

The economics of happiness

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The pursuit of happiness

*Does economic growth improve our lives? Are there better ways to measure welfare? How do GDP and the environment interact? Opening chinadialogue's series on well-being economics, **Sam Geall** talks to Cormac Cullinan, an attorney, campaigner and author of a manifesto for earth justice.*

"Are you happy, sir?" This is the question that filmmaker Jean Rouch and sociologist Edgar Morin had passersby answer in Paris in 1960, documented in the cinéma vérité classic *Chronicle of a Summer*. It's also a question that France's president seems keen for social scientists to ask again: in the immediate wake of the 2008 financial crisis, Nicolas Sarkozy commissioned Nobel Prize-winners Joseph Stiglitz and Amartya Sen and the economist Jean-Paul Fitoussi to explore indicators of social progress other than economic growth.

The UK prime minister David Cameron has also backed an inquiry into the economics of well-being. British social epidemiologists Richard Wilkinson and Kate Pickett argue in their influential book *The Spirit Level* that in terms of quality of life, "We have got close to the end of what economic growth can do for us." Even Simon Kuznets, another Nobel Prize-winner and the inventor of Gross Domestic Product (GDP), economic growth's main indicator, believed that GDP was no measure of the "welfare of a nation".

Not everyone in poor countries is happy with rising GDP, either. The erstwhile absolute monarchs of the Himalayan Kingdom of Bhutan have promoted the idea of Gross National Happiness (GNH) since the 1970s. Bhutan's prime minister, Jigme Thinley – the country embraced democratic reforms in 2008 –



“ He compares civilisation's current trajectory to that of a bulldozer powered by fossil fuel: 'It's better that the fuel runs out and the bulldozer stops than you find a new fuel.' ”

recently told the Coca-Cola Institute of Happiness (yes, it really exists): "Globally, the interest [in GNH] is growing, especially as a consequence of the economic downturn."

But is the GDP-scepticism just about monitoring citizens' recession-era gloom? Not for Chinese environmentalists, who have long called for a benchmark to supplant GDP in the political evaluation of local government officials, one that takes into account economic "externalities", such as pollution and resource depletion. China's National Bureau of Statistics shelved plans to calculate the country's "green GDP" in 2007, but this year quietly revived a similar set of environmental indicators. (The new economics foundation, stalwart proponents of an alternative measure of national progress, found in 2008's Happy Planet Index that happiness in China had dropped even as the country's GDP grew at breakneck speed).

Looking at the history of such debates, the quest for an alternative to GDP is more about finding the incentives for leaders, be they county officials or heads of state at international climate summits, to transcend short-term local or national interests and govern more fairly and sustainably. But are new

indicators enough to achieve this? And what are the implications – political, economic and philosophical – of such a change? Cormac Cullinan, an attorney and the author of *Wild Law: A Manifesto for Earth Justice*, has tried to answer these questions and reached some radical conclusions.

Speaking at a climate-change conference in Hong Kong, Cullinan told *chinadialogue* that human development used to mean seeking a more fulfilled life, but at some point it was “hijacked to mean GDP growth”. He continued: “When we talk about development, we’re not really talking about development. We’re pushing an abstract economic indicator that doesn’t tell us whether society’s getting healthier or not.”

Cullinan, a former anti-apartheid activist, pointed out that, while the government in his native South Africa is committed to eradicating the inequalities of white minority rule, the steady GDP increase has obscured a widening gulf between rich and poor, as measured by the Gini coefficient. Another striking example: crime can stimulate GDP. Being treated in hospital after being stabbed, he explained, could be reflected as a positive increase in GDP.

Most of all, Cullinan is concerned about the health of the planet, or “Earth community”, as he likes to call it: largely off the books in terms of GDP accounting, but a very unhappy picture according to almost any scientific measure (the few exceptions being the ozone layer and some species like the southern right whale). For Cullinan, averting the ecological crisis requires a total change of course. He compares civilisation’s current trajectory to that of a bulldozer powered by fossil fuel. “It’s better that the fuel runs out and the bulldozer stops, rather than you find a new fuel,” said Cullinan. “If you look at climate change in isolation, you might come to the conclusion that the problem is the fuel, that you simply need to change the fuel for the bulldozer. But if you look at it holistically, you can see that this is not enough.”

To reverse the bulldozer of growth, Cullinan thinks countries need more than new development indicators;

instead, the planet should be at the centre of global jurisprudence, an idea enshrined in the document he played a central role in drafting, the “Universal Declaration of the Rights of Mother Earth”, modelled on the “Universal Declaration of Human Rights”. (Earlier this year the World People’s Conference on Climate Change and the Rights of Mother Earth – a response to 2009’s Copenhagen climate conference, attended by around 35,000 people, mainly civil society activists, and hosted by Bolivia, one of the countries that refused to sign the Copenhagen Accord – adopted the declaration).

Is it realistic to imagine that the complex, interactive natural systems that constitute our planet could one day become a legal entity? And who speaks for the Earth, anyway? It’s probably fair to say that the proposal raises as many questions as it answers. But this may be the point. “What is most important about a document like the declaration,” said Cullinan, “is that it starts a conversation, because you can’t interact with that document without challenging the fundamental beliefs on which the dominant system is based.” Moreover, there are existing mechanisms, said Cullinan, that allow lawyers to speak for “legal fictions”, such as states or companies. In other words: “If you can act as if something like a company is real, it’s certainly quite possible to act on behalf of a mountain or a river.”

Cullinan cites a tribal customary court in Kenya that had somebody speak on behalf of a hyena that had been killed, and ruled that the killer’s clan pay a number of goats to the hyena’s orphaned young in compensation. His point is not that such courts could work in every society, but that some human societies have found mechanisms to limit how much people take from the planet. “We need to come to the realisation that we share the planet,” said Cullinan. He makes a comparison with the main object of discussion in international climate-change talks: “It’s not only a question of equity between developed and developing countries, it’s also a question of equity between humans and other species.”

The declaration and its proponents raise myriad questions, but some of them are important. As the planet approaches dangerous tipping points, are new development indicators enough to ensure well-being in a carbon-constrained, resources-depleted world? Is “low-carbon growth” a desirable goal? And is it any more realistic than the declaration’s radical proposal?

I’ll leave the last words to Cullinan: “It sounds crazy from the perspective of the dominant worldview, but my argument is: it’s a more accurate description of how the world works from a scientific point-of-view – everything is interrelated and interconnected. And so it’s about abandoning illusions that we run the planet. It’s about coming back down to earth.”

Sam Geall is deputy editor at chinadialogue.

How to make China happy

*China's newfound focus on well-being will be useless without wider political reform, writes **Tang Hao**, as we continue our special series on happiness.*

As China's growth figures have rocketed, criticism of the country's "GDP first" approach has also been rising. That criticism is now starting to influence policy: in January, the Communist Party branch in Guangdong, a province in southern China, specified a "Happy Guangdong" as one of its goals for the 12th Five-Year Plan period, which runs from 2011 to 2015. It aims to achieve this target by boosting domestic demand, innovation, workforce development, regional coordination, green development and "harmonious sharing".

Guangdong's proposal won swift approval from civil society, with both the media and the public praising the "Happy Guangdong" concept. It is clear that the Chinese people – particularly those in more developed regions – have come to realise the limitations of a system where, once a certain degree of growth has been achieved, GDP is still prioritised above all else. They hope that broader indices can be used to promote economic and social development and increase the well-being of China's citizens.

At the end of the 1970s, China's per-capita GDP was only US\$290 (1,906 yuan). Housing was basic and people struggled to survive. Private bathrooms, personal transportation, refrigerators, televisions, cassette players and telephones were all part of daily life in the United States and Europe, but remained an unreachable dream for most Chinese people. A low level of economic development was preventing the pursuit of happiness.

And so China declared war on poverty. With economic growth as its central battle strategy, it went all out in pursuit of higher GDP. Thirty years later, China has



overtaken Japan to become the world's second largest economy and has per-capita GDP of about US\$3,000 (19,700 yuan). Challenges to basic survival have been met, while some areas have become wealthy and modern. The GDP figure in Guangdong, one of China's most developed provinces, is now close to that of the four Asian Tigers – Hong Kong, Singapore, South Korea and Taiwan – which themselves have entered the ranks of developed nations.

The dream of a better life among ordinary people has driven this economic miracle. And economic growth has become the Communist Party's most important source of legitimacy.

“ The narrow pursuit of GDP growth can actually damage the factors that create happiness. Many parts of China have welcomed polluting industries for the sake of economic growth. ”

Once an individual's material needs have been met, further consumption provides diminishing returns of happiness. For a nation, it is the same – once economic development provides subsistence, or even a comfortable existence, for its people, further GDP growth does not noticeably increase well-being. Sociological, psychological and economic research has shown this to be the case, and our own experiences confirm it. When issues of survival have been dealt with nationwide and when many regions have achieved economic modernisation and comfortable

living standards, the additional happiness generated by further economic growth begins to fall.

Moreover, the narrow pursuit of GDP growth can actually damage the factors that create happiness. For example, many parts of China have welcomed polluting industries for the sake of economic growth, resulting in air and water contamination, higher rates of illness – and a decline in day-to-day well-being. What is the point of this kind of economic growth?

This question is not unique to China. Some nations have gone so far as to propose replacing GDP with Gross National Happiness (GNH) – easy to calculate by combining indices measuring GDP, public health, social welfare, culture and environmental quality. Bhutan has already adopted the idea of GNH into national policymaking, leading it to cap the number of tourists allowed to visit the country each year in order to limit environmental and social impacts. As a result, Bhutan's per-capita GDP is low, but it has become, many argue, the world's "happiest nation".

In China, Guangdong has taken the lead in moving away from GDP-focused development and stressing that a happy society is not simply a rich one: it also needs a clean environment, secure civil rights, social justice and the provision of public and cultural goods. The implications of this are worth considering.

But while the idea of Gross National Happiness is now taken seriously, its implementation in China still faces obstacles. Take one component – environmental indices – as an example. Over recent years, China has seen continuous reports of heavy-metal pollution, algal blooms, sprawling landfills and air pollution. But the environmental authorities have used reported reductions in chemical oxygen demand (a measure of water pollution) and carbon-dioxide emissions to claim that the environment is improving. Even Zhang Lijun, vice minister for environmental protection, admits that there are problems with using those two measures to evaluate the quality of China's environment. Meanwhile, using their own cameras,

Beijing residents have shown that the city's "blue-sky days" are much rarer than official statistics claim.

Against this background, it is easy to understand why official environmental data gets better every year, while the public's sense of well-being diminishes. Non-GDP indices are being used for appearance's sake only. Meanwhile the GDP-first approach remains popular, particularly with local governments under increasing financial pressure. Short-term measures designed to boost GDP, such as selling land, speculating on property markets and supporting polluting industries, are constantly employed.

Why, when the extra well-being provided by further economic growth is falling, is China still pursuing GDP at the expense of other forms of social development? Besides the fact that there is still room for growth, the most important driving force is the system for assessing the performance of officials. Over the past 30 years, China's market reforms, combined with a concentration of power in government hands, have created a form of economic development led by local government. This has made economic growth the most important measure of an official's success and, to a certain extent, distorted his or her public-service role.

In the 1980s, the Chinese Communist Party's source of legitimacy shifted from ideology to economic record. Although ideological education remained significant, the party's right to rule was increasingly drawn from actual economic growth. This formed the core of a system for assessing local government performance, evaluating results and determining promotions that, over three decades, has become entrenched. But society has developed faster than the political system, and China has been left with a rigid assessment framework that is ill-suited to the needs of a rapidly changing society.

Another issue is that, under the existing system, local government and local business come together to form a powerful interest group that supports GDP growth over competing demands, such as environmental

protection. Its members have interests to protect, organisational ability, financial backing and, in some cases, media control. Meanwhile, the needs of the environment are advocated by newer groups, which are both scattered and weak. Sometimes their voices are heard in the media, but they are no match for powerful lobby groups. This is why many polluting projects continue despite objections from numerous environmental organisations.

Everyone knows that protecting the environment is a good thing. And everyone knows that money does not equal happiness. But the system nonetheless results in a chronic focus on GDP. Merely advocating happiness indices will not solve the problem. As long as local government officials seek good evaluations – and those evaluations are carried out by superiors from higher levels of government, without public involvement – GDP will remain the most direct and effective measure of success. And, for officials, ignoring public demands to prioritise well-being over GDP growth will continue to make perfect sense.

The GDP chase is the product of an outdated method of assessing government performance. Calling for officials to pay more attention to well-being without changing that system will make happiness indices nothing more than window-dressing. Only reforming that system and letting the public participate in the evaluation of local government will force officials out of the GDP rut and allow the creation of a “Happy China”.

Tang Hao is deputy professor at South China Normal University, a Fulbright scholar and a columnist.

“Growth can’t go on”

To have any hope of protecting Earth’s resources, we must first abandon our obsession with economic expansion, argues
Viki Johnson.

From birth to puberty a hamster doubles its weight each week. If, then, instead of levelling-off in maturity as animals do, the hamster continued to grow at the same rate, on its first birthday we would be facing a nine-billion tonne hamster. If it kept eating at the same ratio of food to body weight, by then its daily intake would be greater than the total, annual amount of maize produced worldwide.

There is a reason that in nature things do not grow indefinitely.

Yet the entire canon of mainstream contemporary economics seems to believe that economics exists independently of the laws of biology, chemistry and physics. It assumes, without exception, that infinite economic growth on a finite planet is both desirable and possible.

In economics, “growth”, or the lack of it, describes the trajectory of Gross Domestic Product and Gross National Product, two slightly different measures of national income (they differ, basically, only in that one includes earnings from overseas assets). An economy is said to be growing if the financial value of all the exchanges of goods and services within it goes up. The absence of growth gets described, pejoratively, as recession. Prolonged recessions are called depressions.

Yet it is not that simple. An economy may grow, for example, because money is being spent on clearing up after disasters or pollution incidents, or to control rising crime or widespread disease. You may also have “jobless growth”, in which the headline figure for GDP rises but new employment is not generated, or environmentally destructive growth,



in which a kind of false monetary value is created by liquidating irreplaceable natural assets on which livelihoods depend.

The fact that an economy is growing tells you nothing about the “quality” of economic activity that is happening within it. For example, research by the centre for well being at nef (the new economics foundation) shows that the link between rising GDP and higher life satisfaction in developed nations broke down decades ago.

“ For every doubling in the global economy, as it is currently measured, we use the equivalent in resources of all of the previous doublings combined. ”

Research by nef also highlighted a flaw at the heart of the general economic strategy that relies upon global economic growth to reduce poverty. The distribution of costs and benefits from economic growth, it demonstrated, is highly unbalanced. The share of benefits reaching those on the lowest incomes is shrinking. In this system, paradoxically, in order to generate ever smaller benefits for the poorest, those who are already rich and “over-consuming” are required to consume ever more.

For every doubling in the global economy, as it is currently measured, we use the equivalent in resources of all of the previous doublings combined. For modest growth rates of 3% each year, common to developed economies, the doubling period is

around 23 years. For higher growth rates of 10%, more common to developing economies, the doubling period is approximately seven years.

In a unique study published in the science journal *Nature* in September 2009, a group of 29 leading international scientists identified nine processes in the biosphere for which they considered it necessary to define “planetary boundaries”. Of the nine boundaries, three had already been transgressed: climate change, interference in the nitrogen cycle and biodiversity loss. Clearly, anyone who thinks the Earth can take another doubling of the global economy is, as economist Kenneth Boulding famously stated, “a madman or an economist”.

To illustrate this, and in the context of climate change, nef looked in detail at the relationship between economic growth and the need to avert catastrophic climate change. Based on the leading models for climate change and the global economy’s use of fossil fuels, the report comes to a seemingly inescapable and self-explanatory conclusion.

It asks whether global economic growth can be maintained, while keeping a good likelihood of limiting global temperature rise to two degrees Celsius above pre-industrial levels, the target set out in the Copenhagen Accord, and widely considered the maximum rise to which humanity can adapt without serious difficulty.

The report shows that none of the scenarios studied, including the most optimistic variations of low-carbon energy and efficiency, could square the circle of endless global economic growth with climate safety. This is in part due to the fact that, over the last decade, carbon intensity (carbon per unit of GDP) has not gone down, it has generally flat-lined and, in some years, even gone up. This is the result of rapid economic growth in developing nations such as India and China, which have fuelled their economic boom with carbon-intensive coal. However, globally, there has also been a lack of investment in low-carbon energy infrastructure such as solar or wind energy.

At the same time, improvement in energy intensity of the economy (energy per unit of GDP) has slowed – implying we may be approaching efficiency limits in both the supply side (such as power stations) and demand side (such as domestic appliances). So, for all the promise of magic bullet technologies such as biofuels, carbon capture and storage and nuclear, and ever improving energy and resource efficiencies; continual growth drowns out energy and natural resource efficiency gains.

Well-being economics offers an alternative to the problems associated with unsustainable economic growth. Underpinning it is the recognition that economic growth was only ever intended as a means to an end, and that by prioritising the “means” – in other words focusing so heavily on economic growth – we have lost track of the “end”, of what really matters.

At the heart of well-being economics is the understanding that the “end” in question is a high level of well-being for all, achieved through economic activity that uses environmental resources in a sustainable way. If society’s goal is understood to be high well-being, and the means of achieving it is recognised as sustainable economic activity, we will be better equipped to deal with the biggest challenge that we face in the twenty-first century.

Unending global economic growth is not only impossible, it is also neither desirable nor necessary. If you have any doubts, ask a hamster.

Viki Johnson is head of climate change and energy policy at nef.

Towards sustainable capitalism

*The effort to reconcile climate economics with market forces has so far stalemated, but **Jonathon Porritt** and **David Bent** say there is a sustainable business model that works.*

The world's financial markets are still very fragile, with economic recovery in Europe and the United States tentative and uncertain. It's not so very different with climate change. From the Bali climate-change summit at the end of 2007 through to the chaotic failure of Copenhagen in December 2009 and the limited progress at Cancún at the end of last year, climate negotiations have staggered from one missed milestone to the next, principally because of fears of the impact that any substantive agreement would have on our fragile economies.

To say that today's political elites are not joined-up in their fragmented responses to these and other crises is something of an understatement. There would appear to be no "over-arching economic rationale" other than to maintain the status quo. But what if the current version of capitalism – consumption-driven, credit-fuelled, export-dependent economic growth – is itself at the heart of these crises? Then the root causes will go untouched, and there will be no serious recognition that we need a new version of capitalism that enables all to have better lives within environmental limits.

There are some who argue that there is no form of capitalism that can be sustainable. Capitalism's imperatives to grow, to accumulate, to concentrate ownership and to turn everything and everybody into commodities and "monetisable assets" are seen to be completely incompatible with a more equitable economy constrained by the limits of the natural world.



Image from Dudarev Mikhail

We both have a good deal of sympathy for those sentiments, but we are also realists. The UK Meteorological Office's report "Informing Choices" is a reminder of the urgency of the climate challenge; it warns that if mankind is to have a 50% chance of avoiding warming of more than two degrees Celsius above pre-industrial levels by the end of this century, greenhouse-gas emissions must peak by 2020, with 5% yearly reductions thereafter.

“ The quality of leadership being shown by business executives is in marked contrast to the kind of grudging on-off incrementalism that characterises the policy interventions of most governments. ”

Over the coming decade we do not have a choice on the nature of the global economic system: it will be capitalism in all its varieties, from the notionally "free market" of the United States to the state-managed capitalism of China. The unapologetically pragmatic response of our own organisation, Forum for the Future, and indeed of the majority of environmental NGOs, is therefore to seek to put sustainability at the heart of that economic model rather than to seek to replace it with some fully-fledged ideological alternative.

Happily, there's already a wealth of authoritative, high-powered work to drive forward the emergence of new ways of reconciling our material aspirations with the constraints of a finite planet. France's President

Nicolas Sarkozy has challenged what he describes as “the fetishisation of GDP as the sole measure of economic progress” by dint of setting up a high-level Commission to come up with different ways of measuring economic progress.

It is now more than 30 years since the pioneering economist Herman Daly first defined “the minimum ecological conditions” for any economy in terms of maintaining constant stocks of physical (or “natural”) capital. And it’s 10 years since Paul Ekins, one of the co-founders of Forum for the Future, took that a step further by introducing the idea of “safe minimum standards” so that policymakers could put in place systems to avoid irreversible damage to stocks of “critical natural capital”.

But as the author Tim Jackson has pointed out, economics – and macro-economics in particular – remains ecologically illiterate. “We have no model for how common macro-economic ‘aggregates’ (production, consumption, investment, trade, capital stocks, public spending, labour, money supply and so on) behave when capital doesn’t accumulate. We have no models to account systematically for our economic dependency on ecological variables such as resource use and ecological services.”

That macro-economic challenge can only be realistically addressed by governments working together. But at the micro-level, there is still much to play for. Since its inception in 1996, Forum for the Future has based its work as a strategic advisor to a wide range of both public and private-sector organisations, including some of the largest companies in the world, on the kind of integrated approach advanced by Daly and Ekins.

The Five Capitals framework is, in essence, a tool that allows organisations to understand the bigger systems of which they are a part, to recognise the limits to those systems and to flourish by working out how best to optimise the contribution they can make to maintaining and even enhancing the different stocks of capital on which they depend. The Five Capitals are:

Natural capital

Natural capital (also referred to as environmental or ecological capital) is that part of the natural world which humans make some use of, or derive some benefit from, hence its definition by economists as any stock or flow of energy and matter that yields valuable goods and services. There are different kinds of natural capital:

- Resources, some of which are renewable (timber, grain, fish and water), and others that are not (fossil fuels).
- Sinks that absorb, neutralise or recycle waste.
- Ecosystem services such as climate regulation, flood control, pollination and so on.

Human capital

Human capital comprises the physical, intellectual, emotional and spiritual capacities of any individual. In an economic context, it consists of our health, knowledge, skills and motivation, all of which are required for productive work. Enhancing human capital – for instance, through investing in education and training – is vital for a flourishing economy. Poverty is both morally indefensible and socially inefficient in that it prevents millions of people from fulfilling their potential.

Social capital

Social capital takes the form of structures or institutions which enable individuals to maintain and develop their human capital in collaboration with others and includes families, communities, businesses, trade unions, schools and voluntary organisations, as well as other institutions.

Manufactured capital

Manufactured capital is made up of material goods that contribute to the production process, but do not become embodied in the output of that process. The main components of manufactured capital include:

- Buildings – the environment of villages, towns and cities.
- Infrastructure – the physical fabric supporting social and economic life, including transport networks; schools; hospitals; media and communications; energy; and sewerage and water systems; and
- Technologies – the means by which goods and services are produced, from simple tools and machines to information technology, biotechnology and engineering.

Financial capital

The role of financial capital is perhaps the least understood of all the categories of capital now seen as essential to a sustainable economic system. It is usually excluded from such models on the grounds that financial capital has no intrinsic value, is not essential for the production of goods and services, and simply provides a means of exchange for the fruits of other categories of capital. Paper assets that make up the stocks of money, bonds and equities have no value in themselves, but are simply derivatives of the underlying manufactured, natural, social or human capital stocks.

For companies, the Five Capitals framework enables decision-makers to understand better what “capitals” it depends on (staff, customers, communities, raw materials, supply chain, stable eco-systems and so on) and to integrate sustainability into core business strategy.

One example of a company using the framework is Finlays, the global tea and flowers producer. We helped the company re-think its strategy for the next

15 years in the light of sustainability issues – from the rate of natural resource decline to the nature of governance in Kenya, from the structure of the global retail sector to the technological innovations which could affect the company’s supply chains. Finlays used the lens of the Five Capitals to turn future risks and opportunities into an ambitious set of commitments that should enable the company to become more resilient and therefore more sustainable.

The framework also works well on a cross-sectoral basis. We have worked with key players in the tourism industry to outline the features of an exemplary sustainable tourism destination so as to help “internalise” a proper understanding of those stocks of capital that any destination relies on to be successful, as well as the positive and negative impacts it can have. Our report “Paradise Found” pulls together a total of 21 features of a sustainable tourism development.

These two examples illustrate companies that are searching for their role in creating a more sustainable version of capitalism – and make a profit from doing so. They are using the Five Capitals framework as a bridge from the micro-level business drivers they experience up to the macro-level dynamics.

Leading companies are today moving away from the elusive vagaries of “corporate responsibility” and are instead developing a much better understanding of both biophysical and socio-economic “sustainability issues” as drivers of long-term success and, increasingly, short-term financial performance. The recent UN Global Compact/Accenture report “A New Era of Sustainability” confirms our experience with some 93% of CEOs from 800 companies around the world saying they believe that sustainability will be critical to the future success of their business.

The quality of leadership now being shown by business executives is in marked contrast to the kind of grudging on-off incrementalism that characterises the policy interventions of most governments. One of the biggest barriers for businesses seeking to reconcile profitability with the pursuit of sustainability

is regulatory risk, with governments failing to provide unambiguous market signals – for instance, a floor price on carbon dioxide— let alone incentivise proper investment frameworks for genuinely sustainable wealth creation.

By the same token, it is only fair to point out that even the most enlightened business leadership does not provide any kind of challenge to the deeper contradictions in contemporary capitalism. Growth, whether in earnings, profits or market share, is still a non-negotiable imperative for these companies. “We don’t make the rules,” they will tell you. And fortunately nor do they! But one can’t help but think they might be just a bit more proactive in supporting efforts by civil society to get the rules changed.

In the meantime, as Tim Jackson continues to point out, there is still no articulation of a “credible, socially just, ecologically sustainable scenario for continuing growing incomes for a world of nine billion people”. From our vantage point, working with over 70 companies and more than 20 public-sector organisations, we can see leading organisations reaching the limits of what they can do on sustainability within the current macro-economic framework.

That’s the real “bottom-line” for today’s political leaders. Only capitalism has the dynamism to create society-wide change in the space of 10 years. But only a sustainable version of capitalism can marshal that dynamism so that we avoid future crises – whether they are caused by climate change or by defaulting Eurozone economies.

We need senior people in European Union governments and elsewhere to do some heavy-lifting on the macro-economic front to help move towards a sustainable version of capitalism. The time available for reconciling today’s astonishingly dynamic market economies with the bio-physical life support systems on which we depend is going to rapidly ebb away.

Jonathon Porritt is Forum for the Future’s co-founder and programme director and David Bent its head of business strategies.

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Restoring the balance

*Tim Jackson is a sustainability adviser to the British government and the author of **Prosperity without Growth**, a controversial rebuttal of GDP-focused notions of success. He explains his philosophy to **Tan Copsey**.*

Tan Copsey: *Why does Europe need to move away from existing growth-focused economies in your opinion?*

Tim Jackson: The way in which we organise society and the social logic that we encourage in order to keep people consuming goods is taking us in the wrong direction. The basic dynamics of growing economic throughput [the rate at which products and services are generated] is pulling through a growth in materials and we're pushing up against base resource limits in environmental systems.

The prevailing way of thinking is that you can somehow keep a kind of qualitative economic growth. The trouble is that it just doesn't work out when you start to look at the underlying dynamics of the growth-based economy.

The system has also generated, or at least failed to alleviate, acute inequalities. In developed countries, it has become unstable in its own terms. So I see the [financial] crisis of a couple of years ago as a crisis of growth in the sense that it was motivated by the desire to continue growth.

TC: *In your book, **Prosperity without Growth: Economics for a Finite Planet**, a translation of which is about to be published in China, you suggest that it's possible to achieve prosperity without growth. But what is prosperity then? How do you define it?*

TJ: I go back to making a distinction between income and well-being. It draws on a very long philosophical



“ China and other emerging economies are locking themselves into the same dynamic rich nations are already locked into. At some point in the future, it's going to bring them down. ”

literature that separates out material wealth from happiness, material wealth from flourishing, from doing well.

TC: *How would you then begin to apply those ideas to a country like China, where lots of people are still in poverty? And what should China be doing, if not focusing on that form of economic growth?*

TJ: The primary target audience of my message is the developed economies, because it is in the developed economies that the returns from the increase of material throughput and from increasing income are actually diminishing much faster.

If you look at the poorest economies, you see much more powerful growth. There is a powerful case for income growth in the poorest nations because it's much more closely correlated with an increase in well-being. It isn't an argument for saying categorically that poor countries shouldn't grow. China is a middle-income country. So I'm absolutely not saying "China you can't grow".

But China and other emerging economies, BRIC economies [Brazil, Russia, India, China] are pursuing what is actually a very similar model to what was used

in western nations over the last hundred years. They're locking themselves into exactly the same dynamic the rich nations are already locked into. At some point in the future, it's going to bring them down, as it is bringing down the developed nations.

[Growth] in China has been very intensive and environmentally damaging and sometimes it has also been divisive. There needs to be a balance between the delivery of a sustainable long-term vision in China and the improvement in the quality of life that is important now. That's about looking at the structure of the economic institutions. It's looking at the social logic that is driving society. It's about creating a measurements framework that doesn't simply include conventional economic indicators, but that also tracks the social well-being outcomes that actually matter in the short term and the long term.

TC: You mention the examples within China. More generally, do you see any real world examples of countries or institutions moving towards these kinds of alternative forms of measurement?

TJ: The Sarkozy Commission Report [a report on national accounting methods, commissioned by French president Nicolas Sarkozy and written by a panel of economists including Joseph Stiglitz] was the most high-profile attempt to do that. It's led by a G7 government and achieved lots of publicity. What's extraordinary about this Sarkozy Report is that it didn't say anything that hadn't been known for 40 years or so. It's like, if you look at this kind of [global economic] architecture, the architect is the national accounting system dating back to the Second World War. You find acknowledgement of the limitations of this accounting system then. Yet somehow we've ignored this critique for a long period of time.

There's also an interesting, slightly marginal case study – Bhutan, which has a system of well-being indicators around which it builds policies. Then in several western countries, there are sets of sustainability indicators that attempt to bring into policy different measurements sets and frameworks.

What's been lacking is a way of bringing those measurement frameworks more into mainstream policy. That's partly because the dominant indicator of GDP rise has huge political importance. A growth-based economy is our best bet of getting a stable economy – we know that when GDP falls, or even when one goes through decline, you introduce structural problems into the economy. So there's a reason why it has become so important to policy. But there's also a very good reason to question it as a measure of well-being.

TC: The kind of change you're talking about would require a completely different development pathway. It would require change not only in the public sector, but also within the private sector. How do we get from here to there, given the scale of the task?

TJ: The first step is to establish an understanding of the nature of the problem and the dynamics that lead to it. The second step is really a strategic one, which requires at least a little bit of political will to respond to challenges.

We can do exactly what we've been doing, but if we do that in the recognition that there's a structural problem, it's actually quite a pathological response. We need to de-pathologise the response of government.

The next point really is about freeing government to offer solutions spaces. I distinguish three solution spaces: one is establishing where the limits are. Even though we know where some of those limits are, say, with climate change, we're not integrating them into policies in the way we need to. The establishment of limits is actually a really important step in being able to look forward to the way the economy is going to develop outside of this pathological dynamic.

The second kind of solution space is about fixing the economics. It is about beginning to design economics itself and economic institutions that reinforce long-term interests. It has some very clear policy implications, for example how you strategise investments, how you measure performance of investments, how you

change the balance between spending and saving in your household sector and how you shift the balance of investment towards long-term goals in your production sector.

The third one, and of course they're interlinked, is changing social logic. It is, to some extent, about social values and norms. People as consumers are locked into specific patterns of behaviour. If you need growth, you need people to go on buying more, past the point at which they need it. So you have to persuade them that there are social or psychological benefits [to consuming more]. What we're living in is a system designed to kick start and stimulate consumption. Recognising that, we have to systematically shift back to balance.

TC: Current policies, say in the UK and China, are very much based on the notion that we can decouple growth in greenhouse-gas emissions from economic growth, do you believe this is possible?

TJ: At the moment, all we've seen is relative decoupling – decoupling per unit of GDP. You would predict that because carbon is a product of burning fuels and fuels are an input of production cost. So the motivation to reduce production cost actually motivates a relative decarbonisation and the search for less energy-intensive alternatives. Relative decoupling has not led to absolute decoupling, which is much harder to achieve without changes in the structure of the system.

TC: Instead of abandoning growth, wouldn't it be better to foster new forms of growth? Say economic growth partially based on rebuilding natural ecosystems – like markets based on reforestation and avoided deforestation?

TJ: There's no recommendation anywhere in the book that says abandon growth. There are many specific recommendations to do different things with the economy. For example, investing in those ecosystem services or moving towards service-based, material-light enterprises.

But do you actually get growth back by doing that? My sense is that you don't for a couple of reasons. One is that the service-based economy tends to fly in the face of the later productivity gains, which traditionally have given you growth in the economy. The investments have much longer periods of return and considerably lower productivity, so they don't give you back conventional growth. My concern is, if you're hooked on getting a growth-based economy at all costs, you won't move to a structural change as all your institutional incentives are pointing in the wrong direction.

So it's not saying let's stop growth and turn it backwards. It's saying, let's be clear what our outcome variables are and focus on those – and they're human well-being, stable levels of employment and environmental constraints.

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The dangers of happiness

*Economic growth may be an imperfect measure of human progress, but well-being indices are worse, writes **Paul Ormerod**. They furnish policymakers with misleading data – and an excuse to restrict our liberties.*

The idea that government policy should be focused more explicitly on promoting happiness or well-being (two terms used interchangeably) has been gaining support in the west. Proponents of this view argue that happiness indicators, based on surveys that purport to measure how happy people feel, have stagnated over decades. And a key reason is that governments have aimed to maximise a narrowly-defined, materially-based measure of economic welfare, Gross Domestic Product (GDP), rather than a more holistic indicator of welfare based on well-being.

But economists have known for a long time that GDP is an imperfect measure of the overall well-being of a country. In fact, no-one has stated this more clearly than Simon Kuznets, the founding father of modern methods of estimating GDP, in his Nobel Prize lecture in 1971.

In principle, using a wider measure of well-being is unobjectionable. As far back as the early 1970s, for example, the leading economists Bill Nordhaus and James Tobin made the first serious attempt to modify GDP by taking into account environmental factors.

But the devil is not so much in the detail, as in the whole attempt to turn this into a practical measure. For all its faults, GDP has a clear theoretical underpinning that measures the value added by the various activities carried out in the economy. In contrast, happiness or well-being indices inevitably involve a large amount of arbitrary judgement on what is in and what is out.



“ The risk is that well-being fanatics will use this as another excuse to show that experts – contrary to almost all available evidence – really do know better than ordinary people what is good for them. ”

The old canard of the lack of correlation between happiness and GDP in the west is raised frequently. It is a mystery as to why this persists. There are powerful technical statistical arguments as to why this is not a serious point. Angus Deaton, professor of economics and international affairs at Princeton University, has successfully correlated percentage changes in GDP with happiness (and has found differing patterns when people evaluate their whole lives rather than their day-to-day emotional experiences), which is exactly what the statistical theory would suggest.

Meanwhile, the lack of correlation between measured well-being and the level of a whole range of factors that enhance human welfare is barely mentioned at all by happiness advocates. For example, in the United States, life expectancy for whites rose from 72 years in 1972 to 78.2 now. For blacks, the increase was even higher, from 64.6 to 73.2, representing not merely an absolute rise, but a narrowing of the gap with whites. Gender inequality, as measured by the median earnings of women compared to men, has fallen sharply. In 1972, women earned 58% of what men earned. By 2008, it had risen to 80%. Yet there was no correlation between happiness and any of these improvements.

In both Britain and America, income inequality has risen sharply over the past 30 years, but happiness has not fallen as a result. We are told that there have been large rises in depression over recent decades; but this is not reflected by a downturn in measured happiness. (It is worth noting that, on technical statistical grounds, the lack of correlations in the three examples just cited is not subject to the same criticism that can be made when well-being and the level of GDP are compared, as both well-being and these three factors have bounds – they cannot rise without limit.)

The conclusion to draw from all of this is not that government policy is completely futile in trying to improve the human lot. It is that measures of happiness or well-being contain little or no useful information.

Standard eulogies pervade the happiness policy literature of the Kingdom of Bhutan, the only country in the world to adopt Gross National Happiness rather than GDP or GNP (Gross National Product) as its principal policy target. Despite this, Bhutan is far from an idyllic state. Unemployment and theft are rising. Further, the happiness of the majority is increased by active discrimination against the Nepalese minority, many of whom have been forced into refugee camps. Nationalist movements that persecute minorities are popular with citizens of many countries – and increase their happiness.

The danger is that governments will try to manipulate and control any measure of happiness or well-being that they construct. Most of these efforts will almost certainly be futile, in much the same way as short-term forecasting and control of GDP has, over the decades, been shown to be an essentially fruitless exercise. But it will not stop them from trying.

Government attempts to increase measured happiness, rather than making life better for us, may actually do the opposite: create arbitrary objectives that divert energies of public servants from core responsibilities; give many people the message that happiness emanates from national policy rather than our own efforts; and create pressure for government

to appear to increase an indicator that has never before shifted systematically in response to any policy or socio-economic change.

These are exactly the mistakes of the target-driven mentality that pervaded the centrally-planned economies of the old Soviet bloc. We should learn from these rather than replicate them.

The real risk is that the well-being fanatics will use this as yet another excuse to show that experts – contrary to almost all available evidence – really do know better than ordinary people what is good for them. The assertion that “people are surprisingly bad judges of what makes them happy” is found throughout the happiness literature. Indeed, these happiness-policy activists often claim to know much better than elected politicians what is best for their voters. This elevation of the “expert” armed with a clipboard and some regression analysis is one of the most disturbing aspects of the happiness policy approach.

No one can object to providing people with more information, and a wider measure of well-being is in principle very helpful. But the government must take great care about how it is used in practice.

GDP is not an all-encompassing measure of welfare; it simply measures the size of the economy. There are many things important to our well-being that are not captured by it. Those things need to be sustained by a strong civil society and a democratically-accountable, well-run government. If we cannot make convincing cases for them without “scientific proof” that they make people happy, we are totally morally adrift. Government does not fail because it does not measure happiness; it fails when its energies are misdirected on the basis of poor quality information.

Paul Ormerod is the author of three best-selling books on economics, [Death of Economics](#), [Butterfly Economics](#) and [Why Most Things Fail](#), a Business Week US Business Book of the Year.

Famine to feast

*Cars, holidays and hamburgers are transforming lives in urban China, with far-reaching consequences for the nation's health. In an extract from his new book, **Karl Gerth** considers the changing role of food.*

Does the world need tens of millions of obese Chinese?

This question gets at a central dilemma related to the rapid spread of consumer lifestyles in China, including the new ability to eat as much as one can afford and as often as one likes.

Political and business leaders the world over, including in China itself, urge Chinese consumers to replace overspent Americans and western Europeans and to drive global economic development. Ask McDonald's, Starbucks, Coke and all the other multinationals banking on Chinese consumer spending. Such companies – and the economies that depend on them – need Chinese consumers to consume. And the more, the better.

But there are downsides. Even if Chinese consumers manage to spend enough to rescue the world economy, consider the consequences of Chinese eating more junk food, driving more cars or taking more vacations in Shanghai or Paris. Fat Chinese people are only one unintended negative consequence.

The push to get Chinese to consume more and the impacts – large and small, local and global – are visible everywhere in urban China, especially on the bodies of its citizens. Perhaps no irony better highlights the changed world for the Chinese consumer than the fact that increasing numbers of them are using this new abundance of choices to overeat, perhaps even to an early grave.



Image from PhOtOnQuAnTiQuE

“ In major cities, where the shift toward western-style diets has been most marked, nearly a third of adults are overweight, and one in 10 is obese. ”

Food has always defined differences among Chinese in at least two ways: who could afford to eat meat divided China by economic class and rice-eating distinguished southern Chinese from their wheat noodle-eating northern compatriots. National and international supermarket and convenience store chains have accelerated the integration of national and even global markets, bringing not only a wider variety of traditional foods but also more processed food to consumers across China.

Similarly, when fast-food restaurants first arrived in Chinese major cities, they were novelties visited infrequently. Now, as the thousands of KFCs, McDonald'ses and their Chinese equivalents popping up across urban China confirm, fast-food restaurants play a wider role in urban lifestyles. The result: Chinese eat much more oil, fatty, salty and sugary foods.

Accompanying the increase in calories are expanding waistlines, a problem compounded by sedentary office work and the displacement of the bicycle as the primary means of transportation. Twenty years ago one rarely saw fat Chinese teenagers; now they're commonplace. While 20 years ago the idea of fat camps for overweight children would have been considered absurd, now they are widely advertised. It doesn't help that pudgy babies have traditionally been

viewed as healthy and that anyone born in the 1960s or earlier is old enough to remember famine.

The new food options, along with economic inequality, have expanded the traditional distinctions made through food to include who can afford to contract “lifestyle diseases” such as cancer and diabetes, which the World Health Organization estimates could kill as many as 80 million Chinese in the next decade.

The effects that economic inequality has had on the Chinese diet are also clearly written on Chinese bodies. For instance, urban residents eat twice as much protein as their less affluent rural counterparts, mostly from poultry, eggs and shrimp, which translates into height differences. Urban residents stand, on average, 4.6 centimetres higher, becoming a symbol of the inequality between urban and rural consumers and even a source of discrimination.

But these diet changes have also included increased consumption of fats. Over the past 10 years, the number of Chinese suffering from high blood pressure increased by a third, and hypertension now afflicts a fifth of those over 18. In major cities, where the shift toward western-style diets has been most marked, nearly a third of adults are overweight, and one in 10 is obese. The trends for urban children are even more alarming. By the end of the 1990s, childhood obesity in the country as a whole had increased from 4% to 6%; but in urban areas, the percentage of overweight urban children had risen from 15% to 29%.

Overconsumption is visible in other ways. In the Mao era, extravagant banquets and other opportunities to overeat were for most Chinese nonexistent or exclusively for special occasions such as New Year’s festivals and weddings. The notion of “leftovers”, even less of “doggie bags”, had not yet arrived. Now doggie bags are common and discarding leftovers is even more routine. Shanghai alone throws away 2,000 tonnes of food every day and Beijing discards 1,600 tonnes.

Despite water shortages across the country, water, too, is wasted in new ways. In one egregious and widely publicised example, a Harbin brewery – in a bit of poorly considered consumer outreach – used 90 tonnes of beer to create a fountain in a downtown square; the stunt required not only 18 tonnes of barley and rice but also 1,800 tonnes of clean water.

Food waste is also embedded in Chinese customs. The difference now is that what was once an affectation of a very select wealthy and powerful few has become a status-gaining gesture for the ever more numerous aspiring middle classes. Wu Mingzheng, a manager of a Hangzhou export company, explaining why he ordered 16 dishes at a four-star restaurant for a table of business contacts, few of whom touched much of the food, said that “if there aren’t enough dishes or the guests don’t have enough to drink to their heart’s content, everyone will think I am cheap and it may affect our business dealings.”

This scene is repeated hundreds of thousands of times a day across China. According to a survey conducted in Zhejiang Province [eastern China], 70% of those taking guests out to dine decline to take away leftovers.

Officials make periodic attempts to discourage overconsumption. In 2008, Zhang Xinshi, a city official in Jiangsu province, for instance, charged in his blog that “China was the most wasteful consumer of food and beverages”, adding that Chinese should emulate other countries and have fewer but better dishes.

Zhang’s conclusion was backed by stories of waste from around China. In the north-east city of Harbin, one reporter estimated that the city’s 20,000 restaurants discarded at least 400 tonnes of food a day. Although she found waste in all restaurants, she also discovered that the more expensive the restaurant, the more the waste. In many cases, more than half the food went to waste, particularly by those dining at public expense. But in all cases at least a fifth of the food was left behind. In response, Zhejiang provincial authorities launched a campaign to urge consumers to avoid “unscientific and uncivilised” consumer practices such

as deliberately wasting food and hosting extravagant wedding celebrations.

But platitudes and a few specific policies have done little to counter an ancient cultural practice suddenly put within reach of millions more Chinese.

Obesity and waste are just two of the clearly unexpected and undesired consequences of the increasingly unleashed and prodded Chinese consumer. And, as has proven true elsewhere in the world, the new consumer culture is more likely to produce market reactions – from increased sales of diabetes medication to food delivery services to fat camps – than it is ever to be reformed. Thanks to the introduction of modern retailing practices, though, one thing we know for sure is that the Chinese are unlikely ever again to be far away from opportunities to consume as much and as frequently as they can afford – for better or for worse.

Of course, nobody should begrudge the Chinese their McDonald's Happy Meals, Cokes, or any of the other pleasures non-Chinese consumers enjoy. But everyone everywhere needs to contemplate the collective impact of these seemingly minor changes in Chinese lifestyles. The Chinese state certainly is. But can legislation successfully offset the impacts and do so fast enough?

This question is as true for obesity as it is for so many other questions related to the negative impacts of new consumer lifestyles. It boils down to this: can China save both the global economy by adopting the consumer habits of developed economies and do so without all the negative consequences for everything from Chinese bodies to everyone's biosphere? If this contradiction isn't reconciled for China, will India, Brazil and other rapidly developing consumer markets be any different?

The way China goes is a harbinger for much of the world.

Karl Gerth is an historian of modern Chinese consumerism at Oxford University. This article is adapted from his new book [As China Goes, So Goes the World: How Chinese Consumers are Transforming Everything](#).

“China must measure happiness”

*To sustain the benefits of China’s rapid ascent, politicians should broaden their policy goals, writes leading economist **Hu Angang**, setting out his prescription for a national happiness index.*

In the years after the Second World War, Gross Domestic Product (GDP) established itself as the main tool for evaluating national economic strength. But in the 1990s, as understanding of development and the inherent limitations of GDP – such as its failure to reflect the distribution of income or environmental costs – improved, international organisations started using composite indices to measure development.

Nobel Prize laureate Amartya Sen, seeing the expansion of freedom as both the end and the means of development, established the Human Development Index (HDI), which has since become an important measure of development, covering health, education and per-capita income and thus combining measures of both economic and human progress. The United Nations Development Programme (UNDP) replaced Gross National Product with HDI in 1990.

Then, in the mid 1990s, the World Bank turned its attention to the idea of a Green GDP accounting system to measure the actual national wealth of a nation or region. This system was based on traditional GDP measures, but also factored in the exhaustion of natural resources or environmental damage – thus focusing on balancing economic growth with resources and the environment.

Measures of development have improved as understanding of development has deepened.

Gross National Happiness (GNH) is one of the experiments in this field. First proposed in the 1970s by the king of Bhutan, who believed that



Image from Greenpeace showing a village protest against a coal-ash disposal site in Inner Mongolia.

government should aim to create happiness and balance the material and the spiritual, the GNH index identifies four pillars of national development: good governance, economic growth, cultural development and environmental protection.

Today, the concept of GNH is attracting international recognition. In 2008, French president Nicolas Sarkozy established a commission of 20 international experts, including Nobel laureates Joseph Stiglitz and Amartya Sen, to examine measures of economic performance and social progress. The resulting report advises that methods for measuring national economies be reformed so as to include subjective happiness, quality of life and distribution of income.

“ The focus of economic development needs to shift from expansion and investment to the quality and fairness of growth, and its social and environmental impacts. ”

Rapid economic development is transforming China from a low-income to a medium-income nation. In 2003, China's per-capita GDP passed US\$1,000 (6,575 yuan) and in 2008 reached US\$3,267 (21,481 yuan), according to the World Bank's World Development Indicators. Now an influential world power, China is at a crucial stage of industrialisation and urbanisation and faces many challenges in economic development. These include: transforming the nature of economic growth and ensuring its sustainability, tackling

unequal income distribution and ensuring balanced development of economy and society.

Let's look at these challenges in more detail. First, structural problems in China's economic growth model are increasingly apparent and require urgent resolution if the country is to develop sustainably. Investment-led growth has caused a grave imbalance between the roles of consumption and investment, and this continues to worsen. But China no longer has the domestic resources to support that investment-led approach.

Second, as the economy has grown, distribution of income has worsened. The proportion of China's GDP made up by household income dropped by 10 percentage points between 1996 and 2006, and the gap between rich and poor and urban and rural residents is widening – with no sign of a turnaround. There can be no doubt this is a major threat to the construction of a “harmonious society”.

Third, personal livelihoods have failed to keep pace with rapid economic development. As the welfare system of the planned economy has been dismantled, the cost of education, access to healthcare and high house prices have become common issues of concern, and the government finds itself challenged by food and workplace safety, environmental degradation, corruption and mass protests.

Over the last 30 years, decentralised economic reform has created a “GDP-led” view of government achievement. Economic growth has become the main factor in assessing local-government success and is seen as the source of social stability. With society's increasing openness, plus the transformation of social structures brought about by rapid urbanisation and the country's ageing population, there is an urgent need for China to move away from that GDP-led approach to a more human-centred style of government. The focus of economic development needs to shift from expansion and investment to the quality and fairness of growth, and its social and environmental impacts.

Otherwise, the nation risks falling into the “middle-income trap”.

In his 2007 report to the 17th National Congress of the Communist Party of China, president Hu Jintao made clear that a “people-first” approach lies at the heart of a scientific view of development. Prime minister Wen Jiabao has also told the National People's Congress that everything the government does aims to provide people with happier and more dignified lives and to create a more just and harmonious society. A people-first mode of development would increase happiness, and public policy founded on achieving that aim could become the foundation of China's harmonious society.

National happiness has also become a focus for academic research. The most influential study on this issue globally is the World Values Survey, which has so far examined 98 countries or regions. Using the data obtained, international happiness expert Ronald F Inglehart has identified two stages in the relationship between survival, well-being and per-capita GDP: economic gains and lifestyle changes. During the economic gains stage, well-being is sensitive to economic growth, and the two increase in tandem. During the lifestyle changes stage, economic growth has little impact on well-being. Once incomes reach a certain level, “subjective happiness” and GDP growth show no clear positive correlation.

Inglehart places the boundary between these two stages at income of US\$5,000 (32,877 yuan), at 1995 purchasing power parity (PPP). In 2009, that was equivalent to US\$7,038 (46,277 yuan), and in 2010 China's per-capita GDP is thought to have passed that level. And so China has, by these figures, already entered the second of Inglehart's stages, where well-being is insensitive to economic growth. This means that policies designed to increase well-being cannot focus on GDP alone. For this reason, research into national happiness will be an important factor in China's public-policy decisions as the nation reaches middle-income levels.

A national happiness index with Chinese characteristics should have a role in this process. Back at the start of China's period of "reform and opening up", the nation identified a comfortably-off society as a development aim – and the government promised to create that society. The proposed index would not only provide a more comprehensive measure of the development of that society, but also a new way of assessing government performance.

Governments are the planners and implementers of development. And they have a duty to increase the happiness of those they govern. Governance focused on the "comprehensive raising of the people's sense of well-being" would be a demonstration of socialism with Chinese characteristics – the system intended by Deng Xiaoping's market reforms – and increase the degree to which Chinese government is seen to be governing for the people. I have the following recommendations for putting together a Chinese National Happiness Index:

First, the index should reflect China's national characteristics. Many nations are in the process of trying to build similar indices, and there is no standardised measure. I believe that differences in culture and traditions during the development process mean that these indices should reflect national characteristics.

Second, while the index should be comprehensive, it should not include too many factors. A GNH index must cover the content of the Human Development Index – per-capita GDP, life expectancy and educational level – as well as important factors in development such as governance, environmental quality, sense of security, social capital and distribution of income. Selection of indices should reflect the key variables in the development of the above factors.

Third, the index should include subjective as well as objective measures. The main difference between GNH and classical development rankings is the inclusion of subjective measures, allowing citizens of a country to assess the factors that are hard to capture

objectively – environmental satisfaction, sense of security, satisfaction with local government and so on.

Fourth, we must encourage local implementation. A number of local governments are already working on these issues, including Chongqing in western China and Jiangyin, on the east coast. Their experiments use a well-being centred approach to assess government performance. Such systems will encourage officials to use public resources in ways that increases happiness and boost the people's satisfaction with local government.

Hu Angang is one of China's best-known economists. He is professor at the Chinese Academy of Sciences and Tsinghua University and the director of the Centre for China Study, a leading policy think-tank. Hu has worked as the chief editor for China Studies Report, a circulated reference for senior officials.

Zhao Shaojie, assistant professor at Tsinghua University's School of Public Management, also contributed to this article.

Bhutan's experiment with happiness

*By giving well-being a central role in policymaking, the tiny Kingdom of Bhutan has staged a trial that has gripped the world. **Dipika Chhetri** reports on the environmental impacts.*

In global discussions about climate change and environment, the word “happiness” is surprisingly rare. But in Bhutan, happiness rhetoric is uncommonly common. The phrase “Gross National Happiness” – or GNH – is peppered through all official, and many unofficial, documents and speeches, and used to frame and justify the country's ambitious environmental-protection policies.

Adoption of the GNH concept has been credited to the fourth monarch of Bhutan, King Jigme Singye Wangchuck, who in the 1980s issued a royal decree to the Bhutanese Planning Commission, declaring that the success of government plans must be evaluated on the basis of how much happier the people of the country had become. GNH has since become an alternative to Gross Domestic Product (GDP) as a tool for measuring human progress.

The argument goes that a society that is increasing its happiness is making more progress than one that is simply making more money. But is this the case in Bhutan? What is the government actually doing to meet its happiness goals? And how do these actions serve the environment?

Environmental protection is enshrined in the four pillars of GNH: conservation of the natural environment; promotion of sustainable development; preservation and promotion of cultural values; and the establishment of good governance. The Bhutanese constitution, which came into force in 2008 along with the first elected democratic government, has an entire article dedicated to the environment. It declares that



Image from Bhutan-360

“a minimum of 60% of Bhutan's total land shall be maintained under forest cover for all time.” More than 50% of the total forests have been designated as protected areas.

“ Sceptics point to the fact that plastic bags are still used in stores despite the ban and that the black market for tobacco is flourishing. ”

National records, including those with the Ministry of Agriculture and Forests, indicate that at present 72% of Bhutanese land is covered by woodland. Dr Pema Gyamtsho, the Bhutanese minister of agriculture and forests who led the delegation to last year's UN-led climate summit in Cancún, said that it was no accident that the majority of Bhutanese land is forest. “We have increased our forest cover from about 45% in the 1960s, and this has been a deliberate effort on the part of the government, in line with the policy of GNH,” he said.

The political party that won the country's first ever elections in 2008 - Druk Phuensum Tshogpa – is led by prime minister Jigmi Y Thinley, a vocal proponent of both GNH and environmental protection. In December 2009, when high hopes were being pinned on the global climate talks in Copenhagen, Bhutan declared that it would remain permanently carbon neutral.

Commitment to the global fight against climate change may have faltered elsewhere since then – but

not in Bhutan. Speaking at a parliamentary meeting on climate change and health last year (and in many other international and national fora since) the prime minister reaffirmed these sentiments. He said: "Climate change is the result of our way of life that is driven by insatiable human greed. Our GDP-based economic development models, founded on the notion of endless growth, have promoted consumerism and materialism with little consideration for cultural and ecological costs.

"Guided by our unique philosophy of Gross National Happiness, Bhutan has so far been free of the guilt of contributing to climate change and has in fact been more successful than most other countries in conserving our natural environment."

In a bid to match its grand rhetoric with actions, the authorities have busily promoted policies that reflect a pro-environment stance. The economic development policy and the foreign direct investment policy, both formed by the current government, strongly favour environment-friendly businesses, offering tax cuts and benefits to those who demonstrate green practices.

In an interview with Reuters, the prime minister said the government had taken a strict line on resource protection. "We have been stringent with the expansion of farmland, making lives difficult for farmers. There are growth opportunities for natural resources based industries and manufacturing, but Bhutan has been very restrictive in view of its effects on the environment."

He cited the example of a marble mine in Paro, a district in western Bhutan, which had to be shut down – despite huge investment – due to environmental concerns and visual pollution. Similarly, a particle board factory in southern Bhutan was closed after it was deemed, under Bhutan's environment conservation policies, to be unsustainable.

The country's 10th Five-Year Plan, which was mapped out by the Planning Commission – now renamed the GNH Commission – and runs from 2008 to

2013, gives top priority to the environment, and suggests alternative fields for economic growth such as education, health, finance and banking, ICT, construction and consultancy, as well as hydropower. Bhutan has also been exploring the possibilities of organic farming and cultural tourism to boost the country's economy without compromising the interests of the environment.

Not everyone is convinced by the government's actions, however, particularly the effectiveness of legislation brought in to promote both happiness and environmental protection. Bhutan long ago banned the use of plastic bags and has passed a new "Tobacco Control Act", which makes it illegal for people to possess tobacco products without a tax receipt, to smoke in public and to produce or sell tobacco products in the country. A law on increased taxes for import of vehicles is also proposed, but has been challenged by the opposition party and is now being considered by the Supreme Court of Bhutan.

Sceptics point to the fact that plastic bags are still used in stores despite the ban and that the black market for tobacco is flourishing. The Tobacco Act has meanwhile been criticised as too draconian – and therefore out of keeping with the promotion of happiness – by some figures, including Tshering Tobgay, leader of the opposition party in the National Assembly of Bhutan. "The overall objective of the Act, which is to discourage the consumption of tobacco, is very good. However, the Act imposes disproportionately harsh penalties on people who violate its provisions, and that, in my opinion, cannot be in line with the principles of GNH," Tobgay told *chinadialogue*.

But even if some government actions are questioned, there seems to be little opposition to the idea of promoting happiness itself. If laws are failing, people say, it is because they are not in line with the GNH ideals (Tobgay's position on tobacco is a case in point). There is general agreement that formulating policies based on how much happier people become as a result of them is a good idea – it is just over what makes people happy that disagreements occur.

And not all happiness promotion is top down. A new initiative from teacher and filmmaker Dzongsar Khyentse Rinpoche to boost living standards in Bhutan's south eastern district of Samdrup Jongkhar has received a positive public response. The programme aims to establish food security and self-sufficiency, while protecting and enhancing the natural environment, strengthening communities, promoting Bhutan's unique culture, stemming the rural-urban tide and fostering a cooperative, productive, entrepreneurial and self-reliant spirit. The initiative was launched in December last year, and includes a number of projects including helping farmers form organic farming cooperatives and greening schools.

To Dzongsar Khyentse Rinpoche, as to many others in Bhutan, the link between happiness and the environment is obvious.

Dipika Chhetri is a freelance journalist based in Bhutan.

“We’re moving too slowly”

*Gro Harlem Brundtland – high priestess of sustainable development – tells **Joydeep Gupta** why progress towards a healthier, happier planet is still too slow, wrapping up our special series on well-being economics.*

Gro Harlem Brundtland is the high priestess of sustainable development. The former head of the World Health Organisation and Norway's first – and so far only – female prime minister commands a level of respect around the world perhaps matched only by Nelson Mandela.

Not many remember that she is also a medical doctor with a degree in public health, and that it was from the health sector that she took the concept of well-being and applied it to planet Earth when she became the chair of the World Commission on Environment and Development in 1983.

That commission is still better known as the Brundtland Commission, and it is no exaggeration to say its 1987 report, “Our Common Future”, has determined the direction of global debate from then until today – and that it is likely to continue to do so for the foreseeable future. It was this report's concept of sustainable development and the urgent need to implement it that led to the so-far only Earth Summit in Rio de Janeiro in 1992. And it was that summit that gave birth to the three Rio conventions, at least one of which – the United Nations Framework Convention on Climate Change (UNFCCC) – has commanded global attention. The other two aim to preserve biodiversity and combat desertification.

Now the UN secretary general's special envoy on climate change, Brundtland visited India earlier this month to attend the annual Delhi Sustainable Development Summit, organised by NGO The Energy



“ The oil and coal lobby in the US is mostly responsible for creating the kind of atmosphere that has prevented progress. These big corporations are very powerful. I know this myself from working against the tobacco industry. ”

and Resources Institute. Speaking to the third pole project on the sidelines of the summit, Brundtland made clear her assessment of sustainable progress to date: implementation of the Rio conventions has been “too slow”.

Asked to recall the milestones of the sustainability and well-being debate since publication of “Our Common Future”, Brundtland said: “The Rio conventions were drawn up five years after the publication of the report, and the Kyoto Protocol was signed within another five years. So that was all right, and you can't blame the conventions. But since then, the implementation of climate change and other conventions has been too slow.”

The Kyoto Protocol, adopted in 1997, set down the principle that developed countries must reduce their emissions of greenhouse gases, which are warming the atmosphere and causing climate change. But it took another eight years for the exact quantity of reductions to be agreed – and, even then, only reductions to 2012 were determined. The United States (at the time of the Kyoto Protocol the world's largest carbon-dioxide emitter) has never ratified the treaty. Despite many meetings and summits, we not

only have no agreement on the volume of reduction after 2012, but there is also a concerted attempt by governments in many rich countries to dump the protocol altogether.

Acknowledging the difficulty in reaching any international agreement on this, Brundtland said: "The issue is large. Those who point out that the Montreal Protocol worked very well forget that it was much more limited [in scope]." That agreement, which came into force in 1989, was used to phase out chemicals that were harming the protective ozone layer on top of the earth's atmosphere.

Reducing greenhouse-gas emissions to combat climate change, said Brundtland, "is much more complex because the totality of our economy is at stake". The main greenhouse gas is carbon dioxide, emitted by thermal-power stations, most factories and vehicles, and whenever a tree is cut down. Given the ubiquitous presence of these industries around the globe today, "having difficulty in agreeing over who does what is not surprising," she observed.

But, insisted Brundtland, two of the Rio conventions – the pacts to combat climate change and biodiversity loss – are still highly significant and will continue "to play an important role" in global affairs. "I'm still optimistic, although we're moving too slowly," she said.

How can the negotiations be sped up? "We hope people learned from the breakdown in [the 2009 climate summit in] Copenhagen about the importance of listening more to each other," Brundtland said, adding that there was no alternative to patient negotiations and no escaping the need to cut down greenhouse-gas emissions. The business world – let down by the paralysis in climate negotiations – must also be given more direction by politicians: "Businesses have not yet got the correct signals from governments. For example, the global price of carbon is not certain." However, she said "more progressive" businesses were forming strategies to move towards a greener future.

The United States did not join the Kyoto Protocol – even though it was the world's largest greenhouse-gas emitter until 2006 and is still the second largest today. Politicians, civil servants and observers from around the world have long felt that this, coupled with the failure of the current US government to pass the climate bill it promised, has done much to stall international negotiations on emissions reduction. Agreeing with this point of view, Brundtland said: "It is the oil and coal lobby in the United States that is mostly responsible for creating the kind of atmosphere that has prevented progress. These big corporations are very powerful. I know this myself from working against the tobacco industry."

So who is working for the welfare of both the planet and the people? Would Brundtland count green NGOs among them? "Those that are analytical and pragmatic have been helpful," she said. "They have tried to look for solutions and are working to see how you can accommodate the problems of politicians and businesses as well. Those NGOs which reply more on protests have also played a role in keeping the issue on the news agenda. They have made an important impact, mostly positive."

But other groups must also get involved in building a sustainable future, she said, including "associations of businesses and people serving the business community". "They should be active in helping out. Apart from that, spreading knowledge is the way to the solution. Empower people." As a key figure in the debate, she is trying to do this herself: "I'm being an inspirer to different groups, from businesses to NGOs. Now we need political decisions. There is too much inertia there."

Joydeep Gupta is project director (south Asia) of chinadialogue's third pole project.