

DEFRA Project 3b: Sustainable development and well-being: relationships, challenges and policy implications

A report by the *centre for well-being, nef* (the new economics foundation) for Defra (Department for Environment, Food and Rural Affairs)

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Executive summary

This report forms Project 3b of DEFRA's review of evidence for relationships between well-being and sustainable development, undertaken as part of the UK government's 2005 sustainable development strategy, *Securing the Future*. It reviews a range of evidence from economics, psychology, epidemiology and other disciplines, highlighting a number of connects and disconnects between well-being and environmental sustainability. It further identifies key challenges and policy implications for a transition towards one-planet living.

Context of research

In the most recent UK sustainable development strategy, *Securing the Future* (DEFRA, 2005), sustainable development itself is defined in terms of two distinct, but related, components:

- **Living within environmental limits** (i.e. the need for environmental sustainability)
- **Ensuring a strong, healthy and just society** (i.e. the need to ensure well-being for all, now and in the future).

The need for a sustainable development strategy implies that the current model of development is *unsustainable*; in other words, that we are using the planet's resources faster than they can be replaced and that the current high levels of material throughput and resource consumption are chiefly responsible for this.

Exploring the current development model from a well-being perspective

This report takes a broadly 'needs-based' approach to the concept of well-being, in which it is assumed that well-being depends on the fulfilment of certain physical and psychological needs. In this view, individual well-being is a function of the extent to which both physical and psychological needs are satisfied. Hence, the relationship between well-being and environmental sustainability hinges on whether the material conditions, actions, behaviours and attitudes promoted by the prevailing social, economic and political situation act to support, or interfere with, the satisfaction of these underlying needs.

The unsustainability of the existing development model looks like a significant problem for well-being. According to economic theory, consumer demand is a key driver of economic growth. It is also strongly related to individuals' well-being, because in a growing economy people are increasingly affluent and able to purchase goods and services that enhance their quality of life. It is conventionally assumed that standards of living, however narrowly or broadly conceptualised, have risen in association with economic growth, and there is evidence that when national income

declines sharply, so does well-being. If this understanding is correct, and yet current levels of material consumption *are* environmentally unsustainable, there seem to be only two possible outcomes: compromised well-being for future generations due to environmental degradation, or compromised well-being now due to curtailed consumption opportunities. However, careful consideration of the evidence for relationships between well-being and environmental sustainability suggests a third possibility, one that simultaneously acknowledges the well-being benefits of a strong and stable economy and the negative impacts on well-being associated with unsustainable material consumption.

Firstly, economic growth generally creates stability and stability underpins people's well-being – there is good evidence that serious economic instability is detrimental to well-being. Secondly, the current economic model is characterised by productivity increases; it has conventionally been argued that employment (with its associated well-being benefits) can only be maintained under conditions of economic growth. Thirdly, public spending on services that explicitly support people's well-being is dependent on the taxation of private incomes generated by economic growth. In short, a strong and stable economy is supportive of well-being.

However, in the current economic model, stability is structurally dependent on continuing consumption growth. When this growth is in material consumption, it leads, in turn, to the problems of environmental sustainability. In considering the relationships between well-being and environmental sustainability, it is therefore essential to explore not only *direct* links between the environment and people's well-being, but also effects that are *mediated* through individuals' behaviour within the context of the current economic system.

Relationships between environmental sustainability and well-being

To this end, we introduce a new classification schema of 'pathways' between well-being and environmental sustainability. This is necessary to distinguish clearly between different types of causation, and is based on the recognition that many of the relationships are complex, indirect and mediated by people's attitudes and behaviours. The tripartite schema moves progressively from *transparent* pathways, in which the relationship between environmental sustainability and well-being is direct (e.g. impact of air pollution on physical well-being); through *semi-transparent* pathways, in which the relationship is mediated by values and behaviours with directly attributable environmental consequences (e.g. the decision to drive to work rather than take the bus); to *opaque* pathways in which a relationship exists but is mediated through attitudes and behaviours that do not have directly attributable environmental consequences (e.g. the well-being impact of strongly materialist values).

Using this schema, we review evidence for ‘connects’ and ‘disconnects’ regarding the relationship between environmental sustainability and well-being. A connect is a situation where there is clear evidence that policies which have a positive impact on environmental sustainability would also have a positive impact on well-being (or vice versa); in other words, they are mutually reinforcing. A disconnect, by contrast, occurs where there is evidence that policies that would impact positively on environmental sustainability would have a negative impact on well-being (or vice versa).

The category of *transparent pathways* includes direct relationships between well-being and the environment, especially those relating to physical health. Clearly, many current and future effects of climate change (which will become more severe and widespread over time) have a negative impact on well-being by compromising the need for physical health, safety and subsistence. However, there is also evidence for environmental impacts on psychological well-being, including the positive effect of public access green spaces, as well negative effects caused by airborne pollutants and localised environmental damage. Some evidence suggests that even quite minimal access to community parks and gardens in urban areas can have significant impact on sociological variables (e.g. reductions in crime rates).

Semi-transparent pathways, those which are mediated through attitudes and behaviours with directly attributable environmental consequences, include many of the most obvious ‘disconnects’. Demands for personal mobility, for instance, are satisfied through car use and air travel, and are probably supportive of well-being through satisfaction of the needs for autonomy and – in some instances – access to vital services. Similarly, certain resource-intensive behaviours in the home support well-being through eliminating unpleasant tasks and promoting comfortable living spaces. More generally, however, some evidence suggests that pro-environmental values and attitudes are themselves associated with higher levels of psychological well-being, and that these attitudes to some extent predict the likelihood that people will behave in environmentally responsible ways. At the same time, perceptions of the future – in particular, the prospect of dramatic social, economic and environmental change – may result not in pro-environmental attitudes, but in maladaptive responses such as nihilism or fundamentalism. Whilst more research is required to understand how pro-environmental attitudes develop, the suggestion that they might be well-being supportive *per se* deserves significant attention.

Finally, recent research suggests two major *opaque pathways* (indirect relationships mediated through attitudes and behaviours that do not have directly attributable environmental consequences) – materialist values, and social change resulting from an emphasis on the individual as consumer. Copious recent evidence suggests that increases in GDP per capita over time have not led to overall increases in reported well-being. By implication, and contrary to the

expectations of economic theory, it thus appears that rising consumption has not led to concomitant well-being gains, or that such gains as have been wrought are offset by other factors. At least two broad explanations have been marshalled to explain this result. Firstly, there is compelling research evidence to suggest that strongly materialist values and motivations are associated with dissatisfaction, anxiety and lower well-being. Some research suggests, further, that strongly materialist values are negatively associated with pro-environmental attitudes and behaviours. For a consumption-driven economy this is both a problem and an opportunity. On the one hand, materialism serves a useful purpose in driving consumption demand; on the other hand, reducing the prevalence of materialist values might actually yield well-being benefits in itself. The second explanation is that the modern economy's structural reliance on material consumption, with its attendant emphasis on the needs of the individual, may actually have caused (or catalysed) the breakdown of certain social structures (e.g. the family, the local community) that support well-being. This argument suggests that a less consumption-dependent economy would be more supportive of the social conditions on which well-being depends, and as such deserves further consideration.

The challenge of transition

Many of the well-being impacts of environmental damage have been known for some time. Additional evidence, from a number of different disciplines, that excessive consumption can be harmful to well-being provides further support for the transition towards a materially lighter, well-being led economy outlined in *Securing the Future*. The challenge for sustainable development policy is to find a way of decoupling economic growth from growth in material throughput, in such a way that: 1) the well-being benefits of a strong and stable economy can be maintained *without* increasing environmental damage; and 2) the negative effects of consumption on well-being can be lessened through changes in behaviour and attitudes. There are at least three serious challenges to be overcome if the transition is to be managed so as to minimise the well-being impact (and, potentially, lead to well-being gains).

Getting started

Firstly, people must accept and embrace the need for changes to their consumption behaviour if well-being benefits are to be forthcoming. This means dealing with several significant obstacles:

- People feel threatened by anticipated losses. However, evidence on adaptation to changed circumstances across a range of domains suggests they might adapt faster (and more completely) than they imagine to lower impact lifestyles.
- Many of the potential gains in well-being from behaviour change are likely to be *lagged* – that is, they will only be realised in the relatively long term.

- The problem of social dilemmas (i.e. individuals rationalising that changing their own behaviour will not have any significant impact unless others do likewise) implies prescriptive, enforced behavioural change. However, this risks compromising individual autonomy and thus negating potential well-being gains.

Levelling (and lowering) the playing field

Sustainable development policy places a premium on reducing inequalities: of incomes, of resources, of impacts and (by extension) of well-being across different sections of society. New data from **nef** show not only that the level of resource consumption in the UK is currently too high (well beyond “one-planet living”¹), but also that it is unequal. To date, the well-being debate has had relatively little to say on the subject of equity and this seems to be an area ripe for development.

Resolving tension between production and consumption

Perhaps the biggest obstacle to a materially lighter, well-being led economy is the current structural requirement for ever greater consumption. Whilst it is certainly feasible that consumption patterns could become materially lighter through a combination of efficiency gains and a switch away from material goods towards services, the growth in the scale of material consumption means that there remains a tension between the needs of the economy and the costs associated with the consumption that drives it. The well-being benefits provided by a strong and stable economy are real and significant, although it is also important to recognise that these benefits are likely to be constrained by ceiling effects – there is only so much stability or employment that can be achieved. Meanwhile, however, the growing consumption required to sustain these economic conditions has increasing costs, both environmental and psycho-social. From a well-being perspective, it is not clear that these costs are offset by the benefits.

The challenge of sustainable development is to negotiate a path that dematerialises consumption without creating a downward spiral of increasing unemployment and poverty. To achieve this aim, consideration must be given not only to consumption patterns, but also to ways in which productivity gains might be expressed differently (for instance, in the form of increased time for social / leisure pursuits).

¹ In a letter to the Prime Minister dated July 11, 2006, Rt Hon David Miliband wrote “So, put simply, I see Defra’s mission as enabling a move toward what the WWF has called ‘one planet living’.”

Implications for Policy

Based on the foregoing review and discussion we make a number of suggestions for sustainable development policy. Firstly, we offer three proposals for the direction of government-led research in this area:

- *Measuring what matters.* Extending the current programme of work on well-being indicators to address the complex interaction of social and economic factors that both support and undermine well-being. This would explore how aspects of the current economic model impact on conditions such as community cohesion and social capital, personal values and cultural norms, attitudes to the future and so on.
- *Exploring a long-term vision of a sustainable, well-being focused economy.* Instigating a wide-ranging dialogue around the need to decouple economic growth from environmental damage, and exploring how a sustainable economy might be achieved.
- *Protecting social and psychological spaces.* Recognising that government is a co-creator of the conditions on which well-being depends, and instigating a 'working philosophy' for policy development that protects psychological and social spaces: the family, community, civic trust and so on.

Secondly we outline five illustrative policies that could be implemented in the shorter term: planning for green space, a review of the impact of taxation policy on behaviour, incorporating sustainability and well-being into the national curriculum, curbing advertising aimed at children, and regulation of working hours. These would – we believe, on the basis of the evidence reviewed above – have benefits for both well-being and environmental sustainability.

Conclusions

Whilst it would be premature to suggest that a well-being perspective removes the tension between environmental sustainability and the current model of socio-economic development, it does have considerable potential to illuminate the debate by providing a common aim for policy – namely, the promotion of well-being for all, now and in the future. The research reviewed in this project highlights important relationships between environmental sustainability and well-being that could prove useful to future policy development. However, it also identifies key challenges that any transition towards one-planet living will have to overcome.