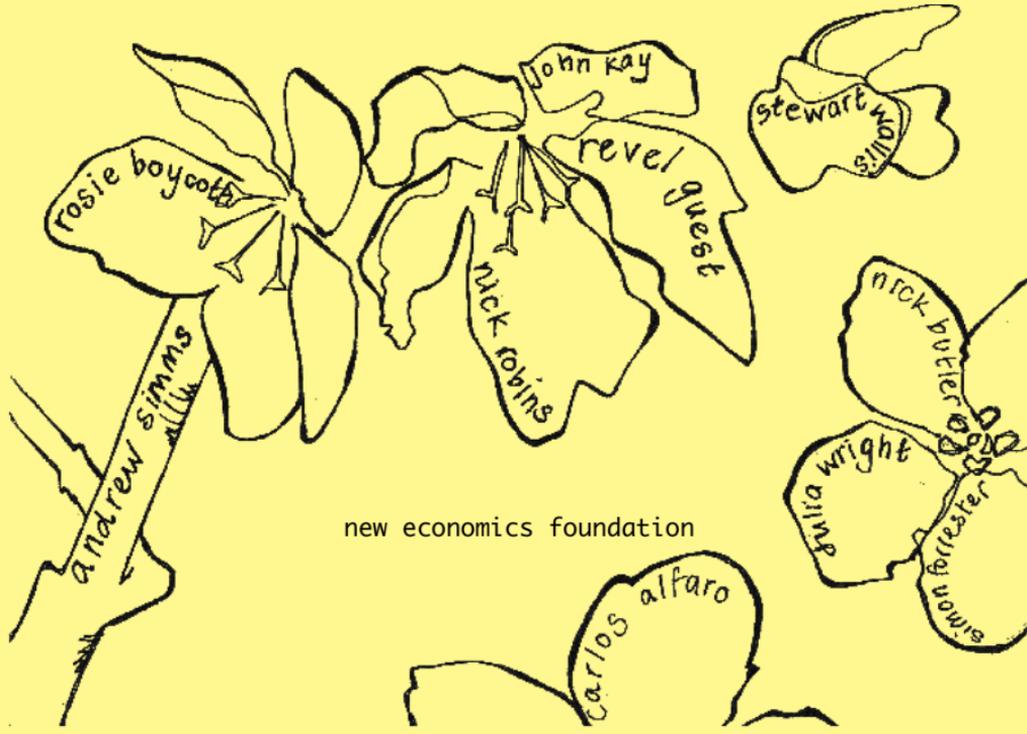


The Art of Rapid Transition

How to thrive in times of crisis

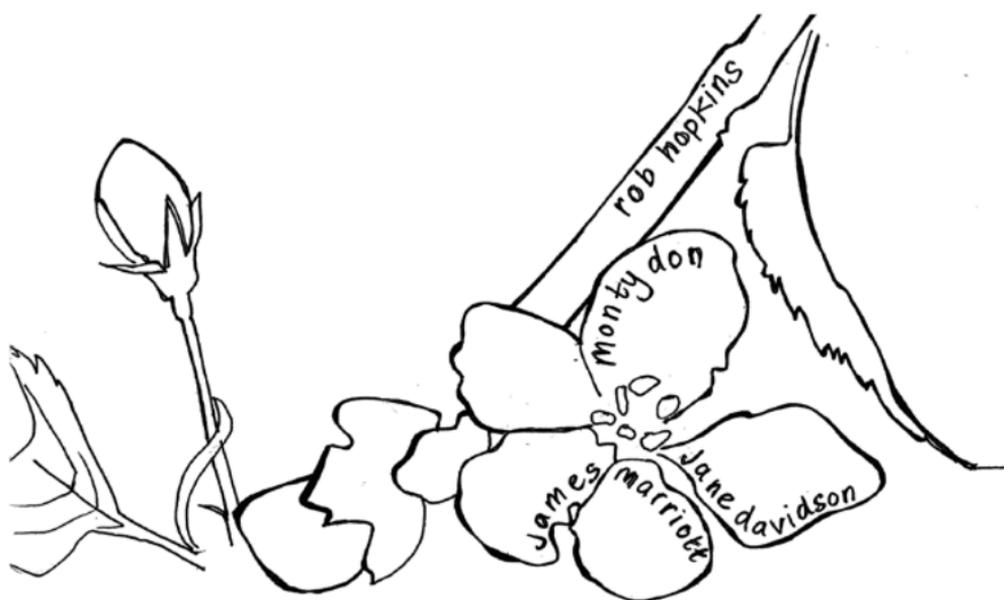


new economics foundation

nef is an independent think-and-do tank that inspires and demonstrates real economic well-being.

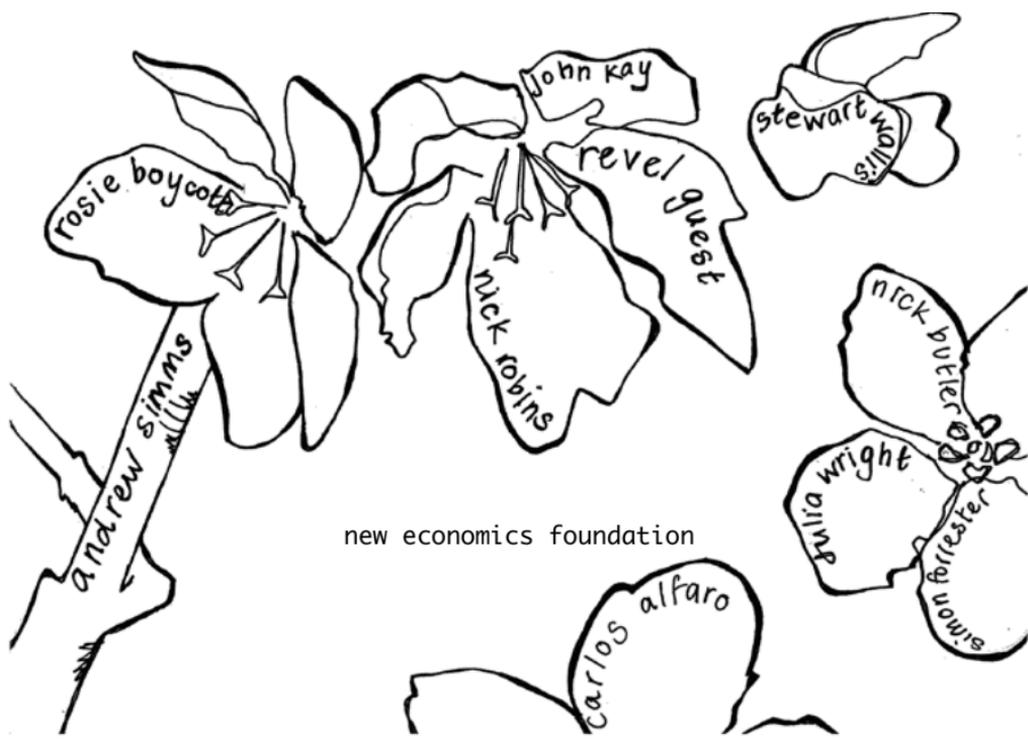
We aim to improve quality of life by promoting innovative solutions that challenge mainstream thinking on economic, environmental and social issues. We work in partnership and put people and the planet first.

nef (the new economics foundation) is a registered charity founded in 1986 by the leaders of The Other Economic Summit (TOES), which forced issues such as international debt onto the agenda of the G8 summit meetings. It has taken a lead in helping establish new coalitions and organisations such as the Jubilee 2000 debt campaign; the Ethical Trading Initiative; the UK Social Investment Forum; and new ways to measure social and economic well-being.



The Art of Rapid Transition

How to thrive in times of crisis



new economics foundation



'Such essays cannot await the permanence of the book. They do not belong in the learned journal. They resist packaging in periodicals.'

Ivan Illich

Contents

“If you want to build a ship, don’t call together some men just to gather wood, prepare tools and distribute tasks. Instead, teach them the longing for the endless sea.”

Antoine dea Saint-Exupéry

Introduction **3**

1 The Cuban Surprise: Life without oil **4**

Andrew Simms is policy director at **nef** (the new economics foundation) co-author of *The Green New Deal*, and author of *Ecological Debt* and *The New Economics*

Dr Julia Wright is the author of *Sustainable Agriculture and Food Security in an Era of Oil Scarcity: Lessons from Cuba*

Carlos Alfaro is the Economic Counsellor at the Cuban Embassy in London

2 The Dark City: Does the future of the planet depend on a handful of people in the financial markets? **12**

John Kay writes for the *Financial Times* and is the author of *Obliquity*, and *The Long and Short of it*

Nick Robins is a climate advisor for HSBC, and co-editor of *Sustainable investing: The Art of Long-Term Performance*

James Marriott is an arts activist at PLATFORM and co-author of *The Next Gulf: London, Washington and Oil Conflict in Nigeria*

3 Transition now: Lessons from the front line of communities 20

Rob Hopkins is the co-founder of Transition Totnes and the Transition Network. He is the author of *The Transition Handbook*

Rosie Boycott is an author, broadcaster, organic farmer and Chair of London Food

Simon Forrester is co-founder of Transition Town Hay-On-Wye

4. The Green New Deal: Can urgent environmental action save the economy? 26

Andrew Simms is policy director at **nef**, co-author of *The Green New Deal*

Nick Butler is Chairman of the Cambridge Centre for Energy Studies.

Jane Davidson is the Welsh Environment Minister

5. An Environmental War Economy: What can we learn about rapid adaptation from Britain's past? 32

Andrew Simms is policy director at **nef**, and author of *The Environmental War Economy*, *Ecological Debt* and *The New Economics*

Monty Don writes and talks about the craft of gardening, and is President of the Soil Association

Revel Guest is a filmmaker, journalist, author, farmer, and Chair of the Hay Festival

Endnotes 38

Introduction

This pamphlet is a summary of five extraordinary events **nef** (the new economics foundation) held at the Hay Literary Festival in 2009. They were inspired by the immortal words of former Federal Reserve chairman Alan Greenspan: 'I discovered a flaw in the model that I perceived as the critical functioning structure that defines how the world works.'

That was rather an important admission about the banking collapse. So we called this series 'Surviving the Crash: The Art of Rapid Transition'. It formed part of a years' long project that **nef** is developing that we call 'The Great Transition'. The idea was to highlight positive ideas about how to survive the crash and be better able to deal with a wide range of emerging problems.

Something must have gone right because the events sold out. We are enormously grateful, not just for the range of speakers and the tireless organisers of the Hay festival, but to those audiences who came along, listened, and took part. We also want to thank the Ecology Building Society, an ethical and mutual building society that promotes sustainability, for helping to make the events happen.

Andrew Simms
Policy Director, **nef**

We are living, according to the old Chinese curse, in interesting times. The Hay response is to invest in pleasure and ramp up trade in ideas and stories, two great currencies that cannot be devalued. We apply the finest minds to the world's most challenging crises and the most inspiring creative writers to explore our lives and loves. Our relationship with **nef** has enabled this thought-provoking series to be produced, a series which chimes perfectly with our aims and ambitions. We are delighted to see the series now in print and look forward to many more exciting debates in association with **nef**.

Andy Fryers
Greenprint Director, Hay Festival

The Cuban Surprise

Life without oil

What is the triple crunch? It is a mixture of the credit- and the debt-fuelled economic crash that we are living through at the moment. A key factor in the mix is a new concept about which the international research community is beginning to reach some sort of consensus: 'peak oil'. This refers to the moment when the world sees the global peak of oil production, followed by a plateau and long-term decline, against a backdrop of ever rising demand. Because so much of the world economy still depends on oil, that implies a major external shock to how the world works.

The reason that we began the series with the event on Cuba is that almost, like inadvertent pioneers of a future which may face all of us, Cuba already went through this kind of energy shock, not to mention its accompanying economic shock. When it lost access to cheap, Soviet oil, there were radical cuts in the energy available for the transport system, and for the agricultural system; there were radical changes that happened very quickly. There were such unexpected outcomes that it became referred to in Washington as the 'anti-model for development'.

The Cuban Surprise event took place on 28 May 2009, with Andrew Simms in the chair.



Andrew Simms

Policy director at **nef** (the new economics foundation), and author of *The Environmental War Economy*, *Ecological Debt*, and *The New Economics*

What, if any, guides do we have to surviving economic chaos, climate change, food insecurity, the high and rising price of oil, and its imminent global peak and long decline?

One country, very much and long maligned, provides a glimpse of what the near future may hold for others. Cuba has already lived through the economic and environmental shocks that climate change and peak oil hold in store for the rest of the world.

Its sudden loss of access to cheap oil imports and its economic isolation were so extreme in 1990 at the end of the Cold War, and its reaction to the shock was so contrary to orthodox approaches, and successful, that in Washington DC it was dubbed the 'anti-model'. It is as near as we have to a laboratory example in the real world.

Cuba grew heavily dependent on cheap Soviet oil for its transport, industrial export-oriented farming and wider economy. Also, it sits in the flight path of the annual hurricane season, regularly contending with extreme weather events.

Then oil imports dropped by over half. The use of chemical pesticides and fertilisers dropped by 80 per cent. The availability of basic food staples like wheat and other grains fell by half and, overall, the average Cuban's calorie intake fell by over one-third in around five years.

But, serious and long-term investment in science, engineering, health, and education meant the country had a strong social fabric and the capacity to act. Successive reforms, dating back longer, reduced inequality and redistributed land.

Before its local 'oil shock', Cuba had investigated forms of ecological farming far less dependent on fossil fuels, and had in place a system of 'regional research institutes, training centres and extension services' to support farmers.¹

At the heart of the transition after 1990 was the success of small farms, and urban farms and gardens. State farms later followed their example. Immediate crisis was averted by food programmes that targeted the most vulnerable people – the old, the young, pregnant women, and young mothers – and a rationing programme that guaranteed a minimum amount of food to everyone.

Soon, half the food consumed in the capital, Havana, was grown in the city's own gardens and, overall, urban gardens provide 60 per cent of the vegetables eaten in Cuba.² The threat of serious food shortages was overcome within five years.

Interestingly, Cuba's experience both echoes what America achieved in a more distant time of hardship during the Second World War, when Eleanor Roosevelt led the 'victory gardening movement' to produce between 30 and 40 per cent of vegetables for domestic consumption.

Cuba demonstrated that it is possible to feed a population under extreme economic stress with very little fossil fuel inputs. Other consequences were also surprising. As calorie intake fell by more than one-third, and fuel was unavailable, the proportion of physically active adults more than doubled and obesity halved. Between 1997 and 2002, deaths attributed to diabetes fell by 50 per cent, coronary heart disease by 35 per cent, and strokes and all other causes by around 20 per cent.³

The approach was dubbed the ‘anti-model’ because it was highly managed and focused on meeting domestic needs rather than export-oriented; it was largely organic, and built on the success of small farms.⁴

The same country’s approach to disaster preparedness and management is also instructive. Compared to the widespread death and destruction in New Orleans following Hurricane Katrina, when Hurricane Michelle hit Cuba in 2001 only five lives were lost, in spite of 20,000 homes being damaged, and recovery was quick. This was due to proper planning, and a collective approach managed by government, but owned at the local level. As disasters expert Dr Ben Wisner commented on the evacuation of 700,000 of Cuba’s 11 million population: ‘This is quite a feat given Cuba’s dilapidated fleet of vehicles, fuel shortage and poor road system.’⁵

At least one analyst suggests that the Cuban experiment ‘may hold many of the keys to the future survival of civilisation’. A colleague of mine described as ‘salutary’ the fact that the humble Cuban miracle required between 15 and 24 per cent of the labour force to get involved in growing food. The Soil Association points out that in the UK at the start of the twentieth century some 40 per cent of the population was in some way engaged in farming. Today it’s less than 2 per cent.⁶ Fortunately, we can now hear from those who have lived through and studied the Cuban experience at first hand.



Dr Julia Wright

Author of *Sustainable Agriculture and Food Security in an Era of Oil Scarcity: Lessons from Cuba*

Cuba faced a crisis in its food system in the early 1990s with the collapse of the Soviet empire. It suffered a loss of imports. Cuba was then importing about 50 per cent of its food supplies, much of its agrochemicals, diesel and petrol, and also animal feeds – about half of its animal feeds were being imported. All disappeared within about two years. That, in turn, impacted on the food system in Cuba.

How could people grow food if they didn't have access to those chemicals – if they could not use the tractors they had been using? Sure enough, domestic production levels fell by about 30 per cent. Harvests fell, which were also important for foreign exchange revenue, such as sugar cane, which Cuba was dependant on selling in the external market. Yields fell. So did seed production.

A similar problem faced Eastern Europe and, as soon as that happened, Western Europe and other regions moved east and started to support their farming systems. The private sector moved in. But that could not happen in Cuba because the United States, which had already put sanctions on the island for many years, tightened those sanctions which meant it was illegal for other countries to trade with Cuba. So Cuba was more or less isolated and on its own. It had to cope with the situation by looking at its internal resources.

I interviewed about 450 farmers and other people across the country. The majority of farmers were still using agrochemicals, just in smaller amounts. Rural Cuba produces about 95 per cent of the nation's domestic food supply. There were state farms, which were large and highly industrialised, and they were still continuing with high-input crops, or for important crops such as potatoes, which were important to the Cuban diet, or sugarcane or citrus which were important for exports. Those crops were still receiving the chemicals which were available.

Urban Cuba, on the other hand, is being used as a kind of vision of what we could be if we really tried. So although urban agriculture supplies about 5 per cent of total domestic production, it supplies the majority of fresh vegetables and a lot of the fruits and medicines, herbal medicines, for urban areas in Cuba. Researchers think that, if you start farming or intensifying the peri-urban agriculture, which is about 20–40 km around each town and city, you could achieve about 70 per cent of that city's supply of food. Urban farmers are one of the top-earning professions in the country; they earn more than doctors and schoolteachers. You can earn relatively good money in urban production.

The main major challenge to sustainable agriculture in rural Cuba was not so much chemical fertilisers; it wasn't pest and disease control either. It was fuel. If farmers had access to petrol, which some did, they could use their machinery, and especially transport. They could go and get inputs from the farm. They could collect seeds from the farm. They could collect cow manure or go to the sugar processing factory and collect something called *pechasso*, which is a compost of sugar cane waste, and use that on the land. They could even run their own irrigation pump, if it was petrol-driven. But without that fuel, a lot of those connections were cut off.

Farmers were really quite stuck. People couldn't come to them and they couldn't get out to access those inputs. The basic reason was that the farmers were dependent on external inputs and external support. They were not in the closed or semi-closed systems, which a more ecological approach would advocate – and our farms are run in completely the same way.

In the UK and other countries, we often blame the corporate sector for holding us back. But Cuba has no private sector. It is all government and, even there, they had industrialised mindsets. This is not about public or private; it is about mindset and attitude. Yet, despite those challenges, Cuba was really successful in feeding its people, even with that lack of food imports. Throughout the 1990s, it persevered to improve agriculture so that the yields of the major staple crops had doubled by the end of the decade. Yet that was in a situation where the government had very little money to invest in agriculture. How did it do it?

First, by re-localising production. The state made it clear that everyone needed to be as self-sufficient as possible and it acknowledged it wasn't possible to be 100 per cent self-sufficient. But every workplace had an area of land like an allotment by the factory or by the office where workers could go out and grow vegetables that would be used in the staff cafeteria at lunchtime. Every farm was encouraged to be as self-sufficient as possible for its farm workers – and we are talking about large co-operative farms of maybe 100 or 200 workers. Provinces were encouraged to be as self-sufficient as possible so that they would not need to transport food from across the country, because there was no transport. There was no fuel to drive large refrigerated lorries.

At the same time, rural conditions were improved. People were encouraged to migrate from urban to rural areas. The conditions in rural Cuba were much better than in other countries anyway. That policy was really successful. Everyone had access to land, if you wanted some land; in urban areas you were entitled to up to about a third of an acre if you wanted it, and in rural areas as well. Farmers were able to access more land if they needed it. Farm incomes were increased by diversifying markets. Farmers had more places to go and sell their food locally.

Farm efficiency was increased. The large-scale state farms were seen to be less efficient than the *campesino* farms, so these larger farms were broken up into smaller units and put into the hands of the workers, so the workers were now managers of the farms. They had to administrate them; they had to deal with the finances; and they had to deal with production decisions. Even on a large farm, each worker was put in charge of a small area of that farm so he was personally responsible for it. It was called 'linking man to the land'. Productivity rose just because of that.

I was interviewing workers. They said: 'Previously, we didn't really care what we were doing because we were just paid a flat rate anyway. We worked for the work brigade or the group, but now I'm responsible for this area, I take much more care. I pay much more care and attention to it. I go out early in the morning. I'll pick insects off the crop. If I get a higher yield in my area, I know that I'm going to get a better income from it.'

By the end of the 1990s, there were still a few challenges. There was still a partial reliance on food aid and on food subsidies, but that is not uncommon in tropical countries. There was still a focus on yield maximisation and that meant that certain aspects to do with quality and widespread soil degradation.

There were also challenges in terms of human health. In Havana in the 1980s, about 30 per cent of the population was overweight and obese, and that dropped by half in the early 1990s – as it did here in the Second World War and just afterwards. By the end of the 1990s, it had doubled again and it was predicted to continue to rise if the population continued with its food habits.

That was ten years ago. Since then, Venezuela has been developing favourable relationships with Cuba, which meant there has been an inflow of oil, and food and agrochemicals as well. Cubans always said to me that they were not going back to the very high-input ways of the 1980s, but they would just like a bit more than is being offered to them now. There is more of a choice now.

But domestic food production continues to rise, though not at such a rapid rate. Small-scale local markets are being developed with capped prices so that the sellers can't put the prices up too high so that everyone, whatever their income, will be able to buy something in the market. The economic situation might be better in former Soviet Eastern Europe but, socially, studies show that Cuba has fared better in terms of human well-being.

There are lessons for the UK. First, food security is manageable if there is a political will. Second, if you have a scarcity of petroleum, as we might in the future, that forces re-localisation. But it does not force a more sustainable agriculture in itself. For that you need to spread the knowledge of how to do it. Third, low-input agriculture does not by itself, automatically address broader environmental and human health problems.

The Transition Town movement talks about three scenarios that we could face in the future. In the first one, industry finds some kind of magical elixir, some kind of alternative energy so we can continue with business as usual. That will obviously

not address all the other problems in the system. In the second, there might be a catastrophic collapse of civilisation, a kind of *Mad Max* situation. In the third, we could decide to restructure society. That could happen overnight if we are caught out as Cuba was. That would be an enforced energy descent. Or we could have a more creative one, a more enlightened one, where we start planning the more positive future that we would like to have.



Carlos Alfaro

Economic Counsellor at the Cuban Embassy, London

Fifty years ago, Cuba depended on sugar cane – one market, one industry. The plantations were in Cuba, but where were the refineries? They were in the United States. So the market was the United States and some of the sugar came back to Cuba. So basically that was the scenario. The country was a monocultural producer. It was a very basic industry.

But in the 1960s, we had a connection with the Soviet Union, which meant we had the embargo. When that came, most of our institutions collapsed. But an alternative strategy started to develop in the country, in the short and in the long term. It meant diversifying our industry and creating more opportunities for Cubans.

The 1970s were the era of diversification. Then the 1980s saw the collapse of our international trade, and the domestic economy felt that impact tremendously. In one year, we lost our capacity – not only to export – but also to produce, because producing depended on oil. We also developed science, medicine and biotechnology products, and the tourism industry. The point is that we had to reform and change our strategies, and diversify them, two or three times in 20 years. So what happened after that?

So we arrive in the new era. We have tourism. We have the new industry of biotechnology. We have the new diversified industry in machinery, nickel, and other sectors, agriculture included. Then came the economic crisis. That also impacted on Cuba, because we are unable to access any credit. We are not part of an international financial network. We cannot make transactions in American dollars. The largest market and the largest industries 90 miles from our coast cannot trade with us. Well, they do trade, actually – there is multi-million-dollar trading every

year between the United States and Cuba – but it is the United States with Cuba not Cuba with the United States. We cannot sell to them.

But we have succeeded. All we had was our human resources, and some technical and technological advantages, and our co-operation with other Latin American countries; also the renewable energy which is being increased in Cuba. We have water and streams. Solar panels work perfectly in Cuba. Wind works perfectly in Cuba. Biomass works perfectly in Cuba. We are building the future with a wide understanding that we are not going to be dependent on oil.

The Dark City

Does the future of the planet depend on a handful of people in the financial markets?

The big question on the minds of many people working on these issues, looking at questions of global energy security and climate change, is how we are going to pay for the transition we need. If you look to public funds, you may remember that, in his 2009 pre-budget report, Chancellor Alistair Darling found new and additional money to help pay for a greening of the economy, but it was equivalent to only about one-seventh of the bonus package given to the senior executives of the Royal Bank of Scotland, and that was *after* the bank nearly collapsed and was given a massive public bail-out.

It got slightly better in the budget itself when the amount of new and additional money to help pay for the greening of the economy was about twice the bonus package of the Royal Bank of Scotland. RBS is interesting because, as a bank, it is among Europe's largest investors in fossil fuels. It is *the* fossil fuel bank, formerly advertising itself as the 'oil and gas bank' until campaigners made it bad for its public image. Now there are proposals for it to be turned into a green investment bank, and with poetic justice for it to be renamed the Royal Bank of Sustainability.

The reason for doing this is that, when you green the economy, you also create lots of jobs. Looking back at history, it took about 50 years to shift investment out of coal and into oil. Now we have a much shorter period of time in which to make the shift from fossil fuels to renewables. At our previous event, we talked about Cuba, a real island, which is small, powerless and has had no oil since the end of the Cold War. This event was about the City of London, an urban island, even smaller, but much more powerful and rolling in oil.

It took place on 27 May 2009, with Andrew Simms in the chair.

Nick Robins

Climate advisor for HSBC and Co-editor, *Sustainable Investing, The Art of Long-Term Performance*

I want to touch on five questions. Who is the City for? Where have we come from? What went wrong? Where can we draw inspiration so that we don't sink into despair? And therefore, what needs to be changed?

Who is the City for? Well, for all of us. At the moment, we can probably look at it like a self-referential club which is organised primarily for the benefit of the participants in the market. But I think I would like to see it more like a utility, like the National Grid, whose mission is to ensure the safe and secure transmission of electrons and gas through the networks. Perhaps we should see the City in the same way, making sure we have the safe and secure transmission of savings and new capital to those who need money for enterprise, for long-term investment, and for growth.

Where have we come from? We are in the midst of the worst economic and financial crisis for many decades, but we have been here before, and perhaps that is the most tragic aspect of the current crisis. The tragedy is that, although we have embedded much of the rest of the economy in wider economic, social, and environmental realities, the City over the last 30 years – in the era of financialisation – became something set apart, and really free from obligations to demonstrate that its innovations had social value to the degree to which, for example, the pharmaceutical industry has to demonstrate. The consequence of this separation from wider realities is that the golden goose has now turned into an antisocial cuckoo in the nest.

What went wrong? For me, perhaps we can see four vices that have been on display over the last 10 to 30 years – four flaws in the system. We have been living with a series of myths. There has been the problem of blindness to realities. There has been bias in the system, and a problem of impunity and lack of accountability.

First come myths and superstitions. Regulation and much of market practice is based on relatively naïve theories around efficient markets and rational agents, rational men in fact, and neglecting wider economic realities and some fundamental aspects of human behaviour. There has also been the pursuit of the maximisation of shareholder value which Jack Welch, one of its leading proponents, now describes as 'the dumbest idea' he ever heard. It isn't that markets are not useful, but the way we have been approaching them has been very constrained.

Second is blindness. One of the things that struck me coming into the City ten years ago is just how short-term it is. There is a structural failure to understand long-

term drivers of wealth creation, particularly to appreciate social and environmental realities. The stock market does not tell the financial truth, as we know, but it clearly does not tell the ecological truth either.

Third is bias. The way that incentives are structured exacerbates that blindness; it turbo-charges it so that we have the relentless focus on quarterly returns. This means companies which are trying to manage themselves for the long-term, and trying to take account of climate change, find themselves held back by the short-term focus of the City. The average holding period for a share of the London stock market has fallen from nine years before the Big Bang in 1986 to less than a year now. Clearly, that is a result of technology and deregulation, but it is also as if shareholders can't be bothered to wait for the next annual report before trading their share away.

Finally, there is impunity. We have a system of capitalism without owners. There is an absence of accountability, of executives to shareholders and maybe of institutional investors to the ultimate beneficiary – in other words, you and me. How many times have you been asked by the investment managers of your pension or union trust, about which way you would like to vote at an Annual General Meeting on an executive pay decision?

So where can we draw inspiration? I came into the City to work on ethical, socially responsible and sustainable investment, and this has been an area of huge innovation, huge creativity and huge success, growing out of religious and environmental roots. Now about \$15 trillion around the world is managed to some degree according to the UN principles of responsible investment. That is about 10 per cent of the world's total assets, so still small.

In the book, *Sustainable Investing: The Art of Long-Term Performance*, my co-editor Cary Krosinsky looked across the sustainable investing funds around the world and found that they had performed well over one-, three- and five-year periods against conventional benchmarks. Conventional market theory would suggest that this could never happen, because the market is supposed to price in all the information that is relevant. Yet I know from my practice that many of the factors that drive business, particularly environmental and social drivers, are simply not taken into account. What I see happening is that sustainable investors are anticipating issues well ahead of the electronic herd, integrating these into their decision-making and benefiting as a result.

So, what are some of the factors that we can take account of? One, we do need to think about theory, about the way in which we conceive of financial markets and market resilience. We need to think of a broader notion of human behaviour, from a rather

binary notion of rational behaviour to a more reasonable person's conception. We need to reconnect the City to enterprise. There are moves afoot to establish a social stock exchange which would be for social enterprises to gain access to capital to grow, and develop and deliver services. Of course, we need to reform the incentives; to focus benefits on the long term and on the end investor, and also recast the rules of the game of the stock market so that environmental realities and social realities are taken into account.

Finally, there is a huge need for the financial sector to demonstrate that its financial innovation has social value, and to show how financial innovation can be deployed for the public interest, raising climate bonds – for example – for long-term green infrastructure. Perhaps one of the great benefits about these instruments is that they are so deeply boring that I think the age of financial excitement has thankfully come to the end.

My fear is that if we don't take account of these things now, then actually we risk as an industry and as a society even greater and perhaps irreversible financial crises. I would like to end with some words from Keynes, which he wrote in 1929 at the beginning of the deep crisis back then:

'There is no reason why we should not feel ourselves to be bold, to be open, to experiment, to take action, to try the possibilities of things, and over against us, standing in the way, there is nothing but a few old gentlemen tightly buttoned up in their frock coats who only need to be treated with a little friendly disrespect and bowled over like nine pins. Quite likely, they'll enjoy it themselves, once they've got over the shock.'



John Kay

Author of *The Long and Short of it: Finance and Investment for Normally Intelligent People who are not in the Industry*

We don't know what is going to happen in the future. We have to live our lives, both as individuals, as businesses, and in our politics, with a recognition that we don't know. Let me follow up with a quote by Keynes who said: 'When it comes to something like what will be the rate of interest in 20 years' time, the only correct answer is we simply do not know.'

This was a particularly prescient remark because Keynes published the book in which that sentence was written in 1921. If you add 20 years to 1921, you get to 1941 at which time, if you owned British government bonds, you would not have known whether they were going to be repaid in sterling, in Reichmarks, or indeed at all. When it comes to predicting the future, we simply do not know.

The preoccupations people have at the moment in terms of the scientific problems we face are to do with climate change. The preoccupations we hear today in relation to the economic development of the world are to do with the coming hegemony of China and perhaps India. The preoccupations people have today in terms of the global problems we face are about a war on terrorism around the world.

If you had asked people these questions 25 years ago, they would have talked about AIDS as an equivalently apocalyptic scientific problem. They would have talked about the Cold War as the primary geopolitical problem. They would have talked in terms of economic development about the coming hegemony of Japan as the biggest development in the world economic scene. All these problems were actually resolved and none of them were resolved in directions that any large number of people had anticipated at the time.

Now, even though we simply do not know, shouldn't we give predicting the future our best shot? Shouldn't we try and look into the future and make our best estimates as to what is going to happen? Well, we all have a desperate need to know what is going to happen in the future and that is what keeps clairvoyants and economic forecasters in business; I think of them as much the same category of people. There is an endless demand for their services and one of the rules of economics is that, where there is demand, there will be supply. That doesn't mean, as we also know in economics, that the supply has any value other than the subjective value that is generated by the people who generate the demand.

So my answer to the question: 'shouldn't we make our best shot at predicting the future, and developing our plans round about that?' is 'no, we should not'. It was that kind of thinking that led IBM to decide it wasn't going to go into photocopiers because it had estimated there would only be a demand for five photocopiers in the whole of the world. That is the world of the people who tried to plan Britain's energy policy in the 1960s, and they planned it by building lots of nuclear power stations which were going to provide cheap energy forever and by building far larger coal-fired power stations than anyone had built in the past. None of these stations worked very well, but it didn't matter because we didn't need the electricity which we were going to generate anyway. When it comes to predicting the future, we simply do not know.

The problems that were transforming in the twentieth century were not the problems that were on the top of people's agenda at the beginning of that particular era – two global wars and the flu pandemic of 1918/1919. The things that hit you are the things that come from left field.

What we ought to do is not to *try* to predict the future, but to recognise that we are ignorant about the future. What does that kind of recognition mean? Well, that is the point at which finance theory actually does teach us something. What it teaches us is that, if you don't know about the future, one way you can react is to diversify. You should do as many different things as possible. Most of them won't work, but some of them will work and that is what you need in order to face the future effectively. Also, when you have options, you are able to face the future with a greater degree of confidence.

That means, when we are talking about the future of energy supply and energy use, we should adopt these principles. We should diversify. We should employ as many different solutions as are available and we should develop options. Developing options means recognising that it is very likely that the kind of problems which we are talking about will in the end be dealt with through technologies that we have not actually yet thought of.

So does the future of the planet depend on a few large institutions in the City of London? The thrust of what I've been saying is that the answer to that question is 'absolutely not'. In fact, the future of the planet, and the British economy, rests on getting rid of the few failed institutions that are today gumming up not just the activities of the City of London but the activities of the whole financial system, and with that of the British economy as a whole.

We need to go back to a world in which we have narrow banking, in which the element of the financial services system we all need – that operates the payment system and meets the ordinary business lending and payment needs of individuals and small and medium-sized businesses – is protected from the nonsense that goes on in the whole. It has become almost a current cliché, but I have described the situation now as having a utility attached to a casino.

I don't want to shut the casino down, but I do want to protect the utility from the casino. When people in the casino are no longer able to gamble with the money that is being generated in the utility, the casino will actually turn out to have a lot less going on it than it has so far. So we need to reform the financial system to get away from dominance by a few large and ultimately unsuccessful institutions, and get on with doing the kind of things that I believe the market system does really well – give a lot of scope for individual experiment, and for people to try out different things.

The truth is that most innovation, and most experiment, doesn't work. But when markets are operating in the way they should, there is a process of success and failure in which good ideas get quickly imitated and bad ideas get discarded, and left by the wayside, and that is the world we need to create and develop.



James Marriott

Arts activist at PLATFORM and co-author of *The Next Gulf: London, Washington and Oil Conflict in Nigeria*

You have probably heard the reports that Shell will go on trial in New York for complicity in the execution of Ken Saro-Wiwa in 1995. Saro-Wiwa was a highly acclaimed novelist and playwright who had campaigned on behalf of his Ogoni homeland for decades before his trial and judicial murder. His campaign focused on the environmental devastation of the Niger Delta by Shell and other oil companies, in particular the gas flaring, flames a 100 feet long, close to homes, day and night, in the villages of the Delta.

These legal events in New York may seem far away from this field, but they are not as distant as they seem. For, 500 yards from this tent is a new gas pipeline recently constructed. Some of you from Hay may remember the trench, the diggers, and the pipes being laid in the ground a couple of years back. Two months ago, gas began to pass through this pipeline from South Hook terminal at Milford Haven in Pembrokeshire, sending gas from Qatar in the Persian Gulf.

Qatari gas is extracted in the Gulf, loaded onto eight dedicated Liquid Nitrogen Gas (LNG) ships and sailed round the Cape of Good Hope and Land's End and the Celtic Sea. There, the liquefied gas is regasified and fed into the National Grid, passing along the valley of the Wye just here. Currently, the gas all comes from Qatar through a joint venture between Exxon Mobil and Qatari Gas. They commission the ships, and they commission South Hook LNG terminal.

But next to South Hook, there is a second LNG terminal, which is being constructed by Dragon LNG, partly owned by British Gas. When it comes on stream next year, LNG ships will arrive from a number of oil provinces including the Niger Delta. Gas from the Delta will soon pass under these fields. And herein lies the connection with the finance sector, the Dark City that we refer to.

The Qatar and Exxon LNG project is a vast undertaking, and was not financed by those two companies alone. It was largely financed by loans from the Royal Bank of Scotland which also owns NatWest. RBS is also financing the British Gas LNG terminal in Nigeria.

There is nothing out of the ordinary in these loans. RBS is the largest private financial bank in Europe to finance oil and gas. It calls itself, or it did until recently, *the* oil and gas bank. The NatWest branch here in Hay might look like a bank, but that building is as much an outlet of an oil and gas company as the Total petrol station on the edge of the town here. Anyone in the audience here with a NatWest account or an RBS account has effectively helped finance the oil and gas industry, and those hydrocarbon projects.

But it is not just the account holders who are involved; it is all of us. We all own RBS now. Last autumn, our government purchased a controlling stake in RBS. This percentage stake rapidly grew and now the bank effectively belongs to the state. It belongs to us. But this shift in ownership has not altered the bank's lending policies. It still finances oil and gas projects. It recently agreed loan capital for oil exploration in a vast area offshore of Greenland, making use of the opportunities arising from the melting of the Arctic caused by climate change.

At PLATFORM, we think we need to see the City as our City, not some distant unintelligible machine. We need to engage with it and with the financial systems and stretch our imaginations around them – and bring that light of enquiry into the dark city. If Shell is found to be responsible for the death of Ken Saro-Wiwa, then surely the same goes for other senior staff in Shell and perhaps, indeed for the shareholders of the company. We are all shareholders now of RBS, but are we aware of our responsibilities? Are we aware of what RBS is doing in relation to climate change?

It has taken 14 years to bring Shell to court. By 2023, will there be cases being fought against those who financed fossil fuel extraction or those who fuelled fossil fuel development and climate change? Might the next phase of capitalism be marked by that light, a light of shining responsibility, a new lighted city?

Transition now

Lessons from the front line of communities

We had two events before this one. One was about Cuba, a country that, through no choice of its own, had to live through a very rapid energy descent path in its use of fossil fuels at the end of the Cold War. Although everything is not rosy in Cuba, the country has survived and there are many interesting things we can learn from that. Then we looked at the role of the City of London, given that it is critical to how you can get money out of dirty old fossil fuels and into renewable energy.

It is often said that politics is the art of repeating things until you get it right. This is a quote from William Morris in his *Dream of John Ball*: 'I pondered all these things and how men in fight and lose the battle and the thing that they fought for comes about in spite of their defeat. And when it comes, turns out not to be what they meant and other men have to fight for what they meant under another name.'

Then, in 1898, a book was published called *Tomorrow: A Path to Real Reform*. It was later republished as *Garden Cities of Tomorrow* and it was written by a man who looked around and saw unsustainability, miserable living conditions, and possible ways of revolutionising how people lived in towns and cities. That man was Ebenezer Howard, who founded the garden cities movement.

Almost exactly a century after the first publication of Ebenezer Howard's book, another man – in Kinsale, in County Cork in Ireland – had another vision about doing things rather differently and that was Rob Hopkins, who was also involved in setting up the first Transition Town in the UK, in Totnes. Totnes is a place once described by the poet Matt Harvey as being 'twinned with Narnia', ammunition for its opponents perhaps, but it was meant in a friendly way and captured that there was, indeed, something quite magical happening in the social experiment of the transition town movement.

We heard about other transitions that are happening now. This event took place on 26 May 2009, with Andrew Simms in the chair.

Rob Hopkins

Co-founder of Transition Totnes and the Transition Network and author of *The Transition Handbook*

Last summer, we saw the oil price going up to a \$147 a barrel. You may think, now that it has come back down to \$60 a barrel⁷ that it is therefore not an issue any more. But there are many reasons for thinking that what we saw in July could be the peak itself, although we won't know until we get a little bit away from that.

Any time you put 40 litres of petrol in a car, it is equivalent to about four years' hard human manual labour. Having cheap oil in our society means that we can do about a hundred times more work than if we didn't have that there. So what we are looking at, as we come to the top of the energy mountain, and start to design a way down the other side, is a different way of doing things, which is inherently lower energy, and inherently more local.

One of the big problems we have is around stories. If we were to go into Hay today and stop people and say: 'What's your mental picture of Hay-on-Wye in 15 or 20 years, when it started to cut its emissions in 2009?' I think most people's mental picture tends to be somewhere between the *Flintstones* and *Little House on the Prairie*. We don't have the cultural stories about what that kind of shift looks like. We have the technologies. We have the insights. We have the ability tomorrow to put ourselves on a kind of a war footing to make this happen very quickly. But we lack the narratives about what that would look like.

We have the stories in our popular culture about what happens if we just continue with business as usual. It means that, as the years roll by, the future is like the present – there is just more of it. Everything gets slightly better and we get snazzier mobile phones every year.

We have the stories about what happens if technology just runs away so that we are able to go on holiday to the moon and grow food in bubbling vats. We have the stories about what happens if everything just falls to pieces as well. Our popular culture is full of collapse scenarios and everything going horribly wrong. What we don't have is those stories about a culture looking something like peak oil and climate change square in the face and responding with the kind of creativity and compassion and imagination that we are capable of.

I always wonder what stories people will tell in 40, 50, or 60 years about this time now, as they look back at it. If we are able to successfully navigate our way through this time now, what kind of stories will people tell? One of the ways that I find useful

to think about that is the stories that people told before the age of cheap oil. For example, we had stories of the 1,000 league boots, where you put these amazing boots on and you could stride over whole continents. We had stories like one of my kids' favourites, the tale of the magic porridge pot, where you get this pot, you remember the magic words and the thing starts magically making porridge. The idea that you have something that can just provide for your food needs without you having to put in any work was a hugely seductive, hypnotic idea before cheap oil came along and took that over.

Then there was the story of the elves and the shoemaker – where they make all the shoes for you and you don't have to do anything. In effect, the magic porridge pot is Tesco. The thousand league boots is Ryanair. And the elves and the shoemaker is China. But we have lost the sense of wonder about what an astonishing, extraordinary, historically unprecedented power cheap energy has given us.

I think the stories that will be told about this time will be extraordinary. I think they will be about the generation that really focused on these problems and responded with the sort of creativity that we start to see emerging through things like the transition movement and low-carbon communities and all the different groups working on this at the moment.

One of the things that we have been doing in Totnes is called *Transition Tales* and it is about getting children to imagine Totnes in 2030 and what it could be like, reporting from there as news broadcasters. It is fascinating how the boys still do take-offs of *Top Gear* looking at how people get around. For a lot of the girls' ones, Paris Hilton is still walking around – it is just that she seems to be wearing wellies and working on a farm.

One of the big stories that we build up to in the Transition world is what is called an 'Energy Descent Plan'. When our local authorities sit down to plan for the next 10 or 15 years, they still start by assuming a line that rises from left to right. In 20 years' time, there will be more cars, more houses, more economic growth, and more cheap energy. All of those assumptions are now highly questionable, which means that most of the plans based on those assumptions are highly erroneous. I talked to someone who is doing work in the North West, with regional development agencies and local authorities there. He was working with Greater Manchester Council, and the development plan for the next 20 years for the area was based on the aim of making planes, making cars, and the financial services sector. He said: 'Have you got anything else? You know, is that it?'

What is very interesting is the role of Transition in the current political climate. The Transition Stroud group is working with its local council. So the Council's food strategy is basically being written by the local Transition group. What is starting to happen with Transition groups, low carbon groups, and all these different groups working on a community level, asking the really hard questions that the current situation really asks of us, is that they are starting to create a fertile, bubbling upsurge of ideas.

The next level is what it looks like when a local authority comes to support that. I think there is the potential of a reinvigoration of democracy. That is how it should be working, because our national government can't do the kind of things that we need to do over the next 20 years without communities which have a vibrant vision and who have got their sleeves rolled up and are starting to do things.



Rosie Boycott

Author, broadcaster, organic farmer and Chair of London Food

Someone said on *The Archers* the other day that the odd thing about London is that you can't grow any vegetables there – they will have to eat pigeons. I thought: you are so wrong. But I was also wrong in my own assumptions when I came into this job. We *have* got growing spaces.

We have started a project called Capital Growth, which is to create 2,012 new growing spaces, because we can't get areas as big as allotments, by 2012. We now have the Canal Board and Thames Waterways and Network Rail, plus lots of housing estates giving us land, and they all have to be run in a community-based way. They can all have a commercial aspect to them, and they are all coming towards the kind of Transition ideal.

We are able to grow a huge amount of salad crops and basic vegetables. You see this in primary schools and people growing gardens on rooftops. It is wonderful just how much you can grow in a space like this. A garden doesn't have to be a permanent thing, so we are using a lot of spaces where, because of the financial crash, builders have gone broke. We are using half-developed land and putting temporary gardens on it. Enfield actually has 10,000 acres of arable land, which is lived on by ponies wearing coats, and they are giving probably 3,000 acres of it to small farms.

I went to see one project the other day. It was somewhere that, two years ago, was a horror space surrounded by four, vile and very large 1950s concrete high-rise flats. A lot of first-generation immigrant women who don't speak much English, were living, literally, behind doors all day. If you went out into this space, it was full of beer cans and old needles. The Women's Environment Network took it over and, for about a £1,000, they built 20 small, raised beds, a garden in the middle, and a playground at the end. It is now thriving with women, kids, and other grown-ups. The police don't need to come. There is no knife crime. The place is looked after and a sense of community is engendered, all around food.

London is, of course, incredibly vulnerable. I was in Defra when I first got this job, asking about their food security plan. There had been that fire in the Channel Tunnel and I asked what they would do if the whole tunnel was gone. They said they would bring it in by boat. I asked what they would do about London, which is the largest city in Europe. Nothing, not a single thought. Even after two days of the snow that we had at the end of January, shops were running out of food in the middle of the city because the chain is so thin and stretched. It is nice to think of Tesco as a porridge pot, but the truth is that we have taken that porridge pot for granted. So have all governments over the last 30 years that have counted on the fact of this ever increasing amount of cheap food.

Changing people's involvement with food begins to change other things too. Last year, the National Farmers Union did a survey where they found that 93 per cent of people change their eating habits, once they start to grow their own. I was talking to some kids the other day who said: 'Until we came here, we never had a meal at a table in our lives.' So many of the roots of our fractured society comes back to food.



Simon Forrester

Co-founder of Transition Town Hay-On-Wye

So, meanwhile, back in Hay, we have been going for about six months as a Transition initiative. There are many Transition initiatives in Wales and a lot of them have much more experience and much more activity than us. But what really inspired us to start an initiative was the option of a more positive vision or story for the future. The Transition initiative offers something very positive, something very practical, where people can actually do something.

You are also part of a network which offers you support and guidance, but without being prescriptive, so you can see what the community actually wants and you have back-up, which is very important. You don't have the sense of being isolated.

This is what we have done so far. Phoebe and the food group have evolved an allotment project. Like a lot of places, we are very short of allotments in the town of Hay. She has been working with the Council, the allotment society and a local landowner and we are hoping to be able to have an additional 20 allotments, here in Hay, in the not too distant future.

In the meantime, we have a garden share project. It is like a dating agency. We match people with gardens who are unable for various reasons to look after them, with people who don't have gardens who want to grow. At the moment we have a bit of a shortage of actual growers, so we are appealing for those.

We have just started a free home energy service, which is being replicated from a neighbouring town. Our volunteers go into people's houses, help with energy efficiency, identifying how they can make energy savings, and also give them information about relevant grants. But we are also hoping to have one of these thermal imagers, so that we can go into people's houses and show them, on camera, where they are losing all their heat.

We are trying to talk directly to people's meetings, like the WI and the chambers of commerce and the town council. We are very conscious that we might be talking to the usual suspects and talking to ourselves. We are hoping to take the home energy service to a stall outside the Co-op, where we can talk to people at the relevant time of the year, when they're going to be thinking about the winter.

We are also conscious that we don't want our events to become too dull and worthy. We want to fun them up a bit, and make them more celebratory, so we're going to do more around things Apple Day, where people can make their own cider. We are going to do the big lunch in July and try to break down barriers and reach into different corners of the community.

Most of our volunteers have full-time commitments, work, families, and we are very aware that we could do so much more and all wrestling with that. To have the respect of the community, we have to show that we are not just talking. We all want quick wins, but this is a long-term project, and focusing groups on the short- and long-term is quite difficult sometimes.

The Green New Deal

Can urgent environmental action save the economy?

We published the Green New Deal report as the banking crisis was happening and, subsequently, the United Nations Environment Programme came along and asked if it could use the same title for one of its reports. Then it went into the language. Barack Obama used the same title and so did Gordon Brown.

The report was responding to what we call a 'triple crunch'. That is not a new chocolate bar just launched onto the confectionary market. It is a collection of three things, each of which on its own – going to its worst and logical conclusion – could pull the plug on society and civilisation as we know it. And one of those is the economic crisis, the other is the climate crisis, and the third is the crisis of natural resources.

This event looked more closely at the meaning and prospects of the Green New Deal. It took place on 20 May 2009, with Stewart Wallis in the chair.



Andrew Simms

Policy director at **nef** (the new economics foundation),
co-author of *The Green New Deal*

Credit crunch, climate crisis and peak oil – each one of those problems would be bad enough but, together, they make almost the perfect economic and environmental storm. What are we to do about it? Some of the best brains in the UK have pointed out that we need to be cutting emissions in Britain, anything from 6-9 per cent, year on year. What we believe we need is something that tackles, in a positive and self-reinforcing way, all these problems at the same time, rather than doing one thing that might pull the rug on one of the other problems. That is why we published the Green New Deal.

So what has the track record been so far on green stimulus packages in the UK economy? Well, not too good. In the pre-budget report last year, the new and

additional financial resources made available to invest in a green stimulus were one-seventh of the total bonus package that went to the Royal Bank of Scotland's executive class. Just to add a little bit of irony, RBS is also the largest investor in the fossil fuel industries of all Europe's banks.

When the full budget emerged later, things got a little better. We got about twice the size of the full bonus package going to RBS executives, but unfortunately, we also got a pledge to get another two billion barrels of oil out from under the North Sea. The emissions from just those two billion barrels would be the equivalent of the whole of the UK's emissions, including aviation and shipping, for a whole year. So what was given with one hand was undermined with the other.

HSBC studied how different governments around the world have been reacting to this issue and looked at the percentage of the stimulus packages going to green issues. In France it was 21 per cent, in Germany 13 per cent, in South Korea 80 per cent, and in the UK it was between 6 and 7 per cent. In fact, most of the estimates suggest that we need to be spending about between £11 and £50 billion a year in order to get us on track.

The important thing here is that it takes time to change systems. Shifting capital investment out of coal and into oil, a century ago, took about 50 years. We don't have that time now. We need to move much, much quicker, which is why we have argued for a massive environmental transformation programme, a *Green New Deal*, that will have the effect of stabilising the economy, bringing energy security to us, by investing in new renewable energy schemes, and tackling climate change, all at the same time.

This does not have to involve hair shirts, because we think there would be enormously positive outcomes from this. On the one hand, the *Green New Deal* is about jobs – more jobs, and more secure jobs, pound for pound, through investing in renewable energies. According to Deutsche Bank, they create between two and four times the amount of jobs as money invested in the old-style, capital-intensive, dirty-energy industries.

The *Green New Deal* is also about investment, both to tackle this current recession and investment for the future. We think we can do better by reforming taxes so that we tax more what we want less of, like pollution and reckless speculation, and less what we want more of, like green goods and services. It is about having new checks and balances and directions for the banking system that we think have become unfit for purpose.

That means de-merging the banks that are too big to fail, segregating financial markets, and checking and licensing exotic financial instruments to build a more secure and accessible banking system. It is also about greater security for our own savings, because it is our savings that are still flooding into those fossil fuel industries.

I don't want my money invested in fossil fuel reserves that, if we are to stop climate change, will have to stay in the ground anyway.

It is also about tackling fuel poverty, making sure that people have warm homes in winter and cool homes in summer. It is about the UK showing international leadership, because we are taking a lead.

I hope this is also about finding a better life for all of us. We did some research into people's lifestyles across Europe and in the UK, to see how they felt about their lives, compared with how much stuff they were consuming. After all, we are now in Britain consuming at the level of more than three-planet living. But does reducing that mean that people have to lead worse lives? We don't think it does.

When we asked people about their lifestyles, we found some people saying they were at one-planet living. They were probably exaggerating a bit, because that is hard to do in our kind of system that locks-in over-consumption. At the other end of the range were people enjoying eight-planet living, flying around the world several times a year, TVs the size of swimming pools, and three Lexuses parked out front.

But when all those people were asked how they felt about their lives, do you know what the answer was? There was no meaningful difference in their levels of life satisfaction. That means we can tackle these problems, have a more secure economy, deal with energy security, and tackle climate change, by reducing our over-consumption of resources and freeing up economic space for the rest of the world, without necessarily having to compromise our enjoyment of life.

Ultimately, introducing a truly sustainable economy requires a change of attitude. Let me finish with some words of Fritz Schumacher, the father of the new economics: 'Man talks of a battle with Nature forgetting that, if he won the battle, he would find himself on the losing side.'



Nick Butler

Chairman of the Cambridge Centre for Energy Studies

Having been to so many meetings, over so many years, on these environmental issues, where people either set out the nightmare of what is going to happen or a very broad and loose vision of what should happen, I believe we are actually now beginning to move from the dream to the practical reality.

I think you now see in this country, and to some degree across Europe, people setting real targets on greenhouse gas emissions. An 80 per cent reduction is now agreed and has been accepted. It is now being fed back so that it is not just a 2050 target, but it is a target for every five years which is legally enforceable on any government. That is a very important step forward.

We are also beginning to put in place the rules and the policies to get towards that target. They are not complete, but we are seeing a new push in the amount of renewables that is now going to be built into the electricity system in this country, and the adoption for the first time – pretty much anywhere in the world – of carbon capture and storage. Those are big steps and they will help to make the difference.

We are also now putting in place the infrastructure that will help people to do the right thing. Smart meters, in everybody's home. Smart grids, so that we can capture the renewable energy. All renewables are location-specific. You can't put them anywhere. You need a grid that picks them up and feeds them into the system so that people can use them. If you don't have such a grid, they can't be used. But that is a step which is now being taken.

We are also seeing changes in products, like electric cars, now being established. They will soon be built in this country, and then they will become part of normal life. This is no instant change, but changes are beginning to be made which is what makes the shift from dream into reality.

It also matters very much what is done locally. National government can set those guidelines, but people can do different things in different areas and policy is intended to enable them to do that. But I think we need two more steps which brings us close to what I think of as a Green New Deal – pretty close to what we have talked about, but slightly different.

We need to get investment moving into this area. So most people here will have a pension fund of some sort, either through their employer or individually. Where is that money invested? Is it invested in these sort of technologies? Probably not. We need to create incentives to move the money in that way so that all these opportunities can be picked up and developed and people can create decent businesses by going in the right way.

The other thing we need to do is to match that with the real development of skills in this country so that we can not just do it here, but we can also export what we can produce here to other parts of the world. The shift which we are beginning here needs to begin everywhere if anything we do here is to have any sense.

We need skills at the very high level. We need the research skills and the research money devoted in the right ways. I happen to think that the breakthrough on this will come when we can store energy properly. So if you can store solar power, anywhere, wherever it is captured – even in the Sahara – and transport it easily to where it is used, that would be a great gain. So I would love to see the UK being the leading research country in the world on battery technology and energy storage.

But it isn't just high-level skills, it is basic skills. I think all sorts of people, in every walk of life, need to adapt to this transitional, revolutionary change. You could do a great deal in this area just by saving energy. If we could insulate every house properly, every building, you could probably save 25 per cent of the total energy consumption in this country. That is a job of work for people to learn to do and to be employed to do. And that is the direction in which we should be going.

This is a Green New Deal. It is partly visionary, but it is also – and has to be – severely practical.



Jane Davidson

Welsh Environment Minister

One of the things we have the opportunity to do in Wales, because we are a small government, is move quite quickly. In fact, in Hay last week, we launched our sustainability commitment, *One Wales, One Planet*. We have talked about the fact that we are probably living at the rate of more than three planets in the UK. I can tell you that, in Wales, our ecological footprint is about the size of 2.7 planets. If we carried on with the business-as-usual model, and if we had the normal growth that we had in the economy – the 1.5 per cent per year that was arrested by the recession – we would be using 3.3 planets by the time we reached 2020.

Wales is the poorest part of the United Kingdom yet, even here, we would be using resources at the rate of 3.3 planets. We wouldn't be using 3.3 planets because Wales is full of mad consumers. In fact, we would have a lower footprint than any other part of the UK. So we have to change our behaviour in dramatic ways.

I don't think we are going to be able to get through the next 100 months effectively unless we take major and radical action. So we have taken sustainability as the central organising principle for the way that we create policy here. We are saying that we are

no longer going to erect buildings that are going to emit carbon. We have restricted it hugely through the planning system. Now we are having building regulations devolved to us by the UK government, we are looking for zero carbon buildings, or as near as possible to that, by 2011.

We are also committing ourselves to 3 per cent annual reductions in greenhouse gas emissions from 2011. I would like to be doing it earlier but the data isn't there which we can measure ourselves against. And of course, we have to be able to measure ourselves, if you're going to quantify effectively. We have committed ourselves to 70 per cent recycling and composting targets in Wales. We increased our recycling by 5 per cent last year, so we are not just looking at distant targets. Zero waste by 2050 is our ambition, but we are not waiting until 2049 before we start the work. We are actually starting now.

We already know that we could produce more renewable energy than Wales consumes because of our natural resources – half from marine, about a third from wind, and the rest from biomass. So we have done a huge amount of work, over the last two years, to make sure Wales's policies are fit for purpose.

When I was introduced today, it was as the Minister for Environment, Sustainability, and Housing. I have responsibilities for waste, water, for energy, planning, and climate change, and the climate change and sustainability responsibility is on behalf of the whole cabinet. We have done that so that we can be as responsive as possible to this agenda.

When I became the minister with responsibility for climate change two years ago, there was no other minister with that dedicated responsibility around. Now every government has a minister responsible, which I think is a very important message that things are really moving.

So we are talking about what we consume. We are talking about energy efficiency. We are talking about fuel poverty and still keeping down our greenhouse gas emissions . . . which doesn't mean more coal. It *does* mean that we look more at renewables, and we should certainly not be using any of the carbon-laden fuels, like coal or gas, without carbon capture and storage. We have started on that trajectory but we are still a way away. But we have to make sure that governments at all levels, the UK government, our Welsh national government here, and individuals and organisations and communities, all look at the action that they can take.

We are all in this together. We have to be able to look our grandchildren in the eye, in the future, and say that we knew the clock was ticking, and that we did what we could.

An Environmental War Economy?

What can we learn about rapid adaptation from Britain's past?

Some days, it is incredibly hard to believe that there's really, truly, deeply, something fundamentally, going wrong. But that isn't so unlike the way it was for many people in the 1930s. Yet, within a few months in 1939 and 1940, the nation geared up – not just for war – but to conserve as much food and as much energy and other resources as they could.

It is possible, and this event looks at what Andrew Simms originally called the 'Environmental War Economy' – learning from the Second World War about what might be possible as we deal with the climate crisis.

It took place on 30 May 2009, with Stewart Wallis in the chair.



Andrew Simms

Policy director at **nef** (the new economics foundation), co-author of *The Green New Deal*, and author of *The Environmental War Economy*, *Ecological Debt*, and *The New Economics*

These are the words of Winston Churchill in November 1936: 'Owing to past neglect in the face of the plainest warnings, we have now entered upon a period of danger. The era of procrastination, of half-measures, of soothing and battling expedience, of delays, is coming to its close. In its place we are entering a period of consequences.'

I think we are now entering a period of consequences. This is hard to get your head around, because it is almost as if we need a different frame of reference for the scale of problems that we are facing. We have very little frame of reference, but what we went through in the Second World War gives us an inkling of the kind of things we might have to face.

It is very important not to be rosy-eyed about what happened in the war. This is a letter by J.R.B. Branson to *The Times* in May 1940: 'In view of the publicity you have accorded to Mrs Barrow's letter in your edition of today, I hope that you will spare me space to say, as an advocate of the consumption of eating grass mowings, that I have eaten them regularly for three years, and of many lawns. The sample I am eating at present comes off a golf green in Mitcham Common.' Even the RSPCA were at it. In its leaflet *Feeding cats and dogs in wartime*, it advised: 'Potatoes are plentiful, and if you put in extra tubers when digging for victory, you will not have it on your conscience that shipping space is being taken for food for your animals.'

Now, we are at a book festival. Who would have thought that books could be a problem, but if you read *Good Housekeeping* in 1943, they would have advised you: 'Few books bear second reading. Comb your bookcase for salvage.'

But the award for the most innovative and thorough advice has to go to Joanna Chase, who wrote a leaflet at the time called *Sew and Save*, and her advice was on how many undies you really needed. She said: 'Gone are the days when any of us have either the money or the space to possess six of everything in our undies drawer, but you should try to have three of everything. One set on your back, one in the wash, and one clean and ready for any emergency that may crop up.'

No stone left unturned there. Few people remember that alarm clocks were rationed. If you wanted to get a new alarm clock, you had to justify that your job needed it. But the consequence of all this was that the comprehensive, laser-like focus on the details of how we were going to cut our energy use, and cut our consumption, was amazingly successful.

Coupled with rationing, there was a 5 per cent cut in motor vehicle use, and an 82 per cent cut in the use of household electrical goods. Use of public transport went up, and our food consumption went down. By 1943, we were saving 31,000 tonnes of food waste a week, which went to feed over 200,000 pigs.

In spite of the hardship and austerity, there were some surprisingly positive outcomes. Infant mortality fell. Maternal mortality fell. Key indicators showed that the nation as a whole was getting much healthier. Life expectancy rose, as it did in Cuba during a similar energy emergency in the 1990s. But it wasn't just that.

There were national savings marches in every town, village, and city the length and breadth of Britain. There was a focus on having a good time near where you lived. There were boxing displays, swimming galas, open-air theatre, dances, and British restaurants set up for communal feeding, all in your local area. The logic of rationing

was based on fairness and effectiveness, to meet clear targets to reduce consumption of a range of things but, most importantly, of fuel.

There has been a massive revival of interest in this. If you go into bookshops, you will often find a whole table heaving with books looking again at our Second World War experience. That poster which you now see everywhere, *Keep Calm and Carry On*, wasn't even issued during the Second World War. It was designed and printed and left in a warehouse. Now it is on almost every mug, tea towel, and wall in the country. It is as if there is some kind of strange, cultural self-medication going on. It isn't simple or straightforward, but there is an awful lot that we stand to learn from those times.

I just want to finish with just a couple of quotes about the difficult politics of what we're going to be going through. One of the greatest minds of the day, back in 1940, was John Maynard Keynes, who wrote a little pamphlet called *How to Pay for the War*. When you hear the claims today that we are heading for a green authoritarianism, and how we are all going to have to give up our cherished indulgences in order to tackle this problem, this was also a debate that we've been through before.

This is what Keynes said in his pamphlet: 'I have been charged with attempting to apply totalitarian methods to a free community. No criticism could be more misdirected. In a totalitarian state, the problem of the distribution of sacrifice does not exist. It is only in a free community that the task of government is complicated by the claims of social justice.'

But, given the environmental realities that we live with at the moment, the final word has to go back to our friend Mr Churchill, who made an important point when he said this: 'It is no use saying we are doing our best. We have to succeed in doing what is necessary.'



Monty Don

Writer and speaker on the craft of gardening, and President of the Soil Association

I was brought up just after the war, by parents who had been through the war as young adults, and it completely dominated their lives. Until the day they died, the war was by far and away the most important thing. So second-hand dominated my childhood and, although rationing ended around the time I was born, this sense of

not wasting anything was shot through my childhood and stays. But I think the key thing is this sense of identity and place.

Yesterday, I had to go up to the Lake District, which was lovely and I was driven there. The chap who picked me up was late, because his SatNav told him that my house, my unique house that isn't like any other house, was actually half a mile down the road. I said: 'Do you know where we're going?'

He said: 'Yes, I've got the postcode.' But of course we got lost and we got late and he had no sense at all of where he was going. He knew the name and the destination, but he didn't know it. It had no meaning to him, no identity at all. This seems to me the real difference between all that we have been talking about with the war. Because I believe I got, through my parents and my childhood in the 1950s and 1960s, this sense of place.

If you don't have meaning invested in a place, you will not have meaning invested in the things that come from that place and the things that you give to that place. It really doesn't matter if it is a street in an inner city or a village or a beautiful farm. It has to have meaning to you.

The problem is that my generation, in our mid-fifties, have really let people down. We had a chance to do things better and we failed. So what we have to do is act, not talk about it, but do something about it, to enable our children and our grandchildren to cope with this terrifying prospect of a genuine food crisis.

We have a food shortage coming our way, unless we act, which is every bit as bad as climate change or the shortages of oil and water, and of course these things are very closely connected. My experience of talking to government, which I have been doing a bit in my role as President of the Soil Association, is that – not only are they unaware of the problem – but, even if they glimpse it, they literally don't know what to do. What we have to do is to get back this sense of place, and invest people who have that sense with the power to act.

I do think that starting small is the answer, and you can start no smaller than a back garden or an allotment. But the beauty of getting someone to grow some chives or some basil on a windowsill is that, for the first time, many of them are making that connection with growing something – a living thing that belongs to them and the link with the food they put in their mouth. Once you have made that link, you're away, and you have the means to develop it.

But I don't think we can do this in the same way as they did in the Second World War. It is a different world. There is a different society and we don't have that identity with place. We have to start with what people have, which is their homes, their gardens and their schools. The Soil Association is doing extraordinary work with the Food for Life programme in schools.

What I'm trying to do is to get people to make these connections. If you can start people small, as small as it takes, and then build up from the ground up, create a framework and create a sense of focused anger, a focused emergency, they will act in the appropriate way. Then we can get the big guns joining us, belatedly, and trying to implement some of the things that only large-scale thinking and government and business can do.



Revel Guest

Filmmaker, journalist, author, farmer, and Chair of the Hay Festival

It is scary now how much it costs to bring up a teenage child, who wants iPods or computers or all the things that they see on telly. We live in a throw-away society now. If we don't like this coat any more, because we are fed up with orange, we buy another one and it will be white. This didn't happen in the past. So I want to try to draw a little picture of what it was like round here after the Second World War.

I was a fairly young, and the community here that we all lived in was a tight community. We all helped each other. People didn't go off to the garden centre to buy their plants. We swapped plants. They were cut in half with a spade and divided. Children walked to school. I bicycled all the way around from Clayrow, round to Hay, and back to Clifford and round over the toll bridge, which cost one penny then. I also think our health, particularly of the children, was much better because they walked.

I was very lucky if I got one toy for Christmas. If I complained and said I didn't like it, or I've got one already, my mother would wrap something else up and I would open it up and it would be a lump of coal. We didn't have the masses of the plastic toys around the house, or in the schoolroom, that we have now. The toys we did have were made of wood and we could pass them on to our grandchildren.

People around here rarely went to London. The farmers were friends with a community which meant that we all helped each other at harvest time. There was very little competition. But I remember a story people told of a farmer, who said he was going to see London for the first time in his life in his 60s. He said: 'I've heard that London is paved with gold and money on the streets.' So he walked up to the train, and he got on it.

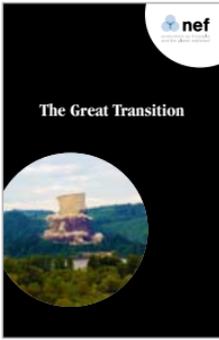
The train was very full, so he had to stand all the way and, when he got out to Paddington Station, he started to walk up that little hill and he saw a £5 note on the ground. He was just about to reach down and get the £5 note when his back suddenly hurt, so he said: 'Oh, I think I'll start tomorrow.' The story is completely fictional but it shows how rare travel was, and how satisfied we all were about being here.

Clothes lasted forever. People darned and knitted. I certainly knitted all my father's gloves and socks, and was expected to, as youngest child. I am rather pleased to see at the festival this year that we have got knitting and hat-making classes, because most of the girls round here all made their skirts and dresses and enjoyed doing it. It is great fun to knit. It is also a lovely thing to do when you are talking because the pauses are less long. And I do recommend that people go and make a hat. Hats have gone out of fashion, rather a shame because I think people look so good in hats.

Perhaps the last thing I should say is about food. We grew a lot of our own food and, you know, your own food is best. The food that you buy is almost surely making somebody else very rich and you very sick. So going back is not a terrifying thought.

Endnotes

- 1 Pfeiffer DA (2006) *Eating fossil fuels – oil, food and the coming crisis in agriculture* (Gabriola Island, BC, Canada: New Society Publishers).
- 2 Novo GM, Murphy C (2001) 'Urban agriculture in the city of Havana: A popular response to a crisis' in *Growing cities growing food: urban agriculture on the policy agenda: A reader on urban agriculture Resource Centres on Urban Agriculture and Food Security*. Available at: <http://www.ruaf.org/node/82> [11 March 2008].
- 3 Franco M, Orduñez P, Caballero B, Tapia Granados JA, Lazo M, Bernal JL, Guallar E, Cooper RS (2007) 'Impact of energy intake, physical activity, and population-wide weight loss on cardiovascular disease and diabetes mortality in Cuba, 1980–2005' *American Journal of Epidemiology* **166**(12):1374–1380.
- 4 Pfeiffer (2006) *op. cit.*
- 5 Wisner B (2001) 'Socialism and storms: Cuba's success in minimising loss of life during Hurricane Michelle highlights the social dimension of coping with natural disasters' *The Guardian*, 14 November.
Available at: <http://www.guardian.co.uk/world/2001/nov/14/cuba.socialsciences>
- 6 Maynard, R (2008) *An Inconvenient truth about food – Neither secure nor resilient* (Soil Association: Bristol).
- 7 It has since risen once again to over \$80 a barrel.



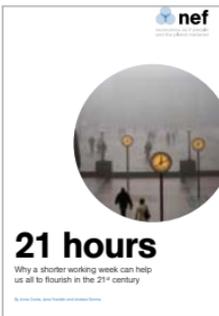
The Great Transition: A tale of how it turned out right

The UK like many nations is in the midst of a triple crunch – a coming together of credit-fuelled financial crisis, accelerating climate change and highly volatile energy prices underpinned by the approaching peak in global oil production. These are no longer abstract, distant issues of financial and environmental policy. They are beginning to affect everyone. *The Great Transition* shows why we need to get behind solutions that can proactively deal with climate change, the economic crisis and are also socially progressive. These are choices we must take, because ahead, both progressive and poisonous political trains of thought may emerge. *The Great Transition* sets out why the transition to a new economy is not only necessary, it is both possible and desirable.



Growth isn't possible: why rich countries need a new economic direction

As economist Herman Daly once commented, he would accept the possibility of infinite growth in the economy on the day that one of his economist colleagues could demonstrate that Earth itself could grow at a commensurate rate. In a series of unique new calculations, *Growth isn't possible* shows that indefinite global economic growth is unsustainable, and explains why, when faced with the threat of climate change and other critical environmental boundaries we need to find a new economic direction.



21 Hours: Why a shorter working week can help us all flourish in the 21st century.

21 Hours shows how reducing the amount of time devoted to paid work opens up a huge range of possibilities for richer and more fulfilling ways of organizing our lives. It documents the forces pushing us towards a shorter working week: economic failure revealed by the banking crisis, an increasingly divided society where over-work is matched by unemployment, and an urgent need for deep cuts in environmentally damaging over-consumption. And, there is a growing interest in people spending more time producing and delivering a share of their own goods and services – from co-produced care and neighbourhood-based activities, to food, clothing and other necessities.

'The future is not some place we are going to, but one we are creating. The paths are not to be found, but made, and the activity of making them changes both the maker and the destinations.'

John Scharr

The report is part of **THE GREAT TRANSITION ∞**
Finding ways to survive and thrive through financial and climate crises and the peak and decline of global oil production.

To find out more and become part of it visit: www.neweconomics.org

With thanks to: Ruth Potts for the artwork, Paul and Jon at the Ecology Building Society for their kind support, Corinna Cordon, Andy Fryers and Stewart Wallis.



Edited by: David Boyle and Andrew Simms

Design by: the Argument by Design – www.tabd.co.uk

new economics foundation

3 Jonathan Street
London SE11 5NH
United Kingdom

Telephone: +44 (0)20 7820 6300

Facsimile: +44 (0)20 7820 6301

E-mail: info@neweconomics.org

Website: www.neweconomics.org

Registered charity number 1055254

© May 2010 **nef** (the new economics foundation)

ISBN 987-1-904882-77-0