



Open Research Online

The Open University's repository of research publications and other research outputs

Sustainable development indicators: the tyranny of methodology revisited

Journal Item

How to cite:

Morse, Stephen and Bell, Simon (2011). Sustainable development indicators: the tyranny of methodology revisited. *Consilience: The Journal of Sustainable Development*, 6(1) pp. 222–239.

For guidance on citations see [FAQs](#).

© 2011 The Authors

Version: Version of Record

Link(s) to article on publisher's website:

<http://journals.cdrs.columbia.edu/consilience/index.php/consilience/article/view/239/84>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk

Sustainable Development Indicators: The Tyranny of Methodology Revisited

Dr Simon Bell
Communication and Systems Department
Open University, UK
s.g.bell@open.ac.uk

Professor Stephen Morse
Centre for Environmental Strategy
University of Surrey, UK
s.morse@surrey.ac.uk

Abstract

Indicators are increasingly dominating our lives; whether we are aware of it or not. They have been popular tools for sustainable development policy makers, planners and managers, largely because they do the hard work of condensing complexity into single values that can be more easily digested and acted upon. But much power rests with those who select the indicators deemed to be important. This paper explores some of these issues at what is now regarded by some as the new frontier in ‘indicatorology’; their use and influence. The authors argue that a new tyranny of methodology may be at play.

Author’s Note

Dr. Simon Bell is a Senior Lecturer in Information Systems at the Open University. His background is multidisciplinary, with a strong emphasis on research methods development, information systems design and monitoring and evaluation. Simon co-developed and refined the information systems analysis and design methodology ‘Multiview’ and developed various project planning methods. Working with the European Union and UNEP he worked across the Mediterranean on a series of coastal area management projects refining and adapting participatory methods in information collection and presentation from a diverse variety of stakeholder groups. More recently, with Professor Stephen Morse, he has co-developed the Triple Task Method for the European Union FP7 programme. The method innovates in the area of engaging with and exploring group dynamics in a range of stakeholder participatory engagements. Dr. Bell has written and published widely in the areas of participatory methods, information systems and methodology development.

Stephen Morse is Chair in Systems Analysis for Sustainability at the Centre for Environmental Strategy, University of Surrey. His background is in the biological sciences, with a specialism in the theory and practice of sustainability. Steve has been involved in sustainable development projects and research for nearly 30 years, and his research interests are broad spanning both the natural and social sciences. Research projects have included work on the socioeconomic impacts of genetically modified crops, the analysis of partnership within faith-based aid chains and the influence of indicators on policy (with Simon Bell). Steve is an author of more than 80 research papers and 15 books including ‘Sustainability; A biological perspective’

(Cambridge University Press) and various joint publications with Simon Bell on sustainability indicators (Earthscan). He is a Fellow of the Royal Geographical Society (FRGS), the Higher Education Academy (FHEA) and the Institute of Biology (FIBiol CBiol).

Keywords: Indicators, Methods, GDP, GPI, Beyond GDP

1. Background: Tyranny from 1994-2010

The raison d'être for this article is to return to a paper from 1994 and explore our current state with regards to what was then described as a 'Tyranny of Methodology' and which has been referred to variously in the journal *Public Administration and Development* (Juma and Clark 1995; Bell 1997; Cook 1997; Bell 1999; Bell 2000; Stout 2010) and elsewhere as tyrannic approaches (for example see: Blunt 1997; Parkinson 2009). The 1994 paper (Bell 1994) observed that, in much the same way as conventional Empires are often experienced as tyrannical, projecting dominant mindsets and approaches onto subjugated (powerless) populations, so the products of western intellectualism can also be seen in terms of tyranny (see: Ronzoni 2009), oppressing local population and enforcing subtle forms of domination. Other journals have recently explored a similar area – that of multiple knowledge and the potential role for certain forms of technocratic dominance in development discourses (Leach, Sumner and Waldman 2008; Reynolds 2008; Wilson 2008). Ironically, forms of intended or unintended dominance are seen as being evident even for methods which are regarded by their proponents as 'participatory' - and intended to be 'liberating' and 'empowering' for peoples of the developing world (Cleaver 1999; Cooke and Kothari 2001; Sangiovanni 2007).

A key element of the 1994 paper was contained in the definition of the tyranny of methodology:

“tyranny - 'exercise of power over subjects and others with a rigour not authorised by law or justice’” (Websters New International Dictionary)

In the 1994 paper this definition was extended to the area of applied intellect in method:

“Tyranny defies both law and justice in its impact upon its subject. The key factor here is the idea that methods are often not justified by context (without adaptation). They are imposed in an arbitrary fashion without regard to what would be just or lawful. They are exercised with immense power over a population who have little capacity to either reject or modify them.”

Stages of the Piaget/Koplowitz model	Key features of the stage
Stages 1 to 3. Senses, experiential, and emergent logical	Sense perception of the world, experiences related and built upon, logical models developed and re-developed. Incomplete mental structures
Stage 4. Logical/rational	True logical abstraction attained and applied related to single objects of interest
Stage 5. Systems	Multiple areas of interest, interconnectedness and complexity admitted
Stage 6. Holistic	Reflections on the subjectivity of the views arising from the earlier stages

Table 1: The Piaget Koplowitz. Model Source: McArthur, 1990.

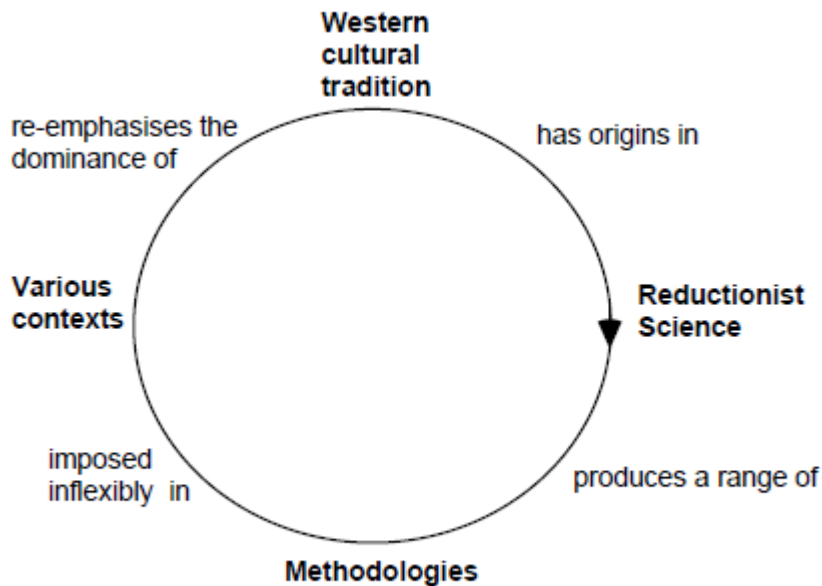


Figure 1: The Western Mindset. Source: Bell, 1994

This was linked to the 'Western Tradition':

"and its effect on methodology transfer. The key feature of this section is the linkage made between the western culture, its use of a certain type of scientific tradition (related to reductionism) and the way in which science provides methodologies in its own image"
(Bell 1994 page 325)

The self-fulfilling power of the reductionistic mindset was presented in a diagram (figure 1).

Figure 1 sets out the hypothesis behind the original article – an intellectual self-fulfilling prophecy, where the mindset determines the approach which in turn justifies and legitimises the nature of enquiry. In the original paper examples of tyranny were drawn from development practice in projects, participatory engagement and ICT. In this article, we see the extension of this trend into the domain of indicators and is specifically illustrated by the dominance of one economic indicator in particular – the Gross Domestic Product (GDP). For the non-economists amongst the readership, GDP is a measure of the monetary flow in an economy, and managers try to maintain a steady increase in that flow with time as a indicator that the economy is growing and by implication that at least some people are ‘better off’ than they were. Tyrannic mindsets are expressive of the idea that we know by means which we accept we know and ways of knowing which do not conform to our way of knowing are not legitimate (an issue also alluded to by Reynolds: Reynolds 2008). In this sense, ideas at variance to the tyranny do not count because they do not obey the underlying rules and laws. Thus, for example, we might have what we call the ‘GDP Worldview’ where nation-states are ‘managed’ to enhance GDP ahead of almost all other concerns. Our argument is that GDP Worldview is itself an expression of the reductionist mindset whereby a complex set of potential concerns is in reality reduced to a focus on but one.

Recently, we have been engaged in a series of participatory engagements with professionals from Malta, Finland and Slovakia working in the field of sustainable development indicators and were struck by correspondences and resonances between two ‘realities’. On the one hand, the apparent contemporary ‘invisibility’ of concepts of methodological tyranny and, on the other, the dominance of certain methodological artifacts – such as international indicators of many kinds – on these groups. They raised various concerns, some of which are well known such as the dominance of economic indicators in framing policy instruments and other ideas such as the notion of a ‘natural selection’ process amongst indicators where fitness for survival is not necessarily related to technical excellence of the indicator but to its ‘appeal.’ An example of one of the outputs from the workshops is provided as Figure 2. This is a rich picture produced by one of the groups from Slovakia. The imagery is rich indeed; the see no evil, hear no evil and speak no evil symbols were used to describe the tyranny which indicators can help impose. GDP is off the scale in the middle of the picture and looked over by politicians who themselves are puppets of major international funders. In the bottom right hand corner, purposely cut off from the rest of the picture, are the more ‘quality of life’ type of indices such as the Genuine Progress Indicator (GPI), but more of that later in the paper. While there are positives in this picture it has to be said that the overwhelming message is negative and it is not hard to see why this had an impact on us. Indeed for many of the groups involved in the workshops ‘poor’ indicators could be successful if they met certain demands, such as allowing politicians to use them to advocate an already established policy. Thus it seems that indicators in general – and the methodologies which they are derived from - and not only those that portray economic factors, may be used to enforce intellectual and cultural positions rather than help in any positivist sense of facilitating evidence-based policy. In this paper we explore these correspondences and what they might mean for sustainable development.



Figure 2: One of the Rich Pictures which Emerged from the Slovakian Workshop on Sustainable Development. Source: Obtained from the Slovakian Workshop on Sustainable Development

2. The Indicator Story

It is a truism to suggest that society is surrounded by and, to some extent governed by, indicators (Morse, 2004). An indicator can be defined from the Latin as

indicare: to proclaim or to say – “to point out or to direct to knowledge” (Webster Dictionary). This definition provides enormous room for interpretation and development and, over the last 100 years many agencies and powerful groups have made good use of this room. An indicator can be a quantitative signal, as with the Social Development Indicators promulgated by the World Bank, the Human Development Index created by the UNDP or the Index of Multiple Deprivation used in the UK, or as qualitative as the outcome of a focus group exploring the use of a new kind of olive oil. Indicators ‘direct us to knowledge’ and this direction can be conscious and planned (as in the case of career defining exam results or university league tables) or unconsciously absorbed (for example the tacit adoption of information about how well a football team may be playing, traffic congestion or indeed the weather). These are interchangeable of course as it is possible to give a number to anything. Thus a perception (‘gut feel’) as to how dirty the streets may seem can be translated into a numerical ‘score’. Thus indicator development and interpretation is more art than science and the room for subjectivity in all stages of their application is large. The indicator world is vast and constantly changing. To add to this complexity, indicators are not ‘fixed’ or ‘true’. A recent study (Ichoku 2010) reiterates the importance of variations in context in indicator application. This is an issue we will expand upon in terms of certain dominant forms of international indicator, notably GDP.

Anecdotally it would seem that economics is still the main concern for the indicator business and, in the research we describe in this article it was interesting to see how the dominance of economic indicators in policy continued to be highlighted by those taking part. Possibly this is more remarkable if we note the efforts made for some years now to broaden out the notion of how we envisage and define ‘development’ by including social concerns (as in human development) and indeed the environment (sustainable development). For example, the HDI was created by UNDP in part because it wanted a counter to what it saw as the dominance of economic indicators in international development (Morse, 2004). The very first Human Development Report which published a league table of countries ranked by their HDI was published in 1990; 20 years ago! A question emerging from this observation is to consider why, despite all this effort, economic indicators persisted in their dominance to this day?

3. Themes and Issues for Methodological Tyranny: GDP as the Prime Offender?

There are various ways in which the amount of money flowing in an economy can be measured. For example, one could measure income or expenditure, and in a closed economy where there are no outflows or where money is not hidden away under mattresses then these would be the same. Taking the expenditure approach to GDP, one measures the flow of money when it changes hands to pay for goods and services and the following is a simple equation:

$$GDP \text{ (expenditure)} = C + G + I + (EX - IM)$$

where:

GDP = Gross Domestic Product

C = consumers' expenditure on goods and services

G = government expenditure on goods and services

I = investment

EX = exports

IM = imports

Components 'C' and 'G' are the expenditures (C is often much larger than G) and the (EX – IM) component adjusts for flows across the border. 'Investment' (I) refers to private domestic investment and is a somewhat complex component to assess in practice. Economists often measure the year on year or 3 month (quarterly) change in GDP. If the change in GDP is negative over two quarters (economy has shown a decline for a period of 6 successive months) then this is technically defined as a recession.

The debate about use of indicators in the contemporary world was kicked into life in 2007 with the high-level conference hosted by the European Commission, European Parliament, Club of Rome, OECD and WWF entitled 'Beyond GDP' (www.beyond-gdp.eu). Arising from this conference emerged the report (Commission_of_the_European_Communities 2009). The report underlined the vital importance of GDP but also its limitations:

“GDP has also come to be regarded as a proxy indicator for overall societal development and progress in general. However, by design and purpose, it cannot be relied upon to inform policy debates on all issues. Critically, GDP does not measure environmental sustainability or social inclusion and these limitations need to be taken into account when using it in policy analysis and debates.”

(Commission of the European Communities 2009 page 2).

This quote from the Commission highlights the way in which GDP has been used as a bellwether for society as a whole. Or, to put it another way, a knowledge technology imposed on the world explicitly promoting a certain kind of vision. It is applied as a means to tell not just policy makers, but citizens in general, how well a society is functioning.

However, GDP does nothing more than measure the size of an economy, or more accurately how much money is being circulated in an economy. Indeed GDP is related to population size; the more people there are in a nation state then the greater the flow of money. That is why economists prefer to use GDP/capita as a measure of national wealth. For example, in terms of national GDP the USA ranks 1st amongst nation-states according to the International Monetary Fund in 2010 with Luxembourg coming in at a lowly 70th position. Yet in terms of GDP/capita the USA is only 9th while Luxembourg is 1st. Even so, the use of this indicator is a salutary reminder of how powerful and even potentially tyrannic an indicator can be. Of course it is not right to 'shoot the messenger' and GDP is primarily a means to provide important information for those meant to manage an economy, but the use

of the message, its political importance and the way in which this imposes social orders on the rest of us is important to understand.

The fact that GDP tells us nothing wider, deeper and more holistic about the systemic nature of combined aspects of society, for example about physical or emotional health, environmental health, human happiness or moral and emotional balance (all features which people regard as being central to balanced development and which find echo in the Piaget model of cognitive development) seems lost in focus on an apparent economic imperative.

In order to address the perceived weakness and potential for tyranny of GDP the European Commission suggested five changes to help take us 'beyond' that indicator:

1. Complementing GDP with environmental and social indicators
2. Provision of near real-time information for decision makers
3. More accurate reporting on distribution and inequalities
4. Developing a European Sustainable Development Scorecard
5. Extending National Accounts to environmental and social issues

The fact that this kind of activity is being undertaken by such a major agency as the European Commission adds weight to the impression that indicators, even the most important indicators, are not fulfilling the task expected of them – primarily to guide policy. Alternatively, of course, we could see the flip side of the argument; that we have become fixated on indicators that we have created but which only reflect narrow aspects of our well-being. Indeed it is noteworthy how one of the counters to the dominance of GDP in the above list is to complement it with other indicators (Morse, 2004). Either way, indicators might be argued to be the symptom of the state involving itself in the lives of citizens, yet at the same time, the means for the state to be monitored and assessed on evidence by active citizen participation.

In short, indicators represent a paradox. They would appear to be constructs of our time with lengthy antecedence. They are everywhere and used by all of us but most of the use is unconscious or invisible. The human brain and our senses are 'hard wired' to look for such indicators routinely as we try to make sense of a complex world, even if for the most part we are unaware that it is happening. At the same time, we may think that indicators are strange and perhaps rather inhuman in that they are clinical algorithms. They do not comprehend nuance or discretion in their expression. As already suggested, they can intrude into parts of our life that are implicitly value-laden. Measuring immeasurable human qualities such as 'development' and thus making generalisations about key concerns such as health, wealth, education and even happiness. Trying to measure something which is not universally constant in terms of meaning would seem to be an exercise doomed to failure. Yet we now have indicators that assess 'quality of life' and 'wellbeing'. It is hard to identify filaments of human activity into which indicators have not intruded (for a general discussion see: Verbruggen and Kuik 1991). In an era of evidence based policy these issues often go hand-in-hand with a need to know whether the resources being used to improve something are effectively achieving impact. Given all of this, with objectivity being key, indicators and their related algorithms have emerged as an important way for 'us' to know 'it', but the key here is: who is 'us',

what is 'it', and how do we 'know'? These three terms bring out the nexus of the issues around indicators and the methods for their collection.

It can be argued that the growth of indicator use is itself a proxy indicator for a move away from the local and 'knowable' to bigger and less personal scales where 'knowing' has to take on a different form. We argue that this 'shift' is (ironically at a time when Localism is gaining political support) an indicator of the demise of the importance of localized, human understanding. Instead the indicator generalises and provides anonymity. There can be little disagreement that post-industrial society needs to understand itself in order to govern itself. Localized and intimate understandings are not enough. Big society needs big tools, and the key tool used to date is GDP. But, and this is an important but, even with the best tools, the way they are applied – in short our understanding of who needs to know what in order to do something – is far from perfectly understood (eloquently argued in: Chambers 1997). Indicators are a cultural artifact of our times. Ralph Lee may have intimated it in 'the Wired Nation' in 1972 (Lee 1972). Michael Traber assessed myths and realities in 'the Myth of the Information Revolution' in 1986 (Traber 1986) and pointed to the need for localized communication to be the prize of post-industrial society rather than technological fizz in the northern economies. But there are ethical dimensions to indiscriminate indicator hegemony. As the experts of indicator making and the related policy makers evolve the matrix of indicators which measure most aspects of contemporary life there are inevitable mistakes. A significant problem is that indicators are a reflection of what a particular context (set in a time and space) deems to be important. They are intellectual constructs derived from a cultural milieu, not Laws of Nature. Thus the indicators which measure oil spillage, volcanic ash density and fish stocks can all be contested. This means that the application of an indicator is the beginning and not the end of a process. The indicator tells us something about it. We then do something about it. These are easy words which have manifold consequences.

Thinking back to the definition of stages of development, the indicator world certainly conforms to the first four levels in the Piaget Koplowitz model – from sense making to logical and rational analysis .. relevance to the higher, more systemic levels is much more debatable.

4. Indicators: A Tyranny of Methodology?

Given the limitations of the GDP outlined above it is perhaps not that surprising that people have tried to improve upon it, and the 'Beyond GDP' debate already alluded to is in fact just a recent manifestation of what many have already tried to achieve and indeed continue to strive for (Bartelmus 1987; Fleurbaey 2009). Indeed the statement given earlier that "*GDP has also come to be regarded as a proxy indicator for overall societal development and progress in general*" can hardly be regarded as a new discovery for 2009. It is in fact a clarion call with significant antecedence. Some have tried to put forward counter-indicators to the GDP such as the HDI, although ironically the HDI since birth has had GDP/capita as one of its components (it is intended as a proxy for income). There have also been many attempts to re-design GDP from its foundations to include social and environmental concerns and thereby take it 'beyond' a narrow measure of monetary flow, and an example is the Genuine

Progress Indicator (GPI) created by the organization 'Redefining Progress' (Lawn 2003). The GPI is in fact the latest manifestation of the 'Index of Sustainable Economic Welfare' (Daly, Cobb and Cobb 1994) from the late 1980s and before that the Measure of Economic Welfare developed by William Nordhaus and James Tobin in the early 1970s. The GPI keeps the fundamental emphasis on monetary flow as discussed above but attempts to incorporate components which are deemed important in terms of quality of life and the environment but which are far less easy to measure and often don't appear in the estimation of GDP; especially in the 'C' component.

The value of C is reduced as the degree of unevenness in income increases (i.e. the higher the value of IDI). Once this adjustment is made the value of the GPI is found as follows:

$$\text{GPI} = C_w + \text{social benefits} - \text{social costs} - \text{environmental costs} \pm \text{NCI} \pm \text{NFB}$$

NCI and NFB are Net Capital Investment and Net Foreign Borrowing respectively. Note the absence of a 'G' (government expenditure) component as was set out for GDP. Exactly what comprises 'social benefits,' 'social costs' and 'environmental costs' is set by Redefining Progress and varies depending upon the version of the GPI. For example, it may include the economic value of household work, parenting and volunteer work as 'benefits' and crime and commuting to work as 'costs' (please see Talbeth, Cobb and Slattery 2007 or more detail). In basic terms the 'social benefits' category increases GDP as it includes 'expenditure' not usually included within C (such as volunteer and house work). The two 'costs' categories exert a negative pressure on the GDP.

These adjustments to GDP can be significant. For example, the US economy in 2004 had an 'environmental cost' adjustment of nearly \$4,000 per capita. A plot of real GDP from 1960 to 2004 is shown as Figure 2. GDP has shown a steady increase from 1950 to 2004 while GPI has been more or less level since the mid 1970s. This difference suggests that while the economy may have expanded over those 44 years it can be argued that the net benefits to society (once negative impacts have been taken into account) have grown at a much slower rate. Other examples of the GPI based upon different sets of assumptions for the calculation over spatial and time scales can be found in Hamilton (Hamilton 1999) and Costanza et al. (2004).

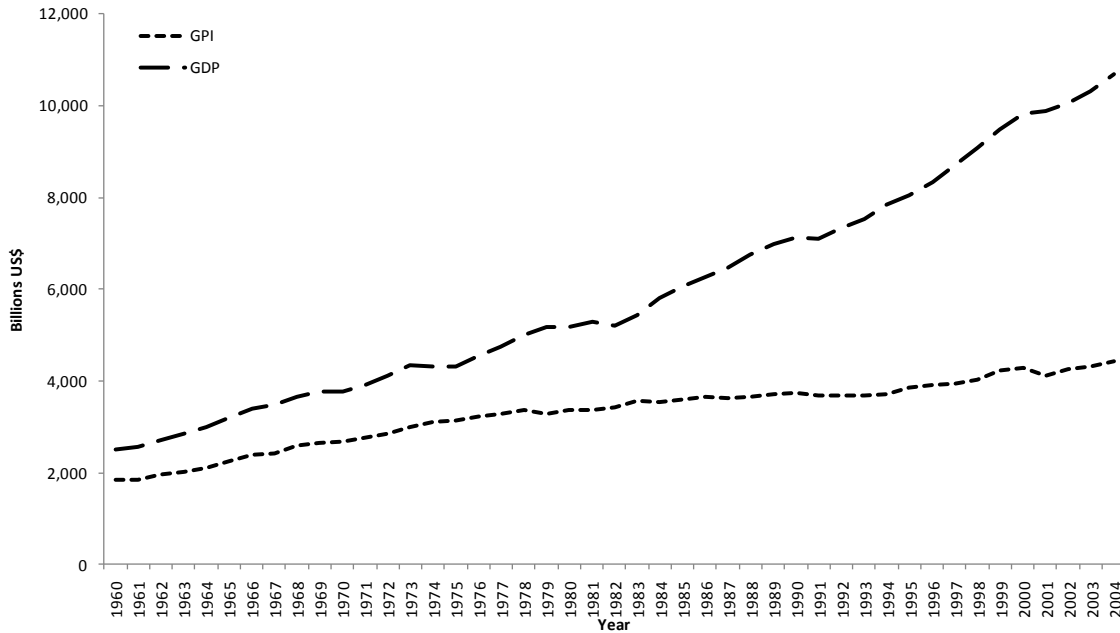


Figure 3: Comparison of the GDP and GPI for the US Economy 1960-2004 Source: Talberth, 2007.

Thus while GPI and GDP offer two differing perspectives for an economy, they do share an emphasis on economic measures (as one might expect) and thus have much in common. Indeed Clarke (Clarke 2007) has argued that they would benefit by having more in common than they do. However, the adjustments made in the GPI are not immune from criticism precisely because they are so value laden (Neumayer 2000; Lawn 2003; Clarke 2007). All the adjustments in Table 3 can be critiqued for one reason or another. Indeed is there any evidence that the GPI, for all its appeal and logic, is succeeding in replacing the GDP? To be frank, the answer has to be a resounding no! Figure 3 is a plot of the number of newspaper articles that mention the 'Gross Domestic Product' from January 1992 till the end of December 2009. These are articles that have appeared in UK national newspapers and the numbers in each year from the late 1990s are in the thousands with an overall total of 39,300 articles. Over this same period the number of articles mentioning the GPI is only nine! The GDP is clearly way ahead of the GPI in terms of its reporting, and it should be noted that those responsible for writing the vast majority of the articles are journalists, albeit that many of them may well have training in economics. The advantages of the GPI and the problems with GDP that it seeks to address are not lost to this group; the nine articles set out much the same arguments as have been summarised here albeit in more colourful form. The following quote provides a flavour (with emphases provided by us).

"A big part of the problem is the obsession with economic growth. Many people, including most politicians, seem to regard economic growth as the universal panacea. Once we have more growth, they claim, we will be able to solve our problems and we will

all feel better. In fact, the opposite is true. There is a lot of evidence that indicates that, after a certain stage of economic development has been reached, economic growth makes things worse, not better."

The Herald (Glasgow); May 17, 2004; page 13

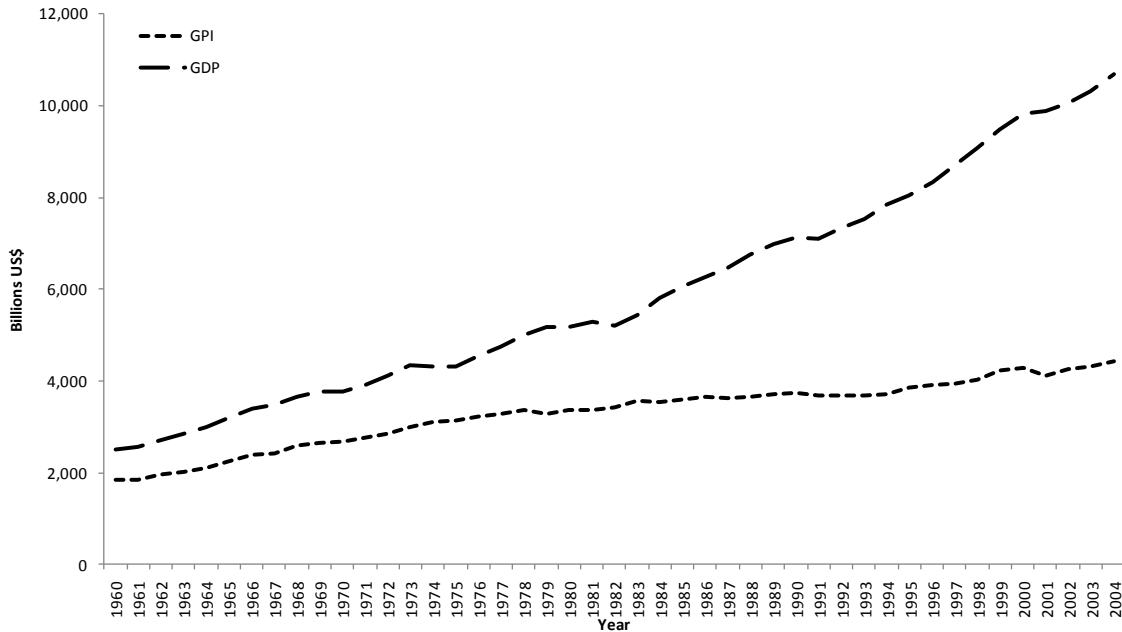


Figure 4: Trend in the Number of Articles (UK National Newspapers) Mentioning the "Gross Domestic Product" At Least Once and the Annual Growth Rate of GDP (%) for the UK. Source: Talberth, 2007.

Given that there is awareness as to what GPI attempts to achieve, why has it not had a much higher profile?? Why does GDP continue to be so dominant over all these years when its problems are so apparent?. In effect the GDP is arguably so ingrained as a measure of the economy that it would be difficult indeed for any other measure, even if founded on clear logic, to make inroads. Interestingly, in Figure 3 the reporting of the GDP does have a relationship with the annual growth rate of GDP; as the latter declines then reporting increases. The pervasiveness of that indicator seems to be so strong that it goes hand-in-hand with economic performance. Bad news does appear to have 'legs'.

Is it any better for any of those indicators that attempt to introduce balance to the dominance of GDP? After all, the HDI has a major international organisation behind it (UNDP) with offices all of the world and far more resource than 'Redefining Progress' has with its GPI. Over the same period (January 1992 till the end of December 2009) the number of articles that mentioned the HDI in the national press of the UK was 356. Admittedly this is a more impressive showing than the nine articles of the GPI but it still pails into insignificance relative to GDP.

Thus it would appear that the 'Beyond GDP' ethos has a long hard road to travel in terms of breaking the dominance of the tyranny of GDP. After all, it is not

a tyranny coming from any one individual or group of individuals, but a whole structure of policy, management, reporting, conveyers of information and indeed the public – based on a reductive view of the values of human life. It is we who give life and ‘legs’ to indicators; not the other way around. It is we who opt to give GDP its longevity.

5. Discussion

Indicators are arguably another manifestation of tyranny of method. The GDP example illustrates how an indicator can become so dominant that it is almost impossible for it to be dethroned, even if apparently sensible (at least to some) alternatives are created and promoted. However, the importance of GDP as a cultural artifact is also a symbol of the dominant value system of our time. The study of history can be argued to be the perusal of changing cultural artifacts. We cannot literally commune with past society, but we can observe and interpret the artifacts which it created. A historian looking at the intellectual artifacts of the 20th and 21st Centuries might conclude that s/he was observing:

- The beginnings of a sense of global awareness
- Supported by global monitoring and evaluation systems
- Aimed at supporting rounded human livelihoods
- Expressed against rising crises in terms of resources and environment
- But based upon highly restrictive (i.e. monetary) measures of value

By this we mean, if the visual spectrum is a small percentage of the entire electro magnetic spectrum (about 10%), then the GDP spectrum can be argued to be a similarly tiny percentage of the true measurement of human lives and experience.

The 1994 paper inferred that narrow mindsets and restricted methods were limiting and yet directing development. We suggest that this tyranny is continuing and expanding, although the form of expression may have changed. The indicators which govern our lives are still largely based upon narrow conceptions of value, they are imposed for significant and undemocratic policy formulation upon populations which have not been consulted (such as in Greece and the Republic of Ireland) and, their authors are largely anonymous and removed from any form of accountability. Following this argument, both the definition of tyranny taken from Webster’s and the characteristics of the early stages in the Piaget /Koplowitz model are satisfied – 2011 is not very different from 1994. In fact, we could go so far as to suggest that the developmental curve has progressed without surprise or change. What held true in the mindset for the method builders of development practice in 1994 holds true in exactly the same way for the indicator manufacturers of 2011.

So what is the future of ‘Beyond GDP’? Well it has to be stressed again that there is nothing new in the ‘Beyond GDP’ message promoted in recent years by major international agencies such as the European Commission and World Wide Fund for Nature. At one level it was no more than a repeat call for society to move beyond purely monetary-based measures of development. In other words, we have been here before and even the ‘answers’ put forward by the ‘Beyond GDP’ supporters have a very familiar ring, a fact that in itself is a little disturbing. As to whether the promotion of ‘Beyond GDP’ will make a difference this time around it

is hard to say. Since the financial crisis of 2007/08 there is little so far to suggest that the rhetoric has shifted, as born out in microcosm by the rise of GDP within the UK national press and the emphasis of governments on driving down deficits irrespective of the social consequences in the short term. It is indeed hard to see at present how 'Beyond GDP' has made a tangible difference to this mindset. The recent (2010) calls from David Cameron (the British Prime Minister), for a measure of 'happiness' to be developed for the UK may indeed sound 'new' but is only an echo of similar calls that have resonated through the decades. Bhutan developed its index of 'Gross National Happiness' (GNH) in the 1970s, again as a response to a perceived dominance of GDP but which was aided by a deep rooting of the concept in Buddhism. But this only brings us back to the use of such indices as devices to aid policy instrumentation; the implied need to manage to maximise the index. Will GNH really provide as good or indeed better target for maximisation than GDP? Will happiness be a new form of tyranny? While the literature is growing there is still much space for exploration. It should also be mentioned, in fairness, that there has been growing support for a new System of Integrated Environmental and Economic Accounting (SEEA), or what can be called 'green accounting', to include changes in the stock of environmental assets at the scale of the nation state (Auty 2007; Bartelmus 2007; Dietz and Neumayer 2007; Lange 2007; Lawn 2007) but while this may be a step in the right direction does it go far enough?

Indeed maybe it can be argued that it is not GDP per se that is the problem so why should we try and go 'beyond' it? After all, it is arguably the dominant thinking of what the world should be that creates the demand in the first place which GDP fulfils. Thus, and perhaps ironically, even the term 'Beyond GDP' is misleading as it misses the very essence of what indicators are and why we made them. GDP is a cultural artifact and a symptom of our mindset, not its creator. Maybe the very phrase 'Beyond GDP' employed by the EU and others is itself symptomatic and unintentionally supportive of the very tyranny of indicators which it tries to question? The reification of a single indicator as the centerpiece of a movement that seeks to question the damaging oversimplification of one of the most prominent indicators can only be the source of rich irony – and a sharp intake of breath.

6. Conclusion

An important additional factor, imminent in 1994 and now rampant, is what Castells has called the rise of the Network Society (Castells 1996). Indicators, universal in scope and easily accessible via Google and other search engines, are a significant manifestation of the products of the network, holding social order together by amplifying the tyranny, mirroring the order and simplifying (dumbing down or even distorting?) the message. As Castells puts it:

“It is the beginning of a new existence, and indeed the beginning of a new age, the information age, marked by the autonomy of culture vis-à-vis the material bases of our existence. But this is not necessarily an exhilarating moment. Because, alone at last in our human world, we shall have to look at ourselves in the mirror of historical reality. And we may not like the vision.” (Castells 1996 page 478)

For those interested in hearing more about indicators and their uses and influence within sustainable development there is an Open University podcast available at <http://itunes.open.ac.uk/r/cptcj9>.

Bibliography

- Auty, R. (2007). "Natural Resources, Capital Accumulation and the Resource Curse." Ecological Economics **61**(4): 627 - 634.
- Bartelmus, P. (1987). "Beyond GDP: New approaches to applied statistics." Review of Income and Wealth **33**: 347 - 358.
- Bartelmus, P. (2007). "SEEA - 2003: Accounting for sustainable development:." Ecological Economics **61**(4): 613 - 616.
- Bell, S. (1994). "Methods and Mindsets: towards an understanding of the tyranny of methodology." Journal of Public Administration and Development. **Vol. 14**(No. 4): pp. 323-338.
- Bell, S. (1997). "Not in Isolation: The necessity of systemic heuristic devices in all development practice." Public Administration and Development **17**: 449-452.
- Bell, S. (1999). Defying the Anatomy of Confusion in Information Systems Development. Public Administration and Development Jubilee Conference: The Last Fifty Years and the Next Fifty Years: A Century of Public Administration and Development, Oxford. St. Anne's College.
- Bell, S. (2000). "Logical Frameworks, Aristotle and Soft Systems: A note on the origins, values and uses of Logical Frameworks." Public Administration and Development **20**(1): 29-31.
- Blunt, P. (1997). "Prisoners of the Paradigm: Process Consultants and 'Clinical' Development Practitioners." Public Administration and Development **17**(3): 325-340.
- Castells, M. (1996). The Rise of the Network Society. Massachusetts, Blackwell.
- Chambers, R. (1997). Whose Reality Counts? Putting the first last. London, Intermediate Technology Publications.
- Clarke, M. (2007). "Is the Genuine Progress Indicator really genuine? Considering well-being impacts of exports and imports." Journal of Environment, Workplace and Employment **3**(2): 91 - 102.
- Cleaver, F. (1999). "Paradoxes of Participation: Questioning participatory approaches to development " Journal of International Development **11**(4): 597 - 612.
- Commission_of_the_European_Communities (2009). Communication from the Commission to the Council and the European Parliament: GDP and Beyond - measuring progress in a changing world. E. Commission. Brussels, Commission of the European Communities.
- Cook, B. (1997). "The Deceptive Illusion of Multi-Paradigm Development Practice." Public Administration and Development **17**: 479 - 486.

- Cooke, B. and U. Kothari, Eds. (2001). Participation the New Tyranny. London, Zed Books.
- Costanza, R., J. Erikson, K. Fligger, A. Adams, A. C., B. Altshuler, S. Balter, B. Fisher, J. Hike, J. Kelly, T. Kerr, M. McCauley, K. Montone, M. Rauch, K. Schmiedeskamp, D. Saxton, L. Sparacino, W. Tusinski and L. Williams (2004). "Estimates of the Genuine Progress Indicator (GPI) for Vermont, Chittenden County and Burlington, from 1950 - 2000." Ecological Economics **51**(1- 2): 139 - 155.
- Daly, H., J. Cobb and C. Cobb (1994). For the Common Good: Redirecting the economy toward community, the environment and a sustainable future. London, Beacon Press.
- Dietz, S. and E. Neumayer (2007). "Weak and Strong Sustainability in the SEEA: Concepts and measurement." Ecological Economics **61**(4): 617 - 626.
- Feyerabend, P. (1988). Against Method. London., Verso.
- Fleurbaey, M. (2009). "Beyond GDP: The quest for a measure of social welfare." Journal of Economics and Literature **47**(4): 1029 - 1075.
- Hamilton, C. (1999). "The genuine progress indicator methodological developments and results from Australia." Ecological Economics **30**(1): 13 - 28.
- Hsueh, Y. (2005). "The Lost and Found Experience: Piaget Rediscovered." The Constructivist **16**(1).
- Ichoku, H. (2010). "On the Use of Socioeconomic status indicators in the analysis of health inequalities and poverty in Africa." Journal of International Development **Early view online**.
- Juma, C. and N. Clark (1995). "Policy Research in Sub-Saharan Africa: an exploration." Public Administration and Development **15**(121 - 137).
- Koplowitz, H. (1984). A Projection Beyond Piaget's Formal-Operations Stage: A general system stage and a unitary stage. Beyond Formal Operations: Vol. 1. Late Adolescent and Adult Cognitive Behaviour. M. L. Commons, F. A. Richards and C. Armon. New York, Praeger.
- Lange, G. (2007). "Environmental Accounting: Introducing the SEEA-2003." Ecological Economics **61**(4): 589 - 591.
- Lawn, P. (2003). "A Theoretical Foundation to Support the Index of Sustainable Economic Welfare (ISEW), Genuine Progress Indicator (GPI) and Other Related Indexes." Ecological Economics **44**: 105 - 118.
- Lawn, P. (2007). "A Stock-Take of Green National Accounting Initiatives." Social Indicators Research **80**(2): 427 - 460.

- Leach, M., A. Sumner and L. Waldman (2008). "Discourses, Dynamics and Disquiet: Multiple knowledge in science, society and development." Journal of International Development **20**(6): 727 - 738.
- Lee, R. (1972). The Wired Nation: Cable TV: the electronic communication highway. London, Harper and Row.
- McArthur, T. (1990). Beyond Logic and Mysticism. Wheaton, USA. , Quest.
- Morse, S. (2004). Indices and indicators in development. An unhealthy obsession with numbers. Earthscan: London.
- Parkinson, S. (2009). "Modes of Influence: Participation in publicly administered development programmes." Public Administration and Development **29**(2): 145 - 154.
- Piaget, J. (1955). The Construction of Reality in the Child. London, Routledge and Kegan Paul.
- Reynolds, M. (2008). "Reframing Expert Support for Development Management." Journal of International Development **20**(6): 768 - 782.
- Ronzoni, M. (2009). "The Global Order: A case of background injustice? A practice-dependent account." Philosophy and Public Affairs **37**(3): 229 - 256.
- Sangiovanni, A. (2007). "Global Justice, Reciprocity, and the State." Philosophy and Public Affairs **35**(1): 3 - 39.
- Sellamna, N. (1999). Relativism in agricultural research and development: Is participation a post-modern concept? London Overseas Development Institute.
- Stout, M. (2010). "Climbing the Ladder of Participation: Establishing local policies for participatory practice." Public Administration and Development **15**(1): 45 - 97.
- Talbeth, J., C. Cobb and N. Slattery (2007). The Genuine Progress Indicator 2006. A tool for sustainable development. Redefining Progress. Oakland, California. .
- Traber, M. (1986). The Myth of the Information Revolution: social and ethical implications of communication technology. London, Sage Communications in Society Series.
- Verbruggen, H. and O. Kuik (1991). Indicators of Sustainable Development: an overview. In Search of Indicators of Sustainable Development. O. Kuik and H. Verbruggen. Dordrecht, Kluwer Academic Publishers: 1-6.
- Wilson, G. (2008). "Our Knowledge Ourselves: Engineers (re)thinking technology in development." Journal of International Development **20**(6): 739 - 750.