

## Changing our fatally flawed food system

I got interested in food in a sort of strange mix of accidents. I was a Ph.D. student in social psychology looking at why children don't go to school, looking at phobias and got interested in the psychology of food really. Why do people not eat and become anorexic? This was 45 years ago but I was doing the research living in a semi-ruined farmhouse in the Yorkshire Dales and beginning to think about landscape and saying why are these walls down? Why is the sheep? What's this land for? And to cut a long story short I started getting interested in food - and food and the environment was really my first motivation.

This was in the early 1970s and I realised there was an enormous politics to this. There was an enormous question of choice about how humans relate with nature and how we eat our food and basically that tiptoed me into what we'd now call the food systems analysis. And in the 1970s I met up with other people - I was by then farming. I'd got more interested in farming in the sort of northern rundown sheep farming sort of landscape and was thinking about what could this be? And this was a time when food politics was all about the developing world and I looked at the rich world and thought what about us? Is this the future? Are we what's right?

### *Part 1. Key problems*

I think in the last 40 years something very interesting has emerged from the new generation of food analysts or food policy analysts. It's that the model of thinking that we inherited from basically 1920s and 30s scientists, when they took their chance in World War II to redesign the food system, is now fatally flawed. Their argument was that the problem of food was that there wasn't enough of it. They looked at nature, they looked at the land, they looked at what we'd call now the environment, and said how can we manipulate it, to get more food out of it. They saw the problem in rich countries like Britain in the recession in the 20s and 30s as one of hunger amidst immense wealth.

This was the heart of the Empire, Britain. People like Boyd Orr, John Boyd Orr, the first director general of the UN's Food and Agricultural Organisation after the Second World War, was a doctor, a Scottish doctor in Glasgow, saying this is appalling there's Ricketts, what's going on? We must rethink the food system. This was a view that agriculture could and should answer the problems of public health nutrition. And their argument, that generation's argument was, I still find it very moving, it was humanitarian, egalitarian wrapped around what we now call social justice. They said let's produce more food, and if we produce more food the price of food will come down. Michael Heasman, my colleague, and I summarise these arguments in our book, *Food Wars*. It's what we call the productionist approach to food policy - produce more. And the answers of public health, hunger, social problems of maldistribution can be sorted out. This was a visionary, imaginative attempt to say let's restructure the food system.

One can trace those arguments way back. Their arguments date back to the Victorian era of the new science - food chemistry, of soil science, drainage, plant development, animal breeding. All of these things are traceable to the late 18th century but mainly in the 19th century but in policy terms the key moment was that transition from the 30s to 40s. And

the Second World War was what gave the opportunity for that new insight, that vision, to become translated into reality.

## *Part 2. Paradigm wars*

This great era group of thinkers of the 1930s and 40s essentially ushered in, and I use a horrible word, a new paradigm.

This is a word that sometimes overused but it means essentially a new framework, a new set of assumptions. Instead of assuming that very hard-line markets would determine whether you ate or not, whether you lived well or not, whether you lived longer or not. The paradigm shift, the framework shift said if we produce more food, prices will come down, it would be more affordable for ordinary working people – let alone the unworking, non-working people, the poor.

And that vision, the food system change, was part of the welfare thinking that the neoliberals today hated - that 35 to 40 years ago, when I started getting interested in food, were beginning to question. They were essentially questioning, the neoliberals, who now dominate political economy in food as in other areas, they were questioning the 1930s and 40s model, which had said let the, primarily the state, governments set new frameworks, use subsidies to reshape the food system, to invest in land, to invest in training, to invest in a better food system to produce more to make food cheaper so that more people will eat better. And that model of food policy, the productionist model, that Mike Heasman and I summarised in our book *Food Wars*, essentially worked. But by the 1970s was being questioned by the neoliberals, who said this is nanny state, this is unnecessary, this is distorting markets. These are market fundamentalists who then became the new paradigm.

And they have to some extent both dismantled and altered and watered down that productionist vision but at another level they've accelerated. They've said let companies drive this. It's markets, the big drivers of this, cannot be governments or consensual activity across the food system but the market dynamic between the consumer and the supplier. The consumer and increasingly the retailer. So from the 1970s, the supermarket model, the supermarket era, changes the power relations in the food system and we get a new era, and new paradigm, of market-led attempts to transform productionism. It's still productionism but the people controlling it and the dynamics within it have been made both more complex and also more stretched. The power shifts from government to corporations. I don't want to demonise corporations but they become the powerbrokers.

In trying to analyse these shifts of the policy paradigms, it's important to try and realise how successful this has been. Shops filled, prices came down, people from low income families began to be able to eat in a different way, there was more food. If you'd lived on very restricted, hand to mouth, literally that phrase means it, in in the 1920s or 30s to now walk into a hypermarket, it would seem fantasy world. These are cathedrals of choice. These are cornucopias these are paradise in food terms. This choice it unbelievable and yet it's there. So we must recognize, we 21st-century critics of the modern food system, we must realise the great successes and not undo the humanitarian vision of the productionists. They had a goal of meeting of social need and they did, it did. The market dynamic lead changes of the 1970s onwards had a vision of

more efficiency, cutting out unnecessary profiteering by unnecessary subsidies. Their vision has dominated the success story of the food system in the 20th century.

So what's the problem with this from the 1970s? We began to be aware that there were fundamental problems with this actually: the environment being one; international differences being another; and public health I think to some extent, in particular.

No-one in the 1920s or 30s, let alone in the 1850s, had conceived of a world of overconsumption, had conceived of a world where diet would be the major cause of non-communicable diseases. In public health the big distinction is between communicable and non-communicable diseases.

And from the 1970s the evidence began to build up enormously about diet's impact on public health, also on the environment. Although in the environment it was radical, marginal supposedly fringe scientists beginning to raise this. In public health it was mainstream. These were the middle rank, middle-of-the-road, public health, the epidemiologists, saying wow diet is causing this growth of these diseases. And it's requiring totally different things. Americans, soldiers killed in Vietnam in their late teens, early 20s, found with clogged arteries. What were they eating, what were they doing? This was the beginning of the lifestyle analysis of diet. Except it was about the success story. This was questioning the success story.

At the same time, the beginnings of the argument about the environment. The great Rachel Carson saying in her *Silent Spring*, in the early 1960s, saying the agrochemicals that have been part of this amazing armoury of replacing labour – that's all agrichemicals are. They're replacing the hoers, the harvesters, the weeders, on, on the field and the fertilisers are replacing, the animals and, and green manures in farming systems that had allowed industrialisation of farming to create cheap commodities to fill the supermarket and allow the processors and manufacturers to produce cheap processed foods. And here in the 1970s, I'm blessed to have been around at that time and seen this evidence come out, from very different schools of thinking. Sugar, salt products, all the story we now know begins to emerge in the 1970s.

So people like me were beginning to come together in groups, academic groups. I was in a group around the British Society for Social Responsibility in Science, that started questioning the role of science. And a whole generation of academics emerged around those debates and I was part of that. And stopped farming, which I had been doing, and concentrated on this and that's been my working life really to try and help unpick that and to try to get our collective head, heads around what's a good food system? At least the 1930s people had a vision of what's a good food system. They said let's produce more, let's make it cheaper. Let's use nature, let's drain wetlands and irrigate drylands. Well now we know that's draining water systems. We know that agriculture is the biggest user of freshwater. We know that agriculture's the biggest impact that anything has on climate change. We know agriculture and food production and diet are the major factors in the major causes of non-communicable diseases. We know diet is the biggest factor in, in, in life expectancy.

It's got more complicated - that's where we've got in the 21st century. The simplicity, the elegance, the beauty, the humanitarian appeal of productionism now looks not fit for purpose. Food policy left over from that era even modified by the market moguls of the 1970s - the neoliberals who said leave it to market relations - allow consumers to

determine. Well what good is that in a world where advertising dominates the shape of culture, where the cultural rules have been changed. Food policy is now drifting. It's unclear what it should be doing.

### *Part 3. Optimism for the future*

I'm an optimist but yet the data are deeply, deeply, if not depressing, sober making. My mother always said I was an optimist because I was a breech baby- I came out backwards. Even when the data are bad I'm always thinking well how can we make something good out of this. But I have to say the data are terrible. The explosion of obesity from 1.4 to 1.5 billion people overweight or obese. Food's impact on climate change has been gone over by hundreds, thousands of scientists. If we don't sort out the food system, even at the agricultural level, we will not rein in climate change. The water threats from food, the biodiversity loss from food, these are recipes for depression.

So how can I be optimistic? Well I am optimistic. I'm optimistic because we can read the writing on the wall. And you don't need a degree to read writing on the wall. You can see the data and say well what do we want? Where are we going? And we're in a strange place at the moment in food policy, internationally. At the UN level, this system of governments' meeting, that was essentially born after the First World War, modified because it been found wanting in the Second World War, after the Second World War. That the UN system documents all of this - as I'm always saying it counts the bodies falling over the cliff but can't do much about preventing them falling over the cliff.

At the company level there's something very interesting going on. Big companies, who are now the powerbrokers, the barons of the modern food system with huge turnovers, bigger than countries in many cases, whose advertising budgets - when I and a colleague, Geoff Rayner, did a study for the World Health Organisation 10 years ago looking at what were big companies in the food system doing to address public health we found that one company - Coca-Cola's - budget for advertising and marketing was bigger than the World Health Organisation's entire budget for two years for the world. This is a distortion of power and the inequality of power. But yet those big companies are now beginning to look at the same data and are beginning - the Coca-Cola's and these soft drink companies whose business is basically to sell sugary water - are saying, wow, water's a problem.

So something very interesting is going on - it's not just nasty big companies and nice companies or nasty governments and nice governments or nasty consumers or nice consumers - it's not as simple as that. There's a gradual realisation that food policy needs a new direction - that it's complicated, that the messages are unclear. What do we think a good food system would be? What is a good diet? What's a good diet for health, environment, society, pleasure, culture. These are complicated questions and the policymakers aren't addressing it, in my view. They're still reverting to the productionist default position, which is well let's sort our production.

So right now we've got new technology supporters saying well technology will answer this, genetic engineering, nanotechnology will resolve the problem of more food so we can all eat like Americans, or eat like Europeans, beyond environmental limits. And this will be the way forward, around this notion of sustainable intensification, which actually can be good. A garden is sustainable but also intensive. It's producing a lot but that's because you're giving it your free labour. How do you put that in a world which is

urbanised, where the majority of the population which is now 7 billion - going to be 9 billion by 2050 - how do we produce more food from less land per person? The sheer, geo-physicality of the food system is reminding us of Malthus's problems in the late 18th century. When he said the capacity population to rise faster than the capacity to produce more food is the big problem. The Malthusian problem. And there's a sense in which modern food policy is in a sense being driven by a neo-Malthusian agenda of saying we must carry on producing more to prove Malthus wrong. I'm someone who says stop. Let's just have a proper think. What's the problem? Is it too much production, which is what I think it is, is it malproduction? Yes. Is it underproduction, in some places yes but in other places no? Is there enough to feed the world now? Plenty, too much actually. But is there enough to feed the world in an era of climate change in 20 to 30 years ahead well actually that's not so certain. It gets messy. So we need to, I think, rethink the policy framework. We need to talk about a new paradigm. And that is beginning. That's why I'm optimistic.

I'm hopeful because that discussion is bubbling up. It's not been translated yet into the UN world, It's not been translated into our national governments enough. But within the governments, within the companies, within sectors, within the consumer movement, within civil society, within the environment movement, within public health, these debates are beginning to emerge. That the old simplicity of productionism Mark I - 1930s and 40s - let alone productionism Mark II of the neoliberal model, is no longer any good. And this all came to a head in the commodity and banking crisis of 2007-8.

#### *Part 4. Oil, food and banking*

The questioning of the food system was bubbling along in a very serious way but wasn't hitting the headlines in policy terms. There'd been crises in the West in the 1990s about food poisoning and that's what we call the new adulteration. The public health arguments were bubbling up about heart disease. The rising concern about obesity really takes off in the 2000s. The environmental crisis, climate change, things like that clearly bubbling up and very, very serious, the data getting very strong, but the policy engagement was not there until 2007-8. We saw this dramatic commodity shift in prices. The banking crisis - food and oil and banking go together.

Food is a commodity. Food is something people make money out of. It is not just a power opportunity. It's not just the transformation of natural goods - plants, animals - into consumption. It's about money. And when the banking crisis happened, when Lehman Bros went under, when the stock exchange and stock exchanges around the world went haywire, oil prices doubled, food prices doubled, world market prices doubled. Suddenly, the key indicator in financial terms, which was food prices coming down, went up. In the last 130 years they've essentially come down. A blip in World War I but then carried on coming down after, a blip in World War I two but then carried on coming down, then the first non-war blip - oil crisis of the early 1970s but then carried on coming down. Although the, the environmental and indeed some big business thought this is early warning signs, the system's under strain. But the system went neoliberal and the market was reasserted. And here we had what many analysts said will be the same. OK, this is another oil crisis, don't worry farmers will grow more, prices will then come down. 2009, they did come down and so that the market fundamentalists said look there it is.

Well I was working at the time with a team, for a team at Chatham House run by someone seconded from the Ministry of Defence ironically - the rest of the British state wasn't interested in food particularly. They said, oh, we don't need to look at the future it's all fine, we're okay. And when the commodity crisis, they all came crashing into this Chatham house working group. It was actually very amusing at one level. They said can we join because we were looking at scenarii - what if this, what if that, and in that process one began to see the enormity.

I was a government commission in, in the, the Sustainable Development Commission an arm's-length body advising British government on sustainable development. I was the food man in that and I could see inside Whitehall our street of government, suddenly pennies dropping, brains whirring, think my God, you mean the food system is in a crisis and it isn't about Africa? It us? There's destabilisation, volatility because that's what the Chatham House working party was, our research was pointing to. That there were different scenarios, never assume there's a single line in history, it could go different ways, and we essentially thought volatility was going to be the new norm.

You've got to remember for 130 years the dominant political economy was wrapped around trying to reduce prices so that they would come down. More money to spend on cars, more money to be a consumer, more holidays, nice times for your the kids - very positive. It's a consumer Nirvana model, very successful as I keep saying and suddenly it looks wobbly. Food prices going up - that's less money for, for clothes, for houses, for kids, for cars, for consumption to damage the environment, too eat too much, to shift the burden of health care onto health insurance or in the case of the social democratic countries onto health services.

This model is where we are and so for after the 2007-8 commodity crisis there was a serious moment when across the rich world there began to be some really serious and interesting thinking about do we need a better policy framework. Do we need to build the food system around sustainable development, to have low impact diets, to have low impact farming systems, to reduce the unnecessary use of energy, oil, in shipping food around the world, flying food around the world, getting us to travel further and further in our cars to go to a hypermarket on the edge of town, and then say wow isn't this cheap and then be stuck in a traffic jam. That whole model began to look not so good and it came to a head in that commodity crisis of 2007-8 but by the 2010s, the trillions of dollars, euros all country's, all currencies that had been thrown by governments, getting the state to subsidise the banking crisis aftermath, was being used to squeeze the state, to squeeze the public sector whereas, in fact, the crisis was caused by the private sector.

But in food terms this was translated as a return to normality. The default position, productionism - that we need a technology driven approach to food, that the system is basically fine, hypermarkets are great, keep eating the food that you've got used to, keep drinking the soft drinks, keep eating the highly processed foods. It's okay, but we've now got healthy niches and if you want a little bit more for that, it's your choice, consumerism will deal with the problems of food. I think this is nonsense.

#### *Part 5. Addressing the mismatches*

The story that I've been saying is essentially one of mismatch. There's a mismatch of human bodies with the planet. There's a mismatch of policy in the food system. There's a mismatch of power. There's a mismatch of consumerism - us - with the production

system and supply chains. There is a mismatch inside the supply chains. The metaphor is very useful I think to log in our brains – mismatch.

Where can policy help on this? There's mismatch between policy and all of this. And yet the data is getting stronger. The evidence that we cannot go on with this distorted food system, this fragile system we've built up, it's a pack of cards if you want another metaphor, it can fall down and it looked like it was falling down in 2007-8, the commodity crisis.

Well there are hopeful directions. Firstly, I'm an optimist. People are realising it, it is not just boring academics like me who see this, it's not just the civil society organisations, it's not just some people buried inside ministries, it's not just some people in boardrooms and in food companies, it's actually spreading across them. There's more cross-fertilisation than I ever expected actually. If you want a thin analogy I would say we're in 1936. We've seen the crisis. We've experienced it and no one is quite sure when the opportunity to restructure it is going to happen.

There is a lot of plan B thinking going on actually. Some plan A thinking going on as well. Overt attempts to say, well, we must be nice to the environment – let's put a bit of an edge round the field or let's have better pesticides or let's use water a bit better, use droplets, and dear consumer please will you be better. That's all interesting. It's nibbling at the edges. But there isn't the big thinking. The big thinking that I think is, is needed is also beginning to bubble up. I'm astonished in the last four years, four years, how it's right across the world, in rich countries and poor countries, there's realisation that the model, the Western dominated model, productionism, ain't appropriate for China or India or Brazil.

In Brazil there's a very successful anti-hunger campaign, Fome Zero, is now realising that Brazil is going through the nutrition transition, it's shifting its diet, it's doing an us, the rich world, and they're realising they can't afford it. The rich world can't afford the diet related non-communicable disease health care system.

So when I was a government adviser, commissioner on, the Sustainable Development Commission for, for Britain formally advising and appointed by the Prime Minister, my last report before the SDC, the Sustainable Development Commission was abolished in 2011 at the end of March, was to say the model of thinking that was associated with Mrs Brundtland, the Brundtland report, the 1987 World Commission on Environment and Development, known as the Brundtland report, was no longer appropriate. They had argued, it, that commission Mrs Brundtland had argued, Dr Brundtland, she's a public health doctor, great woman, first woman prime minister of Norway, they had argued that the future of sustainable development was about linking up environment in economy and, and society. In food that's too thin. It doesn't help us.

And in my last report I proposed that we had a six heading approach to food policy.

*Quality.* Who wants to eat lousy quality. What you think and I think is quality may be different things but the notion of quality is very dear to us.

*Society.* Social values. Food is a social thing. People like their own food - they think it's theirs but it isn't actually but they think it's theirs. Everyone has identity from food.

*Health.* We have to look at food policy through the lens of health.

*Environment.* Be folly not to take the environment seriously - not just climate change. Biodiversity, land use all sorts of. All of these headings have subheadings under them and then obviously the economy.

The *economy* is critical. The politics, the political economy as we should call it. Economics is a runaway science. It should be returned to what it really was - a moral economy. Thinking about what you want your economy to be. It is not set and run by mathematicians actually. Get a grip on them - and one of the areas where we need to do that in food is the cost of food. Too many things are too cheap in the rich world. The poor world spends a lot of money, 70% of income in a country like Malawi, on food, we in Britain spend 9% - 12% if you include eating out. This is almost too cheap - no one's is paying for the cost to the environment or for health. It's dumped on other bits. The good economy of food must get a grip of more than just the price, it must be about good labour, good wages, good working conditions in the food system. And the last heading in my six heading approach was

*Governance,* trust, the means of making decisions.

That's six headings I think is all really available for what I think is now the new framework beginning to emerge.

In 1999-2000, the UN system created the millennium development goals. Food was a major theme in those. They've only been partially successful but at least they tried to drive the sheep of all of us into the same gateway. The replacements are known as the sustainable development goals and they're being finalised in 2015. I think we need a food policy for the 21st century, which is around two SDGs, though I want to talk about the other bit in my next talk. Sustainable dietary guidelines for sustainable development goals. So my 21st-century food policy is what I call SDG squared. Two sorts of SDG. I think if that becomes our framework that sets the new direction of travel for the food system and for us, for consumers. So that's why I'm hopeful many of us now know this is the way to go but this is going to be a power battle to get it.