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SUSTAINABILITY

Water footprint examples for everyday products
and the ways to reduce our impact

Italy-6.1



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Even though there is a lot of water on our planet we tend to be selfish and we use it in an inappropriate way and this is very bad for our planet because it is not an unlimited resource so it is important not to waste it. In other countries there is not enough water for the whole population for example country in the south of Africa when there is a lot of pollution and the population can't go on any longer with such a terrible situation when even the water is polluted and some people have to travel lots of miles in order to take some drinkable water.



Not only poor country cannot afford water but there is also the climate change that is causing a rising of the temperature in these nations so water tends to be rare because it evaporates faster and there are lots of droughts because of the high heat, in fact cases of drainage of rivers and drinking water streams are increasingly less rare.

The prolonged absence of water in the soils periodically makes it difficult for the dry soil to absorb new water, so it cannot absorb enough water during heavy rains making the territory more subject to flooding events.

Climate change also causes the melting of glaciers, which in the long run will cause the sea and oceans to rise, the disappearance of areas on earth and the extinction of some animal species.

The problem of water waste derives mainly from the more developed countries such as China (362 billion litres per year), the United States (216 billion litres per year) and Brazil (95 billion litres per year) ¹.



In Europe, on the other hand, the country that consumes the most water is Italy with a use of 150/240c litres per person every day. ² In Italy we tend to throw away water when we cook pasta instead of reusing it, in fact it costs a lot of water every year.

Not only in Italy, but also in other countries, water is used in industries in order to produce everyday products.

One of the other causes of the pollution and overuse of the water is the constant growth of the population because of the increase in the consumption of service who need to consume more water, for example the naturally used Omnivorous diets consume a bigger quantity of water than vegetarian diets. All this thing can be measured with the Water footprint, it does not measure the volume of all the water used but it measures the water that after you use it you cannot for a shorter or a longer time reuse it but you can reduce it if you reuse the water. ³



There are a lot of problems caused by the scarcity of water and its pollution; there are problems for the humans, for the animals but also problems for the ecosystem of the entire planet. The biggest problem for humanity is the impossibility of reaching drinking water because even if the planet is covered more than 70% by water only the 3% is drinking water and around the two-thirds of it is contained in the glacier so the real drinking water is only a little percentage.

So, more of the water is overused, so it becomes more difficult to reach it. This generates more problems, for example the war for the control of territory with a huge quantitative of water, it can cause the diffusion of infection currently restricted only in a small area or cause big waves of migration to more habitable zones. ⁴ We cannot ignore the problems the scarcity and the pollution of water cause at the animals, the species who will feel more the consequences are the fish because part of their habitat disappear or became unlivable.



<https://www.pexels.com/it-it/photo-by/Maxime-Francis>

Also the ground animals can have problems because less water doesn't only mean they can't drink but also the plant cannot live and this causes the destruction of the ecosystem and the resulting reduction of the food. Over the last 50 years, the demand for water has grown significantly due to increasing population and new lifestyles. Water stress has also inevitably increased: according to the most recent estimates, 3.2 billion people in the world live in agricultural areas where water is scarce or very scarce, with 1.2 billion of them (around one sixth of the world population) living in areas where there is an extreme lack of water.



In this respect, farming plays a key role, in fact omnivorous diets are generally more water intensive to produce than vegetarian diets. Climate change is also affecting the use of water resources, as warmer temperatures, erratic rainfall, and extreme weather events raise demand for water by farmers, industries, households, and power producers. For example to produce one kg of vegetables we need 336 liters of water, (intensive farming) for one kg of dried legumes we need about 4,615, for one kg of pork 6,299 and as much as 15,139 liters to produce one kg of beef because not all foods have the same water footprint.

(Intensive breeding) The water footprint measures the amount of water used to produce each of the goods and services we use. It can be measured for a single process, such as growing rice, for a product, such as a pair of jeans, for the fuel we put in our car.

The main drivers for the overuse and pollution of water in rivers, lakes, and groundwater bodies are population growth and economic development.

More people means more consumption of goods and services that require water for their production, and wealthier people typically consume more goods and services per person.



<https://www.pexels.com/it-it/photo>
by Santiago De La Colina



<https://www.pexels.com/it-it/photo>
by Nabi Sohrabi

To calculate and reduce our water footprint, it is important to understand which habits and daily actions cause the greatest waste of water. If the entire world population were to adopt the Western diet with a strong presence of meat, the consumption of water for the production of food would increase by 75%, while 2 liters of water per day per capita could be saved by adopting the Vegetarian Diet. But it is not only through food that the water footprint can be reduced.

Here are 10 tips to reduce our water footprint:

- 1) use ecological detergents, decreasing the number of daily or weekly washing machines and dishwashers,
- 2) use appliances in energy class A which help in saving energy,
- 3) recycle and dispose of waste in the correct way, especially plastic, which is the first cause of water pollution in rivers, lakes and seas,
- 4) reduce food waste,
- 5) if possible, prefer the shower to the bath, one third of water is consumed,
- 6) drink tap water, if properly filtered, rather than buying water at the supermarket; in addition to reducing your water consumption, you will also be good for your health,
- 7) do not use the toilet as a garbage can: every time you flush the toilet, an average of 7 liters of water go away.
- 8) We prefer the dishwasher to washing dishes by hand: less water is wasted, however, if we run it at full load!
- 9) Turn off the tap when not needed, for example while brushing your teeth or shaving,
- 10) watering the garden plants and balcony flowers in the evening, in addition to saving water (which does not evaporate) we will obtain better results, because the leaves and petals wet in the sun risk burning! To know where to start and how to reduce water consumption, it is important to know where each of us wastes this resource the most, in order to improve our lifestyle and make it more sustainable. ⁵



At the same time it is necessary to invest in the maintenance of the water network, avoiding waste of drinking water to preserve this essential resource for human life. The joint action of water saving, responsible management and sustainable use of water can ensure a significant reduction in the water footprint. Furthermore, do not forget the importance of reducing water pollution, promoting not only an optimal use of this precious resource, but also the protection of water quality by minimizing the contamination of groundwater, rivers and lakes. ⁶

This dissertation provides a broader view of water resources, leading to light the true amount of water flowing through our consumption of goods first necessities, as well as in our production. Water footprint analysis is a tool to measure this invisible consumption of water resources, which is a lot higher than our domestic water uses.

Bringing the invisible to light, helping to do clarity about real water needs, can make a big difference to resources water of the planet. Every sector of society is involved, either directly or indirectly, in the use of water. In particular, citizens, industry, agriculture and financial institutions can make a difference. Below is a vademecum (it is of a first attempt which has no claim to be exhaustive) of what each sector should do in the road towards the sustainable management of this precious resource.



In the agricultural sector, the great challenge is to maximize efficiency and effectiveness of irrigation and fully exploit the unexploited potential of rainwater. In the industrial sector, water efficiency is now not only possible, but also necessary, in the light of the consequent economic efficiency that follows from it.

In the financial sector, the promotion of water efficiency is not immediately perceived as a priority. In reality, financial institutions, which grant credit to industries and producers – large, small and medium-sized enterprises – they should strongly contribute to the promotion of water efficiency and good management of our domestic and foreign water resources.

What can we all do?

We citizens, willy-nilly, in the process of production and consumption of the water footprint we are considered to all intents and purposes gods consumers. We consume both domestic water and water used in production of the products we use every day.



Our role may seem silent but it is an explicit and essential opposite. In addition to the daily water savings in our homes, we can promote better water management, in the world and in our country, through simple but precise measures.

We choose foods that do not have a high cost of water in its production process.

For example, let's avoid fruit and vegetables that come from notoriously desert countries and we prefer local products, of season or coming from areas rich in water.

We significantly decrease, gradually or permanently, the consumption of meat especially if it comes from intensive farming.⁷



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