The food system we made?

Visioning a sustainable food system and how to make that future a reality

A report of the Business Forum meeting on 26th March 2014

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About the Business Forum

Ethical questions around climate change, obesity and new technologies are becoming core concerns for food businesses. The Business Forum is a seminar series intended to help senior executives learn about these issues. Membership is by invitation only and numbers are strictly limited.

The Business Forum meets six times a year for in-depth discussion over an early dinner at a London restaurant.

To read reports of previous meetings, visit foodethicscouncil.org/businessforum.

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Introduction

The Intergovernmental Panel on Climate Change (IPCC) report[1] published in March 2014 made it clear that climate change will have significant effects on the global population, including the way food is produced and consumed across the world.

Jonathon Porrit's book, *The World We Made*, explores what the future might look like. It tells the fictional story – through the words of Alex MacKay, a teacher looking back from 2050 – of how we got from where we are today to a much better place in the future.

The March 2014 meeting of the Business Forum heard about the key events, technology breakthroughs and lifestyle revolutions that might make the world a better place by the mid-twenty first century. The meeting discussed the possible 'shocks to the system' along the way that are most likely to reinforce the case for radical changes.

We are grateful to our speakers Jonathon Porritt, Co-Founder of Forum for the Future, and eminent writer, broadcaster and commentator on sustainable development, and Geoff Tansey, trustee of the Food Ethics Council, writer and consultant on food, agriculture and related intellectual property issues. The meeting was chaired by Michelle Harrison, CEO of TNS BMRB, the leading UK social research agency for Whitehall.

The report was prepared by Liz Barling and Dan Crossley and outlines points raised during the meeting. The report does not necessarily represent the views of the Food Ethics Council, the Business Forum, or its members.

Key points

- Businesses that deliver safe, sustainable, fairly sourced food are fundamental to people's future wellbeing, but the majority of chief executives are wedded to the short term.
- The 'sustainability' agenda is huge and diverse, and the nexus of issues is almost impossible to pin down.
- A major reduction in meat consumption at a global level and massive growth in artificial meat production were predicted – having significant health, environmental and farm animal welfare impacts.
- It was argued that governments will tax sugar, and that this is already happening – it was claimed that nine countries across the globe have some kind of sugar (or similar) tax.
- Many scientists, food companies and agronomists say we need to double food production by 2030, yet the latest figures show that one-third (or more) of all food produced globally for human consumption is wasted.
- It was suggested that around 40% of food we eat will be grown in our cities by 2050, following the current trend: 35% of Jakarta's food is grown in or on the edge of the city.
- It was argued that redistributing paid work to (for example) 25 hours per week would be more equitable across society, creating opportunities for positive community engagement through volunteering.
- Technology can be an optimistic force – there are many exciting things coming through the innovation pipeline. Technology alone will not solve the world's problems, but it is equally true that we cannot do it without technology.
- Positive visions of sustainable food systems can play a powerful role in inspiring action.

1 The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (2014) http://www.ipcc.ch/

Risks and opportunities

There are many risks and opportunities for the food industry going forward to 2050, and the seeds of change are already there. PepsiCo, for instance, has just announced a new land rights policy, and Mars has committed to sourcing all its palm oil from sustainable sources by 2015 – to cite just two examples.

However, many businesses, food companies included, appear either blind to the data that reveals their vulnerability, or understand the urgency of the challenge ahead but are unwilling to discuss it publicly.

Businesses that deliver safe, sustainable, fairly sourced food are fundamental to people's wellbeing. However the majority of chief executives are wedded to the short term: their business models depend on keeping the status quo and they work within the paradigm of economic growth. Reform of the legal incentives and frameworks that deliver change, and investment in the social and political structures that can deal with the challenges ahead, are crucial.

The 'sustainability' agenda is huge and diverse, and the nexus of issues is almost impossible to pin down. In order to prioritise the risks, most chief sustainability officers will attempt a materiality analysis, asking 'what matters most to my organisation given this diversity?' This may appear to be a fairly straightforward approach, but in fact it is easy to be swept off this course by NGOs, the media, and new scientific thinking.

Society is facing fascinating challenges and big risks as we move towards 2050. It is going to be a bumpy ride, and some of the shocks to the system will be dramatically unpleasant. There is already a wealth of data and insights which have been treated as 'optional' information, but some argue that the world is now at the point where it is imperative to act on this data and make significant and lasting changes.

A 'good world'

What would a 'good' world look like in 2050? Many argue that it is one where everyone lives equitably within the biophysical limits of the planet. It is important also to create an aspirational vision of a 'good' world. For the majority of people, sustainability conjures up images of deprivation and austerity. But in fact there is a positive story to tell about living a sustainable life; and one in which money can be made.

Last year investment in renewable energy across the globe capacity stood at US$227 billion, and renewables (excluding large hydro projects) accounted for 43.6% of the new generating capacity installed worldwide[2]. This level of activity is an expression of confidence that green and sustainable behaviour can work in a market economy. It also sends a strong message that living sustainably will not be prohibitively expensive, and that entrepreneurs and bigger businesses can make money out of 'green' technological innovation.

It was argued that there is no technological impediment to providing a sustainable world for everyone – humanity has the imagination and the knowledge to create new and wonderful technologies, some of which are already in the pipeline. In a world awash with capital, there is no financial impediment either, although currently it is arguably invested in the wrong people and the wrong things. And, it was pointed out, the global race that shares this finite planet has humanitarian instincts which manifest in a collective readiness to make good things happen.

More governments, businesses and citizens are coming to understand that there are four non-negotiable facts about the future. These 'known knowns' should, it was argued, form the basis for creating the positive changes

2 Global trends in renewable energy investment 2014 Frankfurt School FS-UNEP Collaborating Centre for Climate and Sustainable Energy Finance http://www.unep.org/pdf/Green_energy_2013-Key_findings.pdf

needed to make the world a 'good' place to live in 2050.

1. Radical decarbonisation

The IPCC report published in March 2014 leaves us in no doubt that if the world continues to emit greenhouse gases in the way it currently does, we are in serious trouble. It is the latest (and arguably most definitive) word in one of many authoritative reports about the necessity of decarbonisation, including the World Bank Report 'Turn Down the Heat' and a Smith School Report on Stranded Assets in food and agriculture.

Large global enterprises are already using state of the art knowledge about climate change to adjust their company profiles, and there is likely to be more of this on the journey to 2050. As far back as ten years ago Unilever worked on a tool to understand where in the world were the greatest risks for them. It was predicted that this kind of 'data literacy' will become more commonplace, and as a result there will be a move to low carbon farming systems.

2. Substantial meat reduction

The chances currently appear pretty low that big retailers will seriously address meat consumption as a part of sustainable, ethical and equitable diets of the future. However, those same retailers have mapped the carbon intensity of their various products and know that meat consumption is hugely carbon intensive.

Meat cannot continue to be grown and eaten in the way it is at present. Instead it was argued that there will be massive growth in artificial meat production and that this will eliminate most farm animal welfare issues. So, although meat is likely to continue to be a big part of the global diet, its production will have to be radically different and far less carbon intensive.

Different consumption patterns are likely to emerge. In China and many other developing nations the media sells meat consumption as an aspirational activity. As millions of developing nations' citizens join the urban middle classes, there is likely to be a large increase in demand for meat. But in India the cultural and religious norms means that it is less likely to see a dramatic rise in meat eating. In Western nations the health implications of a diet high in meat may also lead to a decline in its consumption.

3. Obesity

Rising obesity levels are likely to change governments' attitudes towards sugar, salt and saturated fats. In 2012 21% of total US healthcare expenditure was linked to obesity[3], of which sugar is an important contributor. Although many argue that the 'war' on sugar is not science-based, it was suggested that scientists all agree that sugar is not a necessary part of our diet.

Just as governments started taxing tobacco, it was argued that they will tax sugar, before banning it. This is already happening – nine countries across the globe have some kind of sugar (or similar) tax. It was also argued that governments will need to take action to stop subsidising farmers growing corn for products such as high fructose corn syrup.

4. Food waste

Many scientists, food companies and agronomists say we need to double food production by 2030, and yet the latest figures show that around one-third of all food produced globally for human consumption is wasted[4] (although some argue it is an even higher proportion). This stark contradiction may well exist because whilst it is hard to make money out of cutting food waste, it is very easy to make it in producing more food.

Food waste is a huge issue in most countries, but as with meat consumption, different patterns emerge. In

3 The medical care costs of obesity: An instrumental variables approach. John Cawleya and Chad Meyerhoefer, Cornell University 2012 http://news.cornell.edu/stories/2012/04/obesity-accounts-21-percent-medical-care-costs

4 Bond, M., Meacham, T., Bhunnoo, R. and Benton, T.G. (2013) Food waste within global food systems. A Global Food Security report http://www.foodsecurity.ac.uk/assets/pdfs/food-waste-report.pdf

India for example, it is almost entirely caused by logistics and supply chain issues, unlike the UK where most happens post-purchase. The concept of food waste is a sin in many religions, and as such there is huge potential for changes in attitude to throwing away food.

A new breadbasket?

Africa is likely to become the most successful food producing continent by 2050. It is a continent with phenomenal soil fertility, and huge productivity gains can be made. It is also at the front line of competing agricultural systems. There is currently a huge push to encourage take-up of western agricultural systems for increasing productivity in Africa, including biotechnological innovations like GM food and feed. However this may not always be the best system: recent improvements in seed hybrids in Africa have led to large increases in productivity, but at a huge cost to biodiversity.

There are other models, for instance those advocated by the academic Jules Pretty, who has researched the efficacy of 'bottom up' (or 'folk') science, as well the possibility of raising productivity using different systems of intervention such as agro forestry, integrated pest management and mixed farming.

Urban solutions

It was claimed that around 40% of food we eat will be grown in our cities by 2050, much of it in high-tech urban vertical farming enterprises. There are already early signals to support this, and it is very likely that we will see huge investment over the next 25 years in vertical farming technologies.

Much of the food consumed in many developing world cities is grown in peri-urban areas very close to city centres. Thirty five percent of all food consumed in Jakarta is grown in the city or on the edge of the city.

Detroit could be a different blueprint for cities of the future. A bankrupt city at the end of its industrial history, it has a vision to turn thousands of hectares of urban wasteland into agricultural enterprises. In the UK, Incredible Edible Todmorden is a fantastic example of how to bring food growing into an urban area and has been used as a model by other towns.

More is less

Our current growth model assumes that 'stuff' is aspirational. A 'no growth' (or 'low growth') model, where everyone worked a shorter (25 hour) week, would create an aspiration for people to interact meaningfully with others. But despite some organisations like the New Economics Foundation arguing the case for a politics of wellbeing, there seems to be little appetite for it amongst politicians, businesses and citizens. In fact, governments appear more wedded than ever to the growth model.

It is unlikely that the path to sustainability will be achieved through the politics of 'no growth'. Rather, kick-starting the debate about work-life balance and wellbeing as better indicators of a prosperous country could sneak it in by the back door.

It was claimed that, in time, jobs for skilled people will diminish and that is a real and direct threat to our economy. If governments do not have the potential to give people access to paid work, they face underemployment, zero-hours contracts and political unrest. It was argued that the redistribution of paid work – 25 hrs per week and no more – is more equitable across society and creates opportunities for positive community engagement through volunteering.

Technological solutions

It was argued that technology can be an optimistic force – many of the technologies that can get the planet to a 'good' future already exist, but there is an urgent need to accept the challenge and overcome the governance, economic and social barriers. There are many exciting things coming through the innovation pipeline, solving problems around water efficiency and

purification for instance. It is true that technology alone will not solve the world's problems, but it is equally true that they cannot be solved without the help of technology.

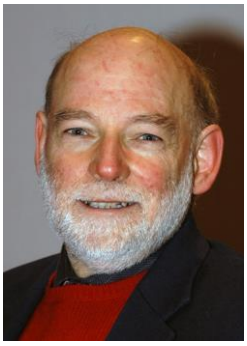
Technology can be a force for good, but it must be used in the right ways. It is crucial not to fall into the control paradigm trap – i.e. we have the technologies so we can control the answers. The real issue is around the rules frameworks that currently inhibit technology as a force for good. We need to share knowledge widely and quickly.

Reflections

The World We Made is a vision rather than a forecast, but the road to 2050 is likely to be a bumpy one. By accepting, and acting to tackle, 'known' issues such as radical decarbonisation, obesity, meat consumption and food waste, the journey towards a 'good' world should be made much smoother.

Speaker biographies

Jonathon Porritt, Co-Founder of Forum for the Future, is an eminent writer, broadcaster and commentator on sustainable development. In addition, he is Co-Founder of The Prince of Wales's Business and Sustainability Programme, a Non-Executive Director of Willmott Dixon Holdings, and a Trustee of Ashden. He was formerly Director of Friends of the Earth, co-chair of the Green Party and as Chairman of the UK Sustainable Development Commission until 2009, he spent nine years providing high-level advice to Government Ministers. Jonathon was installed as the Chancellor of Keele University in February 2012. He is also Visiting Professor at Loughborough University. Recent books are 'Capitalism As If The World Matters', 'Globalism & Regionalism' and 'Living Within Our Means'. His latest book, 'The World We Made' - about how we get to be living in a sustainable world in 2050. Jonathon received a CBE in January 2000 for services to environmental protection.



Geoff Tansey, trustee of the Food Ethics Council, is a freelance writer and consultant on food, agriculture and related intellectual property issues. He has degrees in Soil Science, and History and Social Studies of Science. He helped found and edit the journal *Food Policy*, has been a consultant to international agencies, governments and non-governmental organisations. He is an honorary research fellow in the Department of Peace Studies, Bradford University and honorary fellow at the Centre for Rural Economy, University of Newcastle Upon Tyne. His books include *The future control of food – a guide to international negotiations and rules on intellectual property, biodiversity and food security*, co-edited with Tasmin Rajotte, and *The food system: a guide*, with Tony Worsley. In 2005, he received one of six Joseph Rowntree 'Visionaries' Awards, and won the Derek Cooper Award for best food campaigner/educator in the 2008 BBC Radio 4 Food & Farming Awards.

Dr Michelle Harrison is the CEO of TNS BMRB, the leading UK social research agency for Whitehall. TNS BMRB has specialist capability in public communication research and evaluation; policy evaluation; public service improvement; and public opinion and voting intention polling. Michelle is also the Director of Team Whitehall for WPP. Team Whitehall brings together the WPP agencies that provide services to government from across creative and advertising, marketing communications, media investment and planning, and research and insight. Team Whitehall exists to ensure that WPP can offer optimum public value in its work for government clients. Michelle was previously the Director of Public Sector Consultancy at The Henley Centre. She is a Trustee of Nesta.