FOR A LOCAL AND ECOLOGICAL AGRICULTURE:
TIME TO MAKE WAY FOR PROTEIN SELF-SUFFICIENCY
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PRELIMINARY COMMENTS

The coronavirus crisis has brought to the forefront numerous failings in our food and agriculture system. Most notably, it has highlighted the dangerous dependency of our agriculture on international markets. If there is one area in which our agriculture and our food supply are especially dependent on imports, it’s the sector of vegetable proteins used in the production of animal fodder. After China, the European Union is the world’s second largest soya importer, with around 33 million tonnes of soya products imported per year¹. This is driven by the EU’s industrial livestock sector: approximately 87% of the soya used in the EU is for animal feed². And France is right up there with the rest: each year we import between 3.5 and 4.2 million tonnes of soya³.

These soya imports have dramatic consequences for biodiversity and for the climate. During the past 20 years, the global production of soya has more than doubled⁴, driven by global demand for animal feed destined for industrial livestock farming which produces a significant share of the meat, eggs and dairy produce that we consume⁵. This “soya boom” is not without consequences on certain ecosystems which shelter a particularly rich biodiversity, such as the Amazon rainforest, the Cerrado or the Gran Chaco, in South America. It also contributes to the acceleration of climate deregulation as well as to multiple crises on a worldwide scale. However, the negative social and environmental impacts of soya production go even further. In Brazil⁶ and Argentina⁷ over 95% of soya is genetically modified (GM), which goes hand-in-hand with intensive use of herbicides and other hazardous chemical inputs⁸.

¹ In 2017, the EU imported 33.12 million tonnes of soya (soybeans, soymeal, paste and oil). Source: Comtrade Database, https://comtrade.un.org/
³ “Livestock feed” includes the soya consumed for cattle and meat, eggs and egg products, dairy products and farmed fish, i.e. in total 23.28 million tonnes of soya equivalent. Livestock feed therefore represents 87% of the 26.64 million tonnes of soya used in the EU, https://comtrade.un.org/
⁵ 144 million tonnes of soya beans were produced in the world in 1997, compared to 353 million tonnes in 2017. FAOSTAT [Food and Agriculture Organisation of the United Nations, Statistics Division], “Crops and livestock products”, http://www.fao.org/faostat/en/
It is vital for the EU to do everything in its power to ensure that its farming systems become totally protein self-sufficient in the medium term for livestock and human food.

A major turning point in our food and agriculture system must now be taken and without delay. The Greenpeace conclusions set out in detail in this memo are clear: total protein self-sufficiency for our agriculture requires a radical transformation of our livestock farming system and a reduction in the production and consumption of meat. **There can be no total protein self-sufficiency in Europe without a significant decrease in the production of meat, eggs and dairy products.**

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**KEY DATA AND STATISTICS**

- The EU uses too much land for livestock farming; 71%\(^9\) of European agricultural land (arable land and grasslands, i.e. around 127 million hectares) is used to feed livestock.
- The areas of land utilised outside the EU to grow soya that is imported for animal fodder represent 11.9 million hectares (i.e. the surface area of the Benelux countries and Denmark together) which is over 15 times more than the land currently used to grow soya for animal feed within Europe (760,000 hectares).
- This soya footprint (for fodder) outside the European Union represents 9% of the land currently dedicated to the production of animal feed in Europe.
- If the EU were to produce within the EU all the soya it imports to sustain its livestock farming activities, 12.3 million hectares of agricultural land would be required.

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1. EUROPE’S PROTEIN DEFICIT

A/ The historical reasons behind Europe’s protein dependency

While Europe’s protein dependency can be explained by the extensive livestock farming of pigs, chicken (broilers for meat and egg-laying hens) and dairy cows, which consume more than 88% of the soya used in the EU for animal feed, this dependency also stems from the conclusion of commercial agreements between Europe and the United States.

In the 1960s, Europe accepted (in the framework of the GATT trade agreements), to decrease duties on oilseed imports from the United States in exchange for protection for European cereals. Then, in 1973, when due to a production deficit the United States imposed an embargo on their soya exports, the European Economic Community (EEC) tried various approaches to increase its protein autonomy. But in 1992, the “MacSharry reform” introduced a flat area payment which led to a decrease in financial support for soya crops, resulting in turn in a reduction in soya cultivated areas. Furthermore, with the signature of the Blair House agreement in 1992 (negotiated in the framework of the GATT) between the European Union and the United States, the EU agreed to limit the European area benefiting from oilseed crop subsidies to 5,482,000 hectares, in exchange for customs exemptions for corn. Our agricultural system and our livestock farming system therefore developed around this geographical division (production of vegetable proteins by the United States and production of cereals by Europe). And according to a recent report by a French institution called Conseil économique social et environnemental (CESE) on the role of the EU in imported deforestation, since 1992, “the common agricultural policy (CAP) has systematically limited the development of protein-rich crops, oilseed crops and especially legumes in Europe”.

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15 Id.
B/ Europe’s protein dependency in figures

According to Terres Univia, a professional vegetable oil and protein organisation in France, the deficit in protein-rich materials (PRM) for animal feed (which must have a protein content of more than 15%)16 is 65% for the European Union17.

Soya, with an average 35% protein content18, represents Europe’s most-imported protein-rich material used in animal fodder19. Yet, soya leads the way in terms of raw materials imported by the EU representing the highest risk of deforestation and conversion of natural ecosystems20. A reduction in livestock, linked to a change in our consumer behaviour and a reduction in the use of soya in animal fodder, will be essential.

http://www.terresunivia.fr/sites/default/files/chiffres%20Cl%C3%A9%20s/TerresUnivia-ChiffresCles-2018.pdf
http://www.terresunivia.fr/sites/default/files/chiffres%20Cl%C3%A9%20s/TerresUnivia-ChiffresCles-2018.pdf
18 http://www.terresunivia.fr/produitsdebouches/alimentation-animale/graines-oleagineuses
http://www.terresunivia.fr/sites/default/files/chiffres%20Cl%C3%A9%20s/TerresUnivia-ChiffresCles-2018.pdf
20 European Commission (2013) “The impact of EU consumption on deforestation: Comprehensive analysis of the impact of EU consumption on deforestation”
USE OF SOYA FOR ANIMAL FODDER IN THE EU. BREAKDOWN BY SECTOR.

An estimated 87% of imported soya is used for animal feed, with nearly 50% of this consumed by chickens (broilers for meat and egg-laying hens), followed by pigs (24%), dairy cows (16%) and cattle reared for meat (7%). The remainder (4%) is used for farmed fish and other meat.\(^2\)

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C/ Too much agricultural land is used for livestock farming in Europe

At present, 71%\(^22\) of European agricultural land (arable land and grasslands, i.e. around 127 million hectares\(^3\)), is already used to feed our livestock. Out of this 71%, a little less than half is permanent grassland which provides undisputable benefits in terms of the preservation of biodiversity and carbon capture. However, and this is where the problem lies, the biggest half corresponds to arable land which could partly be used to produce fruit, vegetables, legumes or cereals for human rather than cattle consumption. 63% of all European arable land is therefore used for fodder production\(^23\), a figure which shows the disproportionate place taken by livestock farming over the past ten years.

Land cover in the European union (real)

[Image of a map showing land cover in the European Union with percentages: 45% Agricultural Areas, 31% Forests, 13% Semi-Natural Areas, 5% Artificial Surfaces, 3% Water Bodies, 3% Wetlands.]


\(^23\) Id.
Land cover in the European Union (by categories)

Almost 50% of European land is dedicated to agriculture.

- Agricultural areas: 45%
- Forests: 31%
- Semi-natural areas (moors, rocks, glaciers...): 13%
- Artificial surfaces: 5%
- Water bodies: 3%
- Wetlands: 3%

The European Union’s agricultural land used

Animal feed takes up more than 70% of agricultural land.

- Of agricultural land is used for animal feed: 71%
- Of agricultural land is dedicated to human food and the industrial sector: 29%
DISTRIBUTION OF AGRICULTURAL LAND DEDICATED TO ANIMAL FODDER

DETAILED BREAKDOWN OF AGRICULTURAL AREAS DEDICATED TO FODDER PRODUCTION IN EUROPE

<table>
<thead>
<tr>
<th></th>
<th>Total agricultural land (thousand hectares)</th>
<th>Area dedicated to fodder production (thousand hectares)</th>
<th>% of total agricultural land dedicated to fodder production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total agricultural area</td>
<td>178,740</td>
<td>127,260</td>
<td>71.2 %</td>
</tr>
<tr>
<td>- Permanent grassland</td>
<td>60,488</td>
<td>60,488</td>
<td>100 %</td>
</tr>
<tr>
<td>- Permanent crops</td>
<td>11,905</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Kitchen gardens</td>
<td>860</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Arable land</td>
<td>105,487</td>
<td>66,772</td>
<td>63 %</td>
</tr>
<tr>
<td>Cereals</td>
<td>55,478</td>
<td>34,410</td>
<td>62 %</td>
</tr>
<tr>
<td>Oil seed</td>
<td>11,873</td>
<td>6,892</td>
<td>58 %</td>
</tr>
<tr>
<td>Sugar beet</td>
<td>1,750</td>
<td>0</td>
<td>0 %</td>
</tr>
<tr>
<td>Rest</td>
<td>36,386</td>
<td>25,470</td>
<td>70 %</td>
</tr>
</tbody>
</table>

Id.
2. TO BE SUSTAINABLE, THE AGRICULTURE OF THE “FUTURE WORLD” MUST BE SELF-SUFFICIENT

A/ The negative impacts of the production of soya in Latin America on forests, biodiversity and the climate

It is urgent that the EU breaks the link between animal fodder and imported soya because soya is one of the main causes of deforestation and the conversion of natural ecosystems in South America and represents a significant weight in the EU's forest footprint. A recent study published in July 2020 in the magazine Science estimates that as much as 20% of Brazilian soya exports (coming from the Amazon rainforest and the Cerrado) towards the European Union are linked to illegal deforestation.

South America is bursting with unique forests and wooded savannas: the Amazon rainforest, the Gran Chaco or even the Cerrado are full of treasures of biodiversity and form a precious defence against climate deregulation. Despite their paramount importance, these three ecosystems are disappearing: they are being destroyed to make way for fields of soya. This soya is grown to satisfy the devouring appetite of industrial European livestock farming. Europe is in fact addicted to South American soya, whose production just keeps on increasing to meet the demands of the industrialisation of our livestock farming sector.

This addition has an enormous impact on our ecosystems. It has contributed to the deforestation of the Amazon rainforest in Brazil. Although currently relatively protected from the expansion of soya by a moratorium, the world’s greatest tropical forest is threatened by the policies of the extreme-right president, Jair Bolsonaro, and the primary tropical deforestation figures in Brazil are particularly worrying. Following the devastating fires of August 2019, the deforestation and fire statistics for the first half of 2020 in the Brazilian Amazon are an ominous sign that worse is to come in the summer of 2020.

Soya cultivation is now contributing towards the destruction of regions of the Gran Chaco (Argentina, Bolivia, Paraguay) and of the Cerrado (Brazil). It is estimated that nearly half of

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28 https://www.greenpeace.fr/amazonie-nos-poumons-brulent/
its natural vegetation (about 88 million ha\textsuperscript{31}, an area the size of Venezuela) has already been destroyed.

The almost systematic use of pesticides and GMO in industrial soya crop cultivation in South America also represents a serious threat to biodiversity and to the local communities. Over 95\% of the soya grown in Brazil and Argentina is GM\textsuperscript{32}. Since the introduction of GM crops in the mid-1990s, the use of pesticides, including herbicides, per unit area has increased by more than 170\% in both Argentina and Brazil\textsuperscript{33}. Europe is well aware of the danger, since none of the genetically modified varieties of soya grown in Brazil and in Argentina are allowed here, and more than one third of the pesticides currently authorised in Brazil are not authorised by the EU!

The intensive growing of soya is also a threat to human health. According to the UN Special Rapporteur for the Office of the United Nations High Commissioner for Human Rights (OHCHR), official Brazilian government data recorded 5,501 cases of acute pesticide poisoning in 2017 – almost twice the rate recorded 10 years earlier\textsuperscript{34}. Lastly, this production has a considerable social impact since its rapid expansion has encouraged serious violations of the rights of the natives, workers and local populations, demonstrated by population displacements and forms of slavery\textsuperscript{35}. At the same time, the economic and political power of the business groups and individuals that control the production and trade in soya has grown, as has land concentration in the hands of a few major landowners. The progressive reduction of our soya imports is therefore a matter of some urgency.

\textsuperscript{31} MapBiomas Project v3.1 “Annual land use land cover maps of Brazil”
\textsuperscript{33} Between 1996 and 2016, pesticide use rose from 1.93 kg/ha to 5.17 kg/ha in Argentina, and 1.55 kg/ha to 4.31 kg/ha in Brazil. FAOSTAT [Food and Agriculture Organization of the United Nations, Statistics division], “Pesticides” http://www.fao.org/faostat/en/
B/ Our agricultural model, with its deficit in vegetable proteins for animal feed, is not sustainable

Independently of the highly negative social and environmental impact of our soya imports, it is crucial that the EU does whatever it takes to reduce the production of meat, eggs and dairy products and to achieve protein self-sufficiency within our livestock farming sector.

First and foremost because there can be no ecological livestock without self-sufficiency. By definition, an ecological livestock\(^\text{36}\) farm must be self-sufficient, with animals fed with foods that cannot be consumed directly by humans (for example grass), which protect biodiversity and are climate-friendly. Ecological livestock relies on grasslands, pasture and residues for feed, minimising use of arable land and competition with land for direct human food production and protecting natural ecosystems within a globally equitable food system. Furthermore, agricultural specialisation per region of the world (see part 1A) generates nitrogen fertiliser deficits in certain regions (such as in Europe), whilst a self-sufficient vegetable protein system for animal feed would make it possible to limit the use of synthetic nitrogen fertilisers.

And also because the need for imported protein-rich raw materials and generally speaking the lack of self-sufficiency is not without consequences for farmers who find themselves in a position of dependency on global agricultural markets where they are also vulnerable to high price volatility.

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FREE TRADE AGREEMENTS TO THE DETRIMENT OF ECOLOGICAL LIVESTOCK

The free trade policy that the European Union negotiates with its trade partners is preventing the development of a new resilient and self-sufficient farming model. Worse still, it poses a threat to family farming and to the climate by intensifying direct competition between agricultural systems with widely differing characteristics. French and European farmers find themselves essentially dependent on world prices for agricultural raw materials with the many uncertainties that this entails. What’s more, their products are in competition with Canadian, American or even Brazilian producers whilst the regulations, agricultural policies, pedoclimatic conditions or production costs vary considerably.

It is urgent to protect our farms against the unfair competition made possible by social and ecological dumping.

Yet the European Commission continues along this line, on the one hand by promoting meat imports from Canada and the Mercosur countries, and on the other hand by “offering” net export markets to European livestock farmers towards Japan, China or Turkey. This goes totally against the development of family farming, peasant farming and ecological farming and territorial food systems despite this being the only way to beat the challenges that lie ahead. The government must confirm and strengthen the position expressed by Emmanuel Macron during the summer of 2019 and oppose the signature of the current free trade agreement between the European Union and the MERCOSUR countries. It is urgent that the government abandons this draft agreement once and for all.

We must reconsider our international exchanges bearing in mind the principles of solidarity, equality and knowledge sharing and ensure that all trade agreements are in line with the Paris Agreement. As such, the government must stop negotiating and finalising all the trade and investment agreements in progress.
3. VISION AND RECOMMENDATIONS

A/ Reduction of the production and consumption of meat, eggs and dairy produce

Given the volumes of European soya imports and our livestock farms’ chronic deficit in protein-rich materials, the solution cannot be to relocate the entire production of imported soya.

The calculations made by Greenpeace show that in addition to the European agricultural land used for livestock farming purposes (see part 1C), the EU mobilises 11.9 million hectares of agricultural land beyond its borders which is used to produce the soya it needs for its livestock farming activities. This means that outside the EU, the European soya footprint represents the equivalent of the surface area of the Benelux countries and Denmark together.

As shown by the computer graphic below, the surface areas used outside the EU to cultivate soya imported for animal fodder are 15 times larger than the areas currently cultivated in Europe for the production of soya destined for animal feed (760 000 hectares).
LAND USED FOR THE PRODUCTION OF SOYA FOR ANIMAL FODDER WITHIN THE EUROPEAN UNION

11 900 000 hectares soya imported for livestock farming (grown outside Europe: Brazil, United States...)

760 000 hectares land cultivated with soya in Europe

The computer graphic below shows how significant this soya footprint beyond the EU borders is, as it represents 9% of the agricultural land currently used for animal feed in Europe. If the EU were to transfer these areas to within its own territory to achieve protein self-sufficiency, this would create a radical shift in the current land cover dynamics. These data must call into question the volumes of meat, eggs and dairy produce that we produce, as they show that with the current production volumes, the agricultural land necessary for the EU to achieve total protein self-sufficiency is not available.

The Greenpeace calculations also show that if the EU were to produce all the soya it imports within its own territory, the surface area necessary would be 12.3 million ha. The discrepancy compared to the EU’s current soya footprint (11.9 million ha) is due to the difference in soya crop yields between Europe and the rest of the world.

The EU must set itself the objective of achieving total protein self-sufficiency and as such drastically reduce its production and consumption of meat, eggs and dairy produce, because if it maintains the same volumes, the EU does not have the agricultural land necessary to produce the protein-rich materials required for the production of its animal fodder.

43 Greenpeace did not carry out any research to identify which vegetable proteins (peas, broad beans, lupin…) could be developed if the EU were to produce all the vegetable proteins needed for its animal feed within its borders, for the same volume of meat, eggs and dairy produce. The 12.3 million ha estimation of necessary surface areas (which is based on soya yields in Europe) gives an idea of the amount of land that this represents.
CONSEQUENCES ON THE CLIMATE, BIODIVERSITY AND HEALTH OF THE OVER PRODUCTION AND OVER CONSUMPTION OF MEAT, EGGS AND DAIRY PRODUCE

Industrial agriculture is a major contributor to the global climate crisis, responsible for two-thirds of total deforestation in South America\(^4^4\), led by soya farming and cattle ranching!\(^4^5\)

Today, 75% of the world’s agricultural land is used to raise livestock – that is to say to feed animals which will in turn be used to feed us. Our overconsumption of animal proteins, reserved for the privileged, exerts so much pressure on our planet that it is destabilising its ecosystems. Destruction of biodiversity and deforestation, greenhouse gas emissions and climate change, water pollution, the stranglehold of the multinationals to the detriment of small-scale farmers, but often also animal cruelty and detrimental impacts on human health.

Our unrestrained consumption of meat, eggs and dairy produce from industrial livestock farming has harmful effects on many levels. The average person in Western Europe consumes 85 kg of meat and 260 kg of dairy products every year, more than double the global average\(^4^6\). European levels of meat and dairy consumption are causing public health concerns. In January 2019, a report in The Lancet concluded that a diet healthy for both people and the planet requires ‘a greater than 50% reduction in global consumption of unhealthy foods’ – notably red meat – and ‘a greater than 100% increase in consumption of healthy foods, such as nuts, fruits, vegetables and legumes’\(^4^7\). For Europe, Greenpeace is calling to reduce by more than 50% by 2030 and roughly 80% by 2050. To reach such an objective the priority must be to cut the consumption of the most unsustainable types of meat and dairy production and eliminate factory farming.

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\(^4^5\) ibid, pp. 15, 44


RECOMMENDATIONS

On a European scale

If the EU intends to meet the objectives of the Paris Agreement⁴⁸ and face up to the dangers to which our health and biodiversity are increasingly exposed, it must drastically reduce its production and consumption of animal products⁴⁹. This limitation of production must be incentivised and accompanied by public policies, and specifically by the Common Agricultural Policy (CAP).

In the framework of the CAP, the EU must make a drastic turnaround in order to⁵⁰
- Finance the agroecological transition and the farmers, not the hectares, by putting an end to direct subsidies per hectare.
- Promote the ecological production of pulses and fresh fruit and vegetables.
- Set in place measures which will allow for humans rather than animals to be fed, for example by limiting meat and dairy production volumes.
- Consider the CAP as a food policy rather than subsidising the production of agrofuels and global commodity flows.

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⁴⁷ European Council, “Paris Agreement on climate change”
⁴⁸ Greenpeace (2018), Less is more.
⁵⁰ Greenpeace (2020), Scrap the Cap,
https://www.greenpeace.org/eu-unit/issues/nature-food/3839/scrap-the-cap-a-fresh-start-for-europes-food-system/
For a local and ecological agriculture: time to make way for protein self-sufficiency

B/ Progressive reduction in soya imports

At the 2010 United Nations Climate Change Conference in Cancun, members of the Consumer Goods Forum (CGF) committed to eliminate deforestation by 2020 through the responsible sourcing of the commodities most linked to forest destruction: cattle, palm oil, pulp and paper and soya.51 Yet despite these commitments, global commodity production remains a leading cause of forest destruction52.

Our industrial livestock farming model is not sustainable and is overly dependent on soya imports. In order to dissociate our meat production from deforestation, to improve the resilience of our farming and reduce its impact on the environment, we need to build up the self-sufficiency of our agricultural system and reduce our soya imports progressively. It is even possible to put an end to our soya imports according to the TYFA53 (Ten Years For Agroecology in Europe) scenario developed by IDDRI, which aims to model a European food supply and agricultural system based on agroecology by the year 2050. This report shows that stopping vegetable protein imports together with the “adoption of healthier diets” would make it possible to feed Europe while reducing greenhouse gas emissions from the agricultural sector by 40% and protecting biodiversity.

RECOMMENDATIONS

The European Union must adopt new stringent legislation which forces businesses to submit proof that the raw materials and processed products which are placed on the European market are not linked to deforestation, to the destruction of forests, the conversion of natural ecosystems or the violation of human rights54.

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51 Consumer Goods Forum, ‘Deforestation’
https://www.theconsumergoodsforum.com/initiatives/environmental-sustainability/keyprojects/deforestation/

52 European Commission (2013) “The impact of EU consumption on deforestation: Comprehensive analysis of the impact of EU consumption on deforestation”


54 Briefing (2019), Protecting forests, natural ecosystems and human rights: a case for EU action,