

THE CLIMATE CRISIS IS A FOOD SYSTEM CRISIS:

RESIST THE INDUSTRIAL FOOD SYSTEM
GROW A BETTER FUTURE

INDUSTRIAL FARMING:

A METHOD OF USING THE SOIL
TO TURN FOSSIL FUELS
INTO FOOD



ASEED
E U R O P E

Our industrial food system is responsible for somewhere between 44-57% of global greenhouse gas (GHG) emissions [1]. If this system is not changed, these emissions will increase in volume by 30% by 2050, driven largely by increased meat and dairy production [2].

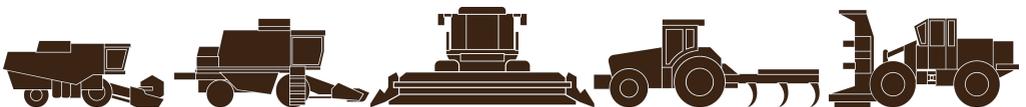
As politicians and corporations continue to make empty gestures about moving towards a zero-carbon world, agribusiness continues its assault on the climate without meaningful scrutiny or resistance in the Global North. We cannot allow a fossil fuel-based, livestock-intensive, and trade-oriented industrial food system that is blind to ecological realities to persist if we are to avert the effects of climate change.

Meanwhile, this corporate-controlled food system is negatively impacting public and ecosystem health, food quality, traditional rural livelihoods, and indigenous communities. It is also accelerating indebtedness among millions of small-holder farmers, restricting access to food for millions, and leading to large-scale land grabs across the world, especially in the Global South.

THERE IS NO JUST SOLUTION FOR OUR CLIMATE CRISIS WITHOUT ADDRESSING THOSE DISPOSSESSED, IMPOVERISHED, AND MARGINALIZED BY AN AGRIBUSINESS-LED TAKEOVER OF OUR FOOD SYSTEM.

THE CLIMATE CRISIS IS A FOOD SYSTEM CRISIS.

BOTH ARE SYMPTOMS OF THE EXPLOITATIVE NATURE OF CAPITALISM.



And yet, we have the solutions to the problems of the industrial food system. The concept of food sovereignty, also understood as food autonomy, has emerged in the last 20 years as a way to wrestle back control of our food and agriculture system from the state, corporations and the demands of the market. Linked to this is an agroecological approach to farming that works with, rather than against, surrounding ecologies. Studies have shown that agroecology can restore ecosystem health and sequester greenhouse gases¹, whilst maintaining and even improving on yields [4].

So why is industrial farming and the industrial food system not seriously on the climate change agenda, for politicians as well as most climate activists? And what can we do to resist this system and transform it into one that can mitigate against climate change, whilst strengthening ecosystems, food sovereignty, and social justice worldwide?

CONTENT

1. How does our food system drive climate change?.....	4
Industrial farming (11-15%)	
Deforestation and land-use change (15-18%)	
Post-production –Transport, processing, packaging, freezing and waste (18-24%)	
2. In Focus: Livestock	7
3. In Focus: The Netherlands	8
4. How are we in this situation?.....	9
5. Mythbusting.....	10
We need agribusiness to feed a growing population	
Eating meat and dairy is "natural" and a crucial part of a healthy diet	
So long as you buy certified organic, there is nothing to worry about	
Agribusiness and food suppliers are already adopting "climate-friendly" initiatives	
6. What is the alternative?.....	16
7. Paradigm shift: an overview	20
8. What is preventing the adoption of alternative food systems?.....	22
9. The marginalization of agriculture in climate activism.....	25
10. Action – Overcoming the obstacles and realising the vision.....	27
Bypass the food chain altogether	
Turn your voice into action, resist the industrial food system	
11. References.....	33

¹ In fact, studies indicate that the world’s available cropland has the potential to store enough carbon to offset 15% of carbon emissions each year over a 25-year period if agroecological practises are implemented. [3] 3

1. HOW DOES OUR FOOD SYSTEM DRIVE CLIMATE CHANGE?

Many studies which estimate industrial agriculture's GHG emissions to be between 11-15%, only at those generated on the farm itself through, the use of synthetic fertilizers, methane released by livestock, and machinery running on petrol. However, such studies fail to look at the bigger picture by not considering the impact of land-use changes, deforestation and of post-production activities including transport, processing, packaging, cooling, retail, and waste. Below is an estimated breakdown of where the **44-57% of global GHG emissions occur across our industrial food system:**

INDUSTRIAL FARMING (11-15%):



Farms are primarily responsible for emitting large quantities of methane² (CH₄) and nitrous oxide³ (N₂O). Almost two-thirds of all the GHGs released by industrial farming is in the form of methane. The vast majority of methane released is produced by cattle for both the meat and dairy industry [1]. The second highest source of emissions come from the production of synthetic fertilizers, which contribute around 13% of industrial farm emissions [2]. The Haber-Bosch process is an immensely fossil-fuel intensive process that artificially fixes nitrogen in the atmosphere into ammonia to be used for fertilizer. Other sources of GHGs in agricultural practices include, but are not limited to, the use of machinery, burning and rotting of crop residues, and the cultivation of rice in paddy fields which releases large quantities of methane.

² Methane emissions have more than doubled in the last 150 years, primarily as a result of fossil fuel extraction and enteric fermentation (digestive processes of ruminant animals) through intensive livestock farming. Methane's lifetime in the atmosphere is much shorter than CO₂, but CH₄ is more efficient at trapping radiation than CO₂. Pound for pound, the comparative impact of CH₄ on climate change is more than 25 times greater than CO₂ over a 100-year period.

³ Nitrous oxide emissions are now 40-50% over pre-industrial levels owing mainly to industrial farming, in particular from livestock manure, fossil fuel combustion, and the use of synthetic fertilizers. Nitrous oxide molecules stay in the atmosphere for an average of 114 years before being removed by a sink or destroyed through chemical reactions. The impact of 1 pound of N₂O on warming the atmosphere is almost 300 times that of 1 pound of carbon dioxide.

DEFORESTATION AND LAND-USE CHANGE (15-18%):



www.stuartmcmillen.com

Agriculture is the dominant cause of deforestation, accounting for 70-90% of global forest loss [3]. Ruminant livestock⁴ – mainly cattle – and the production of crops for cattle feed, account for half of agriculturally caused deforestation [4]. The rest is due to industrial plantations for commodity crops such as sugarcane, palm oil, corn, and rape seed. These crops are typically used as the basis for a wide-range of processed foods, agrofuels, and/or as feed for livestock.

⁴ Ruminant animals, such as cattle, goats, and sheep have a four compartment stomach which allows them to acquire nutrients from plant-based food by fermenting it in a specialized stomach prior to digestion. Methane is produced through the microbial activities of this process known as enteric fermentation.

POST-PRODUCTION - TRANSPORT, PROCESSING, PACKAGING, FREEZING, AND WASTE (18-24%):

Often overlooked in GHG emission estimations are post-production activities dependent on fossil fuels for transportation, processing, and storage. The transportation of food products accounts for around a quarter of global GHG emissions linked to transport (5-6% of total GHG emissions) [6]. The processing and packaging of agriculture's raw materials into ready-meals, snacks, and beverages lining the aisles of supermarkets also requires enormous amounts of fossil fuel-based energy, totalling around 8-10% of food system-related GHG emissions. The refrigeration and retail of food accounts for a further 2-4% as cooling systems powered by cheap fossil fuels enable vast, complex procurement systems along the industrial food chain.

At the end of this energy-intensive process, one-third of all food produced is eventually wasted, left to rot and further releases 3-4% of total GHG emissions. As highlighted by the FAO, waste is an emissions multiplier as the third of all food which is grown to be wasted causes emissions along other parts of the industrial food chain [7].

EVEN THESE HIGH DIRECT EMISSIONS FROM INDUSTRIAL FARMING AND OUR FOOD SYSTEM DO NOT TELL THE WHOLE STORY. THE PRACTICES OF INDUSTRIAL FARMING ARE CAUSING WATER CONTAMINATION, DEPLETION OF AQUIFERS AND OTHER WATER SOURCES, THE DESTRUCTION OF BIODIVERSITY, AND THE EROSION OF SOILS AND THE GENETIC POOL OF AVAILABLE FOODSTUFFS, THUS INCREASING OUR VULNERABILITY TO THE THREATS POSED BY FUTURE CLIMATE EXTREMES.

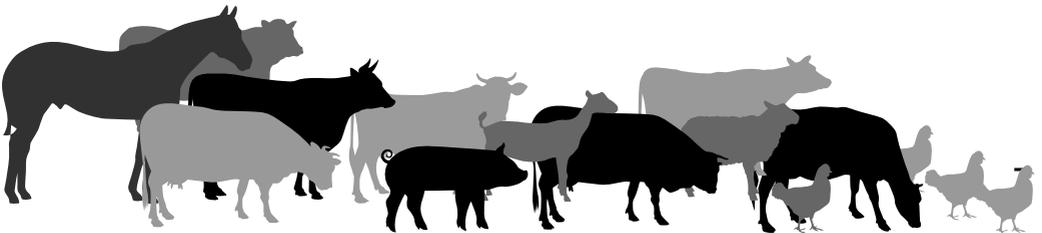
2. IN FOCUS: LIVESTOCK

The industrial livestock sector plays a major role in generating GHGs compared to other parts of the food and agriculture industry. According to the widely cited UN report, 'Livestock's Long Shadow', livestock and its related activities produce 9% of global carbon dioxide emissions (primarily from deforestation for pasture and to create more space for growing feed crops), 35-40% of methane emissions (from enteric fermentation and manure), 65% of nitrous oxide (chiefly from the use of nitrogen based synthetic fertiliser used on animal feed crops) and 64% of ammonia emissions. According to this estimate, livestock contributes almost 80% of all agricultural GHG emissions [1].

Along with producing large amounts of methane, encouraging deforestation, and demanding massive quantities of fertiliser, livestock agriculture requires huge amounts of grains and oilseeds (e.g. soy) for feed. This immense demand places extra pressure on land and water resources, and requires more transportation, processing, and cooling. In other words, it would be more energy efficient for humans to eat the grains we use for animal feed rather than to feed it to livestock.

Feeding grains and oilseeds to livestock is an inefficient use of resources. Much of the plant's energy is lost through the animal's metabolism, effectively resulting in waste. If the same grains and oilseeds currently being used to fatten up cows, pigs and chickens were fed directly to humans, much less land would be needed in order to produce the amount of food required to sustain the human population. Traditionally, livestock provide protein by grazing on land not suitable to other kinds of agriculture or on land left fallow. Today, however, they consume far more protein than they are contributing, with the oft quoted ratio being around 10:1 [2]. One study suggests a single unit of beef protein causes the emission of 150 times more GHGs than a unit of soy protein [3].

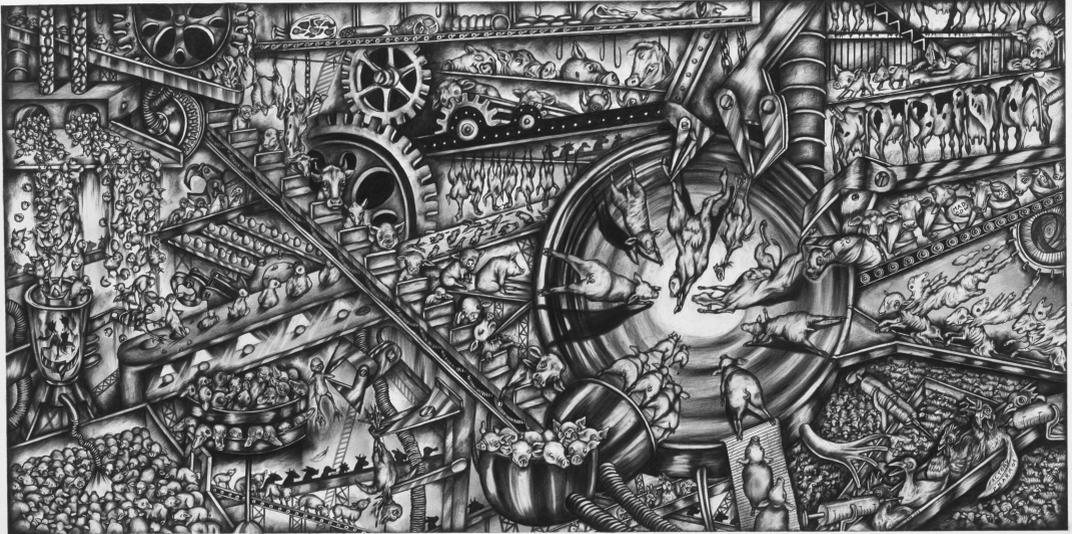
It is clear that any attempt to reduce the food system's GHG emissions must take the issue of livestock seriously. Reducing the production and consequent consumption of meat, dairy and eggs is a necessity if the worst effects of climate change are to be avoided.



3. IN FOCUS: THE NETHERLANDS

Though the Netherlands is a small, densely-populated country, it is the world's second largest agricultural exporter and the third and fourth largest exporter of dairy and meat products respectively [1]. As such, it is a major contributor towards global agricultural GHG emissions. The figure often quoted for Dutch agriculture emissions is 13% of the country's total emissions, equivalent to 24 megatons of CO₂ [2]. However, such estimates fail to incorporate the impact of the Netherlands' reliance on imports and exports for its industrial food system.

This is especially crucial with respect to livestock. The Netherlands has the highest concentration of livestock in the EU: 6.44 animals per hectare of arable land, whereas the EU average is only 1.85 [3]. The Netherlands is only able to support this dirty industry by importing vast amounts of soy (for animal feed) mostly from deforested regions of South America. The indirect emissions through land-use change, and the removal of lush carbon-sequestering forests are not accounted for in the figures quoted for emissions in Dutch agricultural reports. It is crucial to keep in mind that this contribution to climate change is an important and disastrous consequence of the industry. [4].



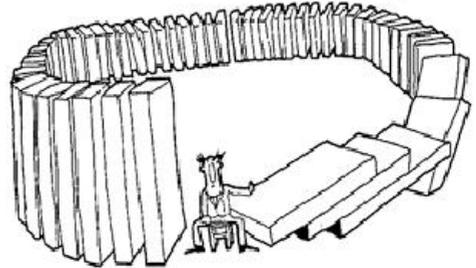
4. HOW ARE WE IN THIS SITUATION?

At the end of the Second World War, war-time technologies and factories were put to new economic uses, such as creating synthetic fertilisers in the same factories where nitrogen bombs had previously been produced. The introduction of synthetic fertilisers along with new higher-yielding hybrid seed varieties and a blend of agrochemicals designed to overcome natural obstacles to monocultures such as pests and weeds, led to a huge rise in the production of grains and oil seeds. These changes are seen as part of the “Green Revolution”—a series of research, development, and technology transfer initiatives characterised by monocultures, specialisation, automation, increased use of synthetic fertilisers and pesticides that began in the first half of the 20th century. It was a capitalist revolution of agriculture.

Increases in yields led to extensive surpluses that could only be profitably absorbed by dumping them onto “weaker” markets or by feeding them to livestock. The need to absorb surplus grains supported the emergence of industrial livestock farming, characterised by large-scale slaughterhouses and the increasing mechanisation of livestock-rearing, all intended to create profitable economies of scale. [1]

The global food system, as it is today, is the outcome of these changes in farming practices pushed by the Green Revolution alongside social and economic restructuring at a global and national level [2]. From the 1980s onwards, national governments and institutes such as the World Bank, the International Monetary Fund and the World Trade Organization have embarked upon a mission of privatisation, commodification, financial deregulation, and trade liberalisation. Multinational companies have thrived in these new circumstances due to their unrestricted access to resources, land, markets, cheap labour and political decision-making arenas. In agriculture, these developments increasingly merged with industrial modes of production and consumption to create today’s corporate-controlled, industrial food system.

In complex systems, cause and effect are often distant in time and space



5. MYTHBUSTING

Is this inevitable though? Industry would have us believe that the status quo can't be changed, that the alternatives are much worse, or that changes are already happening. For these beliefs to take hold, myths are created to support the practices of the industrial food system.

CODE GREEN

iO!



WE NEED AGRIBUSINESS TO FEED A GROWING POPULATION

From a global population of 7.3 billion, there are around 800 million people who are chronically undernourished and 2 billion who are micro-nutrient deficient [1]. They are overwhelmingly based in countries of the Global South. The global population is expected to hit 10 billion by 2050 and most of this population growth is occurring in countries already experiencing endemic hunger and malnutrition. Agribusiness and government entities often promote greater productivity gains under the industrial food system model as the best method to curb global hunger in a growing population. This “feed the world” narrative persists in spite of the fact that the industrial food system produces only 30% of our food using 70% of the world’s agricultural resources, whilst small-holder farmers produce 70% of our food using only 30% of agricultural resources [2].

This reasoning also fundamentally misunderstands the causes of hunger. Hunger is caused by inequality and poverty, not scarcity. The world already produces 1 ½ times more food than is needed to feed everyone on the planet [3]. The problem is that we have an economic system in place whereby access to food is based upon purchasing power. The result? Soy is fed to cattle, and corn is used to produce agrofuels. Not to feed people.

Calls to double food production only make sense if the Global North continues to prioritise eating meat and fuelling cars over feeding the world’s hungry.

Agribusiness has systematically exploited small-holder farmers across the world particularly over the last 50-60 years through acquisitions, land-grabs, and predatory business practices. Since 2001, 227 million hectares of land, an area the size of Europe, has been sold or leased to international investors, backed by capital and guarantees of the World Bank [4]. Over half of these have taken place in countries with serious hunger problems, while two thirds of those investors plan to export everything they produce on the land. This has resulted in ever increasing rural to urban migration. As a result, people can no longer rely on the land to provide them with enough food. Instead, billions are trapped in an industrial food system which demands money they do not have in order to eat.

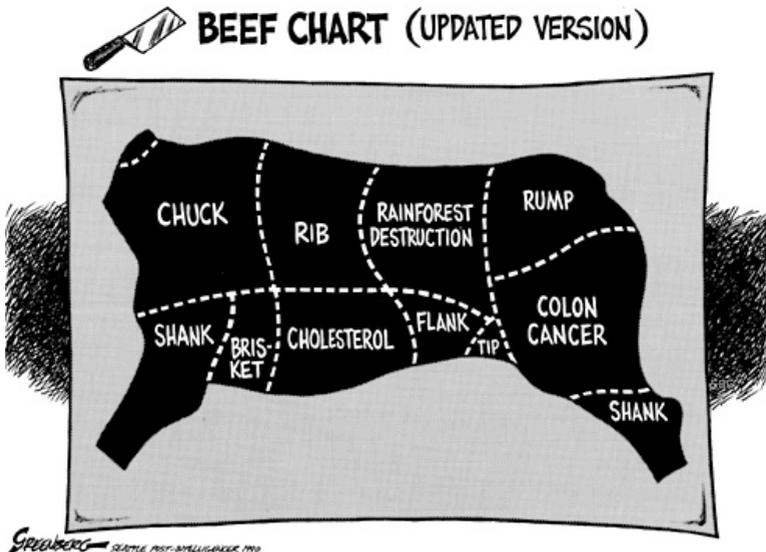


EATING MEAT AND DAIRY IS "NATURAL" AND A CRUCIAL PART OF A HEALTHY DIET

Aside from the fact that naturalistic arguments are generally meaningless, it is obvious that there is nothing "natural" about the way that industrial meat and dairy is produced and consumed. The majority of meat and dairy is produced on an industrial scale in CAFOs (concentrated animal feeding operations). They are often injected with hormones and antibiotics before being processed into a variety of unrecognisable products that are full of preservatives and additives.

Additionally, the introduction of meat and dairy as a primary source of protein and nutrition in most human diets is, evolutionarily speaking, a very recent development. Though we may now be behavioural omnivores, our physiology is herbivorous, just like other apes [5].

Humans have eaten relatively small quantities of meat for millions of years⁵, primarily marrow and other leftovers from carcasses before the domestication of animals some 10,000 years ago. However, with the explosion of industrial livestock farming in the last 50 or 60 years, meat and dairy consumption has sky-rocketed in the Global North and in countries such as China. In the Netherlands, meat consumption per capita doubled from 45kg in 1961 to 90kg in 2002 [6]. Our bodies still have not properly adapted to this huge dietary change. Meat-eaters have a higher incidence of heart disease, cancer, diabetes, and other health problems. A healthy diet consists primarily of a wide variety of plant-based foods.



⁵Aside from groups such as the Inuit, for whom meat is the main part of their diet.

SO LONG AS YOU BUY ORGANIC PRODUCTS, THERE IS NOTHING TO WORRY ABOUT.

In response to growing consumer concerns about the safety of pesticides, GMOs, and synthetic fertilizers to human, animal, and ecosystem health, food suppliers have sought to provide alternatives that are certified organic. Between 2005 and 2015, sales of organic food have grown three times faster than non-organic. Last year, organic food sales in Western Europe amounted to 38 billion euros [7].

Though this may sound promising to some, this growth is predicated on a corruption of the original ideals underlying the organic food movement which demanded diverse, local, and ecologically-sustainable farming and food systems, as well as being concerned with social justice and equality for growers and eaters. Instead, what has happened is that the organic food movement has turned into an industry.

The original meaning of "organic" has been narrowed to that determined by certification standards which are limited in their requirements, lack adequate oversight, and are subject to the influence of powerful agro-lobbyists [8]. Limited certification standards (which nonetheless have complex rules and extensive paperwork requirements) have also created an obstacle to small independent producers in favour of large-scale monoculture farms.

Adding organic Heinz ketchup to the supermarket aisle may result in a little more acreage being put into organic production, but those modest ecological benefits are offset by the tremendous amount of fossil fuel, packaging, and other resources expended in the processing and distribution of these products. Much the same can be said for big organic farms, which are highly resource-intensive operations set up to produce a limited variety of crops that are distributed over great distances. This approach is far removed from the original organic movement's emphasis on diversity, localness, and sustainability. Furthermore, "organic" products found in supermarkets are typically owned by a select few food conglomerates largely responsible for the problems of the industrial food system.⁶

The ideals of organic agriculture are not respected by the industrial food system. Instead, they are appropriated and corrupted in order to profit from legitimate consumer concerns and to counter any threats to the industrial foundations upon which modern food empires have been built.

⁶ For example, Ben and Jerry's ice cream, Green and Black's chocolate, and Seeds of Change sauces, are owned, respectively, by Unilever, Cadbury, and Mars.

AGRIBUSINESS AND FOOD SUPPLIERS ARE ALREADY ADOPTING "CLIMATE-FRIENDLY" INITIATIVES



There are initiatives that agribusiness and major transnational food suppliers have made in an apparent attempt to offset the destructive impact of their business models. Certification schemes such as the Roundtable on Responsible Soy (RTRS) or the Roundtable on Sustainable Palm Oil (RSPO) claim to guarantee high standards of production which protect certain forests and local populations, but in reality their scope is extremely limited, they legitimize destructive practices, push other crops or livestock ranches into other forested areas, and have little to no oversight or enforcement mechanisms [9]. They are marketing strategies disguised as solutions to our climate and food crisis: GREENWASHING.

Initiatives like the RTRS do nothing to address the unequal power relations sustaining the industrial food system, nor do they address the exploitative logic underpinning it. Climate change cannot be stopped by doing some "good things" whilst continuing to expand the main polluting and destructive activities of the business.

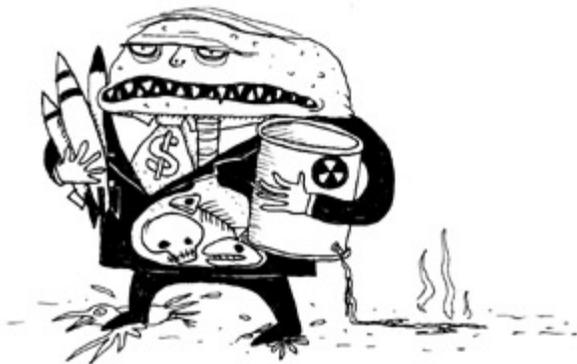
One of the clearest examples of the deceitful attempts by agribusiness and transnational food suppliers to address climate change is the Global Alliance for Climate Smart Agriculture (GACSA), inaugurated by the Dutch government, endorsed by the UN, and which includes PepsiCo, McDonalds, and Monsanto among its members. Under a model of "sustainable intensification" through "climate smart" techniques, GACSA's vision is to make 50% more food available by 2030 and to strengthen the resilience of farming communities whilst reducing GHG emissions by 50%.



As outlined in a letter signed by 350 civil society organisations and NGOs against GACSA, these targets are in no way binding nor is there an accepted definition of “climate-smart agriculture” guiding action, and there is also a total absence of monitoring and accountability mechanisms to ensure that this vision is realised [10]. This is especially problematic given the composition of GACSA's membership. The private sector, dominated by the chemical fertiliser industry in particular, and countries of the Global North are the most represented. So far, only three farmer organisations have joined of a membership totaling more than 150.

Given the composition of its membership and lack of clearly defined commitments, GACSA can only be understood as a PR exercise for those who want to maintain the status quo. It also diverts climate finance money and energy from meaningful initiatives to combat climate change, such as the promotion of the integrity and social legitimacy of agroecology. Rather than challenging the unequal power relations driving our food and climate crisis, initiatives such as GACSA reinforce them under the Trojan horse of sustainability.

HOW CAN WE TRUST THOSE CAUSING THE FOOD AND CLIMATE CRISIS TO BE THE ONES TO SOLVE IT?



TO FIND TRULY VIABLE SOLUTIONS WE MUST LOOK AT BOTTOM-UP,
GRASSROOTS INITIATIVES BASED ON PRINCIPLES THAT WORK
IN HARMONY WITH ECOSYSTEMS RATHER THAN EXPLOITING THEM.

6. WHAT IS THE ALTERNATIVE?

While the industrial food system may appear inescapable at times, there are alternatives that recognise and appreciate the environmental (and social) aspects of food production. A diverse collection of groups, organisations and initiatives intent on resisting the further expansion of the industrial food system are emerging at growing rates. Though it has taken on various forms, the resistance movement can be said to share a common set of principles intended to create a food system that is fair and equitable to people and the environment.

FOOD SOVEREIGNTY:

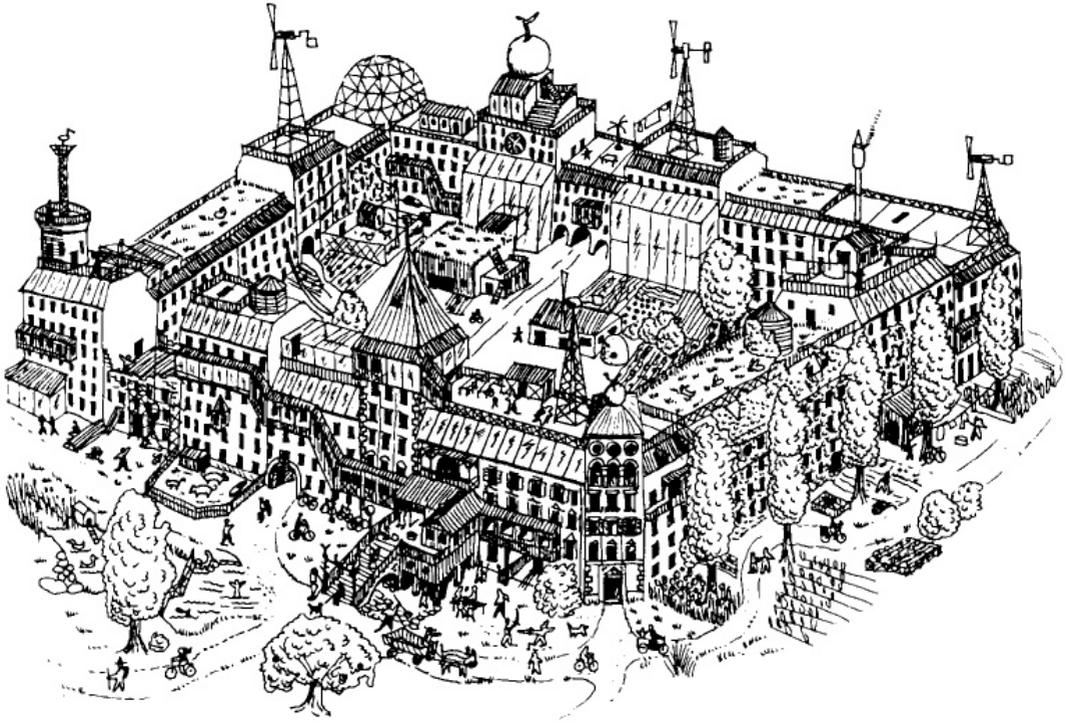
Coalescing under the concept of Food sovereignty, critics of the industrial food system are calling for the democratisation of food production, the food system and the recognition and appreciation of the ecological foundations upon which our food supply depends. At its heart, the notion of food sovereignty acknowledges the right of local people to determine the shape their food system will take.

The term food sovereignty was first officially used by La Via Campesina in 1996 and came to prominence after the Nyéléni Declaration was released in 2007; the outcome of a conference with 500 participants from around the world.

FOOD SOVEREIGNTY DECLARATION FROM NYELENI
[HTTPS://NYELENI.ORG/IMG/PDF/DECLNYELENI-EN.PDF](https://nyeleni.org/img/pdf/declnyeleni-en.pdf)



AGROECOLOGY:



Many alternatives are focused on promoting an approach to food production that works in harmony with ecosystems, as opposed to exploiting them. This form of agriculture has broadly become known as agroecology, though it has been practised in various forms for millennia. While industrial agriculture only focuses on yields, agroecology takes into account the entire ecosystem. In a truly agroecological farming system, soil health is encouraged, biodiversity promoted and crops are produced without synthetic fertilisers, pesticides or herbicides [1].

Agroecology is grounded in the notion that agriculture must adhere to local ecological realities, external inputs are eschewed in favour of local resources and, as such, food consumption patterns are based predominately on locally available produce, rather than relying on imports from distant lands as is the norm under the industrial food system.

Agroecology is not just a system of food production, however. The practical application of agroecology is underpinned by clearly defined principles that have implications on social and political levels. The Landless Workers Movement of Brazil (Movimento dos Trabalhadores Sem Terra or MST) has integrated agroecology firmly within its political program, presenting agroecology as an alternative to capitalist agriculture and a solution to the social and political consequences it entails:

“This [capitalist] model of agriculture is the same that produces social exclusion and the expulsion of millions of peasant families to the slums, which led to hunger and poverty in rural and urban areas, and promotes the destruction of nature. We need to resist this destruction, exploitation of human beings, and the nature of capitalism. Which is why for a number of years the MST has been developing agroecology in their settlements. [...] Above all, we

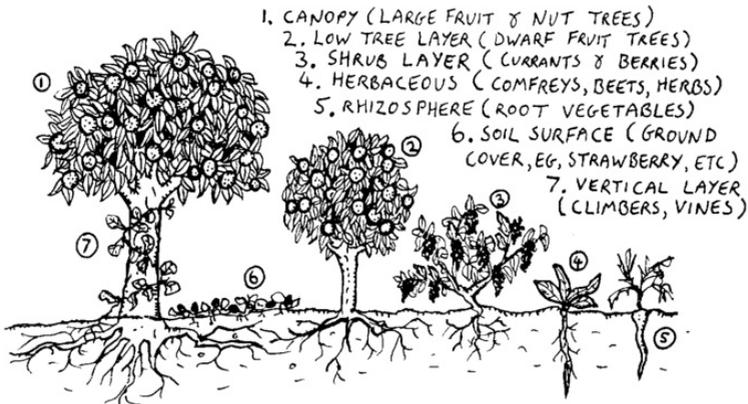
understand that agroecology is a way of organizing farmers in search of social change, which proposes a new model of society where man and nature can relate without exploitation.” [Quoted in: 2]

The MST also recognises that “there is no way to transform Brazilian agriculture based on agroecology and social justice without defeating landlordism, agribusiness, and capitalism.” [Quoted in: 2]

The concept of agroecology can therefore, go beyond technical recommendations for agriculture and become a component of social struggles. It has connotations that go beyond food production as it can be applied as a guiding principle that helps us to establish a harmonious relationship with our ecology. Namely, that we should build our societies within local ecological realities. Our version of the realisation of this is described below:

AGROECOLOGY AS A SCIENCE, A MOVEMENT AND A PRACTICE. A REVIEW

[HTTPS://WWW.SOCla.CO/WP-CONTENT/UPLOADS/2014/WEZEL-AGROECOLOGY.PDF](https://www.socla.co/wp-content/uploads/2014/wezel-agroecology.pdf)



THE FOREST GARDEN: A SEVEN LEVEL BENEFICIAL GUILD

VISION:

Our vision is one that is held by food sovereignty advocates and many environmental groups across the world, albeit in varying forms. It is not utopian, it is an imperative. If we continue to accept the industrial food system, we will destroy the capacity of the earth to support advanced forms of life. The crisis we face is also an opportunity to wrestle control of our food system from corporations and build a fairer one, which prioritises people's needs over profit. There will be no climate justice or food sovereignty without an approach that recognises their interdependence. We must challenge and resist the logic underpinning the current system, which views the earth as a factory, people as consumers, and livestock as machines. We must ensure that the fate of our climate and our food system does not depend on a handful of unaccountable corporate elites. We must work towards a paradigm shift: from corporate-controlled, industrial farming towards community-level, diversified agroecological systems.

We envision a decentralised farming and food system comprised of local networks, which works in harmony with surrounding ecologies in order to meet human needs, not corporate profits and the obligations of international trade agreements.

Where seasonal and locally-grown produce is shared and traded within and between neighbouring rural and urban communities. Where the planting, care, and harvesting of fruits, grains, pulses, tubers, and vegetables is a community effort insofar as it is supported and appreciated by all who work and benefit from it. Where technology and knowledge are treated as public goods to secure these aims, not private resources used to consolidate power. Where more people are an active part of this farming and food system, not passive, alienated consumers dislocated from food production.

We recognise that such a change cannot happen in a vacuum; for this vision to be realised broader changes in society must take place. The call must be to solidarity and mutual cooperation with all individuals and groups that struggle against oppression in all its forms. Only by working together and building a cohesive social movement that shuns the narrow-mindedness of single-issue focus and instead favours a broad critique of the system, will we be successful.



7. PARADIGM SHIFT: AN OVERVIEW

<i>Issue</i>	<i>Industrial farming model</i>	<i>Alternative vision</i>
Trade	Free trade in everything	Food and agriculture (at a minimum) free from trade agreements
Production priority	Agroexports	Food for local markets
Market access	Access to foreign markets	Access to local markets for urban residents; an end to the displacement of farmers from their own markets by agribusiness
Subsidies	Widespread in US and Europe favouring the largest farms and specific commodities	Subsidies that do not damage other countries (via dumping) i.e. grant subsidies only to family farmers for price/income support, soil conservation, research etc
Livestock	Abundant cheap meat and dairy	Predominantly a plant-based diet. Externalised costs to be included
Ability to produce food	An option for those with capital	A right of rural and urban peoples
Hunger	Due to low productivity	A problem of access and distribution due to poverty and inequality
Food security	Achieved by importing food from where it is cheapest	Greatest when food production is in the hands of the hungry and when food is produced locally
Seeds	A patentable commodity	A common heritage of humanity; held in trust by rural communities and cultures -no patent on life-
Monopolies	Not an issue; encouraged by capitalism	Manifestation of grossly unequal power relations; must be broken up
Synthetic fertilizers	Widespread application to counter degraded soils and support monocrop farming	Build soil health; inter-cropping, diverse plant species and natural fertilizer

Deforestation	Necessary to increase short-term productive capacity. Widespread in Global South	Agroforestry under principles of agroecology and forests as carbon sinks
Access to land	Via the market/land-grabbing	Via genuine agrarian reform; without access to land, the rest is meaningless
Overproduction	No such thing by definition	Drives prices down (see trade) and farmers into poverty; we need supply management policies for US and EU
Farming technology	Privately owned; top-down transfer based on purchasing power	Participatory, open-source technology development; farmer-centred research and extension
Urban consumers	No say. Passive. Workers to be paid as little as possible	Need living wages. Direct relationship with farmers and producers. Democratized work and living spaces.
Transport	Long-distance and pervasive; encouraged by cheap fossil fuels and export-orientation	Minimized to local markets
Waste	Consequence of cheap food, consumer alienation from food production, and complex, inefficient value chains	Minimized by short farm to fork chain, use of waste as natural fertilizer, and consumer appreciation and understanding of food production
Food processing	Energy-intensive and centralized; to make many products from a limited number of commodities	Small-scale, community-level food processing. Priority given to cooking a diverse array of foodstuffs
Food packaging	Marketing and transport purposes	Less processed foods and lower export-orientation reduces the need for packaging
Refrigeration	Necessary to enable long-distance transport and long-term storage of over-produced goods	Required only for storage of locally-grown foods

Source: adapted from Rosset, 2003

8. WHAT IS PREVENTING THE ADOPTION OF ALTERNATIVE FOOD SYSTEMS?

"THE MISMATCH BETWEEN THE POTENTIAL OF AGROECOLOGY TO IMPROVE FOOD SYSTEMS OUTCOMES, AND ITS POTENTIAL TO GENERATE PROFIT FOR AGRIBUSINESSES, MAY EXPLAIN WHY IT HAS BEEN SO SLOW TO MAKE ITS WAY ONTO THE GLOBAL POLITICAL AGENDA." (IPES, 2016, P.59)

According to a report by the International Panel of Experts on Sustainable Food Systems, there are eight key reasons that prevent the emergence of alternative food systems and lock-in the existing industrial model [1].

PATH DEPENDENCY:

The investments made in industrial agriculture demand a return. This pressures agricultural operations to continually expand and mechanise. Increasing labour costs coupled with cheap fossil fuels, as a result of extensive subsidies further encourage mechanisation.

In general, agricultural subsidies favour large-scale producers e.g. in the EU payments increase per hectare. This is partly because retailers prefer to work with large producers as they require bulk supply. Smaller producers are unable to meet the demands of retailers and are consequently unable to enter this part of the market.

EXPORT ORIENTATION:

A combination of trade and agriculture policies have led to a deeply ingrained export focus in industrial agriculture.

This has been facilitated by new means of transport – including rail and containerhips – and refrigeration technologies. Again, cheap fossil fuels play an important role in making export-oriented agriculture feasible.

This point is particularly relevant to the Netherlands, which, despite its relatively small size, is the 4th largest exporter of meat, 3rd largest exporter of dairy and the largest exporter of vegetables. Overall, the Netherlands is the worlds second largest exporter of agricultural produce [3].

EXPECTATION OF CHEAP FOOD:

The spread of and demand for processed foods has increased retailers reliance on uniform commodity crops, such as maize, soy, palm oil, and wheat. Consumers have become used to cheap and abundant food.

A disconnect has emerged between farmer and consumer. Most consumers are situated in urban areas, they purchase their food through intermediaries and have little knowledge of how or where their food was produced. As a result, people no longer consider the implications of their food choices on the farming system.

COMPARTMENTALISED THINKING:

In politics, business, and research there is an over emphasis on yields and productivity despite mounting evidence that such concerns must be reconciled with other issues, such as the health of the soil and surrounding ecosystem. Research focuses on narrow topics, such as biotechnology, rather than taking a systems level approach which shows that research should be conducted on agroecology and the complex interaction between nature and human societies.

The privatisation of research has played an essential role in limiting the scope of research to business concerns. This has been characterised by a focus on commodities that are likely to generate significant returns, such as wheat.

SHORT-TERM THINKING:

Politicians and business are locked into short-term processes. Politicians, by the electoral cycle and the need for quick-wins as opposed to fundamental changes, and business by the need to satisfy investors, generate profits and meet the demands of customers. Supermarkets, for example, have allowed their customers to expect cheap and abundant food all year round. To meet this generated demand, supermarkets will put pressure on farmers to meet their supply needs.

FEED THE WORLD NARRATIVES:

As noted earlier, there is a collection of myths perpetuated by the industrial food system to justify its existence and suppress alternatives. Perhaps the most commonly used myth is the claim that we need industrial agriculture to feed the world (see Mythbusting).

MEASURES OF SUCCESS:

Success in agriculture is generally measured in terms of yields per specific crop, productivity per worker and total factory productivity (total outputs relative to total land and labour inputs). Viability of agricultural systems, as in many sectors, is based on a cost-benefit analysis, which ignores ecological, social and cultural variables.

Agroecological systems have shown to perform well vis-a-vis industrial agriculture in terms of total output, however their outputs are diversified meaning they cannot compete when output is measured per crop. On top of this, agroecology offers environmental benefits that are currently not attributed any value. It is also questionable whether reducing labour in agriculture is a desirable goal, particularly if labour conditions are improved in an agroecological system. More labour intensive systems of agriculture could become fulfilling livelihood opportunities.



CONCENTRATION OF POWER:

The concentration of power within the food industry reinforces all the other issues mentioned above. The concentration of political and economic power in the hands of just a few major corporations provides them with an unprecedented ability to set the rules of the game in their favour.

Industrial agriculture exerts an increasingly monopolistic control over the global food system: Six giant corporations – Monsanto, Syngenta, Dow, DuPont, BASF and Bayer – control 75% of agrochemicals and 63% of seed sales, and with several mergers at advanced stages of negotiation, the big six could dwindle to just three mega-corporations [5]. Four corporations, ADM, Bunge, Cargill and Dreyfus, control more than 75% of the international grain trade [6]. Three huge companies control 77% of the \$65 billion farm machinery market: John Deere, CNH Global and AGCO [7].

CORPORATE COOPERATION:

While these corporations actively compete with one another in many areas, they have more in common than the competitive nature of their relationships might imply. Competition is fierce when it comes to market share, but when the foundation upon which all their businesses are based is threatened, corporations show a willingness to act in unity. When it comes to government lobbying, for example, all the major seed producing corporations are interested in strengthening favourable patent laws and eliminating legal barriers to the expansion of the commercial seed market. Equally, the lobby group Fertiliser Europe represents all the major players in the fertiliser industry and works to promote their shared interests in the EU.



ART - DAN BERGER - CONCEPT - MIKE ADAMS

WWW.NATURALNEWS.COM

9. THE MARGINALIZATION OF AGRICULTURE IN CLIMATE ACTIVISM

In a similar vein to the International Panel of Experts of Sustainable Food Systems (IPES), we may consider why agroecology, or the issue of agriculture more generally, has been slow to make its way onto the agenda of those who claim to be climate activists, or part of the “climate justice movement”, given the enormous impact the industrial food system has on our climate and environment. The answer, however, is ultimately more of the same: agroecology and food sovereignty’s inability to generate and secure comparable profits to the industrial model.

What is meant by this is that the activities of climate activists are largely defined by compromised “grassroots” climate justice NGOs such as 350.org, who claim to represent civil society but in reality act in the interests of their capitalist financiers. This is part of a broader and well-established strategy of civil society co-optation by capital interests through liberal philanthropic foundations, such as Ford and Rockefeller, as a means of controlling the narrative surrounding particular issues, the activities of the NGOs they finance, as well as marginalizing grassroots actors with a message that seriously threatens profits and established power relations [1].

It is a form of social engineering which has proven successful in the past at suppressing the radical elements of feminist, anti-colonial, Black Power, and environmental movements.

350.org, largely funded by oil magnate Warren Buffet through several philanthropic foundations, has been immensely successful at positioning itself as the embodiment of “grassroots” climate activism [2].⁷ In this guise, 350.org has implicitly championed green capitalism as the solution to the climate crisis, and narrowed the concern of climate activism to specific fossil fuel actors.

They have channeled the mass anger and fear towards the climate crisis away from meaningful organisation and action directed at systemic causes in favour of mediagenic displays of symbolic resistance, ineffective divestment campaigns and messages of misplaced hope. The anti-Keystone XL Pipeline campaign exemplifies much of this.⁸

350.org, alongside other mainstream environmental NGOs, have framed the debate surrounding our climate crisis from one which could take an intersectional understanding of the multiple, related crises we face to a simplistic and toothless call for an end to the fossil fuel industry

⁷ Whilst celebrated as a success, the vetoing of KXL has had no impact on oil production or export from the Alberta Sands in Canada. The main beneficiary has been BNSF, the largest freight railroad network in North America, which is owned by Warren Buffet and has enjoyed an unprecedented increase in revenue through the export of crude oil by rail as a result of the delays to KXL [3].

⁸ 185 land and environmental defenders were murdered in 2015, according to Global Witness. This is double the number of journalists killed over this period, but is still likely to be a gross underestimation. See: <https://www.globalwitness.org/en-gb/reports/dangerous-ground/>

and a 100% switch to renewables as the solution to our climate problems. Yes, this needs to happen⁹, but 350.org's strategy will certainly not achieve this in the necessary time-frame, nor would such a switch be enough to avoid climate extremes, ecological collapse, and ongoing social injustices without resistance to the systemic structures underpinning our industrial food system and consumptive culture.

Rather than combating climate change, the reformist approach of the mainstream climate movement towards a "green" society operating on the same destructive logic as before strengthens the rule of capital in a world of climate crisis, bolsters the profits of the business interests of their funders, and diverts well-intentioned activist energy away from meaningful initiatives. As can be inferred through the analysis of IPES, the intrinsically anti-capitalist implications of food sovereignty, agroecology, and land reclamation from private ownership have no such obvious place in this profit-making framework and are consequently not part of the narrative of mainstream climate justice and environmental NGOs.

This situation has helped to ensure that the issue of agriculture and our food system with respect to climate change remains marginal. Accordingly, there has not been due consideration in many climate activist circles of the potential that a radical reorientation of our food system and communal access to land holds to avert

the worst effects of climate change, whilst delivering social and economic justice to millions of small-scale farmers. As a result, the voices of those most affected by industrial farming and land grabs, beyond indigenous tokenism, have also not been well represented within the climate justice movement, in spite of the ongoing extreme violence and oppression they face for protecting their land and communities.¹⁰

A reorientation of our food system along the lines of food sovereignty and agroecology would prefigure a greater stand against capitalism beyond the narrow, reformist approach of the mainstream climate movement. Food sovereignty and agroecology offer a compelling, tangible vision of social and economic relations oriented away from capitalism and towards harmony with surrounding ecologies. All the while, this vision is one which would sequester carbon and greatly reduce our energy demands.

That this is not high on the agenda of organisations claiming to work within the climate justice movement suggests a glaring blind spot in their liberal strategic thinking and/or a form of co-optation within the mainstream movement whose messages and activities are guided by their capitalist funders. The climate justice movement, if it is to have any meaning at all, must reject the money of Wall Street laundered through philanthropic foundations and incorporate the vision of food sovereignty as a central part of its message.

²⁶ ⁹ Sooner or later, industry will, of course, be forced into this position in any case as a result of depleted reserves.

¹⁰ ->

10. ACTION - OVERCOMING THE OBSTACLES AND REALISING THE VISION

Where to begin? We need to combine strategies and messages to create a new food system. On the one hand, we need to show that climate-friendly and socially-beneficial alternatives are possible and already exist. We have to promote and facilitate those alternatives. But we also realise that we need to develop our disruptive capacity as well: existing polluters and land grabbers will not stop what they are doing unless forced to. There are strong interests and powers behind the existing industrial agricultural system. We have to struggle to stop dirty companies, lobbyists and their destructive activities.

To be able to do this we need a lot of people, enough to create a critical mass across a large area, a counter power. But we are sure that this is possible! In spite of its drawbacks, the climate justice movement has shown that it is possible to mobilise lots of people for action on climate change, and now the discourse surrounding new fossil fuel projects has changed significantly, though there remains a lot to do.

So, why can we not do the same for agribusiness? This sector contributes as much to climate change as coal power plants. And it is clear what the problematic activities are. It should be possible to mobilise thousands of people to stop this!

It is, however, a longer chain with more actors, processes and locations, but this can also be a strength for our acts of resistance. We can stop forest-destroying soy from entering Europe in our harbours; we can blockade large animal feed producers and slaughter houses; we can occupy the offices of agro-lobbyists; we can disrupt the activities of fertilizer-processing plants; we can reclaim land earmarked for agribusiness development; we can stop the building of new stables; we can prevent supermarkets from selling cheap, industrial meat; we can escalate our actions.

We have to start by connecting our struggles, supporting one another, and leading with some inspiring actions to show that resistance is fertile; that change is possible. Ultimately, the food system crisis is embedded in the broader capitalist crisis – to overcome the former we must also overcome the latter. For this reason, we should also never underestimate the importance of solidarity with other struggles, be it the struggle of workers, refugees or students.



¹⁰ 185 land and environmental defenders were murdered in 2015, according to Global Witness. This is double the number of journalists killed over this period, but is still likely to be a gross underestimation. See: <https://www.globalwitness.org/en-gb/reports/dangerous-ground/>

CHANGE YOUR OWN CONSUMER BEHAVIOUR

CHANGE YOUR EATING HABITS:

Though there are clear limits to the idea of consumer-led social change, it is also true that if all Europeans became vegetarians today, the EU would meet half of its environmental targets by 2020. Even better: Go vegan!



For more good reasons to go vegan, check out the movies *Cowspiracy* & *Earthlings*

PAY ATTENTION TO WHAT YOU BUY:

Escape the supermarket! When buying food it makes sense to keep in mind how it is produced and what effect this has on the environment. The ideal would be amongst others organic (restricted use of pesticides, focus on healthy soils & sustainable farming), local (less transport, often from small-scale farms), fair-trade (better trading conditions and focus on human rights of labourers) and without plastic packaging materials. In supermarkets it's difficult to find products that fulfil more than one of these criteria. A good alternative is farmer's markets and buying produce directly at the farms in your region.

DUMPSTER DIVING/COLLECTING FOOD WASTE:

Use what the system throws away to feed hungry people by collecting it from bins or asking shops to give you what they would otherwise throw away. Food discarded by the industrial food system can also be used for composting!

TWISTED IMAGE by Ace Backwards ©1993



BYPASS THE FOOD CHAIN ALTOGETHER

JOIN A CSA GROUP;

(CSA = Community supported Agriculture)

A CSA is an alternative, locally based economic model of agriculture and food distribution. That means a network, or association of individuals, who support local farms, sharing the risks and benefits of food production. CSA members or subscribers pay at the onset of the growing season for a share of the anticipated harvest; once harvesting begins, they regularly receive shares of produce (often biweekly). In CSAs, contributions of labor can be shared in lieu of a portion of subscription costs.

The concept is growing rapidly across Europe where there are now almost 3,000 CSA groups providing food for half a million people [1]. This cuts out the need for supermarkets, and helps to ensure your food is local and grown sustainably. For further reading check: <http://urgenci.net/wp-content/uploads/2016/05/Overview-of-Community-Supported-Agriculture-in-Europe.pdf>

FOOD COOPS:

Food coops are consumer organisations that work together to collectively buy food, often directly from the producers and according to their own chosen standards (often organic, fair trade, etc). Organising in a bigger group allows consumers to buy larger amounts for cheaper and without involving retailers.

Those living in Amsterdam can join the Vokomokum Food Cooperative:

<http://www.vokomokum.nl/over-ons/>



provided by the Cooperative Grocers' Information Network (CGIN)

<http://www.cooperativegrocer.coop/library/start-a-food-coop>

GROW YOUR OWN IN YOUR GARDEN OR START URBAN FARMING:

Urban farming simply means growing food in heavily populated spaces, like cities. The idea behind it is to increase access to locally grown food and a way of reintroducing the public to the many aspects of food: How food grows, what grows regionally and seasonally. Urban farming is often connected to communal initiatives, where people turn unused spaces into gardens. This can be your balcony, the roof of your house, a patch in the park, a rented place or a squatted piece of land. If finding a place proves difficult, try lobbying local authorities for access to unused/derelict land to grow food. Or claim access to it anyway!

LEAVE THE CITY AND START A FARM:

If you can, buy land (or better yet, squat land from people who have too much!) and start your own farm. Implement the principles of agroecology directly and become independent from the industrial food system. Grow food for yourself and use surplus to supply those who live around you, or in a nearby town or city. Build a community on your land that practises direct democracy, mutual aid and cooperation.

NEIGHBOURHOOD FARMING:

If you do not want to or cannot grow food alone, you can organise in neighbourhood farms. The principle is the same as urban gardening, only that neighbourhood farms are based on working with a group of people from the same neighbourhood: More space, more energy, more ideas.



TURN YOUR VOICE INTO ACTION, RESIST THE INDUSTRIAL FOOD SYSTEM

SPREAD THE WORD:

Tell the people around you, spread flyers and info material, do movie screenings, join, organize and host discussions about agroecology, what it means for your community, and how it relates to climate change, food sovereignty and improved social relations. Spray-paint it on walls or the local supermarket manager's cars or whatever else comes to your mind.



RUSTLE THE LEAF
BY PONCE & WRIGHT



OPPOSE AND STAND UP AGAINST THE TTIP (and all trade deals)

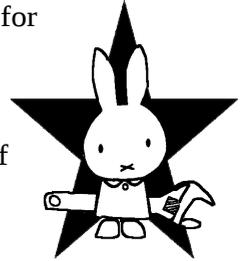
It is no coincidence that agribusiness is by far the most active lobbying sector in the TTIP negotiations [2]. TTIP, the “Transatlantic Trade and Investment Partnership” is a series of trade negotiations being carried out mostly in secret between the EU and the US. As a bi-lateral trade agreement, TTIP is about reducing the regulatory barriers to trade for big business, things like food safety law, environmental legislation, banking regulations and the sovereign powers of individual nations.



Keep informed and register your concerns with your European Member of Parliament at <https://stop-ttip.org/>

DIRECT ACTION:

Direct action is one of many strategies for change and resistance, so join ASEED and similar groups for actions against the interests of agribusiness and demonstrations calling out corporate control over our food system. Or organise individual actions. If you do not know where to start, contacting existing groups and asking for help might be an idea. There is plenty of info on the web also: (skilsharing.net; seedsforchange.org.uk). Examples for direct action range from symbolic blockades of factories/offices of companies and parties to physical blockades and occupations of land where factories are to be built or forests to be cut; from playful media events to radical and assertive actions.



ORGANISING AUTONOMOUS NETWORKS:

If we want to reach our goals, we have to work together. For those groups, individuals, and organisations who recognise the connection between the climate crisis and the exploitative nature of capitalism and the industrial food system it has created, it is vital that we come together to produce and promote a more radical critique of the situation and determine what can be done about it.

There are a number of organisations and coordinating bodies promoting food sovereignty and agroecological methods of farming. There are also numerous groups doing sound work exposing the many destructive practices of agribusiness and industrial food suppliers. However, to resist the industrial food system and its impact on climate change, there needs to be greater coordination in order to inspire and organise actions, resistance, large-scale mobilizations and the creation of alternative infrastructure. Those striving for climate justice through a reorientation of our food system must connect with one another to discuss strategies and tactics for resisting the industrial food system as a necessary response to our food and climate crisis.

It is imperative that we do not become issue focused and recognise all struggles against oppression and exploitation as intimately connected and equally worthy of our attention. The food and environmental groups must recognise their true allies. They are not the state, compromised NGOs, or green capitalists; our allies are those people that resist top down organisation and the centralisation of power. Whether they be student groups resisting the commercialisation of the university or workers demanding the right to self-organisation and autonomy.

THE FOOD SYSTEM PROBLEM IS A SOCIAL PROBLEM: SOLIDARITY WITH ALL THOSE WHO STRUGGLE AGAINST OPPRESSION!

11. REFERENCES

INTRODUCTION

[1] - http://unctad.org/en/publicationslibrary/ditcted2012d3_en.pdf

[2] - <http://www.fao.org/docrep/019/i3671e/i3671e.pdf>

[3] - <https://insideclimatenews.org/news/27092016/looking-earth-itself-climate-solution-soil-obama-vilsack-carbon-emissions>

[4] - <http://www.srfood.org/en/report-agroecology-and-the-right-to-food>

How does our food system drive climate change?

[1] - <http://www.ipcc-nggip.iges.or.jp/public/2006gl/>

[2] - <http://www.fao.org/docrep/019/i3671e/i3671e.pdf>

[3] - <https://www.grain.org/article/entries/4357-food-and-climate-change-the-forgotten-link>

[4] - <https://www.chathamhouse.org/sites/files/chathamhouse/publications/research/2016-01-28-agricultural-commodities-brack-glover-wellesley.pdf> <p.39>

[5] - <https://www.grain.org/article/entries/5102-food-sovereignty-5-steps-to-cool-the-planet-and-feed-its-people>

[6] - <http://www.fao.org/docrep/018/i3347e/i3347e.pdf>

LIVESTOCK: IN FOCUS

[1] - FAO (2006) Livestocks Long Shadow - <ftp://ftp.fao.org/docrep/fao/010/a0701e/a0701e.pdf>

[2] - Wies, T. (2013) The Ecological Hoofpring. Zed Books

[3] - https://www.chathamhouse.org/sites/files/chathamhouse/field/field_document/20141203

LivestockClimateChangeBaileyFroggattWellesleyUpdate.pdf

NETHERLANDS: IN FOCUS

[1] - <https://www.government.nl/latest/news/2015/01/16/dutch-agricultural-exports-top-80-billion-euros>

[2] - <http://climateagenda.minienm.nl/>

[3] - <http://www.thebrokeronline.eu/Blogs/Power-dynamics-and-natural-resources/How-Europe-can-solve-soy-conflicts>

[4] - http://commodityplatform.org/wp/wp-content/uploads/2009/12/factsheet_3_replacing-soy-in-animal-feed_final.pdf

HOW ARE WE IN THIS SITUATION

[1] - Wies, T. (2013) The Ecological Hoofpring. Zed Books (check reference)

[2] - http://www.fian.org/fileadmin/media/publications/Fact_Sheet_Agroecology_digitaal.pdf

MYTHBUSTING

[1] - <https://www.wfp.org/hunger/stats>

[2] - http://www.etcgroup.org/sites/www.etcgroup.org/files/Food%20Poster_Design-Sept042013%20copy.pdf

[3] - http://www.huffingtonpost.com/eric-holt-gimenez/world-hunger_b_1463429.html

- [4] - http://www.fian.org/fileadmin/media/publications/Fact_Sheet_Agroecology_digitaal.pdf
- [5] - http://www.huffingtonpost.com/kathy-freston/shattering-the-meat-myth_b_214390.html
- [6] - <https://www.theguardian.com/environment/datablog/2009/sep/02/meat-consumption-per-capita-climate-change>
- [7] - <http://www.foodnavigator.com/Business/Embrace-organic-say-experts-who-predict-9.2-growth>
- [8] - https://www.organicconsumers.org/old_articles/Organic/badder111802.php
- [9] - <http://www.greenpeace.de/files/publications/rspo-certifying-destruction.pdf>
and <https://www.independentsciencenews.org/environment/way-beyond-greenwashing-have-multinationals-captured-big-conservation/>
- [10] - <http://www.cidse.org/publications/just-food/food-and-climate/climate-smart-revolution-or-a-new-era-of-green-washing-2.html>

WHAT IS THE ALTERNATIVE

- [1] - http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf
- [2] – Meek, D (2014) *Agroecology and Radical Grassroots Movements' Evolving Moral Economies*.
- [3] - Toensmeier, E. (2016) *The Carbon Farming Solution: A Global Toolkit of Perennial Crops and Regenerative Agricultural Practices for Climate Change Mitigation and Food Security*. Chelsea Green Publishing, USA.
- [4] - <https://www.government.nl/latest/news/2015/01/16/dutch-agricultural-exports-top-80-billion-euros>
- [5] - <http://www.etcgroup.org/content/sino-genta>
- [6] - <https://www.theguardian.com/global-development/poverty-matters/2011/jun/02/abcd-food-giants-dominate-trade>
- [7] - <http://www.etcgroup.org/content/seedy-characters>

THE MARGINALIZATION OF AGRICULTURE IN CLIMATE ACTIVISM

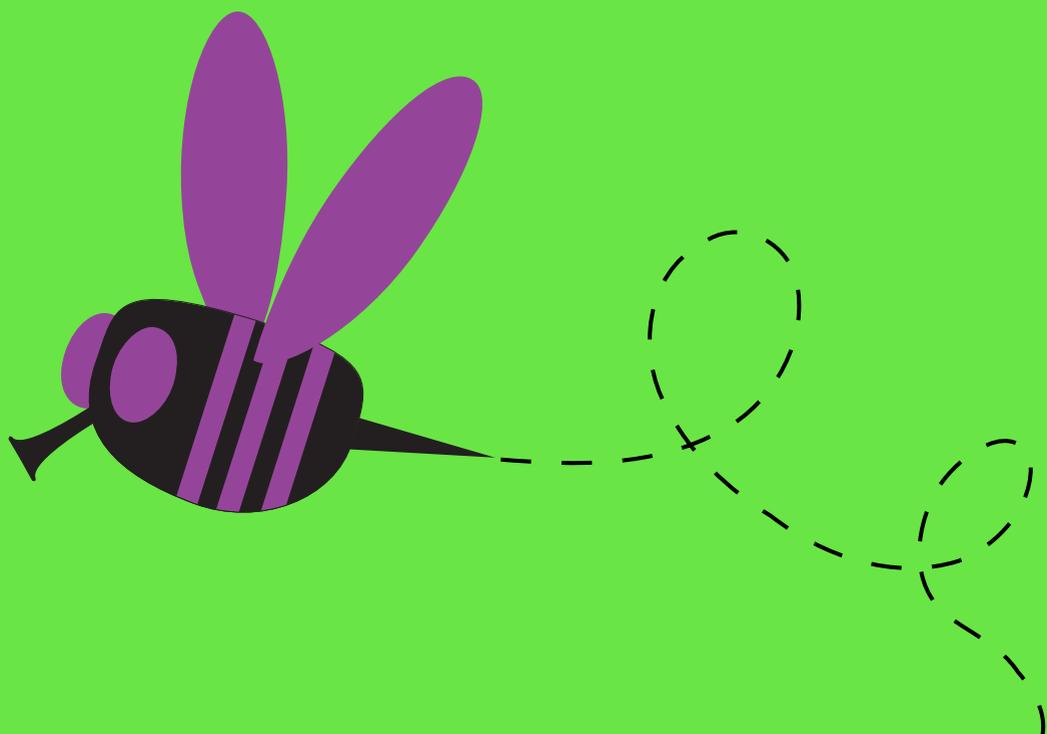
- [1] - Ben Whitaker, *The Foundations: An Anatomy of Philanthropic Bodies* (London: Methuen, 1974); Ferdinand Lundberg, *The Rockefeller Syndrome* (Secaucus, N.J.: L. Stuart, 1975); Richard E. Brown, *Rockefeller Medicine Men: Medicine and Capitalism in America* (Berkeley: University of California Press, 1979); Robert F. Arnove, (ed.), *Philanthropy and Cultural Imperialism: The Foundations at Home and Abroad* (Boston, Mass.: G.K. Hall, 1980); Joan Roelofs, *Foundations and Public Policy: The Mask of Pluralism* (Albany: State University of New York Press, 2003)
- [2] - <http://www.counterpunch.org/2014/05/02/the-climate-wealth-opportunists/>
- [3] - <http://www.counterpunch.org/2015/11/12/kxl-rejection-hype-not-hope/>
- [4] - <http://www.swans.com/library/art15/barker23.html>

ACTION

- [1] - <http://www.arc2020.eu/2016/06/community-supported-agriculture-urgenci-report-reveals-rapid-european-growth/>
- [2] - <http://corporateeurope.org/pressreleases/2014/07/agribusiness-biggest-lobbyist-eu-us-trade-deal-new-research-reveals>

I BELIEVE WE
HAVE UNDENIABLY VALID
GROUNDS FOR A REVOLUTIONARY
ACTION.





 **ASEED**
E U R O P E

www.aseed.net

info@aseed.net