

THE ECOLOGICAL FOOTPRINT: Tracking Human Demand on Nature

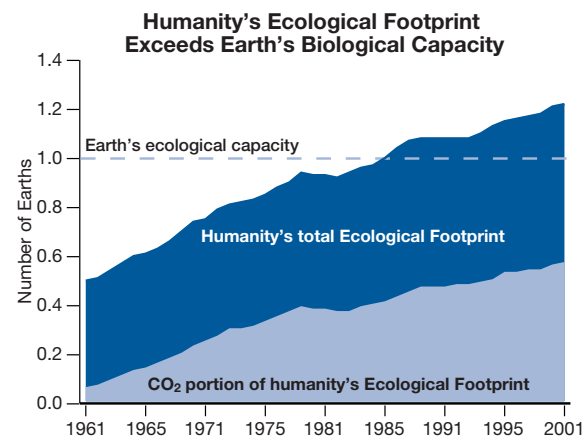


The human economy is embedded in the biosphere and is entirely dependent on its ecological services. In consuming nature's products and services, people have an impact on the Earth. But since nature has the ability to renew, it can cope with human demand as long as this demand stays within the regenerative capacity of the biosphere.

Ecological Footprint accounting documents the extent to which human economies stay within the regenerative capacity of the planet, and who uses which portion of this capacity.

Such biophysical resource accounting is possible because resources and waste flows can be tracked, and most of these flows can be associated with the biologically productive areas required to maintain them. The Ecological Footprint of a population is the area of biologically productive land and sea required to produce the resources this population consumes, and to assimilate the wastes it generates, given prevailing technology. Since people use resources from all over the world and pollute far away places with their waste, the Ecological Footprint includes these areas wherever they happen to be located on the planet.

By measuring the overall supply of and human demand on the Earth's regenerative capacity, the Ecological Footprint provides an indispensable tool for tracking progress, setting targets, and driving policies for sustainability.



Ecological Footprint comparisons of human demand on nature with nature's regenerative capacity are updated each year. Recent calculations, published in WWF's *Living Planet Report*, show that the average Australian required over 7.7 global average hectares (or *19 acres*) to provide for his or her consumption. The average

Italian lived on a Footprint less than half that size (3.8 global hectares or *9 acres*). The average Mexican occupies 2.5 global hectares (*6 acres*), the average Indian lives on 0.8 global hectares (*2 acres*). Average demand globally is 2.2 hectares per person (*5.4 acres*).

In contrast, globally there are currently 1.8 hectares (4.5 acres) of biologically productive land and sea area available per person. Maintenance of biodiversity also depends on this area. Comparison of supply and demand shows that humanity's Ecological Footprint exceeds the Earth's biocapacity by over 20 percent ($2.2\text{ha}/1.8\text{ha} = 1.2$). In other words, it now takes one year and more than two months to regenerate the resources humanity consumes in one year.

The Ecological Footprint can be applied at scales from single products to households, organizations, cities, regions, nations, and humanity as a whole.

More on the science behind these Ecological Footprint accounts and examples of how they are used to advance sustainability can be found on the website: www.footprintnetwork.org