

Waste – Course 1

MOOC

TOURISM AND WASTE





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INTRODUCTION

European law considers as waste: "any substance or object which the holder discards or is required to discard under the national provisions in force". Usually, end-of-life products that no longer have any immediate use are considered as waste.

Today, a large part of the goods that we use or consume on a daily basis are doomed to become future waste. Whether directly or indirectly, we produce waste every day as part of our activities, especially on vacation when our habits are turned upside down. Every gesture counts to shift our current behavior towards more sustainable lifestyles. This MOOC presents you some solutions, which we hope will allow you to support your current approaches in connection with waste treatment.

1. Lesson 1: Changes in consumption trends and the emergence of the "waste" concept

European law considers waste as: "any substance or object which the holder discards or is required to discard under the national provisions in force". Usually, end-of-life products that no longer have any immediate use are considered as waste.

HISTORICAL CONTEXT ...

On the prehistory, our ancestors, then nomads, simply abandoned their biodegradable waste in nature. The sedentarization of mankind had the effect of increasing the concentration of waste produced at the scale of a site. In the Middle Ages, people began to gather in cities. It was from this moment, for health reasons, that waste management emerged. Non-degradable or polluting materials began to appear with the advent of the chemical industry revolution in Europe.

In the second half of the twentieth century, our societies entered into the era of disposable and mass consumption. The average production of waste, new materials and especially plastics increased tenfold. Waste flows became difficult to manage for institutions, which started to set up more efficient collection systems. Today, the influx of global mass tourism, the democratization of low-cost modes of transport and the development of promotional travel offers are symptomatic of the disruption of our consumption patterns in relation to the biological realities that drive us. The problems encountered in the tourism sector generally reflect what is observable in all spheres of the society.

Even if some measures have been taken, the problem of waste management has still not been resolved and is proving to be more impactful and difficult to manage than the image it has so far given. In Europe, according to the European Environment Agency (EEA), more than 1.8 billion tons of household and similar waste are generated every year (equivalent to 3.5 tons per person). In 2004, each European citizen generated an average of 520 kg of waste per year. On the basis of estimated production values for the year 2020, this would rise to an average of 680 kg of waste per year, i.e. an increase of almost 50% in 25 years, mainly due to sustained growth in private consumption.

Is it the result of a lack of conviction or interest on the part of our decision-making institutions? Is it due to the inability of our societies to adapt in the long term or to understand certain developments?



"*Nothing is lost, nothing is created, everything is transformed*". This famous quotation attributed to Antoine Lavoisier, which deals with the conservation of masses during the change in the state of matter, in chemistry, sums up perfectly the following observation: collecting waste is not enough. It would be necessary to make them disappear, which is still a problem in its own right today. Waste does not disappear as it came. Depending on its nature, it can even take some time to decompose in nature and have harmful effects on the environment.

LIFESPAN OF WASTE

Waste, depending on the nature of the materials composing it, does not deteriorate at the same rate. Its lifespan can vary significantly. The degradation process of waste will depend largely on its chemical composition and the environment in which it is abandoned. Therefore, the way in which they are recovered is important. The main factors of waste degradation are:

- Climatic: atmospheric variations, natural phenomena such as the water cycle, sunlight conditions (some waste such as plastic only decomposes in sunlight), gravity and lunar attraction (rubbing action of the waves) ...
- Induced by the action of decomposers: these living beings participate directly in the decomposition of organic matter: they are microorganisms such as bacteria, fungi, algae or detritus feeders such as insects, earthworms...
- And other factors attributable to human activity, fauna and flora

As an example, here are the decomposition times for certain types of waste in ascending order:

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- **Vegetable waste (fruit peels): a few days to a few months (3 to 6 months)**
 - **Papers (tissues, paper towels and newsprint): from 3 to 12 months**
 - **Cigarette butts and chewing gum (considered plastic): 2 to 5 years**
 - **Steel (can): From 10 to 100 years old**
 - **Aluminum (can): From 200 to 500 years old**
 - **Plastics (bottles, bags): From 100 to 1,000 years old**
 - **Polystyrene: 1,000 years**
 - **Glass: 4,000 years old**

2. Lesson 2 - The contents of our bins

A classification of waste is established in the European Union in order to organize the recovery channels:

- **Inert waste:** does not decompose, does not burn and does not produce chemical or physical reactions that could harm the environment. However, they are not biodegradable. (concrete, bricks, tiles...)



- **Compostable or biodegradable waste:** such as garden waste, food scraps, etc.
- **Recyclable waste:** groups materials that can be recovered during collection for selective sorting to produce new goods (cardboard, plastic, glass).
- **Final waste:** this category is composed of waste that is no longer likely to be treated or recovered.
- **Dangerous waste:** Consumer goods with much longer life cycles than recyclable materials also have adapted recovery channels. This is particularly the case for dangerous waste, which is recovered under strict conditions. Some wastes are hazardous both to the environment and to human health. Under no circumstances should you throw them into nature or into waste water. Below are some indicators that will help you identify the danger.



Guide to the contents of our bin - produced by ADEME



Health risks



Dangerous for the environment, fauna and flora



Toxic by contact, ingestion or inhalation



Oxidising (promotes inflammation)



Explosive



Carcinogen



Corrosive



Flammable



Gas under pressure



Policies and behaviors are not uniform in terms of waste collection across Europe. However, we can consider the following trend: **more than 75% of the contents of a domestic bin have no place in it!** There is waste that could be composted, recycled or simply avoided.

3. Lesson 3 - Impact of waste production on environment

Waste, whether recovered or not, visible or not, are not harmless. It has consequences on the environment. The biggest of them, called "macro-waste", have a dramatic and direct impact on wildlife. Micro-waste, like micro-plastic, is invisible to the naked eye and can be found everywhere, in the seas, in our food, in living things and in the environment. It is difficult to measure their impact clearly. Simply put, waste have a direct impact on:

- **Air pollution:** increased risk of spontaneous fires, nauseating odors
- **Water pollution:** by infiltration into groundwater, by accumulation in surface water.



- **The proliferation and predominance of invasive species:** all types of insects and rodents. This has the effect of disrupting the organization interactions between living species.
- **The increased risk of propagation and proliferation of diseases** and pathogenic agents
- **Soil pollution:** soil acidity, reduction of its mechanical characteristics. Introduction of pollutants and toxic elements, and their assimilation into living organisms.
- **Degradation and visual pollution:** loss of interest for visitors, ugly landscapes.

This generates a non-negligible economic and heritage cost for the territories and the sustainability of tourist activity.

LITTERING: WASTE ABANDONED IN NATURE

The etymology of the word "littering" comes from the English "To litter" which means to throw, to disseminate. It translates the action of throwing or getting rid of litter on the public highway outside the places provided for this

purpose. This phenomenon has appeared with modern societies. It is indicative of changing consumption patterns and increasing mobility.

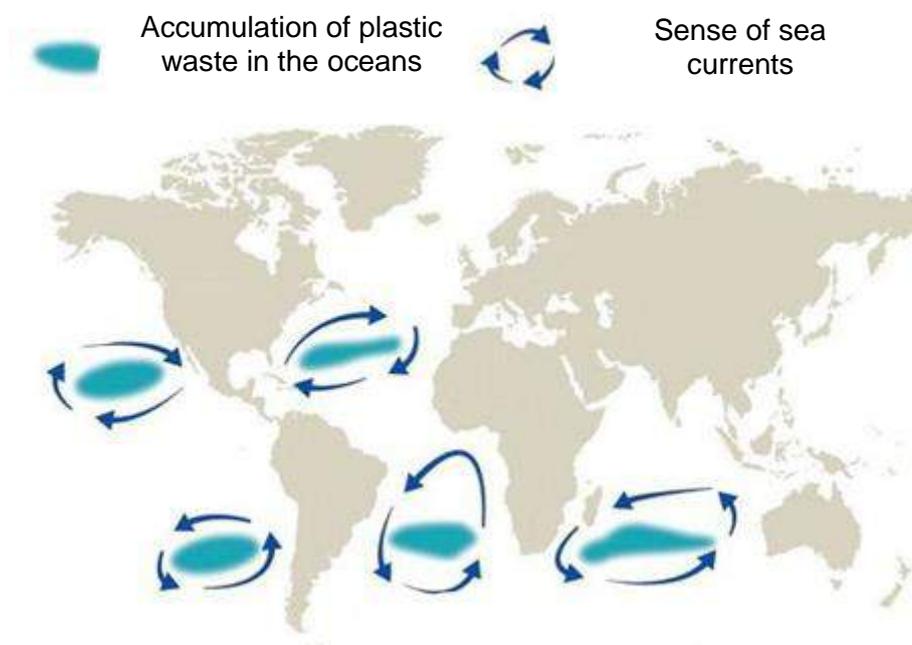
WILD DUMPS

The "Broken Windows" theory tested by the psychologist Zimbardo in 1969 demonstrates that violence leads to violence. It also applies to rubbish. A place littered with rubbish usually causes by snowball effect the appearance of increasingly large areas of rubbish dumps.

A THREAT TO OUR OCEANS

According to the Surfrider Foundation, 80% of marine waste is land-based. A large proportion of the waste produced on land is transported by ocean currents and ends up forming plastic piles in the middle of the oceans. As a result, a lot of waste ends up in the sea, damaging the marine ecosystem. The main direct risks observed are injuries related to ingestion or entanglement in plastics. Other less visible but equally dangerous problems due to their irreversible effect, such as bottom covering, chemical pollution and the contribution of invasive species, are to be feared.

Pollution also has an impact on the attractiveness of tourism. The vision of polluted landscapes can reflect a negative image of the territory. Financed by large groups such as Coca Cola, organizations such as "clean holidays" work to raise awareness of the importance of waste collection. However, removing this waste is not enough. On the contrary, these actions prevent the population from seeing the real extent of these issues.



Source : medias

4. Lesson 4 - Towards Sustainable Tourism

Over time, man's inherent propensity to be able to manage his own waste has been eroded in favor of a dehumanized waste recovery industry. Today, it is important as a citizen and consumer to re-appropriate and re-



interview the impact of our daily consumption choices, which are ultimately not as innocuous as they might seem. It is a question of "citizen re-appropriation".

This desire for change is reflected in the new alternative forms of tourism. Examples include sustainable and responsible tourism, fair tourism, solidarity tourism, participatory tourism or ecotourism. All these terms reflect a common truth: the need for tourists to find authenticity in relationships and exchanges, to reinvent the relationship with local people by giving themselves the opportunity to discover a country through the eyes of those who live there.

We hope that this MOOC on waste can be a tool for professionals on taking action. The objective is to give you some ideas to guide you in the implementation of alternatives proposed to tourists so that they can reproduce virtuous actions for the environment, during their holidays, but also at home. It is as important to act at home as it is at work or on holiday! Every gesture counts!

Many actions can be proposed on a daily basis, such as setting up a dump system or waste collection on the beach.

THE FIRST TIPS TO START!

Tip 1: Before embarking on the implementation of this type of action, it is advisable to consult all the staff of the institution beforehand in order to obtain their commitment to the approach. It is also important to raise awareness and communicate with customers.

Tip 2: Keep it realistic, without sacrifice or loss of time. Do not sacrifice yourself on other aspects of the operation of the establishment.

Tip 3: Aim for possible or realistic goals that are adapted to your situation! Always keep things as simple and quick as possible to avoid getting bored. This should not lead you to have to invest heavily in the purchase of equipment, services or other products...

Tip 4: Choose actions that you like and try to do things yourself. The primary goal will be to simplify your daily life and derive satisfaction from it.

Tip 5: Don't try to coerce or convince, but rather encourage people by adopting a guilt-free attitude, and by showing the example.

WHAT'S NEXT?

The MOOC is designed to guide you through various practical principles in order to reduce consumption waste. The structure is partly inspired by the 5 R's method popularized by the blogger Béa Johnson, which can be summarized in 5 principles:



"**Refuse**" all single-use products and favor bulk products.

"**Reduce**" your consumption of goods

"**Reuse**" (repair) all goods that can be reused in order to give them a second life.

"**Recycle**" anything that cannot be reused before throwing away

"**Rot**" organic and biodegradable waste

In this course, we offer you an adapted vision of the method. Enjoy your reading!



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