience.



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1. Introduction

Environmental education is one of today's most topical issues in the context of man's growing impact on the environment. Its importance is underlined by the fact that environmental education is a comprehensive topic.

Environmental problems, whether local or global, affect all of us, because we influence them to a greater or lesser extent, either consciously or unconsciously.

The environment is one of the most important issues facing humanity today. A key role in developing skills and shaping attitudes is played by conscious and systematic lifelong environmental education, which aims to guide people's value orientation, encourage and educate them to think creatively and adopt a rational, environmentally aware attitude.

What are the most successful methods and forms of education suitable for adults with intellectual disabilities in the field of environmental education? What are the most important skills that have to be developed in environmental education in the case of the immediate target group?

To answer these questions, partners from three European countries - Slovakia, Hungary and Romania - have developed a blended learning curriculum under the EU-funded ECO-COMPASS project. The content is based on the analysis of good practice examples carried out in the three partner countries and on the summative results of workshops attended by professionals, which have been prepared on the basis of the needs identified in relation to the development of environmental skills and competences of adults with intellectual disabilities, the shaping of their environmental attitudes and the methods and forms of teaching that can be applied. More information about the partner organisations involved in the project can be found on the website of the project: <https://eco-compass-project.eu/>

The curriculum consists of four modules:

Module 1 Ecological skills and competences in individual life

Module 2 The importance of ecological values and attitudes in the family

Module 3 Sustainable development in the workplace and work-life balance

Module 4 Active participation in the creation of a green society

Our aim is to contribute to the development of ecological awareness and eco-culture, ecological skills and competences, problem-solving, critical thinking and creativity through the mentioned topics.

The theoretical background material is intended for lecturers and advisors for whom it is necessary in their daily activities to be able to make sure that adults with intellectual disabilities can develop their environmental skills and competences, and shape their environmental attitudes and responsibilities.

2. Introduction and learning objectives of the Module 1

Environmental skills include understanding the impact of our everyday activities to the environment and adopting environmentally positive behaviours in areas such as food and energy production and consumption, recycling and waste reduction (SAZP, 2020). Skills also include understanding the links between the environmental, social and economic components of sustainable development. Competence includes an attitude of critical awareness and curiosity, an interest in ethical questions, and the promotion of safety and environmental sustainability, with special regard to scientific and technological developments related to individual, family, community and global problems (ŠIOV, 2023). The immediate task of the theoretical background material prepared for lecturers and advisors is to develop these skills and competences.

The indirect aim of the curriculum is to contribute to the personal development of adults with intellectual disabilities, to help them understand the relationship between people and their environment, to analyse and evaluate the correlations between the development of the human population and its relationship with the environment, and to understand local and global ecological problems and their own responsibility for the environment, based on their knowledge of the laws that govern life.

Module 1 includes the following topics:

1. We are the part of the nature that surrounds us

In the first topic, we will cover the most important basic concepts of ecology and introduce the components of the biosphere, the changes of which affect the biosphere of our whole planet.

2. The relationship between living organisms and the importance of biological diversity

In the second topic, we point out the importance of the mutual relationship between animals, plants and humans, which is a vital condition for the sustainability of humanity. The biological diversity of life on Earth provides several ecological and environmental functions, contributing to the well-being of humanity, among others as a source of food, water, medicine and industrial products.

3. The impact of human activities on the environment

The purpose of human activity is to make life more comfortable, which, however, often has harmful consequences. The third topic presents the dangers of environmental pollution, unfavourable changes in the environment and the consequences of quality degradation of environmental elements.

4. Environmental protection and the importance of ecological behaviour

The aim of environmental protection is to preserve favourable quality conditions for future generations by keeping in balance positive and negative activities that affect the environment. The fourth topic highlights the importance of ecological behaviour, which is summarised in the ten commandments for the environment.

Module 1 includes theoretical background material and descriptions of 8 outdoor/open air activities in the above-mentioned topics. The theoretical background material and the outdoor activities presented will help professionals working in the social field with adults with intellectual disabilities - especially trainers and counsellors - to develop their own environmental skills after studying them and supplementing them with the reference materials proposed. In the daily practice, they will contribute to the development of their competences, environmental attitudes and environmental responsibility by applying additional knowledge material, videos, questionnaires, worksheets and outdoor activities in simple and comprehensible language for adults with intellectual disabilities.

Once they have mastered the curriculum, professionals (lecturers and advisors) will be able to:

- understand the most basic concepts of ecology and environmental protection,
- apply theoretical knowledge related the components of the environment in practice,
- analyse and evaluate the correlations between the evolution of human populations and their relationship with the environment, based on knowledge of the laws governing life on earth,
- demonstrate the relationships between living organisms through practical examples,
- understand the importance of biodiversity,
- understand and demonstrate the impact of human activity on the environment through practical examples,
- understand the concept of ecological foot and its application,
- understand and be able to apply basic principles of environment protection in the practice.

3. Ecological skills and competences in individual life

3.1. We are the part of the nature that surrounds us

Ecology is the study of the interaction of living organisms (living communities) and their surroundings, and within this, the investigation of the impact of groups of organisms (populations) made on each other. This means that it does not make use of the results of a single science, but of all the relevant sub-sciences (biology, physics, geology, plant and animal geography, cenology, mathematics, etc.).

The **environment** is the systems, processes and structure of the land, air, water, living and man-made built and artificial environments and their components as environmental components.

The biosphere (living space) is the layer of atmosphere, water and soil around the Earth in which life exists and can survive. Changes in the biosphere affect the entire habitat of our planet.

The human environment basically has three components: inanimate nature (the litho,- the paedo,- the hydro,- and the geosphere consisting of the atmosphere), living nature (the biosphere) and society (the noosphere). Each of these is in itself a highly complicated, complex set of phenomena, and they interact with each other in a characteristic way.

The dictionary definition of environmental protection reads as follows:

„A purposeful, organized, institutionalized human (social) activity aimed at overcoming and preventing the harmful consequences of human industrial, agricultural and mining activities for the survival of living organisms and humans without damage.“

Environmental protection is a preventive social activity that aims to protect the natural environment (bedrock and soil, water, air, wildlife) and works of art (e.g., monuments) from all impacts that threaten or irreversibly damage them to meet the needs of humanity.

The water

It is the most abundant compound on the Earth's surface, 70.8% of the planet's surface is covered by water, with only 29.2% of land. More than 97% of the water is saline seawater, less than 3% is freshwater, 87% of which is in solid form, frozen in glaciers and snow. Thus, the amount of fresh water available for use is only 0.5% of the Earth's total water supply. A small fraction of usable freshwater is present in the atmosphere in the form of clouds, fog and water vapour. Another, the larger part, is found below the surface (groundwater) or as surface

water in the form of lakes, rivers, etc. The freshwater resources we can use are very limited and, unfortunately, increasingly polluted.

Freshwater is widely used in our daily lives: as drinking water, in the household, in agriculture for food production, in industry, etc. The water needs of different economic sectors vary: in a global average, 10% of freshwater is used by the population, 30% by industry and 70% by agriculture. In the EU, the proportions are as follows: 44% for energy production; 24% for agriculture; 17% for domestic water supply; 15% for industry.

Water is an irreplaceable and essential substance on Earth. Without water, life on earth could not exist. All living organisms need water to survive. In the soil, it is of primary importance in providing food for mankind. For many animals, water is their immediate living environment.

Water, as a renewable resource, is replenished as a result of the hydrological cycle. Water is in constant motion between the Earth and the atmosphere, giving life to the water cycle on which our planet depends. In the long term, sustainable development can only be achieved if water extraction does not exceed the amount of water available.

The air

Air is a colourless, odourless gas mixture that is essential for maintaining our vital functions. Air is a mixture of different gases, including substances of both solid and liquid form. The main constituents are nitrogen (4/5) and oxygen (1/5). Dust, water vapour and other gases and pollutants are also present in small amounts in the air. For life on Earth, the most important component of air is oxygen, which is needed by all living organisms on the planet except for anaerobic organisms. Our body has almost 100 m² of breathing surface.

The atmosphere is tens of thousands of kilometres thick. The atmosphere surrounding our Earth is not homogeneous, but it is of a layered structure. Each layer has a different composition, temperature and density. The first layer of the atmosphere is the troposphere, in which we live, too. It extends from sea level to an altitude of about 10-15 km. Within the planet, it is the troposphere where life can be found; outside the troposphere, conditions do not make it possible for life to develop. This is where the meteorological phenomena we know take place, where clouds are formed, where the greenhouse effect occurs. Airplanes also fly within the troposphere.

The composition of air has undergone significant changes over the geological history of the Earth. The high concentration of carbon dioxide in the Earth's atmosphere began to decline 600 million years ago. This is because plants convert some of the carbon dioxide in the atmosphere into oxygen through photosynthesis. This process contributed greatly to the increase in biodiversity, or biological diversity.

The soil

The soil is in direct contact and interaction with surface and groundwaters, the atmosphere and it is part of the biosphere. It affects surface and groundwater quality, climate change, biodiversity and food security, and ultimately human health.

As far as we know, only 11% of the Earth's land is agricultural land; in the countries of the European Union, the average is 35-40%. The soil provides the growing space for natural plants and cultivated crops. It is able to store and supply nutrients, water and heat to plants at the right time. To produce more and more food, more and more land would have to be taken into cultivation, but soil resources are finite and cannot be increased indefinitely, so it is very important to maintain and even increase fertility.

In addition to fertility, soil fulfils several other functions as well, such as providing a habitat for millions and millions of organisms other than plants, small mammals, earthworms, insects, fungi, bacteria, viruses, and so on, thus helping to maintain biodiversity and thus playing a major role in maintaining biodiversity.

Another very important property of soil is its ability to protect groundwater resources from contaminants that can enter the soil, due to its natural filtering and detoxicating capacity. Providing healthy drinking water without this soil function working properly can be very challenging.

3.2. The relationship between living organisms and the importance of biological diversity

Humanity has been using the utility value of biological resources, which is a fundamental and required precondition for its existence and survival, ever since mankind has existed. Animals, plants and humans are interconnected.

Of the many relationships between living things, the feeding relationship is of paramount importance. Food chains and food webs always start with plants, which can produce organic matter from inorganic nutrients (primarily from water, mineral salts and carbon dioxide in the air) by making use of the energy of sunlight. Plants can build their own bodies independently, without consuming other organisms. Other organisms that consume plants directly or indirectly are not capable of similar, independent production of organic matter. Herbivores are primary consumers, while predators are - according to their position in the food chain - secondary, tertiary, etc. consumers. At the top of the food web are the so-called top predators. All the organisms that make up the food chain, if they do not become food for an animal species, die and are released into the soil or water sediments, where decomposing organisms, primarily bacteria and fungi, convert them back again into mineral nutrients, water

and carbon dioxide. The cycling of matter in nature is therefore ensured by bacteria and fungi that break down organic matter. These convert organic matter of living organisms back into mineral nutrients that can be re-absorbed by plants.

Animals, plants and humans cannot live in isolation, they are interconnected. Biodiversity is the totality of the billions of individual organisms living on Earth and the interactions between them that are essential for human life and the well-being of society. These organisms are an essential part of our lives, but at the same time, they are constantly exposed to risk. Major pressures on biodiversity are land-use change (e.g., deforestation, intensive monoculture, urbanisation), direct exploitation such as hunting and large-scale fishing, climate change, pollution and invasive alien species. As a consequence, most ecosystems are no longer able to provide the optimal quality and quantity of essential services on which many economic activities rely. Together with climate change, biodiversity loss is the most critical global environmental threat.

The arrival of a new species in an ecosystem is a natural phenomenon. Most alien species are unable to survive or do not become invasive species, but become integrated into the native species community and become part of the food chain. The spread of species has been accelerated unnaturally by trade, travel and several deliberate introductions. Flood species can alter ecological conditions, causing unpredictable impacts on biodiversity and serious economic, environmental and social (e.g., health) damage. On average, six new species appear in Europe's flora every year. There are currently around 12 000 alien species in Europe, 10-12% of which are considered invasive. In the 21st century, biological pollution is causing more serious economic damage than industrial pollution, against which some progress has already been made. An example of a biological threats is the proliferation of ragweed and its associated allergies.

Biodiversity conservation is a priority, providing us with clean air, fresh water, good quality soil and pollination of crops. It supports our fight against and adaptation to climate change and contributes to reducing the impact of natural hazards. Its decline therefore has fundamental consequences for society, the economy and human health.

Over the last hundred years, the ecological conditions have changed significantly in vast areas as a result of human activities that have transformed the environment. The rate of species extinction is well characterised by some figures: in 1980, it was estimated that half a million to a million species would be extinct by the end of the 20th century (mainly in the tropical regions - 50% of species live here); in 1997, the Earth's ecosystem was depleted by 50 000 species per year. Researchers estimate that a quarter to a half of species will become extinct in 50 to 100 years, if current tendencies continue.

1 million of the estimated 8 million species on Earth are threatened with extinction. According to the International Union for Conservation of Nature and Natural Resources, at least 1 677 of

the estimated 15 060 European species are threatened by extinction. The species most at risk of extinction are snails, seashells and fish. More than half of Europe's native trees, including chestnut trees, are threatened, while around a fifth of amphibians and reptiles are endangered. Among mammals, the Arctic fox, European mink, Mediterranean fur seal, North Atlantic whale and polar bear are currently the most threatened in Europe. Bees and other pollinator species are also declining at an alarming rate across the continent, with one out of ten bees and butterflies threatened with extinction, despite being vital to the environment and economy of Europe. (EP, 2020)

The dramatic increase in human population and consumption is leading to a loss of biodiversity and the degradation of vital services provided to people. Human activity is leading to mass extinctions and the fatal degradation and disappearance of habitats. Climate change is also increasing these risks. As a result of the multiple threats to biodiversity - and therefore to humanity - we need to rethink how we can change our current consumption-centred behaviour. We need to keep our consumption within the limits of our Earth, to safeguard the lives of future generations.

The [European Nature Information System \(EUNIS\)](#) provides key data on species, habitat types and designated sites.

Each EU Member State should develop a national biodiversity strategy and action plan. In Slovakia, 37,44% of the land is protected. 251 species and 66 habitats are subject to EU legislation protection. In Hungary, 22.19% of land is protected area. 234 species and 47 habitats are subject to EU legislation protection. In Romania, 23.42% of land and 20.81% of marine waters are protected areas. 475 species and 87 habitats are subject to EU legislation protection.

3.3. The impact of human activities on the environment

Interaction with the environment has gradually shaped man's ability to make use of the gifts inherent in the environment. A system of farming based on environmental resources has evolved.

It took more than 10,000 generations for the human population to reach 1 billion, and while it took 130 years to reach 2 billion, only 12 years passed between 6 and 7 billion (2011). Nowadays, the population of our planet already reaches 8 billion, which is more than two and a half times more than the figure in 1960 - back when there were only 3 billion of us on Earth. According to the latest UN predictions, the world population will grow to 9 billion by 2050. The basis for explosive population growth is technological progress and better healthcare.

The process of urbanisation today is very complex and differs from one area to another. Cities are characterised by cities grown together, by conurbations, with dense and high-quality transport networks within and between them. Enclosed public rural (countryside, village) spaces also have highly developed infrastructure. They have a high demand for resources due to their large population, well-developed infrastructure, strong economic development and performance, and therefore very significant, but mostly controlled, environmental pressures. As a result of urbanisation, huge quantities of building materials extracted and processed from the environment are used in construction and development, but in contemporary modern cities, some of these materials are no longer even from the immediate environment. The built space thus created significantly affects and transforms the remaining natural systems, most importantly water flow, microclimate and vegetation. Managing and protecting these also takes up considerable energy. The day-to-day operation of the system is a major drain of resources from the near and far environment. Supplying the population means a massive scale of consumption, increased demand for different products, and municipal systems require significant amounts of water and energy. This will also significantly increase the energy demand of the productive sector. The system not only generates huge amounts of waste that need to be treated, but also releases very significant amounts of pollutants into the air, water and soil. Managing these requires additional energy.

Human activity has a major influence on the climate of the Earth and most often has the following adverse effects:

Greenhouse effect - The increase of temperature on Earth is triggered by the greenhouse effect of greenhouse gases (water vapour, CO₂, CH₄, N₂, O). Greenhouse gases allow short-wave solar radiation to reach the surface of the Earth and warm it up. The average temperature of the troposphere is about 15 °C. If there were no greenhouse gases, this temperature would be -18°C. However, their atmospheric concentrations have increased by 30% for CO₂, 145% for CH₄ and 15% for N₂O over the past 250 years. Higher concentrations of greenhouse gases in the atmosphere lead to global warming. These additional greenhouse gases come mainly from burning fossil fuels for energy, clear-cutting of rainforests, agriculture, livestock and the production of chemicals. With climate change contributing to droughts in some areas, experts predict that the 21st century will be the century of struggle for water. Warming is associated with an increase in the intensity and frequency of extreme weather events (extreme droughts, frequent fires, windstorms, floods, rising ocean levels).

Depletion of the ozone layer – it is located in the stratosphere, 25-30 km above the earth's surface. Ozone protects the troposphere and the earth's surface from the sun's harmful ultraviolet radiation. Freons are currently damaging the ozone layer. These are hydro-chloro-fluoro-hydrocarbons (abbreviated as CFCs), which were previously used to charge aerosol sprayers and in refrigeration equipment.

Air pollution - Ever since the beginning of the history of mankind, we have been releasing more and more pollutants into the air. Industrial and agricultural production, transport, waste management and households all emit pollutants that are released seamlessly into the higher strata of atmosphere and can even cross-national borders to other continents. Air pollution is a global environmental problem affecting humanity and the entire area of the Earth.

Water pollution and water scarcity - According to estimates, by 2050, around 44% of the world's population will suffer from water scarcity. This is due to increasingly intensive agricultural and industrial production, deforestation and subsequent land drying, inadequate water management interventions and continued population growth due to pollution of water resources. Most of the Earth's water is concentrated in the oceans (about 97.4% of the total water supply). The oceans and seas are polluted by contaminated running water, waste, mud from wastewater treatment plants, dumping of radioactive waste on the seabed, and by washing of oil tankers. As the oil leaks into the sea, it forms a thick layer on the surface, in the form of the so-called oil film.

Land water includes surface water and groundwater, which are sources of drinking water. Waste from agriculture and municipal waste can contribute to the growth of pathogenic organisms in water. Excessive nutrients initially promote the growth of phytoplankton, but then zooplankton overgrows, organisms die and oxygen consumption increases. The lack of oxygen destroys the whole original ecosystem. A separate chapter is represented by toxic substances, in particular heavy metals (mercury, lead, cadmium) and polychlorinated biphenyls (PCBs). Living organisms cannot decompose them. They accumulate in them, leading to serious health problems that often end in death. It is the organisms at the end of the food chain that are most at risk, including humans, where these substances accumulate to the greatest extent.

The degradation of soil - Roughly 22% of the continents' surface is agricultural land, but less than half of this is arable land. Soil is threatened not only by natural factors (wind, water erosion), but primarily by human interventions. Given that the flora is a natural erosion control agent, deforestation and also overgrazing by livestock contribute indirectly to the destruction. The soil dries out, erosion causes the fertile surface layer to erode away, and semi-arid and arid areas expand. Irrigation, which leads to salinisation of the soil, also has a negative impact. The passing of heavy machinery, construction and pollution also contribute significantly to soil reduction. According to the estimates, in about 50 years' time, the area of the Earth's degraded soils will be comparable to that of Africa. The loss of arable land (urban sprawl, establishment of roads, railways and other infrastructure) also causes a serious problem.

Downsizing of forests - The Earth's forests are damaged and destroyed directly and indirectly. The cutting of forests for timber causes direct damage. Land acquisition for various economic purposes indirectly contributes to the reduction of forests, mainly as a consequence of acid

rains deriving from industrial production. Acid rains are caused by the reaction of sulphur and nitrogen-oxides with water, which damage forest vegetation, weakening it and drying it out. Acid rains degrade and acidify the soil.

Waste production - A distinction is made between waste generated by the public, industry and other sectors, and hazardous waste that is biodegradable or non-biodegradable and exerts a detrimental impact on the environment. There are two main types of waste generated by the population: municipal (communal) solid waste and municipal liquid waste (actually jetted waste water). The largest quantities of hazardous waste generated by the public are used batteries and accumulators, as well as used baking grease, paint and solvents, and medicines.

Noise - It is a particular stress factor, causing feelings of fatigue, nervousness, weakening the organism's immune system and, in the case of high intensity, can cause constriction of the capillaries in the extremities. Levels above 100 dB (even in the short term) can cause long-term damage to hearing and even endanger life (such intensity can be heard if an aircraft is flying low above the ground and we are exposed to this impact also in a disco).

Light pollution - It occurs when light is scattered in the atmosphere. Currently 99% of Europe's population lives in areas affected by light pollution. The main source of light pollution is street lighting. Light pollution significantly disrupts the biorhythms of animals that are active during the day and night. Collisions with buildings are estimated to kill between 100 and 900 million birds annually. Insects circling near lamps are easy prey for predators, and circling and direct contact with the lamp can weaken them to death.

Human society is unlikely to survive with the population growth, biosphere transformation (destruction of the natural environment) and the escalating exploitation of natural resources, production, consumption and waste generation of the last half century. A sustainable society respects biodiversity, works constantly and deliberately to keep human consumption in balance with the needs of other living creatures as well as with the regenerative capacity of ecosystems, and to preserve natural capital.

Ecological footprint

The exploitation or overuse of the Earth's resources is expressed in terms of the ecological footprint. It quantifies the amount of resources, land, water and air, needed to maintain the standard of living of a given society, including the production of industrial goods, food, and the treatment or disposal of the waste produced. The ecological footprint measures the environmental impacts of human activity in 6 different areas (carbon or coal footprint, fisheries footprint, land footprint, pasture footprint, forest footprint, built-up area footprint, but also the water footprint can be included here).

According to its level of calculation, the ecological footprint can be global, national, regional, municipal and individual, i.e., macro and micro-level. If the ecological footprint of people living in an area exceeds the biocapacity of the region, that is, if it uses more than it has available, an ecological deficit is triggered. If the biocapacity of a region exceeds its ecological footprint, then it has an ecological reserve.

The individual ecological footprint is composed of a multitude of things. The most important of these are the energy consumption of the household, the use of electricity, natural gas and other fuels, transport and holiday habits, and eating habits. The how much waste one produces, how much packaging they use, and what they surround themselves with also belong here.

The ecological footprint is measured in global hectares (gha) -i.e., in a globally comparable, standardised unit, compared to the world average productivity.

Unfortunately, the size of ecological footprint increases. In most cases, the richer the country, the higher the number. It would be ideal if this number would be 1 gha, or if it would be maximum around 4 gha.

The size of the global ecological footprint in 2019 was 1.75 global hectares, which means that the Earth's population currently lives as if it had 1.75 Earths available to it, so at the current rate of consumption we would need nearly two planets to survive.

Reducing the ecological footprint by changing consumption patterns is the way towards sustainable living. There are different tasks at different levels, so in addition to global measures and regulations, the role of local action is also outstanding. The responsibility of the individual, as well as that of smaller communities, is also important.

3.4. Environmental protection and the importance of ecological behaviour

According to the Environmental Protection Act, environmental protection means a set of activities and measures aimed at preventing the threat, damage or pollution of the environment, mitigating or eliminating the damage caused, and restoring the situation prior to the damaging activity. This is achieved by balancing positive and negative activities that affect the environment.

To achieve this, the following requirements must be met simultaneously:

- what we discharge into the environment must not exceed its intaking/processing capacity, and,
- what we extract from the environment, must not exceed its capacity to absorb/process, and furthermore

- the rate of use of non-renewable resources must not exceed the rate at which we can replace them with renewable resources.

Nowadays, mankind has to tackle following global environmental problems:

- increasing energy demand;
- population problems and their consequences;
- atmosphere problems;
- soil problems;
- the limitedness of natural resources;
- water problems;
- recognition of environment problems;
- deforestations and their consequences;
- waste management.

Basic principles of environment protection are the following:

Principle of prevention: Preventing environmental and health problems is easier, more economical and more efficient than restoration and repair. Therefore, the utmost caution must be exercised in matters of using and developing the environment and in pursuing activities.

Principle of responsibility: Unfavourable impacts and damage caused must be addressed by the party whose activity causes/caused them.

Principle of cooperation: Cooperation between relevant/interested state, municipal, business and social organisations and interest groups in the development and maintenance of environmental uses in accordance with the principles of sustainable development and in solving environmental problems should be provided and facilitated.

Principle of providing information: Getting to know/disseminating data and information on the quality and state of the environment and environmental health hazards is a fundamental citizen's right.

The responsibilities of environmental protection:

- Protecting air purity
- Protecting the soil, covering all its layers and the wildlife living in it
- Protection of waters
- Protection against noise and vibration
- Protection against hazardous substances
- Protection against radiation
- Waste management
- Nature and landscape protection

Environmental protection focuses on the protection of the human species, and its aim is to ensure the health and survival of humans (and their descendants) through the provision of suitable living conditions, while nature protection aims to protect all living organisms in the biosphere (the nearly 1.5 million species known to science today, including humans) and inanimate nature, i.e., natural assets

In May 2022, the 8th Environment Action Programme came into force, setting out the EU's environmental direction for the period up to 2030, with the main aim of ensuring prosperity for all, within the limits of our planet's tolerance (<https://www.europarl.europa.eu/factsheets/hu/sheet/71/kornyezetpolitika-altalanos-elvek-es-alapveto-keretek>).

Nowadays, it is very important to have a positive attitude towards the environment, because in nature and in our own living space we are often confronted with inappropriate behaviour of individuals as well as irresponsible human activities. This social problem is not only regional and national, but it also has a pan-European, even global dimension.

Environmental skills can be developed by applying **The ten commandments of environment:**

1. Reduce unnecessary consumption!

Reduce consumption in the fields of food and other consumer goods! Don't be tempted by the media, awareness is very important, and we can even save money by adopting this attitude.

2. Don't use single-use products!

This small step can successfully reduce a lot of the waste accumulated in our homes, as nowadays there are plenty of alternatives to replace single-use packaging, shopping bags and other products.

3. Don't throw away your unnecessary items!

Find a new owner for items that have been used and become unnecessary, for example in social media, where we can upload items, clothes, technical devices that can be given away for free. Reusing, rethinking and transforming old objects can be a creative programme, even for the whole family. We can find new ideas for using our old objects on a number of websites

4. Buy quality, repairable, products that can be used several times!

An important part of a zero-waste lifestyle is buying better quality, reusable goods that can be repaired in case there is a problem.

5. Shop sensibly, pay attention to recycling opportunities!

Before buying anything, check the label to make sure the packaging is recyclable. This will prevent products from going to landfill.

6. Let's have an eco-friendly household!

Do not prepare more meal than what we can eat! Classify the waste accumulated in our home and use eco-friendly cleaning products! Choose household appliances that consume less water and energy!

7. Produce at home in an eco-friendly way!

In a house with a garden, it is a great opportunity to grow fruits and vegetables, especially if we use compost as well! From vegetable waste, we can get a medium rich in nutrients and humus within a few months. It is perfectly suitable for planting flowers, plants or just to improve the soil structure.

8. Think about the protection of animals and plants!

Buy local flowers or grow your own! They not only decorate the garden, but will attract bees and butterflies. Eat locally grown fruit and vegetables that are in season.

9. Let's travel in an eco-friendly way!

Instead of the car, for shorter distances, let's go by bicycle or on foot. If we have to travel longer distances, then let's use public transport.

10. Look around carefully, so that we find green opportunities!

Like rethinking everyday life, achieving zero waste requires a conscious effort! It's much easier to make new habits a natural part of our lives if we gradually build them into our daily routines.

4. Reference materials / Suggestions for further reading

1. Ministerstvo životného prostredia Slovenskej republiky. Enviro magazín Odborno-náučný časopis o životnom prostredí. 2/2017 | XXII. Ročník. Letöltve: 2023. 2. 14
https://www.enviromagazin.sk/enviro2017/02_enviromagazin_2017.pdf
2. Fryková, E. (2012). Environmentálna výchova v edukačnom procese. Metodicko-pedagogické centrum v Bratislave. Vydanie 1., ISBN: 978-80-8052-441-8. 64. s.
3. Láng, I. (2002). Környezet- és természetvédelmi lexikon I., II. Akadémiai Kiadó, 2002, Budapest.
4. Ndulor, Christopher, Chukwuma and Dr. Mbalisi, Onyeka Festus, Environmental adult education (eae) as a tool for promoting environmental stewardship practices in Nigeria. British Journal of Education Vol.7, No.7, pp.111-120, July2019. Published by European Centre for Research Training and Development UK (www.eajournal.org)
5. Ticha, E., Kanianska R. (2003). Waste – Theoretical and methodology handbook for elementary school teachers. Slovak Agency for the Environment in Banská Bystrica.
6. Pado, R. 2002a. Voda pre život. Liptovský Mikuláš : OZ TATRY. 100 s.
7. Fryková, E. 2010. Environmentálna výchova v edukačnom procese. Bratislava : Metodicko-pedagogické centrum, 2012. 64 s. 978-80-8052-441-8
8. Fazekašová, D. et al. 2004. Ekológia. Didaktické materiály. Didaktické hry [online]. 2004. [cit. 13-10-2012]. Prešov : Fakulta prírodných a humanitných vied Prešovskej univerzity. Dostupné na internete: <http://naturescience.fhvp.unipo.sk/ekologia/> Letöltve: 2023. 2. 14.
9. Kvasničková, D. et al. 2002. Životné prostredie. 1. vydanie. Bratislava : Slovenské pedagogické nakladateľstvo, 2002. ISBN 80-08-03341-X
10. Švolíková, I. (2008). Námet na vyučovaciu hodinu chémie s environmentálnym zameraním: Globálne otepľovanie. In Biológia, ekológia, chémia. 2008, č. 1, s. 24-27.
11. Angyal, Zs. et all. (2017). A környezetvédelem alapjai. Typotex Kiadó. ISBN 978-963-279-547-8 246 s.
12. Jakab, Zs. (2008). A környezetszennyezés formái, hatása az emberre és környezetére. Nemzeti Szakképzési és Felnőttképzési Intézet. TÁMOP 2.2.1 08/1-2008-0002. Letöltve: 2023. 2. 14.

[https://www.nive.hu/Downloads/Szakkepzesi dokumentumok/Bemeneti kompetenciak m
eresi ertekelesi eszkozrendszerenek kialakitasa/1 2326 002 101115.pdf](https://www.nive.hu/Downloads/Szakkepzesi_dokumentumok/Bemeneti_kompetenciak_meresi_ertekelesi_eszkozrendszerenek_kialakitasa/1_2326_002_101115.pdf)

13. Vasilko, T. (2022). Populačná explózia sa pomaly končí, desať miliárd ľudí na Zemi možno nikdy nebude. 14.11.2022. <https://dennikn.sk/3103012/populacna-explozia-sa-pomaly-konci-desat-miliard-ludi-na-zemi-mozno-nikdy-nebude/> Letöltve: 2023.1.20
14. Dúll, A. (2022). A környezetpszichológiától az ember-környezet tranzakció tudományig - áttekintés az elmúlt (majdnem) 30 évről. Magyar Pszichológiai Szemle. 76. 727-745. 10.1556/0016.2021.00050. <https://akjournals.com/view/journals/0016/76/3-4/article-p727.xml> Letöltve: 2023. 2. 14.
15. Hans Bruyninckx. (2018). EEA Newsletter A tisztább levegő kedvező hatással van az emberi egészségre és az éghajlatváltozásra. 2017/4, 15 December 2017 Publikálva / Megjelentetve 2018. 01. 26. Utolsó módosítás 2021. 05. 11 <https://www.eea.europa.eu/hu/articles/a-tisztabb-levego-kedvezo-hatassal> Letöltve: 2023. 2. 14.
16. Mezőhír Szerkesztőség. A talaj jelentőségéről, szerepéről, a talajt veszélyeztető tényezőkről. 2015 szeptember 28. <https://mezohir.hu/2015/09/28/a-talaj-jelentosegerol-szereperol-a-talajt-veszelyezteto-tenyezokrol/>
17. A környezetvédelem 10 parancsolata - út egy hasznos és olcsóbb élet felé (2022), <https://kaposvariprogramok.hu/node/10871> Letöltve 2023.1.20.
18. A tiszta víz fontossága (22.3.2019) <https://www.luxinternational.com/hu/blog/a-tiszta-viz-fontossaga/546> Letöltve: 2023. 2. 14.
19. Föld napja alapítvány (2022). Népeségrobbanás. <https://fna.hu/vilagfigyelo/nepessegrobbanas> Letöltve: 2023.1.20.
20. Kékedy-Nagy L. A víz a környezetünkben Művelődés. Közművelődési hetilap. LXX. Évfolyam – 2017 <https://muvelodes.net/tudomany/viz-a-kornyezetunkben> Letöltve: 2023. 2. 14.
21. Magyar Állami Környezetvédelem Hivatalos Honlapja. A környezetvédelem jelentősége, célja és meghatározó eseményei. <https://kornyezetvedelem.hu/kornyezetvedelem-jelentosege-celja-es-meghatarozo-esemenyei> Letöltve: 2023. 2. 14.
22. BÍOKOM Környezetgazdálkodási Kft. (2004). Ökováros-ökorégió program koncepciója. EdenScript Bt. Pécs. <https://docplayer.hu/7928854-Okovaros-okoregio-program-koncepcioja.html> Letöltve: 2023. 4. 8.

23. Európai Unió. (2022) European Climate Pact. Éghajlatváltozás. https://climate-pact.europa.eu/about/climate-change_hu Letöltve: 2023. 2. 14.
24. Ökológiai túllövés: Románia már július 12-én elhasználta az ország éves erőforrásait (2019)
Forrás: Székelyhon.ro <https://szekelyhon.ro/aktualis/okologiai-tulloves-romania-mar-julius-12-en-elhasznalta-az-orszag-eves-eroforrasait>) Letöltve 2023.4.8.
25. Mi az ökológiai lábnyom és hogyan mérhető? (2020). <https://xforest.hu/okologiai-labnyom/>
Letöltve: 2023.4.8.
26. Európai Parlament. (2020). A veszélyeztetett és a kihalás szélén álló fajok Európában (infografika). Frissítve: 2021.6.9.
<https://www.europarl.europa.eu/news/hu/headlines/society/20200519STO79424/a-veszelyeztetett-es-a-kihalas-szelen-allo-fajok-europaban-infografika> Letöltve: 2023. 2. 14.
27. Kurrer, Ch. (2022). Európai Parlament. Környezetpolitika: általános elvek és alapvető keretek.
<https://www.europarl.europa.eu/factsheets/hu/sheet/71/kornyezetpolitika-altalanos-elvek-es-alapveto-keretek> Letöltve: 2023. 2. 14.

5. Outdoor activities

5.1. We are the part of the nature that surrounds us

Activity No. 5.1.1.

MODULE 1	Ecological skills and competences in individual life
TOPIC 1	We are the part of the nature that surrounds us
Title of the activity	The world of nature – we are parts pf nature
Pedagogical objective	Perceiving nature through our senses and understanding, becoming aware that we are part of nature.
Target group	Adults with mild and moderate mental disabilities
Duration (minutes)	60 perc
Settings	Courtyard, meadow, pasture
Size of the group	3 - 12 people
Method	Discussion and observation based on working together between students and teacher.
Tools	Blanket.

Description of the activity

We go out to the nature with the target group (courtyard, meadow, pasture). Each participant should find a quiet place for themselves, where they can sit comfortably on their blanket for 10-15 minutes and quietly observe nature. Sitting like this is incredibly relaxing, we can observe nature, but also listen to the birds singing, feel the sun on our skin, the wind, smell the scents of nature. It is worth returning to the same sitting places with the participants and observe how nature changes and behaves along with the changing of seasons (it awakes and renews itself in spring; it blooms and blossoms in summer; it is dressed in beautiful colours in autumn; it seems to sleep in winter, but we can see its beauty at this time too).

Text of the instructions for participants

1. Everyone should find a quiet place where they can sit comfortably for 10-15 minutes.
2. Observe and perceive nature in silence (sounds, smells of nature, the movement of air, the rays of the sun, the animals and the plants).
3. Try to "merge" with nature, embracing it with your different senses.
4. After the observation, when I give the signal, sit in a circle and tell me about your experiences (what sounds did you hear, what smells did you smell, what colours did you see, did you feel the movement, the temperature of the air, the rays of the sun, what animals and plants did you notice, what feelings did it trigger in you....)

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

Activity No. 5.1.2.

MODULE 1	Ecological skills and competences in individual life
TOPIC 1	We are the part of the nature that surrounds us
Title of the activity	Nature pictures
Pedagogical objective	Environmental education with the tools of arts. Development of vision and developing manual skills.
Target group	Adults with mild and moderate mental disabilities
Duration (minutes)	120 minutes
Settings	Outdoor environment (meadow, pasture, forest clearing)
Size of the group	9 - 12 people
Method	Land-Art method.
Tools	Branches, stones, flowers in nature, camera.
Description of the activity	

„ When applying Land Art, a key aspect is to create a visual communication between man and nature from the materials found on site, as these materials remain on site in the form of artworks.” (Bernát Alex). The colours and shapes of plant materials found in nature offer a wide range of practical opportunities.

Let's go out into nature with the target group (yard, meadow, field, forest clearing). We divide the participants into 3 groups of 4-5 people. With the first group, we make for example a bird's nest

out of broken branches and twigs found in nature, for example in the form of a large branch nest put together on the ground.

The members of the second group use flowers, such as dandelions, to "draw a circle" around a human figure lying in the grass.

With the third group, we make pictures of stones and crops that will remain in the nature.

It is closely related to the Land Art method that we take photographs and thus capture the resulting images. We can use the Land Art pictures taken to create an album, a picture gallery for later memories and discussions.

Text of the instructions for participants

1. With the first group, we use broken branches and twigs found in nature to make a bird's nest, for example in the form of a large-sized branch nest assembled on the ground.
2. A brave member of the second group lies down in the grass. The other members of the group "draw the outline" of the human figure lying in the grass with the help of wild flowers that are in bloom, e.g., dandelions.
3. With the third group, we make pictures from stones and fruits, which will then remain in nature.

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

5.2. The relationship between living organisms and the importance of biological diversity

Activity No. 5.2.1.

MODULE 1	Ecological skills and competences in individual life
TOPIC 2	The relationship between living organisms and the importance of biological diversity
Title of the activity	The importance of biological diversity
Pedagogical objective	Understanding the notion of biological diversity – eco-system, biodiversity and adaptation. Establishment and support of eco-friendly and responsible behaviour.
Target group	Adults with mild and moderate mental disabilities
Duration (minutes)	60 minutes
Settings	Outdoor environment (courtyard, meadow, pasture, forest)
Size of the group	3 - 12 people
Method	Discussion based on working together of the learner and the teacher.
Tools	Pieces of wood for selection, camera
Description of the activity	

Select a 3x5 metres-sized rectangle in nature!

The task of the participants is to find all possible plants and animals in the marked rectangle. This way they can observe themselves how diverse nature is. They do not have to name exactly what plants and animals they have found. The exercise is primarily about understanding that many different species live even in this small area. They can also take photos of their observations.

Finally, we discuss together what they found and try to find connections between the plants and animals they had found. The discussion is guided by the following questions. For example: where did you find it? What relationship could there be between the animal you found and the plant? What was their surroundings like? Why are the flowers fragrant and bright coloured (a reference to the attraction of insects)? It is important that the questions are clear and simple! Finally, we will summarise together why biodiversity is important.

Text of the instructions for participants

1. I have assigned you a 3x5 metre rectangle.

2. Find all possible plants and animals in the marked rectangle. Take photographs of the observations.
3. Notice how many different species live in this small area! Do you know any of them, can you name them?
4. What are the possible links between the animals and plants found?

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

Activity No. 5.2.2.

MODULE 1

Ecological skills and competences in individual life

TOPIC 2

The relationship between living organisms and the importance of biological diversity

Title of the activity

The importance of food chain

Pedagogical objective

Understanding the importance of food chain.

Target group

Adults with mild and moderate mental disabilities

Duration (minutes)

60 minutes

Settings

Nature (garden, meadow, pasture, lakeshore)

Size of the group

3 - 12 people

Method

Discussion based on working together of the learner and the teacher.

Tools

-

Description of the activity

Let's go out into nature with the target group (yard, meadow, field, forest clearing, lakeside)! Observe and analyse the different components of the food chain with the help of questions! At the end of the discussion, Let's summarise the process of food chain together!

Text of the instructions for participants

Suggested questions:

Why are plants important and useful?

Name and look for 5 plants in your surroundings!

Does any of the animals feed with these plants?

Who do the animals feed?

Why are animals and plants important to humans?

What happens to unused organic matter?

Which are the living organisms that break down organic matter?

Did you find any decomposed living organisms, e.g., rotting wood, during the observation?

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

5.3. The impact of human activities on the environment

Activity No. 5.3.1.

MODULE 1	Ecological skills and competences in individual life
TOPIC 3	The impact of human activities on the environment
Title of the activity	Natural and artificial
Pedagogical objective	Defining the differences between "natural materials" and "man-made" or "man-modified" objects.
Target group	Adults with mild and moderate mental disabilities
Duration (minutes)	120 minutes
Settings	Nature (forest, meadow, pasture, courtyard)
Size of the group	3 - 12 people
Method	Discussion based on working together of the learner and the teacher-
Tools	-
Description of the activity	

Choose different locations in natural surroundings (footpath, small wood, homestead, forest, pasture, meadow, courtyard etc.). Discuss with the group what can be found in the chosen location. They have to divide the objects they find there into "natural" and "artificial" objects and things, and then artificial ones to natural materials and synthetic materials. Then, together with the group, discuss how humans can change materials to create new ones (e.g., plastics), how long it takes for each material to degrade in nature, and what their impact on nature is and how much they affect it.

Text of the instructions for participants

1. Let's walk out to the nature and chose a particular area!
2. Observe what kind of objects can be found at the site!
3. Let's discuss together:
 - What "natural" and "artificial" objects, things have you found at site?
 - How can humans change materials to create new ones (e.g., plastics)?
 - Divide artificial materials into natural and synthetic materials!
 - How long does it take for the substances found to degrade in nature?
 - What is their impact on nature and to what extent?

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?

2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

Activity No. 5.3.2.

MODULE 1	Ecological skills and competences in individual life
TOPIC 3	The impact of human activities on the environment
Title of the activity	Past and present in our settlement
Pedagogical objective	Observation of the impact of human activity made on the environment and understanding of environmentally aware behaviour, understanding of the concept of ecological footprint.
Target group	Adults with mild and moderate mental disabilities
Duration (minutes)	120 minutes
Settings	Outdoor walk in the surroundings (settlement)
Size of the group	3 – 12 people
Method	Observation, discussion and brainstorming based on the collaboration of learner and trainer
Tools	-
Description of the activity	

Walking in the immediate environment, observe the impact of human activity on the living and inanimate environment in our municipality. The aim of the activity is to describe, discuss and summarise the impacts observed during a walk in the immediate environment (field) and to make recommendations to mitigate the impacts of human activity. Summarise the consequences of the environmental impacts observed in the field in a few sentences using guided discussion and questions.

Text of the instructions for participants

1. How has the appearance of our town changed over the past few years?
2. What man-made environmental impacts on the living and inanimate environment did you observe during the walk?
3. List at least 5 impacts on the inanimate environment and 5 impacts on the living environment!
4. Summarise in a few sentences the consequences of the environmental impacts observed in the field!
5. What solutions would you recommend to reduce the harmful impacts of human activity?

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

5.4. Environmental protection and the importance of ecological behaviour

Activity No. 5.4.1.

MODULE 1	Ecological skills and competences in individual life
TOPIC 4	Environmental protection and the importance of ecological behaviour
Title of the activity	Ecological survey
Pedagogical objective	Implementation of an ecological survey in the daytime employer, at work or at our home.
Target group	Adults with mild and moderate mental disabilities
Duration (minutes)	60 minutes
Settings	Outdoor terrace
Size of the group	3 - 12 people
Method	Brainstorming, discussion-
Tools	Paper, clips
Description of the activity	

There are many things we can do in our day jobs, at work or at home that together can significantly improve our life in the environment in which we live. The aim of the activity is to assess our immediate environment, e.g., our day job, workplace or home, and suggest changes that can be made to live sustainably (e.g., reducing our resource use, saving, biodiversity). It is easier to assess environmental impacts if we divide our activities into categories and always focus on one category at a time. Certain activities are currently unsustainable, and need to be identified so that we can then act in a more environmentally friendly way. However, some activities are already sustainable - these should also be highlighted. Finally, summarise the ideas from the survey, develop an action plan for your day job, work or home environment and share the responsibility for changing daily activities.

Text of the instructions for participants

1. Write down some of your everyday activities and classify them into the following categories:

- Waste – packaging, re-use, recycle, composting, throwing out waste
- Energy use – illumination, heating, isolation
- Travelling – by car, by public transport
- Water consumption – water supply, shower, toilet
- Shopping – market fair, food transport
- Biodiversity – natural sites, chemicals used in our surroundings

2. List those activities that are not sustainable!
3. Now look around in your work, at work, at home and mark each activity on the list based on its sustainability - red (not sustainable), yellow (moderately sustainable) or green (sustainable).
4. Let's summarise together the ideas deriving from the survey!
5. Work out an action plan for the day job, workplace or home environment for sustainable living and share responsibility for changing daily activities!

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

Activity No. 5.4.2.

MODULE 1

Ecological skills and competences in individual life

TOPIC 4

Environmental protection and the importance of ecological behaviour

Title of the activity

Eco-settlement

Pedagogical objective

Strengthening environmental awareness.

Target group

Adults with mild and moderate mental disabilities

Duration (minutes)

480 minutes

Settings

Outdoor terrace or indoor surroundings depending on the weather

Size of the group

3 - 12 people

Method

Project method, guided conversation-

Tools

Cardboard, magazines, coloured papers, scissors, other objects (e.g., Kinder figures), cork, straws and other reusable objects, wastes -

Description of the activity

The structure and land use of a city is fundamentally determining its character, its environmental performance and the life quality of its inhabitants. Urban development decisions should preserve the identity, the cultural heritage, the historic street structure, the green spaces and the biodiversity of the city. Cities are expanding into rural areas at a faster pace than their population growth. Urban

sprawl increases the need to travel and increases the dependence on the use of one's own car, which in turn leads to increased congestion, energy use and pollutant emissions. Green spaces are also important from the point of view of urban biodiversity. Urban planning should protect important natural habitats from urbanisation and help to preserve their diversity by integrating them into the urban environment.

The aim of the exercise is to list the characteristics of an eco-community in a guided discussion and then to make a model of it, using different types of recycled waste. A settlement should be a place where everyone can feel at home and where planning takes into account the following key areas: energy consumption; greenhouse gas emissions; water use and treatment; waste management; urban green space; noise, air quality; transport and mobility; sustainable construction; health issues and quality of life.

Text of the instructions for participants

1. Let's discuss, list and write down together what you think an eco-settlement is characterised by! (some examples: citizens' satisfaction with local government, local contribution to global climate change, local mobility and passenger transport, access to local public spaces and services, local air quality, children's travel to and from school, sustainable management of local government and local businesses, noise pollution, sustainable use of land, products facilitating sustainability, ecological footprint).
2. Prepare the miniature of the proposed eco-city using cartoon papers, magazines, coloured papers, scissors, other objects (e.g., Kinder figures), cork stoppers, drinking straws and other reusable objects, taking into consideration the characteristics of the eco-city!

Summary – Self-reflection for education participants

1. What did I learn as I went through the module? / What insights did I gain in the field of environmental protection?
2. What do I take with me to my own life?
3. What is the influence on my current and future ecological way of life?
4. What step can I take tomorrow, based on what I learned in the activity?

Coordinator



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