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CAMBIAR TU MUNDO ESTÁ EN TUS MANOS

UNIDAD DIDÁCTICA 2

**SDG 15.
LIFE ON LAND**

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15 VIDA DE ECOSISTEMAS TERRESTRES



- Protect, restore, and promote the sustainable use of land ecosystems.
- Make sustainable use of forests.
- Combat desertification.
- Stop and reverse soil degradation and biodiversity loss.

Forests cover almost 31% of the surface area of planet Earth. From the air that we breathe, the water we drink and the food we eat, the forests keep us alive. We should think about it. Around 1.6 million people depend on forests to make a living. Forests are home to more than 80% of all terrestrial animals, plants, and insects.

To put this subject in context, we recommend you watch this and the other videos:

1.1 THE CONSEQUENCES OF BIODIVERSITY LOSS

Now, more than ever, we need to think long and hard about the impact of human activity on the natural environment and the consequences of over exploitation of resources and environmental degradation, which are interfering with the fragile balance that allows the different animals and plants that live here to live in harmony.

Climate change and human activity are throwing ecosystems out of balance leading to biodiversity loss, all of which is causing natural disasters.

Deforestation and forest degradation are robbing all species of their natural habitats as are the lack of fresh water, worsening soil erosion and degradation and increasing carbon emissions into the atmosphere.

Our abuse of natural resources, excessive pollution, the consequences of a lineal economy, are causing a gradual loss of ecosystems, and our failure to take measures to protect our forests is affecting the health of the planet and harming our communities.



SUGGESTED ACTIVITY

Let's learn about the main consequences of diversity loss and forest depletion: **deforestation, arid soil** and diversity loss caused by **excess pollutants and pesticides**.

- Do research in groups into the other consequences of this and whether this occurs in your environment, province, and community.
- To do this, we are providing you with the following links to research and videos to put things in context.
- Once you have seen the videos and investigated some of the information, have a discussion in the classroom to define the purpose of your awareness campaign.

1. VIDEO TO PUT THE SUBJECT IN CONTEXT: WE ADDRESS THE PROBLEM

2. VIDEOS AND LINKS: LET'S LEARN MORE ABOUT THE CAUSES AND CONSEQUENCES

A. DEFORESTATION

A healthy forest controls the local climate, houses great biological wealth, and supplies water to many of the living organisms that depend on the forest for their survival.

Deforestation caused by logging trees or forest plants used for human activities.

Among the many causes are clearing land for growing crops, livestock husbandry and the spread of cities, industrial and commercial building, as well as the demand for wood products for construction, paper, and furniture manufacturing.

The main problems caused by deforestation are air and water pollution, climate change, and, last but not least, biodiversity loss.



LINKS TO INVESTIGATE:

The Ministry of Agriculture, Fisheries and Food publishes public information, reports, and the current status of Spain's Forest Policy.

The Ministry for the Ecological Transition publishes all the statistics relating to biodiversity in Spain on this page.

The National Statistics Institute provides data on each SDG and its relationship to the goals.

B. ARID SOIL.

Deforestation leads to poor soil quality following tree felling. Because it is the trees and vegetation that cover and protect the earth, arid and desert soil loses its existing nutrients.

The absence of roots also causes soil erosion, as the rains washes away not only the soil, in the form of mud, but all the nutrients and seeds it contains.

Soil degradation due to deforestation, overexploitation of agriculture and poor waste and landfill management reduces productivity in all land areas, and the trend toward rising temperatures due to climate change leads to an increase in the extent of semi-arid climates.



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C. BIODIVERSITY LOSS

Fertilisers, pesticides, plastics, and the agricultural and environmental waste we discard and the fossil fuels we burn, are all factors that contribute to diversity loss.

Agricultural, livestock, industrial and urban activities contribute to air, water and soil pollution and have a direct impact on ecosystems.

Because of biodiversity loss, animals have no option but to adapt to their changing environment. This process seriously changes the organism of animals and interferes with the food chain of many species.



Image source

LINKS TO INVESTIGATE:

The Ministry of Agriculture, Fisheries and Food publishes public information, reports, and the current status of Spain's Forestry Policy.

The National Statistics Institute provides data on each SDG and its relationship to the goals.

COVID-19 IS AN ENVIRONMENTAL WARNING

In its report “World Livestock 2013: A panorama of changing diseases”, the United Nations warns that **70% of new diseases that have appeared in recent years are of animal origin, derived from the leap that occurs between animals and humans.**

This is known as zoonoses, which is a process by which animal diseases are transmitted to humans. Scientists point to environmental degradation, together with **overexploitation of resources and loss of biodiversity**, as factors accelerating this crisis. Even before Covid-19, there had been several pandemics in the last century such as mad cow disease, swine and bird flu.

1.2 SDG 15 GOALS TO COMPLY WITH THE AGENDA 2030

On 25 September 2015, the UN General Assembly adopted an action plan called **Agenda 2030 for Sustainable Development**, to improve the sustainability of people and the planet.

The Agenda sets 17 targets with 169 integrated and indivisible goals covering the economic, social, and environmental spheres.

LEARN ABOUT THE SDG 15 GOALS AND HELP TO ACHIEVE THEM

Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

Target 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought, and floods, and strive to achieve a land degradation-neutral world.

Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

Target 15.5: Take urgent and significant measures to reduce degradation of natural habitats, halt the biodiversity loss and, by 2020, protect threatened species and prevent extinction.

Target 15.6: Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed.

Target 15.7: Take urgent measures to end hunting poaching and trafficking of protected species of flora and wildlife and address illegal demand and supply of wild products.

Target 15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

Target 15.9: By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.

Target 15.a: Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.

Target 15.b: Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.

Target 15.c: Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

2 WHICH ORGANISATIONS CARE FOR OUR FORESTS?

According to **FAO** (Food and Agriculture Organization of the United Nations), forests must be preserved and maintained through **forest policies and strategies** that ensure sustainability.

In this regard, **the United Nations** lays the foundation for national forest policies to be aligned with their strategies.

In addition, FAO currently has the **Strategic Plan for Forests 2017-30**, which serves as a **global framework for action** at all levels for **the sustainable management** of all types of forests and trees outside forests, **and to end deforestation and forest degradation**.

2.1 WHAT ARE FOREST POLICIES?

The purpose of forest policies is to guide and determine decisions on **the sustainable use and conservation of forest and tree resources for the benefit of society**.

In particular, a forest policy:

- Establishes a long-term vision that ensures the protection, maintenance, and improvement of the values of forests for present and future generations.
- It provides a strategy to address emerging problems such as climate change and to respond to new opportunities such as the “regreening” of the economy.
- It helps to balance the demands of different users and define the roles of all forestry stakeholders, from those responsible for forest management to the government body responsible for forests.
- It provides a framework for institutions, including the laws and regulations that are subsequently developed at the national level.

2.2 FOREST POLICIES IN SPAIN

Spain has had several forest and environmental policies for years, the main purpose of which is to periodically monitor **the forest mass, the condition of the soil and biodiversity in Spain**.

- **The National Forest Inventory** is the responsibility of the **Ministry of Agriculture** and provides regular information on the situation of Spanish forests, assesses their ownership and protection system and the legal status of the forests, studying the evolution and production capacity of all kinds of forest assets on the country's mountains.
- The **Spanish Inventory of Natural Heritage and Biodiversity**, supervised by the Ministry of the Environment. In 2001, State Erosion Maps were updated with accurate information with which to prioritise regional and national investment. The **“National Soil Erosion Inventory”** monitors soils conditions to take measures to prevent soil impoverishment.

The main purpose of these forest policies is to be a source of objective, reliable and comparable information at the state level to:

Develop conservation, management, and sustainable use policies.
Raise society's awareness of the values of Natural Heritage and Biodiversity.
Serve as a source of information to meet the reporting requirements of international commitments.

Spain's **forest ecosystems** occupy just over **twenty-six million hectares**, of which almost fifteen million are forested and about twelve unforested, which account respectively for 29% and 23% of the national territory.

Spain is the European country with the most biodiversity. It has 121 different types of habitat and is home to 50% of the animal species and 80% of the plants that make their home in the European Union.

Forest policy makers need to take more notice of the impact of forests and forest management and consider their reliance on other sectors, and vice versa.

A forest policy can provide a framework for sustainable **forest management that balances the economic, social, and environmental objectives of stakeholders and society**.



3.1 WHAT ARE SUSTAINABLE FORESTS?

For a forest to be considered a **sustainable forest** it must be managed in alignment with **economic, social and environmental sustainability criteria**. Consumers are also responsible for contributing to the efficacy of this management.

- **Economic criteria:** There is a need for an economic interest to conserve the forest environment. When this does not exist, the area may be abandoned by the local population and degraded.
- **Social criteria:** Exploiting the forest makes it possible for people to settle in the rural area, which encourages care for its ecosystems.
- **Environmental criteria:** Sustainable forest management allows nature to regenerate and conserve resources indefinitely. It helps to maintain biodiversity and reduce greenhouse gases, controls water and protects soils.

Wood has an essential role in ensuring sustainability and responsibility. It is a raw material whose **proper management** is essential to **forests and biodiversity conservation all over the planet**.

Therefore, part of the commitment is to ensure that the wood has a guarantee that **certifies the sustainable management of the forests** from which the goods come. **Consumers** must also take an ethical and responsible attitude, aligned **with the circular economy and a low environmental impact**.

In order to comply with this requirement, these goods must be certified by **ECODES** (the Ecology and Development Foundation) as well as **FSC, PEFC and Madera Justa** certificates for wood products and the Ecolabel that certifies them at European level.

3.2 CONSUMER RESPONSIBILITY

Certified forest products (wood, paper, cork, mushrooms, resins, essences...) **are a guarantee for consumers that they are buying products from sustainably managed forests**. Buyers can help combat illegal logging and encourage the main functions that preserve forest resources to:

- Help to maintain numerous ecosystems and protect biodiversity.

- Safeguard the livelihood of rural populations and the origin of a particularly important processing industry.
- To have an increasingly recognised social and cultural role.

Demanding, responsible consumers care about the sustainability of the goods they buy and require information about business practices and proof of the supplier's **commitment to the environment**.

At the economic level, more and more companies are involving their suppliers' in their commitment to the environment, selecting them in accordance with these requirements to ensure that their goods **come from sustainable forests**.



SUGGESTED ACTIVITY

Here are the main **labels that certify that the products come from sustainable forests**.

Work in groups and do research into which products or companies in your local area comply with these regulations.

1 To help you, we provide you with the links of national, international, and European entities that are responsible for validating these processes by means of labels.

2 Once you have seen the videos and investigated some of the information, have a discussion in the classroom to define the purpose of your awareness campaign.

3.3. THE IMPORTANCE OF CERTIFICATIONS TO ENSURE RESPONSIBLE CONSUMPTION

1. **PEFC** is the world's most important partnership for forest sustainability. **PEFC is the most widely established forest certification system in the world.** The objective of PEFC is to ensure that the world's forests are managed responsibly, and that their numerous functions are protected for present and future generations.



2. The Ecology and Development Foundation, ecodes.org, takes specific action, the Sustainable Development Goals, to incorporate the concept of sustainability into the development model and create global organisational environments that drive the progress of this concept. Since then, Ecodes has made progress adapting its strategy

and actions to current priorities, always **promoting a more sustainable society, starting with local and expanding to global.**

3. **FSC** is a global, non-profit organisation that promotes responsible forest management around the world. The Forest Stewardship Council® (FSC) issues **three different types of certificates:** Forest Certification, Chain of Custody and Controlled Wood. The different types of certificates relate to the different stages of production and where the forest product is located in its production/distribution chain.



4. **Madera Justa** is part of **the COPADE Foundation**, a full member of **the World Fair Trade Organization (WFTO)**, a global network of more than 300 organisations in more than 60 countries that certifies Fair Trade organisations.



They have specialised in the wood sector, and are the only organisation in Spain and one of very few in Europe and in the world that market furniture and other decorative household utensils and accessories made under the **Madera Justa** name with Fairtrade Criteria, using wood from well-managed forests, certified by the **Forest Stewardship Council® (FSC®)**.

5. **Ecolabel**, recognised in Europe and worldwide, is **the European Union's eco-label**. It is a label of **environmental excellence** that is granted to products and services that meet rigorous environmental standards throughout **their lifecycle**: from extraction of raw materials to production, distribution, and disposal. The EU eco-label **promotes the circular economy** by encouraging producers to generate less waste and CO₂ during the manufacturing process. Among its criteria are the reduction of environmental impact and the guarantee of efficient environmental practices through third-party controls.





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