

A JOURNEY OF A THOUSAND MILES

THE STATE OF SUSTAINABILITY LEADERSHIP 2011



UNIVERSITY OF
CAMBRIDGE

PROGRAMME FOR
SUSTAINABILITY LEADERSHIP



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11 TO WATCH IN 2011



CPSL asked the alumni members of its Cambridge Sustainability Network to tell us which leaders had caught their attention over the past year. You will find through this publication a selection of these leaders, who come from business, government and civil society.

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Introduction

Mike Peirce

Mike Peirce is Editor of the State of Sustainability Leadership. He is Director of Strategy and Communications at the University of Cambridge Programme for Sustainability Leadership, where he has led a wide range of initiatives including the World Bank Sustainable Development Leadership Programme, the Sustainability Leadership in the Built Environment Programme, and the St James's Palace Nobel Laureate Symposium on climate change.

“Responsibility for sanitary reform in the Victorian city was not a clear-cut issue. A Babel of competing boards, authorities and surveyors exercised control over various different aspects of the urban infrastructure. There were paving boards and lighting boards, highway surveyors and turnpike trusts, vestries and Poor Law guardians, magistrates, police boards and lords of the manor. None of them co-ordinated their actions with one another and each jealously guarded their administrative patch. The inevitable result was that when a disease like cholera came to pay its respects, city authorities had minimal chance of organising a coherent response.”

From Building Jerusalem: The Rise and Fall of the Victorian City, Tristram Hunt



The sheer organisational endeavour required to deal successfully with matters of public health, environmental pollution and the quality of community life is hardly new. Much has been achieved in the past 150 years since the particularly appalling consequences that came alongside the wealth generated by early British industrialisation. But life remains hard and short for many, life chances are highly unequal, and our current model of development has serious consequences for the very ecosystems which must sustain it. The imperative to break through the tangle of competing agencies persists – the need to build an imaginative coalition of interests that can grasp the common need for change, and create and exploit opportunities for action.

The challenge of tackling this complexity lies at the heart of Polly Courtice's scene-setting contribution to this publication. Based on 20 years of conversation with business leaders through CPSL's executive education programmes, she summarises the CPSL model of leadership for sustainability. Her ideas are grounded in the pressing need for leaders to develop a profound and evolving understanding of the context within which their organisations operate.

At the turn of the year, we invited CPSL's alumni to identify individuals in all walks of life who exemplify such leadership for sustainability. We selected 11 of their suggestions, and these leaders' profiles are scattered throughout this publication. They illustrate the leadership characteristics outlined in Polly Courtice's article: systemic, interdisciplinary understanding; emotional intelligence; values orientation; strong vision; an inclusive style; a willingness to innovate; and a long-term perspective. These qualities are wholly consistent with long-standing perspectives on leadership, yet the context of today's social and environmental challenges defines some particular requirements for individuals who can inspire and support action towards a better world.

The State of Sustainability Leadership concludes with an overview of the most significant sustainability-related publications of the past year, including the book that has perhaps generated the most debate amongst business leaders on CPSL's executive education programmes – Richard Wilkinson and Kate Pickett's *The Spirit Level*, which notes the persistence and devastating impact of the



inequalities that first emerged on such an extraordinary scale during the Industrial Revolution.

Between these start and end points, *The State of Sustainability Leadership* tracks the intense and increasingly public conversation about the harm that is being done to our natural systems and our communities, and the changing character of corporate power and influence as business has become ever more global and interconnected. Paul Gilding's contribution marries a description of the crisis he believes is about to arrive – the Great Disruption – with an optimistic view of our capacity to respond: we are “slow but not stupid.” Taking a much longer view, Melissa Lane provides an eloquent description of the ethical challenge posed in Plato's *Republic* – that even in the face of overwhelming evidence, we refuse to accept the misguidedness of our dominant systems of values, practices and norms. The deep roots of the sustainability debate are important to recognise, and Melissa explores how we might address this failure of the collective imagination today.

In contrast to these approaches, Sandrine Dixon-Declève digs into the detail of present-day political battles within the EU, as today's dominant political institutions – perhaps the contemporary equivalents of the paving boards, lighting boards and turnpike trusts – seek to respond to the issue of climate change. She explores the remarkable alliance of politicians, professional economists and business leaders now lining up behind a vision of low carbon growth, and the powerful opposition they undoubtedly face.

The competitive challenge is taken on by Jeff Immelt, the Chairman and Chief Executive of GE. He highlights the need for all sectors in society to act, whilst confirming the critical role of business in a period of economic crisis and distrust in governmental institutions. Immelt also articulates the need for a new form of leader – an individual who is more connected and more adaptable – echoing Courtice's comments. Lindsay Hooper takes this argument a step further by exploring the range of approaches currently being explored by leading businesses to build the capacity of their teams. She notes the professionalisation of sustainability as a specialised corporate function but also spots a strong trend towards companies' equipping mainstream leaders to respond to sustainability within their existing roles and operating contexts.

Peter Willis takes an alternative perspective on sustainability innovation, discussing the global leadership of the financial services sector in South Africa. His remarks on "two little-heralded events in the traditionally dull arenas of corporate governance and accounting

regulation" highlight some key trends that will shape practice in these areas worldwide.

The final contributions from three Cambridge academics reinforce the prevailing variety of today's sustainability debate. Felicia Huppert, Director of the Well-being Institute, explores one of today's most topical issues, how we measure the quality of our lives and our progress as a society; Nicky Dee, from the Institute for Manufacturing, looks at the barriers and opportunities associated with sustainability innovation; and Emma Mawdsley, a geographer, notes the real danger in India that the drive towards greater sustainability will have some regressive social outcomes.

The response to the 19th century public health catastrophe, a tale often told at CPSL's programmes by one of Cambridge's pre-eminent historians of this period, Simon Szreter, was real and radical, creating rapid leaps in living standards and dramatic improvements in mortality statistics. The contributions of science and statistical analysis were critical, as was the enabling environment created by central government legislation, which encouraged investment in infrastructure by local authorities. Individual leaders, such as Joseph Chamberlain, also played a tremendous role in galvanising action across their communities. This report on the state of sustainability leadership in 2011 hardly suggests that progress will be straightforward or satisfactory; yet the contributors' aspirations, analysis and commercial vigour map to many of the historical ingredients of change, and offer a note of optimism if not a recipe for success.

BREAKTHROUGH LEADERSHIP

“LEADERSHIP IS ABOUT GETTING PEOPLE TO
GO WHERE THEY WOULDN'T HAVE GONE
ON THEIR OWN.”

IAN CHESHIRE, CEO, KINGFISHER

POLLY COURTICE – The Challenge to Business as Usual

A portrait of Polly Courtice, a woman with short, wavy brown hair, resting her chin on her hand. She is wearing a white top and a pearl necklace. The background is a blurred green garden with pink flowers.

So is our current
model of leadership
fit for purpose? In the
business community
will we see leadership
for 'business as usual', or
leadership for 'business
as breakthrough'?

Polly Courtice is Director of CPSL, a member of the University of Cambridge's Board of Executive and Professional Development, and Academic Director of CPSL's Masters in Sustainability Leadership. She is also a Director of Jupiter's Green Investment Trust.

The Challenge to Business as Usual

Polly Courtice

The world we live in is shaped by leaders. Our leaders of democracies and dictatorships, of companies and civil society organisations, our intellectual and artistic leaders – all have a profound influence on the way we live.

They shape our thinking and understanding, our economies, our markets, our policies and our enabling technologies. They reflect our values and represent our need as social animals to collaborate in pursuit of mutual goals, and they play a crucial role in our ability to thrive in large complex groups.

Perhaps it was the image of Earth from outer space, first seen just over 40 years ago, that began to challenge conventional assumptions about our relationship to the earth, giving us the first real glimpse of our total dependence on this planet as our home. It was certainly an image that captured the public imagination and inspired a generation of environmentalists. Since then signals of our adverse impact on the world – of declining ecosystems and fractured societies – are being transmitted to us ever more loudly and clearly. Social and ecological data reveal trends that make it increasingly difficult to argue that ‘business as usual’ is tenable or that unfettered growth is indefinitely sustainable: modern capitalism is on a collision course with nature. Recent environmental crises and social upheavals, combined with the apparent inability of our national and international

political systems to rise to the challenge, have all added to the sense of urgency. We need to rethink our model of progress and we need the right leaders to help us to do so.

Much of the leadership that we experience today has been shaped by the values of modern society, by the pace of change in our globally connected world, by changes in societies, markets, customers, competition, information and technologies and by the inexhaustible demands of a growth-driven economy. This poses challenges that are complex, multi-faceted and global in nature, and that rarely lend themselves to straightforward answers or solutions. So is our current model of leadership fit for purpose? In the business community will we see leadership for ‘business as usual’, or leadership for ‘business as breakthrough’?



Defining Characteristics – what leaders say

CPSL's research suggests the following seven key characteristic traits and styles are among the most important in distinguishing the leadership approach taken by individuals tackling sustainability issues. Each of these characteristics is illustrated below by observations from a selection of leaders, many of whom we have worked with and who demonstrate some of these qualities themselves. We also see many of these characteristics displayed by the 11 to Watch in 2011 displayed throughout this publication.

1

SYSTEMIC, INTERDISCIPLINARY UNDERSTANDING

"One of the elements that will really get us going in this sustainability fight is the elimination of the root cause for unsustainable behaviour, unsustainable business morals, unsustainable practices and so on. The ability to see the root cause of those things will set companies apart. They have to do with the profound thinking that you have, and the processes of how you invest money and how you train your people and how you develop resources." *José Lopez (2010), Executive Vice President Operations and Global Business, Nestlé*





We have had great visionary, transformational leaders in the past, but the challenge of today's leadership is that it must prevail in the face of global interconnectedness and shared responsibility for our collective future. The leaders who will help steer us towards a

low carbon, more equitable world will need to deal with the depth and breadth of this challenge and make this a positive force within the organisations they lead. According to Jeff Immelt, CEO of General Electric, "The most important thing I've learned since becoming CEO is context. It's how your company fits in with the world and how you respond to it"

2 EMOTIONAL INTELLIGENCE AND A CARING ATTITUDE

"Over the next ten years, the only way individuals, organisations and countries will succeed and compete will be through the ability to unlock human potential. As a leader for the future, you would need to distinguish between motivations; you can motivate people's hands or their brains but you can't motivate their hearts – it takes real inspiration." *Jan Muehlfeit (2010), Chairman of Microsoft Europe*

Leaders play a vital role in clarifying the values of the organisation, framing the relevant questions and helping to create a vision for a new future, and they must do so without necessarily knowing how to get there. It takes courage to challenge deeply held beliefs and ideological assumptions, particularly when they are held by your peers, and it takes insight and skill to think systemically, build the adaptive capacity of an organisation, and inspire others to develop new strategies and learn new ways of operating. It takes

determination and hard work to integrate sustainability into the DNA of an organisation, to develop material performance data as part of a sustainability business strategy, and courage to defend such actions and conduct critical reviews of success. José Lopez of Nestlé emphasises the importance of the business driver: "If you don't have the business results in the context that you have established you are bound to, in my mind, put the credibility of what you say in danger."

Some of the most dynamic leadership in response to the sustainability challenges that we face is emerging in the corporate sector. Driven by many factors, including reputational risk and the need to rebuild trust, growing resource constraints and the quest for new markets and competitive advantage, the sustainability context has become 'mission critical' for many companies.

3

VALUES ORIENTATION THAT SHAPES CULTURE

"There is personal, almost spiritual commitment that needs to be epitomised in someone who is going to be successful in this sustainability space. So, a morality, a spirituality [which has] a great coupling with [having a] longer-term vision... Our credibility must come from the way that we behave and interact with the world. They epitomise interconnectedness. They understand community [in the sense of] communion with facets of the world around us." *Truett Tate (2010), Group Executive Director (Wholesale) for Lloyds Banking Group*

4

A STRONG VISION FOR MAKING A DIFFERENCE

"Our people, our customers, our suppliers, our communities and our owners... [must] learn and believe in a new and better way to be more profitable, and to reach for significance beyond success – a higher purpose for us all." *Ray Anderson, CEO of Interface* – well known for his vision of making Interface the first truly sustainable, zero-impact, or "restorative" company in the world, which their performance metrics suggest they are on-track to reach by 2020.

The real test, of course, is the actions these leaders take, how they run their businesses and reward performance, whether they create opportunities for others to build and apply new knowledge and understanding for problem solving and innovation, and how they use their influence in the wider business community and beyond.

According to a recent survey conducted by Accenture of 766 United Nations Global Compact CEOs, 93% of them see sustainability as important to their company's future

success, especially tackling issues like education, climate change, resource scarcity and health. 96% believe that sustainability issues should be fully integrated into the strategy and operations of a company and 73% of CEOs see this as a way of strengthening their brand, trust and reputation.

The real test, of course, is the actions these leaders take and the performance they deliver. One off actions and isolated sustainability initiatives are no longer seen as a leadership position. What matters is how they run their businesses, whether they deliver tangible results and reward performance, whether they create opportunities for others to build and apply new knowledge and understanding for problem solving, innovation and accelerated performance, how they use their positional influence in the wider business community and beyond, and whether they use their initiatory power to foster ideas and challenge the status quo – to drive not just incremental change but transformational change too.

There are plenty of examples of the gap between the rhetoric and reality, and examples of greenwash are easy to find – what Lopez calls ‘the opportunistic grab of what sustainability is all about’ – but even for the most dedicated and sincere leaders there are real challenges in driving through sustainability aspirations. Many of the issues involved are fiercely contested, with continuing debate as to where the problems lie and how to solve them, with climate change being a classic example. The terrain is dogged by financial, technical and reputational risk and uncertainty. Society’s

5

AN INCLUSIVE STYLE THAT ENGENDERS TRUST

“Leaders actually lead through teams. The idea that you have a superstar leader is just nonsense. A great definition of leadership is about getting people to go where they wouldn’t have gone on their own. If they can get there on their own then they don’t really need a leader. Equally, you can’t always be dragging them in the opposite direction to where they want to go.”

Ian Cheshire (2010), CEO of Kingfisher

views on issues like nuclear power, GMOs and biofuels can change quite quickly, and with it the perceived sustainability performance of companies. What might once have been judged to be a pro-sustainability action can quickly turn out to be the reverse – because our understanding has changed, or social attitudes have shifted or because different stakeholders do not share the same values.

When Monsanto pioneered genetically modified crops in the 1980s, under the slogan ‘Food-Health-Hope’, it positioned itself as addressing the food and health needs of a rapidly expanding world while recognising the importance of environmental sustainability. Yet they found themselves fiercely targeted by environmental and social activists who charged them, amongst other things, with creating farmer dependency and reducing crop resilience. Today, despite widespread acceptance of GM foods in the USA, there remains strong European resistance and campaigns against Monsanto continue. By



contrast strong leadership and a focus on sustainability in Wal-Mart has done much to turn the company's reputation around. When Lee Scott took over as President and CEO in 2000, *Fortune Magazine* described the company's public image as being that of a "rapacious behemoth". Today the company's Sustainability 360 Program, which introduced drastic changes to business practices, stressing a sense of environmental responsibility and an aspiration to become a corporate leader for green initiatives, has transformed the company's reputation. Speaking at the 2007 London Lecture of HRH The Prince of Wales's Business and Sustainability Programme, Lee Scott reflected on how hurricane Katrina in 2005 had "brought out the best in our company... In the aftermath of the storm, we asked ourselves: How can we be that company – the Wal-Mart we were during Katrina – all the time? Sustainability became a big part of the answer."

Being labelled as a sustainability leader is a risky business, however. John Browne was not only credited with resurrecting the financial fortunes of BP, he was also widely admired for his early position on climate change and the company's exit from the Global Climate Coalition, and for setting new standards in areas such as transparency and human rights. Today, after a spate of accidents like the Texas City oil refinery explosion in 2005 and the Deepwater Horizon oil well blow out in 2010, as well as key strategic actions such as the investment in the Alberta tar sands, BP's sustainability reputation is severely tarnished and Browne's perceived legacy as a sustainability leader has been brought into question.

Being labelled as a sustainability leader is a risky business... But risk or no risk, there are those who are willing to take a stand.

6

A WILLINGNESS TO INNOVATE AND BE RADICAL

"Future capabilities will be very different, and will put a premium on lateral thinking and cross-functional, collaborative problem solving." *Jeffrey Swartz (2010), CEO of The Timberland Company.* For Timberland, this included not only designing cradle-to-cradle products like their Earthkeeper 2.0 boots, but also responding to challenges by Greenpeace and working with their Brazilian supplier Bertin to support the deforestation moratorium (meaning they will no longer source materials from protected areas of the Amazon).

7

A LONG-TERM PERSPECTIVE ON IMPACTS

"Companies think much longer term than governments and good companies think much longer term than bad companies... If you're into coal mining and turning coal into heat and power, then you've got to think of the long term. You're not really a coal miner, you're a power supplier. You can look at ways of making things more efficient. Then you can look at ways of sequestering the CO₂. You can make all these plans ahead of time and move in the right direction. And our experience is that the employees will really react very well to those kind of long-term plans. You get more out of the employees than you might expect if you embark on such a journey."

Neil Carson (2010), CEO of Johnson Matthey

But risk or no risk, and sometimes despite the short term pressures of the market, there are those who are willing to take a stand. Unilever

CEO Paul Polman, profiled in this publication as one of 11 to Watch in 2011, signalled this when he decided to scrap financial targets, arguing that running a business to meet financial targets would result in management doing "the wrong thing" for the business. "This is an exceptional time... We live in a time of ambiguity." Unilever's recently launched Sustainability Living Plan seeks to double the size of the company, while halving the environmental footprint of their products, sourcing 100% of their agricultural ingredients sustainably by 2015 and helping 1 billion people out of poverty. Importantly this leadership position is much easier to sustain when, as in this case, a strong but credible link is made between sustainability and commercial interests.

Similarly, speaking at the Prince of Wales's Business and Sustainability Programme London Lecture in 2010, Jeff Immelt emphasised that for GE a clean energy future





– one that is sustainable, that emphasises energy security, that drives competitiveness and job creation and that reduces pollution – represents “the biggest opportunity that we will face in the next decades, and we have to grab it and we have to lead in this regard.” It is to Immelt’s credit that he has made a whole series of strategic investments in sustainability despite the company’s stock value having halved over the past decade, and enormous pressure from market analysts to focus on GE’s quarterly profits. Under Immelt, GE is still ranked as a top 10 global brand by *The Financial Times* and *Business Week*, and many regard Immelt as displaying hallmarks of a sustainability leader – not only viewing the world systemically and thinking long term, but also investing accordingly. As evidenced in the extracts from his speech in this publication, Immelt’s message is that those that do not innovate and adapt

to match the evolving context will be left behind, while others will emerge as new leaders.

With the wealth of talent and other resources available to them, and with the profit motive as a powerful driver, such businesses are supremely well placed to influence consumers in the right direction and with that to bring politicians and policy makers along with them. On its own business will not drive change at the scale and speed that we need, but it can act as a powerful catalyst to rethink our model of progress.

When John F Kennedy established the goal in 1961 to land a man on the moon within the decade he laid down a direction of travel and challenged the nation to commit its talents and resources to working out how to “move forward, with the full speed of freedom, in the exciting adventure of space.” At that time there were many unknowns and technological challenges, but the mindset of setting the goal and back-casting as to how to get there was a powerful force. Leadership for sustainability needs a similar approach – our own moon shot vision for 2050 and beyond. We need leaders who can set that direction with a sense of urgency, determine a compelling destination that secures a future for our children and grandchildren, and ask “How can my organisation support the journey to that point, how can I engage with and empower those around me to take steps in that direction?” Each step we take makes a difference – even a journey of a thousand miles starts with a single step.

A low-angle, perspective shot of a vast field of solar panels. The panels are arranged in neat, parallel rows that recede into the distance, creating a strong sense of depth. The panels themselves are a deep blue color with a visible grid of silver lines. Above the panels, the sky is a clear, vibrant blue, and a bright sun is positioned at the top center, casting a soft, radial glow across the upper portion of the image. The overall composition is clean and modern, emphasizing the scale and potential of renewable energy.

On their own, business leaders will not drive change deep enough or fast enough, but they can act as powerful catalysts to rethink our model of progress.

CPSL Model of Leadership

CPSL's recent research has looked at certain qualities of individual leadership to understand more fully the nature of sustainability leadership and the key elements of a successful approach. The conclusion is that sustainability leadership should not be seen as different school of leadership, but rather a particular blend of individual leadership characteristics applied within a definitive context. This approach aligns most closely with the Contingency/Interactionist school of leadership (see Figure 1), although our emphasis also takes into account the actions of leaders as well as the context that shapes their behaviour. Hence, the CPSL model of sustainability leadership, simplified in the figure below, has three basic interacting elements: Context, Characteristics and Actions.

Three main schools of leadership

- **Trait/Style school** – the characteristics or approaches of individual leaders
- **Situational/Context school** – how the external environment shapes leadership action
- **Contingency/Interactionist school** – the interaction between the individual leader and his/her framing context

Figure 1: Main schools of leadership

This model has been tested and refined through interviews with selected sustainability leaders, and informs many of our executive programmes and leadership projects.

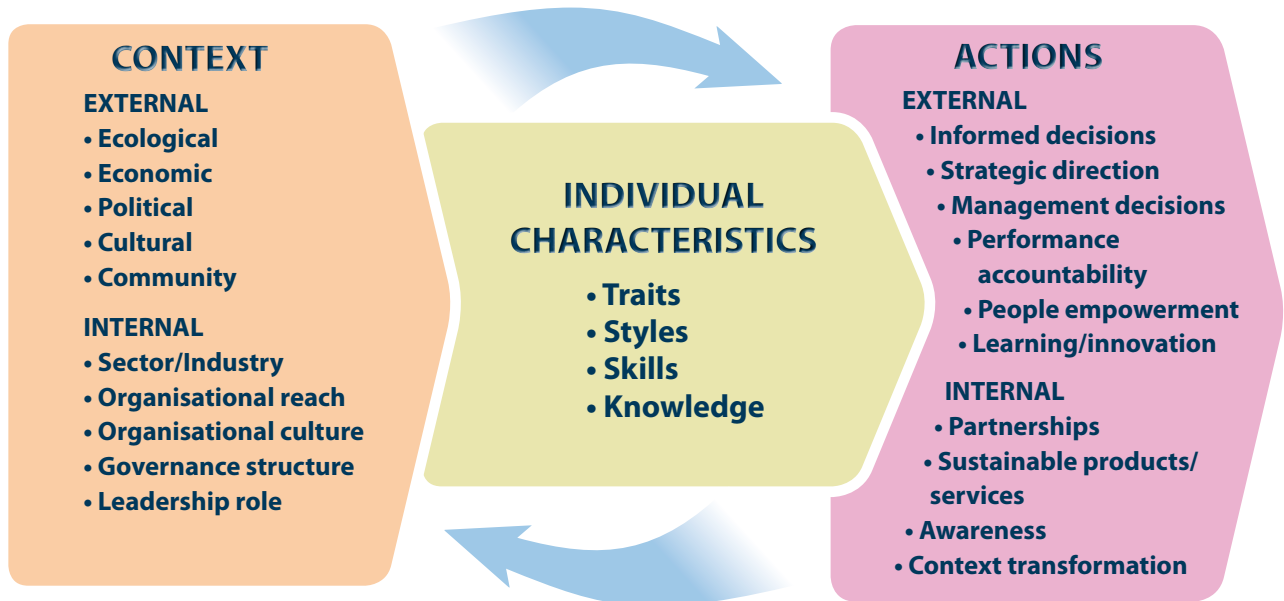


Figure 2: The CPSL model of leadership



Harish Hande

Co-founder and Managing Director, SELCO Solar Light (P) Ltd

Harish Hande's vision of providing clean, renewable energy at a household level has reached hundreds of thousands of India's rural poor. It is a classic tale of inspiration, creativity and trust in people's desire to improve their lives.

Trained as an energy engineer in India and USA, Hande was enthused by a postgraduate fieldwork study on the potential of solar power in the Dominican Republic. After completing his PhD, he returned to his native country, using the remains of his research grant to buy and sell his first solar lighting system. He went on to found SELCO, in 1995, a social enterprise which works with customers to provide sustainable energy solutions to revolutionise their earning potential.

Hande rejects the notion that 'the poor don't pay'. By providing technology alongside flexible financing options, SELCO delivers clean, reliable energy which unleashes families' earning potential. For example, indentured farm labourers are able to weave baskets at night to earn their own income, or rose pickers who work at dawn can abandon hand-held lanterns for electric head-torches, doubling their output. Clean, cheap energy also benefits health (with a reduction in harmful cooking fumes) and education (as children have light for their homework). Under these conditions, the vast majority of borrowers repay their loans.

VALUES ORIENTATION

"We talk about India's 8% growth, but that is absolute bull. The divide is increasing. If you look at poverty reduction, that's not happening. Sustainable energy can bridge that divide. How, with a good conscience, could I be working anywhere else?"

Convincing customers and investors of the links between solar lighting, clean energy services and income generation, was the nub of the challenge, according to Hande. Today, his company acts as a catalyst between potential borrowers and lenders. SELCO also places emphasis on working closely with customers to identify opportunities. 'There are an almost infinite number of solutions. You must be very patient, and listen to their needs – talk with them, and see what solutions they come up with. If you can create a product which matches their needs, it doesn't matter how poor they are.'

In 2007 Harish was named Social Entrepreneur of the Year by the Schwab Foundation and the Nand & Jeet Khemka Foundation, and received the Ashden Outstanding Achievement Award; in 2008 he was chosen by both *Business Today* and *India Today* as one of the country's top young pioneers. Harish serves on the board of many organisations, both national and international.



Paul Polman

CEO, Unilever

As CEO of Unilever, Paul Polman is renowned for championing the consumer goods giant's sustainability agenda. The Unilever Sustainable Living Plan, which was launched in 2010, sets out the ambitious goal of doubling the size of the company whilst at the same time reducing its environmental footprint. The plan seeks to decouple growth from environmental impact.

In formulating the Sustainable Living Plan, Unilever has placed emphasis on working backwards from ambitious targets rather than focusing on 'next steps'. The plan has three big goals: to help more than one billion people improve their health and well-being, halve the environmental impact of the company's products, and source 100% of Unilever's agricultural raw materials sustainably – all by 2020.

Polman was born in the Netherlands in 1956, and studied Economics, Finance and International Marketing before building his career at Procter and Gamble. He moved to Nestlé in 2006 as Chief Financial Officer before taking up post at Unilever in 2008. Polman places great emphasis on the need for responsibility within business.

Polman cites Gandhi, Mandela and the Dalai Lama as inspiring leaders who have all

LONG-TERM THINKING

"Unilever recognises that growth at any cost is not viable. We have to develop new ways of doing business which will increase the positive social benefits arising from our activities while at the same time reducing our environmental impacts."

prioritised others' needs above their own, and refers to psychiatrist and Holocaust survivor Viktor Frankl's suggestion that the USA needs a 'Statue of Responsibility' to counterbalance the Statue of Liberty. In particular, he criticises short-termism in the city which he says constrains companies' ability to contribute to society.

Polman points out that today's consumers have limited trust in large corporations, yet he predicts they will increasingly expect big companies to address some of the complex problems facing the world – climate change, water scarcity, shortages of food etc. For this reason, he believes it is important for brands to have a 'social mission' such as Ben and Jerry's emphasis on FairTrade, Lipton Tea's partnership with the Rainforest Alliance, or Dove's championing of women's self esteem.

Recognised by *Investor Magazine* as chief financial officer of the year 2007, Polman received the Carl Lidner award from the University of Cincinnati in 2006 and was the WSJ/CNBC European Business Leader of the Year 2003. He has been awarded honorary degrees from the Universities of Northumbria and Newcastle, UK, in 2000 and the University of Cincinnati, USA, in 2009.

LEADERSHIP CONTEXT

"THE MOST IMPORTANT THING I'VE LEARNED SINCE BECOMING CEO IS CONTEXT. IT'S HOW YOUR COMPANY FITS IN WITH THE WORLD AND HOW YOU RESPOND TO IT."

JEFF IMMELT, CEO, GE

PAUL GILDING – The Great Disruption

SANDRINE DIXSON-DECLEVE – Low Carbon Prosperity:
is Europe Ready for the Challenge?

The Great Disruption
has arrived.

One of the critical
attributes of leadership
is the ability to step
back from the day to
day and sense what
is coming. We do so
in order to keep our
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ready'.



*Paul Gilding is a Faculty member on The Prince of Wales's Business and Sustainability Programme. His latest book, *The Great Disruption: Why the Climate Crisis Will Bring On the End of Shopping and the Birth of a New World*, is published by Bloomsbury Press in April 2011.*

The Great Disruption

Paul Gilding

The Great Disruption has arrived.

One of the critical attributes of leadership is the ability to step back from the day to day and sense what is coming. We do so in order to keep our organisations 'future ready'. It's therefore surprising that more of us didn't see this coming. After all, the signals have been clear enough – signals that the ecological system that supports human society is hitting its limits, groaning under the strain of an economy simply too big for the planet. But we didn't see it and, as a result, the time to act preventatively has past.

Now we must brace for impact. Now comes The Great Disruption.

We can certainly get through what's ahead – if we prepare. I wrote my book, *The Great Disruption*, to help us do that. I was surprised how optimistic I became while writing it that not only can we make it through, we can come out the other side in better shape.

After all, the signals have been clear enough – signals that the ecological system that supports human society is hitting its limits, groaning under the strain of an economy simply too big for the planet.



First, though, back to the present. There are many indicators that clearly describe what is happening. Indeed our children will surely look back at what we can see now and ask, 'What were you thinking?'

One key metric is our total global footprint, which allows us to integrate many different resource and environmental impacts into a single measure – how much land we need to support our society. This also provides a simple business framework because it converts these complex issues into capital, expenditure and income. What it shows is that we are operating the global economy at about 150% of capacity – i.e. we are using the earth's resources at a rate that would take 1-1½ planets to sustain. This is a practical economic problem, with impacts like soil of insufficient quality to provide the diet we aspire to, degraded water supplies needed to keep people healthy and oil production peaking while consumption is increasing.

Think of this in your company's context. If you were spending 150% more than your revenues, how long do you think your strategy



would last, remembering the planet has no debt market – we can only spend our capital?

What this means is that the system is barely coping – it is like a tightly wound spring, just waiting for the opportunity to unwind. Then into this system we are throwing substantial shocks. Political instability in the Middle East, floods in Australia destroying crops, droughts in Russia causing grain shortages and so on.

The result? The Great Disruption – chaotic change, price volatility, geopolitical realignment and enormous business opportunities and risks.

The coming years won't be pleasant. Our society and economy will hit the wall and have

to realign around what was always an obvious reality: You cannot have infinite growth on a finite planet. Not 'should not', or 'better not', but cannot.

Whether this will manifest as food shortages, peak oil, climate chaos, marine ecosystem collapse, nitrogen overload or some combination of these, is hard to know. What is clear, with sufficient certainty for business planning, is that we are going to hit the limits, with dramatic economic impact.

There is now a growing mainstream recognition of this. Commenting on rising food prices, Nobel Prize-winning economist Paul Krugman wrote in *The New York Times* recently: "The evidence does, in fact, suggest

that what we're getting now is a first taste of the disruption, economic and political, that we'll face in a warming world. And given our failure to act on greenhouse gases, there will be much more, and much worse, to come."

How might this translate into the global economy? Imagine China facing a food shortage and, with plenty of money in the bank, going on a global shopping spree to feed its 1.3 billion mouths. This, argues food expert Lester Brown, could be China in 2011. Enjoy your daily bread while you can still afford it.

We will wake up soon. Not because the ecosystem is showing signs of major breakdown. No, we will wake up because something much more important to us is now clearly threatened...

But don't panic. We will wake up soon. Not because the ecosystem is showing signs of major breakdown. No, we will wake up because something much more important to us is now clearly threatened. When you try to create infinite growth on a finite planet, only two things can change: Either the planet gets bigger, which seems unlikely, or the economy stops growing. It's the end of economic growth that will really get our attention.

There is surprisingly good news in this. We as humans have long been very good in a

crisis. We ignore our health issues until the heart attack; our badly designed financial system until the economic crisis; the threat of Hitler until the brink of war. Again and again, we respond to problems late, but then dramatically – and, crucially, effectively. Slow, but not stupid.

This is a good attribute, given what's coming. The transition to a zero net CO₂ economy will soon be underway and the business and economic opportunities for those who are ready (and risks to those who aren't) are hard to overstate. After decades of unfulfilled potential we are now seeing profound market shifts gathering momentum. The human ingenuity we will depend upon to get us through what's coming is already hard at work. The organic food market is far outstripping growth in the food market overall. Electric cars are rolling off production lines. Solar power prices are falling dramatically. The global financial crisis barely registered in the growth numbers in renewable energy, which approached \$200 billion in 2010. China is racing ahead in this area, recently passing 50% market share in global solar panel production and now focusing on electric cars and high speed trains. However, Silicon Valley is powering up to compete, with clean tech the new opportunity for disruptive, high growth investments. That's a competitive battle to watch.

It's the end of economic growth that will really get our attention.

There's much more to this than technology though, with some exciting cultural and

political challenges ahead as well. In a growth-constrained world, our current central economic policy of 'keep calm and carry on shopping' is looking increasingly wrongheaded. It's certainly insufficient for continued human development. (More good news there, with all the research that suggests that shopping, or more specifically accruing more money and more stuff, is a very poor way to increase your happiness, once you're out of absolute poverty.)

For business leaders The Great Disruption is largely about opportunity, as long as you're ready. Yes, it will be challenging as old business models break down and new ones emerge. And there will certainly be great price volatility in food and other commodities. But in changing markets lies opportunities for differentiation and taking market share from others.

Amongst all our lamenting of how slow

change has been to date, we forget how effectively society mobilises when it chooses to. In World War II people embraced amazing levels of change and businesses responded to their nation's needs in spectacular fashion. It's hard to imagine a government suddenly banning the sale of automobiles but that's just what happened in the US four days after Pearl Harbour. Companies willingly drove enormous change in their operations because the greater good demanded it. So don't underestimate how fast and how far we can move when we need to.

Taking all this together, we can now say with a high degree of certainty that change is going to start coming thick and fast. Change in our economy, in our politics, and in our lives. Change that will ultimately lead us to a better place. Change that we need to get ready for.

The Great Disruption is now underway.





Pavan Sukhdev Special Advisor to UNEP and Chair of The Economics of Ecosystems and Biodiversity (TEEB)

Pavan Sukhdev is Special Advisor to the United Nations Environment Programme's Green Economy Initiative.

Alongside an illustrious banking career – he was instrumental in the evolution of India's currency, interest rate and derivatives markets – Sukhdev is currently on secondment from Deutsche Bank to UNEP.

Following in the footsteps of pioneers like David Pearce (*Blueprint for a Green Economy*) and Nicholas Stern (*The Economics of Climate Change*), Sukhdev is especially adept at applying economics to questions of public versus private good. Under his leadership UNEP has published a seminal report on *The Economics of Ecosystems and Biodiversity* (TEEB), outlining the economic significance of the loss of nature's services (estimated at between \$2-4.5 trillion per year), and connecting biodiversity and ecosystems with ethics, equity and poverty alleviation.

"The crisis of biodiversity loss," says Sukhdev, "can only begin to be addressed in earnest if the values of biodiversity and ecosystem services are fully recognised and represented in decision-making. This may reveal the true nature of the trade-offs being made: between different ecosystem services (food provision or carbon storage), between different beneficiaries (private gain by some, public loss to many), at

LONG TERM THINKING

"The green economy is the only sustaining economy. It makes use of its natural capital rather than wasting it. To suggest that you can burn capital and think you have done a good job is wrong. If you were cold you wouldn't pull out a window frame or door from your house and burn it. Every time you want a new jersey, you wouldn't rip up your carpets."

different scales (local costs, global benefits) and across different time horizons. When the value of ecosystem services are understood and included, what may have looked like an 'acceptable' trade-off may appear quite unacceptable."

Ironically, Sukhdev points out, the poor are often far more aware of the value of these goods which are overlooked – even depreciated – by mainstream economics. He counters narrow developmental agendas which cause long-term environmental damage. "Development does not work by deprivation first and addition later. It works by simultaneous conservation of what you have and adding later."

Besides his involvement with UNEP and TEEB, Sukhdev pursues his long-standing interests in environmental economics and conservation through work with the Green Indian States Trust (GIST), an NGO which publishes comprehensive 'Green Accounts' for India and its States. He is also Chairperson of the World Economic Forum's Global Agenda Council on Biodiversity.

A close-up portrait of Sandrine Dixon-Declève, a woman with dark, wavy hair, looking slightly to the right with a gentle smile. She is wearing small pearl earrings. The background is a plain, light grey.

EU decision makers are in the midst of a controversial low carbon debate, the outcome of which will shape the EU's policy and economy for many years to come.

Sandrine Dixon-Declève is the Director of the Brussels Office of the University of Cambridge Programme for Sustainability Leadership, and the Director of the EU Corporate Leaders Group on Climate Change.

Low Carbon Prosperity: is Europe Ready for the Challenge?

Sandrine Dixon-Declève

EU decision makers are in the midst of a controversial low carbon debate, the outcome of which will shape the EU's policy and economy for many years to come. The debate is split between those not yet convinced of the green growth agenda and the feasibility of reducing emissions whilst growing the economy, versus those who believe a low carbon economy will help us exit the recession and bring greater growth and jobs to Europe.

Since 2008, greater attempts have been made to address climate policy across European legislation through the climate and energy package. In January 2009, the creation by José Manuel Barroso, President of the European Commission, of a new Directorate General allocated solely to Climate Change, reflected the political realisation that climate change deserved as much attention in policy making as other areas. However, as Connie Hedegaard observed upon accepting the new post of European Commissioner for Climate Action, the challenge would be integrating the risks and opportunities from climate change across European policy, from competition and industrial policy to agriculture and energy. Only through comprehensive mainstreaming would the EU then meet its 2050 GHG reduction goals of 80-95% whilst ensuring sustainable growth and competitiveness on a global market.

The Commission's first attempt at mainstreaming is *Europe 2020*, its new vision focused on smart, sustainable and inclusive growth. The premise for the 2020 Strategy is that sustainability and growth are not mutually exclusive and that policy which stimulates 'green growth', resource efficiency and a low-carbon economy will deliver both a more vibrant and globally competitive European market and ultimately a better society for Europe's citizens. President Barroso himself has commented that these areas "are the key to repositioning Europe for the new markets of the 21st century, new areas of growth, and new jobs for Europe's citizens" – a perspective which was reinforced by the Commission's publication of the 2050 Low Carbon Roadmap in March 2011.

The 2020 Strategy includes seven flagship initiatives, three of which are directly linked to sustainability and low carbon growth. The first initiative, launched in February 2011, focuses on "a resource-efficient Europe", and is intended to help achieve the mainstreaming and cross-cutting policy goals needed to make sustainability a reality. If successful, it should make resource efficiency the common denominator for climate change, energy, transport, industry, raw materials, agriculture, fisheries, biodiversity and regional

From left to right, President of the European Commission, José Manuel Barroso; President of the European Council, Herman van Rompuy; HRH The Prince of Wales; and, speaking, President of the European Parliament, Jerzy Buzek.



development. In true de-coupling fashion, Europe's economic performance would be boosted while reducing resource use and GHG emissions. Past experience has already shown that this is possible: 2009 figures indicate that, since 1990, Europe's GDP has grown by approximately 40% and its manufacturing output by 30% while GHG emissions have decreased by 17.3%. The recession has of course assisted in the reduction of GHG emissions by slowing growth, but the overall trend since 1990 remains a reduction in emissions combined with a steady increase in GDP.

In essence, some of Europe's policy makers are starting to believe that industrialisation fuelled by environmental degradation and carbonisation is no longer necessary, and that the creation

of a low carbon, resource-efficient economy would create fresh opportunities for growth and innovation. It would also ensure the security of supply of essential resources, at a time when competition for these resources is growing fast. Most importantly, these policy makers are increasingly joined by business leaders convinced that 'green growth' would maintain the EU's global competitiveness, which is slowly being eroded by greater investment in new markets such as China and India.

However, such a position is still not mainstream within European governments and businesses: for some, this new focus on resource efficiency and low carbon is a real threat to industrialisation, to economic growth, and to their way of life. Not all policy makers

and business leaders are convinced that such a positive depiction of de-carbonisation is accurate, believing fundamentally that industrialisation cannot be de-coupled from GHG emissions; thus de-carbonisation means sacrifice and stagnation.

For example, Commissioner for Energy Günther Oettinger openly declared his concerns to *The Guardian* newspaper during the run-up to the launch of the Roadmap: "If we go alone to 30%, we will only have a faster process of de-industrialisation in Europe... I think we need industry in Europe, we need industry in the UK, and industry means CO₂ emissions." This view echoes those of policy makers across Europe and representatives from energy-intensive sectors who do not believe the EU should move beyond its existing commitment to 20% GHG reductions by 2020 until other countries such as the US or China set similar targets.

As well as believing that industrialisation and growth will always increase GHG emissions, that de-coupling is not feasible, and that de-carbonisation will affect Europe's market share and jobs, many energy-intensive industries claim that, without similar commitments from the US and China, stronger European targets would lead to 'carbon leakage' – the loss of business to outside competitors. These opponents include many in the steel, cement and paper industries, as well as in fossil fuels.

Yet many key leaders believe that de-carbonisation is the right policy for Europe. The day before Commissioner Oettinger's frank

exchange with *The Guardian* President Jerzy Buzek of the European Parliament hosted a Low Carbon Prosperity Summit, co-organised by the Prince of Wales's EU Corporate Leaders Group on Climate Change. President Barroso declared at the meeting: "What we are all involved in here is a race to the top. Building a low-carbon future for Europe is not a step backwards as some suggest, it is and can be a business-friendly and competitive agenda as well. I am convinced that our efforts will lead to greater prosperity, with businesses reaping the benefits of greater resource efficiency and first-to-market advantages in cutting-edge innovation."

The case for urgent action is not just powerful, it's also attractive.

At the Summit, world renowned economists Lord Nicholas Stern and Professor Ottmar Edenhofer upheld the growth message, both speaking of the urgency of addressing climate change not only because of environmental impacts but most importantly because of the direct impact on Europe's economy. Not seizing the opportunities from a new, low-carbon industrial revolution would cause a loss in jobs and growth, not the reverse. Lord Stern stated that "The case for urgent action is not just powerful, it's also attractive," pointing to countries which understand this message, such as China. A case in point is the new Chinese Five Year Plan (2011-2015), which focuses on green growth and clean technology, with directives aimed at reversing the damage done by 30 years of

unrelenting growth, and the explicit decision to stall growth for the first time in history by maintaining a lower than expected GDP while investing in clean and renewable energy. China's Environment Minister Zhou Shengxian has commented that "the depletion, deterioration and exhaustion of resources and the deterioration of the environment have become serious bottlenecks constraining economic and social development." Effectively China, the world's biggest source of greenhouse gases, has put low carbon prosperity at the top of its agenda.

The depletion, deterioration and exhaustion of resources and the deterioration of the environment have become serious bottlenecks constraining economic and social development.

The Low Carbon Prosperity Summit uniquely convened the Presidents of the European Commission, Council and Parliament, The Prince of Wales, and economists, investors and business leaders. In doing so, it demonstrated for the first time the possibility of a broad, cross-sectoral alliance on low carbon prosperity as a strategy that is good for business, civil society and the environment. Participants confirmed the need to formulate more ambitious short, medium and long-term timetables and targets, as well as stronger policy frameworks to revolutionise our industries cost-effectively. Most importantly, it

was recognised that such a strategy demands political courage.

Commissioner Hedegaard has proved a worthy champion of the cause, also pointing to the financial implications of delaying action towards a competitive low-carbon economy: "The longer we wait, the higher the cost will be... As oil prices keep rising, Europe is paying more every year for its energy bill and becoming more vulnerable to price shocks." Her position is reinforced by the Low Carbon Roadmap which confirms that domestic emission reductions in the order of 25% in 2020, 40% in 2030 and 60% in 2040 would be the most cost-effective pathways, when complemented by energy efficiency measures and the setting-aside of allowances under the ETS. For the first time, the Roadmap also addresses sectoral responsibilities and sets out the short and mid-term milestones needed in individual sectors to meet the 2050 GHG emissions target. Clearly, one of the main challenges will be reaching the power sector milestone of 54-68% by 2030, in order to decarbonise the sector almost entirely by 2050.

Responses to the Roadmap have been mixed. Business Europe, the main European business association has refused to support the suggested milestones until China and the US promote similar action. At the other end of the scale, NGOs and politicians representing the core governments supporting stronger action have complained that the Commission was not going far enough and should immediately adopt a unilateral target of 30% GHG emissions reductions.

The author (centre) with Connie Hedegaard, European Commissioner for Climate Action (left) and José Manuel Barroso, President of the EU Commission (right) at the Low Carbon Prosperity Summit, February 2011.



This reminds us of the daunting feat ahead. Without a doubt, this is the most complex challenge we have faced since the Industrial Revolution. It is all the more difficult to address in the midst of a recession, and at a time when climate scepticism still reigns in some business quarters. Embracing a low-carbon and resource-efficient economy means seizing new opportunities from clean technology, and driving change across all business sectors. It also calls for greater cooperation between sectors, and offering concrete solutions to those sectors and countries most impacted by de-carbonisation.

How this will play out hinges on the willingness of European policy makers and business leaders to collaborate, provide

genuine leadership and develop the best strategy forward based on the Roadmap. The crucial question is whether EU policymakers will concede their current leadership position, and surrender to those sectors that are not ready to seize the challenge – or whether more political courage can be gleaned from within the various departments of the European Commission and in the halls of Europe's main capital buildings. The next few months will be telling, and by the June European Council meeting the verdict should be out. We can only hope that, by then, ministers will agree that low carbon prosperity is the right growth strategy for Europe.



Elizabeth May

Leader, Green Party of Canada

Elizabeth May is the Leader of the Green Party of Canada and is an environmentalist, a lawyer and an author. Born in 1954 in Connecticut, her family moved to Cape Breton Island off the coast of Nova

Scotia in 1972, where she became

involved as a teenager in a campaign to prevent herbicide spraying on local forests.

Unable to attend college immediately due to family finances, May helped run the family restaurant, took correspondence courses, and then worked her way through law school. In 1985 she became active with the Public Interest Advocacy Centre, as well as representing Pollution Probe and Friends of the Earth. During this time May helped found the Canadian Environmental Defence Fund with the aim of funding groups and individuals in environmental cases. She became senior policy advisor to the federal environment minister in 1986, and was involved in the creation of several national parks, as well as negotiations with the US to reduce sulphur dioxide emissions, efforts to clean up the Great Lakes, pollution control measures and legislation, and the drawing-up of the Montreal Protocol to protect the ozone layer.

From 1989 to 2006, May was Executive Director of the nationwide environmental group The Sierra Club of Canada. In 2005 she was able to persuade Bill Clinton, a family friend since

EMOTIONAL INTELLIGENCE

"One of the things I would like to bring to Canadian politics is to show enough respect to the other view so that we could actually have a dialogue. Because one of the things that is wrong about polarisation is that the language becomes a barrier to understanding."

the 1970s, to attend the UN climate change conference in Montreal, maintaining US interest in the talks.

May was elected leader of the Green Party in August 2006, citing climate change and a 'crisis of democracy' as her reasons for entering national politics. She stated in a radio broadcast at the time: "I find myself despairing when I see four men in suits engaging in a debate where nothing important is said. If the voters get to hear a whole bunch of really exciting new ideas, they might like them, instead of trying to do a calculation of who they hate the least." Her 2009 book *Losing Confidence: Power, Politics and the Crisis in Canadian Democracy* outlines her criticisms of presidential-style politics in Canada and calls for politicians to move beyond partisanship and towards addressing common issues.

May is an Officer of the Order of Canada, and has received a number of other accolades; she was identified as one of the world's most influential women by *Newsweek Magazine* in 2010, and is one of UNEP's Global 500 Roll of Honour for Environmental Achievement.


LEADERSHIP CHARACTERISTICS

“FUTURE CAPABILITIES WILL BE VERY DIFFERENT, AND WILL PUT A PREMIUM ON LATERAL THINKING AND CROSS-FUNCTIONAL, COLLABORATIVE PROBLEM SOLVING.”

JEFFREY SWARTZ, CEO, THE TIMBERLAND COMPANY

MELISSA LANE – Eco Republic

LINDSAY HOOPER – Developing the Leaders of the Future

A portrait of Dr. Melissa Lane, a woman with short, curly brown hair, smiling. She is wearing a light pink blazer over a dark top. The background is a blurred green hedge.

In clinging to the comforts and familiarities of our current way of life and its fossil-fuel infrastructure, despite a mounting consensus of scientific studies documenting the damage which this is doing, are we trapping ourselves in Plato's cave?

*Dr Melissa Lane is Professor of Politics at Princeton University. She is a Faculty member on The Prince of Wales's Business and Sustainability Programme and other customised executive education programmes at CPSL. This article is extracted from Professor Lane's forthcoming book, *Eco Republic*.*

Eco Republic

Melissa Lane

"If this man went down into the cave again and sat down in his same seat, wouldn't his eyes – coming suddenly out of the sun like that – be filled with darkness?... Wouldn't he invite ridicule? Wouldn't it be said of him that he'd returned from his upward journey with his eyesight ruined and that it isn't worthwhile even to try to travel upward?"
(*Plato, Republic, Book 7, 516e-517a*)¹

'Crazy! Lunatic!' 'What is he talking about?' 'How dare he challenge our way of life?,' people call out angrily to one another, hostile to a person newly arrived in their midst. The newcomer has challenged the fundamentals of their social order. According to his presumptuous proclamation, what they call success is actually failure. Their career paths to power and prestige lead to public damage, not to public service. What they take to be solid facts are dangerous illusions. The technologies and infrastructure and assumptions in which they have invested their time and money and belief are fraudulent; the glare of reality would expose these as wishful delusions. The newcomer is likely to be shunned at best, stoned at worst. How could anyone be expected to tolerate such arrogant insults to their whole way of life?

Pull back the camera on this scene, however, and it appears in a new light. The busy self-

righteousness of this political order is indeed, in reality, built on foundations of sand. The prizes they strive for are made of smoke and mirrors; success in their competitions is self-undermining. In fact, powerful figures, invested in the maintenance of this existing delusional social order, parade the objects and languages in which the people believe, denying that any external challenge to them could be valid. Denial of the external perspective looks from this higher vantage point like keeping one's head in the sand, refusing to face what is obvious and valid.

A passive citizen body, a conniving and self-interested set of sophistic opinion-formers and demagogic political leaders, a systematically



¹ Quoted from *Plato, Republic*, trans. Desmond Lee, with introduction by Melissa Lane (Harmondsworth: Penguin, 2007)



misleading and damaging order of political structures and common beliefs and appetites: this is how Plato portrays the effects of his contemporaries' system of education – by which he means, very broadly, the effects of their system of values and practices. He describes the cities of his day as no more than caves. Trapped inside, people box at shadows, elbowing each other to achieve advantage and pre-eminence, while being all the time trapped unknowingly in a delusional state. The artificial firelight of the cave is but a feeble and perverse imitation of the light of the sun which stands outside and above every given cave.

I have taught Plato's image of the cave – for that is what I have been describing, from Book 7 of Plato's *Republic* – to hundreds of people, old and young, students and senior citizens, corporate executives and public officials, many of them on CPSL programmes and seminars. Several years before beginning this book, it began to nag at me. In clinging to the

comforts and familiarities of our current way of life and its fossil-fuel infrastructure, despite a mounting consensus of scientific studies documenting the damage which this is doing, are we trapping ourselves in Plato's cave? What would it mean for our conceptions of our cities and our selves if we were to dare to leave the cave, facing the challenge of making our conveniences and competitions conform to the implacable demands of external reality?

Perhaps the image of the cave seems too strong to be either palatable or plausible. How can one dare to say that dominant systems of values and practices and norms are fundamentally misguided? In fact we have just been through an eerily similar indictment of another dominant system of thought and action in the form of the global financial crisis. Consider the AAA-rated securities that were actually worthless; models of risk which ruled out of necessary consideration the very dangers which threatened to bring the system down; the promises to avoid moral

hazard which were immediately broken. The topsy-turvy nature of reality, in which our cherished faith in house prices rising, the 'great moderation' of the financial markets, and the ending of the cycle of boom and bust were all exposed as delusions, showing us to have been trapped in a precarious cave of our own making, wilfully hiding from the searching light which would reveal the cracks in its foundation.

How can one dare to say that dominant systems of values and practices and norms are fundamentally misguided? In fact we have just been through an eerily similar indictment of another dominant system of thought and action in the form of the global financial crisis.

How can people trap themselves – how do we trap ourselves – in such caves of delusion? In Britain, The Queen posed this question on a visit to the scholars enrolled in the prestigious ranks of the British Academy: how was it that no one had noticed that the credit crunch was looming? (In fact, a few people had predicted such a crunch; the question was really why conventional wisdom wrote them

off as fools and knaves, dismissing them as dangerous and deluded threats to the secure certainties of the cave.) The answer from the academicians was surprising. It was an appeal to the imagination.

"So in summary, Your Majesty, the failure to foresee the timing, extent and severity of the [financial] crisis and to head it off, while it had many causes, was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole."²

My new book, *Eco Republic*, proposes a parallel answer to the question of why – with mounting scientific evidence, and a plethora of available technologies – Western democracies by and large are still mired in inertia, unwilling to take the steps necessary to meet the looming challenge of climate change. Like the credit crunch, our failure to rise to – or in some cases even admit – the reality of the challenge is in large part a failure of the collective imagination.

In the financial realm, this collective imagination formed a limiting horizon, making some possibilities not so much literally unthinkable as outside the boundaries of 'normal' processes of reasoning and of 'normal' standards of the desirable and the admirable. The same phenomenon is at work in the

² The letter is available via <http://www.britac.ac.uk/news/newsrelease-economy.cfm>; I was a co-signatory to a letter written in reply on 26 August 2009, pointing out that the financial crisis must be addressed in light of the broader brewing ecological crisis, for which see: <http://www.abundancypartners.co.uk/2009/08/open-letter-to-the-queen/>.



looming ecological crisis. Even where rational solutions are available, such as zero-impact building or a ban on plastic bags, we see them neglected or evaded as inconsistent with the current imaginative horizon. One example is that of Peter Head of Arup, a major British construction company, remarking that most builders do not build in zero-impact ways “because they believe it isn’t possible” – even though it demonstrably is.³ When even an ardent inventor admits that the time-lag in adoption of the best and most useful new

inventions tends to be 15 years, because people are so resistant to change, an inquiry into the inertial effects of the imagination is a necessary complement to the multiple studies of the economic costs, technological possibilities, and normative ethical demands of climate change which dominate the field.

Intimations of the need for an imaginative change

The need for a transformation of the political imagination is increasingly felt, if inchoately expressed. One way it is sometimes spoken about is in the declaration that “We need a new mythology.” In the space of six months, I heard that said – in almost exactly those words – by an equity funds manager; the head of an economics think-tank; and the former head of a national UK environmental NGO.⁴ It’s not a sentiment you would usually associate with any of them. It’s not a sentiment that has been widely expressed in modern western political life at all. In calling for a new mythology, what these leaders of business and NGOs meant is that we need a new vision of normality, of what fundamentally constitutes the relationships between public and private, the role of the individual, the values and costs and benefits which are socially acknowledged. They mean that the technical, economic, and political debates have left something

³ Speaking at The Prince of Wales’s Business and Sustainability Programme, Madingley Seminar, 2008: quoted with permission.

⁴ These comments were made under the ‘Chatham House Rule’ and so cannot be attributed. However, public attestations of the same sentiment can also be found: for example, WWF-UK has initiated a ‘Strategies for Change’ project looking, among other things, at ‘the myths we live by’ – see http://www.wwf.org.uk/research_centre/research_centre_results.cfm?uNewsID=2224 – and John Grant has called for the deliberate creation of ‘counter-myths’ in *The Green Marketing Manifesto* (London: John Wiley and Sons, 2007).

out: not that we need a literal 'mythology' in the sense of a made-up lie or rationalisation, but rather that we need to reconsider the basic units of value and meaning in light of which we reason. So I will interpret what they meant by 'mythology' in light of a notion of the political imagination (about which I say more below), as offering a vision of normality that connects individual with society and establishes frameworks for perception, action,

and value. Imagination, in turn, informs and structures the prevailing ethos, the "structure of response lodged in the motivations that inform everyday life," as one philosopher, the late GA Cohen of Oxford University, described it.⁵ Cohen argued that an egalitarian ethos was an indispensable conceptual element of social justice. My complementary claim is that transforming the political imagination, and so in turn the social ethos, is indispensable to the



⁵ G.A. Cohen, *Rescuing Justice and Equality* (Cambridge, MA: Harvard University Press, 2008), 123

actual process of social change. If 'ethics' are rooted in 'ethos' (as indeed they were for the Greeks, being etymological kin), then both are rooted in turn in the imagination.

The Stern Review of the economics of climate change called for public policy on climate change to "seek to change notions of what responsible behaviour means."

The Stern Review of the economics of climate change used more muted language to make a similar point. It called for public policy on climate change to "seek to change notions of what responsible behaviour means": this is treated as a key lever for mitigating (limiting) the carbon emissions causing climate change.⁶

The meaning of responsible behaviour is rooted in ideas about the meaning of harm which in turn connect to a wide range of beliefs, practices, emotions and desires. The Stern Review assumed that it was the role of the state – public policy – to do this. There is certainly an important role for the state here, which can be justified in terms of the liberal harm principle, insofar as our understanding and so our imaginative grasp of harm itself begins to change. Nevertheless, changing those underlying ideas is a broader process, one in which individuals and groups can play an active part even if its outcome is beyond any one person's control. I encourage each reader to consider how to play his or her part in contributing to this epochal transformation.

Excerpted and adapted for CPSL from Eco Republic (Peter Lang, UK; Princeton University Press, USA; forthcoming 2011).



⁶ Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press, 2007), 452.



Van Jones

Founder and Former President, Green for All

Van Jones is a human rights activist and champion of clean technologies and “green-collar jobs”. At Yale Law School, his activism in police brutality cases pushed his political interests towards the left, leading

him to found the Ella Baker Center for Human Rights in 1996. Following Hurricane Katrina, he co-founded another NGO, Color of Change, which exists “to strengthen Black America’s political voice” and “bring about positive political and social change for everyone”. Jones’ focus gradually shifted towards addressing inequalities of health, wealth and environmental justice, and he set up Green for All in 2008, a charity promoting green pathways out of poverty.

This NGO launched the Green-Collar Cities Program, and the Green For All Capital Access Program to assist green entrepreneurs. As part of the Clean Energy Corps Working Group, Green for All launched a campaign to create 600,000 ‘green-collar’ jobs while retrofitting and upgrading more than 15 million American buildings.

Jones’ 2008 book, *The Green-Collar Economy*, made its debut on the *New York Times* bestseller list, catapulting him into the spotlight as an advocate of government support, civic activism and private-sector

INNOVATIVE APPROACH

“We are entering an era during which our very survival will demand invention and innovation on a scale never before seen in the history of human civilization. Only the business community has the requisite skills, experience, and capital to meet that need.”

investment in high-tech jobs. Jones writes: “In the end, our success and survival as a species are largely and directly tied to the new eco-entrepreneurs – and the success and survival of their enterprises. Since almost all of the needed eco-technologies are likely to come from the private sector, civic leaders and voters should do all that can be done to help green business leaders succeed. That means, in large part, electing leaders who will pass bills to aid them. We cannot realistically proceed without a strong alliance between the best of the business world – and everyone else.”

Jones served President Obama briefly as ‘green jobs adviser’ in 2009. He is currently a senior fellow at the Center For American Progress, and holds a joint appointment at Princeton University and the Woodrow Wilson School of Public and International Affairs. He was made a Young Global Leader of the World Economic Forum in 2008, and received the NAACP President’s Award in 2010. *TIME* named him one of the world’s 100 most influential people in 2009.

A close-up portrait of Lindsay Hooper, a woman with blonde hair, smiling slightly. The background is a blurred green, suggesting an outdoor setting.

When HRH The Prince of Wales commissioned Cambridge University to launch its first sustainability leadership programme nearly 20 years ago, business education on sustainability was virtually non-existent.

Lindsay Hooper is the Director of Executive Programmes at CPSL, where she has directed The Prince of Wales's Business and Sustainability Programme and CPSL's Postgraduate Certificate in Sustainability Leadership, a Masters-level qualification.

Developing the Leaders of the Future: What Leading Companies are Doing to Embed Sustainability Through Education

Lindsay Hooper

When HRH The Prince of Wales commissioned Cambridge University to launch its first sustainability leadership programme nearly 20 years ago, business education on sustainability was virtually non-existent. Environmental management was typically a niche, technical discipline, often bolted onto Health & Safety and, aside from a handful of technical courses which addressed the tools and processes required to manage environmental risks or governance issues, there was very little business-relevant provision. Social and environmental sustainability rarely made it into mainstream business school curricula or leadership development programmes.

Two decades on, the landscape is very different. The business of sustainability learning is booming. We see a vast array of learning formats and approaches, provided by a broad and international range of academic institutions, business schools, commercial consultancies, governments, non-governmental organisations, multilateral organisations and business networks. Moreover, although still not fully integrated into core MBA and executive education

territory, sustainability learning is no longer just a niche specialism, but is also moving into the mainstream and into the realm of leadership and strategy.

CEOs consider education – including talent pipelines and the capabilities of future leaders – to be one of the critical issues for the future success of their businesses.

Sustainability, leadership and strategic thinking

Sustainability, with its core principles of long-termism, whole-system thinking, and societal value is resonating ever more strongly with evolving business priorities. According to a recent Hay and Bloomberg report into the best companies for leadership,¹ the highest-ranking companies recognise that “they are operating in a complex and ever more deeply interconnected global system, and that their responsibilities extend beyond achieving

¹ *Best Companies for Leadership; Bloomberg Businessweek.com and Hay Group survey, February 2010*



short-term returns in shareholder value.” The study also found that “leading companies are more likely than other companies to find value in being inclusive, socially responsible, and globally aware in their outlook.”

This growing recognition of the business and strategic relevance of sustainability has been mirrored by a sustained investment in the development of new leadership skills and attributes to support the growth of more sustainable, ‘future-proofed’ businesses. The recent UN Global Compact-Accenture study found that CEOs consider education – including talent pipelines and the capabilities of future leaders – to be one of the critical issues for the future success of their businesses.²

A key dimension of the debate about how best to respond to this challenge has been the tension between a drive for specialisation (with a focus on relatively narrow areas of

training) versus a growing recognition of the need to foster an understanding of a broad context.

We are seeing an investment in the professionalisation of sustainability as a key corporate function, but we are also seeing a strong trend towards companies equipping mainstream leaders to respond to sustainability risks and opportunities within their own operating contexts.

As the position of sustainability within companies evolves to become more senior and strategic – whether through the growth in influence of the corporate sustainability function (sometimes including the creation of dedicated, senior positions such as Chief Sustainability Officer) or through the integration of sustainability into mainstream leadership responsibilities – capacity building has evolved in two key ways. On the one hand, we are seeing an investment in the professionalisation of sustainability as a key corporate function, but we are also seeing a strong trend towards companies equipping mainstream leaders to respond to sustainability risks and opportunities within their own operating contexts.

² *A New Era of Sustainability; UN Global Compact-Accenture CEO Study 2010*

So how are leading companies using learning to embed sustainability?

1. Supporting broader, longer-term, more inter-connected thinking

Although horizon scanning has featured in leadership models since the late 1990s, the focus on context, complexity and responsibility is growing. Leading companies are increasingly focusing their development programmes on support for decision-making and leadership in the context of complexity and rapid change, helping their key people to scan more broadly, to think longer-term, and to analyse systemically to address material risks and opportunities. These skills or attributes can't easily be taught by traditional, textbook and classroom-based methods, but can be cultivated through engagement with diverse perspectives and world-views and through exposure to the sustainability impacts of commercial activity.

Companies pursue various – and sometimes multiple approaches – to this development

SHELL

As part of Shell's leadership development programme for its most senior executives, the company hand-selects delegates to attend external sustainability leadership seminars to gain insight into the external context and the perspectives of key external stakeholders, including investors, regulators and NGOs.

NESTLE

Although Nestlé's sustainability strategy is well developed with operational implementation now underway, the company continues to send a select number of executives to external leadership seminars to broaden their frame of reference, to gain insight from other sectors, and to build a strong commitment to systems thinking and counter any tendency towards siloed thinking.

area, including both bespoke and open-enrolment programmes, often taking learners out of their comfort zone to give them insight into the challenges and responses of other

ANGLO AMERICAN

Anglo American has made a significant investment in developing the capacity of its senior social practitioners to adapt to and perform effectively within a challenging and rapidly changing context. Anglo commissioned a bespoke programme to equip these individuals – who often carry responsibility for protecting Anglo's licence to operate in developing regions – with broader systemic-thinking skills to ensure more effective decision-making and problem-solving in complex and often high-conflict situations.

sectors, functions and regions. Learning will often involve futures thinking and scenario and dilemma-based engagement, as well as peer-to-peer debate and discussion to allow individuals to shape and test their own thinking.

2. Supporting the professionalisation of the sustainability function

Companies are increasingly investing in the development of key individuals who are responsible for developing and implementing sustainability strategy. The aim is to develop individual competencies and build a core of champions, and also to strengthen the profile and credibility of sustainability within the company.

Because the sustainability function often includes a broad span of seniority, the learning needs of individuals differ at different levels. However the commitment to developing teams has led to a proliferation of new

programmes and services designed to respond to this demand.

A key trend, which reflects the appetite for increased credibility for the sustainability function, has been the strong demand internationally for accredited sustainability programmes, often at Masters level. Leading companies commissioning bespoke programmes for their sustainability leaders and practitioners have also been keen to pursue academic affiliation, and have engaged with leading universities internationally to secure the most powerful brands and access to world-class thinking.

A development which may shape this area in future is a strong push by leading sustainability practitioners in the UK towards more formal professionalisation of the role of Corporate Sustainability Officers and clarification of the necessary skill-set.



The significant challenge of implementation still remains. Companies often stall at this stage through lack of engagement and understanding within the business units.

3. Embedding understanding and responsibility within the company

Once the leadership team has made a commitment to sustainability and the

BUPA

BUPA is pursuing an innovative route to the development of its sustainability leaders. Through a series of provocative leadership perspectives and keynote talks, the company is stimulating debate and discussion amongst a cadre of champions, inspiring and supporting their work to lead change amongst their peers.

sustainability team has developed the outline goals or framework, the significant challenge of implementation still remains. Companies often stall at this stage through lack of engagement and understanding within the business units. However, leading companies are increasingly investing in learning to support business implementation. This often takes the form of bespoke programmes for more senior tiers, cascading through internal workshops combined with online provision for more junior staff, with the overall aims of inspiring and engaging business units and securing their buy-in to the implementation of sustainability strategy. In many cases, relatively short interventions which allow teams to consider the implications and opportunities for their own area of the business, can lead to the unleashing of significant levels of commitment and innovation.

4. Encouraging challenge and innovation

Leading companies know that, through challenging themselves and their people, they can ensure that they develop more robust approaches to sustainability. For example,

having developed their 2020 sustainability goals, Coca-Cola Enterprises knew that they needed to look beyond implementation to the next set of challenges. They commissioned a bespoke programme for their top 100 leaders, to expose them to challenging external perspectives – often from vocal NGOs – on issues such as health and lifestyles, water and agriculture.

Other companies, such as Arup, which have built good reputations for their leadership on sustainability, are aware of the need to keep challenging and stretching themselves and their people. Arup is investing in a learning programme which encourages senior managers and leaders to ask big questions, to surface barriers to transformational change, and to think innovatively and creatively about what sustainability will mean for the future of their company and their sector.

5. Learning from first hand experience

In order to build greater understanding of the sustainability impacts of business decisions and to understand what leading-edge responses can look like in practice, there has been a trend towards supplementing traditional learning approaches with opportunities for first hand experience. The Prince of Wales has been a particularly strong advocate of this approach, having long championed 'Seeing is Believing' programme visits to key initiatives. Leading companies are now approaching this concept in a strategic way, building on the standard practice of growing leaders through exposure to challenging, international assignments which incorporate sustainability dimensions.



For example, GE and SAP – companies which operate in or are expanding into developing regions – send their executives on programmes which give them first hand experience of the on-the-ground social and environmental challenges and grass-roots responses of innovators and entrepreneurs in these regions.³ These range from week-long programmes to much longer placements or secondments. Some companies – perhaps Unilever is the best known example – have benefited from the transformational impact of leadership team journeys to locations outside of the normal business realm.⁴

6. Extending provision beyond the company

Leading companies recognise that to make real progress towards sustainability, they may need to extend education beyond their own employees. For some, this means learning alongside their partners and stakeholders. For example, BP and Anglo American have both provided free places for NGO delegates on their bespoke leadership programmes. This has the threefold advantage of providing access to leadership development for senior NGO delegates, of challenging assumptions and providing cross-sectoral insights to

³ *On the Ground in Africa*, GE Leadership Development Programme http://www.ge.com/pdf/innovation/leadership/leadership_development_fact_sheet.pdf

⁴ *To the Desert and Back*, Mirvis, Ayas & Roth; Jossey-Bass, 2003

both corporate and NGO delegates, and strengthening corporate-NGO partnerships. It can be a high-risk strategy, but the potential returns are high.

Other approaches include the development of programmes for clients and suppliers. For example, PricewaterhouseCoopers, having already invested significantly in the sustainability leadership of its senior partners in the UK, is now developing international seminars for its clients. Lloyds Banking Group developed an online sustainability programme for its client-facing staff and is now making this available to its network of business clients. GE shares its own best practice with its customers and suppliers at its learning centres in Asia and the Middle East, and Skanska – a leader in the development of green buildings – has created a Green Tenant programme to educate tenants in the efficient operation of their new buildings.

What future trends can we anticipate?

The future of sustainability learning is likely to be influenced by many of the trends which are shaping mainstream executive education, such as a focus on internationally-relevant provision, on ongoing, work-related learning, and on assessing the impact of learning. However, the following are a few of the trends which may be specific to sustainability learning.

Embedding sustainability into mainstream executive education

As sustainability becomes more integrated into mainstream business, it is likely – and

necessary – that sustainability learning will become more embedded into regular executive education and leadership development. Certainly strong corporate demand exists for fully integrated provision. The key barrier to progress continues to be the lack of capacity within business schools to respond to this demand, but there is a slow but definite shift towards the integration of dimensions of sustainability into mainstream provision on leadership, strategy and geopolitics.

In the interim, sustainability programmes are likely to continue to shift their focus from stating the problem to considering solutions, with leadership-level programmes focusing on the implications for business strategy, models, markets and processes and on opportunities to change the operating context.

A greater focus on systemic approaches

After years of focusing strongly on climate change, companies are also now confronting a host of other major challenges – particularly resource security. They will continue to need to prioritise the issues which are most relevant for their business, but many are realising that the effectiveness of a siloed, issue-specific approach can be compromised if it isn't underpinned by a full-system perspective. A systemic perspective, which can give insight into root causes and leverage points, can be critical in avoiding unintended consequences.

Advocacy and influence

One of the key challenges for leaders committed to embedding sustainability is

their ability to influence others, internally and externally, and – beyond that – to translate understanding into action. In some contexts, where public trust of science is low and climate scepticism is high, this can be a particular challenge.

Learners' own levels of understanding are often high, but they are keen to share experience, practise their advocacy and access communication tools to make the case to others. They are also keen to gain greater insight into how to bridge the gap between commitment and action. Future learning for sustainability is likely to include a greater focus on issues such as communication, psychology and behaviour change.

Conclusion

There is no doubt that leading companies are using education as a key tool to embed sustainability within their companies and to develop a new generation of leaders. Through their investment in learning, they are equipping their leaders to respond effectively to sustainability risks and opportunities; they are developing the professional competencies of their sustainability teams; and they are securing cross-company engagement and commitment. To achieve this, companies are no longer focusing narrowly on technical training. They seek not just to train their people, but to educate them in a much broader sense – to inspire, engage and stretch, to open minds and test thinking, and to stimulate new and innovative responses to the global challenges we face.

In doing so, companies not only challenge themselves, but they reshape the landscape of sustainability learning, challenging learning providers to continually raise the bar, to expand horizons and to work alongside them to co-create innovative new approaches to learning.

The trends towards the prominence and professionalisation of sustainability within companies, and the integration into mainstream business, will inevitably stimulate further – and significant – shifts in sustainability learning.

Those involved in the shaping and responding to these developments will play a critical role in building the capacity of future leaders to transform their organisations and wider society, to unlock the barriers to a sustainable world.





Ma Jun

Founder, Institute of Public and Environmental Affairs (IPE) China

Ma Jun is an environmentalist who founded the Institute of Public and Environmental Affairs (IPE), a Chinese NGO which maintains and publishes the China Water Pollution Map, the first online public database of its kind in China.

Data on air pollution was added following the 2008 Olympics.

Originally a journalist with the *South China Morning Post*, Ma became an activist in 1997 after hearing hydro-engineers boast about the management of the Yellow River. He went on to publish *China's Water Crisis* (1999), a book which highlights the dangerous contamination of more than 60% of China's rivers and lakes, and which has been compared to Rachel Carson's *Silent Spring* (1962) in its influence.

In a country where distinctions between state, private and non-governmental sectors are hazier, running a watchdog NGO is a challenge: 'Environmental problems cannot be resolved here the way they are resolved in other countries. I heard that 80% of the environmental problems in the US are solved in court. That can't happen here.' Instead, Ma has leveraged concerns about the burgeoning private sector in China to find room for manoeuvre.

IPE focuses on both Chinese companies and

INCLUSIVE APPROACH

"The aim is to educate the public about the issues of pollution so that they can make informed choices. Informed choices about which products they buy. Informed choices about how they participate in social life. Informed choices about how they can impact their own futures."

multinationals with Chinese operations, aiming to break down wilful ignorance amid complex supply chains. Ma is clear about the need for rich countries to take more responsibility: "From now on, you cannot say 'I do not know.'" In 2008, IPE launched the Green Choice Alliance Programme, allowing corporations commit to sourcing regulation-compliant suppliers. Companies such as GE, Nike and Wal-mart use the website to ensure due diligence.

Crucially, to avoid being seen as an anti-government activist, Ma is able to frame his analysis in terms of patriotism and the public good, exemplifying classical attributes of patience and respect in his dealings with business and local officials. "There is a space [to challenge people], but there is a line as well. The key is to understand both. This is a country that has been ruled in a top-down way for thousands of years... We have to have some patience."

Ma was named one of *TIME Magazine's* 100 most influential people in the world in 2006.

LEADERSHIP ACTION

“OVER THE NEXT TEN YEARS, THE ONLY WAY INDIVIDUALS, ORGANISATIONS AND COUNTRIES WILL SUCCEED AND COMPETE WILL BE THROUGH THE ABILITY TO UNLOCK HUMAN POTENTIAL.”

JAN MUEHLFEIT, CHAIRMAN, MICROSOFT EUROPE

JEFF IMMELT – Competitiveness in the 21st Century

PETER WILLIS – South Africa Surprises



There are four pillars of a competitive society: education, affordable healthcare, financial systems that promote entrepreneurship, and clean energy.

Jeff Immelt is Chairman and CEO of GE. This article is adapted from The Prince of Wales's Business and Sustainability Programme 2010 London Lecture which he delivered on 28th October 2010.

Competitiveness in the 21st Century

Jeff Immelt

Today we are emerging from an economic crisis that has the world thinking about itself in a new way. We are seeing the re-ordering of the global economy. In the 1980s, Western Europe, the US and Japan produced 80% of global GDP growth; in the next decade, this will come from emerging markets. Meanwhile, governments around the world face tremendous budget challenges, and there is high unemployment everywhere. People are frustrated by the role that government and business have played. They don't think we know how to fix problems or create growth and jobs. The institutions that people in the developed world have trusted for generations are now being challenged. In that context, what I am qualified to speak about is competitiveness. How do we compete in the 21st century?

As I see it, there are four pillars of a competitive society: education, affordable healthcare, financial systems that promote entrepreneurship, and clean energy. The discussion on clean energy is going on in every country and every government around the world. Demand for energy is going to grow substantially in the next 30 years, but this is about creating a clean energy future: one that is sustainable and that emphasises energy security, one that drives competitiveness and job creation, and reduces pollution.

This is the biggest opportunity we will face in the next decades, and we have to grab it and we have to lead. It is our belief at GE that through innovation we can align investors, employers and society, and that we don't have to think about this as a minimisation effort. We can think about this as a maximisation effort through technology and innovation.

GE's journey

In 2004 we started an initiative on clean energy called 'Eco Imagination'. We came to the conclusion that global warming is a fact, and it is caused by man. We also believed that GE's science and technology would be sufficient to create solutions. Teams of innovators studied our technology, we went out and talked to our customers, and we studied public policy on a global basis. Then



we decided to drive forward on an initiative around clean energy that had four parts:

- We committed to double our research and development on clean technology. We defined clean technology as any innovation that would reduce our carbon output by at least 25%. We doubled our R&D on these products on an annual basis to almost 200 billion dollars a year.
- We then focused on innovating and developing products. When we first started we had 15 products that met that goal; today we have 100.
- Next, we decided to follow the Kyoto

protocol. Five years later our energy intensity has gone down by 39% and we have a net 22% reduction in carbon; and we have saved more than 200 million dollars.

- Finally, we decided we wanted this work to be visible in the public eye, so we were a founding member of the US Climate Action Partnership – a group of NGOs, industrialists, oil companies, and energy companies coming together to try to forge public policy.

Over the past five years we have come to the conclusion that driving clean energy products was good for our employers, good for our investors and definitely good for the brand. While this has been a success in terms of



revenue growth and reputation, it hasn't been without challenges. I thought I would share some of the lessons we have learned as a company as we have evolved into a clean tech innovator.

Technology as a driver

Firstly, technology has to be at the forefront, and it should be broad-based and robust. From the 1980s, there were no real incentives for the kind of energy innovation that is required to drive simultaneous sustainability and growth. Today, I think we have a very robust technology platform, one that is very broad and getting deeper every day. My message would be don't pick one technology, don't pick one fuel, don't favour one approach, but drive multiple approaches at the same time.

Every discussion on sustainability and clean energy has to start with energy conservation. Our new appliances will use 50% less energy than the products that they replace, and this kind of innovation is prevalent.

Don't pick one technology, don't pick one fuel, don't favour one approach, but drive multiple approaches at the same time.

A convergence of market factors is driving innovation and technology. The big baseload energy technologies that have existed in the past have to be re-invented to drive clean energy for the future. Clean coal and sequestration are technologies that will require



massive investment on a global scale; a new generation of nuclear technology which is environmentally-sound and economic is another innovation that needs investment now.

Renewables are becoming pervasive and low-cost. Off-shore wind projects in the UK and Germany will be major sources of clean energy at low cost. Solar energy is still in its infancy. Bio-fuels represent tremendous utility, as does distributed energy generation, and both will create jobs and commerce. Electricity grids will have to be bigger and smarter. Developing other unconventional fuels and the ability to use gas technology in the future, again, requires leading-edge technology.

I am also a big believer in electric vehicles; I think they are what consumers want and we are convinced they are going to play a big part in the coming economy. And water and energy have to be viewed as common and consistent.

Lessons Learned

So, my first message is that technology is available, it is pervasive, and we have to make it low-cost. If technology exists today and can be perfected, then within the next ten years we can gain control technically over a clean energy future. Sustainability will not be stopped by lack of innovation; it will be stopped by lack of courage. Lesson number one is the need for innovation on a massive scale, with big business working with small business to invest to make these technologies pervasive.

Lesson number two is that clean energy engages the extended enterprise. Our employees love working on sustainability and clean energy. It helps us recruit on college campuses, and makes us a more relevant company. Our customers appreciate this approach too. Over the past five years, we have achieved a great alignment between our energy-generating customers and GE in terms of the value of technology. And, we can extend an enterprise to include small businesses. Our 'Smart Grid Challenge' invited every entrepreneur in the world to submit their idea for potential GE funding for a smart grid, and as a result we will make 50 equity investments in small businesses.

Clean energy engages the extended enterprise. Our employees love working on sustainability and clean energy.

The third thing we have learned is that clean energy creates jobs. This is a source of economic competitiveness, not an economic risk. In our supply team we have created 50,000 jobs around clean energy. There will be ten million new jobs created in the next decade around the decarbonisation effort, and around the imminent conversion of older power generation technologies into newer technologies. The argument that investing in clean energy will slow economic growth is just wrong. This is a place where competitive countries are gaining an economic advantage. The biggest investor in clean energy in 2010 is China, not Europe, not the United States. So the decisions must be made now to create jobs and competitiveness over the coming decades.

The argument that investing in clean energy will slow economic growth is just wrong. This is a place where competitive countries are gaining an economic advantage.

The fourth thing I learned is that business alone is not going to drive sustainability or



create a clean energy future. These are long-term questions disconnected from capital markets, so the right investments cannot be made without stable and forthright public policy. Stability and vision in public policy are as important as innovation and technology. I think everybody knows the policy elements that are important: the price for carbon, some form of clean energy standards, and some form of technical incentives that allow and help

fund some of the commercialisation of great new technologies. And we need long-term infrastructure financing that allows 30-year-old investments to be made. There just has to be a commitment to do it, and that is what counts.

The fifth thing I have learned is that there are a lot of people who disagree with me. It's humbling that despite all of our good work, despite our optimism for the future, we have



not yet been able to bring all of our fellow citizens along with us. In tough economic times, people see sustainability as something we cannot afford. We have to reframe the broad-based environmental debate; the science has been challenged, and we have not fought back as accurately as we should have. In many ways I would say that movement is more challenged today than it was when economic times were good.

There are a lot of people who disagree with me. It's humbling that despite all of our good work, despite our optimism for the future, we have not yet been able to bring all of our fellow citizens along with us.

For a while, we are going to have to go without the government. If we wait for the government to move, we may be waiting a long time. So we have to create our own momentum, create our own courage and go forward and sustain clean energy.

If I had one thing that I wish I'd personally done differently, I wish I'd talked less about purely the environment, and more about economics, job creation, and energy security. It's not that global warming is not a big issue; it's a critical issue, and one that we have to solve. But we have to go back and say that green equals growth. Sustainability equals jobs. Climate equals competitiveness. And that the government is a catalyst and not a regulator in energy. Business has to inspire a clean energy future. We have to do it more courageously and we are going to have to go for a while without the government at our backs.

So my message to my business colleagues is that your involvement in green so far has been easy. It has been trendy. It has been popular and it has been fun. Now the work has to begin. Now we have to demonstrate to people that, with high unemployment and rugged economics, this is not frivolous, it is not unreal. It is economic. Let's put our money where our mouth is. Let's move without support. Let's move with some uncertainty, but move.

A new generation of leaders

The other thing I have learned in our efforts in both the clean energy initiative and in coming through the economic crisis is that we need to create a new generation of leadership. We think that leadership in the 21st Century is going to be more lateral and more connected. We are going to need to find people who are more persistent and more adaptable, who are more transparent in terms of what they are doing from a purpose and strategy standpoint – what I call systems thinking. Many of these big global problems can only be solved through innovation, plus public policy, plus a connection with society. Businesses will have to be networked with governments and society, and we need people who know how to do that. So one of our challenges in taking on sustainability is that the leadership model of the past has to be reformed. We have to have people who are broader, who have more vision, who are longer-term thinkers, who are more adaptable and more connected.

So my message to my business colleagues is that your involvement in green so far has been easy. It has been trendy. It has been popular and it has been fun. Now the work has to begin.

There is nothing easy about solving climate change and sustainability. But as a business person I know we can create jobs and improve the environment at the same time. As a leader I know it is our responsibility to act in a disciplined and active way. And as a citizen I know that we have to engage people who don't believe in climate change in a positive way to show that we can create jobs and an optimistic future as we innovate and drive change. All of these things have to be captured inside our organisations.

The full transcript of the 2010 London Lecture is available from the University of Cambridge Programme for Sustainability Leadership's website, www.cpsl.cam.ac.uk.

There is nothing easy about solving climate change and sustainability. But as a business person I know we can create jobs and improve the environment at the same time.





Han Seung-Soo

Former Prime Minister, Republic of Korea

Dr Han Seung-Soo is former Prime Minister of the Republic of Korea, a panel member of the UN Secretary-General's High-Level Panel on Global Sustainability, and founder of the Global Green Growth Institute (GGGI).

INNOVATIVE APPROACH

"We are looking to creative, integrated and forward-thinking solutions that will also contribute to a global reduction in carbon emissions. We need to construct a new and fresh approach, recognising the symbiotic relationship between economic growth and climatic sustainability."

Han's political leadership was instrumental in positioning the Republic of Korea as a leader in clean technology and the post-carbon economy. The country now focuses on 27 core technologies for investment, including non-silicon based solar cells, tidal energy, biomass fuel and charging panels for electric vehicles.

The GGGI aims to help developing and emerging countries achieve low-carbon, sustainable economic growth. It is founded on Han's conviction that "economic growth and climatic and environmental sustainability are not merely compatible objectives, but can be mutually reinforcing for the future of humankind."

Han emphasises private and public sector collaboration, and international partnerships, in solving today's highly interconnected problems: "Every single issue we confront today is constantly affected by changes that are occurring well beyond our nominal controls and national boundaries... It is all the more essential that the world community work together to bring about creative solutions."

Trained as an economist at Yonsei, Seoul and York, Han pursued a highly successful academic career at universities including Cambridge, Tokyo and Harvard before entering politics and taking up distinguished roles such as deputy prime minister, minister of finance, minister of foreign affairs, and minister of trade and industry. His UN career has included serving as President of the General Assembly in 2001-2002 – a period heavily overshadowed by the 9/11 terrorist attacks – and as Special Envoy of the UN Secretary-General on Climate Change, as Member of UN Secretary General's Advisory Board on Water and Sanitation, and as Chair of the High-level Expert Panel on Water and Disaster. He was also Chair of the 2009 OECD Ministerial Council Meeting, which unanimously adopted a resolution on green growth.

Han's many books include *Beyond the Shadow of 9/11* (2007). He received the Nobel Peace Prize on behalf of the United Nations in 2001, and was appointed an honorary Knight Commander of the Order of the British Empire (KBE) in 2004.



Young countries can often surprise. South Africa's clock was effectively re-set to zero in 1994 when democracy replaced apartheid and a globally admired Constitution was put in place.

Peter Willis is the Director of CPSL South Africa and has been running seminars and other leadership programmes out of the Cape Town office since its inception in 2002.

South Africa Surprises

Peter Willis

Young countries can often surprise. South Africa's clock was effectively re-set to zero in 1994 when democracy replaced apartheid and a globally admired Constitution was put in place. Since then we have surprised on several fronts, the most striking recent example being our joyful, highly organised hosting of the FIFA World Cup. The intensity of the surprise (few locally could have predicted it, let alone the world's gloomy media, doggedly staring down over the edge of any available precipice) has led us to wonder what else might be lurking in the pool of South Africa's collective potential.

I suspect the full answer will come over many years of future surprises – hopefully just as positive. But in the meantime two little-heralded events in the traditionally dull arenas of corporate governance and accounting regulation have reminded some of us here and around the world that South Africa has a habit of pushing and reformulating some quite critical boundaries.

The third report of the King Committee on Corporate Governance (known to its friends as 'King III') was published last year after wide consultation and, like its two predecessors, it defines a new global leading edge in this fast-evolving field. It provides guidance to boards and executives of private and public companies and, like its predecessors, has a far-reaching effect on what is regarded



as the norm for governance. Interestingly, however, whereas King II advised boards to 'comply (with the guidelines) or explain', in King III the recommendation is to 'apply or explain' – in other words board members are regarded as a responsible group of individuals who can weigh the full implications of their accountability and apply what they see as in the best interests of all their stakeholders.

Two little-heralded events in the traditionally dull arenas of corporate governance and accounting regulation have reminded some of us here and around the world that South Africa has a habit of pushing and reformulating some quite critical boundaries.

If that turns out to differ from the King III guidelines they are expected to be able to explain their reasons for not applying the latter. Such an assumption of maturity and breadth of understanding in boards is bound to encourage the emergence of genuine leadership over time.

Good practice in South African boards now includes the requirement to understand and remain abreast of key sustainability risks and develop plans to mitigate those risks.

Meanwhile the King Committee (chaired by former judge Professor Mervyn King, who is also Deputy Chairman of HRH The Prince of Wales's Accounting for Sustainability Initiative) places strong emphasis on the management of risk, and in particular environmental and social risk as embedded in the sustainability agenda. What this means is that good practice in South African boards now includes the requirement to understand and remain abreast of key sustainability risks and develop plans to mitigate those risks. For those of us who have spent many years trying to persuade corporate boards that understanding sustainability risks and opportunities is a strategic imperative, having this agenda now driven by the Chairman and the Company Secretary as part of core governance is a shift of really significant proportions. What



is more, the Johannesburg Stock Exchange has incorporated King III into the listing requirements for all its member companies.

The second, closely linked event was the promulgation earlier this year of the Discussion Paper on *A Framework for Integrated Reporting and the Integrated Report* by a South African committee chaired by King. The idea that companies should in future produce one integrated report, providing as complete a picture as possible of the risks and opportunities facing the company, both financial and non-financial, is a central and innovative feature of the King III Report. Given the role Mervyn King and one or two other South African luminaries are playing in The Prince of Wales's Accounting for Sustainability initiative and in the Global Reporting Initiative (GRI), what is being conceptualised and put into potent guidelines here in South Africa will likely, in time, form the template for corporate governance around the world. The impact on leadership thinking and behaviour of being required to report in an integrated way on their sustainability risks across the five capitals (financial, manufactured, human, social and natural) is hard to overstate.

South Africa has for several decades exported its chartered accountants, actuaries and other financial professionals to all corners of the globe. We have a financial services sector that would be the envy of many developed countries, and indeed it proved exceptionally robust throughout the recent global financial crisis. For those who know the local financial sector the fact that it is offering not just local



but global leadership towards a sustainable, responsible corporate future does not seem entirely surprising – but it definitely makes us feel proud.

You can be sure that if there was a World Cup for Corporate Governance and Integrated Reporting (imagine!), South Africa would insist on hosting the first tournament and it would no doubt be one heck of an unforgettable party, too!



Lisa Jackson

Administrator, US Environmental Protection Agency (EPA)

Lisa Jackson is the Administrator of the US Environmental Protection Agency (EPA). Born in 1962 and trained as a chemical engineer, she worked in the EPA for 16 years before working in local environmental protection.

She took office as EPA Administrator in January 2009.

'Taking action on climate change' is the first of the seven agency-wide priorities identified by Jackson for 2011; she places emphasis on the impact climate change will have on all other parts of the EPA's core mission, and aims to regulate greenhouse gas emissions via 1990 amendments to the Clean Air Act. The other priorities include improving air quality, protecting America's waters, cleaning up communities, assuring the safety of chemicals, expanding the conversation on environmentalism and working for environmental justice, and building strong state and tribal partnerships.

With EPA's 40th anniversary in December 2010 coinciding with the recent economic downturn, Jackson seized the opportunity to highlight the long-term gains of progressive environmental regulation, pointing to money saved in sick days, healthcare, and energy efficiency, as well as the wide range of jobs created in the invention and installation of clean technologies.

INCLUSIVE STYLE

"I have worked to show individuals and communities – though they may not think of themselves as environmentalists – that environmental issues play a role in their health and welfare."

This will, she argues, strengthen America's position as a world leader in industry: "We should not forfeit our lead and miss out on the extraordinary opportunities to supply the world with environmental technology stamped 'Made in the USA'."

Jackson also champions environmental justice, announcing that "We have begun a new era of outreach and protection for communities historically underrepresented in EPA decision-making" such as "tribes, communities of colour, economically distressed cities and towns, young people and others". Among other actions, the EPA Tribal Portal was created as a gateway to EPA environmental information specifically related to tribal governments.

As the EPA's first African-American Administrator, Jackson grew up in New Orleans, where her mother was living when the city was struck by Hurricane Katrina in 2005. Jackson has called on the EPA to "include environmental justice principles in all of our decisions... This calls for innovation and bold thinking, and I am challenging all of our employees to bring vision and creativity to our programmes."

LEADERSHIP IDEAS

"COMPANIES THINK MUCH LONGER TERM THAN GOVERNMENTS AND GOOD COMPANIES THINK MUCH LONGER TERM THAN BAD COMPANIES."


NEIL CARSON, CEO, JOHNSON MATTHEY

EMMA MAWDSLEY – 'Clean and Green' Does Not a Sustainable City Make: The Case of Delhi in India

FELICIA HUPPERT – In Search of Sustainable Well-Being

NICKY DEE – The Challenge of Scaling Up Sustainability Innovation

WAYNE VISSER – The Sustainability Bookshelf: Our Pick of the Best

A close-up portrait of a woman with short, dark, curly hair. She is looking slightly to the right of the camera with a serious expression. The background is a soft-focus outdoor scene with green and yellow foliage. The lighting is natural, coming from the side, highlighting her features.

There has long been a rather elite concern with wildlife and conservation, but often at the expense of poorer, rural people's access to resources.

Dr Mawdsley is a University Senior Lecturer in the Geography Department and a Fellow of Newnham College at the University of Cambridge. She is a human geographer with a particular interest in the politics of environment and development.

'Clean and Green' Does Not a Sustainable City Make: The Case of Delhi in India

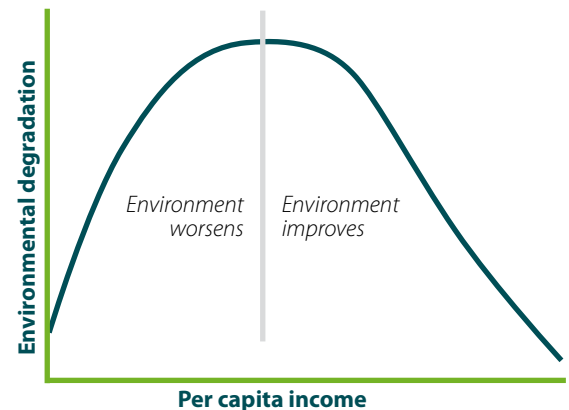
Emma Mawdsley

There is great concern that countries like India and China need to 'get' the sustainability agenda if we are to achieve a sustainable future for the planet. This is one of the issues that Dr Mawdsley grapples with in her research. She is particularly interested in how India's growing middle classes experience and construct environmental change, what impacts this might have on the poor and marginalised sections of society, and thus the implications for environmental politics in India. We asked her what evidence there is in India of rising public interest or concern with sustainability.

"In terms of public interest," Mawdsley says, "poorer people in India have always been acutely aware of sustainability issues – not necessarily framed in an 'environmental' way, but from the basis of trying to defend biomass-dependent livelihoods (fishing, agro-forestry, small-scale agriculture, etc). In terms of more urban, educated populations, there has long been a rather elite concern with wildlife and conservation, but often at the expense of poorer, rural people's access to resources. Similarly, forest management has traditionally been tilted towards managing for 'national' need and industry, rather than local and subsistence needs. The 'ordinary middle classes' have traditionally displayed little or no

direct concern with sustainability. However this is changing to some extent, partly as a result of education and the media, and partly due to growing environmental problems like air pollution. Such concern, though, doesn't necessarily translate into socially just or progressive 'environmentalism'. While there are progressive organisations and individuals, in general middle-class environmental attitudes tend to be rather anti-poor and authoritarian, blaming unsustainability on a growing population and poverty rather than also thinking about wealth and consumption."

This critical perspective is in evidence throughout Mawdsley's research. For example, she questions the so-called Environmental Kuznets Curve, a model which argues that



The Environmental Kuznets Curve



greater economic growth is positively correlated with reduced pollution. She sums up the Kuznets hypothesis as follows: “For many politicians, policy makers and citizens in lower-income countries, the message is clear: developed countries went through their phase of dirty industrialisation, became wealthy and only then could afford to clean up. Developing countries such as India therefore argue that they have the right to industrialise. They acknowledge that this may result in environmental degradation in the short term, but hold that these problems will eventually be addressed when the country has become wealthy. Moreover, according to technological optimists, ‘leapfrogging’ would help ‘tunnel through’ the worst phase of environmental degradation as industrialisation gets underway.”

Mawdsley is sceptical about whether the Environmental Kuznets Curve constitutes a universally achievable – or indeed, desirable – model. She points out that not all pollutants follow this pattern (e.g. CO₂ has continued to rise with economic growth) and that one reason the West has followed the curve in some respects is simply the shift towards

the service sector, which changes the geographical distribution of environmental degradation (i.e. polluting production moves ‘offshore’ to emerging markets). Furthermore, even if the environmental degradation associated with rising economic growth will eventually decline, it may be too late to reverse it completely.

Mawdsley recognises many of these tensions and debates in India’s capital city, Delhi. “There has been a huge drive towards the idea of making Delhi a ‘world class city’. One element of this is the campaign for a so-called ‘clean, green Delhi’. Initiatives include the massive project to retune all public transport to run on Compressed Natural Gas (CNG) and relocate polluting industries away from the centre. Some elements of air pollution have significantly improved. Other aspects of this drive include slum demolitions, and investment in new transport infrastructure (largely aimed at car drivers, and individuals who can afford to travel on the new Metro system). Branding events like the Commonwealth Games are meant to highlight Delhi’s global status as a desirable city.”

Pride in the city and support for its agenda are widespread, and some environmental benefits have certainly been achieved, but we should not lose sight of the deeply regressive nature of much of the process.

Mawdsley believes that, while pride in the city and support for its agenda are widespread, and some environmental benefits have certainly been achieved, we should not lose sight of the deeply regressive nature of much of the process. "Slums and informal settlements have been demolished even when they have been legal, while malls and elite housing apartments have been allowed to be constructed illegally. Poorer people have lost their livelihoods as hawkers and street vendors, and small-scale manufacturing has been driven out of the city. The Delhi Government and the Supreme Court have actively sought to marginalise and exclude these populations

from their vision of a new Delhi."

This pattern of social injustice is reflected in the way Delhi is tackling its air pollution problems. The policies have been critiqued for impacting badly on the poor (small polluting industries were relocated, for example, with little or no compensation for owners or workers); for only displacing pollution rather than reducing it (older non-CNG vehicles were sold to other city transport fleets, while the industries were relocated rather than reformed); and for representing a middle-class priority, rather than the most pressing need of the poor – clean, available water.





Looking at the issue of water, Mawdsley is similarly critical. Building on work by a PhD student of hers, Yaffa Truelove, she draws attention to the fact that the poor are often criminalised for water theft (estimates indicate that as much as 50% of Delhi's water is unaccounted for in official meter readings and thus 'wasted'), while the authorities turn a blind eye to middle and upper-class illegality. This often consists of the falsification of meter readings and technologies that can enhance water amounts extracted from already legal connections or from illegal/unregistered ground water sources (through tub and bore wells). Even the much-lauded *Bhagidari* system of citizen participation in governance suffers from a structural bias towards wealthier groups, since the scheme is limited to 'authorized colonies', and not the unauthorized colonies and slum areas in which the majority of Delhi's poorer inhabitants reside.

Mawdsley concludes that the main sustainability leadership lesson we can learn from India is not to lose sight of social justice in the pursuit of environmental improvement. "The pursuit of profitable environmental policies, technologies and change is desirable if we are to move towards greater sustainability, but the political and social nature of their impacts must be recognised. 'Green' does not automatically mean 'good'. There will always be winners and losers, but there is a real danger in India at least that the drive towards greater sustainability will have some regressive social outcomes."

Research drawn from interview conducted by Wayne Visser, Senior Associate, CPSL.

References

Truelove, Y and Mawdsley, E (2011) 'Class and water: discourses of citizenship and criminality in clean, green Delhi'. In I Clark-Deces (ed.) *A Companion to the Anthropology of India*. Princeton University Press.

Mawdsley, E (2009) 'Environmentality in the neoliberal city: attitudes, governance and social justice'. In H Lange and L Meier (eds.) *The New Middle Classes – Globalising Lifestyles, Consumerism, and Environmental Concern*. Springer.

Mawdsley, E (2009) 'Industrialisation, sustainable development and environmental politics in India'. In W Brown, C Aradau and J Budds (eds) *Environmental Issues and Responses*. Open University Press.



Herbie Girardet

Chairman, Schumacher Society UK

Professor Herbie Girardet is an environmental consultant, writer and filmmaker, who holds an MSc in economics from the London School of Economics.

Girardet has a particular interest in urban sustainability. From 1994 to 1997 he worked with the City of Vienna to develop sustainability strategies, and in 2003 he was 'Thinker in Residence' in Adelaide, working on environmental proposals for the city and its wider region. He has also worked closely with Arup Associates as consultant to the innovative Dongtan Eco-City project on Chongming Island, Shanghai, and was a founder for the Sustainable London Trust, for which his report, *Creating a Sustainable London* heavily influenced the environmental policies of the Greater London Assembly.

Girardet argues that "cities have taken so much from nature, particularly in the modern age – they need to begin to give back in new ways." He describes the trajectory of the present-day, post-industrial city from 'agropolis' (embedded in its local environment) to 'petropolis' (sucking in resources from all over the world and pouring out pollutants). Modern cities, he points out, take up just 3-4% of the world's surface but use up to 80% of its resources.


A wide range of measures are required, from retrofitting existing housing stock to

SYSTEMS THINKING

"The challenge today is no longer just to create sustainable cities, but truly regenerative cities: to assure that they do not just become resource-efficient and low carbon emitting, but that they positively enhance rather than undermine the ecosystem services they receive from beyond their boundaries."

improving public transport. The goal, to Girardet, is an 'ecopolis': not a reversion to an idyllic agrarian society but "a new way of embedding a city in its hinterland, both in terms of energy supply but also in terms of food supply, in terms of the give-and-take between the countryside and the city, and the giving-back of nutrients to rural areas."

Girardet is a visiting professor at the University of Northumbria, at Middlesex University, and at the University of West of England. He is also chairman of the Schumacher Society UK, a patron of the Soil Association, an honorary fellow of the prestigious Royal Institute of British Architects, and the recipient of a UN Global 500 award for Outstanding Environmental Achievement. Girardet has written or co-authored nine books, including *Earthrise* (1992), *Creating Sustainable Cities* (1999), and *Cities, People, Planet* (2004), as well as producing over 50 TV documentaries on sustainability, and lecturing worldwide.

A close-up portrait of Felicia Huppert, a woman with short, curly brown hair, wearing oval-shaped glasses and a red top. She is smiling and looking slightly to the right. The background is a blurred green foliage.

Much more is known
about the material
conditions of people's
lives than about people's
perceived quality of life,
which we refer to as their
'well-being'.

*Felicia Huppert is a Professor of Psychology in the Department of Psychiatry and Director of the Well-Being Institute at the University of Cambridge. She is co-author of *The Science of Well-Being* with Nick Baylis and Barry Keverne.*

In Search of Sustainable Well-Being

Felicia Huppert

A fixation on narrow national economic measures of progress like Gross Domestic Product has long been recognised as a political straitjacket, inhibiting the emergence of more sustainable development. In response, various alternative measures have been developed over the past 20 years, from The Index of Sustainable Economic Welfare and the Genuine Progress Indicator to the UN's Human Development Index and Bhutan's Gross National Happiness measure. Even these, however, only present a limited picture.

Professor Huppert notes that “whilst national governments spend substantial amounts of money collecting and analysing economic (and, to a lesser extent, social and environmental) indicators, relatively little attention has been given to how citizens actually experience their lives. In other words, much more is known about the material conditions of people's lives than about people's perceived quality of life, which we refer to as their ‘well-being.’” This is the area of pioneering work in which Huppert and her colleagues at the Well-being Institute are engaged.

Objective indicators like GDP, wealth, consumption, crime rate and education



tend to be only relatively weakly associated with people's experiences, as measured by happiness or life satisfaction. Indeed, there is evidence that in economically developed countries, increasing economic prosperity may even be associated with increasing rates of depression, divorce and suicide. Hence there is a need for reliable subjective indicators of well-being to provide a more complete picture, and one which can help to explain any disconnect between relative prosperity and high rates of individual and social problems.

So how can we define and measure well-being? According to Huppert, well-being is more than happiness, which is a transient experience. Sustainable well-being is a combination of feeling good and functioning

well. Defining positive well-being as the upper end of a spectrum from very low well-being (common mental disorders – depression and anxiety) to very high, the Well-being Institute has established the following ten features which characterise positive well-being: positive emotion, engagement, sense of meaning, self esteem, optimism, resilience, vitality, feeling competent, emotional stability, and positive relationships. These can be applied at the level of individuals or the level of communities.

Huppert has also led research on well-being as part of Round 3 of the European Social Survey, conducted in 2006-7 across 23 countries. The

findings illustrate significant differences across various measures of wellbeing. For example, there is more than a four-fold difference between the lowest and highest rates of depression (lowest in Norway at 9.9% and highest in Hungary at 41.4%). In France, fewer than half (47.5%) of the population report having time to do the things they enjoy, as compared with 81.5% in Denmark. Broadly speaking, people in Northern Europe feel they are treated with respect, whereas people in Eastern European countries are less likely to feel respected. And there is an almost ten-fold difference in volunteering and charitable work across the nations of Europe (67% in Norway versus 7% in Bulgaria).



The UK is relatively progressive in translating the evidence into policy interventions. For example, recommendations from the Foresight Project Report on Mental Capital and Wellbeing are being implemented through wellbeing audits across government departments that are responsible for schools, work, communities and health. An All-Party Parliamentary Group on well-being economics has also been formed to challenge the government's use of gross domestic product as its main indicator of national success, and to promote new measures of social progress.

The creation of well-being requires more than the remediation of problems – this merely reduces ill-being. It requires that the whole population is shifted towards flourishing.

According to Huppert, three concepts are fundamental to the success of such policies. First, the creation of well-being requires more than the remediation of problems – this merely reduces ill-being. It requires that the whole population is shifted towards flourishing. Second, sustainable happiness results from what we do, not what we have; we need to be able to create our own well-being and contribute to that of others. Third, we cannot assume that translating the evidence into interventions will produce a flourishing society; we must commit to



rigorous evaluation to find out what works, for whom, for how long, for which outcomes and in what contexts.

Apart from developing and applying these well-being indicators as measures of the health of our social and human capital, well-being research has another crucial insight for efforts in sustainability. As we know, sustainability is often perceived by the public as a negative concept (making sacrifices, reducing impacts, etc). Huppert warns that this avoidance-based concept is bound to be less effective than a more positive strategy.

Research shows that progress towards goals (personal projects) is associated with well-being, and that positive or 'approach' goals are more effective than negative or 'avoidance' goals. For example, making a resolution to stop eating unhealthy food is far less effective than making a resolution to eat more healthily.



In the former case, a person feels they have failed if on occasion they choose an unhealthy option, whereas in the latter case occasionally eating unhealthy food is not a problem if the general trend is towards eating healthily.

There are also important lessons for sustainability leadership. Research at the Well-being Institute confirms that leaders can increase the well-being of employees by allowing more employee control, communicating and organising well, considering employees' needs, and providing constructive feedback. Good communication, fairness, respect, empowerment, and valuing diversity also contribute to well-being in the workplace. Transformational leadership and authentic leadership styles lend themselves particularly well to improved health and well-being outcomes among followers.

Much of Huppert's work focuses on the upper-end of the well-being spectrum, which she refers to as 'flourishing', which seems a useful addition to the concept of sustainability.

According to the European Social Survey, the percentage of Europeans flourishing varies between 9% (Russia & Portugal) and 41% (Denmark), so there is much work still to be done.

The good news is that we may not have to trade off well-being and prosperity. Huppert concludes that "we may have been wrong to believe that economic prosperity would bring happiness, but the evidence suggests that happiness and social well-being are likely to bring economic prosperity. Moreover, where prosperity arises from post-materialist values, it has the potential to enhance well-being without costing the earth."

Research drawn from interview conducted by Wayne Visser, Senior Associate, CPSL.

References

Huppert, FA, Baylis, N and Keverne, B (2006) *The Science of Wellbeing*. Oxford University Press.

Huppert, FA, Marks, N, Clark, A, Siegrist, J, Stutzer, A, Vittersø, J and Wahrendorf, M (2008) 'Measuring Well-being Across Europe: Description of the ESS Well-being Module and Preliminary Findings'. *Social Indicators Research*, Volume 91, Number 3, 301-315.

Huppert, FA (2010) 'Happiness breeds prosperity: Book review of *The Politics of Happiness: What Government Can Learn from the New Research on Well-Being* by Derek Bok', *Nature*, Vol 464, 29 Apr.



Adam Werbach

CEO, Saatchi and Saatchi S and former President, The Sierra Club

Adam Werbach exemplifies a new generation of environmental activism. At high school, he founded the Sierra Student Coalition, now the largest student-run environmental organisation in the US. In his early 20s, he spearheaded campaigns to create national parks, and in 1996 was elected as the youngest-ever president of US environmental NGO The Sierra Club. He was twice elected to sit on Greenpeace's six-member international board.

Then, in 2004, Werbach made a speech on 'The Death of Environmentalism and the Birth of the Commons Movement', challenging his fellow campaigners to update their thinking and frame their goals in broader social and economic terms. Werbach cites Hurricane Katrina as the turning-point for him; in the face of massive natural disaster, he was struck by the fact that Wal-Mart aid trucks were able to reach the survivors before the federal government or NGOs. The speech sparked considerable controversy in NGO circles and led to a change of focus in Werbach's career.

Werbach left his job at Common Assets, an environmental startup he had been running, to focus on his small consultancy firm, Act Now. Then, in 2006, he began to work with former arch-enemy of the 'greens', Wal-Mart.

COMPELLING VISION

"For too long, environmentalists have been telling people they need to sacrifice; but the great modern challenge is how to be happy. This is the missing link."

His mission was to reach the average American by designing a programme to motivate every employee to make a single change which would benefit themselves and the wider world, using local volunteer champions. The key, he felt, was to empower each individual to identify their own definition of sustainability.

Act Now Productions has since joined the global advertising firm Saatchi and Saatchi to become Saatchi and Saatchi S – where the 'S' stands for 'Sustainability. Social. Solutions.' As its CEO, Werbach believes that true sustainable innovation is likely to be led by whoever in a business is most used to delivering results, not by ecological experts. Werbach is the author of *Act Now, Apologize Later* (1997), a series of essays and anecdotes about grass-roots environmental activism; *Strategy for Sustainability: A Business Manifesto* (2009) and *Extinction/Adaptation* (2010), a limited-edition book cataloguing evolutionary events in human history.



Many have tried to reduce the unknown through technological development, but educating customers, lobbying government, and experimenting with business models is also essential.

Dr Nicky Dee is a Research Associate in the Institute for Manufacturing at the University of Cambridge. Following her doctoral research on how new ventures manage opportunities and obstacles when operating in the sustainable energy industry, she has continued to focus on innovation investment in emerging industries and greentech management and innovation.

The Challenge of Scaling Up Sustainability Innovation

Nicky Dee

Current global social and environmental crises call for a reduction in the collective time to market of innovations which benefit society. Yet despite the attempts of the innovative firms to supply social and environmental goods and services, they face a lack of response and uptake in the customer supply chain. Understanding this dilemma – and more generally the barriers and opportunities associated with sustainability innovation – is the focus of Dr Nicky Dee's research.

"Many technologies currently exist to enable more sustainable living," notes Dee, "but have not yet become part of the mainstream market. Still too many rely on policies rather than demand. The emergence of a new paradigm is fraught with danger as entrepreneurs try to navigate the unknown. Many have tried to reduce the unknown through technological development, but educating customers, lobbying government, and experimenting with business models is also essential. This sort of outreach always comes at a cost. Yet the success of a paradigmatic shift will only occur after a crisis of structural adjustment influencing social and institutional changes."

This crisis of structural adjustment is nowhere more evident than in the clean technology

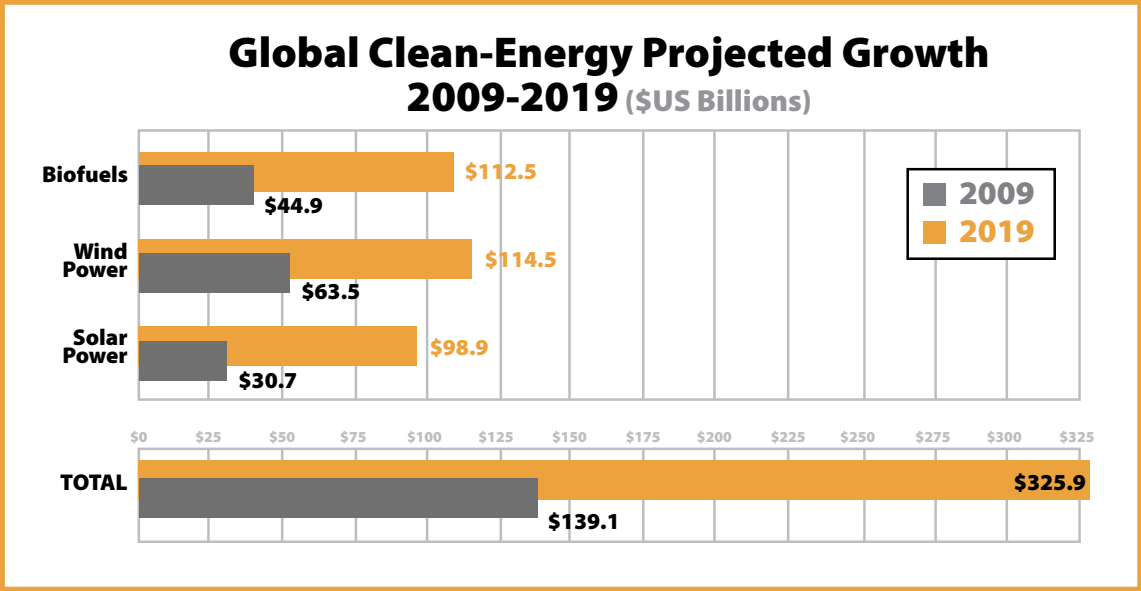


space, especially the emergence of renewable energy. According to Clean Edge, the market for three benchmark clean technologies – biofuels, wind power and solar photovoltaics – totalled \$124.8 billion in 2008, grew 15.8% to \$144.5 billion in 2009 and is expected to grow to \$343.4 billion within a decade. This sounds impressive, until we consider that even such rapid growth will fail to fundamentally alter the structure of our energy economy over the next 20 years. According to *the International Energy Outlook 2010* 'reference case' scenario, world renewable energy use for electricity generation can be expected to grow by an average of 3% per year, and the renewable share of world electricity generation is likely to increase from 18% in 2007 to 23% in 2035.

So why is it that new, more sustainable technologies struggle to scale up as mass market solutions? Dee contends that it is because ‘creative destruction’ is as much a political and sociological process as a technological one. “It is easy to forget, for example, that the motor car was not a success over the horse and cart because of technological superiority. There was a time when the horse was faster, more versatile (especially over bumpy tracks), and less expensive. Car enthusiasts organised reliability contests in an attempt to win over the sceptics at the same time as people worked to reduce their cost.” The key to successful innovation in the face of uncertainty, therefore, is securing confidence. This is not just a job for business production, but also for procurement,

consumerism, activism and government.

Some of Cambridge’s innovative sustainability start-ups have had to confront these issues, from Alert Me (smarter energy) and Enecsyst (solar micro-inverters), to Breathing Buildings (natural ventilation) and Viridian Solar (solar thermal). Dee has studied Viridian’s innovation process in some detail and believes there are some interesting lessons to be learned. For example, how did Viridian persuade customers that they would benefit from their innovation? From the outset of their product development, Viridian created a consortium of potential customers and worked with them to define the product specifications and ensure its installation was possible without extra training. Through engaging with their



Clean Edge, Inc. (www.cleandedge.com)

potential customers throughout the process, they ensured that these customers would be informed of the value offered by their innovation, thus reducing the possibility that the benefits of their novel product would go unrecognised.

Another lesson from the Viridian case is the importance of taking political factors into account. Viridian did not anticipate lobbying government as company strategy, but they were prompted to take action by what they saw as an unfair regulatory system. Housing developers are required to meet certain standards that include energy assessments. The Standard Assessment Procedure (SAP) had out-of-date figures on solar thermal that devalued the contribution of Viridian's panels to a property's energy profile. Viridian took time out to prepare a summary of independent research findings and proposed corresponding revisions to government that prompted a revision of the SAP. In fact over 80% of the companies Dee studied during her doctoral research took a proactive approach to government policy – a surprising finding when small firms are usually considered more reactive.

Apart from customer demand and government policy barriers, sustainability innovators face many similar obstacles to other entrepreneurs. A study by Dee analysed 73 sustainability-oriented micro-SMEs in the UK and found that among the strongest obstructive factors were a lack of contact with potential customers/partners, insufficient ability to demonstrate 'proof of product' and not enough access to funding for R&D. For



example, many firms with new technologies in low carbon energy are developing products such as fuel cells or urban wind machines which are not yet market-ready and require further R&D. In her study, 40% of such firms reported difficulties funding R&D.

Despite these barriers, Dee reminds us that, if history teaches us anything, it's that some of our objections today to adopting more sustainable living will one day sound silly. Perhaps even as silly as Lord Kelvin's reported statement that "the aeroplane is scientifically impossible", or the head of MGM rejecting Mickey Mouse on the grounds he thought pregnant women would be frightened by a giant mouse on screen. But this is the nature

of uncertainty, and with uncertainty comes entrepreneurial opportunity. Some have suggested such opportunities are linked to market failures. Dee's work shows that some instances of market failure provide business opportunities, but others seriously impede attempts at environmental innovation. Instead it is innovative responses to market dynamics rather than the existence of market failures that tend to create business opportunities.

The good news is that when we are decisive, as was the case with phasing out ozone damaging CFCs, we can act quickly.

According to Dee, "maximising these opportunities means being proactive. Relying on technology alone is unlikely to work. While building firms is valuable, it is worth remembering that a firm without an industry is unlikely to succeed. We need to embrace technological innovations in conjunction with other innovations that enable value creation and capture in the mainstream market. Only then can we produce the sort of paradigmatic shift that will determine the stars of the next industrial revolution. The good news is that when we are decisive, as was the case with phasing out ozone damaging CFCs, we can act quickly."

Research drawn from interview conducted by Wayne Visser, Senior Associate, CPSL.

References

Garnsey, E, Dee, N and Ford, S (2011) 'Market failure, market dynamics and entrepreneurial innovation by environmental ventures', *Handbook of Research on Energy Entrepreneurship*, edited by R Wüstenhagen & R Wuebker. Edward Elgar Publishing.

Dee, N, Ford, S, Garnsey, E (2008) *Obstacles to commercialisation of clean technology innovations from UK ventures and Sustainability, Innovation and Entrepreneurship*, both in the *New Perspectives in Research on Corporate Sustainability* series. Elgar Publishing.

Dee, N, Ford, S, Garnsey, E (2008) *Obstacles to commercialisation of clean technology innovations from UK ventures and Sustainability, Innovation and Entrepreneurship*, both in the *New Perspectives in Research on Corporate Sustainability* series. Elgar Publishing.



Shai Agassi

Founder & CEO, Better Place

Shai Agassi is the founder and CEO of Better Place, a cutting-edge service provider for electric vehicles which creates and operates the infrastructure for country-wide fleets of cars. Better Place works with

governments, manufacturers, energy companies and financial institutes to create a large-scale framework for rapid transformation of the transport system away from fossil-based energy and towards zero-emission vehicles powered by electricity from renewable resources.

Agassi's vision was inspired by a question posed at the World Economic Forum in 2005: "How would you make the world a better place by 2020?" For him, this became the question of how to reduce fossil fuel dependency. At the time a member of the Executive Board at business software company SAP AG, Agassi went on to found Better Place in 2007 as part of his answer. The company champions the concept of a nationwide infrastructure of battery-swap stations where drivers could pick up fresh cells charged with clean electricity and continue their journeys.


With the price of renewable energy set to fall relative to rising oil costs, this is a solution, according to Agassi, which fits within "the laws of physics and the laws of economics." He calls it 'car 2.0 – an approach which does not

COMPELLING VISION

"Klaus Schwab [founder of the World Economic Forum] asked: 'How are you going to make the world a better place by 2020?' I came back with the answer: I would love to see a way to run a country without oil."

look to the single technology of the car alone to solve the problem, but relies on a wider infrastructure with cross-sectoral involvement. In 2008, Israel was the first country to accept the challenge, with Renault-Nissan as the first major manufacturer to get on board. Better Place has gone on to work with local authorities in Hawaii, California, Ontario, Australia and Denmark to introduce the network.

Born in 1968 in Israel, Agassi trained as a software engineer before setting up multiple small enterprises in the 1990s. He was selected by *TIME Magazine* as a 'Hero of the Environment' in 2008 and one of the world's most influential 100 people in 2009; by *Scientific American* as one of 10 top individuals guiding science for humanity in 2009; and by *Foreign Policy Magazine* as one of the 'Top 100 Global Thinkers' in 2010. Agassi remains an active member of the Forum of Young Global Leaders of the World Economic Forum, where he focuses on climate change, transportation and other key issues.

A close-up portrait of Dr Wayne Visser, a man with short brown hair and glasses, smiling. He is wearing a dark suit jacket over a white shirt. The background is dark and out of focus.

The profiled books tackle
our most vexing global
challenges, including
globalisation, climate
change and poverty.

Dr Wayne Visser is CEO of CSR International, Visiting Professor of Social Responsibility at Mannheim University, Germany, and has written and edited a number of publications for the University of Cambridge Programme for Sustainability Leadership.

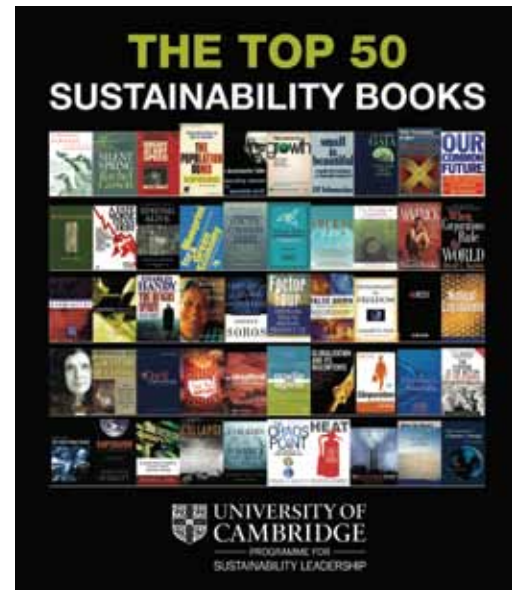
The Sustainability Bookshelf: Our Pick of the Best

Wayne Visser

The Top 50 Sustainability Books

The *Top 50 Sustainability Books*,¹ published in 2009, draws together some of the best thinking over the past 50 years and more on the most pressing social and environmental challenges we face as a society. The selection was based on a poll of CPSL's global alumni network and included many authors who have become household names in the environmental, social, and economic justice movements – from Rachel Carson, Ralph Nader and EF Schumacher to Vandana Shiva, Muhammad Yunus and Al Gore. Others, such as Aldo Leopold, Thomas Berry and Manfred Max-Neef, were relatively undiscovered gems, whose work should be much more widely known.

The profiled books tackle our most vexing global challenges, including globalisation (e.g. *Globalization and Its Discontents* and *No Logo*), climate change (e.g. *Heat* and *The Economics of Climate Change*) and poverty (e.g. *The Fortune at the Bottom of the Pyramid* and *Development as Freedom*). Some of the featured thought-leaders are highly critical of the status quo (e.g. David Korten, Eric Schlosser and Joel Bakan), while others suggest evolutionary ways forward



(e.g. Amory Lovins, Hunter Lovins, Paul Hawken and Jonathon Porritt). Some place their faith in technological solutions (e.g. Janine Benyus, Ernst Ulrich von Weizsäcker), while others are upbeat about the potential of business to be a force for good (e.g. John Elkington, Ricardo Semler, William McDonough and Michael Braungart).

After its publication, *The Top 50* inevitably sparked lively debates in the media about which authors and books had been left out.² One of the most frequently cited, for example,

¹ CPSL, Wayne Visser (2009) *The Top 50 Sustainability Books*. Sheffield: Greenleaf Publishing

² See *The Guardian* website for a healthy dose of the dialogue and suggestions <http://www.guardian.co.uk/environment/blog/2010/jan/27/top-50-green-books>

The 2010 Top 40 Sustainability Books

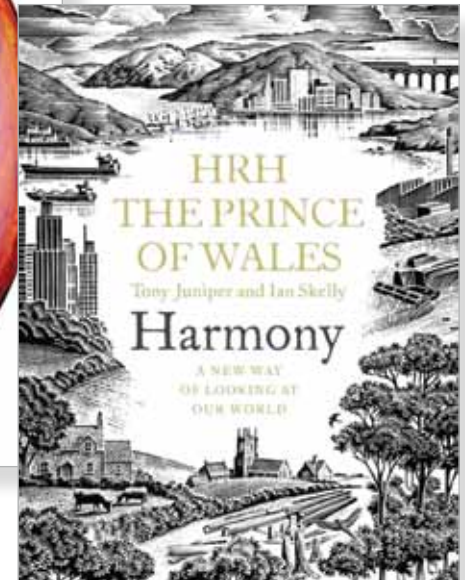
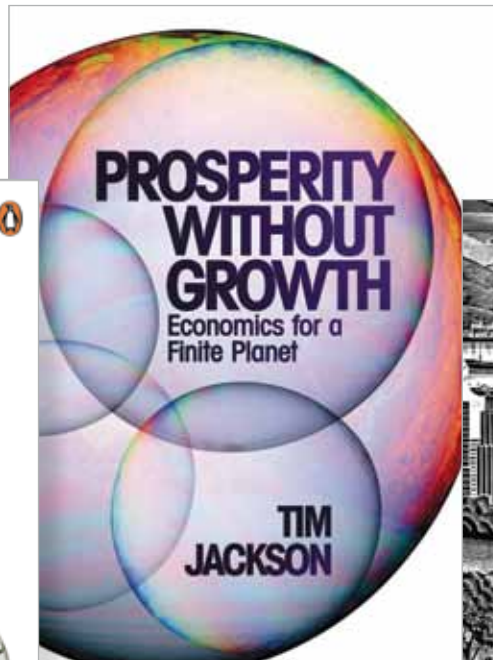
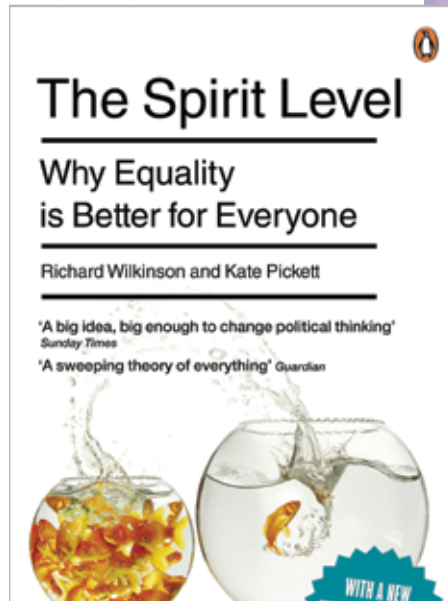
1. *Accounting for Sustainability* (Anthony Hopwood, Jeffrey Unerman & Jessica Fries)
2. *Adaptation to Climate Change in Southern Africa* (Steffen Bauer & Imme Scholz)
3. *A Blueprint for a Safer Planet* (Nicholas Stern)
4. *Building Social Business* (Muhammad Yunus)
5. *Cents and Sustainability* (Michael H. Smith, Karlson 'Charlie' Hargroves & Cheryl Desh)
6. *The Climate Files* (Fred Pearce)
7. *Corporate Community Involvement* (Nick Lakin & Veronica Scheubel)
8. *CSR for HR* (Elaine Cohen)
9. *CSR Strategies* (Sri Urip)
10. *Dynamic Sustainabilities* (Melissa Leach, Ian Scoones & Andy Stirling)
11. *The Economics of Climate Change in China* (FAN Gang, Nicholas Stern, Ottmar Edenhofer, XU Shanda, Klas Eklund, Frank Ackerman, Lailai LI and Karl Hallding)
12. *Factor Five* (Ernst von Weizsacker Karlson 'Charlie' Hargroves, Michael H Smith, Cheryl Desha & Peter Stasinopoulos)
13. *Freefall* (Joseph E Stiglitz)
14. *Globalizing Responsibility* (Clive Barnett, Paul Cloke, Nick Clarke & Alice Malpass)
15. *Finders Keepers?* (Terence Daintit)
16. *Harmony* (HRH The Prince of Wales, Tony Juniper and Ian Skelly)
17. *How Bad Are Bananas?* (Mike Berners-Lee)
18. *Innovative CSR* (Céline Louche, Samuel O. Idowu & Walter Leal Filho)
19. *Integrated Sustainable Design of Buildings* (Paul Appleby)
20. *Nature and Culture* (Sarah Pilgrim and Jules Prett)
21. *The New Pioneers* (Tania Ellis)
22. *The New Rules of Green Marketing* (Jacquelyn A Ottman)
23. *Next Generation Business Strategies for the Base of the Pyramid* (Ted London & Stuart L Hart)
24. *Our Choice* (Al Gore)
25. *Peoplequake* (Fred Pearce)
26. *The Positive Deviant* (Sara Parkin)
27. *The Power of Sustainable Thinking* (Bob Doppelt)

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| <p>28. <i>Prosperity Without Growth</i> (Tim Jackson)</p> <p>29. <i>Requiem for a Species</i> (Clive Hamilton)</p> <p>30. <i>Responsible Business</i> (Manfred Pohl & Nick Tolhurst)</p> <p>31. <i>The Responsibility Revolution</i> (Jeffrey Hollender & Bill Breen)</p> <p>32. <i>Smart Solutions to Climate Change</i> (Bjorn Lomborg)</p> <p>33. <i>The Spirit Level</i> (Richard Wilkinson and Kate Pickett)</p> <p>34. <i>Sustainability Education</i> (Paula Jones, David Selby & Stephen Sterlin)</p> | <p>35. <i>Sustainability in Austerity</i> (Philip Monaghan)</p> <p>36. <i>The Sustainable MBA</i> (Giselle Weybrecht)</p> <p>37. <i>Tackling Wicked Problems</i> (Valerie A Brown, John A Harris & Jacqueline Y Russell)</p> <p>38. <i>Too Smart for Our Own Good</i> (Craig Dilworth)</p> <p>39. <i>The Top 50 Sustainability Books</i> (CPSL, Wayne Visser)</p> <p>40. <i>The World Guide to CSR</i> (Wayne Visser & Nick Tolhurst)</p> |
|--|---|

number of changes. The 'All Time Top 50' list included a fairly balanced coverage of social and environmental issues. By contrast the '2010 Top 40' list is heavily skewed towards environmental challenges, and dominated by climate change. The Top 50 contained numerous treatises on capitalism and globalisation, while the Top 40 (in the wake of the financial crisis) has shifted almost exclusively to a focus on the economy. The Top 40 also has a much stronger emphasis on business responses and creating change. In fact, it is altogether a more pragmatic list, with titles that contain words like 'plan', 'how to', 'strategy' and 'guide'. This shift to action-orientation is a positive development, as is the increase in the number of female authors (28%, as compared with 17% for the Top 50),

although the gender imbalance remains.

Among the books on our Top 40 list that have been creating a real buzz are Tim Jackson's *Prosperity Without Growth*, Richard Wilkinson and Kate Pickett's *The Spirit Level* and The Prince of Wales's *Harmony*. Jackson's book revives a much older debate about 'economics for a finite planet', led since the 1970s by the likes of former World Bank economist Herman Daly (*Steady State Economics* and *Beyond Growth*). Jackson restates the challenge starkly: "Questioning growth is deemed to be the act of lunatics, idealists and revolutionaries. But question it we must." While others like Jonathon Porritt (in *Capitalism as if the World Matters*) argue for 'smart growth' instead of 'dumb growth', the global financial crisis has



given Jackson's more uncompromising zero-growth position a renewed resonance.

Wilkinson and Pickett's *The Spirit Level*, subtitled 'Why More Equality is Better for Everyone', is a highly complementary partner to Jackson's book. Using a plethora of data and analysis, the authors build a case that countries should focus on equity rather than growth in order to create healthy societies. In countries of equal overall wealth, argue Wilkinson and Pickett, less equal societies suffer more social ills – shorter, unhealthier and unhappier lives; higher rates of teenage pregnancy, violence,

obesity, imprisonment and addiction; poorer relationships between socio-economic classes; and higher environmental impacts through resource consumption. The book has created some controversy, and some dispute the authors' arguments. Nevertheless, its message is timely and urgent.

Harmony is an entirely different book, which looks at social and ecological problems through a more aesthetic and philosophical lens. The Prince of Wales, together with Tony Juniper and Ian Skelly, range far and wide across the intellectual and practical territory

HRH The Prince of Wales, Patron of CPSL, photographed by Julie Bergman Sender



of sustainability, questioning many widely held beliefs and modern assumptions about nature and society. The book reveals The Prince's deeply held perspectives on the interconnectedness of life, and illustrates how this can be (and is being) applied to secure a more sustainable future. This beautifully presented and data-rich book proposes

combining the best of modern science and technology with the wisdom of traditional ways, in order to restore the balance between humans and nature.

Harmony has now been made into a documentary film, which premiered on NBC in November 2010. It follows the great tradition of other educational films over the past ten years, such as *The Corporation* (2003), *Enron: The Smartest Guys in the Room* (2005), *An Inconvenient Truth* (2006), *The 11th Hour* (2007) and *The Age of Stupid* (2009), to mention but a few. In 2010, two new films that continued this tradition were *Carbon Nation*, which is described as “an optimistic (and witty) discovery of what people are already doing, what we as a nation [America] could be doing and what the world needs to do to prevent (or at least slow down) the impending climate crisis,”³ and *GasLand*, which is an investigative documentary about the “trail of secrets, lies and contamination” behind the natural gas drilling boom in the United States.⁴

We look forward to hearing your views and suggestions about what books and films are pushing the envelope in 2011.

The Top 50 Sustainability Books is available to order via the website of the University of Cambridge Programme for Sustainability Leadership, www.cpsl.cam.ac.uk, as are video interviews with a range of the featured authors.

³ IMDB, The Internet Movie Database – www.imdb.com

⁴ <http://www.gaslandthemovie.com>

Acknowledgements

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The University of Cambridge Programme for Sustainability Leadership (CPSL) works with business, government and civil society to build leaders' capacity to meet the needs of society and address critical global challenges. Our seminars and leadership groups and our partnerships with those who make or influence decisions are designed to transform public and private sector policies and practices and build greater understanding of our interdependence with one another and the natural world. Our Network of alumni brings together the most influential leaders in the world who share an interest in and a commitment to creating a sustainable future.

CPSL is an institution within Cambridge University's School of Technology. We work in close collaboration with individual academics and many other departments of the University. HRH The Prince of Wales is our patron and we are also a member of The Prince's Charities, a group of not-for-profit organisations of which His Royal Highness is President.



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