



FALSE SENSE OF SECURITY

Why European food
systems lack resilience

October
2020

GREENPEACE

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INTRODUCTION

Through the Covid-19 pandemic, every one of us has experienced the vulnerability of the globalised food system, dependent on long global supply chains and migrant labour. Disrupted supply chains mean long lines at supermarkets, food hoarding, culling of farm animals, job losses, and rising food insecurity.

Why does this happen? Despite the fact that food is a fundamental human right, global markets dominated by a small number of large corporations determine what sort of food is produced, where and how it is made, and the ways it is distributed. Major power imbalances between small-scale farmers and consumers on the one hand, and the big agri-businesses and food companies on the other, mean that large investments in land, agriculture and food processing often marginalise or displace small-scale producers.

When people eat, they are also subject to the decisions of corporations. Corporate control means that food is distributed on the basis of what makes the most profit, not with the intention of ensuring everyone a healthy, balanced diet. The notion that 'profitable' is the same as 'efficient' means that food that can easily be grown in European fields, like apples, is flown in from halfway around the globe. **Forests, like the Amazon, and other ecosystems are cleared to make way for meat production, as well as soy and palm oil which are used to feed cows, pigs and chickens in European factory farms or to fuel the cars we drive..**

The absurdity of this system is becoming impossible to ignore. Covid-19 is not an isolated incident, but only the latest of a long string of animal-borne diseases (termed 'zoonotic diseases'), like SARS, H1N1 (swine flu), Avian Flu, and Ebola. These viruses have been incubated by humans destroying nature, often linked to our growing consumption of 'cheap' meat and dairy, and turbo charged by ever-increasing reliance on global trade and the intensification of factory farm production.

The good news is that it doesn't have to be this way. The global Covid-19 crisis has given us the opportunity to rethink how and where we produce what we consume. The free trade mantra of 'the more we trade, the better' does not hold true. We can eat delicious and nutritious food, produced in a way that does not trash our world, if we build a better, greener and fairer food system based on food sovereignty and the re-localisation of our food systems.



The global Covid-19 crisis has given us the opportunity to rethink how and where we produce what we consume.

Simply put, **FOOD SOVEREIGNTY** is about the right of people to define their own food systems, recognising that we need ecological farming, viable small-scale farms, and vibrant local economies with a diverse set of jobs to achieve a food system that is healthy for people and the planet. Food sovereignty is distinct from food security, which relates only to food access, and sometimes even includes food aid. While international development efforts to promote food security can help alleviate hunger, they alone are insufficient because they do nothing to address the inequalities and imbalances of power that exist in the food system, which enable corporations to squeeze maximum profit from both producers and consumers.

Food sovereignty is also distinct from food self-sufficiency; the goal is not for sovereign states to produce everything domestically and remove all international trade, because it is not always ecologically sound or socially sustainable to do so. For example, eating an organic avocado grown in Peru and shipped with low energy usage to Europe might actually be better for the environment than consuming beef from a cow in a factory farm down the road. However, an important component of food sovereignty is re-localisation of our food systems to stop export-led production, produce food ecologically, and support vibrant local economies.

What would **RE-LOCALISATION** look like? Re-localisation means diversification of our food system, which translates into resilience, as we are less dependent on just one, usually corporate, source for each product. It means connectivity between consumers and producers, leading to more accountability of producers towards consumers on the way food is produced. Re-localisation means a more rational trade policy that takes into account the human and environmental costs of consumption patterns, with the aim of everyone sustainably living a good life, not just maximising a corporation's profits. Re-localisation is an opportunity to rethink our supply chains and make fundamental changes to our consumption and production systems.

How does Europe stack up on food sovereignty and re-localisation of our food system? In this report, we look at European agriculture in terms of feeding the people in its territory and find some disturbing trends.

While levels of food production have continued to grow, this hasn't necessarily translated into more resilient food systems or healthier food for people in Europe. On the contrary, the findings of this report show that growing levels of production go hand in hand with fewer small-scale farmers in the EU. Rather than providing Europeans with more locally produced and ecological food, the focus has been on ramping up exports of industrially-produced meat and dairy products.

Vast amounts of agricultural production (and associated farm land) is used to feed farm animals and fuel vehicles instead of directly feeding people. For anyone concerned with the resilience of European food production, reducing the amount of resources and land used to feed farm animals and cars should be a clear starting point. The scale of over-production and consumption of meat and dairy and other animal products is particularly shocking. Not only do Europeans consume much more than recommended for healthy diets, many countries also produce significantly more than needed for the current, already unhealthy levels of domestic consumption. This export-led production of meat and dairy is a poor use of Europe's agricultural resources and reduces Europe's ability to weather increasing shocks like the COVID-19 pandemic.

This report elaborates on FAOSTAT and Eurostat data analysed by Greenpeace. Product categories used in the report, such as dairy or cereals, refer to the raw equivalent amounts of the commodity used or produced. For a more detailed explanation of the methodology, see the [annex](#) of this report.

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02

**CONSTANTLY PRODUCING
MORE - FOR WHAT PURPOSE
AND WHO BENEFITS?**

European agriculture is increasingly focusing on supplying export markets with animal products, rather than providing ecologically produced food for local consumption.

Our analysis shows that, over the last decade, agricultural production in the EU has steadily risen. The data show that between 2007 and 2016 production levels of all the main agricultural products in the EU have grown, with beef being the only exception (figure 1.) Poultry meat, up 25% and cereals (mostly for animal feed), up 13%, have seen especially steep growth rates, together with pulses. Pulses, like beans and peas, rich in plant protein, have seen a growth of 39%, but their overall levels of production still remain very low in the EU. Dairy products, for which volumes are already high, saw a further growth of 8%.

Variation in EU production levels between 2007-2016

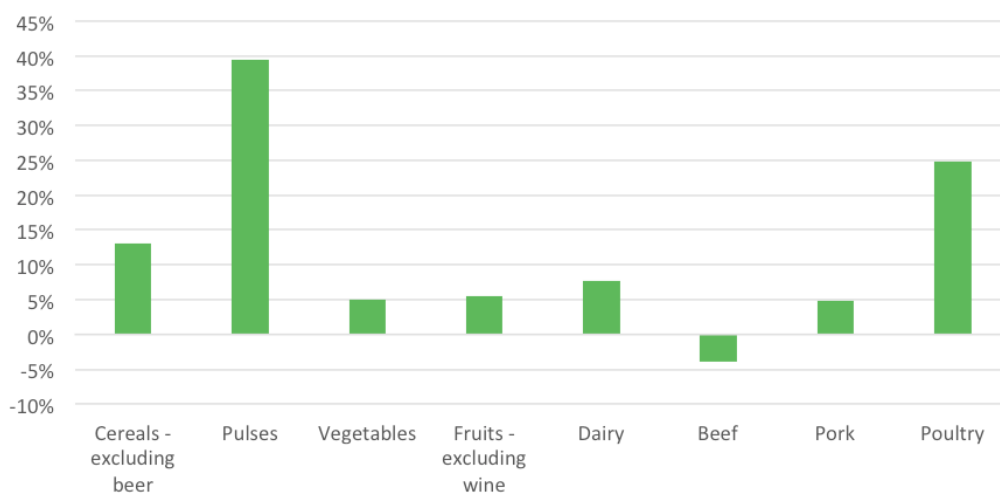


Figure 1. Overall production levels (against index base of 100) of key agricultural products 2007 - 2016 in the EU-28. Source : FAOSTAT

02 CONSTANTLY PRODUCING MORE - FOR WHAT PURPOSE AND WHO BENEFITS?

This growth in production is not just a response to a growing population, and has not always translated into greater opportunity for European farmers. During the same period (2007-2016), the population of EU-28 grew only 2%¹. And, unfortunately, small-scale² farmers have been particularly hard hit: between 2005 and 2016 the EU lost up to 4.2 million farms, while the amount of land that was used for agricultural production remained largely the same. The vast majority of the farms that disappeared were small-scale farms with less than 5 hectares of farmland³.

What does this mean? In animal farming, there is a clear trend of concentration and industrialisation, to a large extent thanks to EU policies and subsidies. **ANIMAL FARMS EITHER GOT BIG OR GOT OUT.** The number of animals farmed on very

large farms⁴ has increased considerably, while the number of animals farmed on smaller farms has decreased⁵.

The clear focus of production increases has been to supply markets outside of the EU-28 instead of feeding European markets⁶. Between 2007 and 2016, EU exports of cereals such as wheat, barley and maize have more than doubled. The growth of exports of animal products has been stark: beef and pork meat exports have at least doubled and exports of dairy products and poultry meat have grown by 35% and 43% respectively⁷ (figure 2).

1. In 2007 the population of EU-28 was 498,300,775 and in 2016, 510,181,874. Source: [Eurostat](#)

2. Greenpeace (2015): [Ecological Farming](#) - The seven principles of a food system that has people at its heart.

3. Eurostat (2018), [Farms and farmland in the European Union](#)

4. Classified by Eurostat in terms of economic output

5. Eurostat (2017), [Archive: Small and large farms in the EU - statistics from the farm structure survey](#)

6. All EU data in this briefing refer to the EU-28, before Brexit

7. The exports (without the EU intra trade) of dairy products accounted for 11,974,472 tonnes in 2007 and 18,307,416 tonnes in 2016. The exports outside the EU of poultry meat accounted for 748,947 tonnes in 2007 and 1,314,627 tonnes in 2016. Source: FAOSTAT (see methodology for more details)



Between 2005 and 2016 the EU lost up to 4.2 million farms, while the amount of land that was used for agricultural production remained largely the same.

The industrialised and export-driven food system model continually concentrates power into fewer and fewer. Global markets, dominated by a small number of corporations, determine not only what kind of food is being produced, but also how it is being produced and distributed. This is highlighted by the fact that in between the roughly 570 million farmers and over 7 billion consumers globally there sit **ONLY FOUR AGRICULTURAL COMMODITY TRADERS THAT CONTROL 75% OF THE COMMODITY TRADE**. In 2011 in the EU, only ten grocery retail companies controlled almost a third of the grocery sales. This kind of corporate control of food supply means food is distributed on the basis of ability to pay, rather than on the basis of nutritional or ecological needs, leading to the excessive consumption of unhealthy food in many parts of the world, including in the EU⁸.

8. Greenpeace (2015): [Ecological Farming](#) - The seven principles of a food system that has people at its heart.

Trend in EU exports of different products (index base 100)

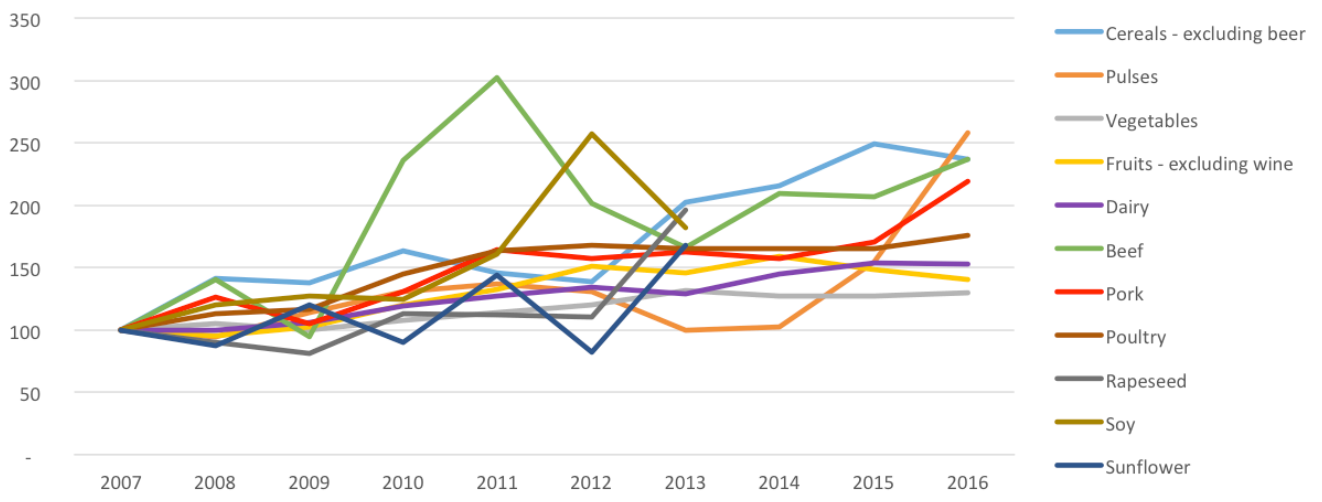


Figure 2. Development of EU-28 exports (against index base of 100) of key agricultural products 2007-2016. The data only considers the exports outside the EU and not the exports between member states. Data on soy, sunflower and rapeseed only runs until 2013 because the methodology for quantifying products changed in 2014, making the years before 2013 incomparable with the years after. Source : FAOSTAT

03

FEEDING COWS AND CARS, NOT PEOPLE



Food that could feed people is mostly fed to animals and even turned into fuel for vehicles.

Vast amounts of European crops like wheat and sunflower, are grown not to feed people, but as animal feed and even biofuel for cars and vans. Of all the cereal crops used in Europe (in 2016) the majority (59%) was used to feed animals and only 24% was used to feed people. Of the protein-rich pulses and soy used in Europe, 53% (2016) and 88% (2013) respectively were used for animal feed.

The rise in production and intensification has also translated into a staggering amount of European land being dedicated to feeding animals. Over 71% of all agricultural land in the EU is dedicated to feeding livestock. Even discounting pasture land, and only taking into account land used for growing crops, over 63% of arable land in the EU is used to produce animal feed instead of food for people.⁹

In 2013, only 9% of rapeseed and 25% of sunflower were used for direct human consumption.

9. Greenpeace (2019), [Feeding the Problem: the dangerous intensification of animal farming in Europe](#)

Vegetable oils from these crops (and others like palm oil) have been increasingly used for the production of biofuels since 2009, when the EU started promoting the use of biofuels in transport through the Renewable Energy Directive without safeguards to prevent pressure on food systems. **IN THE CASE OF RAPESEED OIL, ROUGHLY 60% OF WHAT IS USED IN THE EU GOES TO FUEL VEHICLES AS BIODIESEL**¹⁰.

Another striking example is maize, which is almost solely grown to feed animals or use as fuel. Roughly two thirds of the maize produced in the EU-28 (in 2019/2020) was grown as 'silage maize', which is harvested as the whole crop and used as feed or energy¹¹. Even considering the share of maize grown for its grains, the vast majority (80%) is used to feed animals. Of common wheat, 44% is used to feed animals. The use of these cereals for fuels has also more than quadrupled since 2006 following EU's renewable energy policies promoting biofuels (figure 4).

On the other hand, only 4% of vegetables and 1% of fruit are used for feed or other non-food uses (in 2016).

10. OILWORLD 2020, published by [Transport & Environment, 2020](#)

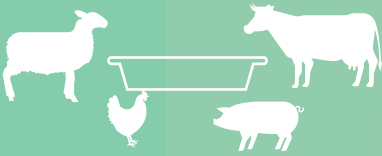
11. European Commission (2020), [EU+UK feed protein balance sheet – 2019-20](#)



Only
24%
of cereals were used
to feed people

FIGURE
3.

PROPORTION >
USED
AS ANIMAL FEED



FAOSTAT 2016 data; oilseeds data from 2013.



88%
Soy



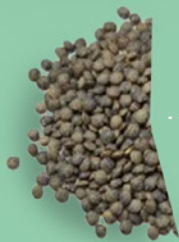
65%
Rapeseed



64%
Sunflower



59%
Cereals



53%
Pulses



4%
Vegetables



0,2%
Fruits

One feed crop alone tells the story of the rise in industrialised export-led meat and dairy production: soy. While domestic production of soy has grown (see figure 1, pulses), animal farming in the EU is heavily dependent on soy imports, especially from South American countries and the US¹² (figure 5). **THE INCREASED USE OF SOY FOR ANIMAL FEED IS STRONGLY ASSOCIATED WITH THE GROWTH OF INDUSTRIALISED ANIMAL FARMING.** This model of production relies heavily on soy because its high protein content allows for ever-increasing concentration of production into fewer, larger and more intensive farms that do not have the land needed to feed the animals themselves. Due to these imports, the consumption of soy for animal feed has been identified as the EU's biggest contribution to global deforestation.¹³

12. For further information, see: Greenpeace (2019), [Hooked on meat](#)
 13. European Commission (2013), [The impact of EU consumption on deforestation](#), p. 23–24

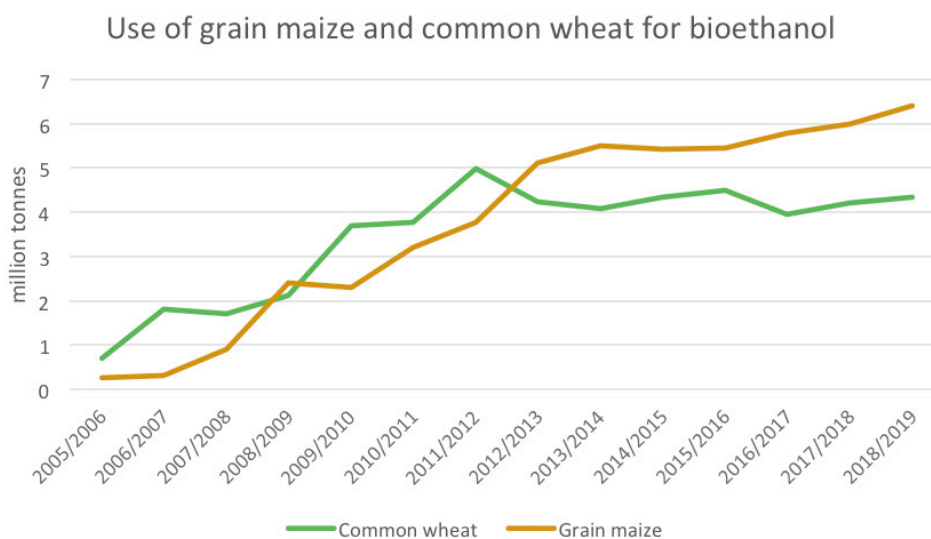
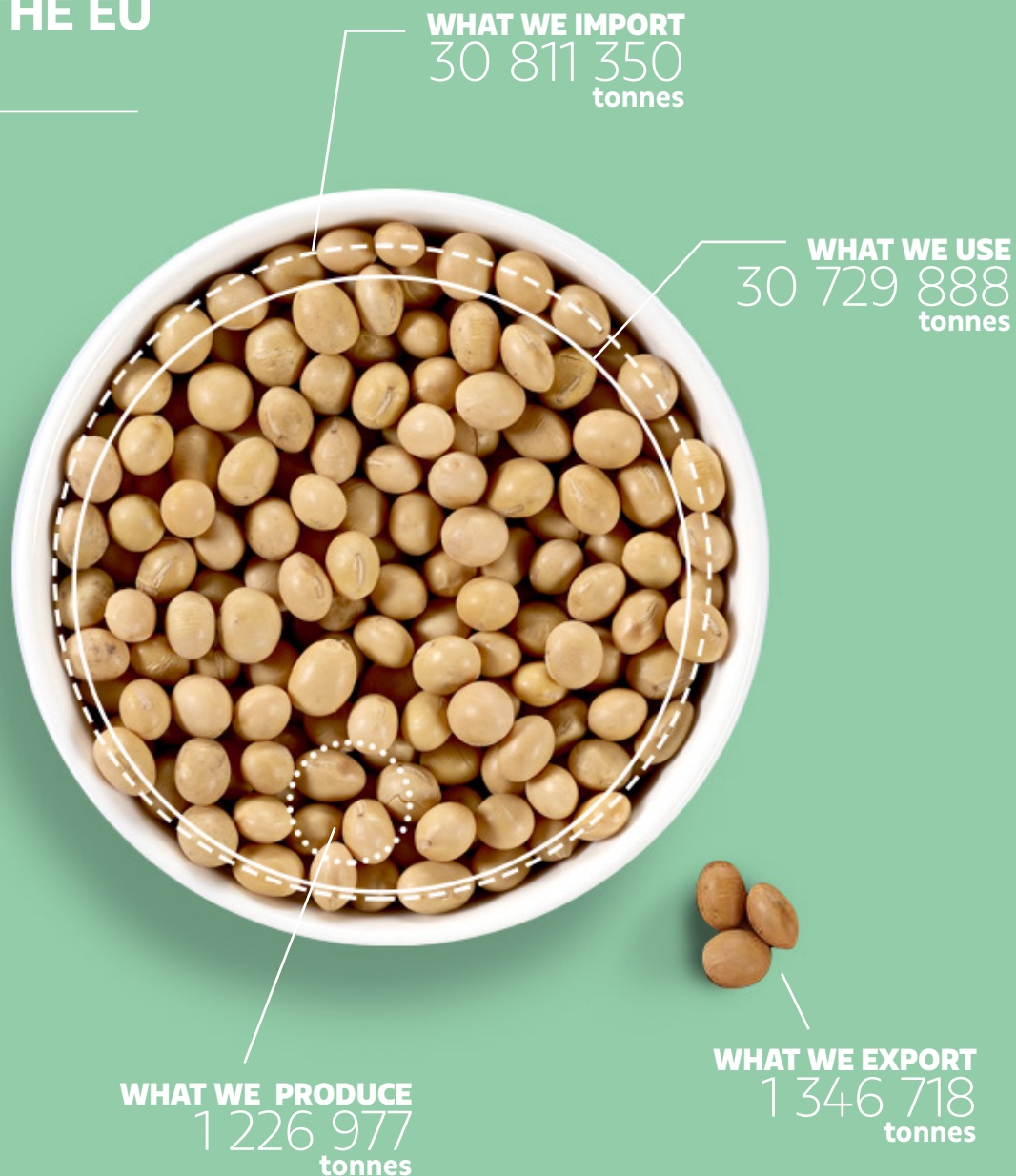


Figure 4. Use of grain maize and common wheat for biofuels between 2006-2018 for EU-27. Source : Eurostat

FIGURE
5.

**USE AND
IMPORTS OF
SOY IN THE EU
IN 2013.**

Source: FAOSTAT





04

**PRODUCING TOO MUCH
OF THE WRONG THINGS**

Europe is producing way more meat and dairy than the amount that is healthy for its citizens to eat, and even more than the amount they actually do eat.

Of most food products, the EU is clearly producing more than what is being domestically used (including for food, feed, fuels and processing). The EU is especially overproducing dairy products (by 14%) and cereals (by 11%), compared to what is currently used (based on 2016 data)¹⁴. **THIS OVERPRODUCTION LEADS TO THE DUMPING OF UNDERPRICED PRODUCTS ON OFTEN VULNERABLE MARKETS OUTSIDE OF THE EU.** For example, EU exports of milk powder to West Africa have increased by 24% since 2016, putting a strain on local farmers in the area as they have to compete with Europe’s underpriced surplus¹⁵.

Europe produces a staggering 181 million tonnes of dairy every year (2016) and 46 million tonnes of meat (beef, poultry, pork). Half of the production is pork meat. Compared to what is currently used (in 2016), the EU produces 23 million tonnes, or 14%, too much dairy and more than 4 million tonnes, 11%, too much meat (figure 6.).

¹⁴. In 2016 the total domestic use of milk equivalent for the EU was 158 697 000 tonnes when the EU production was 181 342 600 tonnes. In 2016 the total domestic use of cereals (excluding beer) for the EU was 273 826 000 tonnes when the EU production was 303 232 000 tonnes. Source: FAOSTAT (see methodology for more details)
¹⁵. For further information, see: SOS Faim Belgium and Oxfam-Solidarity (2019), [Let’s not export our problems](#)

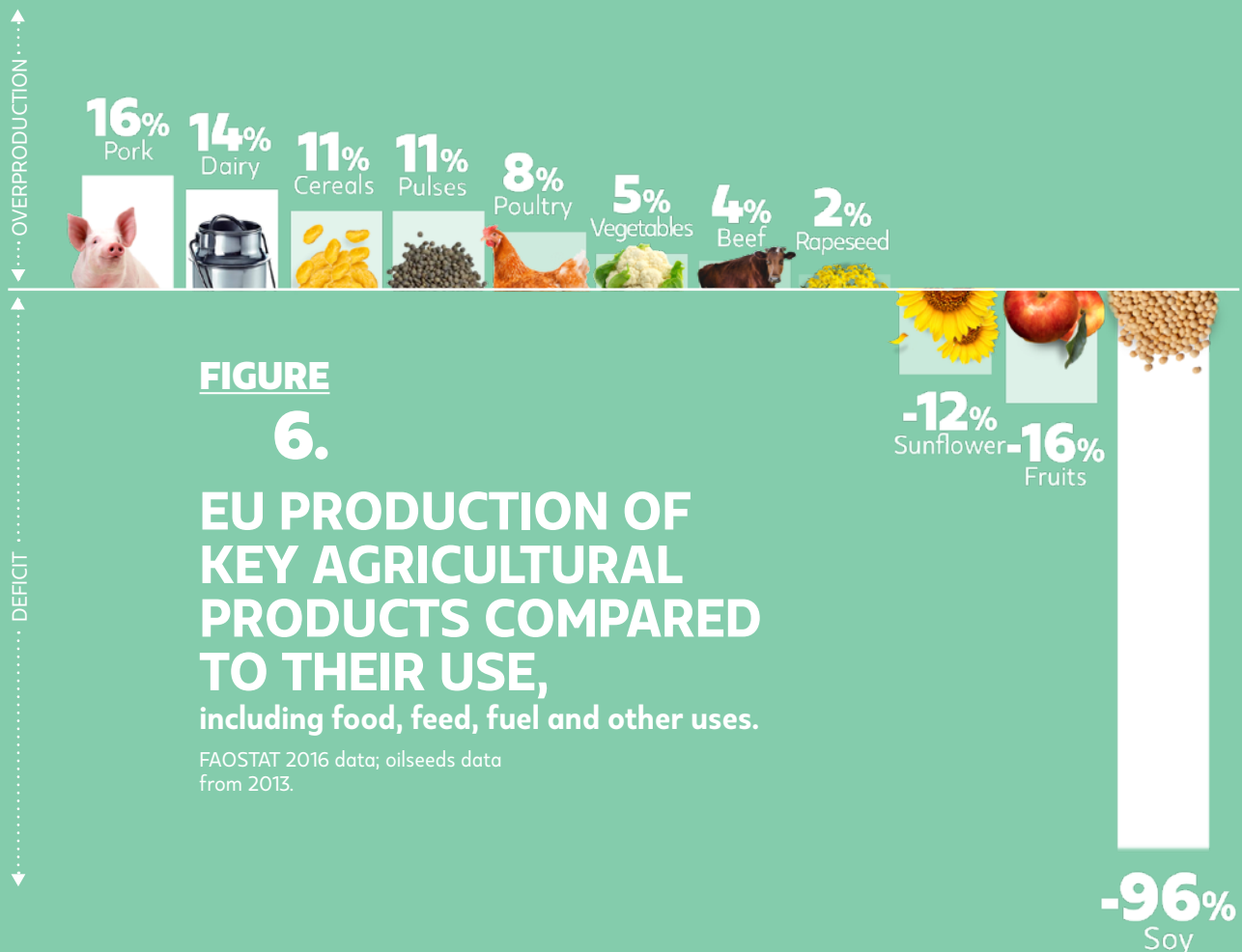


FIGURE 6.

EU PRODUCTION OF KEY AGRICULTURAL PRODUCTS COMPARED TO THEIR USE, including food, feed, fuel and other uses.

FAOSTAT 2016 data; oilseeds data from 2013.

On the other hand, more than a quarter of all fruit consumed in the EU is imported. Even if it is not ecologically feasible, or even desirable, for the EU to try to be “self sufficient” in all production, there is no reason that Europe should import food that it can easily grow itself with far less impact on the environment and public health, and with more benefits to local economies.

Surpluses aside, the current levels of European consumption of meat and dairy are already far too high for both human and planetary health. Human health impacts of overconsumption, especially of processed meat, include hazards like cancer, heart disease, obesity, and diabetes. As previously calculated by Greenpeace¹⁶, an average EU citizen consumes¹⁷ more than 80 kg of meat every year. But, to ensure food security, while keeping global heating below 1.5°C, Europe should reduce global meat consumption to 24kg per person per year by 2030, and then further to 16kg per person per year by 2050¹⁸.

16. Greenpeace (2020), [EU climate diet: 71% less meat by 2030](#)

17. Consumption is measured as the weight of carcasses leaving the slaughterhouse, including some bone. Depending on the type of meat, different amounts of the carcass will end up as final products in butchers' shops or on supermarket shelves. Consumption figures also include food waste, for example unsold meat in retail.

18. For further information, see: Greenpeace (2018), [Less Is More: Greenpeace vision of the meat and dairy system towards 2050](#)

**CURRENT LEVELS
OF EUROPEAN
CONSUMPTION OF
MEAT AND DAIRY**
*are already far too
high for both human
and planetary health.*



05

CONCLUSIONS



For a more resilient farming system, better human health, and the health of the environment, the EU does not need to produce more, but to produce differently. The EU needs more local, ecological production for healthier diets, with less meat and milk, less feed for animals, and less food used as fuel.

This analysis has shown that European agriculture is increasingly focusing on supplying export markets with animal products rather than providing ecologically-produced food for local consumption. It has also found that plenty of food fit for human consumption is fed to animals and even used as fuel for cars. The constantly increasing production makes even less sense when taking into consideration that Europeans already consume more meat and dairy than what is healthy for either them or the planet.

Amid the Covid-19 crisis, many European politicians have raised concerns over food security in Europe. These concerns translate into calls for false solutions (specifically to continue increasing production) and resistance to necessary environmental measures (for example, re-purposing farmland to halt biodiversity loss). However, as we have seen, supply and production levels are not today's challenges in the agricultural sector. Rather, the true challenges lie with how and why the existing farmland and other resources are used, and the sustainability of their management. **THE TRUE SOLUTIONS LIE WITH RE-LOCALISATION AND FOOD SOVEREIGNTY.**

Focusing solely on food security through increased production does nothing to address the inequalities and imbalances of power that exist in the food system, enabling a small number of corporate

players to squeeze maximum profit from both producers and consumers, while damaging public health and the environment. Consumers are encouraged to continue increasing their intake of meat and dairy, which is detrimental to their health. Small-scale farmers are forced to get big or get out, consolidating and industrialising the farming sector, and resulting in job loss and fragile rural economies. The remaining producers focus on export markets, funneling money towards too few large corporations. The Covid-19 pandemic has shown us the fragility of this model.

The alternative is one of resilience and diversification for the EU. Global analyses have already shown that growing food exclusively for direct human consumption could feed billions of people more than the current food system. Ecological farming is now widely seen as the best option for improving production and productivity with better soil nutrients and water management, and without the need for expensive chemical inputs¹⁹.

On the political side, the EU's Common Agricultural Policy and its more recent Farm to Fork Strategy boast that they will "enable the transition to a sustainable EU food system that safeguards food security and ensures access to healthy diets sourced from a healthy planet."²⁰ Yet, they fall short of concrete actions to take the necessary steps needed.

For a truly resilient, re-localised and diversified food system that produces healthy food, Europe urgently needs to transition its food, farming and trade policies – starting from those currently being designed and negotiated. Europe must reduce the use of food crops and agricultural land for feeding animals and creating biofuels, and turn away from increasingly industrialised production. For resilient food systems, and to protect nature, more ecological production for healthier local diets is needed.

¹⁹. For further information, see: Greenpeace (2015): [Ecological Farming](#) - The seven principles of a food system that has people at its heart.

²⁰. European Commission (2020), [Reinforcing Europe's resilience](#): halting biodiversity loss and building a healthy and sustainable food system



Focusing solely on food security through increased production does nothing to address the inequalities and imbalances of power that exist in the food system



Greenpeace is urging the EU, its political leaders and national governments to:

- Ensure a just and fair transition by directing public funding first and foremost to local, small-scale and ecological farmers who ensure healthy and resilient food production, as well as to farmworkers who may be at risk of losing their livelihoods;
- End farming subsidies for industrial animal farming and encourage farmers to transition away from further industrialisation of meat, dairy and egg production by setting legally binding maximum livestock density levels – a maximum number of animals a farm can have per hectare – beyond which no farm in the EU could receive farming subsidies;
- Acknowledge the detrimental impacts of the current levels of consumption and production of meat and dairy in the EU and set clear political targets for their reduction; meat and dairy consumption should be reduced to at least 70% by 2030 and 80% by 2050 compared to current levels;
- Assess and put forward a comprehensive set of measures to shift consumption to more plant-rich diets, with a transition to ecologically produced animal products, including public promotion, marketing and procurement policies as well as dietary guidelines and fairer pricing schemes;
- Drop the current model of free trade agreements focusing on blindly growing trade, and move to a rational trade policy that takes into account the human and environmental costs of consumption patterns, with an objective of sustainable living and resilient food supply chains²¹. To start with, reject the EU-Mercosur free trade agreement²².

²¹ For further information, see: Greenpeace (2017), [10 Principles for Trade](#)

²² For further information, see: Greenpeace (2020), [EU-Mercosur myth-buster](#)

ANNEX

METHODOLOGY

The data used in this brief has been gathered from FAOSTAT and Eurostat. The sets of data used for the FAOSTAT, following their methods and definitions²³, are the following:

Name of the set of data	What has it been used for	Years concerned
New Food Balances	balances for all products (except oilseeds)	2014-2016
Food Balances (old methodology and population)	balances for all products (except oilseeds)	2007-2013
Commodity Balances - Crops Primary Equivalent	balances for oilseeds	2007-2013
Trade - Crops and livestock products	for EU-28 exports without EU intra-trade	2007-2016 (2007-2013 for oilseeds)
Detailed trade matrix	for member countries exports without EU intra-trade	2007-2016 (2007-2013 for oilseeds)

The methodology changed in 2014 for oilseed crops. Therefore there is no data for 2014-2016 for these oilseed crops (soy, rapeseed and sunflower)²⁴.

The EU in this analysis refers to the EU28 (with UK). The import and export data have been calculated without the EU intra-trade.

In the FAOSTAT balances, every product is expressed in tonnes of primary commodity (except for oilseeds). The conversion from products to the raw equivalent of the commodity is done automatically (except for processing, see FAO balances element description). Terms used in this briefing like 'dairy products' thus refer to the raw equivalent quantities of this commodity. For exported quantities without EU intra-trade, the conversion is realised when possible using the Technical Conversion Factors for Agricultural Commodities²⁵ and FAOSTAT definitions and standards.

FAOSTAT balances and the trade databases do not have exactly the same categories of products. FAO balances and FAO data on trade (for exports without EU intra-trade) are matched using FAOSTAT definitions and standards.

A specific methodology has been applied to oilseed crops like soy, rapeseed and sunflower to merge seeds, cakes and oils for the existing data (that is to say from 2007 to 2013). The tonnes of the three products are summed for production, imports, exports, different uses and all the other 'elements' of the products. To avoid double counting, the value of zero has been set for the element of "processing" for seeds (the destination of these processed grains is already accounted for in cake and oil balances), and the value for "production" for cakes and oils (the production of these cakes and oils is already accounted on the grain balance).

The second source of data used is Eurostat, and more specifically the balance sheets by sector.²⁶ Eurostat data has been used to have a better understanding of the weight of the use of biofuels for cereals.

23. For more details, see the FAOSTAT [New Food Balances](#) methodology and [notes on the commodity balances](#)

24. For further information, see [The key differences between new \(2014-2016\) and old \(2007-2013\) Food Balance Sheet \(FBS\) methodology](#)

25. For further information, see: FAO Technical Conversion Factors for Agricultural Commodities

26. For further information, see: European Commission, [Balance sheets by sector](#)

A close-up photograph of several wheat stalks in a field. The stalks are golden-brown and have long, thin awns. The background is a blurred green field under a bright sky.

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