

From sustainability to regeneration: **Which numbers count?**

Mathis Wackernagel, Ph.D.



“Inconvenient Truth?”

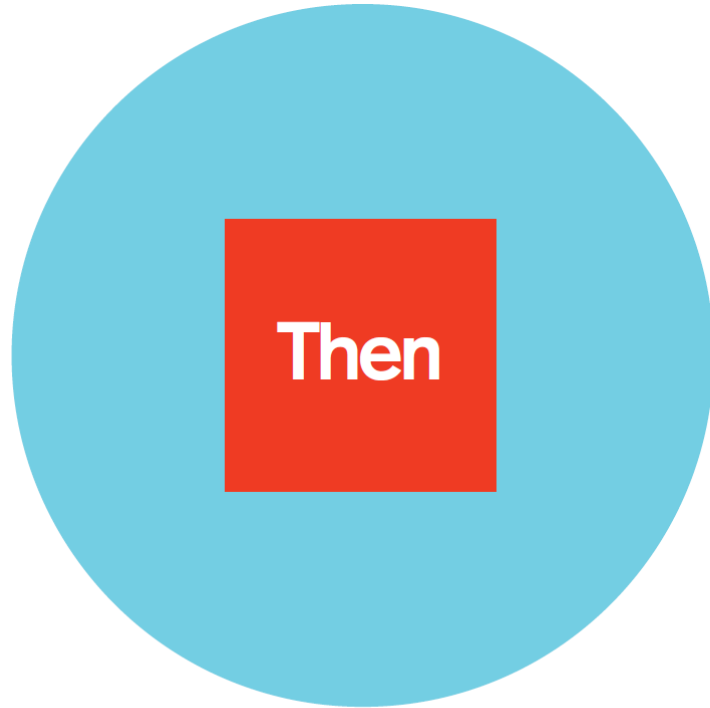


Global Footprint Network®
Advancing the Science of Sustainability

The future has never been more predictable:
with more climate change, fewer ecological
resources, and less to zero fossil fuel.

Can you afford not to be ready for the
predictable future?

**The rules of the
game have changed.**



An empty world allows for unlimited production of goods.

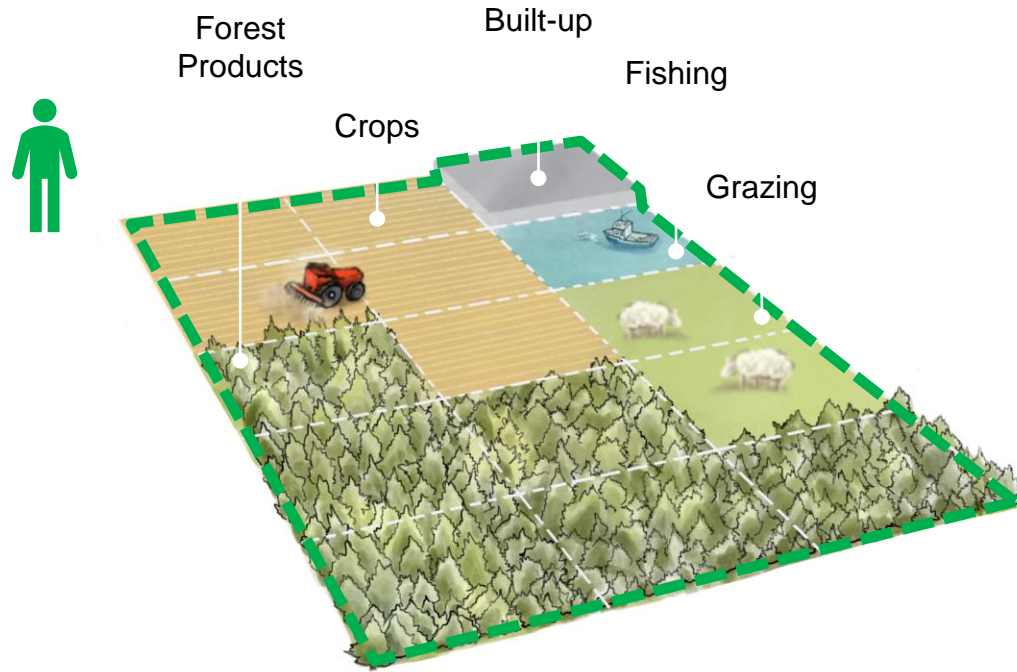
■ Economy
● Biosphere


Overshoot



A full world turns the economy into a global auction.

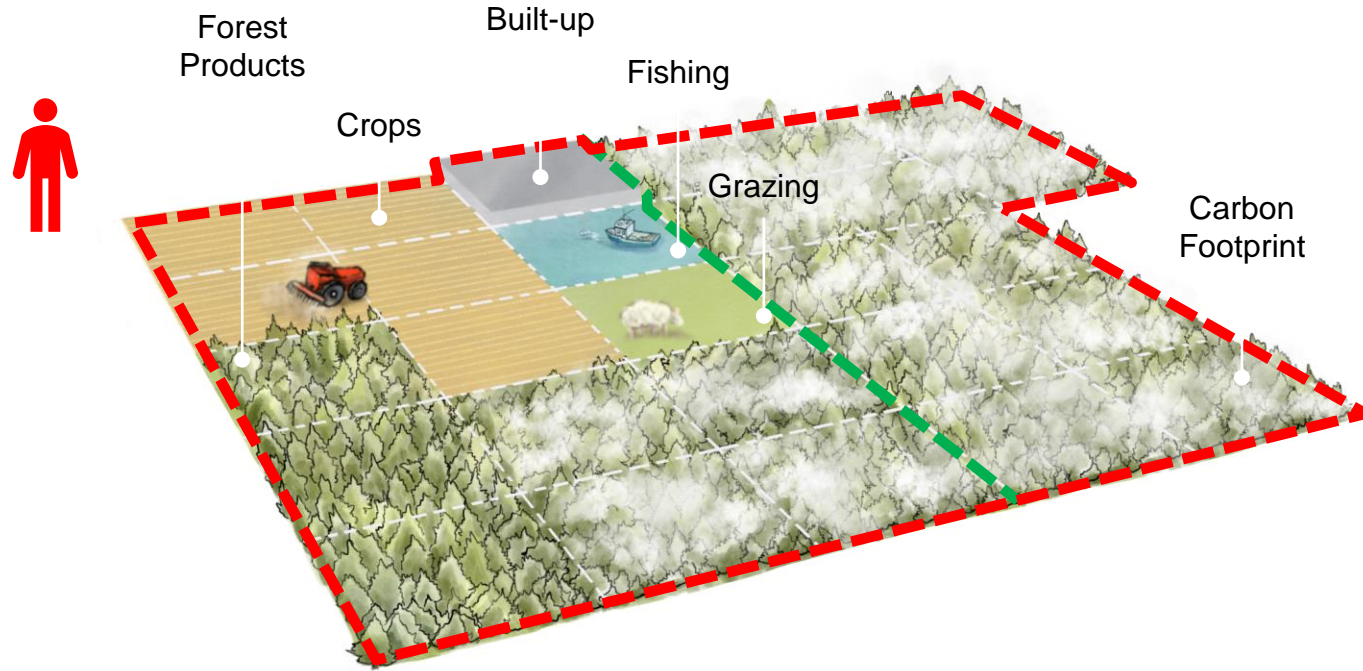
Our biocapacity per person in the world (2022)



12.3 (billion ha)  **8.0** (billion people) = **1.54** (global ha/ person)



Our global Ecological Footprint per person (2022)



Global Footprint Network®
Advancing the Science of Sustainability

21.5 (billion global ha)



8.0 (billion people)

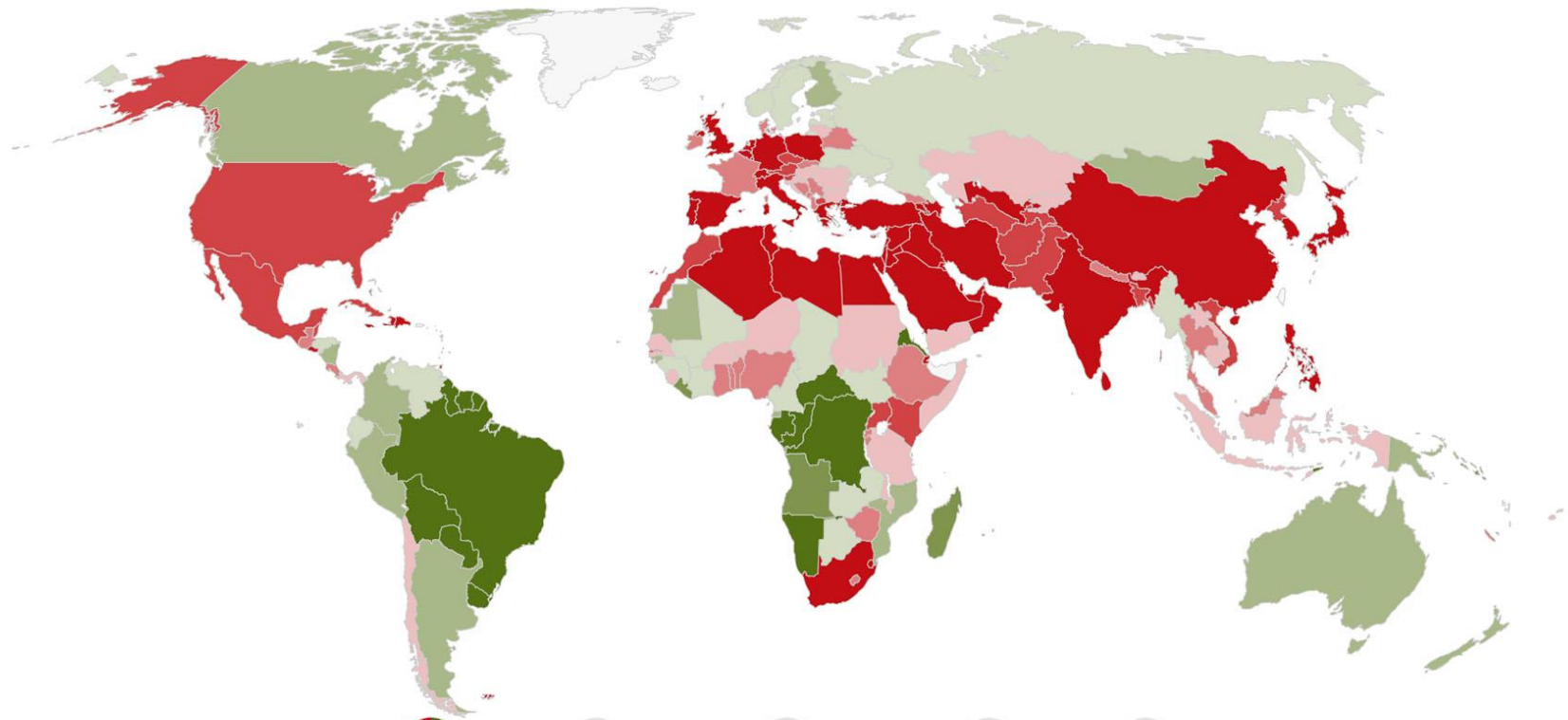
=

2.70 (global ha/ person)

In 2022, humanity was using
1.75 Earths.

Therefore in 2022,
Earth Overshoot Day
fell on **July 28.**





data.footprintnetwork.org



ECOLOGICAL
DEFICIT/RESERVE



TOTAL ECOLOGICAL
FOOTPRINT



ECOLOGICAL FOOTPRINT
PER PERSON



TOTAL BIOCAPACITY



BIOCAPACITY
PER PERSON



Global Footprint Network®
Advancing the Science of Sustainability

ECOLOGICAL DEFICIT/RESERVE

An ecological deficit occurs when the Ecological Footprint of a population exceeds the biocapacity of the area available to that population. A national ecological deficit means that the nation is importing biocapacity through trade, liquidating national ecological assets or emitting carbon dioxide waste into the atmosphere. An ecological reserve exists when the biocapacity of a region exceeds its population's Ecological Footprint.

BIOCAPACITY CREDITORS

BIOCAPACITY GREATER THAN FOOTPRINT

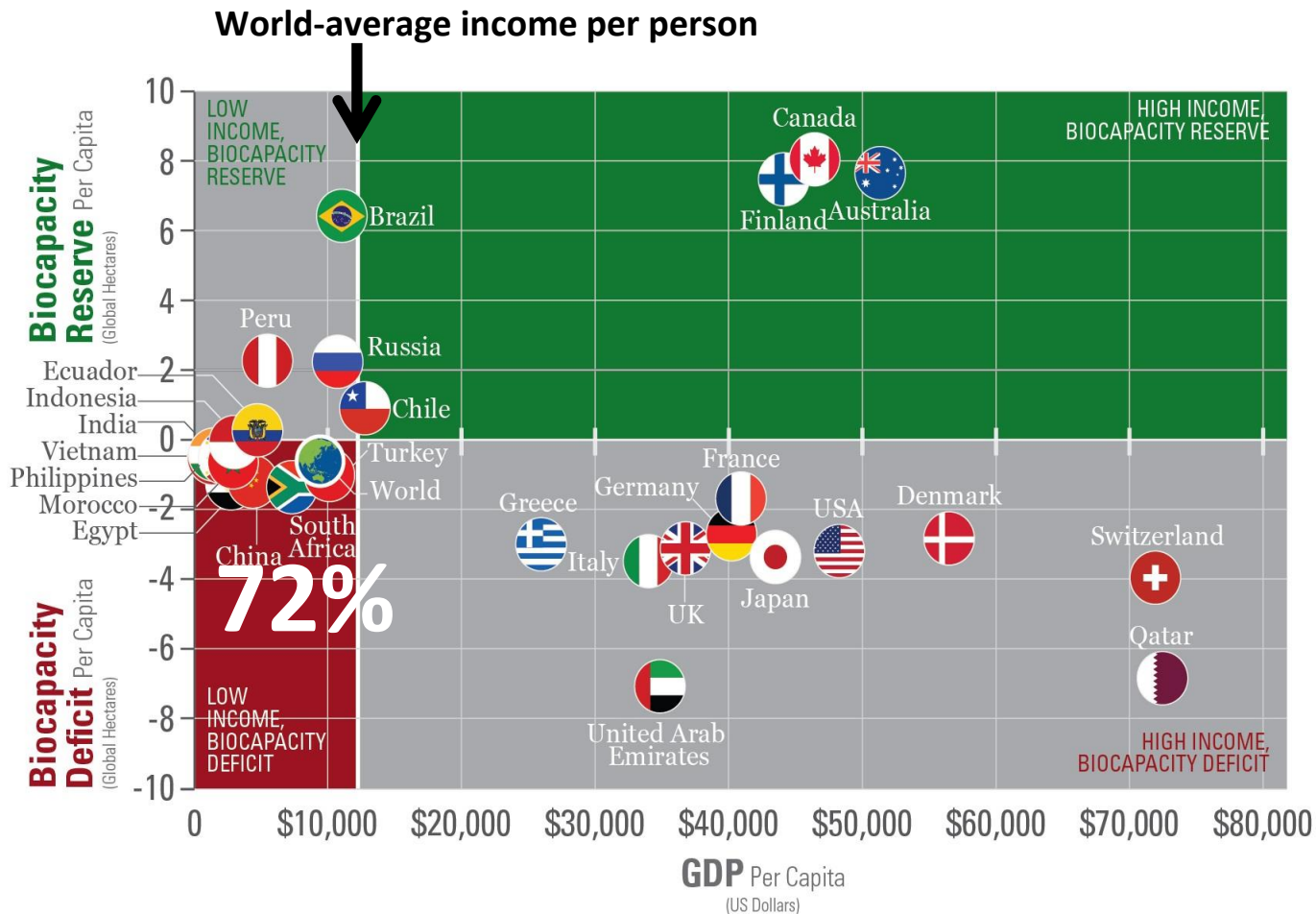


BIOCAPACITY DEBTORS

FOOTPRINT GREATER THAN BIOCAPACITY

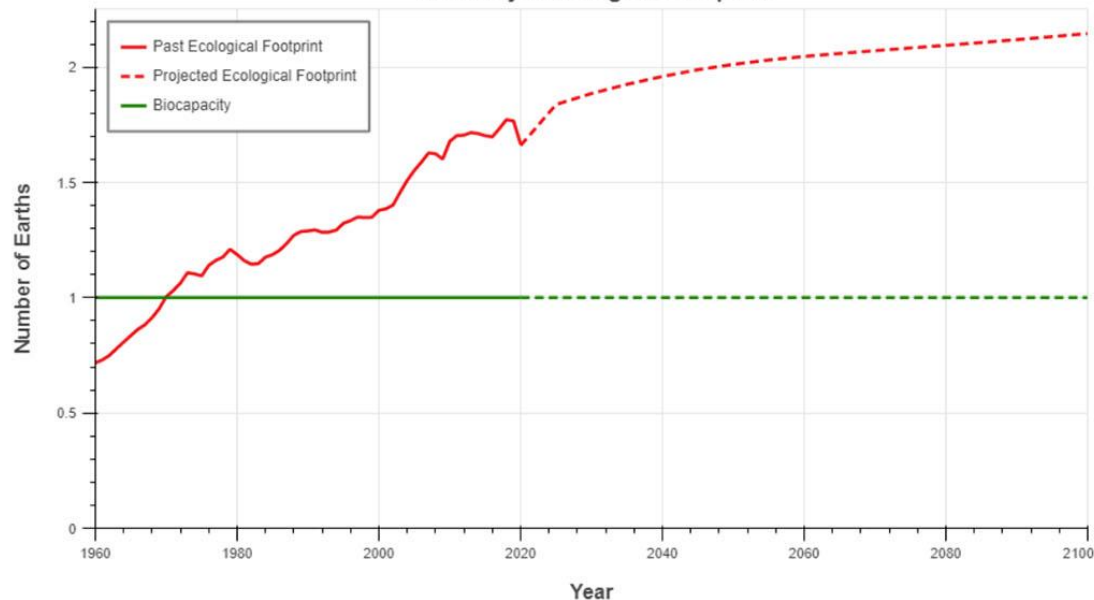


Biological Resources



\$ Financial Resources

Humanity's Ecological Footprint



Associated ecological debt
(in Earth-years) by 2100:

101

What is ecological debt?

Ecological debt is the sum of the annual ecological deficits. For details, see the explanations below.

[www.footprintnetwork.org/
resources/footprint-
scenario-tool](http://www.footprintnetwork.org/resources/footprint-scenario-tool)

Years until change is fully implemented:

5

Fertility rate: 2.33

The global average fertility rate in 2019 was about **2.40** children per woman.

Increase in the average age of motherhood (years): 0

The current global average age of childbearing is **28.2 years**.

Years until change is fully implemented:

5

Ecological Footprint per capita: 2.77

Currently, humanity's Ecological Footprint is approximately **2.77 global hectares** per person.

[Learn more about Ecological Footprint here](#)

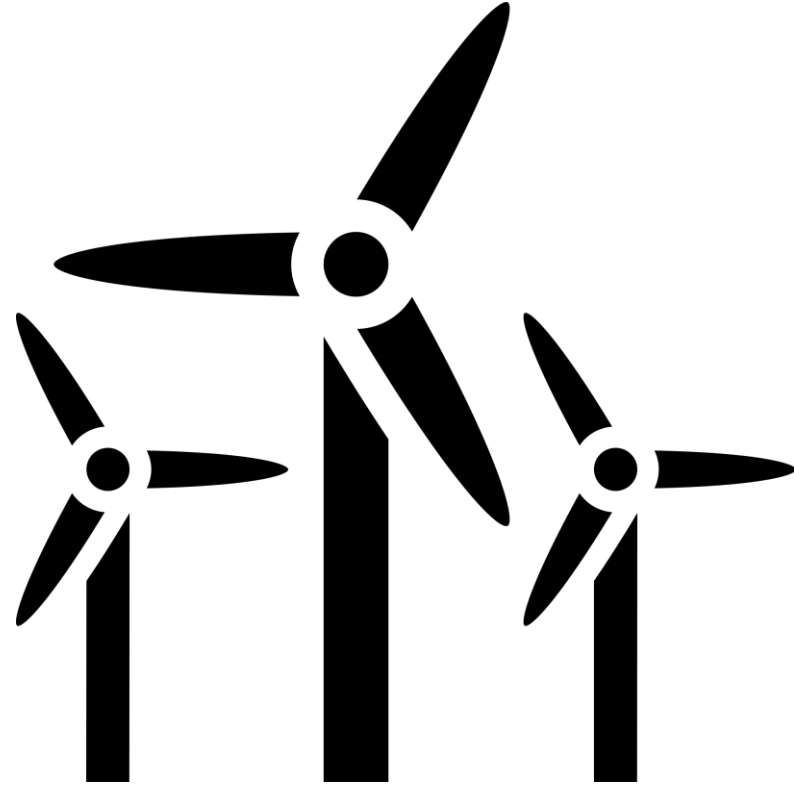


Global Footprint Network®
Advancing the Science of Sustainability

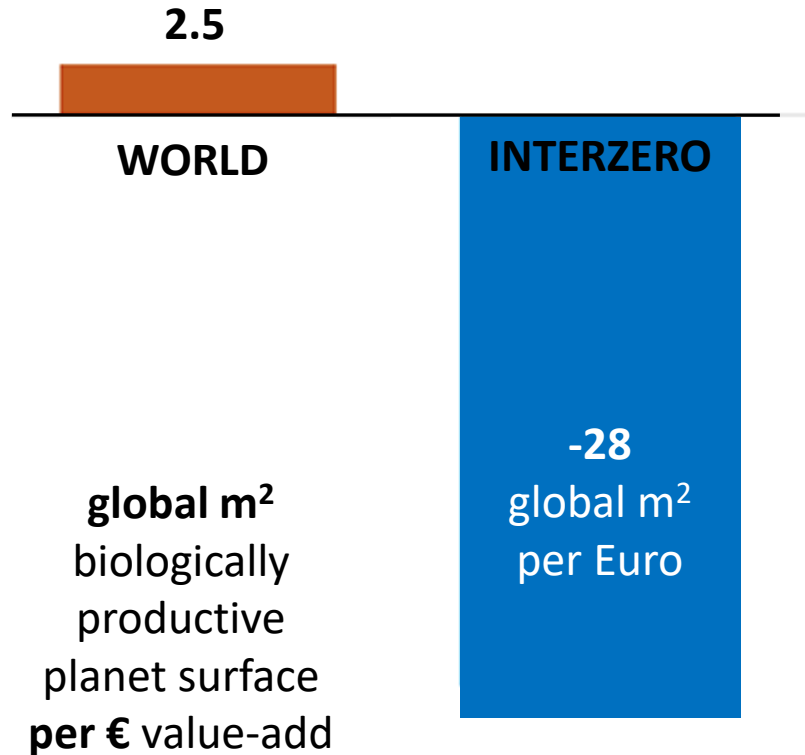
When your company expands, does global overshoot go down?

If so, the likelihood of your company gaining in value in the predictable future is far higher.

Company expands,
overshoot goes up or down?



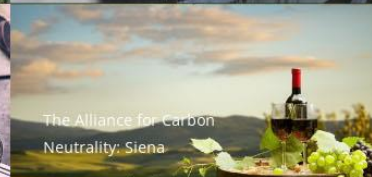
More Interzero, less global overshoot.



www.overshootday.org/power-of-possibility



[ABOUT](#) [BLOG](#) [SOLUTIONS](#) [POWER OF POSSIBILITY](#) [NEWSROOM](#) [FOR KIDS & TEACHERS](#) [SUBSCRIBE](#) [DONATE](#)



ENERGY

How we power ourselves

CITIES

How we design and manage cities

FOOD

How we feed ourselves

PLANET

How we help nature thrive

POPULATION

How many of us there are



Global Footprint Network®
Advancing the Science of Sustainability



mathis@footprintnetwork.org

www.footprintnetwork.org/TOOLS