<http://www.footprintnetwork.org/en/index.php/GFN/page/frequently_asked_questions/>

**Read World Footprint:** <http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint/>

**Earth Overshoot Day:**

<http://www.footprintnetwork.org/en/index.php/GFN/page/earth_overshoot_day/>

August 21st marks an unfortunate milestone: the day in which we exhaust our ecological budget for the year. Once we pass this day, humanity will have demanded all the ecological services – from filtering CO2 to producing the raw materials for food – that nature can provide this year. From that point until the end of the year, we meet our ecological demand by liquidating resource stocks and accumulating carbon dioxide in the atmosphere.

**What is a global hectare?**

A global hectare is a common unit that encompasses the average productivity of all the biologically productive land and sea area in the world in a given year. Biologically productive areas include cropland, forest and fishing grounds, and do not include deserts, glaciers and the open ocean.

Using a common unit, i.e., global hectares, allows for different types of land to be compared using a common denominator. Equivalence factors are used to convert physical hectares of different types of land, such as cropland and pasture, into the common unit of global hectares.

Global hectares can also be converted into global acres.

**What is biocapacity?**

Biocapacity is shorthand for biological capacity, which is the ability of an ecosystem to produce useful biological materials and to absorb wastes generated by humans.

**What is overshoot?**

Overshoot, which in this context is shorthand for ecological overshoot, occurs when a population’s demand on an ecosystem exceeds the capacity of that ecosystem to regenerate the resources it consumes and to absorb its wastes.

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**What is the Water Footprint, and how is it related to the Ecological Footprint?**

Though they are often compared and contrasted, Ecological Footprints and Water Footprints are, as indicators, fundamentally incapable of being substituted. The Ecological Footprint does not, and is not intended to measure freshwater flows. Because this is nevertheless a vital renewable resource, in 2002, A.Y. Hoekstra proposed that the Water Footprint be created as a sustainable water use indicator measuring the total volume of freshwater directly or indirectly used by a population.

In essence, the Ecological Footprint measures the biological capacity a population uses and the Water Footprint measures the freshwater a population uses. They each provide a different piece of information in the sustainability puzzle. Instead of being seen as competing metrics, they should be seen as two complementary indicators of natural capital use in relation to human consumption.

**How does the Ecological Footprint treat water usage?**

The Ecological Footprint of a biological resource represents the amount of biologically productive land and water area required to produce that material. Although freshwater is a natural resource cycled *through* the biosphere, and related to many of the biosphere’s critical goods and services, it is not itself a material made by biologically productive area, or a waste absorbed by it. Ecosystems simply do not create water in the same manner as timber, fish, or fiber products.

As a result, the Footprint of a given quantity of water cannot be calculated with yield values in the same manner as a quantity of crop or wood product. When values for a ‘water footprint’ are reported, these are most commonly refer to either a measurement of total liters of water consumed, or to the Ecological Footprint required for a utility to provide a given supply of water. A water footprint can also be calculated based on the area of catchments or recharge zone needed to supply a given quantity of water. The area obtained from this calculation, however, cannot be added to other Ecological Footprint land areas, as this would create double counting (a forest, for example, can be used for both timber production and as a water catchment, but adding these two values together would count the amount of forest available twice).

Ecological Footprint accounts do directly reflect the influence of water availability on the biocapacity of ecosystems. Estimates of the amount of biocapacity that is dependent on freshwater supply, or of the lost capacity associated with water use for non-bioproductive purposes, could be calculated. As the relationship between freshwater and biological capacity is highly site specific, this analysis would need to be completed at a regional or local scale on a case-by-case basis.

**Is the Ecological Footprint the same as the carbon footprint?**

Recently, a number of organizations and governments have begun using the term ‘carbon footprint’ to refer to the quantities of carbon dioxide emissions associated with an activity, process, or product. This carbon footprint, typically measured in tonnes of carbon dioxide, is an initial step towards calculating a full carbon Footprint, which in turn is one piece of the total Ecological Footprint. A carbon Footprint translates tonnes of carbon dioxide released into the demand this places on biological capacity, measured in terms of the total area, in global hectares, required to sequester these carbon emissions.

The carbon Footprint adds value to simple carbon emissions data in two ways:

* The carbon Footprint puts the magnitude of emissions into a meaningful context. Many people do not know how to interpret 1,000 tonnes of carbon emissions, but they can easily understand that if 1,000 global hectares would be required to absorb this carbon, but only 500 global hectares are available, this is a problem if we want to prevent this waste product from building up around us.
* The Ecological Footprint provides an overarching systems perspective that can reveal spill-over effects, when reducing demand in one area leads to an increase in demand elsewhere. For example, will shifting from fossil fuels to biomass fuels decrease or increase humanity’s overall demand on the planet’s biological capacity? Would increasing the use of biomass fuels be more or less effective than returning cropland to forest cover?

<http://www.footprintnetwork.org/en/index.php/GFN/page/carbon_footprint/>



Today, the term “carbon footprint” is often used as shorthand for the amount of carbon (usually in tonnes) being emitted by an activity or organization. The carbon component of the Ecological Footprint takes a slightly differing approach, translating the amount of carbon dioxide into the amount of productive land and sea area required to sequester carbon dioxide emissions. This tells us the demand on the planet that results from burning fossil fuels. Measuring it in this way offers a few key advantages.

**The Ecological Footprint and Climate Change**

Global climate change is one of humanity’s greatest challenges; addressing it is key to our long-term well-being and the continued vitality of our societies. As we move forward to address this urgent threat, international agreements will be crucial if we are to reverse our perilous course. Yet, it is also key that governments recognize the importance of acting decisively regardless of what others are doing.

As human pressure on resources escalates, those cities, states and countries with the least carbon-intensive, most resource-efficient economies will flourish, while those requiring cheap and plentiful access to ecological services will become extremely vulnerable and will lose out. It therefore in the interest of any city, state or country that wishes to continue to be competitive and provide for the well-being of its population to act first and act boldly.

When we view carbon within the broader context of the Footprint framework, it becomes clear: aggressive sustainability policies are not a romantic gift to Mother Nature or abstract humanity that come at the expense of citizens’ quality of life. Indeed, they are the only way a high quality of life can be secured.

 **What goes into the “services” category of my Footprint?**

Your Footprint includes activities in the services category that are not considered personal, but societal. These areas include (but are not limited to) health care, entertainment, restaurants, real estate, legal services, government and the military. These services are not variable in the calculator: everyone taking the quiz has a portion of their nation’s “services” Footprint allocated to them.

**Why can’t I get my Footprint score within the means of one planet?**

A person’s Ecological Footprint includes both personal and societal impacts. The Footprint associated with food, mobility, and goods is easier for you to directly influence through lifestyle choices (eating less meat, driving less, etc). However a person’s Footprint also includes societal impacts or “services”, such as government assistance, roads and infrastructure, public services, and the military of the country that they live in. All citizens of the country are allocated their share of these societal impacts.

The Footprint of these societal impacts (i.e. the “services” category of your Footprint score) does not vary, and therefore in some nations it is not possible to reduce your Footprint to below one planet.

This is why, if we want to achieve sustainability, we need to focus on two things: both our own lifestyle as well as influencing our governments. Even with significant changes in individual behavior, a large portion of a personal Footprint comes from the way national infrastructure is designed, goods are produced, and government and public services operate.

In order to allow their citizens to achieve a lifestyle that fits within one planet, governments need to dramatically improve the efficiency of the built environment and invest in renewable energy and smart land-use planning.