

## Contribution to Beyond GDP „Virtual Indicator Expo“

<http://www.beyond-gdp.eu>

Name of the indicator/method: **The Happy Planet Index**

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**nef** (the new economics foundation) a London-based think-tank, introduced the Happy Planet Index (HPI) in July 2006 as a means of comparing the progress of nations toward the goal delivering high levels of experienced well-being *within the constraints of equitable and responsible resource consumption*. Independently, at around the same time, the IUCN (The World Conservation Union) called for a metric capable of measuring “the production of human well-being (not necessarily material goods) per unit of extraction from or imposition upon nature” – the HPI does just that. The first HPI report, published by nef, with the support of friends of the earth UK in 2006 covered 178 countries across the globe. A second, in-depth report focusing exclusively on Europe, was released in 2007.

### Background

Although GDP is routinely used as a proxy for standard of living, it was never intended to function as one and its founders explicitly cautioned against this interpretation. Two familiar critiques relate to: 1) insensitivity to income distribution, and thus potentially to extreme inequality, within a country; and 2) failure to distinguish expenditure that is incurred in correcting or compensating for undesirable events – both collective (e.g. natural disasters, wars) and personal (e.g. acute health problems, family breakdown).

However, a further two – equally important – limitations of using GDP as a measure of human progress need to be highlighted. Firstly, such an interpretation implies that GDP should correlate with experienced well-being at the national level, such that – all else being equal – aggregate experienced well-being will increase as the economy grows. As first shown by Easterlin (1974) and repeatedly since, this is not generally true in practice. GDP thus seems to be flawed as a proxy for *experienced* welfare.

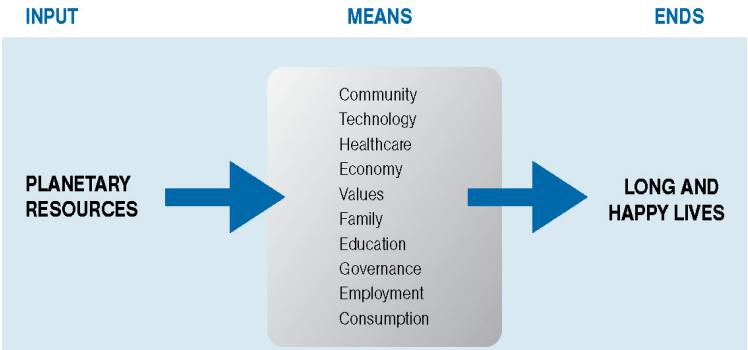
Secondly, GDP doesn't account for the natural environment; there are no internalised costs of environmental damage and pollution and it treats depletion of stocks of natural capital as income. To quote the economist Herman Daly, “it treats the earth as if it were a business in liquidation”. In short, GDP is a very poor indicator of *sustainable* welfare.

Most attempts to refine GDP to take better account of both lived experience and sustainability have taken one of two approaches: adjusting and supplementing. In the former, GDP has been adjusted to take account of costs attributable to inequality, environmental damage and expenditure due to negative events, as well as the “hidden” value of unpaid and voluntary work. Probably the best-known example is the *Index of Sustainable Economic Welfare* (ISEW). The second approach has been to use GDP data “as is”, but to combine it with explicit welfare measures such as health and education; the most widely-known example is the UN’s Human Development Index (HDI).

Both approaches improve on GDP, but neither fully meet the challenge of reflecting both lived experience and environmental sustainability. And, it is increasingly clear that we are running up against very real environmental limits. Unless we are able to move towards a position where we begin to live within the environmental budget that the planet has to offer we face ecological bankruptcy in the form of crises like catastrophic climate change, and the loss of conditions on Earth that are convivial to human life. To avoid this we need a new compass to help navigate the extreme challenges of sharing a volatile world

**Introducing the Happy Planet Index (HPI)**

The HPI is multi-dimensional and composed of distinct variables that each reflect a different aspect of the human condition. However, it differs from previous GDP alternatives in that it makes no use of income or income-adjusted measures. Rather, it treats the economy as just one amongst several mediating processes within a larger system.



HPI takes the stock of the planetary resources that sustains life and supports all human activities as the *fundamental input*. The *ultimate output* is the goal of all human endeavours – experienced well-being. To the extent that wealth, material possession, technology and so on are important, it is because they contribute to this ultimate goal. Conceptually, the HPI is a measure of input-output efficiency – it indicates well-being produced per unit of resource consumption.

$$HPI = \frac{\textit{Experienced Well – being}}{\textit{Resource Consumption}}$$

**How the HPI is calculated**

The HPI uses Dutch sociologist Ruut Veenhoven’s concept of Happy Life Expectancy (HLE) – a combination of subjective life satisfaction and objective life expectancy (Veenhoven 1996) – for its measure of experienced well-being. To calculate a nation’s mean HLE, ratings of subjective life satisfaction (on a scale of 0-10) are multiplied by mean life expectancy at birth and divided by 10. The resulting scores represent, in effect, happiness-weighted life

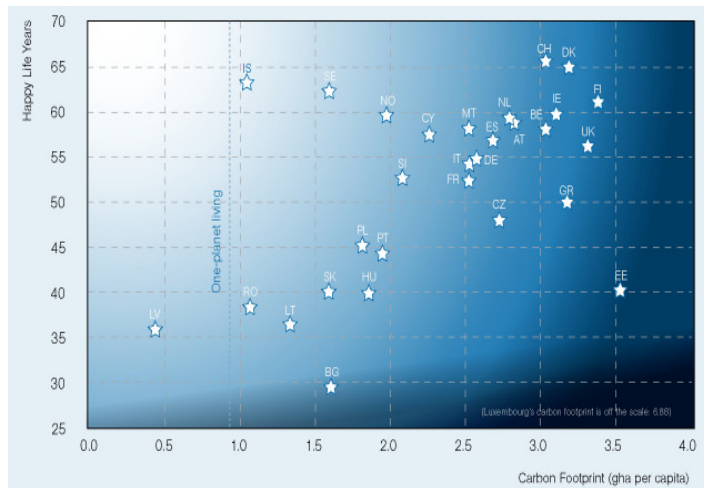
expectancy. Veenhoven describes this as an “ultimate output measure”, because it incorporates both “apparent” and “assumed” quality of life.

The bottom half of the equation, resource consumption, uses Carbon Footprint per capita.\* This is expressed in terms of the land area required to support the plant life needed to absorb and sequester CO2 emissions from fossil fuels used by a country, given its levels of consumption. The measure takes account of “embodied” carbon associated with the production of goods including imports.

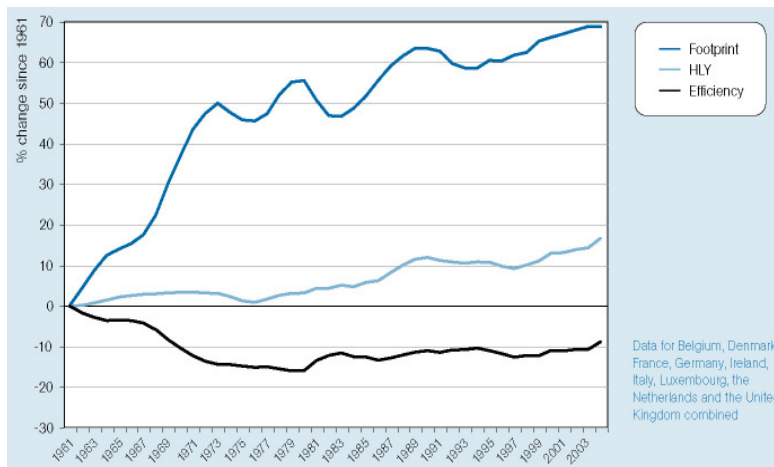
Calculating the HPI requires three discrete steps. Firstly, the data is normalised so that the variances in the top and bottom halves of the equation are made equal. Then, experienced well-being is divided by resource consumption. Thirdly, to make interpretation easier, the resulting scores are transformed onto a 100 point scale, using a theoretical maximum score determined on the basis of plausible “ideal” performance on the three component variables.

### What the HPI shows

To the right is a scatterplot of Happy Life Years against Carbon Footprint for countries of Europe. The top-left corner of the graph is where countries should aspire to be – maximising well-being and minimising footprint.



Strikingly, it is the Scandinavian nations who are closest to achieving this goal and hence score highest on the HPI. These nations have well-being outcomes that are amongst the highest in Europe, yet relatively low per capita Footprints. By contrast, many countries in Eastern Europe fail to provide good levels of well-being, whilst others in the West achieve good well-being outcomes but only at extremely high environmental costs.



As planetary resources have become increasingly constrained over the years, it might be hoped that this would have been accompanied by an upwards trend in HPI, reflecting increasing efficiency. In fact, as the graph on the left shows, this has not been the case in the countries of Europe for which reliable longitudinal data exists.

Rather than increasing, the HPI scores of the nine oldest EU members are around 10 per cent lower now than in 1961 (the earliest point where adequate data is available).

## Value of the HPI

As a metric of sustainable welfare, the HPI provides a radical alternative to existing GDP-based indicators. The first HPI report (**nef**, 2006) showed that some countries around the world achieve similar levels of experienced well-being whilst exerting much less environmental pressure. For instance, Costa Rica's per capita carbon footprint is less than a quarter that of the average European nation, and yet levels of subjective well-being and life expectancy are both higher.

Results of the European analysis – reviewed briefly above – demonstrate clearly that in a world of real environmental limits and climate change, much of Europe is squandering the world's resources on drastically diminishing returns. Moreover, the trends over time are in the wrong direction.

Unlike a focus on ever increasing GDP growth, HPI provides a clear road-map to a sustainable and equitable future.

## Impact

The first HPI report has been downloaded from [www.happyplanetindex.org](http://www.happyplanetindex.org) around a million times. It received extensive print and broadcast media coverage across the world, in countries as far afield as Japan, Denmark and Colombia. The European HPI report, released a year later, was widely covered in the European press. The HPI has been presented at a number of academic conferences and a paper based on elements of the HPI methodology will shortly be published in *Ecological Economics* (Abdallah *et al*, in press).

The HPI has also attracted considerable political interest. Earlier in 2007, the UK's Conservative party referred to the HPI in their *Quality of Life* report and came close to recommending it as a headline indicator for the UK government. Meanwhile, several Local Government Authorities in the UK and other regional/local agencies in Europe have expressed interest in calculating city- and region-level HPIs.

## Future plans

In addition to updating and refining the Global HPI, we are currently exploring opportunities for estimating the HPI at a state-by-state level in the US and at a regional level in China.

## More information

[www.happyplanetindex.org](http://www.happyplanetindex.org)

[www.neweconomics.org](http://www.neweconomics.org)

[www.foe.co.uk](http://www.foe.co.uk)

### References:

Abdallah S, Thompson S and Marks N (in press) 'Estimating worldwide life satisfaction' *Ecological Economics*.

**nef** (2006) *The (un)Happy Planet Index: An index of human well-being and environmental impact* (London: **nef**).

**nef** (2007) *The European (un)Happy Planet Index: An index of well-being and carbon efficiency in the EU* (London: **nef**).

Veenhoven R (1996) 'Happy life expectancy: a comprehensive measure of quality-of-life in nations' *Social Indicators Research* 39, pp. 1–58.

\* The global HPI (**nef**, 2006) used the full Ecological Footprint for its calculations.