src

<https://www.kaggle.com/footprintnetwork/ecological-footprint>

notebooks

<https://www.kaggle.com/jonathanbouchet/global-ecological-footprint>

Context

The ecological footprint measures the ecological assets that a given population requires to produce the natural resources it consumes (including plant-based food and fiber products, livestock and fish products, timber and other forest products, space for urban infrastructure) and to absorb its waste, especially carbon emissions. The footprint tracks the use of six categories of productive surface areas: cropland, grazing land, fishing grounds, built-up (or urban) land, forest area, and carbon demand on land.

A nation’s biocapacity represents the productivity of its ecological assets, including cropland, grazing land, forest land, fishing grounds, and built-up land. These areas, especially if left unharvested, can also absorb much of the waste we generate, especially our carbon emissions.

Both the ecological footprint and biocapacity are expressed in global hectares — globally comparable, standardized hectares with world average productivity.

If a population’s ecological footprint exceeds the region’s biocapacity, that region runs an ecological deficit. Its demand for the goods and services that its land and seas can provide — fruits and vegetables, meat, fish, wood, cotton for clothing, and carbon dioxide absorption — exceeds what the region’s ecosystems can renew. A region in ecological deficit meets demand by importing, liquidating its own ecological assets (such as overfishing), and/or emitting carbon dioxide into the atmosphere. If a region’s biocapacity exceeds its ecological footprint, it has an ecological reserve.

Acknowledgements

The ecological footprint measure was conceived by Mathis Wackernagel and William Rees at the University of British Columbia. Ecological footprint data was provided by the Global Footprint Network.

Inspiration

Is your country running an ecological deficit, consuming more resources than it can produce per year? Which countries have the greatest ecological deficits or reserves? Do they consume less or produce more than the average country? When will Earth Overshoot Day, the day on the calendar when humanity has used one year of natural resources, occur in 2017?