



Broken food chains

Why European food and farming needs to change

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Global challenges

There is growing international recognition that fundamental changes are needed in the food system and our approach to agriculture to deal with a range of major global challenges. Persistent hunger and growing inequalities, malnutrition and massive wastages, as well as climate change and the collapse of biodiversity all indicate that the way we manage resources and produce food is not well and far from being sustainable.

Transforming the food and farming system will be one of the biggest challenges in the 21st century. There are growing competing demands for food, feed, fuel, fibre and raw materials, as a result of public policies, increasing corporate control, human population growth and changing diets. At the same time the resources we have are diminishing or at risk through urbanization and climate change – threatening rural livelihoods. The people needed to grow our food in the future are threatened through perverse and unfair subsidies, speculation in financial markets, land grabbing and poor political decisions.

One in eight people globally are estimated to be suffering from chronic hunger, iii yet this can be mostly attributed not to a shortage of global supplies, but to poverty and access to natural resources, as global food systems have been shaped to maximize efficiency and produce large volumes of commodities, but fail to distribute food effectively or fairly. Meanwhile, about one-third of all food that is produced for human consumption is wasted or lost.

In addition, the global industrial food system is responsible for between 30%-50% of all human-caused greenhouse-gas emissions, if fertilizer use, land-use change, manufacture, food storage, packaging and transport are considered. Food increasingly travels significant distances between production and consumption, and as a result many of the ecological and social costs are borne by people and places far away from the point of consumption. The export of the "western diet" (with an emphasis on heavily marketed, processed food) is also contributing to poor health in developing countries.

Tackling hunger and providing sufficient food and other natural resources during times of increasingly unpredictable climate conditions, without damaging the ecosystems on which we all depend, needs to be the bedrock of changes to public policies in the coming decades. Technologies, such as high-yielding crop varieties, agrochemicals and mechanization have primarily benefited the better off, including big business, rather than the most vulnerable. The ecological footprint of industrial agriculture is already too large to be ignored and is projected to increase further. There is clearly a need for a fundamental change. Instead of the conventional, monoculture-based industrial approach which relies on external inputs, we need to develop patterns of sustainable, regenerative farms, improve the productivity of small-scale farmers and challenge the corporate power in the food and farming system.

Failing European policies

Over the past 100 years, European landscapes have been transformed as land converted for farming has become more intensified. At the same time, cities have grown, and there has been an increase in transport infrastructure, resulting in the fragmentation and loss of natural and semi-natural habitats, as well as biodiversity. The introduction of the Common Agricultural Policy (CAP), designed to increase agricultural productivity to guarantee food security, exacerbated the environmental impacts of intensive agricultural production. This has affected water, land, fauna and flora, with the impacts felt beyond the EU. Market dumping (where surplus produce is dumped on overseas markets at below market price) has forced farmers and local food companies out of business.xiii

Farming without farmers

Current policies and support for the agro-industrial model have directly translated into the on-going destruction of thousands of small-scale farms in Europe, as well as to the exploitation of farm workers, and particularly migrant workers. Three million farms, around 20%, have been lost in Europe during the last eight years, most of them small.^{xiii} Between 2000 and 2012, 4.8 million full-time jobs disappeared from EU agriculture. In 2010, there were just 12 million farms in the EU employing 10 million people (full-time equivalents), accounting for just 5% of total employment in the EU.^{XiV}

The current system has led to dramatic decline in the living and working conditions for peasant farmers, farm workers and those working in the agri-food sector. Peasant and small farmers, who have limited power or influence over the food chain, are particularly vulnerable to poor labour conditions, low incomes, and the erosion of social security safety nets.** The younger generation are increasingly shunning farming as a career, resulting in the rising age profile of European farmers, and a growing problem of a lack of an agricultural labour force. In 2010, just one in three of the agricultural labour force was under 40. There is lack of recognition of women working in agriculture, with women making up just 40% of the total official workforce.**

In contrast, organic farming has been shown to create more employment in rural areas, with figures ranging from 32% to 70% depending on different national and regional contexts. The 186,000 organic farms in Europe, accounting for 5.4% of the total area of agricultural land, are managed in general by younger farmers. In total there are 270,000 organic producers and processors, but these figures do not include many of the agro-ecological initiatives developed outside the official organic certification scheme.

Farming and rural land management perform important functions for society, including providing ecosystem services and public goods, as well as providing food. The European model of multifunctional, sustainable agriculture could help address the global challenges we face.^{xx} Although under threat, the European system of family farming agriculture is still alive. Some 92% of all those working on European farms are small-holders or family members. The average European farm employs two people and family labour is still predominant in most countries.^{xxi}

Access to resources and expropriation of our commons

Although agriculture extends over about half of EU land area, xxii it can be extremely difficult for new farmers to obtain land or for small farms to remain economically viable. Perverse subsidies, together with unstable and biased market conditions and increased corporate control has meant that it is not viable for many small farmers to keep farms in the family because of their size, the price of land and the levels of debt. In Eastern and Central Europe, cheaper land prices and an open market, have led to European businesses buying large areas of land for industrial agricultural projects. XXIII

But land is not the only resource targeted by agribusiness. Natural resources including seeds, livestock breeds, forests and water have also been privatised or commodified, with increasing financial speculation in some of these markets. This leaves little scope for the redistribution of natural resources or common goods through democratic processes.

Through privatization, control of natural resources such as water are being transferred from the local sphere to the realm of financial markets, including an emerging "global water market". **XiV* Although the UN General Assembly has recognized water as a Human Right, Europe is facing a new push for water privatisation, driven by austerity policies.**XV* Water should not be treated just like any other commodity it is at the core of life, and central to growing and producing food.**XXVI* Maintaining and strengthening community-based water management systems is a crucial aspect of transforming our food system.**XXVIII

The European seed market is becoming increasingly concentrated, with what was a competitive sector composed primarily of small, family-owned firms 40 years ago, now dominated by a small number of transnational companies. This means fewer and fewer farmers are able to save and replant their own seeds, a shift in both public and private research toward the most profitable varieties, and a reduction in seed diversity and farmer choice. The European seed market is the third biggest world market for seeds, with a value of around €7 billion. It is also very profitable, with just five companies controlling 50% of the market. For many key crops, corporate control is even higher. The five biggest suppliers of maize seed control 75% of the market for maize. Four companies control 86% of the market for sugar beet seed. And five companies control 95% of sales of vegetable seeds, with Monsanto alone controlling 24%. While the industry is pursuing legal battles to gain further control of global seed supplies, there is a growing body of evidence to show that diversified peasant seeds and agro-ecology are essential for producing healthy food and also mitigating against environmental and climate impacts, creating a more resilient agricultural model. **xx*

Concentration in the food chain and corporate control

Most of the money spent on food by consumers in Europe goes to intermediaries, traders and retailers rather than farmers. Deregulation within agricultural markets over the last 20 years has led to all the links in the chain – from seed sales, to supermarkets, wholesalers and distribution – to be dominated by the biggest players. The result is the almost complete vertical integration of the food chain, allowing the dominant players to control prices both at the farm gate and on supermarket shelves. Just 10 retailers control 40% of the European food supply.** At the national level, in Austria just three supermarkets control 82% of the food market; in Germany, 85% of the market is controlled by four players; in Finland three supermarkets control 88%; in Portugal three companies control 90%; 76% of the UK food market is controlled by four companies, and in Spain five supermarkets control 70%.**

There is growing evidence that a system based on local markets and short supply chains creates twice as many jobs as the supermarket model. Short supply chains can also increase farmers' income, create greater autonomy for farmers, strengthen local economies by sustaining small enterprises, reduce the carbon footprint of food distribution, give potentially more people access to healthy food, and increase the vitality and quality of life in rural areas. Safety standards and regulations need to be adapted for the small local enterprises that do not work within an industrial framework.

The role of the EU in the global food system

Europe is a major player in the global food system in terms of both food production and consumption, and also in terms of policy-making. The EU is the biggest global importer of food products, but also exports increasing amounts. It has also shifted from being a net importer, with 2.5€ billion deficit in 2009 to net exporter, with a surplus of 7€ billion in 2011. This does not mean that the EU is self-sufficient, as almost half of all agricultural imports were commodities (such as soy animal feeds) and intermediate products. This means that the EU's consumption needs affect other regions' food security and sovereignty. Some 40% of the agricultural land required to satisfy demand for products in Europe (Europe's land footprint) is located in other regions of the world. **xxxvii**

Over the last 50 years, the CAP and the prioritization of food policies which promote international trade rather than provide healthy, safe and sustainable food for Europe, have resulted in major imbalances in European production and prices. Because of Europe's important role in global trade in agricultural products, the CAP has also affected global production and prices. The EU has also played a leading role in establishing global trade agreements through the World Trade Organization (WTO), and has actively tried to promote open markets for agricultural products, including food, in developing countries through bilateral free trade agreements. The Transatlantic Trade and

Investment Partnership (TTIP) with the US, currently being negotiated behind closed doors is likely to exacerbate this situation. Yet there is clear evidence that deregulation and liberalization of markets have led directly to food insecurity, food price hikes and volatility in supplies, xxxix and that the small-scale farm sector is a net loser under most trade liberalization scenarios. XI

These trade imbalances favour high-input, energy-intensive agriculture, which currently does not bear the environmental or social costs of what is an increasingly unsustainable mode of production.^{xli} This imbalance has limited any real shift towards sustainable farming and food sovereignty.

Europe is also involved in food speculation and land grabbing. European-based private financial institutions, banks, pension funds and insurance companies trade and invest in agricultural commodity futures and derivatives, including investments in land acquisitions. Food price volatility represents a serious problem for poor households globally. But the rapid price swings also affect poor farmers, threatening farm viability and making it more difficult for them to maintain a steady income. XIII

Overconsumption, unhealthy and unsustainable diets

Europe's food processing industry, which has benefited from subsidised food under the CAP, has heavily promoted cheap processed foods often with high salt, sugar and fat contents. This, combined with the subsidised industrial meat and dairy available in Europe, has contributed to Europe's increasingly unhealthy diet, which now relies heavily on globally-sourced low-priced raw materials and locally processed goods. As a result, cardiovascular disease is a leading cause of death; with unhealthy diets one of the main drivers.

The growth in demand for meat and dairy in the last decades has increased competition for land and put pressure on grain and feed prices. It takes 4.5 plant-derived calories to produce one calorie's worth of egg or milk and 9 plant-derived calories to produce one calorie of beef or lamb. ** Europe's meat industry is highly dependent on imported animal feedstuffs, especially protein feeds. Because the EU did not protect its animal protein feed sector, farming in Europe has increasingly used imported animal feed grown mainly in vast monocultures, initially in the United States but more recently in South America. This has contributed significantly to problems with deforestation, habitat loss, the displacement of local communities, and the increasing use of genetically modified soy to produce cheap meat for the European market. Today the EU grows only 20% of the total plant protein feed used.**

Meat and dairy production and consumption rates in Europe are deeply imbalanced from a global perspective. The United Nations Environmental Programme estimates that the loss of calories that result from feeding cereals to animals instead directly for human food represents enough calories to feed more than 3.5 billion people a year. Reducing meat consumption in the industrialized world and restraining it worldwide to the 2000 level of 37.4 kg per capita per year by 2050 would free 400 millions of tons of cereal per year for human consumption. This would be enough to meet the annual calorie need for 1.2 billion people. xivii

The reliance on agrochemicals for animal feed production also contributes to environmental and health problems, which is of increasing concern.xiviii

Corporate control of research and public funding for agriculture

Public agricultural investment and research are increasingly controlled by corporate interests. At an international level this is visible with increasing business influence over the positions of national governments in decision making and spending funds for research; where business representatives dominate certain UN discussion spaces and UN bodies; UN officials move back and forth to the private sector; and UN agencies have become increasingly dependent financially on the private sector. XIIX

A similar trend can also be seen at the European level, where agribusiness lobby groups ensure that their vision for the future of farming dominates, despite growing evidence of the failings of the current approach. The dominance of the corporate research agenda is effectively blocking investment in cheaper and safer alternatives. At the national level, some governments have also been captured by business interests. The UK Government spent 30 times more on agrobiotech research than on organic agriculture in 2006-2007. In Spain 60 times the amount invested in organic agriculture was invested in GM crops in 2008.

If Europe is to ensure its food security and retain livelihoods in the food and farming sectors as well as protecting the climate, biodiversity and water resources, then public funds must be redirected. Policies must focus on delivering public goods in a transparent and efficient manner to the benefit of society as a whole. Public funding should be used to deliver on environmental and social goals and should be targeted at agriculture knowledge, science and technology, undertaking a bottom-up approach, using and building upon local people's knowledge, needs, aspirations and drawing on indigenous natural resources. The public should play a much bigger role in decisions about how we grow and produce our food.

Looking to the "New Bioeconomy"

Around the world, corporate and government strategies to address food crises, climate change, energy, technology and synthetic materials, are increasingly converging on the use of biomass. Biomass refers to all the living material that the Earth produces: trees, bushes, grasses, algae, grains, microbes, etc. So far, human beings use only one quarter (24%) of land-based biomass for basic needs and industrial production. Ivi

Technological changes especially in the fields of nanotechnology and synthetic biology are making it possible to see biomass as a way of replacing fossil fuels for the production of a wide range of 'biobased' products such as plastics, chemicals and drugs. The bio-economy is extremely attractive to some of the biggest and most influential global companies, including fossil fuel companies that have already invested heavily in agrofuels, to the pharmaceutical and chemical industries. The growth of the bio-economy could see the increasing commodification of ecosystems and natural processes, putting a price tag on nature and our common shared resources. Many of these bio-resources are found in the Global South. The technological appearance of the new bioeconomy in agriculture is genetic engineering. The products issued by those technologies are protected by patents, intellectual property regimes for which evidences in agriculture show increase of market control by the corporations which own these patents.

The planet's capacity to produce biomass is limited. Increasing demand for land is already leading to the destruction of forests and biodiversity, causing escalating hunger, and conflict over land. Without reducing global levels of consumption and demand for energy and resources, the sheer scale on which biomass would have to be produced to meet the demands of a global bioeconomy would severely exacerbate these problems. There is a real danger that an industrialised bioeconomy would lead to a major shift in corporate control of land, natural resources and the rural economy, marginalising food production and intensifying production.

Rethinking our food system

We need to drastically change the way we manage natural resources and produce, process, trade and consume food in Europe. The current system is unfair for farmers, consumers, the environment and the rest of the world. The model of production dominating European food systems is controlled by corporate interests and is based on concentrated power, monocultures, patented seeds and livestock breeds, pesticides and chemical fertilizers. It is a system perpetuated by ineffective regulation and unfair legislation (CAP, trade, rural development, energy, health and safety rules), which prioritises the production of industrial commodities at a global scale rather than providing abundant safe food within ecological limits to meet local needs.

"Governments and stakeholders must rethink the existing food system, which is neither socially nor environmentally sustainable. The current system has led to widespread hunger, malnutrition, and obesity. It is depleting natural resources and accelerating climate change. Therefore, we have a duty to revise our past choices."

Olivier de Schutter, United Nations Special Rapporteur on the right to food

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