

Green Europe. Education. Abilities 2020-1-RO01-KA229-079887



Guide of Good Practices in the field of Forest Protection (school education)



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1. INTRODUCTION

1.1. The project

Argument

In the Europe of year 2020 (declared by the UN as the "international year of plant health"), we believe that ecological education should be a priority. although we are aware of the major importance of trees – the most longevive living organisms on Terra -, we do everything in our power to destroy the wonderful forest ecosystem. This is why we consider as a priority the development of a forest ecology project aimed at those who want to change their way of life. We must live green. We live and ecologize. We live and recycle. We live and travel. We live and observe. We respect nature. First, we must do all this, then think about how to convince others to do the same.

Everything starts from education. A well-informed person will pay special attention to the forest environment and will have a greater respect for mother-nature. And if, through this project, with the proper means and using the appropriate methods, he will acquire ecological skills and abilities, that person will become a true citizen of Green Europe.

General information

- No. of project: 2020-1-RO01-KA229-079887
- ➤ Key-action 2 Strategic partnerships in the field of school education
- ➢ Type: K229 − School exchange
- > Title: Green Europe. Education. Abilities.
- > Acronym: GEEA
- ➢ Period: 01.09.2020 − 31.08.2023

The goal and objectives:

The overall goal of the project is to promote, within the participating schools, the cross-curricular collaboration in order to identify sustainable forest management solutions, by encouraging students' scientific and artistic creativity in transmitting civic, ecological messages;

Objectives:

1. Increasing the degree of information on the forest landscape in Europe and the European legislation on forests, for a minimum of 1000 people (of which at least 250 students between 15-19 years)

2. Increasing the capacity to solve a real problem (case study - protection and conservation of a nearby forest) through self-education among 250 students (15-19 years)

3.Development of practical skills (planting, greening, selective waste collection) among the 250 students (15-19 years)

4.Development of artistic skills (painting, theater, music, film, photographic art), among the 250 students (15-19 years)

5.Development of linguistic and digital skills with a least one level in the adequate transmission of information by at least 60 students (15-19 years) and 20 teachers

The target group

The main target group consists of students (15-19 years old) and teachers of the partner schools; the secondary target group consists of the local, national and European school community, as well as the local community (individuals, public and private institutions, local administration, etc.)

Expected results:

- understanding the diversity of the forest environment and awareness of its importance;
- perfecting the methods and techniques of forest landscape investigation;
- adopting a civic attitude, responsible for the forest environment;



- exposing, in English, in writing and orally, the results of the scientific research carried out in the forest environment specific to the local area;

- training of practical skills in the field of forest ecology and outsourcing the products of these skills: exhibitions of photographic art, painting, films, information panels, Green Calendar, hand-made products;

- elaboration of a guide of good practices, including the methods and techniques used by each participating school, demonstration lessons, volunteering activities, information on the European legislation in the field of forest ecology, including useful links;

- creation of a viable website, which can be used after the project is completed;

To achieve the objectives we propose the *following activities*:

- carrying out works to promote the forest areas near the participating high schools (one for each) that will be presented during a Session of students' scientific communications; the works must contain information from the field of natural sciences; For this purpose, various material resources will be used (graphical and cartographic media, camera, observation journal, bibliographic material) and procedural (observation method, bibliographic, monographic, historical, mathematical statistics, graphic and cartographic modeling of the data obtained, analysis of laboratory, case study, interview method); also, by presenting the paper in a scientific session we encourage the development of communication skills in foreign languages, originality, initiative and entrepreneurship;

- integration of the results of the forest environment investigation into some lessons from the curricular area of the natural sciences (physics, chemistry, biology, geography);

- organizing a training course for the teachers of the participating schools, in order to harmonize the methods and techniques used in the project;

-monitoring the forests within the radius of the participating schools (maximum 30 km radius), for a better knowledge of them;

- arranging information panels at points with maximum visibility within the above-mentioned forests (one for each participating school);

- designing informative materials on the legislation in the forestry field, on the specific landscape of forests in Europe (posters, leaflets, videos, PPT presentations, etc.) and their dissemination within the target group;

-organizing an exhibition of photographs taken in the perimeter of the forests from the participating high schools; the best photos will be used to design a Green Calendar; we want to stimulate creativity and artistic originality;

- conducting ecological activities that contribute to the improvement of the image about forests: recycling of maculature, greening of spaces in the targeted forests, afforestation, sports and relaxation activities;

- organizing a thematic school competition in teams, entitled Green House, addressed to high school students (15-19 years); the competition aims at transparency and recognition of the competences and qualifications obtained from the investigation of the forest environment;

- carrying out specific activities: March 21 - Forest Day; April 22-Earth Day; June 5 - World Environment Day;
October 4 - International Day of Animal Protection; October 6 - World Habitat Day, by each participating school;
- the application, by each participating school, of a forest ecology project at local level;

-building a website, where all research results from the project will be published; digital skills will thus be tested and verified;

Participants (partner schools)

Colegiul Național Spiru Haret (Romania) – coordinator; Panevėžio Mokymo Centras (Lithuania) SOU Sveti Naum Ohridski - Makedonski Brod (North Macedonia) Agrupamento de Escolas de Rio Tinto Nº 3 (Portugal) Keşan Anadolu Lisesi (Türkiye)



1.2. General presentation of the Guide

This *Guide of best practices in the field of forest ecology (school education)* was developed based on the research and investigation activities carried out by the students and teachers of the participating schools and also includes the results of the many theoretical and practical activities carried out within the GEEA project.

The theoretical basis of this Guide was developed by the staff of teachers and students from each participating school, following the desk research activities, coordinated by Dumitru Voinea (the initiator and coordinator of the GEEA project). the results of these researches were initially presented by the students in the online presentation sessions of the first year of the project and finally by the teachers in a Communication Session held at LTT C6 (Tecuci, Romania, May 2023).

The practical activities of investigation, monitoring, promotion and protection of the forest environment carried out during the entire GEEA project have been illustrated in this Guide as good practices (examples).

The Guide's content is structured as follows:

- presentation and explanation of the specific terms of an ecological project (forest protection): a short dictionary;

- European and national legislation (for each participating school) in the field of forest protection;

- a short overview of the current situation regarding data on existing school and community-based programmes addressing forest protection: campaigns about forest protection (target is school population);

- a short guideline to set up forest protection practices: a template Environmental Action Plan;

- good practices carried out during the GEEA project (local activities and joint activities, including those carried out in the LTTs with students);

- templates to be used to assess progress and results;

- reference;

This Guide is primarily aimed at the school population (students and teachers) of all ages, but ultimately it is intended for all nature lovers, those who love green!



2. FOREST PROTECTION CONCEPT

2.1. Definition, importance, short dictionary

Forest protection is a branch of forestry which is concerned with the preservation or improvement of a forest and prevention and control of damage to forest by natural or man made causes like forest fires, plant pests, and adverse climatic conditions (global warming).

Forest protection also has a legal status and rather than protection from only people damaging the forests is seen to be broader and include forest pathology too. Due to the different emphases there exist widely different methods forest protection.

Forest protection would focus on the biotic and abiotic factors that are non-crime related. A **protected forest** is not the same as a **protection forest**. These terms can lead to some confusion in English, although they are clearer in other languages. As a result, reading English literature can be problematic for non-experts due to localization and conflation of meanings.

The forest can deliver *the functions* of protection or conservation expected from it only if it is either in its natural state and under good natural ecological conditions or, when in use, it is managed in a sustainable manner. Under such conditions, health and vitality are very important. It is the vitality of forests that allows them to grow with sufficient strength and vigour in a way that will counter physical forces affecting soils through water erosion. It is this same vigour that allows a well-structured architecture and rich foliage that can counter wind erosion. The health of forests is fundamental to many of their environmental functions. However, forests are often affected by insects and other pests. They may be affected by a number of physiological alterations depending on climate changes, especially droughts. With health, vitality and a proper state of conservation, management and development secured. the forest intervenes especially in the following major environmental and protective functions.

Protection of water resources. Through their foliage. craggy bark and abundant litter, trees and forests decrease the speed of water dispersion and favour slow but total infiltration of rainwater; particularly in dry areas, the capacity of trees to retain other precipitations such as mist that then can be collected and stored for use is also important.

Soil protection. The forest canopy slows down the wind while its dense network of roots holds the soil in place; added to the buffering function of the water flow, these characteristics protect against wind and water erosion, land movement (mass slides and falling rocks) and, under cold climates, the risk of avalanches. With the combination of slower water dispersion and percolation to phreatic and intermediary water tables, the forest exerts an important buffering effect that protects against flooding or severe river bank erosion.

Influence on the local climate and reduction of gas emission impacts. Through the control of wind velocity and air flows, the forest influences local air circulation and may thus retain solid suspensions and gaseous elements; it can filter air masses and retain contaminants. The forest exerts a definite protective effect on neighbouring human settlements and crops in particular. This capacity is useful in the protection of inhabited areas that adjoin industrial zones and in urban forestry in general.

Conservation of the natural habitat and biological diversity. The forest offers a habitat to flora and fauna and, depending on its health, vitality and ultimately the way it is managed or protected, secures its own perpetuation through the functioning of the forest ecological processes. In Europe, almost half of the ferns and flowering plants grow in the forest. Owing to its size and structural diversity, more animal species are found in the forest than in any other ecosystem.

Recreational and other social functions of forests. Apart from direct physical and biological protective functions, forests in general have gained increasingly important recreational functions during the past five decades. In the vicinity of cities, tourism and health resorts have flourished, benefiting from the forest environment; in the forested areas of developed and developing countries alike, secondary residences are getting people back closer to the forests.

Protecting the cultural dimension of forests. While urban communities, particularly in the industrialized countries, are striving to be closer to nature, at the same time the evolution of the global and local forest economies



may threaten other protective functions of natural forests in the developing world where forests have still maintained their cultural and religious functions. It is a challenge to twenty-first century forestry to cater also for these needs and maintain the cultural dimension of the protective functions of the forests. A number of innovative management options and many social and community forestry initiatives have addressed these needs.

Short dictionary – forest protection

Term(word)	Explanation
Acre	An area of land measuring 43,560 square feet. A square 1-acre plot measures 209 feet
	by 209 feet; a circular acre has a radius of 117.75 feet.
Afforestation	The establishment of a forest or stand of trees (forestation) in an area where there was
	no recent tree cover.
Amphibian	Any of a class of vertebrates that regulate their body temperature externally; lay shell-
	less eggs in wet areas; live in water during early development and live both in water
	and on land as adults; and use lungs, gills and their skin for breathing. Most have four
	legs and smooth, moist skin without scales.
Angiosperm	A plant that has true flowers and bears its seeds in fruits. In temperate zones, many
	angiosperms are deciduous trees, while in tropical zones, many are evergreen trees.
	Examples include oaks, willows, maples and birches.
Annual Ring	The combination of one earlywood layer (light colored) and one latewood layer (dark
	colored) seen in a cross-section of a tree. One annual ring usually represents one year
	of growth.
Artificial	The growth of new trees through seeding and planting.
Regeneration	
Ash	A genus of plants in the olive and lilac family, Oleaceae, and comprises 45–65
	species of usually medium-to-large trees, most of which are deciduous trees, although
	some subtropical species are evergreen trees. The genus is widespread throughout
	much of Europe, Asia, and North America
Best Management	Procedures employed during harvesting and/or timber stand improvement activities
Practices	that reduce erosion and prevent or control water pollution.
Biodiversity	The variety of life forms in a given area; can be categorized in terms of number of
	species, variety of plant and animal communities, genetic variability or some
	combination of these categories.
Bird	Any of a class of vertebrates that regulate their body temperature internally, have
	bodies that are covered almost entirely with feathers and have forelimbs modified as
	wings that enable most to fly.
Broadleaf	A class of trees that have broad, flat leaves of many different shapes; most are
	deciduous; also called hardwood because most broad-leaved trees have harder wood
	than do conifers. Examples include oak, hickory, maple and ash.
Canopy	The "roof" of the forest formed by the crowns of the tallest trees.
Cellulose	The scientific name for wood fiber.
Competition	The struggle between trees to obtain sunlight, nutrients, water and growing space.
~	Every part of the tree, from the roots to the crown, competes for space and food.
Conifer	A class of trees that are evergreen, have needle or scalelike foliage and conelike fruit;
	often called softwood. Examples include pine, hemlock, cedar and cypress.
Conservation	Planned management and wise use of natural resources for present and future
	generations.
Crown	The branches and foliage at the top of a tree.
Deforestation	The natural or purposeful clearing of forested land
Dendrology	The study of trees; tree identification.
Ecology	The science or study of the relationships between organisms and their environment.













Ecosystem	A loosely defined area consisting of numerous habitats.
Environment	The sum of all external living and non-living conditions and influences that affect the development and survival of an organism.
Erosion	The wearing away or removal of land or soil by the action of wind, water, ice or gravity.
Foliage	The leaves of a tree or other plant.
Forest	A large area covered chiefly with trees and undergrowth.
Forest Floor	The lowest level of the forest that is made up of tree seedlings, dead leaves and
10103111001	needles, grasses, ferns, flowers, fungi, and decaying plants and logs.
Forest Management	Caring for a forest so that it stays healthy and vigorous and provides the products and values the landowner desires.
Forest Type	A designation or name given to a forest based on the most abundant tree type or types in the stand; groups of tree species commonly growing in the same stand because their environmental requirements are similar. Examples: boreal forest, temperate forest, mediterranean forest, tropical forest etc.
Forestry	The art and science of managing forests to produce various products and benefits including timber, wildlife habitat, clean water, biodiversity and recreation.
Gymnosperm	A plant whose seeds are not enclosed in flowers. Most gymnosperms produce their seeds on the surface of the scales of female cones and are pollinated by wind. Conifers are the most common type of gymnosperm.
Habitat	An area in which a specific plant or animal naturally lives, grows and reproduces; the area that provides a plant or animal with adequate food, water, shelter and living space.
Hardwoods	Trees with broad, flat leaves as opposed to coniferous or needled trees. Wood hardness varies among the hardwood species, and some are actually softer than some softwoods.
Mammal	Any of a class of higher vertebrates whose bodies are covered with hair, who give birth to live young, nourish their young with milk from mammary glands, regulate their body temperature internally, have four types of well-developed teeth and typically have four well-developed legs with toes that have nails, claws or hoofs.
Mast	Fruits or nuts used as a food source by wildlife. Soft mast includes most fruits with fleshy coverings, such as persimmon, dogwood seed or black gum seed. Hard mast refers to nuts such as acorns and beech, pecan and hickory nuts.
Natural	The growth of new trees in one of the following ways without human assistance: (a)
Regeneration	from seeds carried by wind or animals, (b) from seeds stored on the forest floor, or (c) from stumps that sprout.
Oak	A hardwood tree or shrub in the genus Quercus of the beech family. They have spirally arranged leaves, often with lobed edges, and a nut called an acorn, borne in a cup. The genus is widely distributed in the Northern Hemisphere; it includes some 500 species, both deciduous and evergreen.
Photosynthesis	The process by which a plant or tree combines water and carbon dioxide with energy from the sun to make glucose and oxygen.
Plant Succession	The progression of plants from bare ground to mature forest.
Pulpwood	Wood used in the manufacture of paper, fiberboard or other wood fiber products. Pulpwood-sized trees are usually a minimum of 4 inches in diameter.
Reforestation	Reestablishing a forest by planting or seeding an area from which forest vegetation has been removed.
Release	To free a tree from competition with its immediate neighbors by removing the surrounding trees. This occurs naturally and artificially.
Renewable Resource	A naturally occurring raw material or form of energy that has the capacity to replenish itself through ecological cycles and sound management practices.













Reptile	Any of a class of vertebrates that regulates its body temperature externally, has dry, glandless skin covered with scales, breathes through lungs and lays large eggs that develop on land.
Resin	A group of sticky liquid substances secreted by plants that appear on the plant's external surface after a wound.
Roots	The underground portion of a tree that helps anchor the tree in the ground and absorbs water and nutrients from the soil.
Rotation	The number of years required to establish and grow trees to a specified size, product or condition of maturity. A pine rotation may range from as short as 20 years for pulpwood to more than 60 years for sawtimber.
Salvage Cut	The harvesting of dead or damaged trees, or the harvesting of trees in danger of being killed by insects, disease, flooding or other factors in order to save their economic value.
Sawtimber	Wood of large enough size to be used to produce lumber for construction and furniture.
Sedimentation	The deposition or settling of soil particles suspended in water.
Seed Tree Cut	A harvesting method in which a few scattered trees are left in the area to provide seeds for a new forest stand. Selection of seed trees is based on growth rate, form, seeding ability, wind firmness and future marketability. This harvesting method produces an even-aged forest.
Selective Cutting	The periodic removal of individual trees or groups of trees to improve or regenerate a stand.
Shade-Intolerant Species	Trees that require full sunlight to thrive and cannot grow in the shade of larger trees.
Shelterwood Cut	Removing trees in the harvest area in a series of two or more cuttings so that new seedlings can grow from the seeds of older trees. This method produces an even-aged forest.
Silviculture	The art, science and practice of establishing, tending and reproducing forest stands of desired characteristics. It is based on knowledge of species' characteristics and environmental requirements.
Softwood	A tree belonging to the order Coniferales. Softwood trees are usually evergreen, bear cones and have needles or scalelike leaves. Examples include pines, spruces, firs and cedars. See conifer.
Species	A group of related organisms having common characteristics and capable of interbreeding. Loblolly and Virginia pine are common tree species that can interbreed.
Threatened Species	Any species that has been classified to become endangered within the foreseeable future throughout all or a significant portion of its range. A threatened species has declining or dangerously low populations but still has enough members to maintain or increase numbers.
Transpiration	The loss of water through leaves.
Tree Caliper	A metal or wooden device consisting of an arm and two prongs, one of which is free to slide along a graduated scale on the arm. The prongs are placed against opposite sides of a tree to read its diameter on the scale.
Wildlife	A broad term that includes nondomesticated vertebrates, especially mammals, birds and fish.
Wood	The solid interior of a tree.
Xylem	The part of a tree that transports water and nutrients up from the roots to the leaves. Older xylem cells become part of the heartwood. Also called sapwood.
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2.2. European and national (partner schools) legislation and initiatives in the field of forest protection

Forests are essential for our health and wellbeing, and the health of the planet. They are rich in biodiversity and are hugely important in the fight against climate change.

The new EU forest strategy for 2030 is one of the flagship initiatives of the European Green Deal and builds on the EU biodiversity strategy for 2030. The strategy will contribute to achieving the EU's biodiversity objectives as well as greenhouse gas emission reduction target of at least 55% by 2030 and climate neutrality by 2050. It recognises the central and multifunctional role of forests, and the contribution of foresters and the entire forest-based value chain for achieving a sustainable and climate neutral economy by 2050 and preserving lively and prosperous rural areas.

The strategy sets a vision and concrete actions to improve the quantity and quality of EU forests and strengthen their protection, restoration and resilience. It aims to adapt Europe's forests to the new conditions, weather extremes and high uncertainty brought about by climate change. This is a precondition for forests to continue delivering their socio-economic functions, and to ensure vibrant rural areas with thriving populations.

The new EU forest strategy will support the socio-economic functions of forests for thriving rural areas and boosting forest-based bio-economy within sustainability boundaries. It will also protect, restore and enlarge the EU's forests to combat climate change, reverse biodiversity loss and ensure resilient and multifunctional forest ecosystems by:

- promoting the sustainable forest bioeconomy for long-lived wood products
- > ensuring sustainable use of wood-based resources for bioenergy
- promoting non-wood forest-based bioeconomy, including ecotourism
- developing skills and empowering people for sustainable forest-based bioeconomy
- > protecting EU's last remaining primary and old-growth forests
- ensuring forest restoration and reinforced sustainable forest management for climate adaptation and forest resilience
- > re- and afforestation of biodiverse forests, including by planting 3 billion additional trees by 2030
- providing financial incentives for forest owners and managers for improving the quantity and quality of EU forests

The strategy also focuses on:

- > strategic forest monitoring, reporting and data collection
- > developing a strong research and innovation agenda to improve our knowledge on forests
- > implementing an inclusive and coherent EU forest governance framework
- > stepping up implementation and enforcement of existing EU acquis

More about *EU forest strategy for 2030* you can read here: <u>https://commission.europa.eu/document/cf3294e1-8358-4c93-8de4-3e1503b95201_en</u>

National (partner schools) relative legislation Romania

Law no. 46/2008 regarding the *Forestry Code*, updated several times, the last time on 22.03.2023; includes the main regulations regarding the national forest fund, the sustainable management of the forest fund, the sustainable development of forests, the control of the application and compliance with the forestry regime, responsibilities and sanctions;

Law no. 100/2010 regarding *the afforestation of degraded lands*. According to this law, degraded lands or lands at high risk of degradation are identified and inventoried, as well as their integration into the national forest fund; **MO** (**Minister Order**) no. 930/2014 regarding the approval of the List of personnel authorized to control the commercialization of forest reproduction materials and the certification of forest reproduction materials.

MO no. 1330/2015 for the approval of the Regulation on the organization, operation and composition of the Commission for the attestation of economic operators for the forestry activity, as well as the attestation criteria for the forestry activity.

MO no. 1763/2015 for the approval of the Regulation regarding the attestation of legal entities that carry out regeneration and maintenance works of plantations, arboretum care works, as well as the attestation of physical and legal entities that design and/or execute land improvement works in the forestry sector.



MO no. 2525/2016 regarding the establishment of the National Catalog of virgin and quasivirgin forests in Romania.

MO no. 2533/2022 for the approval of the Technical Norms on compositions, schemes and technologies for forest regeneration and afforestation of degraded lands and the Best Practice Guide on compositions, schemes and technologies for forest regeneration and afforestation of degraded lands

Lithuania

Law no. I-671 of the Republic of Lithuania on *Forests*, updated several times, the last time – on 04/01/2023; The purpose of the *Law on Forests* is to regulate the restoration, protection and use of forests and to create legal preconditions for the management of forests of all forms of ownership in accordance with the same principles of sustainable and sustainable forestry, ensuring the rational use of forest resources and seeking to provide the country's industry with raw materials, providing the country with the greatest socio-economic benefits, ensuring the preservation of biodiversity, increasing forest productivity, landscape stability and environmental quality, the possibility of performing ecological, economic and social functions now and in the future without harming other ecosystems.

Law no. I-301 of the Republic of Lithuania on *Protected Areas*, updated several times, the last time – on 04/01/2023; This Law regulates the system of protected areas and the associated public relations, the legal bases for the establishment and establishment of protected areas, the change of boundaries, the change of status, the protection, management and control of protected areas, regulates activities in them, and establishes the creation and regulation of activities in areas of international importance, including natura 2000 sites of the European ecological network, as well as the natural framework.

On the approval of the **Provisions on the Management and Use of Private Forests No. 799**, updated several times, the last time – on 01/07/2021; These regulations regulate the management of private forests, the use, restoration, protection of these forests, and also establish the rights and obligations of private forest owners in the management, maintenance and use of private forests.

On the **provisions on reforestation and afforestation No D1-199**, updated several times, the last time – on 01/07/2021; These regulations set out the requirements for reforestation and afforestation, maintenance of forest plantations, protection and afforestation works, quality of plantations.

On the approval of the **Forest Sanitary Protection Rules No. D1-204**, updated several times, the last time – on 05/04/2021; These rules establish the basic requirements for sanitary protection of the forest from harmful biological and anthropogenic factors in order to regulate the number of diseases and pests, to carry out the prevention of foci of their mass reproduction or their destruction.

On the approval of the **Logging Rules No. D1-79**, updated several times, the last time – on 02/09/2020; These rules establish the basic biological, ecological and technological requirements for logging (logging, wood extraction) in forests.

North Macedonia

Forest Law

In the present forest law, (*Official Gazette of RM, No 64/2009*) is stipulated that forests in N. Macedonia are in state and private ownership (*article 2*). This means that there should not be any differences between treatments of state or private forests, but unfortunately that is not a case in practice. Forest inventory is envisaged to be done with this law (*article 25*), this is essential to sustainable forest management, for the reason that N. Macedonia has done its last inventory of forests in 1979, so in order to have proper and sustainable management first thing to be done is forest inventory, than comes planning and management of forest resources. Also introducing of forest and forest land cadastre is a new regulation that will contribute to improvement of the forestry sector as a hole, and relations between different owner groups (state, private, municipal, churches). (*Article 77*). Availability of data in forestry (management plans, inventory data, cadastre documents) with the new law are publicly available, so any interested party can obtain those documents for a certain fee paid to the original owner of the data. (*Article 40*). New information system will be introduced in forestry in order to connect all relevant actors in this sector in one network where all data will be kept, this is one step forward to democratization and openness of this traditional sector, in this case public will have access to the data about state of forestry in certain moment, transparency in working will go on a higher level. (*Article 78*) Involvement of public and all interested parties in



decision making process in forestry is also stipulated with this law (*article 38*). This is first time that in a forest law is recognized the role of other stakeholders in the decision making processes.

In the North of Macedonia, *the grounds for nature protection* have been established in the Constitution of the Republic of Macedonia (*"Official Gazette of the Republic of Macedonia" No. 52/91 and Amendments I-XXXII*). The Constitution provides for the right to a healthy environment (*Article 43, paragraph 1*); every citizen is obligated to promote and protect the environment and nature (*Article 43, paragraph 2*); and determines the natural resources of the country, flora and fauna as goods of general interest that are under special protection (*Article 56, paragraph 1*); and certain goods of general interest for the country can be devolved to use in a manner and under conditions determined by law (*Article 56, paragraph 3*).

The Framework Law on Environment (*"Official Gazette of the Republic of Macedonia" No.* 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13, 187/13, 42/14, 44/15, 129/15, 192/15, 39/16) includes the basic principles of environmental protection on the basis of which the appropriate environment management procedures are regulated.

The Law on Nature Protection ("Official Gazette of the Republic of Macedonia" No. 67/04, 14/06, 84/07, 35/10, 47/11, 148/11, 59/12, 13/13, 163/13, 41/14, 146/15, 39/16 and 63/16) regulates the protection of nature through protection of biological and landscape diversity and protection of natural heritage, in protected areas including outside protected areas, as well as protection of natural rarities.

Portugal

In 1996, the **Basic Law of Forests** was approved in Portugal, in which the forest is considered an essential natural resource for biodiversity, and its sustainable management must be ensured, with the State being the agent responsible for the regulation rules of the use of resources, integrating national and international policies and priorities, and owners the agents responsible for carrying out forestry practices.

The National Forest Strategy, published in 2006 and recently revised (ICNF, 2013b), constitutes the current reference policy for public and private forest intervention in the coming decades, defining the strategic framework for the development of the sector in the short term and in the medium term. This document is the result of an assessment of national forestry resources and of a public consultation process, highlighting the forestry sector simultaneously as a source of national wealth and a risky sector.

Council of Ministers Resolution n.º 6-B/2015: Approves the **National Strategy for Forests**, which constitutes the first update of the Strategy approved by Council of Ministers Resolution n.º 114/2006, of 15 September.

Resolution of the Council of Ministers n.º 13/2019: Approves the diagnosis report and action measures for valuing the forest territory and encouraging active forest management.

Decree-Law no. 88/2022: Regulates the special contribution for the conservation of forest resources and determines the conditions for its application.

Resolution of the Council of Ministers n.º 115/2018: Defines a new strategic orientation for forest planning. Decree-Law No. 11/2019: Amends the legal framework for forest planning, management and intervention plans. **Council of Ministers Resolution n.º 157-A/2017:** Approves structural changes in the prevention and fight against forest fires.

Council of Ministers Resolution n.º 157-B/2017: Creates a Mission Structure for the installation of the Integrated Resolution of the Council of Ministers n.º 159/2017: Develops Scientific and Technological Research activities related to the prevention and fight against forest fires.

Resolution of the Council of Ministers n.º 160/2017: Approves the National Strategy for Preventive Civil Protection.

Türkiye

According to **Article 169 of the Constitution of the Republic of Türkiye**; "The state enacts the necessary laws and takes the necessary measures for the protection of forests and the expansion of their areas. The state enacts the necessary laws and takes measures for the protection of forests and the expansion of their areas. New forests are grown in the place of burning forests, other kinds of agriculture and animal husbandry cannot be done in these places. The supervision of all forests belongs to the State of the Republic of Türkiye.

The Forest Law was passed in 1956.



In Turkish law, forest is defined as follows in Article 1 of the Forestry Law: Trees and shrubs that grow naturally or with labor are considered forests together with their location. Measures and prohibitions related to the protection of forests are specified in the Forestry Law. The articles in this law are updated again according to today's conditions.

Forests were also considered as a source of income, and a "**Forest Directorate**", headquartered in Istanbul, was established under the Ministry of Commerce on February 18, 1839, to collect the taxes to be collected from timber, wood and coal to be extracted from the state forests. Forest Directorates still carry out activities related to sustainable forest management.

2.3. Oportunities, programmes and campaigns at national and European level (target is school population)

Europe (EU)

FOREST EUROPE (also Ministerial Conference on the Protection of Forests in Europe) is a Pan-European voluntary high-level forest policy process. Since 1990, the aim has been to develop common strategies for the 46 signatories (45 European countries and the EU) on how to protect and sustainably manage forests.

Every four to five years, Ministers responsible for forests meet to endorse new declarations, decisions and resolutions. These commitments serve as a framework for implementing SFM, adapted to the national circumstances, but with a regional approach to strengthen international cooperation. The last Ministerial Conference was hold virtually due to the pandemic and chaired by the Slovak Republic. The International Secretariat, also Liaison Unit, is since 2020 in Bonn, Germany.

Program structure:

- Sustainable Forest Management
- Pan-European Forest Risk Knowledge Mechanism
- Green Jobs and Forest Education

ONE TREE PLANTED is a non-profit organization focused on global reforestation. We want to make it simple for anyone to help the environment by planting trees. Together we can restore forests, create habitat for biodiversity, and make a positive social impact around the world.

One Tree Planted has a growing number of projects in Europe. Our work seeks to re-establish woodland, improve water and soil quality, and create a habitat for wildlife in historically forested areas.

TREES (TEACHING REFORESTATION, ENVIRONMENTAL ENGAGEMENT, AND SUSTAINABILITY)

One Tree Planted's free grade school program designed for K-12 helps teachers and parents discuss environmental education with fun and engaging lessons, modules, videos and activities.

REFOREST'ACTION

In Europe, Reforest'Action implements projects in 15 countries, mainly to extend forest cover and restore forests following natural hazards such as drought, disease or insect attacks. In the EU, our goal is now to plant and regenerate 350,000 hectares of forest (i.e. 350 million trees planted and regenerated), including 70,000 ha by afforestation alone, as a part of our 1 billion trees global goal, by 2030. To meet this objective, Reforest'Action will actively contribute to the European Union's 3 billion additional trees pledge. In cooperation with EU institutions, such as the European Commission, and local stakeholders in forest renewal across the continent, Reforest'Action will expand its funding and its action on the ground to deploy a growing number of quality afforestation projects. As a partner of the European Forest Institute, Reforest'Action will contribute to grow new biodiversity-friendly and multifunctional forest, providing a variety of ecosystem services over the next ten years.

Romania

The first afforestation

It is a new project initiated by the Ministry of Environment, Water and Forests, with funding through the National Resilience and Development Program; The aid scheme addresses the objective: Support for investments in new areas occupied by forests and has two main components:



- National afforestation and reforestation campaign, including urban forests
- Forests and biodiversity protection
- The 500 million euros will be available for the afforestation of 56,700 ha

Although the program is mainly addressed to owners of land suitable for afforestation, all voluntary activities involving afforestation, reforestation, awareness of the importance of forests are encouraged.

Forest Month

Every year between March 15 and April 15 we celebrate "Forest Month", an event that aims to highlight the role of the forest in maintaining the balance in nature and to raise awareness among the public and decision-makers regarding the importance of forests and their essential role in maintaining the ecological balance globally. This event comes as a necessity in the fight against massive exploitation and has its roots in the United States of America, celebrated since 1872 as the "Tree Planting Festival". In Romania, the first time was organized in 1902 by Spiru Haret, then Minister of Religions and Public Instruction.

International Forest Day

The International Day of Forests is marked on March 21 every year, worldwide, with the aim of raising awareness of the management, conservation and sustainable development of all types of forests, for the benefit of present and future generations. On this day, countries are encouraged to undertake local, national and international efforts to organize activities involving forests and trees. The theme for each International Day of Forests is chosen by the Collaborative Partnership for Forests. In 2023, the theme is: "Forests and health".

Let's Do It, Romania!

It is the largest social movement in Romania, with over 2,000,000 volunteers involved in 14 years of activity.

Let's Get Green! It is the largest ecological education campaign, carried out for schools all over the country. "Let's Get Green!" invites students, teachers and parents from all over the country to get involved in the first national competition dedicated to educational units, with the aim of promoting responsible behavior towards the environment. 520 schools registered in the race for a green future supported by Kaufland Romania.

Green Week Program

The Green Week program runs from 27 February to 16 June 2023, with each pre-university educational unit having the flexibility to choose a week of this period in which they cover content and carry out activities related to climate change and environmental protection inside and outside the educational unit. Specifically, schools organize activities such as:

- lessons in nature
- debate
- role playing games
- talking photo
- participatory construction exercises of some future scenarios
- documentary viewings
- experiments, living libraries, forum theater, legislative theater
- community service projects
- volunteering
- expeditions and trips to natural parks and protected areas

Lithuania

National forest planting

The National Forest planting is a tree planting festival that has been around for decades and has become a tradition, when foresters, at the end of April, invite the public to get acquainted with tree planting technologies, learn about the work of a forester and contribute with their own hands to the restoration and afforestation of the country's forests. Every year, the State Forest Enterprise plantes more than 30 million plants. trees. This year, foresters will establish a record number of new forests – as much as 800 ha.

International Forest Day

Immediately after the spring equinox and Earth Day, the world marks international Forest Day. The purpose of celebrating World Forest Day is to draw attention to the importance and significance of all the world's forests for our planet. Forests, which are sometimes called earth's lungs, are one of the most important and richest ecosystems



on the planet, but due to unsustainable use and cataclysms caused by global warming, the area of natural forests is rapidly decreasing. At school, it has become a tradition for you, on this day, students put their own made nests for birds in the trees.

Campaign "Darom"

The annual spring campaign has been going on for fifteen years now. Businesses, organizations, schools, kindergartens, municipalities and individual citizens participate in the environmental clean-up campaign. During the campaign, not only urban areas are cleaned up, but also paddocks, parks, riversides, etc.

North Macedonia

Campaign "Spring Alive!"

We have been implementing this educational campaign for six years and have talked to young students the nation over about five common migratory birds: white stork, barn swallow, swift, bee-eater and cuckoo. In 2015 we were focused on the white stork. Our volunteers and staff organized 33 interactive workshops in schools in the Municipalities of Prespa and Cheshinovo-Obleshevo (European Stork Village) with the goal to raise awareness regarding the ecology of this iconic species and the importance to protect its habitats. Approximately 900 students and 22 teachers from 15 schools in Macedonia participated in this Pan-European and African campaign.

"Save the Blue Heart of Europe"

With the goal to prevent the destruction of the Blue Heart of Europe, Euronatur and Riverwatch together with several national partner organizations from the Balkans ini tiated the campaign "Save the Blue Heart of Europe". At the international level the goal of the campaign is to prevent uncontrolled planning of hydropower projects in the most valuable and sensitive river ecosystems in Southeast Europe. At the national level our goal is to encourage the abandoning of the initiative for construction of dams in the national parks thus protecting the value of Mavrovo National Park. Our achievements in 2015 have national and international importance; the three national CSOs included in the coordination of the campaign submitted a complaint to the Bern Convention in the European Council. This complaint was submitted in 2014 when the Standing Committee of the Bern Convention. Consequently, in June of 2015 an appointed group of experts evaluated the possible negative impact of hydropower projects in Mavrovo National Park. Later in the year we participated in the 35th meeting of the Standing Committee after which the World Bank withdrew its funding for the hydropower project "Lukovo Pole". The campaign had strong public presence through its media campaign, participation in the Balkan River Days conference in Belgrade, EXO nature film festival and the public presentation of results from the five-year-long campaign to protect Mavrovo National Park.

World Wetlands Day – 2nd February

We have been marking the Ramsar Day in Prespa for several years. In 2015 we organized an educational presentation focused on the importance of wetlands in the local school in Resen. We also handed out leaflets which highlight the importance of Ramsar Convention on wetlands for Prespa.

World Migratory Bird Day – 9th -10th May

In 2015 this day was marked by the first field research which determined the methodology for the National Stork Census. The research was carried out in the region of Gevgelija and Dojran and it involved the local population. **International Biodiversity Day – 22nd May**

This important day was given special treatment by holding a lecture on the biodiversity of the Prespa Region in the framework of the promotion of the Prespa monitoring station.

European Bird Watch Day - 3rd and 4th October

On these days we organized a volunteer and member meeting in Prespa. The meeting served as an opportunity to share latest information from our organization related to volunteer sand bird monitoring. Additionally, our volunteers had the opportunity to learn more about the global family of volunteers that they are a part of through Bird Life. This topic was exceptionally presented by Ms. Claire Thompson from the Bird Life Secretariat.

Portugal

ICNF - Instituto da Conservação da Natureza e das Florestas (Institute for the Conservation of Nature and Forests)



The ICNF, I.P.'s mission is to propose, monitor and ensure the implementation of nature and forest conservation policies. It aims at the conservation, sustainable use, enhancement, enjoyment and public recognition of the natural heritage, promoting the sustainable development of forest spaces and associated resources, as well as fostering the competitiveness of forestry chains, ensuring structural prevention within the framework of planning and concerted action in the field of forest defence, game and aquaculture resources in inland waters and others directly associated with the forest and silvicultural activities.

LPN - Liga para a Protecção da Natureza (League for Nature Protection)

LPN is an Environmental Non-Governmental Organization (NGO), of national scope, founded in 1948, being the oldest Association for the defence of the environment in the Iberian Peninsula. It is a non-profit association with Public Utility status.

PEFC Portugal

PEFC Portugal is the Portuguese Sustainable Forest Management Certification System, recognized by PEFC International, which allows Portuguese forest producers to meet internationally recognized sustainable forest management requirements.

Quercus

Quercus is a Portuguese Non-Governmental Organization founded on the 31st ofOctober 1985. It is an independent, non-partisan, nationwide association, non-profit and made up of citizens who came together in around the same interest in the conservation of nature and Natural Resources and Environmental Defence in general, from a perspective of sustainable development.

FAPAS - Associação Portuguesa para a Conservação da Biodiversidade (Portuguese Association for Biodiversity Conservation)

FAPAS is a national, non-profit, non-governmental environmental organization, formed in 1990 by citizens with long experience in the field of nature conservation, dedicated to promoting actions aimed at the active conservation of biodiversity and ecosystems.

GEOTA

GEOTA – Spatial Planning and Environment Study Group is a non-governmental environmental organization (NGO) of national scope, with Public Utility status. It was legally constituted in 1986, but its existence as a reflection and education group in the area of the environment dates back to 1981.

GEOTA's mission is to defend the environment and promote sustainable development, in terms of education, information, professional training, reflection and political intervention, cooperation for development and carrying out actions to solve specific environmental problems.

FORESTIS - Associação Florestal de Portugal | ENEA (apambiente.pt) (Forestry Association of Portugal) Forestis is a nationwide, non-profit and public associative movement founded in 1992, with the aim of actively supporting management, defence and associativism in private and community forests.

As a result of its activity, in 2001 it was recognized as equivalent to a Non-Governmental Organization for the Environment.

Currently, it has 31 associated Forest Owner Organizations (OPF), with a sub-regional scope of action, which represent and provide technical support to more than 17,500 forest owners.

Türkiye

TEMA Foundation is a public movement that was established to combat erosion and protect our natural assets and has more than 1 million volunteers today.

Hayrettin Karaca Naturally Aged Forests Project

With the project, it is aimed to raise public awareness on the importance of protecting old-growth forests, to establish selection criteria for natural-aged forests, to identify candidate sites that can be classified as natural-aged forests in the Eastern Black Sea Region of Turkey, to take them under protection and/or to contribute to sustainable management in forestry.

- Determination of natural aged forest candidate areas in the Eastern Black Sea Region in GIS environment over the stand ages in the forest management plan data,
- Scanning academic studies on domestic/foreign old natural forest determination criteria,



- Organizing a workshop to establish the selection criteria for natural-aged forests, conducting examinations in the candidate natural-aged forests determined in the GIS environment in the Forests of the Eastern Black Sea Region,
- Communication activities will be carried out to raise public awareness on the ecological importance of protecting these forests.

With the contributions of the General Directorate of Forestry, Department of Forestry Administration and Planning, an area of 2,795 hectares located in 19 different micro-catchments was registered as Natural Aged Forest in the forest management plans.

An application has been made to the General Directorate of Forestry for the registration of 27 fields, with a total area of 3,754 hectares, or approximately 5,000 football fields, as "natural old forest" in the provinces of Ordu and Giresun.

81 Forests in 81 Cities Project

Within the 10-year period covering 2008-2018, it is planned to establish İşbank forests in the first 5 years and to maintain each planted area for a period of 5 years. In the project, people in our country, especially children; the importance of afforestation in combating erosion, increasing awareness on the protection of forest assets; contributing to the forestation campaigns carried out throughout the country; Fulfilling responsibilities towards the environment and nature in terms of corporate social responsibility; It is aimed to carry out exemplary studies in this regard. In this context; It is planned to plant 2.2 million saplings in an area of 1,470 hectares within the first planting period of 5 years. Field inspections were carried out in all planting areas in company with the technical personnel of the General Directorate of Forestry and TEMA Foundation, and completion planting was carried out in the fields where sufficient success was not achieved.



3. GOOD PRACTICES

3.1. A guideline to set up forest protection practices (Author: Evan Wright from TREE Foundation NGO, 2020)

Forests are the lungs of the earth: essential for environmental stability and human health and happiness. These magnificent and ancient ecosystems are home to 50 percent of all terrestrial species on Earth. And yet, especially in tropical regions, forests are under siege. Our planet's forests are being destroyed at an alarming rate, driven by unsustainable agriculture, development, logging, and mining. The sheer scale of the crisis boggles the mind—if current deforestation rates continue, tropical rainforests could be gone within the lifetimes of the young people alive today. Luckily, there are solutions within our reach. Read on to discover 10 things you can do to save trees and forests around the world.

1. Conserve trees and forests in your area.

Forests and trees—especially big trees and mature forests—have many benefits. They provide habitat for a multitude of species, store carbon, maintain water quality, stabilize the climate, and provide places for people to recreate and connect with nature. Encourage your local government to conserve forests, create parks, and oppose destructive suburban sprawl and other developments. Volunteer with a local land trust or parks and recreation department, or consider a conservation easement if you own forested land.

2. Plant trees—the more the better!

Reforestation is a critical part of the solution to climate change, and restoring previously degraded ecosystems provides essential habitat for threatened species. Plant trees in your community or donate to organizations that plant trees around the world. Keep in mind that planting trees should never be an excuse for destroying existing forests and, when you donate, make sure that your money goes toward restoring native ecosystems rather than planting timber monocultures destined for logging.

3. Support forest conservation organizations.

NGOs like the TREE Foundation, the Nature Conservancy, the Sierra Club, Center for Biological Diversity, and Rainforest Action Network offset deforestation and conserve threatened ecosystems around the world. In the absence of effective and environmentally-friendly governance in many areas, NGOs provide important organizational and monetary support for a variety of conservation efforts. Find a reputable conservation charity that speaks to you and send them a tax-deductible donation. Or find a local forest nonprofit and volunteer!

4. Learn about forests, both local and global.

Educate yourself about forests, their importance, and the threats they face. The more you learn about these wonderful ecosystems, the more you can appreciate their beauty, complexity, and critical role in our planet's health. With your newfound knowledge, you can also inspire others to take action! There are many excellent books, websites, and documentaries out there to explore.

5. Buy forest-friendly (or certified) products such as shade-grown coffee.

Use your purchasing power in a high-impact way to prevent deforestation. Agriculture is responsible for 80 percent of deforestation around the world, with mining and logging contributing as well. Beef is by far the worst offender—in addition to driving widespread forest clearing in the tropics, cows contribute heavily to climate change by emitting methane. Avoid buying beef, soy, uncertified palm oil or other products that come from the tropics, and look for certifications from the Rainforest Alliance, Forest Stewardship Council, and the Roundtable on Sustainable Palm Oil when you shop. Food co-ops and natural food stores often carry these products. Buy shade-grown coffee, which is grown under the forest canopy rather than on cleared lands.

6. Demand better labeling of products so you know if they are certified and sustainable.

Although certifications can give consumers valuable information about the environmental impacts of the products they are buying, the vast majority of products are not certified and many stores do not carry certified products. Demand that your local retailers carry certified products, educate them about why this matters, and call them out if they sell products that result in deforestation. Contact the major food companies you buy from and insist they use sustainable products. Create campaigns that pressure companies to increase transparency in their supply chains and switch to sustainable sourcing for their products.

7. Advocate for climate change solutions.



Climate change is already impacting all aspects of human society and the natural world, especially forests. A warming climate will result in many species' extinctions by disrupting the delicately balanced ecosystems on which countless creatures depend. It is expected also to increase the frequency and severity of droughts and fires in places such as Australia, Indonesia, California, and the extremely biodiverse Amazon rainforest. Forests offset climate change by storing carbon and directly control rainfall and other climatic patterns. Campaign to enact progressive climate policies in your community, and work to reduce your own contribution to climate change.

8. Visit forests often.

Spend time in forests and green spaces; they are awe-inspiring. You will have a greater appreciation for and connection with the natural world, as well as positive effects on your health and well-being. As the world urbanizes and people spend more time online, society is growing increasingly disconnected and separated from nature. So get outside! Go hiking or camping, have a picnic, or try to spot some birds. Climb a tree if you dare! 9. Teach kids about forests through books and outdoor exploration.

Kids are the future-inspire in them a love of our planet. Read books about trees, teach them about forest ecosystems or, better yet, explore a park with them! Not only is nature good for kids, exposure to nature as children is correlated with positive environmental attitudes as adults. Let their curiosity run wild-you might discover something too!

10. Share your love of forests with others.

One of the most powerful causes of forest destruction is ignorance. As ancient trees fall around the world and our society becomes increasingly separated from nature by cities and screens, we must all do our part to spread the word about the importance of forest ecosystems. Take your friends for a hike in the woods or get them involved in a local forest conservation organization. Spread awareness of forest issues—you can start by sharing this list on social media! Humans will not survive without forests. Period. We must all work together to ensure that these magical places survive and thrive for our children and grandchildren.

3.2. A template Environmental Action Plan

It is recommended that a project in the field of forest protection be carried out according to the following structure.

a) preparatory stage:

- ✤ Identification of the need/problem and the target group
- Setting up the implementation team
- * Establishing the logistical requirements (materials, financial resources, human resources) and possible suppliers
- Project planning:
 - Argument: context, premises, possibly a SWOT analysis (if applicable)
 - > The purpose and objectives of the project
 - \blacktriangleright The target group
 - > Period of deployment
 - > Proposed activities and expected results (a logical and efficient phasing of the activities is recommended)
 - Dissemination and impact

b) implementation stage:

- It is recommended that implementation be done after rigorous project planning and procurement of all • necessary materials
- It is recommended to follow the GANTT chart of the project activities as much as possible •
- Each member of the implementation team will have clear tasks and deadlines for them •

c) evaluation stage:

- \checkmark Evaluation of the project as a whole
- \checkmark Evaluation of the implementation team
- ✓ Evaluation of project results

A project can contain a single activity (good practice) or several activities (good practices).



The good practices from the GEEA project were structured into three chapters: education, training and abilities.

3.3. Good practices - education

These practices were carried out in order to achieve the first two objectives of the GEEA project:

O1 - Increasing the degree of information on the forest landscape in Europe and the European legislation on forests;

O2 - Increasing the capacity to solve a real problem (case study - protection and conservation of a nearby forest);

3.3.1. Investigation and monitoring of the local forest environment – October 2020-September 2021

Each team of the partner schools carried out investigation activities of the local forest environment, both through desk research and through field research-moving in the forests near the locality, thus identifying the main plant and fauna species specific to each country/region, the main characteristics of the forest landscape, the economic and ecological potential of the forest, the impact of human activities on the forest.

Every time they went to the forest (at least once a month), the students were accompanied by at least one teacher and filled in an observation sheet that included:

- \triangleright day and time slot
- location (forest)
- > meteorological, hydrological and pedological conditions
- > general state of the forest (very bad, bad, satisfactory, good, very good)
- identified plant and fauna species

The students also took photos, which were later used in the presentations of the local forest environment or for the Green Calendar.



Biljana Cvetoska (N. Macedonia)



Sara Barros (Portugal)



Domantė Glinskaitė (Lithuania)



Cristina Nedelea (Romania)

Emek Çağdaş Aydin (Türkiye)

The results of the desk and field research were materialized by the development of a scientific content for the presentation of these forests (to be presented later), the taking of pictures, the improvement of knowledge about the nearby forests, the development of environmental investigation techniques;

3.3.2. Investigating local forests in mobilities – July 2021-May 2023

Each mobility had at least one local forest investigation activity; all the students and guest teachers could thus see the reality of the forest environment in another country, they could make a comparison with what they have at home, they realized the diversity of the forest environment in Europe. Also, the home team was faced with a challenge: that of organizing a short trip for the guests; managerial and organizational capacities were thus developed;

C1-Portugal: July 9, 2021 - the Peneda-Gerês National Park, also known as Gerês, a national park located in the north of Portugal.



C2-Romania: September 29, 2021 - Barcea forest, near Tecuci city







C5-North Macedonia, April 5, 2022 - Slatinski Izvor (Natural monument), 20 km from Macedonski Brod



C7- Türkiye, May 17, 2022 - Gökçetepe Natural Park, 25 km from Keşan city



C4-Lithuania, October, 13, 2022 – Walking on Girinis pathway. Learning about Lithuanian forests, 30 km from Panevėžys



C3-Portugal, March 22, 2023 - Paleozoic Park of Valongo, near Porto





C6-Romania, May 17, 2023 - Danube Delta Reservation, wet forest



3.3.3. Learning about the forests, protected areas, legislation *a) Teachers' activity – October 2020-May 2023*

The teachers from the staff of each partner school carried out desk research in which the national legislation in the field of forest protection, articles related to this subject, programs and initiatives where the target group is the school population were studied. Each team produced a national report by completing the following template:

Introduction (total length, approximately half page)				
A short overview of the current situation regarding data on existing school and community-				
based programmes addressing forest protection in your country.				
Findings of the desk research/literature review (total length, 2-3 pages)				
Relative legislation				
Papers from journals - Research papers , Articles				
Campaigns about forest protection (target is school population)				
References (A.P.A. Style)				

The results of these researches were materialized as follows:

- transmitting this information to students,
- transmission of information in the scientific communication session of the teachers (C6, Romania)
- publication of the results (summary) within this Guide (see chapters 2.2 and 2.3)

b) C4-Lithuania, October, 12, 2022 – At Lithuanian Protected Areas National visitor's centre, Vilnius

The National Visitor's Center of Protected Areas is like a gateway to Lithuanian protected areas. The exposition helped us to understand what and why needs to be protected, why nature protection is becoming more and more important for the human race. Here we found information about the most valuable areas from a natural point of view.

"Get to know Lithuanian trees" (for visitors of all ages)

An educational session with a walk in the park of the Sapiegos Manor, learning to recognize the trees growing here (depending on the season and weather conditions). During the education, we learned to get to know Lithuanian trees and the diversity of forests in Lithuania. We got to know botanical and genetic reserves. We found out in which regions the largest and densest Lithuanian forests are located and where the tallest and oldest Lithuanian trees grow.

The exposition of the Visitor's Center is interesting not only in terms of the content, but also surprising in terms of visual solutions. When a visitor enters, he feels like surrounded by nature: grasslands, birds, grasshoppers all around, looking up - he will see the clouds.

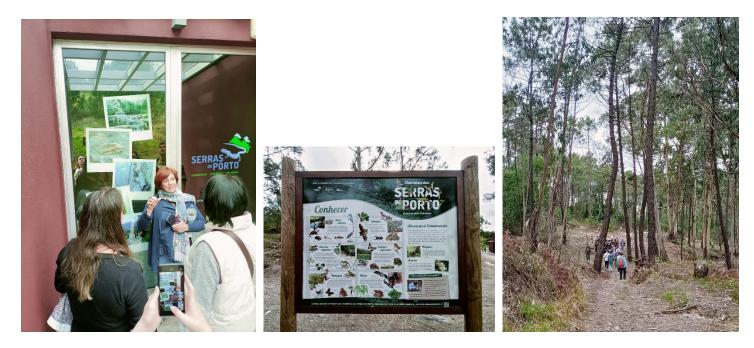
Each guest has an access to the system of protected areas. To learn that there are 5 national, 30 regional parks, 3 state nature and 2 cultural reserves in Lithuania, about 300 reserves, over 400 state protected objects of natural heritage.



c) C3-Portugal, March 23, 2023 - Visit to Serras do Porto Park

Elisabete Oliveira, biology teacher (AERT3), gave a brief presentation of the park, mentioning the main flora and fauna species here.

Oaks, with red oaks, cork oaks and shrubs such as myrtle or holly, illustrate the characteristic forest of the region, in addition to the riparian galleries that follow the watercourses and are usually dominated by alders, black willows and ash. many species of shrubs are associated. On the slopes of the mountains, the most common formations of native plants are the lowland forests, where sedges, heather and carqueja can be seen. In some places, they evolve into thickets, composed of brooms, strawberries, hawthorns, among others. In terms of aromatic and medicinal plants, we note the presence of thyme as well as rosemary, which affects several thousand individuals in the Banjas area. The laurel forest near Senhora do Salto also contributes to the floristic diversity of the territory.





d) C6-Romania, May 17, 2023 – Visit to Danube Delta Biosphere Reservation headquarter

The center represents a key gateway for visitors, promoting understanding of the region, opportunities for its exploration, positively influencing visitor behavior. It is an important part of a developing network of visitor centers and an intrinsic component of the Biosphere Reserve's visitor management and zoning plan.

We were given general information about the Danube Delta Biosphere Reserve, habitat conditions and forest distribution.

Willow forests are found on the higher banks (Salix trianda, Salix fragilis and Salix alba) while small gray willow (Salix cinerea) is found on the lower banks.

In the Letea and Caraorman forests, developed in the lower and wetter areas between the sand grains called "hasmace", there are oak species (Quercus robur, Quercus pedunculiflora) together with ash species (Fraxinus angustifolia, Fraxinus pallisiae), with various species of shrubs or climbing plants such as: wild vine (Vitis silvestris) or liana (Periploca graeca).

The Letea Forest, the northernmost subtropical forest in Europe, formed on the Letea sandbank from strips of forest (*hasmacuri*) developed among the sand dunes. In the Letea Forest there are 500 species of plants and over 3000 species of animals, of which more than 2000 are insects, i.e. over 70% of the animal species in the Danube Delta Biosphere Reserve, the Letea forest being considered by specialists as one of the most interesting natural environments in Romania



3.3.4. Demonstration lessons - forest environment

a) First lesson: C2-Romania, September 28, 2021 Date: 28 September 2021 Subject: Geography, ecology Participants: students aged 15-19 (participants in C2 mobility) Teacher: Dumitru Voinea (CNSH Romania) Topic: Forest environment Period: 90 minutes

Argument: This lesson is important because students will interact for the first time together in a common learning lesson, even though they come from different schools, countries and cultures *Specific objectives*:

Specific objectivs:

- Specifying, in own words, the meaning of basic geographical/ecological terms
- Explanation of natural and human phenomena and processes specific to the forest environment
- Identifying the main characteristics and problems of forests in Europe on graphic, cartographic or image supports
- Analysis of the state of the forest environment
- ✤ Identification of effective forest protection measures

Initial conditions: each national team has prepared a presentation of the local forest environment *Organization:* frontal and independent-individual

Material resources: physical map of Europe, plates, images, PPT presentasion



Procedural resources: map analysis, heuristic conversation, exposition, storytelling, orientation exercises and identification of some elements on the map

Assessment: What evidence is there that students have learned the lesson?

a) content: the answers to the questions

b) using thinking operations: analysis and comparison according to certain criteria, identifying some elements on the map, solving some problems

Lesson moments

Class organization

The teacher (Dumitru Voinea) arranges the students in their desks, makes sure that they all have documents to write; the accompanying teachers of the partner schools participate as observers in the lesson, but during the lesson they can assist/help their own students, if necessary;

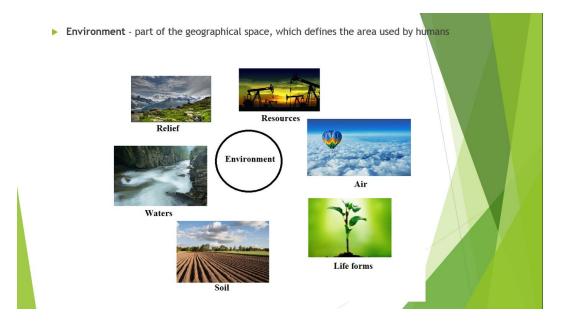


Theme announcement

The teacher announces to the students the topic that will be discussed, the objectives pursued; the language of communication is English, but if necessary, students with English speaking problems can speak in their mother language provided a colleague translates.

Introductory information

The teacher makes a brief introductory presentation of some specific terms: environment, landscape, geosphere. List the main components of the environment;



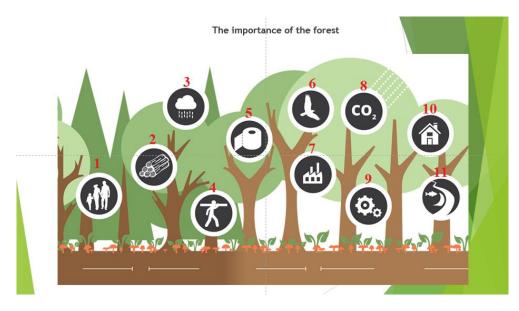
Task for students: each team will appoint a representative who will give a short presentation (5 minutes) of the local environment, by analyzing each component.



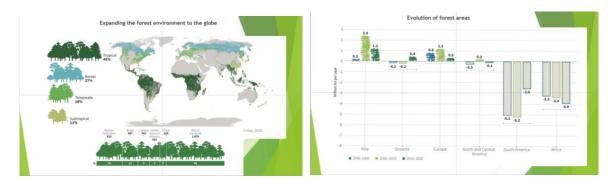


The importance of the forest

The teacher presents a picture in which the importance of the forest is illustrated by numbers and figures. *Task:* each student must choose a number and explain the importance of the forest; where the students do not understand, the teacher explains



Next, the teacher shows a map of the distribution of forests in the world. Students are invited to identify the main types of forests and their location. Following is a graph with the evolution of forest areas on the continents. Students are required to analyze and interpret this graph. Why in some continents the forest area is decreasing? What are the causes?



The teacher shows the students some pictures taken during the first year of the GEEA project in different locations (partner schools' countries); students must guess or remember where they were made (guess the country).

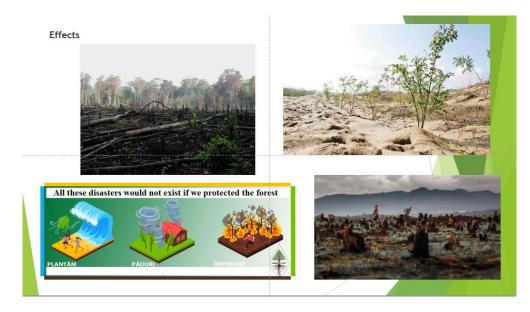


Forest threats

The teacher shows the students pictures that illustrate some threats to the forest. Students are invited to identify them; they can also make additions, with examples from their country, if they know.



Next, the teacher exposes the effects of these deforestation actions: climate changes, reduction of biodiversity, soil degradation, unsightly landscape, etc. Students can make additions, with examples from their country, if they know them.





The students are invited to specify some measures to protect and preserve the forest environment. Some local activities carried aut by them in the first year of the GEEA project are given as examples.



At the end, each student receives a lesson reflection sheet, on the model: I already knew/I learned/I will



The teacher makes a brief general assessment of the lesson, especially of the students' performance. Thanks to all participants!





b) Second lesson: C6-Romania, May 16, 2023

Date: May 16, 2023

Subject: Geography, ecology

Participants: students aged 17-18 (non-participants in GEEa project) and teachers from partner schools

Teacher: Dumitru Voinea (CNSH Romania)

Topic: Forest environment and STEAM

Period: 90 minutes

Argument: In this atypical lesson, guest teachers participate, as learners, alongside students from CNSH Tecuci (who did not directly participate in the GEEA project); thus the aim is to harmonize the student-teacher relationship; also, the teachers involved in the GEEA project will have the opportunity to share their experience together;

Specific objectivs:

- Specifying, in own words, the meaning of basic geographical/ecological terms
- Explanation of natural and human phenomena and processes specific to the forest environment
- Identifying the main characteristics and problems of forests in Europe on graphic, cartographic or image supports
- ✤ Analysis of the state of the forest environment
- ↔ Identification of effective forest protection measures, especially the specific STEAM techniques

Initial conditions: each national team (students from Romania, teachers from other countries) has prepared a presentation of the local forest environment

Organization: frontal and independent-individual

Material resources: physical map of Europe, plates, images, PPT presentasion

Procedural resources: map analysis, heuristic conversation, exposition, storytelling, orientation exercises and identification of some elements on the map

Assessment: What evidence is there that learners have achieved their goals?

a) content: the answers to the questions

b) using thinking operations: analysis and comparison according to certain criteria, identifying some elements on the map, solving some problems

Lesson moments

Class organization

The teacher (Dumitru Voinea) arranges the learnerss in their desks, makes sure that they all have documents to write; the accompanying teachers of the partner schools participate as observers in the lesson, but during the lesson they can assist/help their own students, if necessary;



Theme announcement

The teacher announces to the learners the topic that will be discussed, the objectives pursued; the language of communication is English, but if necessary, learners with English speaking problems can speak in their mother language provided a colleague translates.

Introductory information

The teacher makes a brief introductory presentation of some specific terms: environment, landscape, geosphere.

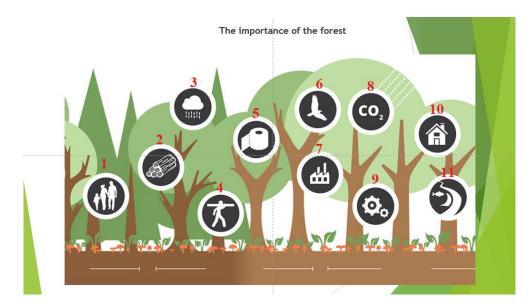


Task for teacherss: each teacher will present an area of interest of the forest environment, from the perspective of what they teach (for example for a math teacher - the number of trees in the forest, for an art teacher - the colors of the forest in each season, etc.).

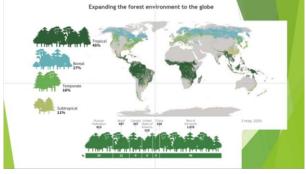
The importance of the forest

The teacher presents a picture in which the importance of the forest is illustrated by numbers and figures.

Task: each learner must choose a number and explain the importance of the forest; where the students do not understand, the teachers explains



Next, the teacher shows a map of the distribution of forests in the world. Learners are invited to identify the main types of forests and their location.



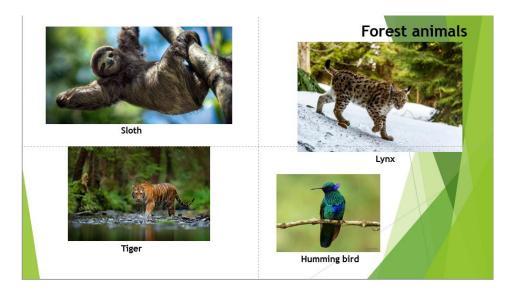


The teacher shows the learners some pictures with different species of trees, whose names the learners must guess and specify their location (guess the tree).

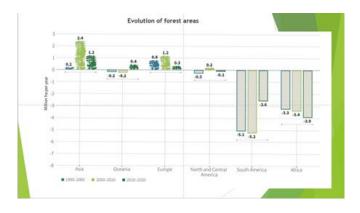


Forest animals

The teacher shows the learners pictures of forest animals. The learners must specify the type of forest where that animal is located.



Following is a graph with the evolution of forest areas on the continents. Learners are required to analyze and interpret this graph. Why in some continents the forest area is decreasing? What are the causes?

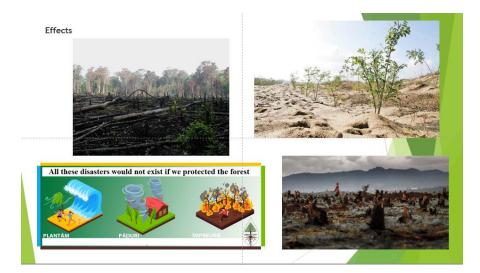


Forest threats

The teacher shows the learnerss pictures that illustrate some threats to the forest. Learners are invited to identify them; they can also make additions, with examples from their country, if they know.



Next, the teacher exposes the effects of these deforestation actions: climate changes, reduction of biodiversity, soil degradation, unsightly landscape, etc. Learners can make additions, with examples from their country, if they know them.



The learnerss are invited to specify some measures to protect and preserve the forest environment. Some local activities carried aut by them in the first year of the GEEA project are given as examples.





STEAM - the current challenge of education

The ICT teacher Joaquim Coelho (AERT3 Portugal) gave a brief description of STEAM techniques and methodology, how they can be used in projects.



STEAM approach in our project

The teacher presents some pictures of STEAM activities carried out in the GEEA project. The teachers learners will choose one picture to explain to the students (who did not participate in the project).



At the end, for the evaluation of the learners and for deepening, the teacher proposes a Kahoot contest (<u>https://create.kahoot.it/share/forests-and-stem/d57352cb-c077-4844-8674-f30cf7df53ec</u>) and a feedback (Mentimeter).



The teacher makes a brief general assessment of the lesson, especially of the learners' performance. Thanks to all participants!



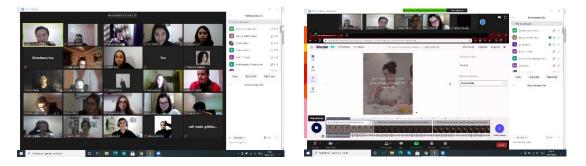
3.4. Good practices – training, debates, scientific sessions, symposia

These practices were carried out to achieve all the objectives of the GEEA project:

3.4.1. Green Avatars – January 16, 2021 – online training course (for students)

The initiative belonged to colleagues from Turkey who organized an online workshop on the Zoom platform. During this, the coordinating professor, Hayriye Aydin (Keşan Anadolu Lisesi, Türkiye), presented us with a series of sites and applications that we can capitalize on by creating intros for youtube videos, editing these videos, creating animated avatar pictures and many others. We were presented in detail and carefully how to use it, so that, for example: in the Pixton application, we can develop our animated versions at will, using them later as avatar pictures or through the applications Biteable and Flixpress we can make different types of videos for many activities.

Through this meeting not only me, but also my colleagues, from the partner schools within the project, we gained a variety of new knowledge in this field, which will surely be useful in the future. Also, in addition to the material things, we had the opportunity and we managed to meet all of us, spending and learning new things together.



3.4.2. Management of the forest ecology – July 07-09, 2021 - training course (for teachers)

This course was intended only for teachers from the staff of each school, the main purpose: developing the managerial capacities of teachers in the field of ecological projects (case study-forest ecology), harmonizing the methods and good practices specific to all participating schools; development of communication skills in English; This course was structured in three parts:

Research-investigation (July 7)

This started with a foray into RioTinto's green areas. Thus, the guests could see the way of organizing the green spaces in Porto, being able to make a comparison with what they have at home. The walk was interspersed with many socializing moments, numerous photo sessions and many information sessions: the type of trees characteristic of northern Portugal, their habitat conditions, the importance of green spaces for the Porto urban area. Tasks for foreign participants: to identify a tree identical or similar to one from the native country; to identify a tree as different as possible from the country of origin; tasks for all participants: to take the most suggestive photos of the green area;





The second part was held in one of the school rooms of Rio Tinto: *The sustainable management of the forest environment in Europe - case study Green Europe Education. Abilities (GEEA) project.* Dumitru Voinea presented the theoretical part: a short dictionary of specialized terms, the definition of basic terms, preparation of an ecological project, the structure of a forestry education project; each national team made a short presentation of the forest environment near their own school. Task: each participant was invited to propose at least one research-investigation activity for the local forest space. At the end, Dumitru Voinea gave a brief presentation of the GEEA project, emphasizing the importance of transnational collaboration and school partnership.

Debriefing session: an exchange of questions and answers between all participants; each participant was invited to tell their impressions for this day according to the model: *I already knew/I learned*



Analysis-experimentation (July 8)

This activity took place at the AERT3 Rio Tinto school..

The first part: each national team proposed a structure of a forest ecology project with its own school community as the target group: title, argument, objectives, expected results, proposed activities, necessary materials, dissemination, evaluation, impact.

Second part: Dumitru Voinea tresented the theoretical part: specific NFE resources and methods used in an ecological project; each participant was invited to identify within the Rio Tinto school five elements that could be used as resources in the development/implementation of a forest ecology project. The school hall, school library, physics, chemistry, biology, geography, electronics laboratories were made available.

Debriefing session: all project proposals were summarily evaluated; impressions were exchanged; each participant chose a word to express the activity carried out as suggestively as possible.



Practical skills/application/case study (July 9)

This activity consisted of a trip to the Peneda-Gerês National Park, also known as Gerês, a national park located in the north of Portugal. Created on May 8, 1971, it is the oldest protected area and the only national park in Portugal due to its national and international scientific interest.

This trip tested our skills and practical spirit, to explore and investigate a forest environment, thus preparing us for the next challenges of our project: mobilities with students.

Several characteristics of the forest environment here have been identified: mixed forest, made up of temperate and meiterranean species, interaction with human activities (water management, sheep and goat husbandry, tourism); the area affected by fires in 2017 was visited, the teachers were thus able to realize the effects of a



natural cataclysm on the forest environment; all participants did a forest hike, on the model of those proposed in the GEEA project mobility with students.

Debriefing session: each participant was invited to formulate a sentence summarizing his impressions of the trip; each participant was invited to evaluate (bad/average/good) the excursion, from three perspectives: organization, accessibility of the route, relevance to the project theme. Almost all participants scored good on these chapters.



A short evaluation of the training course held on July 7-9. The following were identified:

-strong points: impeccable organization of activities by the hosts; dynamic group of teachers, with good knowledge in the field of ecological projects; solving tasks with responsibility; issuing relevant solutions and ideas for the implementation of forest ecology activities; sociability, warm, friendly atmosphere,

-weak points: communication deficiencies in English, in the specialized language; the heterogeneous nature of the groups coming from different backgrounds and cultures (the creation of mixed teams was proposed but the participants refused);

-recommendations: developing collaboration between partners, improving communication in English; -each participant completed an evaluation form; all achieved good and very good grades;

3.4.3. Debates, round tables

C1, Portugal: Debate Sustainable management of forest environment in Europe – July 06, 2021– case study Green Europe. Education. Abilities. project (for teachers)

The debate analyzed the impact of ecological projects on the school and local community (GEEA case study); opinions and counters were issued on several questions such as: *Is anyone interested in the issue of forests? Do you think the forest in your area is in danger? What is more important in an ecological project: the drawing/photo or the planting? Walk in the park or walk in the woods?*



C2, Romania: Round table "I know. I'm learning. I apply." – September 30, 2021 – about Romanian mobility It was the first mobility with the students, the first direct contact between them. Each student was encouraged to give their opinion, to mention a positive and a less pleasant aspect of this experience. Regarding the accumulated knowledge and skills in the field of forest ecology, each student completed a reflection sheet on the model "*I know. I'm learning. I apply*".

















C3, Portugal, Debate "The forest-past, present and future" – March 21, 2023

The International Forest Day was a good opportunity for mobility participants in Portugal to discuss/reflect on the sustainable future of the forest environment. Pros and cons were discussed in the following sections: Are Europe's forests safe? Have we done enough to protect forests? Has the GEEA project achieved its objectives?



C6, Romania, Debate ''The green future of Europe - challenges and promises'' – May 19, 2023 (for teachers) On this occasion, the sustainability of forestry projects was discussed; Objectives: understanding the diversity of the forestry environment and acknowledging its importance; adopting a civic, responsible attitude towards the forest environment; developing English communication skills; identifying pertinent solutions of durable management of forests; through this activity, the teachers from the participant schools learned to accept and help each other, they harmonized their didactic methods and techniques and surpassed linguistic and tehcnological barriers;





3.4.4. Scientific sessions, symposia

C7- Türkiye, Student scientific communications session "The economic and ecological importance of forests" - May 17, 2022

Each national team of students had to prepare a presentation (PPT, Prezi, Canva, film, etc.) illustrating the role of local forests in the economic and social life of the local community, but also the importance of the forest for the environment.



The presentations were made according to a predetermined algorithm:

- Iocation of the forest (a map should be indicated)
- basic geographical conditions: relief, climate, hydrography, soils, human pressure on the forest environment;
- > presentation of the forest: plant and animal species;
- human activities typical of the forest;
- curiosities, elements of identity/originality (if applicable)

Each team had 15 minutes for their presentation; all the presentations were interesting and attractive, proof that the students treated the task with utmost seriousness.

During the activity, the following methods were applied: description, observation, mathematical statistics, case study, graphic manipulation and mapping of results, comparison;

Through this activity, the participants perfected their digital and English communication skills, they formed habits of solving environmental problems, becomeed capale of expressing and motivating their own points of view and, at the same time, were able to accept the opinions of those around them;



C6-Romania, The international Symposium ''Forests of Europe: Education and Ecology'' – May 16, 2023, scientific communications session for teachers

The symposium was held at the CORECT hall of CNSH Tecuci, Romania. Each national team prepared a presentation of approximately 30 minutes, which included the results of the desk research carried out throughout the GEEA project.

Each presentation followed the following template:

- ➤ A short overview of the current situation regarding data on existing school and community-based programmes addressing forest protection in each country.
- Relative legislation
- > Papers from journals Research papers , Articles
- Campaigns about forest protection (target is school population)





In addition, Dumitru Voinea, GEEA project coordinator, made a similar presentation for the European Union.



At the end, a team of five teachers from AERT3 (Portugal) made a presentation of the STEAM methodology and techniques used in ecological projects.



During the activity, the following methods were applied: description, observation, mathematical statistics, case study, graphic manipulation and mapping of results, comparison;

Through this activity, the participants perfected their digital and English communication skills, they formed habits of solving environmental problems, becomeed capale of expressing and motivating their own points of view and, at the same time, were able to accept the opinions of those around them;

3.5. Good practices – abilities (skills)

These practices were carried out to achieve mainly objectives 3, 4 and 5 of the GEEA project:

- O3: Development of practical skills (planting, greening, selective waste collection etc.)
- O4: Development of artistic skills (painting, theater, music, film, photographic art)
- O5: Development of linguistic and digital skills with a least one level in the adequate transmission of information

3.5.1. Good practices- practical skills

Green hearts. Clean forests. – September 23, 2020

September 23 was declared the *World Day of Cleanliness* by the UN in partnership with the organization Clean Up the World, since 1993. This day is intended to be an awareness and a reminder that the protection of the environment must be a lifestyle, not just an event in itself.

In the spirit of a green life and respect for nature, we, at the Spiru Haret National College Tecuci, Romania, decided to carry out an activity to sanitize the Barcea forest.

Armed with gloves and household bags, respecting the rules of social distance imposed by the pandemic of COVID 19, we managed to achieve our goal: waste collection in 25 bags of 240 l.

A minimum effort from everyone would mean a lot in the fight against pollution, misery, indifference! We think green, we act green, we live green!



More: <u>https://greenurope.com/2020/09/23/green-hearts-green-forests/</u>

We live and afforest! – March 12, 2021

On Friday, March 12, 2021, we went to the Furceni forest, to participate in a tree planting action.

The activity took place within the Erasmus + Green Europe project. Education. Abilities. The aim of this initiative was to train planting skills and raise awareness of the need to protect the forest.

The action was attended by 20 students accompanied by Professor Voinea Dumitru. In their approach, they were assisted and guided by the forestry engineer Constandache Marius and by the forester Munteanu Marcel. 500 seedlings of oak and ash species were planted.

Everything was wonderful! The students were very excited about their achievement and felt responsible for this duty they have to mother nature!

We think green, we live green!



More: https://greenurope.com/2021/03/14/we-live-and-afforest/

Today Sapling, Breath Tomorrow – April 5, 2021

Every sapling we bring together with the soil is the breath of the future. Green areas, trees, forests are our lives. We are all responsible for building a greener future. The most precious treasure we will leave to future generations is a green environment. The best step taken for a healthy and beautiful future is to plant saplings.

Today, Keşan Anatolian High School students planted olive saplings. Every student working in our "Green Europe. Education. Abilities" project now has an olive sapling. Irrigation and maintenance of the saplings is the task of our students. Olive is a symbol of fertility and abundance.

"I love them all. But olives are the most. First of all, because it symbolizes peace with its branch, peace and happiness with its golden oil."

















More: https://greenurope.com/2021/04/05/today-sapling-breath-tomorrow/

BIRD PALACES – April 13, 2021

Centuries ago, animal lovers built shelters, birdhouses and animal hospitals for animals on the street. Birdhouses, one of the most beautiful designs of human beings, symbolized sublime feelings such as "compassion and love", as well as reflecting the architecture of the period, the taste and delicacy of those who built that birdhouse Today, the students of Keşan Anatolian High School also brought birds together with their new palaces. Prepared

birdhouses were hung on the trees in our school's garden. Palaces of our birds await their owners.

Birdhouses will protect these tiny birds from storm, rain, mud, and burning sun. It will enable them to raise their offspring more safely.

The bird house sent by our partner school in Lithuania has also taken its place in our garden. It is waiting for its owners.



More: https://greenurope.com/2021/04/13/bird-palaces/

Green hearts, clean forests – spring edition – April 22, 2021

Earth Day was first celebrated in 1970, at the initiative of US Senator Gaylord Nelson, but has grown internationally since the 1990s. Since 2009, it has been included in the list of official days celebrated by the UN.



International Mother Earth Day is celebrated to remind each of us that the Earth and its ecosystems give us life and support.

According to the official website of the UN, the planet is losing 4.7 million hectares of forests every year – an area larger than Denmark It is estimated that around one million animal and plant species are now threatened with extinction.

The message of the United Nations is clear: Let's remind more than ever in this International Mother Earth Day that we need a shift to a more sustainable economy that works for both people and the planet. Let's promote harmony with nature and the Earth. Join the global movement to restore our world!

The green team of Spiru Haret Tecuci National College chose to celebrate Earth Day through action. In wonderful weather, our students managed to beautify the forest landscape, by greening a space in the forest often frequented by locals for relaxation. They were supported in their approach by representatives of the Tecuci Forest District.



More: https://greenurope.com/2021/04/22/green-hearts-clean-forests-spring-edition/

Recycle paper, recovery tree – April 26, 2021

It is important because of the significant savings in the amount of raw materials used with the recycling of paper and its high economic value. When 1 ton of paper is recycled, 17 trees can be saved.

Keşan Anatolian High School students started recycling campaigns in our school. They prepared posters for this. They introduced our campaign. Students and parents support our campaign by bringing unused papers to our school.



More: https://greenurope.com/2021/05/26/recycle-paper-recovery-tree/



From red pine seeds to seedling – May 25, 2021

Red pine trees are a member of the pine family. The Latin name of the red pine tree is known as Pinus. Red pine tree, one of the fastest growing and growing trees, crossed the borders of Turkey and became known worldwide. The red pine tree, which has been on the rise recently, is one of nature's most known and most effective trees planted against erosion.

Turkish pine, which has adapted to hot conditions and has gained the ability to survive in arid and semi-arid conditions, is the most abundant tree species in Turkey.

Our students in our "Green Europe, Education, Abilities" project planted the seeds to grow 250 red pine saplings. Seeds were sown in cardboard, recyclable cups. When the red pine seeds planted by each student turn into saplings, they will be planted in the suitable area.

Remember, if you love like a secret, your dream will come true. Because if the seed is hidden in the ground, it will turn green. (Hz. Mevlana)



More: https://greenurope.com/2021/05/26/from-red-pine-seeds-to-seedling/

Forest hike – September 29, 2021 (C2-Romania)

The mobility guest students from Romania were challenged to a real adventure!

A forest hike was organized for them, on an established route and with 4 checkpoints. The students were divided into mixed teams (different countries) of 5 people each. Each team received a map with the route through the forest and checkpoints. Oriented by the cardinal points, each team had to pass through all checkpoints, being disqualified if they missed one.











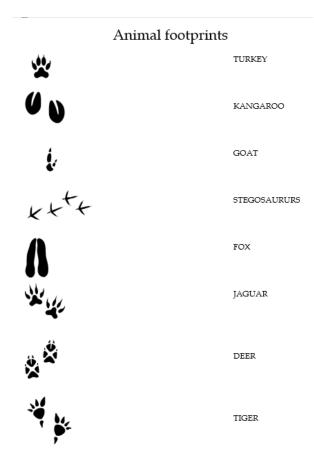
Co-funded by the Erasmus+ Programme of the European Union



- At each control point, each team was subjected to certain tasks:
 - ➤ the sound test (recognition of faunal species by the sound produced)



➤ the recognition of animal tracks













the recognition of leaves



 \succ the teambuilding test



All the teams managed to pass through all the control points, the students learned a lot about the forests in Romania, they interacted very well with each other;

Rearrangement of the green areas – October 20, 2021

Taking advantage of the sunny days of October in Portugal, the AERT3 students, within the scope of the project activities "Green Europe: Education, Abilities" decided to carry out a cleaning intervention in the green areas of the school grounds.

First, the students visited the green spaces surrounding the school building, identifying some of the species and trying to analyze the need for intervention.

Guided by the Biology teacher, they came across an invasive plant, Cortaderia solleana, commonly known as plume or pampas. This plant, originally from South America, spreads very easily through the spreading of seeds, invading the space of other plants and jeopardizing their survival. They also noticed the need for the pruning of some trees and the need to provide some support to the maintenance of the garden.



The actions to maintain the green spaces were carried out with great enthusiasm and jolly participation from the students, who were made aware of the need for a more systematic intervention in this type of activities and taking on the commitment to carry out them voluntarily and regularly throughout the year. *Step 1- Visit to the garden to assess the need for intervention*



Step 2- Elimination of invasive plants



Step 3- Tree Pruning













Step 4- Garden rearrangement



Mission accomplished!



More: <u>https://greenurope.com/2021/11/17/rearrangement-of-the-green-areas/</u>

Planting activity – April 07, 2022 (C5-North Macedonia)

On the last day of the mobility in North Macedonia, all participants were invited by the hosts to a planting activity of 200 specimens of Mediterranean red pine.

Also, symbolically, an apple tree was planted in the school garden.

Because we love green!





Treasure hunt - orientring game – May 17, 2022 (C7- Türkiye)

Held in Gökçetepe Natural Park, the activity tested the participants' orientation ability in the field; it was an individual competition that consisted of following a route indicated on a map and discovering the 10 locations of the "treasures"; whoever covered the route the fastest won...

During the game, the participants showed good orientation in the field. Congratulations to all participants!



Survivor Game - May 17, 2022 (C7- Türkiye)

The competition was held in the same beautiful setting of Gökçetepe Natural Park; the purpose of this activity: awareness of the importance of the forest for health, encouraging young people to carry out recreational sports activities in the forest environment; the national teams were formed by 2 representatives each (a boy and a girl), who had the task of completing the route as quickly as possible; the physical capabilities of the competitors were tested, but also the team spirit!



Sport games at Keşan Youth Center – May 18, 2022 (C7- Türkiye)

Initially scheduled to take place in a forest near Keşan, as outdoor activities, due to the bad weather (strong storm) they turned into indoor activities, more precisely at the Keşan Youth Center headquarters. Among the many activities, the most interesting was archery.





Teens and greens – September 23, 2022

Today is World Clean Day. It is the time when we can show love and affection towards nature. It's the day we show everyone we care! This is normality: a clean environment, a clean life!

Who? 24 students of Spiru Haret National College Tecuci, accompanied by teacher Dumitru Voinea; Where? Barcea Forest, near Tecuci;

What have I done? We collected the garbage, we walked, we played, we relaxed; Why? Because we love green!



Workshop-sustainable wood processing – October 11, 2022 (C4-Lithuania)

During the mobility in Lithuania, we were guests of workshops in Panevėžys training center; the machines used to train the students were presented, machines that sustainably use wood material, including the recycling of wood scraps (sawdust for example);

At the end, the participants were invited to imagine or propose various forms for the plywood processing 3D printer.



3.5.2. Good practices- artistic skills

Green Calendar – October 2020-September 2021

The Green Calendar was made in the first year of the GEEA project; every month, students and teachers from the staff of the project teams took pictures that reflected the local forest environment as suggestively as possible. Every month the most successful pictures were published on the project's media pages (web and Facebook); also, many of them were used to make *the photographic exhibitions* organized in each mobility with students: *C2-Romania: September 30, 2021 - The magical forest*



C5-North Macedonia, April 7, 2022 - The Macedonian pins' seat



C7- Türkiye, May 18, 2022 - Edirne Land



C4-Lithuania, October, 14, 2022 – The Forest of Anykščiai





C3-Portugal, March 23, 2023 - Forest-eternal meeting of trees



The pictures in this calendar were taken by students and teachers involved in the *Green Europe*. *Education*. *Abilities*. project. The calendar also includes a few days of great importance for the natural environment, especially the forest environment. We recommend that you choose one of these days and celebrate it with specific activities: seminars, debates, lectures, competitions, practical actions...



More:

https://www.flipbookpdf.net/web/site/7bddbde3aa65f0477b465c60b73b5e393e2bfae0202401.pdf.html

Green education for all - November 19, 2020 - short motivational film

The Global Education Week relates to the 17 United Nations Sustainable Development Goals (SDG's) which aim to eliminate extreme poverty, reduce inequalities and combat the threat of climate change by 2030. In support of this idea, we thought of promoting, through pictures, activities and motivational messages, green education for all.

We must learn to live green!

We must want to live green!

Let us be aware that we have one house, one refuge! One world, our world!



More: https://greenurope.com/2020/11/19/green-education-for-all/ https://youtu.be/HQoDtrHytUM

The Forest 2021 - March 21, 2021 - Online animation festival

Harry anniversary, dear forest!

Today is your birthday!

By declaring International Forest Day on 21 March, the United Nations aims to raise awareness of the importance of all types of forests.

Today we will talk about you, about how important you are to us!

Today we share your pain!

Today and always we are with you and for you!

For you, dear forest, we have organized this online animation festival, through which we express our unconditional love and attachment.





More: https://greenurope.com/2021/03/21/the-forest-2021/



Erasmus Days 2021 – October 16, 2021 - short dissemination film

#ErasmusDays is addressed not only to participants in the Erasmus + program, but to all organizations interested in promoting European values, learning in all its forms, community involvement and the desire to change for the better through education.

Par excellence, however, *#ErasmusDays 2021* communicates the Erasmus + brand and, over three days: October 14, 15 and 16, 2021, talks about the results and impact of Erasmus + projects to make them visible to citizens, the community, professionals and decision makers.

This is our story: All the pictures and drawings presented in this film are the result of the work of the students and teachers involved in the *Green Europe*. *Education*. *Abilities*. project, between September 2020 and September 2021

See the film: https://youtu.be/OTjeN9RsnsI

Green future for all – November 18, 2021 – small project during Global Education Week 2021

The Council of Europe supports regional, national and / or local initiatives in its annual Global Education Week (GEW) campaign, 15-21 November 2021, to raise public awareness of global education (GE) / education for development (GDE) in Europe, under the general motto of GEW – "It's our world, let's act together".

On this occasion, the students and teachers of the Spiru Haret Tecuci National College (Romania) and those from the Agrupamento de Escolas de Rio Tinto N° 3 (Portugal) mobilized to carry out several volunteer activities and to promote a civic commitment for a cleaner world, a healthier environment.

The two partner schools tried to develop the objectives proposed in the Erasmus + project Green Europe. Education. Abilities. by implementing a small local project called Green future for all. Thus, several activities were carried out that contributed to the development of artistic and practical skills aimed at forest ecology:

-drawing contest with the theme Green future for all, in which 30 gymnasium and high school students participated;



-creating essays with the general theme I love the forest because..., in which 104 students participated;



-rearrangement of the green space of the school in Portugal, which was attended by 20 students coordinated by the biology teacher, Elisabete Oliveira;

-paper waste collection, attended by 123 students;

-planting a tree or fruit tree in their own garden, by 49 students of the school in Romania;

-seeding about 100 pedunculate oak (Quercus pedunculata) acorns, under the guidance of biology teacher, Cristina Lupu;

All activities and results were presented in a small promotional film: <u>https://youtu.be/zCQFtyIIAKc</u> More: <u>https://greenurope.com/2021/11/18/green-future-for-all/</u>

Green Festival – April 6, 2022 (C5-North Macedonia) - a mini-festival with the theme "Green Dreams"

In mobility in N. Macedonia, each participating school has contributed with a specific artistic moment, at the performance hall of the House of Culture in Macedonski Brod.;

The artistic moments were very pleasant and attractive, being highly appreciated by the spectators; among the most interesting we mention:

- piano performance (Romania);
- folk dances (N.Macedonia and Turkey);
- concert with guitars (Turkey);
- ballet, sports dance (Portugal);
- educational films on the theme of forest ecology (Lithuania);
- exhibition of thematic drawings (Romania)

Through this activity, participants will improve their English communication skills, develop artsitic skills, to solve environmental problems, be able to express their own well-grounded views, and at the same time accept and respect diversity.







Workshops – May 15 and 16, 2022 (C7- Türkiye)

During the first two days of the mobility in Turkey, several workshops were held, which had a dual purpose: strengthening group cohesion between participants and developing practical and artistic skills; the participants were divided into mixed groups (different countries) and challenged to work on different topics: *-story writing, poetry, taboo game, canga game, painting*







- leaf examination under the microscop, leaf print, linoleum print, Ebru art, flower from stone dust





Fair of youth projects -Keşan Central Place - May 18 and 19, 2022 (C7- Türkiye)

On the occasion of the Youth Week in Turkey, a fair of youth projects was organized in the Central Place of Keşan; a stand was reserved for our project; a mixed team of students and teachers from all countries participated in this fair, using various promotional products to disseminate the project.







Colors! – October 14, 2022 (C4-Lithuania)

During the entire mobility in Lithuania, the hosts offered us this exercise of artistic creation. Since we visited Lithuania during an autumn period, the colors of the forest environment were among the most spectacular. Each participant was invited to take pictures of the forest environment, with several colors as the theme: green, blue, red, yellow.

The result was grandiose: a pastel of the Lithuanian forests!





The final film of the entire project – July 10, 2023

Using pictures and information from the whole project, this short film is the final dissemination element of our project.



See: https://youtu.be/VmT8iyDPcas



3.6. Templates to be used to assess progress and results

It is very important to make an objective evaluation of the activities/projects carried out, both from the point of view of the organization, the involvement of the participants, and from the perspective of the results obtained and the impact generated. Such assessment sheets/surveys/questionnaires can be applied at the beginning, during and at the end of an activity/project.

Template no. 1 QUESTIONNAIRE (initial survey) Attention!!! This questionnaire is for educational purposes only. The information and opinions provided by you will not be used for other purposes and will be confidential.

Green Europe. Education. Abilities. project team conducts a study that aims to find out your opinion about forest education and ecology. This questionnaire is addressed to a target audience consisting of: students and teachers of the partner schools within this project.

Answer by ticking/circling the correct option or as appropriate, naming the required items.

- 1. Name and surname:
- 2. School:
- 3. Gender: F / M
- 4. Age (years):

13-17
18-25
26-45
46-60
Over 60

5. Studies:

No studies
Primary education
Gymnasium studies
High-school studies
University studies
Postgraduate studies / Doctorate

6. Do you live near a forest (maximum 10 km)? Yes / No









7. What knowledge do you think you have about the forests in your area?

I know nothing
Little knowledge
Medium knowledge
Lots of knowledge
I know everything

8. What knowledge do you think you have about the forests in the area of the schools participating in the project?

I know nothing
Little knowledge
Medium knowledge
Lots of knowledge
I know everything

9. Check the tree species that you think/know are found in the forests in your area (several options):

Acacia
Beech
Ebony
Fir
Mahogany
Oak tree
Olive
Palm
Pine tree

10. Check the species of animals that you think/know are found in the forests in your area (several options):

Bear
Deer
Elk
Giraffe
Jaguar
Lion
Rabbit
Wild boar
Wolf

11. How important are the characteristics of the forest today? Pass a number next to each feature, from 1 to 4 (1 for the most important, 4 for the least important)

Ecological (protection of soils, air, water, biodiversity)	
Economic (use of wood in different fields: industry, construction, fuel; honey production)	
Environmental (relaxation, rest, sports)	



Health (ozone, treatment, curative / pharmaceutical use of berries)

12. From what you believe / know, the surface occupied by the forests in the area where you live is:

Too small
Sufficient
Too big
I don't know

13. Consider that the evolution of the forest environment in the area where you live is:

Positive
Normal
Negative

14. What do you think / know are the main problems facing the forest environment in the area where you live (one or several options):

Decreased biodiversity
Decreasing the forest area
Decreasing the quality of plant and animal species
There are no problems

15. What do you think/know to be the main causes of the degradation of the forest environment in the area where you live (one or several options):

Abusive/illegal logging
Excessive hunting/poaching
Extension of human habitat (human settlements, buildings, industrial spaces, transport, etc.)
Local hazards (fires, diseases/epidemics among animals, drying of trees, landslides, etc.)
Recent climate change
There are no events that lead to the degradation of the forest environment

16. Are you aware of local/national/european/global forest protection legislation?

I know nothing
Little knowledge
Medium knowledge
Lots of knowledge
I know everything

17. What activities do you think are necessary in this project, in order to better understand the European forest environment (one or several options)?



Creating a documentary film about each forest environment near the participating schools						
Information sessions organized by each participating school						
Lessons at school with geography and biology teachers						
Organizing thematic contests						
Self-education, by using/consulting all available informative materials: books, brochures,						
internet, TV shows, etc.						
Other: (please specify):						

18. What activities do you think / know that are required within this project, in order to develop artistic skills (one or several options)?

Artistic festivals to raise awareness of local / regional public opinion on this t	opic
Creating educational films or plays on this topic	
Photographic/drawing/literary-artistic composition competitions on this top	vic
Photographic/drawing exhibitions on this topic	
Other: (please specify):	• • • • • • • • • •

19. What activities do you think / know that are required within this project, in order to develop practical skills (one or several options) ?

Distribution of leaflets /brochures /information materials						
Greening forest areas						
Organizing sports/educational activities in the forest						
Periodic monitoring of the forest environment						
Planting/afforestation actions						
Recycling of used paper						
Other: (please specify):						

20. What activities do you think / know that are required within this project, in order to develop digital and communication skills (one or several options)?

Deepening the English lan	guage at home							
Deepening the English lang	guage in school							
Online meetin	Online meetings							
Participation in games/contests/soc	ial integration sessions							
Physical encounters (mobility)							
Use of applications for the transmission	on of ecological messages							
Other: (please specify):								

I confirm the veracity and accuracy of the information provided by me in this questionnaire.



Template no.2 Mobility assessment form

1. Please think about how the training / learning activities in which you participated in this project mobility took place and appreciate these activities from the point of view of:

	Very good	Good	Satisfying	Low	Very low
The performance					
of the organizers					
Logistics					
organization					
Received					
materials					

2. Participating in this mobility has contributed to your development, which has consisted of:

	Very much	A lot	Satisfying	Little bit	Very little	Not at all
Manifestation of						
innovative and						
creative behavior						
Increased teamwork						
skills						
Better						
communication skills						
in a foreign language						
A better						
understanding of the						
values and attitudes						
regarding forest						
ecology						

3. General personal opinion - This mobility was:

Exceptionally	Very good	Good	Satisfying	Bad	Disaster

4. Suggestions, proposals:



Template no. 3 Evaluation grid (for activity/project)

Topics	Level						
	Insufficient	Low	Satisfactory	Good	Very good		
Students' knowledge							
about the concept of							
forest protection							
Teachers' knowledge							
about the concept of							
forest protection							
Organisation of							
activity							
Methods and							
techniques used							
Achievement of							
objectives							
Quality of results							
Impact of the							
activity							
Dissemination of							
results							

Template no. 4 Evaluation grid for students

Topics	Level						
_	Insufficient	Low	Satisfactory	Good	Very good		
Intellectual							
development							
Practical skills							
Artistic skills							
Communication							
skills							
The level of							
involvement							







Template no. 5 Evaluation grid for teachers

Topics	Level						
_	Insufficient	Low	Satisfactory	Good	Very good		
Managerial skills							
Practical skills							
Artistic skills							
Communication skills							
The level of involvement							

Template no. 6 Journal of reflection

I already knew.....

I learned.....

It will apply.....



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