

Agroecology and food sovereignty: charting a way to a radical transformation of the food system

Michel Pimbert¹

and Tomáš Uhnák² in Conversation

In: Burrows, D. and A. Cezar, 2019. *Politics of Food*. Sternberg Press and the Delfina Foundation, London. pp. 88-99.

Tomáš Uhnák The world is at crossroads: there are myriads of environmental, political, social and economic challenges. If we focus on food systems as one of the areas that requires our increased attention, Professor Tim Lang and lecturer Michael Heasman suggested that we are living in the age of Food Wars, characterised by competing paradigms. Do you agree with this statement and how would you describe current paradigms?

Michel Pimbert Yes, I would agree with Tim Lang and Michael Heasman's statement, I think it's a fair description of where we are. What are the competing paradigms? Well, the obvious one is the dominant agri-food regime – industrial, capital intensive, fossil fuel dependent, and generating lots of social and environmental costs. This development paradigm fuels a process of accumulation through dispossession, and includes industrial food and agriculture as well as green revolution farming and the blue revolution.

In response to the many deepening crisis that model has generated, the food sovereignty paradigm is promoted as an alternative from below by peasants, indigenous peoples, pastoralists, fishers, and a growing number of other citizens. These actors emphasise a very different vision for food, farming and land use based on a different normative framework that includes fair and equitable access to land and other natural resources, climate friendly ecological farming and land use, the re-localisation of production and consumption within territories, and peoples' right to define their own food and agricultural policies.¹

¹ Michel Pimbert is a specialist in food sovereignty, sustainable agriculture, and the environment and human rights. He is Professor of Agroecology and Food Politics and Director of the Centre for Agroecology, Water and Resilience (CAWR) at Coventry University.

² Tomáš Uhnák is an advocate for agroecology, community- supported agriculture and food policy at the Association for local food initiatives (AMPI), advisor for agriculture at the Chamber of Deputies of the Parliament of the Czech Republic and a PhD student at the Czech University of Life Sciences.

However, I also think that the dominant system is increasingly concerned about the multiple crises it has generated.² There is a growing realisation that natural resources are getting scarcer, that the climate is fast changing, that there could be issues of social peace and social stability associated with reduced availability and access to food. So there is some fresh thinking on the side of the ‘powers that be’ to imagine what a new food and farming system would look like in the twenty-first century.

TU One of the great lock-ins is a deeply rooted conviction, not only in Western culture, that there is no alternative to a capitalist or neoliberal model. The agro-industry and chemical industry is co-opting the discourse of the social movements. Do you think that the industry could be reformed and be part of solution, or do you think that radical detachment from the industry and a search for new models is necessary?

MP Several mainstream actors are now promoting sustainable intensification and climate-smart agriculture as solutions to the current crisis in farming. However, these ‘alternatives’ are locked into the productivist, growth-orientated paradigm of conventional development. They essentially seek to deal with the symptoms, rather than tackle the root causes of the problem.³ Then there is something else emerging, which is not sufficiently discussed perhaps. This is the growing realisation by some actors in industry and the financial sector – that the food system has to be fundamentally transformed.

Indeed, the word ‘transformation’ is being used both by the food sovereignty movement acting from below, as well as by the more forward-looking actors in industry and finance. The latter envisage food system transformation being based on the use of technologies associated with the Fourth Industrial Revolution (4IR). The World Economic Forum has identified a package of 12 technologies based on digital technology, synthetic biology, automation and intelligent robots for food system transformation. These 4IR technologies blur the lines between the physical, digital and biological domains.⁴ In this scenario of the future, people are entirely replaced by intelligent robots that can do all farming operations, from soil preparation and seeding to weeding and crop harvest. As bees are becoming extinct, research underway proposes to replace bees with flying robots designed to pollinate crops.

This vision of development essentially seeks to expand the technosphere at the expense of the biosphere.⁵ This scientific and technological hubris is legitimising new investments in 4IR innovations for food and farming.

The Fourth Industrial Revolution for food and farming is radically new. It is deeply transformative in its approach to fix the problems of the industrial agri-food system through new technical innovations. However despite its novelty, there is here a remarkable continuity with capitalist models of production based on private property and control. Power is concentrated in the hands of the increasingly small number of corporations that design, produce, sell, and have a monopoly control over the 4IR technologies protected by patents and other intellectual property rights. These ‘transforming technologies’ not only have the potential to increase profits for corporations and international financial investors in food and farming. They can also be designed to enhance managerial control over the labour process. As the great apologist for industrialism, Andrew Ure, wrote in 1835, ‘...when capital enlists science in her service, the refractory hand of labour will always be taught docility’.⁶ Indeed, the history of industrial and plantation agriculture shows that technology has not only been used to regularise labour and engender discipline. It has also often been consciously used by employers to counter strikes and other forms of industrial militancy. ‘Business as usual’ responses to the multiple crisis of food and farming⁷ thus range from the more

reformist 'sustainable intensification' and 'climate smart agriculture' scenarios to the Fourth Industrial Revolution's radical transformation of production, distribution and consumption.

In sharp opposition to this capitalist industrial paradigm, the food sovereignty and agroecology movements offer technical as well as social, cultural and political responses to the current crisis of food and farming.⁸ Bottom up and horizontally networked across the world, the food sovereignty movement radically challenges the neo-liberal paradigm of conventional development for food, agriculture, fisheries and land use.⁹ As a social movement, it actively promotes an alternative paradigm based on environmental and social justice as well as inclusive democracy. Last, food sovereignty is rooted in a search for new definitions of modernity and well-being for people and nature outside of capitalism and patriarchy.¹⁰

TU From the evidence provided by academic research and social movements, it seems that agroecology represents a holistic approach in relation to food production, respectful to nature and human and non-human actors. What are the key elements and principles of agroecology and what are its historical foundations?

MP I think the combination of food sovereignty and agroecology is charting a different pathway to sustainable and just food systems. In academia, the idea of agroecology was put forward by agronomists who were concerned about the impacts of farming on the environment. Several pre-World War II scientists essentially advocated a marrying of agronomy with ecology. Mexican scholars in particular were very active in the 1920s and 1930s in promoting an agronomy informed by ecology and the idea of developing farming systems in the image of nature: mixed crops, genetic diversity, fields and gardens that resemble the architecture of the neighbouring forest. At heart, agroecology aims to imitate both the structure and function of natural ecosystems. Early on in the history of agroecology, it was also recognised that this science depended enormously on the contribution of indigenous knowledge. In the 1930s for example, some Mexican scholars championed the view that agroecology combined indigenous knowledge systems with that part of western science which we call ecology, i.e. the study of ecosystems and of interactions between plants, animals, micro-organisms and the wider environment such as the climate and water. Notably, the Mexican school also emphasised the importance of intercultural dialogue between indigenous farmers and scientists for agroecological innovations and the creation of new knowledge.¹¹

From the 1980s onwards at the University of California, Stephen Gliessman and Miguel Altieri also championed the idea that the science of sustainable agriculture had to be rooted in this combination of ecology and peoples' knowledge.¹² They gave many examples of how this approach would generate more sustainable and resilient farming systems than those based on crop monocultures or intensive livestock units that relied on a single genetically uniform race of highly productive beef or pork. So, the idea of bringing biological diversity back in the farming landscape became a key design principle. The (re-)introduction of appropriate kinds of biological diversity (genetic, species and ecosystem) can actually help fight off insect pests, reduce crop and livestock diseases, increase multiple yields, recycle nutrients, and buffer against shocks and stresses.¹³ In the 1990s, agroecology shifted from its focus on farming systems to embrace the whole food system. This shift in perspective was partly based on the realisation that agroecology had to focus not just on the production of food and fibre, but also on distribution, consumption and waste management in its search for sustainability. Agroecologists also understood that they had to factor in the influence of the wider political economy in which these more technical processes were embedded. This was a very significant development and agroecology became known as 'the ecology of food systems'.

It is noteworthy that only 15 years ago, the word ‘agroecology’ was a relatively taboo term –you couldn’t really seriously discuss it as an option in international and government circles, and even in some universities! Now the term is part of the vocabulary of the United Nations. For example, the UN Food and Agriculture Organisation (FAO) refers to agroecology today as an important pathway to sustainable food systems. ‘Agroecology’ has thus suddenly acquired great legitimacy, particularly thanks to recent regional and international FAO processes¹⁴ and the publication of a report on agroecology by the High Level Panel of Experts on Food Security and Nutrition in the UN Committee on World Food Security.¹⁵

So mainstream institutions are now including agroecology as part of their vocabulary and discourse. And whilst agroecology still has many detractors, it is no longer marginalised and is now part of serious discussions on pathways to more sustainable food and farming futures. But the meanings of agroecology are increasingly contested by different actors. Whilst La Vía Campesina firmly locates agroecology in the food sovereignty framework, some policy makers and agroecologists are more narrowly interested in the science part. The latter are quite suspicious about politics and say, ‘*No, agroecology is about science and it should not be contaminated by the politics of social movements and social change*’. In contrast, peasant organisations and indigenous peoples affirm the importance of a more holistic peasant agroecology that is part of a transformative paradigm shaped by peoples’ imagination, knowledge and collective agency. For them, agroecology is simultaneously a science, a set of practices and a social movement. This peasant agroecology seeks to radically transform – rather than conform to – the dominant agri-food system.¹⁶ Being clear about these differences is important as there are today many attempts to cherry-pick and co-opt parts of agroecology into Sustainable Intensification, Climate Smart Agriculture and the dominant productivist paradigm.

TU Another key element/component of the new paradigm is the narrative of food sovereignty. It is referred to as one of the most radical (and I am referring here to its Latin origin, *radicalis*, meaning roots, or to its roots) frameworks formulated by the social movement. Food sovereignty represents a specific ideology, discourse and practice framework. What is its history, and what are the essential principles?

MP The term food sovereignty was championed by La Vía Campesina¹⁷ quite publicly from 1996 onwards, as an overarching framework that could encourage a break from the neo-liberal, capitalist model of production, distribution and ownership over land, seeds and other means of production. During the 1996 World Food Summit, *La Vía Campesina* presented a set of mutually supportive principles as an alternative to the world trade policies and to realise the human right to food. In their statement, *Food Sovereignty: A Future Without Hunger* (1996), they declared that ‘Food Sovereignty is a precondition to genuine food security’.¹⁸

Over the last 25 years, the concept and practices of food sovereignty have been discussed and debated under the leadership of *La Vía Campesina*, and with the support of several other organisations, social movements and citizens throughout the world.¹⁹ However, many of the central ideas of ‘food sovereignty’ build on a long tradition of agrarian history and peasant struggles. Historically, various strands of agrarian social thought have also influenced the theory and practice of food sovereignty – and continue to do so today. These influences include:²⁰ Agrarian collectivism, as well as social anarchism and libertarian socialist thought – all of which view peasants as progressive agents of change; Marx’s view that capitalism induces a fundamental metabolic rift between society and nature; peasant studies and agrarian social theory; and post-development theory.

These traditions of radical thought have deeply influenced peasant struggles for self-determination, agrarian justice and the right to food sovereignty. For example, Proudhon’s ‘principle of federation’

and Bakunin's proposals on collectivist anarchism informed the consciousness and agency of an impoverished peasantry in Spain, and most notably during the Spanish civil war in 1936–1939.²¹

Similarly, the struggles of indigenous peoples for self-determination, control over their territories, and their right to protect their knowledge and lifeways all echo the vision of food sovereignty put forward by peasant organisations. Many indigenous peoples' movements, such as the Zapatistas in the Chiapas of Mexico, promote food sovereignty as part of their struggles for self-determination, decolonisation, cultural affirmation, autonomy and gender equity.²²

The current normative framework of food sovereignty includes six pillars: 1. Focuses on Food for People; 2. Values Food Providers; 3. Localises Food Systems; 4. Puts Control Locally; 5. Builds Knowledge and Skills; 6. Works with Nature

These closely interrelated dimensions of the food sovereignty paradigm are detailed in the Report of the Nyéléni Forum for Food Sovereignty, which took place in 2007 in Mali.²³

TU Following on from this, how is the framework of biocultural diversity linked to agroecology and food sovereignty?

MP Your question is interesting because a lot of people in the food movement will talk about agroecology and food sovereignty but they will hardly mention biocultural diversity – the intimate link between biological and cultural diversity. And yet, the two go together in the sense that a lot of the diversity found in nature is actually partly made by human beings and, in turn, culture is partly shaped by the specificities of place. The long-term interactions human communities have had with forests, wetlands and pastures have shaped the structure and dynamics of ecosystems and landscapes. There has been a process of co-evolution between human societies and nature's diversity at the genetic, species and ecosystem levels. The idea of pristine wilderness is largely a myth.²⁴

Human-modified landscapes embody a lot of local knowledge and culture. Agroecologists rely on this *local knowledge embedded in biological diversity* to design sustainable farming and land use. Moreover, the process of bringing together Western science with Indigenous knowledge actually taps into that vast pool of cultural diversity, which is inevitably linked with biological diversity. For example, if one looks across the world, there is a very clear overlap between biodiversity hotspots – the places with the highest level of bio- diversity – with hotspots for cultural diversity. Indigenous peoples' territories overlap with areas rich in biological diversity. Over time, Indigenous communities have actively shaped and re-shaped these environments and associated knowledge through the interplay of livelihoods, culture and nature. For example, forests in the Amazon have been heavily influenced by human agency over hundreds or thousands of years. These anthropogenic landscapes are rich in biological and cultural diversity and are, in many ways, the building blocks for agroecology and sustainable food systems. Biocultural diversity is thus at the heart of agroecological innovations and the creation of new knowledge for sustainable living.

TU In your work you suggested that autonomy and resilience are key democratic elements that are at the heart of agroecology and food sovereignty. What are the examples of ways in which these are manifested?

MP I'll give you a specific example from South India that focuses on communities of dryland farmers in the state of Telangana. Collectives of marginalised women farmers in Medak district (Telangana) have articulated and implemented a sophisticated understanding of autonomy over the last three decades. Their first autonomy is 'food autonomy' – not depending on others for food and having

control over their food system, including production, processing, distribution and consumption. Historically, these marginalised dryland farming communities have known famine and dependencies on exploitative landlords. Moneylenders have plunged them into poverty and destitution. So this idea of independence through food autonomy is very important for these small-scale women farmers. They not only produce food in the way they want, but also decide on how to distribute food and share it with people who need it. Both community and socio-ecological resilience have been strengthened in the process of achieving 'food autonomy'.

But for these collectives of women farmers, 'food autonomy' has to be complemented with other autonomies to ensure food sovereignty. For example, the women collectives of small dryland farmers realised that they had to have a certain level of autonomous control over how one communicates about their lives. Over time, the women collectives developed their own local radio station and capacity to make video films, and this was with the support of the Deccan Development Society (DDS). Their Community Media Trust now produces video films and has its own local radio station. Locally controlled autonomous media allows these communities to represent themselves on their own terms and in their own authentic ways. Through their voices and images, marginalised women farmers can not only talk about their reality and their knowledge(s), but also make strong statements about policies or injustices that they might film in different parts of India.²⁵ These are two examples of the many autonomies that the DDS and the women farmer collectives are claiming and building. Another is the idea of 'political autonomy' based on community governance and self-determination as well as inclusive processes of democratic deliberation that allow for decisions to be made locally.

Essentially, these multiple autonomies allow communities to eliminate exploitative relationships and debilitating dependencies on powerful external actors – not only for food and water but also for knowledge, services and credit. More generally, freedom and self-determination depend on reversing what Ivan Illich calls 'radical monopoly': 'the substitution of an industrial product or a professional service for a useful activity in which people engage or would like to engage', leading to the deterioration of autonomous systems and modes of production.²⁶

In sum, an important aim of the food sovereignty movement is to generate within territories the means of autonomous living based on self-determination, collective action, sustainable local livelihoods, gender justice, democracy, cultural diversity and the common good.

TU Your personal interests are strongly anchored in researching the dynamics and formation of knowledge in the context of social movements. You have suggested that 'knowledge – and who controls its production – are a key focus of social movements'.²⁷ What kind of knowledge is connected with food sovereignty, agroecology and biocultural diversity, and how is it produced in comparison with private sector research and academic-institutional research?

MP To achieve food sovereignty, agroecology and biocultural diversity we need to fundamentally transform knowledge and democratise ways of knowing. Narrow-lens, universal and reductionist explanatory models have generated a crisis in agriculture and natural resource management through their inability to come to terms with the dynamic complexity and variation within and among ecosystems. To deal with climate change, agroecology needs research in evolutionary plant breeding to generate dynamic crop genetic diversity that constantly adapts to highly variable changes within and between farms. And yet the science of conventional plant breeding continues to produce just a handful of distinct, uniform and stable crop varieties for the market. Similarly, the reductionist biases, unproven assumptions and narrow historical perspectives underpinning the discipline of economics, legitimise the dominant food regime and inequities in society. As radical alternatives to

the dominant system, food sovereignty and agroecology need a very different knowledge base – one that embraces diversity, decentralisation, dynamic adaptation and inclusive democracy.²⁸

Indeed, nothing less than a paradigm revolution will be needed to democratise the knowledge(s) required for achieving food sovereignty, agroecology and biocultural diversity. This implies creating technical and policy-related knowledge that is actively shaped by food producers and citizen-consumers, rather than through top-down research based on the hegemony of scientism, the privatisation of research and the commodification of knowledge.

In practice, this requires a two-pronged approach to democratising the production of knowledge(s):²⁹

(1) Strengthening horizontal networks of self-managed research and grassroots innovation as well as citizen oversight over the production of knowledge. This can be done by supporting several mutually reinforcing transformative processes including: education for critical consciousness and place-based learning; horizontal peer-to-peer learning for the production of collective knowledge; building extended peer communities to validate and protect knowledge; and strengthening local organisations to scale out grassroots research and innovation to more people and places.

(2) Fundamentally transforming and democratising public research institutions and universities. Some of the transformations required in the governance, culture, organisation and professional practice of public research in the natural and social sciences as well as the arts and humanities include: putting citizens at the heart of decision-making in research; professional reversals and organisational transformation; embracing transdisciplinarity and methodological pluralism in research; protecting public research from privatisation and corporate control; increased funding for research on agroecology, biocultural diversity and food sovereignty; and reclaiming universities as a commons for knowledge democracy.

To different degrees and depending on context, food producers and food eaters in these two approaches work closely with supportive researchers and activist scholars to decide upstream research agendas and strategic priorities, including the allocation of funds for research and development (R&D). Institutional innovations, such as peoples' assemblies, and methods for inclusive deliberative processes, such as citizens' juries, help create safe spaces for decision-making *with, by and for* hitherto excluded farmers and other citizens. The process of knowledge creation and validation is therefore decentralised, horizontally distributed, locally controlled, and under the more direct oversight of farmers and other citizens. This is radically different from the conventional R&D system where key decisions are largely made by top professors and science policy advisors who are mostly privileged white men rather than women or people from different ethnic groups and social classes.

By valuing and working with peoples' knowledge, this transformative process for food sovereignty, agroecology and biocultural diversity seeks to reverse what Boaventura de Souza Santos describes as 'cognitive injustice' and 'epistemicide' – the failure to recognise the fundamental right of different knowledges and ways of knowing to exist and give meaning to peoples' lives.³⁰

TU In relation to expert know-how and specialisation, it leads to engineering-dominated solutions that are favoured by the policy-making actors and it leads to top-down solutions and mechanisms. Why is this so strongly embedded in our culture?

MP Well, the more powerful actors in society have realised that knowledge is a source of power. After all, the first universities in Europe were set up to invent war machines and produce knowledge

that supported the process of wealth creation and colonial expansion. The harnessing of knowledge to produce ever more deadly weapons as well as the close association of science with economic expansion happened very early on, and continues today. In that context, powerful elite groups seek to gain and retain control over what type of knowledge is produced. They need to steer research and development (R&D) in a way that can consolidate their position and worldview. So a lot of today's science and technological research essentially reflects and reinforces the interests of the more powerful actors in society. Today's knowledge economy is closely intertwined with processes of economic growth, capital accumulation, privatisation, and the need to maintain social and political stability.

So the critical issue is how – and under what conditions – can one break that un-democratic control over science and technology research so that it doesn't continue to serve – and defend – the narrow interests of a hyper-rich minority. How can the process of knowledge creation be opened up and democratised to serve the wider common good? I give some ideas here in this interview, and discuss elsewhere some of the methodological and institutional innovations which citizens can use to collectively reverse the current democratic deficit in policy making and the production of knowledge.³¹

TU What are the requirements for the transformation or reform of the food system? Is system change actually a goal of the social movements, such as La Vía Campesina? In other words, are there prospects for scaling up agroecology and food sovereignty in order to achieve system change?

MP Yes, this is very interesting because as I said earlier, the word 'transformation' is used both by the World Economic Forum *and* anti-capitalist social movements. So we should first ask some simple questions to find out if people are talking about the same thing. Transformation by whom and for what kind of society? Why transformation? Transformation for whom, how and with what consequences? We need to ask these simple questions to unpack this term and better understand how different actors view 'transformation'.

I think most people in the food sovereignty movement believe that system-wide transformation is urgently needed given the huge social, economic and environmental crisis we are faced with. They are seeing or hearing about massive biodiversity loss on a planetary scale. They are directly experiencing climate change in an unprecedented way. Farmers are seeing water dry up in wells and streams. People are witnessing growing impoverishment and violence. As these crises and the gap between the rich and the poor increase everywhere, the food sovereignty movement is demanding wide and deep system change. For example, a number of feminists who are part of the food sovereignty movement would say that the required system change should reject patriarchy and not just capitalism.

At this critical moment in history, trying to reform the system within the same parameters of the dominant paradigm will simply not work for people and the planet. We need a bold and fundamental rethink. As citizens, we need to collectively re-imagine and invent a different economy and politics based on mutualities of care and deep democracy. We need a different relationship with nature to heal the metabolic rift that Marx talked about. Developing more caring societies that are inclusive of people of different colour, age and gender, religions and sexual orientations is also part of the wider system change discussed in the food sovereignty movement, and particularly by women and the youth.

What do we need to focus on more? First the *ecological realm* – we have to develop approaches grounded in agroecological policies and practices that can bring our activities much more in line with ecological processes. We have to heal the metabolic rift by rethinking the material basis of

production to reduce carbon and ecological footprints. For this, we shouldn't just be thinking about food systems in isolation because those food systems depend on energy, waste management and water systems to work. Transitions to sustainability require a decisive shift from the current linear systems to circular systems that integrate food and energy production with water and waste management to enhance human wellbeing and reduce carbon and ecological footprints in rural and urban contexts.³² Re- thinking the material basis of our lives is key because there's a major contradiction between the expansion of capitalism and nature's thrust for ever more diversity, differentiation and increasing complexity.

Second, *rethinking economics* is very important today. How do we decolonise our imagination to move away from the kind of economics we have, to create more plural, inclusive economies that combine money-based markets and other forms of economic exchange based on gift, reciprocity, barter and so on. A reduction in time spent in wage work and fairer sharing of work as well as a guaranteed unconditional citizen income for all would be part of the mix of economic measures designed to ensure material security and more free time for all.³³

Third, *democratising the political realm* is also a priority. How can we expand democracy, and particularly direct inclusive democracy? One of the central pillars of the food sovereignty paradigm is that people have the fundamental right to define their own food and farming policies. Now, once you said that you've got to ask what kinds of methodologies and institutional innovations are required to enable a bottom-up process of democratic decision-making? I think a lot of institutional innovation has to take place there, to move away from models of representative democracy to more deliberative and inclusive models of direct democracy. Methods can include citizens' juries and citizens' assemblies, sortition to ensure the direct participation of people in legislative and executive bodies that frame policies and institutional choices, and life-long education in the art of participatory democracy and citizenship.³⁴

Fourth, *popular education* by encouraging, for example, the use of critical adult education methodologies such as *Campesino a Campesino* to scale out agroecology and food sovereignty as well as develop the confidence, skills and knowledge needed by local communities to negotiate with outsiders.³⁵

Fifth, *gender and social justice*. Patriarchy is an enduring feature of capitalist, Marxist, Maoist societies. One part of La Vía Campesina came up with an interesting slogan, basically saying that there can be no food sovereignty if violence against women continues: 'If we do not eradicate violence towards women within the movement, we will not advance in our struggles, and if we do not create new gender relations, we will not be able to build a new society'.³⁶ How does one address the structural violence against women as well as enduring patriarchy and misogyny? These questions elicit difficult conversations in the food sovereignty movement, and they unfortunately often remain 'the elephant in the room'. But they have to be addressed, particularly in the context of food and farming where so much productive and reproductive labour is done by women. In African societies for example, women do between 70 and 90 per cent of the work involved in farming and food preparation.

Finally the *cultural realm*. Transformation and system-wide change also depends on imagining and inventing a new modernity and different definitions of wellbeing. The latter include what indigenous communities refer to as *Sumak Kawsay*, *Buen Vivir* and various variants, like *Ecological Swaraj* in India. In Europe, ideas about conviviality and a progressive de-growth in production and consumption are highly relevant here.

Simultaneous transformation in all the above realms is crucial for whole system change. Rooted in the paradigm of food sovereignty and outside of capitalism, the above proposals for change are radically different from those advocated by the proponents of the Fourth Industrial Revolution and the dominant paradigm of food and farming.

TU I'd like to close this interview by addressing recent achievements by the social movements and NGOs. All of them are basically blueprints for radical transformation of the food system, based on interdisciplinary, participative, inclusive mechanisms, integrating social, environmental, cultural, health and economic aspects, and put citizens and farmers at the centre of the food system. How significant or relevant are these political attempts, and what are the opportunities and barriers for their implementation?

MP All these international declarations are very pertinent and relevant in addressing the huge challenges of our time. Many of these declarations and policy proposals reflect years of advocacy work and negotiations by Indigenous and peasant leaders in the driving seat. Originating in peasant struggles in Indonesia in the late 1990s, the recently adopted Declaration on the Rights of Peasants was a long time in the making. And so was the UN Declaration on the Rights of Indigenous People, which took over 25 years to materialise.

The UN Declaration on the Rights of Peasants and Other People Working in Rural Areas is particularly comprehensive. It looks at the human rights to seed, to water, to natural resources, to political participation and more. It is too early to say what impact this declaration will have because it has only recently been agreed by the UN Assembly. The Bolivian government has been a champion of this UN declaration, but we still have to see how it is ultimately implemented in Bolivia.

Having these new global and regional norms is very useful for civil society and social movements. These declarations and policy recommendations represent progressive thinking and create new spaces for negotiation and change. For example, when Jean Ziegler and then Olivier De Schutter – as UN Special Rapporteurs on the Right to Food – made the right to food more visible in the international community, this was a very important step forward. These international norms on human rights provided new possibilities and legitimacy to civil society and grassroots actors struggling for the right to food and food sovereignty in different countries. All the declarations and policy statements you mentioned not only create opportunities for change. They also help sustain hope.

However, there is usually a significant disconnect between these international declarations and what national governments actually do in practice. We often have reasonably good policies and declarations like the ones you have mentioned, but they are neither acted on nor implemented by national governments. Personally, I feel that many national governments are no longer sovereign because of their close alliance and complicity with large corporations and their dependency on commercial banks and financial institutions for public borrowing.

And yet, the further you go down in society – particularly at the level of municipal and provincial governments – there seems to be more scope to implement these international norms and declarations. Municipalities and provincial government can decide to adapt and implement international agreements and policies at local and territorial levels. To some extent, we are seeing this in the USA where the Central Administration is neither recognising nor proactively dealing with the threat of climate change. In sharp contrast, a number of State governments (e.g. California) have officially recognised that climate change has to be taken very seriously, and that adaptation and mitigation measures must be prioritised in public spending. I am indeed more hopeful about the

potential of municipal governments to implement international agreements and global norms because they are often more responsive to local needs and pressure from organised citizens.

This conversation took place on 24th July 2019.

¹ Nyéléni, Declaration of Nyéléni, 27 February 2007, Nyéléni Village, Sélingué, Mali, 2007. See: <https://nyeleni.org/IMG/pdf/DeclNyele-ni-en.pdf>, last accessed 17 August, 2019.

² For example, see Royal Society, *Reaping the Benefits: Science and the Sustainable Intensification of Global Agriculture*, London: The Royal Society, 2009.

³ M.P. Pimbert, 'Agroecology as an Alternative Vision to Conventional Development and Climate-smart Agriculture', in *Development*, vol. 58, nos. 2–3, 2015, pp. 286–98

⁴ World Economic Forum, *Innovation with a Purpose: The Role of Technology Innovation in Accelerating Food Systems Transformation*, 2018. See: www.weforum.org/Innovation_with_a_Purpose, last accessed 17 August, 2019.

⁵ M.P. Pimbert and C.R. Anderson, 'The Battle for the Future of Farming: What you need to know', in *The Conversation*, 2019. See: <https://theconversation.com/the-battle-for-the-future-of-farming-what-you-need-to-know-106805>, last accessed 17 August, 2019.

⁶ A. Ure, *The Philosophy of Manufactures*, London: C. Knight, 1835.

⁷ IAASTD, 'Agriculture at a Crossroads: Synthesis Report', International Assessment of Agricultural Knowledge, Science and Technology for Development, Washington, DC: Island Press, 2009.

⁸ Nyéléni, Declaration of Nyéléni, 27 February 2007, op. cit. and Nyéléni, *Declaration of the International Forum for Agroecology*, International Planning Committee for Food Sovereignty website, 2015. See: www.foodsovereignty.org/forum-agroecology-nyeleni-2015/, last accessed 17 August, 2019.

⁹ A. A. Desmarais, *La Vía Campesina: Globalisation and the Power of Peasants*, London: Pluto Press, 2007 and M.P. Pimbert, *Towards Food Sovereignty: Reclaiming Autonomous Food Systems*, London and Munich: RCC and IIED, 2008. See: <http://www.environmentandsociety.org/mml/pimbert-michel-towards-food-sovereignty-reclaiming-autonomous-food-systems>, last accessed 17 August 2019.

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