

The Big Food Debate

At their conference in August 2010, *Our Daily Bread – Food Security, People and Planet*, the National Justice and Peace Network hosted this debate chaired by **John Vidal**, the Guardian's environment editor

JOHN VIDAL: It's a perfect storm out there, of events, and a combination of climate change, population explosions, politics – all manner of different things have conspired to produce a monster, monster food crisis, for more than one billion people who are, in theory, hungry every night, and tens of millions more who are eating absolutely rubbish food.

So, the question is, how are we going to get out of it? How did we get here? And so, the idea is that we ask each of the four people sitting round me, just to give their take – and just to provoke ideas.

MULVANY: There's no difficulty in producing enough food for the world at this time – the difficulty is in distributing it. The good news is that 70 percent of the world's people are fed locally. The normal pattern for most people is to get their food within 50 to 100 miles of where they live. Most food is not traded, most food is grown on a smaller scale, much of that ecologically, without many inputs. Most people are fed locally. And our job is, surely, to see how that can be defended, how those local food systems can be improved, and the resilience of those local food systems can be made available to secure future food for the nine billion.

The second piece of good news is that, whilst, indeed, global population will top, say, nine billion or so in 2050, the annual rate of increase of population has been going down, year on year, since the mid-1980s.

This ecological food provision is clearly the way forward. Not dependent on corporate control, but seeds of input. Not dependent on this minority food system – the thirty percent that is trying to take over the rest of the world, to capture and destroy markets, to capture and destroy ecosystems, building up that resilient, local food system that will feed people now, and into the future.

And there's a framework within which all of this can be placed, and that's what we call the Food Sovereignty framework, which puts food at the centre of policy, and makes sure that

food, and the way it's produced, is ecological, is resilient, can adapt to climate change, it's carbon neutral.

HOWLETT: Yes, but, there is a big "but". I think the big "but" is that, the evidence is that organic agricultural won't feed the world.

If we look at the challenge of food security, and also, I think we need to be clear that food production is just one issue of food security. Patrick highlighted that we do have enough food in the world today to feed everybody, but we have one billion people going to bed hungry tonight. So, it's not just about food production, it's about trade policies, land policies. It's also about poverty. If you're poor, you're much more likely to be food insecure. So, we need to focus on poverty reduction, and growth, and getting people out of poverty, as well as allowing them to grow food, and also to grow themselves out of poverty through agriculture.

I want to just, also, focus a bit on the size of the climate change challenge. It takes about 500 to 2,000 litres of water for a kilogram of grain, up to 15,000 litres of water for a kilogram of meat. We're going to go into a world which is going to be warmer, perhaps

Patrick Mulvany from Practical Action, and, basically, the Mr, what I would call, Mr Food in Britain – huge history in the NGM movement, and really keeping on the toes of government, and just absolutely on the case about what is going to, basically, get food for the world. Tremendous respect, Patrick, it's marvellous to see you here.

less rainfall – some places more rainfall – but more extremes of climate. So, we're going to have real issues of water.

So, coming back to the "but", we need ecological approaches, more organic matter in soils. But, also, I think we need to maximise the use of modern science, whether it's traditional science, or biotechnology, even the GM aspects, we need to look at.

So, I think it's business unusual, and it's actually business unusual, not just in ecological agriculture, it's also looking at using modern science to meet the needs of smallholder farmers. I take the point, and Vandana's probably going to come at the issue of the corporate sector, we don't want three or four companies running the whole of the food chain. But, we do need a private sector – a vibrant private sector – small seed companies in Africa, Asia, delivering seeds to farmers, which meet their needs.

SHIVA: Unfortunately, genetic engineering is high-tech of the wrong kind. The science of managing pests, for example, tells us that the best way to control pests is to create resilient crops, for which we need good, healthy, fertile soils. It's to create best predator balance, for which you need bio-diversity. Putting pesticides into plants – which is what genetically engineered BT crops do – is even cruder than the pesticides, because when pesticides go wrong – like DDT did – and after Rachel Carson's wake-up call, DDT could be banned.

But, once you've released BT into the environment, there's no call back. Once you've killed the pollinators with the BT toxin, and the spraying of pesticides, there's no recall. One of the – I think two phrases that were used by David – one, that the green revolution led us out of food scarcity. So many of the figures on this are being cooked up.



John Vidal's introductions to each of the speakers from left to right are found in the grey panels on pages 4 and 5

The first figure that's being cooked up is there was more food. Now, there was more rice and wheat, but there was less pulses, there was less greens, there was less oil seed. Overall, the food basket shrank. And we've done calculations that show that they increased rice and wheat, because we put more land under rice, and more land under wheat, and we gave more irrigation to it. With that kind of available land and water, with organic, we'd have produced the same amount of increased rice and wheat. It was not because of chemicals, and it was not because of miracle seeds. There was nothing miraculous about breeding seeds that responded to chemicals, and actually, give you less bio-mass. Starve your soil, starve your cattle, because the GM varieties actually shrink the bio-mass availability, which means they shrink your ecosystem availability to produce more biological matter.

Alison Austin has worked in the corporate sector for quite a while – I'm sure she'll explain to you – worked for Sainsbury's, with Sainsbury's, probably against Sainsbury's as well, trying to pummel the supermarkets and others into a more sustainable way of thinking about food.

'Organic won't feed the world' has been repeated very often. The point is, when you measure organic, in its full production, of all the outputs, organic farms produce more food. And when we say 'food', we mean food in terms of all the nutrition.

Genetic engineering is not based on science. The science tells us that, at an agricultural level, it's agro-ecology that is the basis of science. At the level of the individual organism, science tells us, it's epigenetics – the environment between the environment and the gene.

What you basically have, is indebted peasants. And the debt has risen so fast, and so high, than 200,000 farmers in India have committed suicide. The majority of these suicides are in the cotton area – 95% of cotton today in India is BT cotton, owned by Monsanto, including licensing arrangements.

But half of a billion people in the world today, who are hungry, are producers of food. And they're hungry, either because their land has been taken way, because of a massive land grab, or because the costs of production are so high, that they're selling whatever they grow, just to pay back the debt. And they go hungry themselves.

The final thing I'd like to say about the future of food, is two things are given, and I think we agree on that: One, volatile markets, two, unstable climate. The only way to deal with infertility and instability, is through decentralisation and diversity. Our agricultural systems will have to build on that tradition – not the tradition of monocultures, not the tradition of monopolies [applause].

VIDAL: Here we are Alison, you're going to bring it down to Britain, and the poor, impoverished people of Britain. And what do we, as consumers ... Do supermarkets understand that kind of debate?



Pakistan August 20 2010



Pakistan
July 20 2010

AFP/Getty Images

AUSTIN: I was employed by a supermarket for 25 years, I was head of environment for 18, and head of a policy team that created policies for all of its own brands – everything from animal welfare, agriculture, pesticides, health. Whatever the conditions in the supply chain – you name it, we set it for our own brand.

A lot of people were very enthusiastic about biofuels, about five, seven, eight years ago. I stopped my business, when I was employed by them, from doing anything on that front, because I'd been doing work on palm oil, and it all comes back to land use.

I would just put one big issue on the table, which is that it's land and water use and rights. I think those are some of the two biggest issues that the corporate world is, probably, not that able to deal with at the moment. I don't think the infrastructure's there, I don't think the thinking's there, I don't think the language is there yet. But that's something that all of us are going to have to grapple with, so that's land use, and rights, and water use, and rights.

David Howlett has several different hats on, because, in theory, at the moment, he's an academic at the moment, at Leeds University – an agronomist, a man who has definitely got his hands dirty, and made us make things grow. But he has a hinterland in the DFID, the Department for International Development, which has done, which occupies itself enormously with food issues.

VIDAL: So, if it is about land and water – which I suppose it has to be – because these are the definitives which we can't change that much. Is it a question, then, that we have to change what we grow, or how we grow it?

SHIVA: Industrial grain production is different from ecological grain production. Ten times more water is used in chemical agriculture, without increasing production of grain. I call it, dissolving the chemicals, which is why you have large dams in places like Punjab. But, now the water's been used up – a hundred cubic kilometres of water have disappeared in the ground water in Punjab since 2002.

I think the second thing is, that it's organic that helps us sequester your carbon. But

carbon returned to the soil is not just good for mitigating climate change, it's our only buffer for moisture conservation. Most people don't realise the biggest dam in the world is humus-enriched soil.

We've reduced water use on our farm by 70 per cent, just by increasing the organic matter content. You don't have to irrigate that frequently, because the soil is holding the moisture.

VIDAL: Patrick, you've travelled the world, and you've seen ecological farming on quite a large scale. Do you honestly think it can raise production to produce enough food for large, growing populations?

MULVANY:

There's all the evidence in the world, in all of the farms in the world where this is practised. And, as Vandana was saying earlier, if you look at the whole product in the farm, the yields are significant, using every possible area, every little ecological niche, as efficiently as you possibly can. Conserving water, using the biodiversity, using all the different products, the yields can increase. It has to be a bit more labour intensive, but it will be able to achieve that.

You can invest billions in some genetic modification of a crop to make it be able to cope with less water – a single gene approach. Alternatively, you can put a very modest amount into waterproofing the farms, and all of that water is retained in the farm, retained in the soil, and the production can increase.

And I would just simply say, to be provocative, maybe, that it is not in the interests of the capital, it is not in the interests of the corporates.

Just take one example. If you look at the ways in which rice production can be improved,

Vandana Shiva, who I've known for years. Goodness, I think we've been arrested in many countries. Tear gas – I have smelt tear gas with this woman in at least three continents. I think the American tear gas is some of the best. It's very different from the Italian! Anyway, she goes back a long way. She is a riot in herself, as they say, and if she's not arrested by the end of the evening, probably something's wrong.



Villagers fight for bags of flour during relief distribution in Muzaffargarh on Friday, August 20.

integrated pest management – where you maximise the population of predators, so they eat the bugs that eat the leaves of the rice – you maximise the organisms in the soil, so they can deal with the fertility necessary for the rice field. You look at the way in which the ecosystem of rice is organised. You can reduce dramatically the pesticide, to 10 per cent or less, and increase yield at the same time. These things can be done.

That's the most important thing, and that's what the research should be about, not about industrial agriculture, not about GM, not about chemical farming [applause].

AUSTIN: I've just got two small examples to contribute to that. I was employed by a small supermarket. We had an apple grower in Kent, who used to be an architect. And he decided that apple trees were all about harvesting light, and why didn't he prune his apple trees to architecturally capture more light.

So, he designed a pruning system which created tables of boughs and leaves. His apple yields went up by 15 per cent for the same land. God's not making any more land, and certainly not any more land that's suitable for growing apples in the UK, which is on the top edge of viability for apples. That's a concept that we've had tested, and is now rolling out, right through Sainsbury's UK apple growers. And they sell more UK apples than any other retailer. Yes [laughter].

VIDAL: Five thousand, six hundred and seventy eight in total.

AUSTIN: No, no, no. Come on, we brought the Braeburn over from New Zealand, and we grow it better than they do. Okay, second example – and this is really important – that last autumn, Sainsbury's took over a hundred

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and twenty of their growers – the growers of vegetables from the UK – and they took them down to Laverstoke Park, which is the bio-dynamic organic farm that's run by Jody Scheckter, down in Hampshire. Some of you down in that area may know of it. They are very keen ...

VIDAL: He's a, hang on, he's a racing driver who lives in Monaco because of tax reasons, but he's doing very well [laughter] – very good farm, I know.

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So, coming back to the "but", we need ecological approaches, more organic matter in soils. But, also, I think we need to maximise use of the modern science, whether it's traditional science, or biotechnology, even the GM aspects, we need to look at.

AUSTIN: But, okay, now the point is that it's a bio-dynamic farm, and they're really interested in the soil ecology, and are absolutely obsessed by something called compost tea. And the number of vegetable growers around the UK who were there, who got completely excited by soil ecology – and it goes back to Alistair last night talking about soil – was absolutely breathtaking.

SHIVA: I don't think we are saying no to science, we are saying yes to more sophisticated science [absolutely], and no to ignoring science to put out crude tools, and just because they're violent, you say they're superior. Violence is not superiority [applause].

VIDAL: David, David, come on, you must respond.

HOWLETT: It's ... I'll go back to Patrick. I was Head of the Agricultural Research Team, and

we were asked how much do we spend on biotechnology and GM. It's, I think it was around five to 10 per cent, and it's not increasing. The CDIR is not focussing exclusively on bio ... It's not a world I recognise. I think it's also very dangerous that we get into this argument about GM or non-GM, when the actual issue is around the hungry people in the world.

Potentially, application of science and biotechnology can help, so I do go back to say it's both – we need the best science on ecology approaches, traditional approaches, and we do need to develop better seeds and other things.

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VIDAL: Can I ask all of you. One of the phenomena which is taking place, I think, around the world, are these vast, great farmers movements, which we're seeing in Latin America, India, elsewhere. How important are they? Patrick, you've people like Via Campesina, you've seen large peasant groups of people which are effectively taking over from where governments were. How important are they for changing methods of farming, and perceptions of how farming can be done? Is that part of the new agenda?

MULVANY: I think the growth of Via Campesina, and other farmers' movements, over the last fifteen years has been dramatic, significant, and is probably the greatest beacon of hope for the future.

VIDAL: Can you just explain to people what these movements are doing?

MULVANY: Yeah, Via Campesina is the global farmers' movement – small-scale farmer, peasant farmer, movement – that has 170 members in about 70 countries around the world. And it is the movement that brought us the ideas around food sovereignty. It's the one that stood up most powerfully against the World Trade Organisation, and the way it dealt with agriculture trade, the one that is promoting the ideas around the more resilient peasant farming, that will be the solution to the climate crisis.

Small-scale farmers cool down the planet, is their slogan. They are the ones who have been stimulating the movements of fisher folk, of pastoralists, of indigenous peoples to join in a global movement. That is the one that is asserting, and will assert even more powerfully that their food system is the food system that feeds most people in the world now, and should do in the future. It is very clearly anti-corporate, and it is very clearly against all the things that we've been talking about just now, which damage food, food provision, and damage the environment.

But half of a billion people in the world today, who are hungry, are producers of food. And they're hungry, either because their land has been taken away, because of a massive land grab, or because the costs of production are so high, that they're selling whatever they grow, just to pay back the debt. And they go hungry themselves.

VIDAL: And, Vandana, are you finding the same in India? You've got your seed movements, and your village movements. Are these now playing a major role on government policy? Are they taking on government, or are they changing ideas?

SHIVA: Very much. We organised a half a million rally, to stop India from signing GATT – which became the WTO – but the fact that the Indian government has been one of the strongest in not letting an expansion of trade liberalisation in agriculture, is because of the pressure from the base. The fact that, after introducing BT cotton, Monsanto was not able to push through its BT plan so far, and that there's a moratorium, is because of the mobilisation of scientists, and grass-roots farmers.

Because, one thing that's never mentioned ... yield is talked about, but the high cost of industrial agriculture, for a small, peasant economy, and the debt it pushes farmers into, is never talked about. The cost of cultivation is never talked about, and I think that's the heart of the issue.

And ecological farmers – because it works with internal inputs, and ecological processes, like the apple tree, working with harvesting more sunlight – those are the processes that are working for farmers, so zero external costs, and strengthening nature's processes, and working more productively with nature's processes.

Question time

WENDY: I just have a concern, as I come from a background in a small Australian country town: are cities sustainable? Can we feed them?

HOWLETT: The issue is that we are going to have bigger and bigger cities, and at some stage in the future, we're going to have more people living in cities than in rural areas. But, peri-urban agriculture, there's opportunities for vegetable growing and opportunities for farmers, so whether cities are sustainable is a bigger, bigger question. But, there's probably going to be more opportunities for agriculture to feed the urban populations. The issue is, are those opportunities going to be to smallholders, or will they be captured by the elite?

SHIVA: Well, this assumption that the world will move to cities is based on the assumption that peasants will be destroyed. I know, in India, that's the kind of policy that's guiding the forced uprooting of rural communities, whether they be tribal or farmers. India has maintained 70 per cent of the land through policy. So far, that said, the best livelihood, biggest livelihood, will be the land in agriculture. And it worked, because the farmers were given an economy where they could make a living. And now that that's been broken – both through the monopolies on the input side, and the falling prices on the unfair trade side – you are getting squeezed out.

But, the cities are not a living place for the poor either. Every piece of land is now real estate. Earlier people could set up slums. Slums get bulldozed in half a day. So, I don't think we can assume this migration will carry on, and I think one of the things that's coming out now, is, we were always told, it's traditional agriculture that's raised food.

And one reason the big supermarkets are knocking on our door – led by Walmart – is, the argument is, you waste a lot of food. Now, if we do it through the supermarket chains, there won't be waste. The figures are out now. In the industrial food system, where food distribution is industrialised through supermarkets, 50 per cent food is going rotten.

ALASTAIR MCINTOSH: I've just been looking at some figures that were published in The New York Times, of all places, that 71 per cent of the rural land sales going on in Scotland just now, are to buyers outside of Scotland. Now, that pattern will be replicated in many other

parts of the world, and what it means, is that relatively poor people, such as tenant farmers, or people who don't own their own houses, are paying rent to relatively rich people elsewhere – largely a metropolitan rich.

What would the panel see as being the role for land reform in addressing the issues, in order to reduce the burden financially on farmers, so that they can afford to do things in the right way, without having to pay rent to the rich?

VIDAL: Vandana, I'm going to bring you right in here, because I know that's right up your street. What's going on?

SHIVA: You know, in 1942, we had a Bengal famine, and part of it was, the British had imposed landlord system for rent collection, and the original owner-cultivators had been transformed into landless peasants. And the women are the ones who fought against, both that famine, as well as the land injustice, through creating a land reform movement called the Tabu Hagar movement, in which they said, we will give our lives, but we will not give our rice. They just refused to pay the rent. And that spread, and created the land reform.

Now, with food sovereignty, because we realise the land question is vital, we have a very strong land sovereignty movement, which combines both correcting old injustice in land ownership, and preventing the new landlordism, and true land grab, and speculation.

ALASTAIR MCINTOSH: Why I'm asking this, like in Uganda we have fertile land, and we have so many people who have come from India and China, and they are cultivating the land, on a large scale. But the indigenous people feel manipulated, in most cases. Do you think there is peace and justice, in a way, if a corporation comes in a country, and then carry on the work?

Like, last year, there was a big campaign, and everywhere people were putting, please preserve Mabira Forest, preserve Mabira Forest, they wanted to cut out all the forest, and then they are manufacturing sugar, what-have-you, and import to Tanzania, Kenya, Uganda – even outside, in Europe and Asia – they do take. But, how can we promote peace in that case?

VIDAL: Yeah, no, a very good question, and I think you won the battle of the forest so, well done.

SHIVA: Wherever you look at, where are the conflicts, the conflicts might look like they're ethnic, or they are religious, or they're racial, but at the route of it is displacement of local communities [applause]. And that's the case for Sri Lanka, that was the case in every place where there are conflicts, and you are so right. Marginalising and displacing local communities cannot lead to peace and justice [thank you].



Greenpeace

A fisherman surveys the scene as he steers his boat alongside a recently cleared area of forest