

Unveiling the Invisible: The Importance of Water Footprint

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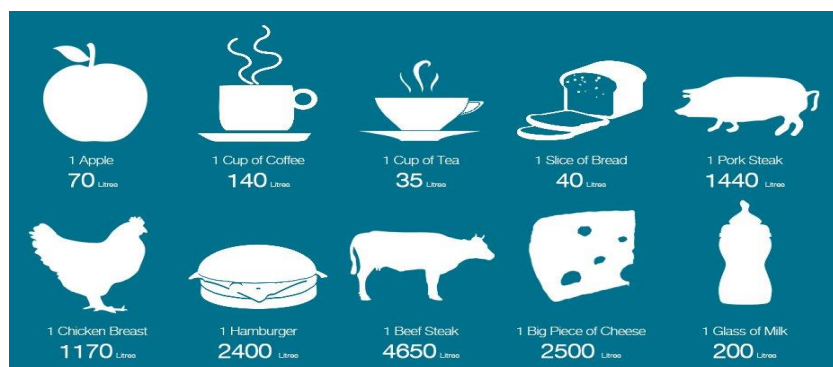
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Introduction

In the growing concerns of environment, more steps are taken by the researcher, environmentalist and governments to protect our natural ecosystems from air pollution, land pollution, water pollution, climate change and deforestations. The population is increasing day by day at an enormous amount and water sources are decreasing. To prevent the scarcity of water, we should conserve more and understand the concept of water footprint in 21st Century.

Water footprint

The water footprint of an individual, community or business is defined as the total volume of fresh water used to produce the goods and services consumed by the individual or community or produced by the business. It includes the water it took to produce the food you eat, the products you buy, the energy you consume and even the water you save when you recycle. The use of water may be direct use or indirect use. Direct use is the usage of water by means of direct consumption. Water we use for gardening, cleaning vessels, bathing and washing clothes. Indirect use is the virtual water use, you may not drink, feel or see this water but it makes up the majority of your water footprint. For eg: 1 cup of coffee needs 140 litres of water which means, a cup of coffee needs 140 litres of water to grow, produce, package and ship the beans. It takes a lot of water to produce gasoline. On average, 1 mile driven = about 3/4 of a gallon of water (Johnny Wood,2019)

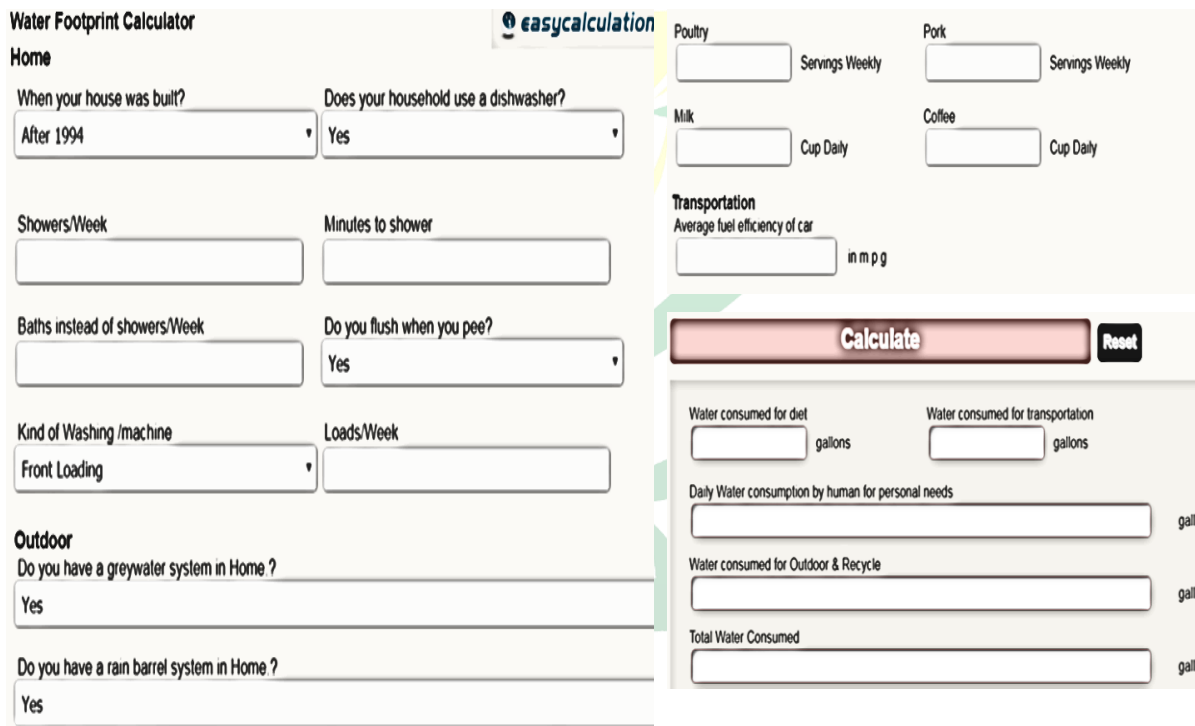


A water footprint generally breaks down into three components: the blue, green and grey water footprint. The blue water footprint is the volume of freshwater that is evaporated from the global blue water resources (surface and ground water). The green water footprint is the volume of water evaporated from the global green water resources (rainwater stored in the soil). The grey water footprint is the volume of polluted water, which is quantified as the volume of water that is required to dilute pollutants to such an extent that the quality of the ambient water remains above agreed water quality standards (Mekonnen and Hoekstra, 2011).

Water footprint calculator

Number of online websites are available to calculate our water footprints. Some of them are Huella hidrica and United Explanations on water footprint (<https://www.active.sustainability.Com/sustainable-life/calculate-water-footprint/>), water calculator and UNESCO- IHE. The image below illustrates the process of evaluating one's personal water footprint.

Individual water footprint calculation method



In addition to this, we can calculate product water footprint and national footprint also. This type of model should be developed in all the fields of business to know their water footprint. Limit should be monitored by the authorities to check the footprints level. The



percentage of purity and level of ground water level gets decreased due to the produce of products using more virtual water. Eg. Soft drinks

Conclusion

As we navigate the complexities of the modern world, understanding our water footprint is more important than ever. By unraveling the invisible threads that connect us to the global water crisis, we can become more conscious consumers and stewards of the environment. Let's take the first step towards a more sustainable future by embracing the power of our choices and preserving the life-giving force of water for generations to come. As the world population expands, so does the need for fresh water.

References

- Huella hidrica and United Explanations, <https://www.activesustainability.com/sustainable-life/calculate-water-footprint/>
- Johnny Wood (2019) Agriculture, Food and Beverage. World Economic Forum
- Mekonnen, M. M., & Hoekstra, A. Y. (2011). The green, blue and grey water footprint of crops and derived crop products. *Hydrology and Earth System Sciences*, 15(5), 1577-1600.