Global Footprint Network
Advancing the Science of Sustainability

The Ecological Footprint:
Business, Biodiversity and Ecological Limits

March 5, 2008

Are we running out of planet? Will economies self-correct or self-destruct when operating as if resources are limitless? Can everyone on this planet live like the Chinese? The Costa Ricans? The Canadians? The Ecological Footprint allows decision makers to explore these questions. It also supports business managers in turning the challenges of global competition for limited resources, new environmental regulations, and consumer demand for greener products into business opportunities. This summary introduces the concept.

Living Within Our Means?

The Ecological Footprint tracks **demand on nature** in terms of the area[1] of biologically productive land and water needed to provide natural resources and services to support a population, an individual or an activity.

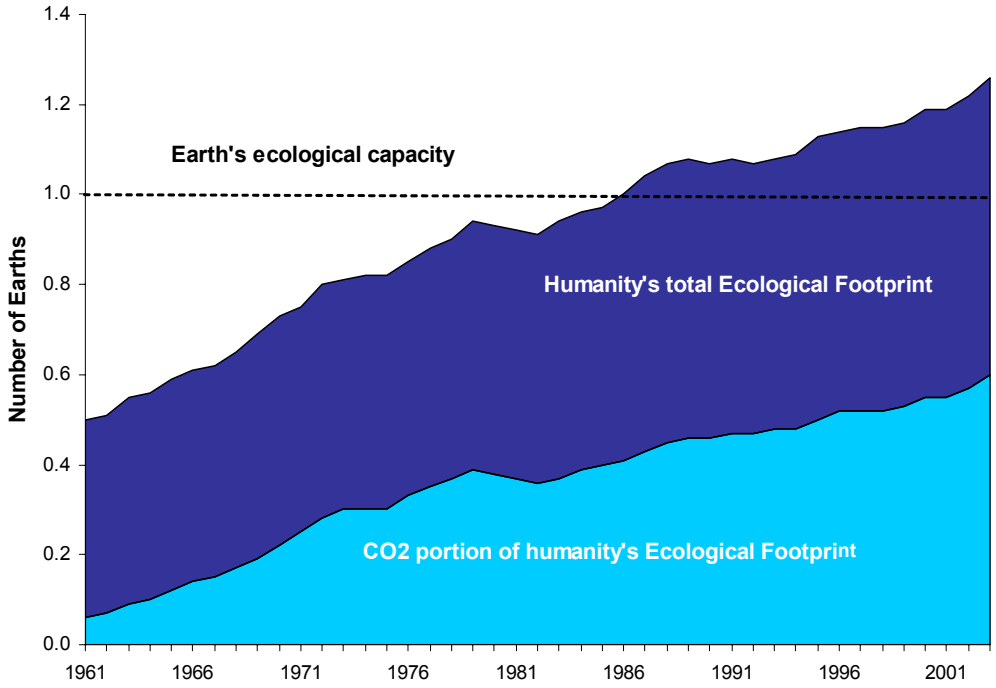
A Footprint generates a measure of total ecological demand by translating each activity's resource use into the biologically productive area necessary to provide this resource flow (e.g., how much area is necessary to produce a given amount of cotton).

The Footprint is then compared to the total amount of biologically productive area on Earth (**supply of nature**) that is available to support

[1] Why area is a good unit to measure demand is explained in box 2 below.

that population. This analysis allows us to answer important questions: Who is using how much? Do we all fit on one planet?

Humanity's Ecological Footprint Exceeds the Earth's Biological Capacity



This accounting tool estimates that for the past 20 years, humanity's demand on ecological resources has exceeded what the Earth can renew. This calculation method suggests that, globally, **it now takes one year and three months to regenerate what we use within one year**. We are in a state of ecological overshoot, on an unsustainable path.

We can **reverse overshoot using the Ecological Footprint**, a practical and scientific tool designed to manage resource supply and demand. Developed over the past 15 years, this tool is now being used by government agencies, businesses and civil society organizations (NGOs) around the globe.

Clearly, the Footprint does not cover all aspects of sustainability, just one key question: to what extent human activities fit within the regenerative capacity of planet Earth. Therefore the Footprint needs to be, and is, complemented by other measures.

But it is a useful aggregate measure for human pressure on the biosphere. This is why the Footprint has been selected as a key indicator for the Convention on Biological Diversity.

Comparisons, Nation by Nation

Latest Footprint calculations show that the average Swede requires 6 global average hectares (gha)[2] to provide for his or her consumption. If everyone on Earth consumed at this level, we would need about three additional planets. The average Italian lives on a Footprint two thirds that size (4 global hectares). The average Mexican occupies 2.5 global hectares, the average Indian lives on about 1/3 of that. **The global average demand is 2.2 global hectares per person. Yet there are only 1.8 global hectares available per person worldwide**, not taking into account areas needed for wild species. (See table below – or for more results visit www.footprintnetwork.org).

	Population	**Ecological Footprint**	**Biological Capacity**	**Ecological Deficit (-) or Reserve (+)**
	[millions]	[global ha/cap]	[global ha/cap]	[global ha/cap]
WORLD	**6301.5**	**2.2**	**1.8**	**-0.5**
Brazil	178.5	2.1	9.1	7.8
Canada	31.5	7.6	14.5	6.9
China	1311.7	1.6	0.8	-0.9
Costa Rica	4.2	2.0	1.5	-0.5
Denmark	5.4	5.8	3.5	-2.2
France	60.1	5.6	3.0	-2.6
India	106.5	0.8	0.4	-0.4
Italy	57.4	4.2	1.0	-3.1
Norway	4.5	5.8	6.8	0.9
Switzerland	7.2	5.1	1.5	-3.6
Sweden	8.9	6.1	9.6	3.5
United Kingdom	59.5	5.6	1.6	-4.0
United States	294.0	9.6	4.7	-4.8

[2] A global hectare is a bioproductive hectare with world average biological productivity (in a given year). One hectare is about 2.47 acres.

Explanations: In the last column, negative numbers indicate an ecological *deficit,* positive numbers an ecological *reserve.* All results are expressed in global hectares of biologically productive space with world-average productivity. 1 hectare = 2.5 acres.

Note that numbers may not always add up due to rounding. These Ecological Footprint results are based on 2003 data. For details check www.footprintnetwork.org or results on the website of the European Environment Agency (http://org.eea.europa.eu/news/Ann1132753060)

Generating Measurable Business Results

The Ecological Footprint is used around the world to help corporations improve their market foresight, set strategic direction, manage performance and communicate their strengths. Unlike other impact assessments, the Ecological Footprint is a comprehensive, standardized resource accounting system that links resource use to global limits. The Footprint not only measures an organization's environmental impact, but also compares it against the planet's ecological limits. This helps companies find openings for innovation and new markets, test their long-term strategies, and identify potential resource constraints. As a result, businesses can find new opportunities, identify risks, and avoid costly surprises.

Another practical element of the Ecological Footprint is its intuitively simple method for communicating results. Because Footprints are expressed in units of biologically productive area, they are easy to understand and communicate to a broad set of stakeholders.

Using the Ecological Footprint, businesses can:

- Assess their sustainability performance
- Identify implications of policy choices by comparing scenarios
- Set realistic targets
- Monitor projects and programs, and
- Communicate successes

For examples of Footprint applications please visit: www.footprintnetwork.org/casestudies, for answers to common questions visit: www.footprintnetwork.org/faq.