

TRAINING FICHE

04. ENVIRONMENTAL SUSTAINABILITY IN THE USE OF RESOURCES

(Sections in italic only for internal use, not to be published)

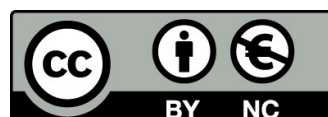
Area	<i>Use of Resources</i>										
Level	<i>BASIC</i>										
Topic	<table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td>4. Environmental implications and impacts</td></tr> <tr><td></td><td></td></tr> </table>								4. Environmental implications and impacts		
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Module	<table border="1"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td>Environmental sustainability in (Area)</td></tr> <tr><td></td><td></td></tr> </table>								Environmental sustainability in (Area)		
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Keywords	Resource consumption; renewable / non-renewable resources; water; energy; raw materials; biodiversity; air pollution; waste generation; water footprint; carbon footprint; responsible consumption; consumerism										
Introduction (500-1000 characters including spaces)	Consumption is necessary since all people need to have goods and services that we cannot generate by ourselves. But although consumption is something legitimate, the spiral of consumerism in which we are involved represents an excess that results in the overexploitation of the planet's resources. The problem is that we not only use resources that are finite and cannot be renewed,										

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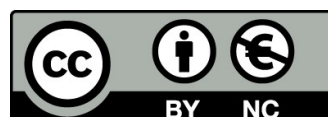
	<p>but also that we overuse those that can be renewed and that are doing so at a lower rate than they are consumed.</p> <p>Its most obvious effects are climate change and the loss of biodiversity, with the resulting consequences that this entails: change in weather patterns, rise in temperatures, more intense storms and heat waves, drought, melting ice and rise in sea level, air pollution, depletion of energy and mineral sources, excess waste, loss of species, food shortages, more diseases and epidemics, poverty, migratory displacements, increased mortality, etc. Reducing the consumption of all types of resources is essential to ensure environmental sustainability, but for this it is necessary to have information that facilitates the development of a more responsible consumption. There are some critical indicators that must be known.</p>
Impacts/Benefits (1000-1500 characters including spaces)	<p>The main concepts that conscious consumers must know for assessing the impact of their purchasing decisions are the following:</p> <p>Hydric/water footprint: Everything we use, wear, buy, sell and eat takes water to make. The water footprint is a measure of humanity's appropriation of fresh water in volumes of water consumed and/or polluted, that is the amount of water used to produce each of the goods and services we use. The water footprint can measure the amount of water required to produce all the goods and services consumed by an individual or community, a nation or all of humanity. The European water footprint per capita is 5,011 litres a day but in the US it rises to 7,800 litres. Some shocking figures about the water footprint of common goods are the following:</p> <ul style="list-style-type: none"> - 1 kg cow meat requires 13,000 litres. - 1 cotton T-shirt requires 2,700 litres. - 1 cup of coffee requires 140 litres. - 1 kg of chocolate requires 17,196 litres.

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- 1 cycle of washing machine requires 148 litres.
- 1 shower requires 140 litres.

Carbon footprint: human activity generates greenhouse gases (GHGs) and its trail is known as a carbon footprint. It represents the total volume of greenhouse gases (GHG) produced expressed in tons of CO₂ emitted. This environmental indicator measures both direct and indirect emissions of compounds such as methane (CH₄), nitrogen oxide (N₂O), hydrofluorocarbons (HFCs), and the carbon dioxide (CO₂), the most abundant and damaging. The carbon footprint has increased 11-fold since 1961 and it can be measured for individuals, communities, companies, or countries.

Waste production and management: Europe produces annually over 250 million tonnes of municipal waste and more than 850 million of industrial waste. In 2020 the municipal waste generated per person in the EU amounted to 505 kg. There are many types of waste, such as batteries, biodegradable waste, construction and demolition debris, end-of-life vehicles, landfill waste, mining waste, packaging waste, plastic waste, hazardous substances, sewage sludge, waste oil, electronic devices, etc. The main problem concerning waste is not only its production but also its management. That means, the prevention, collection, treatment and recycling, and the EU is making efforts to ensure higher waste recycling quotas for the next decades.

Other indicators of the ecological impacts of consumption are the deterioration of terrestrial and marine biodiversity, the reduction of wilderness and coastal effects, the generation and recycling of climate waste, the occupation, degradation and desertification; the consumption of raw materials and non-renewable materials..

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Good practices
(1000 -1500
characters including
spaces)

Danone: 81% of Danone's packaging is recyclable, reusable or compostable. In 2019, the company reduced its carbon dioxide (CO₂) emissions by about a quarter, five years ahead of its 2025 commitment. It has committed to a zero-carbon footprint across its entire value chain by 2050.

IKEA: With suppliers from approximately 50 countries, IKEA's business has a significant impact on the world's forests and the timber industry. That's why it places responsible forest management at the heart of the business that requires all IKEA wood suppliers to meet high forest requirements. It works with global partners, including the World Wide Fund for Nature (WWF) and the Forest Stewardship Council® (FSC) to combat forest degradation and deforestation, and to promote the importance of responsible forest management across the entire value chain.

Oxfam Ethics Shops It is a company of both physical and online shops of fair trade and second-hand products, which are characterised by being managed by volunteers, non-profit, and offering a range of fair trade and ethical products, 100% natural, served in sustainable packaging and shipped with a neutral carbon footprint. It offers a wide range of products, such as food, fashion, natural cosmetics, and home items. It aims to contribute to reducing poverty, working towards equality and inclusion, while fighting climate change.

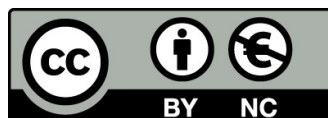
Spain: new tax on plastic production. The tax has been implemented from 1st January 2023 with a tax rate of €0.45 per kg for non-recycled plastic packaging, totalling over €700 million in revenue which will likely be applied to Spain's EU plastic levy contribution.

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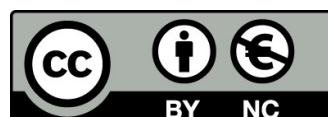
Current and future challenges (1000 -1500 characters including spaces)	<p>The challenges to reduce and mitigate the consumption of resources necessarily involve working for the sustainable development goals related to this concern, namely: SDG 6 for a healthy and efficient management of drinking water, SDG 7 for the development of clean and cheap renewable energy sources, SDG 9 for the improvement and strengthening of industrial infrastructure and innovation, SDG 11 to make cities more liveable and sustainable, SDG 12 to promote responsible consumption and production, SDG 13 to act against climate change, SDG 14 to protect water and marine life and SDG 15 to restore and defend terrestrial ecosystems and biodiversity. All of this requires collaboration and public-private investment as established in SDG 17. So, summarising, the great challenges of the future are:</p> <ul style="list-style-type: none"> ● To increase education and awareness of the population (consumers), towards a more responsible way of consumption. ● To promote investment in innovation and development to advance in more sustainable goods, services and technologies, that concerns mainly governments and companies.
Language	<i>English</i>
Partner	<i>UMA Ana María Castillo Clavero</i>
Further references	<p>Europe Waste Management and Recycling: https://environment.ec.europa.eu/topics/waste-and-recycling_en</p> <p>The Water Footprint Organisation: https://waterfootprint.org/en/water-footprint/what-is-water-footprint/</p>

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	<p>The Carbon Footprint Website: https://www.carbonfootprint.com/</p> <p>Why to buy second hand items: https://goodonyou.eco/is-shopping-second-hand-sustainable/</p>
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