



Environmental preservation has become one of Europe's firm commitments for the 2020 Agenda. In addition, it is also deemed a cross-cutting objective concerning the quality of life of European citizens.

CAREFOREST

Taking care of forest for protecting local and global ecosystems and human life

Magazine



CAREFOREST



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CAREFOREST Project

The project is devoted to give students competences regarding forest and climate change, which currently are considered worldwide key competences. But besides the competences regarding climate change, the approach of the project, giving the students the role of acquiring knowledge and competences and transmitting them to the society will give them complementary skills.

International winners of the Careforest video competition

1st Prize: Spain

"Treat the forest as it treats you" Manuel

Alonso Bernal Herrero

https://youtu.be/_4zrOkiPc5A

2nd Prize: Romania

"Disintegration"

Ioana Șogorăscu

<https://cutt.ly/9m2mrAQ>

3rd Prize: Spain

"O monte do meu avó" (My grandfather's forest)

Rocío Fernández Álvarez

<https://youtu.be/7OkhiKGqIC>



Main results

E-book on Life in Forest and impact of fires.

Web Platform.

International video competition.

Field activities.

Workshops and seminars.

Electronic magazine to disseminate the project and its actions and results

Goals and missions

Raising awareness regarding the need of care and protection of the forests and enhance the capacity of European citizens to face this current challenge of forest.

The protection of citizens against the risk of human losses in forest fire catastrophes.



Water management, forest fire prevention and community beneficitation

Municipality of Lousada

The Municipality of Lousada, Portugal, is implementing an innovative way of educating for sustainability. Environmental education is being informally embedded in many different actions across the municipal policies, so that good environmental practices become natural and needed, without necessarily labeling initiatives as 'green'. The transformative actions towards sustainability also include public works and larger interventions in the territory.

The council is crossed by the Sousa river, which in the locality of Pias, in periods of intense rain, frequently climbed and ran fastly over the surrounding agricultural fields, eroding them. On the other hand, Pias is surrounded by forests and shrubland that in higher areas present some risk of fire, in the summer. In order to mitigate these impacts and risks, and regulate the water flow, especially in the context of climate change, in which more heavy rain episodes and also drought periods are foreseen, three ecological interventions were done..

1. Construction of a large pond, which retains about 3500 m³ of water, and provides water in drier periods, when the fire risks are higher. The pond is also a wildlife hotspot.
2. The river margins were artificialized and consolidated with stone walls. In this intervention, the margins were renaturalized through the removal of stonewalls and the smoothing of the river margins, recreating the river's natural river profile.
3. Forestation of the riparian gallery and surrounding area in order to control water infiltration and flow.

Regulating the water flow is benefitting both the community and biodiversity



Charco-pias

Community with lower impacts of heavy rain and availability of water in case of droughts or forest fires, but also with more humidity in the croplands, due to the correct management of the riparian forest. The large pond and the riparian gallery turned Pias into a beautiful rural scenario, kind of a local touristic attraction that is boosting small businesses such as restaurants and cafes. And people are benefiting from the environmental education programmes that are in place in order to explain the interventions done. Biodiversity is benefiting from the renaturalization of the river, the control of water flow, the riparian forest and the retaining of water in the large pond; all this helping to prevent fires in the surrounding areas and creating a diversity of microhabitats already occupied by an array of insects, amphibians, small mammals and birds.

The power of Environmental Education in forest fires prevention

Conceição Colaço

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Forest fires can easily occur in times of greater heat, dryness and wind. Causes can be as simple as a machine accident, carelessness (risk behaviour) or even an intentional start of a fire, in a place with thin vegetation (fuel) that will then spread to forested areas or scrubland (vegetation in the territory) and gain intensity. Thus, preventing forest fires means changing risk behaviours, especially when the weather requires it, and intervening in the territory through vegetation management.



Portugal Chama- República Portuguesa

Traditionally, Environmental Education has focused on risk behaviours, stressing the need not to burn, smoke, build bonfires or throw rubbish in the forest, among other key messages. However, although all these actions can start fires, they only start if the vegetation is very dry, which depends entirely on the weather. Thus, we must take the leap and increase literacy about meteorology and its effects on vegetation, as it is the dryness of the vegetation that leads to the initiation of fires, which can lead to vast burnt areas with major impacts on our society and ecosystems.

Recognizing the signals that meteorology offers us (lack of humidity, temperature and wind), understanding the risk alerts at national or regional

level, and understanding the state of the vegetation, allows us to reduce the number of fires. Educational work should be carried out before the "summer months", but we must not forget that dryness and wind, even in winter or spring can give rise to fires.

At the same time, it is necessary to raise awareness about the forests, both native forests and plantations, with a holistic view of their environmental, social and economic benefits. In a mostly urban population, Environmental Education plays a crucial role in raising awareness of the needs of the rural world and its practices. The consumption of products from activities that promote vegetation management is something that should also be promoted in the environmental education field. For example, the producer of goat, sheep and cattle extensively, promotes vegetation management, reducing the risk of fire. Thus, buying meat from these farms, yogurt, cheese, curd cheese, helps the producer to maintain an activity that manages vegetation in an increasingly depopulated territory.



Reconhecer os sinais-Sic Notícias

And it is because we have an increasingly depopulated inland territory, that it is also up to Environmental Education to encourage the Portuguese population to inform themselves about where their properties are located so that they can assume their responsibility to manage the vegetation in their space.

Knowing the Portuguese forest, its value, its opportunities, what puts it at risk and how to strengthen its resilience also means preventing forest fires. These do not occur for a single cause, so we must have a comprehensive knowledge and vision for action. Climate change can be the trigger that enhances the conditions for more and more rural fires, and it is up to all of us to relearn how to live with fire, but in the safest way possible. This is also the role of Environmental Education, to promote knowledge and informed action for a forest and rural territory increasingly resilient to fires.



Pastoreio-Instituto Superior de Agronomia - ISA

Forest related mythology

Radu Colț

Due to its size, characteristics and importance for human life, the forest is one of the main elements of nature that humans have included in their cultural concerns. The forest is alive, grows, adapts, it can be open, bright and inviting or, on the contrary, closed, dark and threatening, but it is also stable, being fixed to the ground on which it grows. Basically, forest is the vegetal image of humanity: trees of various species, ages and shapes, clear or dark areas, complete silence or a symphony of sounds, the triumph of life and the tragedy of death, all these are the equivalent of human society in any aspect of it. People were impressed by the large forest areas, the size of the trees, the diffused light on the ground due to the shrubs, the abundance of predators, so the forests were seen as a special, unknown space, inhabited by beings with fantastic powers which can influence, for better or worse, human life. The forest was a sanctuary and/or the living space of the divinity, but also a place of refuge in case of danger, therefore people have invested the forest (trees) with magical functions, created myths, legends and stories about and with forests/trees, animals and/or fantastic beings living in the forest.

For pre-modern people myth had the value of an absolute truth of an event that took place at the beginning of the world (cosmogony,

creation of the Universe, and/or anthropogony, origins of humanity) or it made sense to an unfinished series of phenomena which were impossible to be understood. In ancient mythology forests were dedicated to certain gods, being both the place where they received sacrifices and prayers, and the place where gods rest, thus forbidden to humans. Perhaps the best-known example is Artemis (Diana for Romans) in Greek mythology: the goddess of nature and hunting, eternally untamed, she cared for wild animals, enlivened the growth of trees, herbs and flowers, blessed marriage and birth. Her favourite place was in the woods, both for hunting and as a place to rest. The entry of a human into the sacred space, forbidden, was drastically punished, as it is reflected in the story of Actaeon, the young hunter who, separated from his friends with whom he had gone hunting, accidentally arrived in a valley dedicated to Artemis. All versions of this myth describe the place as a valley with platanus, myrtle trees and silver fir trees, with slender cypresses and beautifully smelling flowers, so all the ingredients of power, greatness and beauty. Because he violated the sacred space Actaeon is transformed into a deer and later hunted even by his friends. The conclusion is simple: the sacred space in the forest cannot be violated without the risk of a severe punishment. In fact, any economic activity in the forest was preceded in ancient societies by specific rituals which aimed to conciliate the gods/spirits.



"The Death of Actaeon" - work of Italian Renaissance painter Titian, painted in oil on canvas around mid XVIth century. It is on exhibition in the National Gallery in London.

Source: Wikipedia

Not only the Greek and Roman world saw the forest as a sacred space. The Celtic peoples, whose area of existence extended throughout Central and Western Europe, worshiped a deity, called *Nemetona*, and the sacred space - *nemeton* - was delimited inside the forest. The forest is also home to fantastic characters: fairies (can be good or bad), ogres, trolls, dwarfs and so on. One of the most known characters within the partner countries are: *Basajáun* (specific mythological character from the Basque Country; his name means "Master of the Forest"), *Trolls* (specific characters to the

Scandinavian mythology; *Trolls from the Heddal Forest*), **Forest Mother** (specific character to Eastern European mythology, very common in Romanian folk mythology mentioned under different names - *Muma Pădurii*, *Vidma Pădurii*, *Pădureana*), **Homem do chapéu de ferro** (*Iron hat man*, specific character to Portuguese mythology).

Myths, transformed in modern era into simple stories/tales, speak of trees with enchanted leaves (or fruits) that grow in "distant" lands (meaning in another world), guarded by all kinds of fantastic beings. The hero must overcome his/her human condition and defeat them (either by strength and physical abilities he/she possesses or by his/her special cleverness or with the help of other fantastic "good" beings) in order to obtain what is reserved only for spirits/gods. This model includes stories such as: *The mighty offspring and the golden apples* (a fairy tale spread from the Caucasus area to the Balkan Peninsula, including Romania), *Youth without old age and life without death* (Romanian fairy tale). Another set of tales has as its subject the attempts of evil beings to harm positive characters. The action takes place in dense, dark forests, where the positive characters are sent or attracted to.



Foggy forest

During the confrontation with the negative characters the good ones are helped by animals, semi-fantastic beings or heroes *Snow White*, *Sleeping Beauty*, *Hansel and Gretel*, *Little Red Riding Hood* and so on. All these myths, legends and tales have in common the triumph of good. No matter what dangers the heroes/heroines face, how many or how powerful the evil characters are or how hostile and frightening the forest may seem at times, good cannot be defeated, and the life that generates the cycle of nature will always triumph. Even if the modern era eliminated the sacred from everyday life, and myths and legends have lost their importance, they remain present in human consciousness through tales: authors such as *Brothers Grimm*, *Charles Perrault*, *Petre Ispirescu*, *Hans Christian Andersen* took the stories from popular folklore and passed them on through literature. So did cinematography, which took themes from mythology (including forestry) and translated them into movies (Harry Potter movie series is just one of the most known example).

Forestry is no longer significant to Rural Development - while the Forest increases its value to Rural Communities

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I grew up on a small farm in western Norway. In the 50s and 60s my father was a full-time farmer. Though he was never wealthy in money he was not poor in resources. His small mixed forest (conifers like Norway spruce, Scotch pine and juniper, and broadleaves – mostly birch and alder) and his self-built sawmill provided timber for construction, poles for fencing and other farm-related uses, as well as logs for heating. Small-scale woodworking production based on his local wood-resource provided a little extra monetary input to what was mostly an economy based around self-sufficiency. When he got old and retired it was nominally up to me to continue the family farm. But at that time (around the Millennium), this was never a viable option. Why was that? Why was it no longer realistic for me to continue a long family tradition as a small-scale farmer/forester?



Our barn, with the self-built sawmill located to the right of the building

Trees do take time to grow into maturity. In my region of Europe, we use to say that if a father plants, his son will tend to, and his granddaughter will harvest the logs. Since properties are small and mixed age stands thus are not really feasible, logging

becomes rather a once-in-a-lifetime experience. At the turn of the millennium, my family's small farm no longer existed, having been consumed by the local urbanisation processes of my little town – but we still owned the forest.

So – what happened between the 1950s and later?

The 1950s to the Millennium was perhaps the most dynamic and innovative period ever – in Europe as well as on the entire planet. In regard to economic development in particular, and the change in emphasis from rural and agrarian to urban, service-oriented societies. This happened at a rate and magnitude which no-one could imagine possible. A selection of relevant milestones can be seen in the following:

- Forestry changed from being local or regional into an international and globalized commodity-market. This did happen gradually and unevenly across Europe, with the first attempts following the establishment of the European Free Market, continuing with the global negotiation for reduced tolls and tariffs. For forestry this saw the emergence of an integrated commodity market based entirely upon price, a pure economy of scale. The relation of their origin to the resources no longer had any significance, whatever.
- The full penetration of a market-based economy leaning heavily on economics-of-scale, allowing for fewer and larger processing plants, preferably located close to the end user markets rather than the origin of the raw-material. Where pulp and papermills, sawmills, factories, joineries, etc., were originally located closer to the resource due to the relative high costs of transporting large volumes, the falling trend in both domestic and international, long distance transportation costs, strongly pushed a migration of the down-stream production units closer to the end-users/final markets.
- The positive effects from the general economic boom had encouraged people to migrate from rural to urban areas and accelerated the growth of new, emerging sectors in our societies.
- Technologic development minimized the need for manual labour and replaced it with mechanical and electronic tools and contraptions. Thus, the rural need for labour declined, even stronger than what was necessary from the out-migration alone.

- The income-gap between workers in agriculture and forestry, and the encroaching modern, service-based employment had made it both economically and socially undesirable to remain in and work on the resources of the rural areas.

For many years we have been able to observe – also at meso and macro level - how forestry has changed from rural and local importance to one with more of a value from a national resource view. Forestry used to employ local people who worked their local resource. In Norway, until the 1980s, most of the logging was managed and done by the farmer/forest owner. Today the dominant part of logging is carried out by professional teams – contractors who operate on regional, national or even international scales. They may be recruited from the local – many of the contractors have developed from small local firms that have worked and become more widely successful. But – and this is the important factor here – their area of operation is not restricted to their origin. They have become elements in a non-localized forestry resource chain – a highly specialized and effective system where expensive machines have replaced costly manual labour. And at the same time, a country like Norway struggles to keep its last operative pulp and paper mills, they also balance on the margin of profitability.



Non-wood benefits. Mushrooms from our own forest

In many ways the situation can be described as the trees still growing in the rural areas, but everything related to the commercial use of them originates and is controlled from the urban and central areas.

We now can observe an ever-growing demand for environmental and social services from our natural areas. People are using them more actively for exercise and public health reasons; there is new and increased focus on the other types of forest related resources like foraging, mushrooms and berries, (food forest); the increased use of forest areas for grazing, touristic, outdoor activities etc. There are new ways of creating value without it, or with a much lower focus on logging.



Chandebrito's Lungs

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Ana Jorquera

In October 2017 Galicia burned in flames. In just 2 days, more than 160 fires consumed part of Galicia, about 50,000 hectares. The land of Galicia turned black, and these two days made 2017 the most destructive year for the Galician forests in a decade.

Two years later, in 2019, “O Rexurdimento” was inaugurated, more commonly known as “Los Pulmones de Chandebrito” (Chandebrito's Lungs), a work carried out by the *Arte no Queimado* collective. This sculpture shows two 3-meter-high lungs, built with black wood resulting from the fires, joined by some bronchi, and above, where the windpipe would be, sprout some branches that symbolize how life makes its way after the tragedy.

This work has been installed near the “Castro de Chandebrito”, with the Vigo estuary as a backdrop, and next to the “Bosque da Memoria” (Forest of Memory). This is a place that makes you reflect, a parish that is reborn with strength from its ashes, shaping its future with determination, that once visited you will not forget.

Chandebrito. Where nature makes its way through life.

As reflected in the sculpture after the Chandebrito fire, nature makes its way, whatever happens. Its power to regulate itself, to heal itself ... suppressing everything that could threaten it, even when we, humans, are the worst threat. This place, full of symbolism and emotions, makes us think and be aware of the importance of nature, and how small actions contribute to the respect it deserves and the care we owe to it.



Rexurdimento plaque



