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## **Beyond GDP: creating indicators of sustainable well-being**

*Nic Marks*<sup>1</sup>

*'The Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl... Yet the gross national product does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials...it measures everything, in short, except that which makes life worthwhile.'*

*Robert Kennedy, 1968*

This paper proposes that national governments need to expand their national accounting methodologies to include new assessments of people's actual experience of modern life as well the underlying resilience and sustainability of the economic system. **nef** (the new economics foundation) has recently published two complimentary reports on this topic. *National Accounts of Well-being* was published in January 2009 and calls for Governments to regularly and systematically collect data on people's subjective well-being and published these as National Accounts of Well-being. Later in July 2009 **nef** published the second global *Happy Planet Index*, the HPI measures the ecological efficiency with which the world's nations deliver long and happy lives for their citizens; effectively a measure of sustainable well-being.

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<sup>1</sup> Founder, Centre for Well-Being, NEF (the New Economics Foundation)

Although these calls seem like a significant departure from conventional practice, in fact they represent a return to the original ethos of national accounting as it was first envisaged almost 75 years ago. In the 1930s, fledgling national accounts systems in both the US and Europe had an explicit focus on understanding and enhancing general welfare. The demands of wartime led to a change of emphasis toward maximising the productive capacity of the economy, at just the time when the accounting methods themselves were being refined and improved. In the aftermath of the Second World War, these same frameworks guided the shift into peacetime and become standardised, leaving us with a legacy of national accounting apparatus that prioritises gross productivity above all other considerations.

We now need to reclaim the true purpose of national accounts as initially conceived and shift towards more meaningful measures of progress and policy effectiveness which capture the richness of people's lived experience. This need is becoming increasingly urgent as we enter a period of increasing economic, social and environmental uncertainty.

## **Growing momentum**

We are not alone in recognising the need for, and calling for, a new approach. There is a burgeoning international movement questioning the utility of economic indicators and exploring what it might mean to capture true measures of well-being, not simply wealth. In January 2008 the French President Nicholas Sarkozy set up a special commission on the measurement of economic performance and social progress. The Stiglitz commission, as it became known, reported in September 2009 calling precisely for new accounting systems that better assess distributional issues, sustainability and people's quality of life.<sup>2</sup> In addition the OECD continue to promote the idea that nations should

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<sup>2</sup> To download the full Stiglitz Commission report see: <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>

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create new measures of progress and are holding a large international conference in Korea at the end of October 2009.<sup>3</sup>

Earlier, in 2005, the prominent UK economist Richard Layard called on governments to monitor the well-being of their citizens. Layard's highly influential book *Happiness* argued that the economic model of human nature used by policy-makers is 'far too limited' and that '[h]appiness should become the goal of policy, and the progress of national happiness should be measured and analysed as closely as the growth of GNP.'<sup>4</sup>

This is matched by considerable support among the public for governments to use broader measures of progress. A UK poll found 81 per cent of people supported the idea that the Government's prime objective should be the 'greatest happiness' rather than the 'greatest wealth'.<sup>5</sup> Similarly, an international survey found that three-quarters of respondents believed that health, social and environmental statistics were as important as economic ones and should be used to measure national progress.<sup>6</sup>

Creating a system of National Accounts of Well-being, however, is an ambitious and significant undertaking that will ultimately require extensive co-operation between governments, academics, citizens and many others.

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<sup>3</sup> 3rd OECD World Forum, Busan, Korea - 27-30 October 2009. Global Project on "Measuring the Progress of Societies".  
[www.oecd.org/progress](http://www.oecd.org/progress)

<sup>4</sup> Layard R (2005) *Happiness: Lessons from a new science* (London: Allen Lane) pp146–147.

<sup>5</sup> Data from a poll carried out by GfK NOP in 2006 on behalf of the BBC, reported at  
[http://news.bbc.co.uk/1/hi/programmes/happiness\\_formula/4771908.stm](http://news.bbc.co.uk/1/hi/programmes/happiness_formula/4771908.stm)

<sup>6</sup> Survey carried out in Australia, Brazil, Canada, France, Germany, the UK, India, Italy, Kenya and Russia by GlobeScan Incorporated for Ethical Markets Media between June and August 2007.  
[http://www.globescan.com/news\\_archives/emm\\_beyondgdp.htm](http://www.globescan.com/news_archives/emm_beyondgdp.htm)

## National Accounts of Well-being

The *National Accounts of Well-being* report aims to fundamentally re-evaluate orthodox ideas of what we should collectively value, and hence what we should measure. It lays out a framework for developing National Accounts of Well-being to provide:

- **A new way of assessing societal progress.** National Accounts of Well-being, by explicitly capturing how people feel and experience their lives, help to redefine our notions of national progress, success and what we value as a society.
- **A cross-cutting and more informative approach to policy-making.** The challenges now facing policy-makers, including the ‘triple crunch’ of financial crisis, climate change and oil price shocks, are unprecedented. Silo working has long been criticised; now – when the need for systemic change is clear and present – it must be overcome. National Accounts of Well-being – by capturing population well-being across areas of traditional policy-making, and looking beyond narrow, efficiency-driven economic indicators – provide policy-makers with a better chance of understanding the real impact of their decisions on people’s lives.
- **Better engagement between national governments and the public.** By resonating with what people care about, National Accounts of Well-being provide opportunities for national governments to reconnect with their citizens and, in doing so, to address the democratic deficit now facing many European nations.

### A framework for National Accounts of Well-being

Well-being is most usefully thought of as the dynamic process that gives people a sense of how their lives are going through the interaction between their circumstances, activities and psychological resources or ‘mental capital’. Whilst a combination of objective and subjective factors are important for assessing well-being, it is the subjective dimensions which have, to date, been lacking in any assessment by national governments. National Accounts of Well-being address this gap.

The challenge is to match the multiplicity and dynamism of what constitutes and contributes to people's well-being with what gets measured. Our recommended framework for National Accounts of Well-being is therefore based on capturing:

- **More than life satisfaction.** Understanding subjective well-being as a multifaceted, dynamic combination of different factors has important implications for the way in which it is measured. This requires indicators which look beyond single item questions and capture more than simply life satisfaction.
- **Personal and social dimensions.** Research shows that a crucial factor in affecting the quality of people's experience of life is the strength of their relationships with others. Our approach, therefore, advocates a national accounting system which measures the social dimension of well-being (in terms of individuals' subjective reports about how they feel they relate to others) as well as the personal dimension.
- **Feelings, functioning and psychological resources.** The traditional focus on happiness and life satisfaction measures in well-being research has often led to an identification of well-being with experiencing good feelings and making positive judgements about how life is going. Our framework for National Accounts of Well-being moves beyond that to also measure how well people are doing, in terms of their functioning and the realisation of their potential. Psychological resources, such as resilience, should also be included in any national accounts framework and reflect growing recognition of 'mental capital' as a key component of well-being.<sup>7</sup>

These elements have been incorporated to produce empirical findings from a working model of National Accounts of Well-being. The findings are compiled from data collected in a major 2006/2007 European cross-national survey through a detailed module of well-being questions,

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<sup>7</sup> Foresight Mental Capital and Wellbeing Project (2008) *Final Project report* (London: The Government Office for Science).

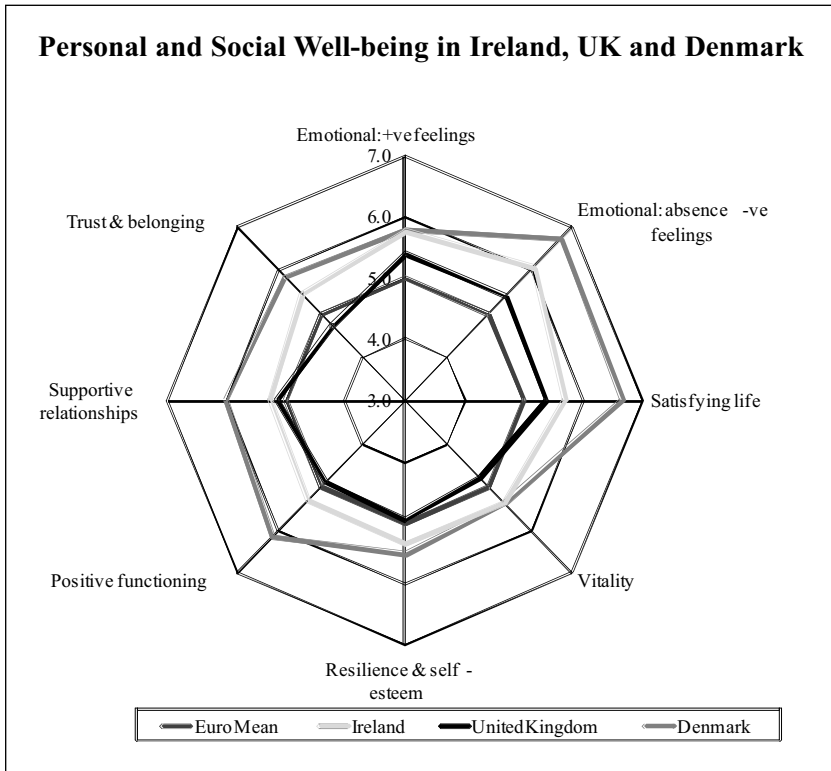
designed by the University of Cambridge, **nef** (the new economics foundation) and other partners. This represents the most comprehensive dataset on subjective well-being for any nation to date.

Our working model is built on two headline measures which capture personal well-being and social well-being, reflecting crucial aspects of how people experience their lives. Personal well-being is broken down into five main components with a number of subcomponents: emotional well-being (positive feelings and negative feelings); satisfying life; vitality; resilience and self-esteem (self-esteem, optimism and resilience); and positive functioning (which covers autonomy, competence, engagement, and meaning and purpose). Social well-being is made up of two main components: supportive relationships, and trust and belonging. In addition to these indicators, an example of a well-being indicator within a specific area of people's lives was also created – a satellite indicator of well-being at work. This measures job satisfaction, satisfaction with work-life balance, the emotional experience of work, and assessment of work conditions.

### **How does Ireland Fare?**

To enable analysis of how different nations are faring in relation to their well-being, indicators were created by standardising and transforming the data so that all results are presented on 0–10 scales, with a score of 5 always representing the average score across the 22 European countries included in the dataset. In order to understand the constituents of well-being more fully, we developed diagrams – *Well-being Profiles* – which display the character of well-being for a particular country or group. Below is a diagram showing the well-being profile of Ireland in comparison to Denmark (the highest scoring nation in Europe) and the UK.

From this diagram it is possible to see that Ireland scores relatively well compared to both the European average and the UK. However there is still room for improvement as the profile of top ranking Denmark illustrates. Indeed Scandinavian countries are the top performers on



overall well-being, whilst Central and Eastern European countries have the lowest well-being. When combining personal and social well-being into an overall index of well-being for each country – using a weighting of 2:1 – we see that Denmark, Switzerland and Norway show the highest levels of overall well-being, whilst Central and Eastern European countries such as the Ukraine, Bulgaria and Hungary have the lowest. Ireland ranks 4<sup>th</sup> directly above even Sweden and Finland whereas the UK is only 13<sup>th</sup> out of 22 European nations. It is important to note however that these figures were scored using data collected in 2006/7 so well before the current economic crisis, and it is highly likely that some of these scores will have fallen in the meantime.

## Happy Planet Index

As well as detailed measures of people's well-being we also suggest that in an age of such uncertainty, society globally needs a new compass to set it on a path of real progress. The Happy Planet Index (HPI) provides that compass by simply and clearly measuring what truly matters to us – our well-being – and what matters to the planet – our rate of resource consumption.

The HPI brings them together in a unique form which captures the ecological efficiency with which we are achieving good lives. The HPI was first launched in July 2006 as a radical departure from our current obsession with GDP. Working from first principles, the report identified health and a positive experience of life as universal human goals, and the natural resources that our human systems depend upon as fundamental inputs. A successful society is one that can support good lives that don't cost the Earth. The HPI measures progress towards this target – the ecological efficiency with which happy and healthy lives are supported. The first report resonated with hundreds of thousands of people around the world – within two days of its launch, the report was downloaded and read in 185 countries worldwide.

Three years on, HPI 2.0 was calculated with new improved data sets for 143 countries, covering 99 per cent of the world's population. Scores range from 0 to 100 – with high scores only achievable by meeting all three targets embodied in the index – high life expectancy, high life satisfaction, and a low ecological footprint.

The HPI urges us to question what is really valuable in life. It takes as its starting point two axioms. First, that happy and healthy lives are sought-after around the world. Secondly, that this should not be a privilege of the current generation – that future generations should also be able to pursue happy healthy lives. The HPI combines progress towards these two goals in a single figure. It really is as simple as that.

Readers who are familiar with sustainable development may immediately recognise similarities with the UN definition of sustainable development as:

**...meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs.<sup>8</sup>**

The HPI adds to this definition, by incorporating, for the first time in the policy discourse around sustainability, measures of people's lived *experience* of their lives, rather than just external judgements made by experts.

## Calculating the Happy Planet Index

How does one measure well-being in terms of happy and healthy lives? The health aspect is (relatively) straightforward – the best-known headline indicator being life expectancy at birth. For the 'happy part' whilst we would like to see detailed well-being accounts such as outlines above, the data does not really exist – particularly in terms of time series data. However extensive data has been collected in surveys worldwide, with some data going back forty years, on one fundamental aspect of well-being – life satisfaction.

Life satisfaction is typically measured with the following question:

**All things considered, how satisfied are you with your life as a whole these days?**

Responses are made on numerical scales, typically from 0 to 10, where 0 is dissatisfied and 10 is satisfied. Years of research have demonstrated that, despite its apparent simplicity, the question produces meaningful results.

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<sup>8</sup> UN World Commission on Environment and Development (1987) *Our common future* (Oxford: OUP).

We then combine the life satisfaction data with life expectancy to create what Dutch sociologist Ruut Veenhoven has called ‘happy life years’ – which can be seen as happiness-adjusted life expectancy.<sup>9</sup> Doing so ensures both the subjective and objective elements of well-being are captured. It recognises that a satisfying life is not ideal if it is very short, but also that a long life is not ideal if it is miserable.

However the HPI is not simply an indicator of experienced well-being it also incorporates issues of futurity as no moral framework would accept high well-being if it was at the expense of others living today and/or future generations. Such considerations are particularly relevant where limited resources are required to support well-being. And the most finite limited resources that we currently rely on are natural ones.

It is not a simple matter to measure our impact on the planet. The best available approach is currently the ecological footprint, developed by ecologists Mathis Wackernagel and William Rees, and championed by a range of organisations including the Global Footprint Network and WWF.<sup>10</sup> The ecological footprint of an individual is a measure of the amount of land required to provide for all their resource requirements plus the amount of vegetated land required to sequester (absorb) all their CO<sub>2</sub> emissions and the CO<sub>2</sub> emissions embodied in the products they consume. This figure is expressed in units of ‘global hectares’. The advantage of this approach is that it is possible to estimate the total amount of productive hectares available on the planet. Dividing this by the world’s total population, we can calculate a global per capita figure on the basis that everyone is entitled to the same amount of the planet’s natural resources. Using the latest footprint methodology – and it should be noted that this is a developing methodology – the figure is 2.1 global

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<sup>9</sup> It is similar to the concept of healthy life expectancy – Sullivan D (1971) A single index of mortality and morbidity *HSMHA Health Reports* **86**:347–354.

<sup>10</sup> Wackernagel M and Rees W (1996) *Our ecological footprint: reducing human impact on the Earth* (Gabriola Island, Canada: New Society Publishers).

hectares.<sup>11</sup> This implies that a person using up to 2.1 global hectares is, in these terms at least, using their fair share of the world's resources – one-planet living.

In 2005, the per capita footprint for the rich OECD nations was 6.0 global hectares. The implication: we are living as if we had almost three planets' worth of resources. The figure for Ireland itself is even higher at 6.3 gHa. The average per capita footprint worldwide also highlights a serious problem. At 2.3 gHa it is just above the world's sustainable capacity, and has been since the mid-1980s. This ecological overshoot in part represents the unsustainable emission of CO<sub>2</sub> into the atmosphere at a rate faster than the planet can re-absorb it.

In essence, the HPI is an efficiency measure: the degree to which long and happy lives (life satisfaction and life expectancy are multiplied together to calculate happy life years) are achieved per unit of environmental impact

$$\text{Happy Planet Index} \sim \frac{\text{Happy Life Years}}{\text{Ecological Footprint}}$$

Note this is not a precise equation as there are certain statistical adjustments that are required to ensure that no single component dominates the indicator and to produce an easy-to-interpret figure ranging from 0 to 100.

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<sup>11</sup> WWF (2008) *Living Planet Report 2008* (Gland, Switzerland: WWF). Note that in prior calculations, the per capita fair share was estimated as 1.8 global hectares – a figure which can still be seen widely.

## The Happy Planet Index results

The results turn our idea of progress on its head. Whilst the HPI confirms that the countries where people enjoy the happiest and healthiest lives are mostly richer developed countries, it shows the unsustainable ecological price we pay. It also reveals some notable exceptions – less wealthy countries, with significantly smaller ecological footprints per head, having high levels of life expectancy and life satisfaction. In other words, it shows that a good life is possible without costing the Earth.

The table below shows HPI for a selection of 22 nations around the globe – the full HPI has 143 nations. As can be seen Ireland comes 78<sup>th</sup> in the rank order and its score is brought down by its high ecological footprint – in other words Ireland is ecologically inefficient at generating human well-being. If a comparison is made with Costa Rica then it can be immediately be seen that Costa Ricans and Irish citizens both have relatively happy and long lives, however the Costa Ricans are achieving theirs using about a third of the resources that the Irish do.

Whilst these sorts of comparisons are illuminating, it is also helpful to examine time trends and for some nations this is possible. In the full report a time series analysis is made of the OECD countries from 1960 – 2005, a 45 year period that has seen much global change including the rise and fall of the Berlin Wall and the invention of the computer. Just looking at the Irish data over this time it is possible to identify that people in Ireland are living approximately eight years longer, 78 years compared to 70 years in 1960. Whilst the happiness data does not extent right back to the 1960s for Ireland, it has been relatively stable since the early 1970s suggesting that there has been little increase over this time period. However Ireland's ecological footprint has risen from 4.0gha to 6.3gha. If one was to make a HPI for Ireland in 1960 it would have been about 46, whereas today Ireland's score is 42.6. So during a time when the world has become more aware of the finiteness of the planet's resources, Ireland has become less efficient at turning its use of resources into creating good lives for its citizens.

Countries	Life Sat	Life Exp	HLY	EF	=	HPI	HPI Rank
Costa Rica	8.5	78.5	66.7	2.3	=	76.1	1
Dominican Republic	7.6	71.5	54.2	1.5	=	71.8	2
Jamaica	6.7	72.2	48.5	1.1	=	70.1	3
China	6.7	72.5	48.6	2.1	=	57.1	20
India	5.5	63.7	35.1	0.9	=	53.0	35
Netherlands	7.7	79.2	61.1	4.4	=	50.6	43
Germany	7.2	79.1	56.8	4.2	=	48.1	51
France	7.1	80.2	56.5	4.9	=	43.9	71
United Kingdom	7.4	79.0	58.6	5.3	=	43.3	74
Japan	6.8	82.3	55.6	4.9	=	43.3	75
Ireland	8.1	78.4	63.8	6.3	=	42.6	78
Australia	7.9	80.9	63.7	7.8	=	36.6	102
Russia	5.9	65.0	38.1	3.7	=	34.5	108
USA	7.9	77.9	61.2	9.4	=	30.7	114
Nigeria	4.8	46.5	22.2	1.3	=	30.3	115
South Africa	5.0	50.8	25.2	2.1	=	29.7	118
Luxembourg	7.7	78.4	60.1	10.2	=	28.5	122
United Arab Emirates	7.2	78.3	56.2	9.5	=	28.2	123
Estonia	5.6	71.2	40.1	6.4	=	26.4	131
Botswana	4.7	48.1	22.6	3.6	=	20.9	141
Tanzania	2.4	51.0	12.5	1.1	=	17.8	142
Zimbabwe	2.8	40.9	11.6	1.1	=	16.6	143

The challenge for a country such as Ireland is clear in terms of a Happy Planet Index analysis. How can Ireland continue to make gains in terms of well-being whilst also learning to consume much fewer of the planet resources? In other words, how can they create great lives that don't cost the earth?

The reality is that we are likely to be entering a carbon-constrained world. Already the EU target is to cut CO<sub>2</sub> emissions by 80% by 2050 – ie in the next 45 years. This does not represent business as usual and all sectors of society are going to have to be very innovative. The full Happy Planet Index report outlines some examples of individuals, communities and governments that rising to this challenge and thereby provide clues as to how a happier planet might be co-created.

## **A crisis is a terrible thing to waste**

Not since World War II has society globally been faced with so many threats. In the last few years we have driven straight into the wall of the biggest global economic downturn since the Great Depression of 1929, whilst mainstream culture has, at last, been rudely awoken to the ever-growing threats of climate change and the exhaustion of our natural resources. People fear for the future. Meanwhile, the problems that plagued us before, risk becoming even more acute: more than half the world's population lives on less than \$2.50 a day; inequality continues to rise even in richer countries.

And yet, with crisis comes opportunity. The dogmas of the last 30 years have been discredited. The unwavering pursuit of economic growth – embodied in the overwhelming focus on Gross Domestic Product (GDP) – has left over a billion people in dire poverty, and has not notably improved the well-being of those who were already rich, nor even provided us with economic stability. Instead it has brought us straight to the cliff edge of rapidly diminishing natural resources and unpredictable climate change.

No wonder that people are desperately seeking an alternative vision to guide our societies. In 2008, Americans voted for 'change' and 'hope' above else. Surely there has never been a time when the case for creating very different measures of human progress and policy evaluation has been more compelling. Let's not waste this crisis.

## References

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For all other references and to download full reports see:

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

For further information please contact:  
Nic Marks,  
Founder of the *centre for well-being*,  
**nef** (new economics foundation)  
3 Jonathan Street  
London SE11 5NH  
[nic.marks@neweconomics.org](mailto:nic.marks@neweconomics.org)