Background information

on

Imported Deforestation and Sustainable Agriculture

The Imported Forestry and Sustainable Agriculture Working Group

September 2022

Contents

Introduction

The European Association of Zoos and Aquaria recognises and is concerned about the impact of deforestation and habitat conversion on biodiversity worldwide. Across the EAZA region, there are different approaches and interpretations of how best to address this impact on biodiversity and habitats worldwide. This document aims to provide background information for EAZA Members by providing a summary on the latest and most important information on the topics of meat, soya, oil palm and timber.

Specific recommendations on how to get involved at an institution, association and political level can be found in the EAZA Guidelines for Meat and Soya (2022), EAZA Guidelines for Timber (2022) and EAZA Guidelines on Palm Oil (2019).

The Imported Forestry and Sustainable Agriculture Working Group will continue to guide Members through supportive actions to limit imported deforestation in our supply chains, through government consultations, scientific research and wider NGO sector initiatives aiming to improve certification schemes.

Imported Deforestation

It should no longer come as a surprise that the leading driver of deforestation and habitat loss is not sprawling urban development but that most ancient of economic activities: farming. Since humans domesticated agriculture, we have converted half of our forests to farmland,[1] and show no signs of stopping: today, agriculture is estimated to be responsible for between 53% and 80% of annual forest loss.[2]

The most optimistic studies estimate that, on average, 7 million hectares of forest were lost to agriculture every year between 1990 and 2008 – an area more than twice the size of Belgium converted from forests to farms each year, for nearly twenty years.[3] In terms of climate impacts, on average, emissions from annual tropical tree cover loss between 2014 and 2018 were 4.7 gigatons of CO2 per year – more than all of the European Union's 2017 greenhouse gases emissions.

The tropics lost 11.1 million hectares of tree cover in 2021, according to new data from the University of Maryland and available on Global Forest Watch The Latest Analysis on Global Forests & Tree Cover Loss | Global Forest Review (wri.org).

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[1] UNEP-WCMC (2019). "Global Generalized 'Original' Forest Dataset." https://www.unep-wcmc.org/system/dataset_file_fields/files/000/000/143/original/Global_Generalised_Original_Forest_dataset_metadata.pdf?1398690961

[2] As calculated through a synthesis of studies on agriculture's role in deforestation summarized in Duncan Brack, Adelaide Glover and Laura Wellesley, 2016. "Agricultural Commodity Supply Chains Trade, Consumption and Deforestation." Chatham House, Royal Institute of International Affairs. Available at : https://www.chathamhouse.org/sites/default/files/publications/research/2016-01-28-agricultural-commodities-brack-glover-wellesley.pdf

[3] European Union, 2013. "The impact of EU consumption on deforestation." Available at: https://ec.europa.eu/environment/forests/pdf/1.%20Report%20analysis%20of%20impact.pdf

Extent of Tropical Deforestation by the EU

Over the past two decades the EU market has been a major driver of tropical deforestation.

In 2013, a study requested by the EU found that between 1990 and 2008, 53% of global deforestation was due to agricultural expansion, a third of which was to grow crops for international trade. **The EU as a whole was the largest single destination for these crops and livestock products, and was responsible for 36% of the deforestation embodied in internationally traded agricultural commodities**.

Half of Europe's agricultural commodities from deforestation come from Brazil, and a quarter from Indonesia, the two countries which together are responsible for about half of the world's tropical deforestation. In 2009, beef and soy exports from Brazil to the EU embodied 102,000 hectares and 73,000 hectares of deforestation respectively. Palm oil from Indonesia embodied another 33,000 hectares. Other imports heavily implicated in deforestation include leather from Brazilian cattle, soy from Argentina and cocoa from West Africa – for which the EU is the predominant global importer. An estimated one-third of feed given to pigs and poultry bred for meat in the EU is soy, mostly from Latin America.

To meet the EU market's demand, nine million hectares of forests have been cleared -- an area the size of Portugal: this for a region with just seven percent of the world's population.

In 2013 the European Union studied the impact of EU consumption on deforestation, in an attempt to calculate the deforestation embedded in products imported into the EU. The study lists the main commodities imported into the EU that contributed to deforestation as follows (in descending order):

- soybean cake and soybeans from Brazil,
- meat products from Brazil,
- soybean cake and soybeans from Argentina,
- palm oil from Indonesia,
- soybeans from Paraguay,
- cocoa beans from Ghana,
- nuts from Brazil,
- palm oil from Malaysia, and
- cocoa beans from Nigeria.

Our role as EAZA Members

At the current pace of forest loss, we will lose nearly all our tropical forests within a hundred years. The statistics are frightening, but as a community there is more that can be done collectively and we as zoological institutions have a huge role to play in empowering, procuring and influencing.

As procurers ourselves selling and using food for both human and animal consumption, we can play a huge role in the fight against imported deforestation. By using and promoting the sustainable use of natural resources; joining actions to demand less destructive practices within agriculture; consuming less, especially less meat and dairy products; and sourcing locally, our collective action as EAZA Members can reach industry, government agencies and a global audience to help create the positive change needed.

We ***can*** feed our growing population without converting any more forests to farmland, if we work with stakeholders to have a positive impact on these industries for nature and ultimately change the way we produce and consume food. Putting our planet first.

Background Information on Meat and Soya

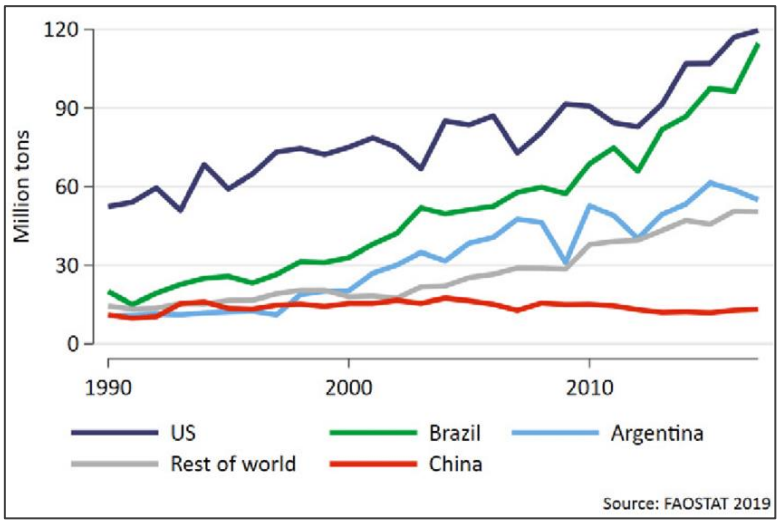
Beef consumption is highlighted as the most important and critical cause of deforestation. In total, more than 80% of the entire land dedicated to agriculture globally is used to produce meat, although meat provides only 17% of the calories and 33% of the proteins consumed globally.

Knowing that over 90% of soymeal imported into Europe is used for animal feed[4] and that globally 70% of soybeans are processed into animal feed and derivatives, it is clear that what is true for the planet is also true for Europe: meat consumption is the main contributor to Europe's deforestation footprint.

Deforestation for soy production

Soy production is highly concentrated, with just three countries – the US, Brazil and Argentina – having dominated production and exports since the beginning of the century. Together, these three countries accounted for 80% of global production in 2017.

Figure 1: Rise in global soybean production



Source: FAOSTAT

As Figure 1 above shows, global production of soybeans has roughly doubled since 2000. South America is the regional powerhouse, with over 50% of global production.[5]

[4]See IDH and IUCN (2019). " *European Soy Monitor*." https://www.idhsustainabletrade.com/uploaded/2019/04/European-Soy-Monitor.pdf, and Jennings, S., Sheane, R. and McCosker, C. (2017), *Risky Business*, WWF, available at https://www.wwf.org.uk/sites/default/files/2017-10/WWF%20and%20RSPB%20-%20Risky%20Business%20Report%20-%20October%202017.pdf

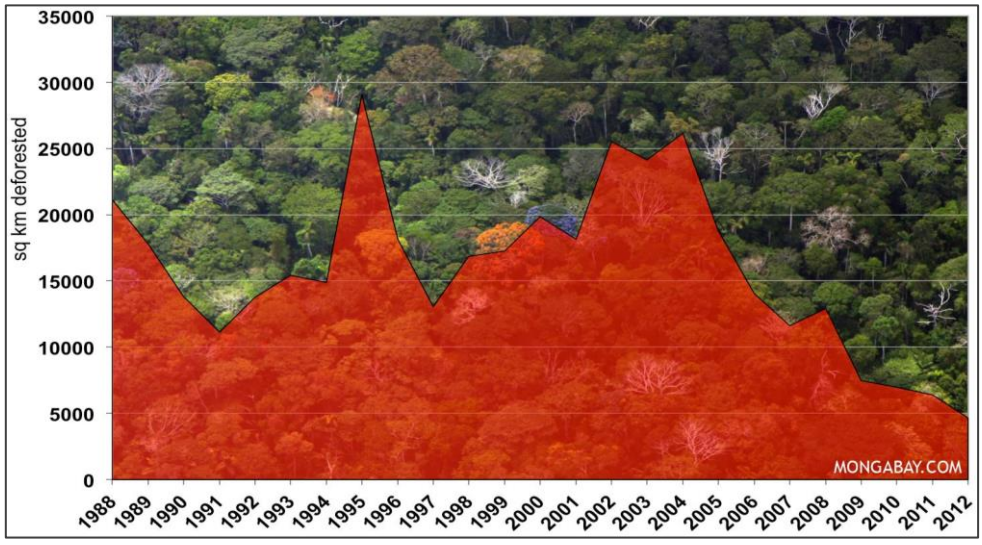
[5] World Economic Forum (2018), *Greening Commodity Supply Chains in Emerging Markets: Challenges and Opportunities. White Paper*, available at https://www.tfa2020.org/wp-

Soybean production more than tripled in Argentina between 1990 and 2010 and doubled in Brazil over the same period. Paraguay is the world's fourth largest exporter of soybeans, with its planted area for soybeans having tripled in the last two decades and now accounting for 80% of the country's total agricultural area. Overall in South America, the total land devoted to soy production increased from 17 million hectares in 1990 to 46 million hectares in 2010 – an area about the size of Sweden.[6]

The link between soy and deforestation in South America

Much of the increase in soy production in South America has come about through conversion of primary and degraded forests and other native ecosystems such as the endangered "Cerrado" ecosystem. In 2006, Greenpeace's "Eating up the Amazon" report brought global attention to the Amazon rainforest as the epicenter of soy-related deforestation. At that point over one million hectares of soy had been planted in the Brazilian Amazon,[7] much of it in violation of the country's Forest Code. At first, attempts to de-couple soy production from deforestation were promising. In 2008 a range of Brazilian government, corporate, and civil society actors adopted the Amazon Soy Moratorium, to protect forests inside the government-defined Amazon area. Companies which signed the moratorium committed to not purchase soy from farms planted on areas in the Brazilian Amazon which were deforested after 2006, and NGOs and governments committed to monitoring and supporting corporate pledges. As Figure 2 below shows, the implementation of the Amazon Soy Moratorium coincided with a significant drop in deforestation in the Brazilian Amazon.

Figure 2: Deforestation in the Brazilian Amazon, 1988-2012



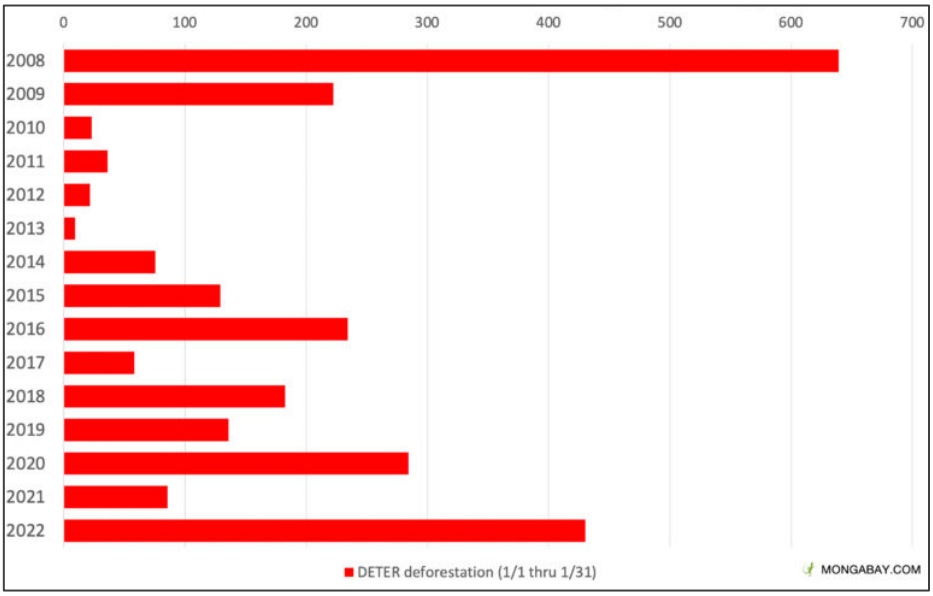
content/uploads/2018/02/40020_White_Paper_Greening_Commodity_Supply_Chains_in_Emerging_Markets.pdf

[6] WWF (2018), *Knowledge Hub: CERRADO, BRAZIL*, available at http://wwf.panda.org/knowledge_hub/where_we_work/cerrado/

[7] Abiove and Agrosatélite (2018). *Soy Moratorium Report 2018.* http://abiove.org.br/wp-content/uploads/2019/01/Soy-Moratorium-Report-2018.pdf

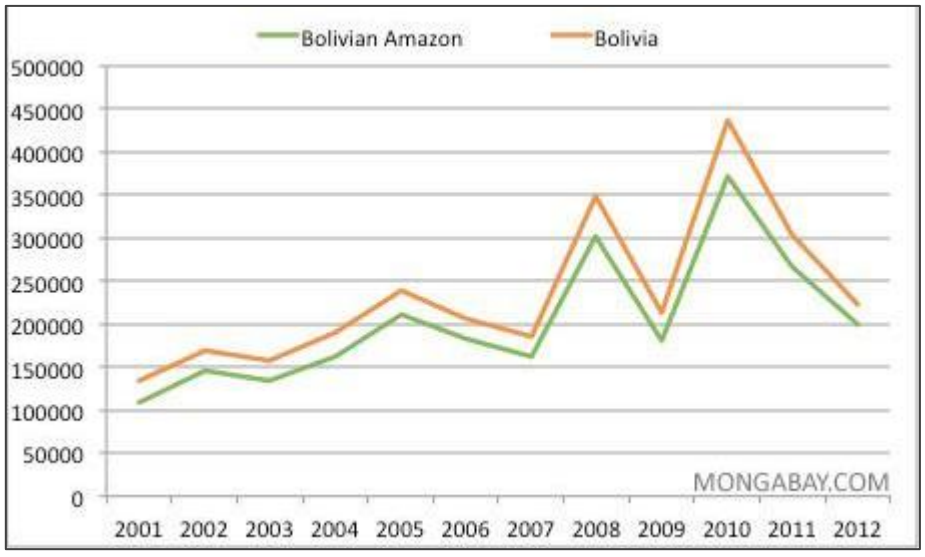
However, in January 2022, deforestation in the Brazilian Amazon was the highest of any January dating back to 2008, reported by Brazil's national space research agency INPE (Figure 3).

Figure 3: Deforestation detected Jan 1-31 for 2008 – 2021, according to INPE DETER (km²)



As demand for soy has continued to grow in response to increased meat consumption by the world's growing middle-class population, new land outside of the Brazilian Amazon has been opened up for soy plantations. Figure 4 illustrates deforestation in Bolivia, which started to increase drastically in 2006. Much of this deforestation occurred in the Bolivian Amazon, which was not protected by Brazil's Amazon Soy Moratorium.

Figure 4: Forest loss (ha) in Bolivia, 2001-2012



Other ecosystems outside of the Amazon, including the Argentine Gran Chaco and the Paraguayan Atlantic Forest, have also seen major expansion of soy plantations, likely pushed there because of the Brazilian Amazon Soy Moratorium. The Brazilian Cerrado,

a mixed savannah-forest ecosystem which houses 30% of Brazil's biodiversity,[8] has been particularly affected. Between 2000 and 2015 more than three and a half million hectares of native vegetation in the Cerrado were converted to soy production, and 60% of Brazil's soy production now comes from this critical ecosystem. Just one fifth of the Cerrado remains unplanted with soy, corn, cotton, and other commodities, and under current trends these crops are likely to continue to expand further, as only 3% of the Cerrado is officially protected by law.

Because of the global nature of commodity markets, protecting land from deforestation in one area often displaces the problem to a different region or country rather than improving the overall situation, as long as unrestricted demand continues to expand. And global demand continues to expand at a rapid pace. Over 70% of global soy production goes into animal feed, mainly for pigs and chickens but also for cattle, farmed fish, and other livestock. The growing middle class and population growth result in an increasing global demand for meat, and with it the demand for animal feed. Global soy demand is expected to grow by 70-80 million metric tons over the next ten years, an increase of over 25% from 2019 and equivalent to adding the 2019 combined production of Brazil, Paraguay, and Uruguay.

Where will this additional soy come from? Unfortunately, as with palm oil, increasing soybean production is generally achieved through expansion of cultivated area, rather than intensification of existing plantations. Soy has only limited potential for yield increases from existing farms – as a nitrogen-fixing plant, soy is largely unresponsive to fertilizers. Commercial soy farms are also to a great degree already highly productive, quasi-industrial operations. Aggregate soybean yields increased only by 1% in the major producing countries between 1995 and 2011.[9] If little new production can be gained on existing farms, the most likely way that projected increases in the demand for soy will be met is through further expansion into currently forested areas, most likely in South America.

Europe and soy

Overwhelmingly the main global soy importer is China, which imported 43% of all soy traded internationally in 2014, mainly destined for animal feed for its growing meat industry. The EU is nonetheless the world's second largest importer of soybeans and derivative products, purchasing nearly 20% of global imports (13% of global production) in 2014 (see Figure 5).

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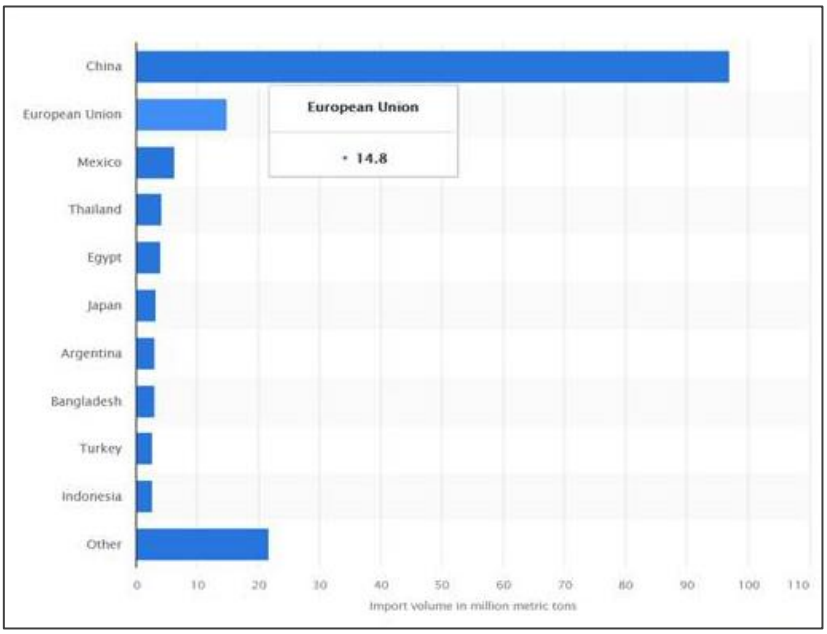
[8] Renata D. Françoso, et al. (2015). "Habitat loss and the effectiveness of protected areas in the Cerrado Biodiversity Hotspot" *Natureza & Conservação* (Brazilian Journal of Nature Conservation). http://dx.doi.org/10.1016/j.ncon.2015.04.001

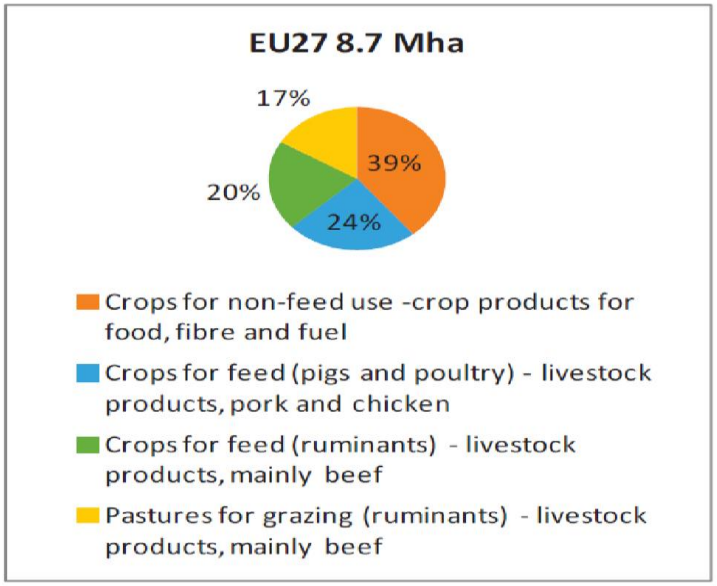
[9] D. Brack et al. (2016) « Agricultural Commodity Supply Chains Trade, Consumption and Deforestation ». Chatham House Research Paper. https://www.chathamhouse.org/sites/default/files/publications/research/2016-01-28-agricultural-commodities-brack-glover-wellesley.pdf

Figure 5: Import volume of soybeans worldwide in 2021/2022
By country (in million metric tons)



The 2013 an EU study on imported deforestation concluded that from 1990–2008, the EU imported crop and livestock products associated with 8.7 million hectares of deforestation – an area about the size of Austria. More than half of this land is dedicated to animal pasture and animal feed, as the Figure 6 shows.[10] The imported animal feed in this case is overwhelmingly soy; soy is also an important part of Europe's biofuel feedstock imports, represented in the orange wedge in Figure 6.

Figure 6: EU imported products associated with 8.7 million hectares of deforestation



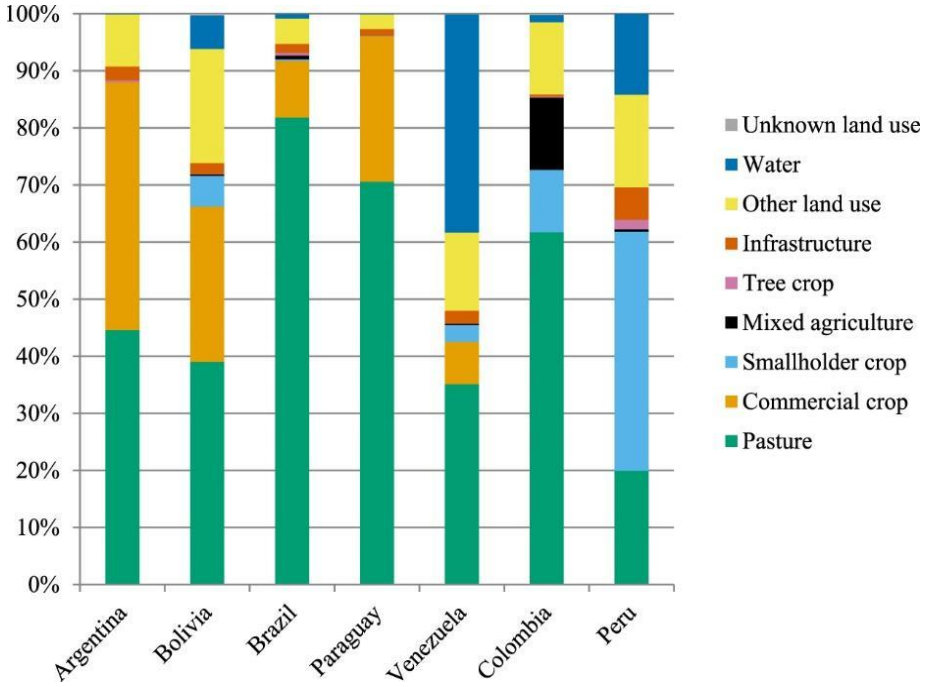
Source: Statica

[10] Source: https://ec.europa.eu/environment/forests/pdf/1.%20Report%20analysis%20of%20impact.pdf

Deforestation for pastureland

Globally, deforestation to expand pastureland is responsible for an even greater area than deforestation for agricultural products destined for animal feed, such as soy. In Brazil alone, approximately 45 million hectares of Amazon rainforest have been converted to cattle ranches, and pastureland already outweighs planted cropland by about 5 times.[11] Clearing land for pasture is by far the largest driver of deforestation in South America, responsible for 71% of deforestation and greenhouse gas emissions from land use change[12] – in just the Amazon, cattle ranching accounts for nearly 80% of all deforestation.[13]

Figure 7: Area proportion of deforestation drivers, average from 1990 to 2005



Source: https://iopscience.iop.org/article/10.1088/1748-9326/10/12/124004/meta[14]

Because the productivity of Amazonian soils is low, only extensive systems of one animal per hectare can be supported on recently-cleared land. These extensive systems have very low productivity, and a large area of land is needed to produce a kilogram of beef as compared to feedlot systems or pasture systems on more productive soils outside the Amazon. Eventually, even these extensive systems deplete the soils and

[11] Yale Global Forest Atlas (2015). "Cattle Ranching in the Amazon Region" https://globalforestatlas.yale.edu/amazon/land-use/cattle-ranching

[12] V De Sy et al. (2015). "Land use patterns and related carbon losses following deforestation in South America."
Environmental Research Letters, Volume 10, Number 12
https://iopscience.iop.org/article/10.1088/1748-9326/10/12/124004/meta

[13] https://globalforestatlas.yale.edu/amazon/land-use/cattle-ranching

[14] V De Sy et al. (2015). Op. cit.

what was once a dense rainforest becomes an eroded wasteland – a process that take only 10-15 years.[15]

As with soy, an increase in demand for beef is primarily satisfied by clearing new land for pasture rather than intensifying production on existing farms. And unfortunately, demand for beef is increasing – while the OECD and FAO predict a slowdown in consumption of poultry and pig meat over the next decade, they expect an increase in demand for beef, as a growing global middle class switches to higher-priced meat protein. Beef consumption is predicted to increase by 8% globally from 2018-2027, driven by a 21% increase in consumption in developing countries.[16] The increase in global population and a shift in diets towards eating more beef will only put more pressure on South American forests.

Europe's cattle deforestation footprint

The European Union does not import the majority of its meat, but nonetheless 17% of its deforestation footprint is associated with imported meat from pasture which was formerly forest – representing 1.2 million hectares of land overseas devoted to pastureland for meat. Nevertheless, animal feed remains the most important contributor to Europe's deforestation footprint. Over 90% of the soy meal used in animal feed in the European meat industry is imported. Poultry and pork production in Europe are almost entirely dependent on imported soy, as they do not digest grass. Cattle in Europe do graze, but their diet is supplemented with soy meal.

Soya certification schemes

In Europe, a significant number of companies have already committed to eliminating deforestation associated with soya through a range of initiatives, such as the Cerrado Manifesto and the UK Soya Manifesto. Seven European countries: Austria, Denmark, France, Netherlands Norway, Sweden and the United Kingdom all signed the European National Soya Initiatives' Statement: "Towards Conversion-free Soya" striving towards 100% of these countries' soya consumption being produced according to the law and in a way that does not contribute to new deforestation or conversion of other valuable native vegetation (deforestation and conversion free). While it is important to support deforestation-free production overseas, this must be coupled with active forest protection and demand reduction if we really want to save these ecosystems. Certification systems are for farms, not forests. Certified product may come into Europe, but uncertified product will stay in Brazil or go to China – certification cannot be the only tool in Europe's toolbox.

[15] FAO, Livestock Policy Brief. http://www.fao.org/3/a-a0262e.pdf

[16] "OECD-FAO Agricultural Outlook 2018-2027: Meat." http://www.agri-outlook.org/commodities/Agricultural-Outlook-2018-Meat.pdf

Key considerations

It is tempting to suggest that Europe should grow its own animal feed so as not to rely on imports from countries which are deforesting to plant soy. But for Europe to replace all of its imported soy with home-grown animal feed would require an additional 12-13 million hectares of EU farmland to be used for soy cultivation. This would require devoting more than 10% of the total EU arable land area – which is already fully occupied for other agricultural uses – to soy.[17] Stopping soy imports to become self-sufficient in soy production is therefore not an option.

Nor is the answer for European meat producers to simply stop buying soy from countries in South America and shift their purchases to the US, where deforestation for soy is not occurring. This would just shift Chinese soy purchases from the US to South America, as was seen during the recent US-China trade dispute. Deforestation for soy in South America would not decrease, but simply be allocated to other buyers.

What is needed instead is for European consumers to drastically reduce their meat consumption, to stabilize global demand while leaving room for lower-income countries to increase their consumption (from levels which are currently much lower than in Europe), without driving new deforestation to expand grazing land and animal feed plantations. Overall, if global meat consumption is halved, we can grow and raise enough food for every human without needing to convert new land to food and animal feed production. For Europeans, this means reducing current meat and dairy consumption by even more than half, since we are consuming more than our 'fair share' of the planet's resources.

In January 2019 a panel of doctors and scientists commissioned by the *Lancet* published a study of what such a "planetary-health" diet would consist of, in which everyone on Earth could consume a healthy diet, without the need to clear new land for pasture or farms. The diet, presented in table 1, represents a solution not only to the health and equity problems facing our society -- where one billion people go hungry and two billion are obese, and where unhealthy diets are the greatest burden of disease – but to the unsustainable impacts our current diet has on the planet [18] .

[17]FERN. "Agricultural commodity consumption in the EU – Policy Brief: Soy (May 2017)." https://www.fern.org/fileadmin/uploads/fern/Documents/Soybean%20briefing%20paper%204pp%20A4%20WEB%281%29_0.pdf

[18] EAT-Lancet Commission (2019) 'Healthy diets from sustainable food systems: Food planet health.' Summary Report available at https://eatforum.org/content/uploads/2019/07/EAT-Lancet_Commission_Summary_Report.pdf .

Table 1: EAT-Lancet commission's scientific targets for a planetary health diet (intake of 2500 kcal/day)

DIET COMPONENT	GRAMS PER DAY (POSSIBLE RANGE)
Rice, wheat, corn, and other whole grains	232
Potatoes and cassava	50 (0-100)
Vegetables	300
Fruits	200 (100-300)
Dairy foods (Whole milk or equivalents)	250 (0–500)
Protein sources	
Beef, lamb and pork	14 (0–28)
Chicken and other poultry	29 (0–58)
Eggs	13 (0–25)
Fish	28 (0–100)
Legumes	75 (0–100)
Nuts	50 (0–75)
Added fats	
Unsaturated oils	40 (20–80)
Saturated oils	11.8 (0-11.8)
All added sugars	31 (0-31)

The planetary health diet is radically different from a typical European diet today – it calls for two-thirds of our food to come from legumes, nuts, whole grains, fruits and vegetables, and about one-third from everything else. Under this diet, Europeans would need to decrease meat consumption from about 220 grams per day today[19] to just 43, and eat just six eggs per month on average. While trade-offs could be made by eating even less meat and more eggs, or more dairy and less seafood, serious changes will be needed for nearly everyone. But these changes are urgent and essential. As the *Lancet*'s editors said in a piece accompanying the experts' report:

> *"For the first time in 200,000 years of human history, we are severely out of synchronisation with the planet and nature. This crisis is accelerating, stretching Earth to its limits, and threatening human and other species' sustained existence. The dominant diets that the world has been producing and eating for the past 50 years are no longer nutritionally optimal, are a major contributor to climate change, and are accelerating erosion of natural biodiversity."*[20]

Fortunately, a European diet which is much lower in meat and dairy products is also a diet that is much healthier for Europeans. A 'better but less' diet that focuses on infrequent but high-quality meat consumption will provide a better balance of nutrients than today's meat-heavy diet and allow Europeans to live within our planetary

[19] Data from FAO, in Hannah Ritchie and Max Roser (2019). "Meat and dairy production." https://ourworldindata.org/meat-production

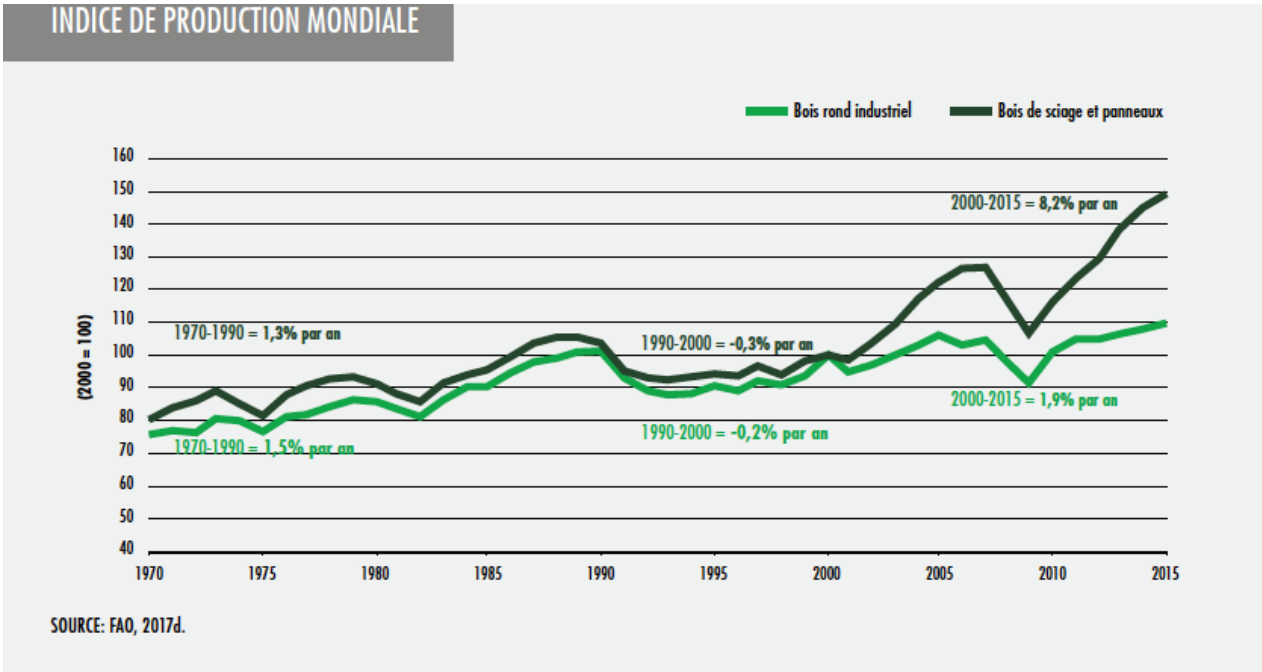
[20] W. Willett et al. (2019). "Food in the Anthropocene: the EAT-*Lancet* Commission on healthy diets from sustainable food systems." *The Lancet,* 393: 447–492. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31788-4/fulltext.

boundaries. Shifting to a largely plant-based diet means using existing farmland to grow crops directly for food consumption, which is a far more efficient use of land than using it to grow animal feed crops. Just 17-30 out of every 100 calories fed to animals as cereals eventually reach humans as meat, with beef cattle being a particularly inefficient way to transform cereals into calories.

Background Information on Timber

The world is globally using wood, a lot of wood! The current trend sees a particular increase of transformed wood compared to roundwoods (Figure 8);

Figure 8: Global production of round wood and transformed wood



Forestry in the EU

The EU harbours approximately 5 % of the world's forests[21], and the overall forested area is slowly increasing[22]. In 2017, the total roundwood production in the EU reached about 470 million m^3: the five top producers were Sweden, Finland, Germany, France and Poland (Table 2).

Almost a quarter of the wood produced in Europe is used as fuelwood (with variations according to countries). Since the early 2000's, the production of round logs has been slightly increasing over the years: Figure 9.

[21] For the EU, forest is defined as land with tree crown cover (meaning all parts of the tree above ground level including its leaves, branches etc.), or equivalent stocking level, of more than 10 % and with an area of more than 0.5 hectares (ha). The trees should be able to reach a minimum height of 5 metres at maturity *in situ*.

[22] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Wood_products_-_production_and_trade

Table 2: Wood production by various countries of the EU

	Total	Fuelwood	Industrial roundwood
	(1 000 m^3 under bark)		
EU-28	*470 301*	*109 017*	*361 282*
Belgium	:	:	:
Bulgaria	6 198	2 989	3 209
Czechia	19 387	2 376	17 011
Denmark	3 483	2 015	1 468
Germany	53 491	9 929	43 562
Estonia	9 948	3 106	6 842
Ireland	3 220	214	3 006
Greece (1)	1 092	765	328
Spain	17 566	*2 923*	14 642
France	51 200	25 839	25 361
Croatia	5 307	1 858	3 449
Italy	13 052	10 839	2 213
Cyprus	16	14	2
Latvia	12 896	2 200	10 696
Lithuania	6 747	2 085	4 662
Luxembourg	433	82	351
Hungary	5 689	2 827	2 862
Malta	0	0	0
Netherlands	3 151	2 332	819
Austria	17 647	4 909	12 738
Poland	45 348	5 248	40 099
Portugal	13 534	1 048	12 486
Romania	14 492	4 914	9 578
Slovenia	4 509	1 039	3 470
Slovakia	9 361	591	8 770
Finland	63 279	7 949	55 330
Sweden	72 880	7 500	65 380
United Kingdom	10 934	2 096	8 838
Liechtenstein	9	4	5
Norway	12 320	*1 829*	10 491
Switzerland	4 484	1 645	2 839
Montenegro (2)	915	707	208
North Macedonia (2)	691	577	114
Turkey (2)	22 835	4 300	18 535

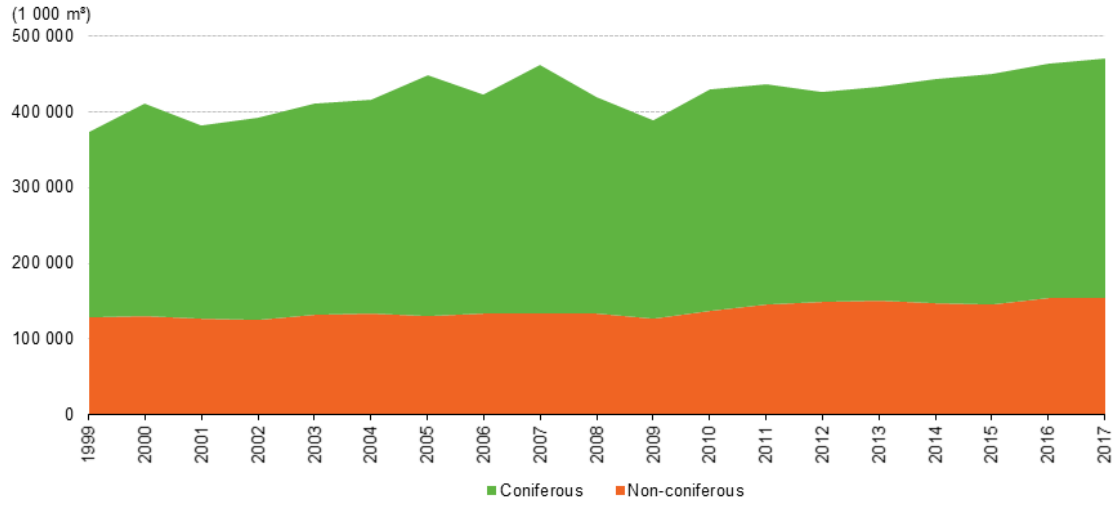
(:) not available

(1) 2013 data used instead of 2017

(2) 2014 data used instead of 2017

Source: Eurostat (online data codes: for_remov)

Figure 9: Annual production of roundwood in the EU 1999-2017



Note: from 2011 to 2017, data have been estimated by Eurostat.
Source: Eurostat (online data code: for_remov)

eurostat

In 2017, the wood-based industries employed 3.3 million people across the EU-27 in more than 430,000 enterprises (20% of the number, showing that most companies are small or medium-size enterprises), and represented a gross value of 143 billion Euro (7.5% of the manufacturing total in 2016). However, this number has declined by 15% between 2000 and 2017 and is still declining.

Primary wood products include industrial roundwood (all wood obtained from removal, with or without bark), sawnwood, veneer and plywood. Secondary processed wood products include wooden furniture and parts, and mouldings while paper, paper board and woodpulp form another product category.

Illegal logging

It is difficult to assess the extent of illegal logging but the World Bank estimates that illegal trade of timber[23] is worth between 15 and 100 billion euros, or about a third of the global timber trade[24], and responsible of 15-30% of deforestation in the tropics. These illegal practices also contribute significantly to climate change, undercuts biodiversity conservation efforts, encourages corruption and undermines good governance, denies government taxes that could be used to improve these nations, and often leads to social conflicts.

The EU is a large market for timber products (i.e. wood, venery and furniture, paper, plywood and etc.). In 2017, the EU imported about 18 billion Euro worth of wood products; 3.8 billion was originating from tropical countries.

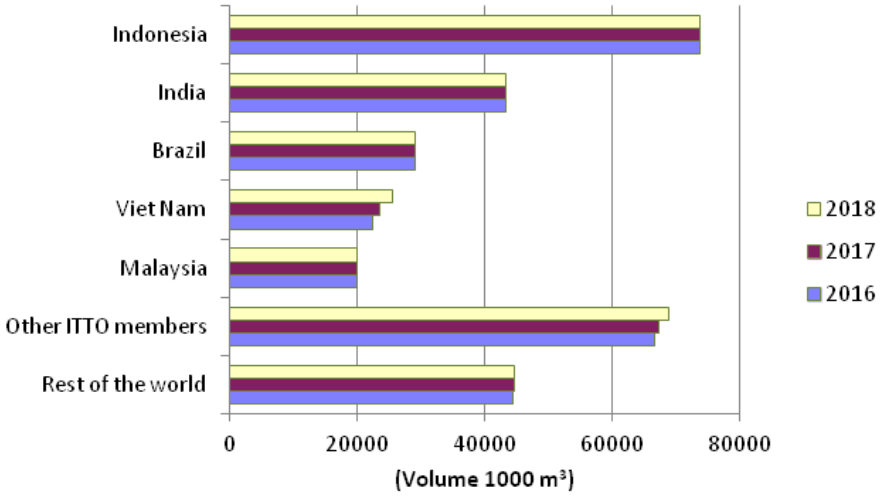
[23] Illegal logging is the harvesting, processing, transporting, buying or selling of timber in contravention of national and international laws.

[24] http://www.euflegt.efi.int/illegal-logging

Tropical wood and EU imported deforestation

The production of tropical industrial wood totalled 253.1 million m^3 in 2017 for The International Tropical Timber Organisation (ITTO) member countries[25]. Five countries account for nearly three-quarters of the production in 2017 (Figure 10).

Figure 10: Major tropical log producers (ITTO report)



Importation of tropical wood by the EU represents between 10 and 25% of all wood imported by the EU, depending on the years (22% in 2000; 13% in 2017). Overall, the tropical wood imports have declined over the past 10 years (see Table 3).

Table 3: Commercial value of tropical timber imported by EU

Tropical wood imports, EU-28, 2000–2017
(million EUR)

	2000	2005	2010	2012	2013	2014	2015	2016	2017
All countries of the world	1 966.1	1 856.9	1 303.6	897.1	786.5	788.9	911.7	911.5	884.6
FLEGT-VPA countries (¹)	1 633.3	1 429.5	1 011.9	690.6	612.1	618.7	702.3	716.0	679.6
Cameroon	421.8	384.2	253.0	204.6	162.6	160.5	189.2	226.2	200.5
Central African Republic	29.5	22.3	9.8	9.2	5.9	4.8	10.6	13.3	6.1
Congo	68.2	89.5	55.7	35.9	44.0	48.8	53.3	55.9	48.2
Côte d'Ivoire	201.8	195.3	103.8	69.4	57.3	65.3	68.3	61.4	54.0
Democratic Republic of the Congo	18.6	60.2	47.6	36.8	35.8	27.0	32.8	34.2	16.1
Gabon	195.9	226.0	161.6	54.6	57.9	53.4	59.2	75.6	71.9
Ghana	102.0	85.4	35.1	15.8	14.1	14.4	13.9	12.9	14.4
Guyana	0.3	1.6	2.5	1.7	1.3	1.8	3.5	1.1	0.0
Honduras	0.1	0.1	0.3	0.5	0.7	1.8	0.5	0.1	0.0
Indonesia	122.8	88.8	107.3	85.9	80.1	83.6	104.7	101.3	121.7
Liberia	61.2	:	1.2	5.6	2.5	2.2	2.8	2.2	0.0
Malaysia	390.9	258.3	228.7	165.0	147.4	151.9	159.7	128.3	143.1
Thailand	19.9	17.4	4.8	5.2	1.4	1.8	1.6	1.2	0.7
Vietnam	0.2	0.4	0.3	0.5	0.9	1.3	1.9	2.2	2.7

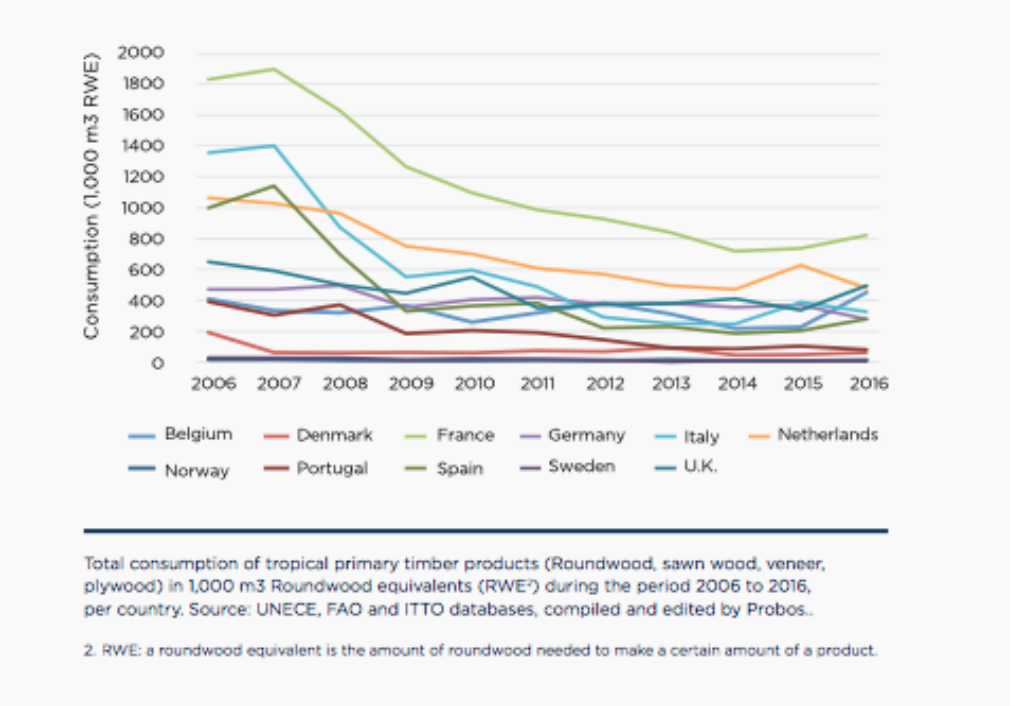
(:) not available
(¹) Forest Law Enforcement, Governance and Trade – Voluntary Partnership Agreement (FLEGT-VPA) countries are producers of tropical wood that have signed or are about to sign a VPA with the EU. The agreement requires licensing arrangements to ensure that timber placed on the EU market is from legal sources.
Source: Eurostat (online data code: for_trop)

eurostat

[25] Biennal review and assessment of the world timber situation 2017-2018. http://www.itto.int

The total EU imports of tropical timber is about 1,473,000 T (or about 2,300,000 m^3). In 2019, seven countries (the Netherlands, UK, Germany, Belgium, France, Italy, Spain; Figure 11) accounted for 90% of imports of EU primary tropical timber products. France is the largest European importer of tropical timber overall (mostly roundwood and veneer), while Belgium and the NL consume mostly sawn wood, UK and Italy tropical plywood.

Figure 11: Importations of tropical primary timber products by EU members

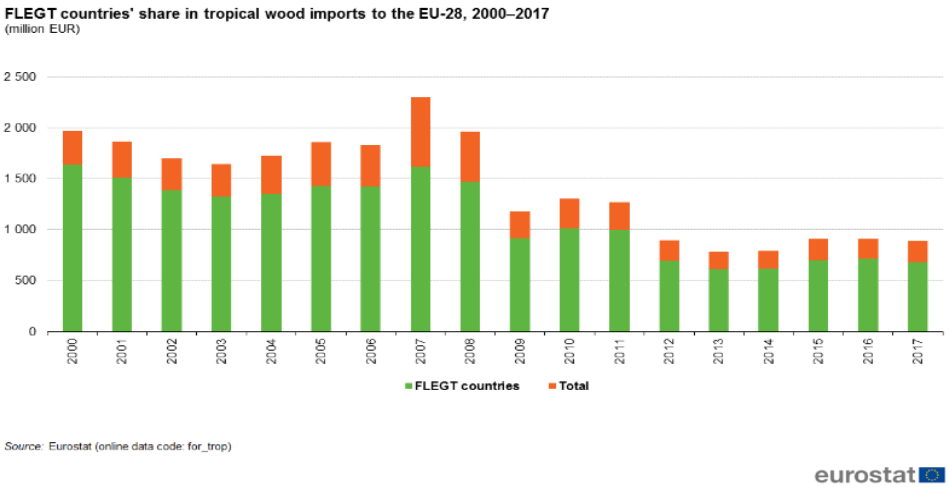


Total consumption of tropical primary timber products (Roundwood, sawn wood, veneer, plywood) in 1,000 m3 Roundwood equivalents (RWE[2]) during the period 2006 to 2016, per country. Source: UNECE, FAO and ITTO databases, compiled and edited by Probos..

2. RWE: a roundwood equivalent is the amount of roundwood needed to make a certain amount of a product.

According to the EU, 70% to 83% of the EU tropical wood imports originated from the 15 FLEGT-VPA countries between 2000 and 2017 (Figure 12 and Figure 13). The three main producers were Cameroun, Malaysia and Indonesia.

Figure 12: Overall value of imported tropical wood (FLEGT and nonFLEGT origin)



However, recent analyses estimated that only between 25% and 30% of EU tropical primary timber products sales are verified sustainably sourced 26: these percentages fluctuate greatly according to the countries: The Netherlands (67.5% is sustainably verified), UK (42.5%), Germany (32.5%), Belgium (27.5%), France (12.5%), Italy and Spain (less than 10%). FLEGT licensed sources have only a market share of 11% within the total import of natural tropical timber products by the EU. **Overall, the vast majority of European tropical timber imports remains uncertified.**

Maintaining forest cover and forest quality requires incentives for sound stewardship: strong demand for verified sustainable tropical timber, through robust certified sustainable forest management, possibly combined with FLEGT-licensing, could spur the growth and spread of responsible forest management in tropical countries.

A brief look at existing regulation and their impact

The EU has tried to develop a model that is ensuring a legal trade in agricultural commodities and has established a system to banish illegally sourced timber from the European markets.

- Forest Law Enforcement Governance and Trade: FLEGT

  In 2003, The EU endorsed the Forest Law Enforcement, Governance and Trade (FLEGT) action plan to fight illegal logging and associated trade while strengthening community rights to forest land. This voluntary scheme was developed to improve forest governance in timber-exporting countries. Access to the EU market is granted only to legal products, as an incentive for governance reform in the forestry sector of exporting countries.

  In July 2019, the EU decided to step up its action to protect and restore the world's' forests. The new communication has the objective of protecting and improving the health of existing forests, especially primary forests, and significantly increasing sustainable, biodiverse forest coverage worldwide. Following this, in January 2020, the EU agreed on a diligence regulation to end imported deforestation: the "European Green Deal".

- Voluntary Partnership Agreement: VPA[27]

  A VPA is a bilateral trade treaty between the EU and a timber-producing country to ensure the legal origin of the exported timber. By 2021 total of 15 tropical countries had signed a Voluntary Partnership Agreement (VPA) with the EU[28].

[26] https://www.idhsustainabletrade.com/news/europe-dangerously-behind-on-achieving-deforestation-free-soy-palm-timber-cocoa/

[27] http://www.vpaunpacked.org/en/vpa-unpacked

[28] http://euflegt.efi.int/indonesia

Different timber certification systems

Two major certification systems exist for timber, which are the most widely known:.

- OLB (in French: Origine Légale du Bois – Origin and legality of Wood)

  Developed by Bureau Veritas certification in 2004. The system is based on a certificate for forest managers and a chain of custody for traders.

  The VLO system (Verification of Legal Origin), operational since 2007, has been designed to verify that timber comes from a source that has a documented legal right to harvest, pursuant to the laws and regulations of the government of the jurisdiction, while forest management complies with main legal regulations. The VLC System (Verification of Legal Compliance) considers both national and international laws and is thus more stringent than the VLO.

  Several organizations are involved to develop these systems: Rainforest Alliance; Legal trace (SGS); Legal source (NEPCon) etc.

- Forest Stewardship Council: FSC

  This certification system confirms that the forest is being managed in a way that preserves biological diversity and benefits the lives of local people and workers, while ensuring it sustains economic viability[29].

  In early 2017, around 200 Mha of forests were FSC certified, or about 17% of the world production (from 25 Mha at the end of 2000). This percentage has remained at 17% as of 2021 data.

  However tropical and sub-tropical forests represent only about 10% of the total area certified (for more details, see[30]). Overall, natural forests represent about 65% of FSC certified forests, while 25% is of mixed plantations/natural forests and 10% industrial tree plantations.

  FSC certification assists the industry with third-party auditing to align with the EU Timber Regulation (EUTR). Unfortunately, this certification is not fully recognized by the EUTR yet but can still be used as an indicator to demonstrate that the products meet requirements. Any operator interested in obtaining this certificate have to follow and adhere to ten principles and 70 criteria. Biodiversity management is regulated by principle 9 “High Conservation values”, and each FSC-certified forest must have an annual assessment carried out by an accredited body.

  Since 2019, FSC is piloting the private “blockchain” technology to enhance supply chain integrity and to document any movement of goods between trading

[29] https://www.fsc.org/en/page/forest-management-certification

[30] https://fsc.org/en/details-page/demonstrating-impacts : “FSC Monitoring & Evaluation report: context, figures, effects and impacts. Pubic report 2016”

countries, from suppliers to retailers, buyers and consumers. FSC. Despite being the most rigorous system, is believed to work best in countries where forestry is already highly regulated, such as in countries in Europe.

Round-up of additional schemes globally

- The European Sustainable Tropical Timber Coalition (STTC) is an alliance of industry, business, government and NGOs dedicated to increase the EU demand for verified sustainable tropical timber. The STTC was launched in 2013. Its ambition is to increase the share of verified tropical timber to 50% of the EU primary tropical market by 2020. In particular the STTC is in charge to gather, collate and disseminate precise and accurate information about the situation.

- In the tropics, the Malaysian Timber Certification Council (MTCC) started its operation in 1999 as an independent organisation to develop and operate the Malaysian voluntary Malaysian Timber Certification Scheme (MTCS). Today, 4.6 Mha of forests are certified by this scheme.

- In Indonesia the international organisation "The Borneo Initiative" (TBI) is promoting sustainable forest management among forest concessions in partnership with the Indonesian Association of Forest Concessionaires (APHI). Both programmes have been endorsed by the PEFC scheme.

- In Gabon, the Pan-African Forest Certification (PAFC) Gabon is the certification system attesting the good forest management and traceability of wood and forest products from sustainably managed forests. This certification system was developed and is managed by the association PAFC Gabon. Today, a regional PAFC-Congo Basin scheme is being developed. It will in principle be operational in 2022 and will cover Cameroon, Gabon and the Republic of Congo.

- Programme de Promotion de l'Exploitation Certifiée des Forêts (PPECF) focuses on the Congo Basin; the objectives of this Programme is twofold. First, the programme is assisting companies that are already certified to prevent the loss of their certificates, and second the programme supports the third party certification process (i.e. verified by annual audits), in particular through the recognition of private certificates as provided for in point 3.3 of the Official Journal of the European Union (L92/177), which provides for the issuing of FLEGT licences to FSC® certified companies without the need for a double legality check. On the other hand, this programme also supports companies in their ongoing efforts to meet the new requirements of the FSC® standard.

- The Association Technique International des Bois Tropicaux (ATIBT): since 1952, the ATIBT promotes the development of a sustainable, ethical and legal industry of tropical timber as a natural and renewable resource, essential for the socio-economic development of producing countries. ATIBT is essentially active in Central Africa.

- Fair & Precious: this is a collective brand created in 2017 by ATIBT that guides buyers towards companies that are committed to sustainable development and the preservation of forest resources and that respect international forest management certifications and regulations. Fair % precious is promoting timber and wood products that are FSC or PEFC-PAFC certified originating from five companies in Central Africa (Gabon, Congo, Cameroun), and representing a total area of 5.2 Mha.

Additional information

Below is a non-exhaustive list of various organizations that investigate governance challenges and work on European forest policy:

ClientEarth (www.clientearth.org)

Environmental Investigation Agency (www.eia-international.org)

FERN (www.fern.org)

Forests Monitor (www.forestsmonitor.org)

Forest Peoples Programme (www.forestpeoples.org)

Global Witness (www.globalwitness.org)

Greenpeace (www.greenpeace.org)

WWF (www.wwf.org.uk)

Research by EU-based think tanks on wider forest issues informs processes and decisions in the EU and in timber-exporting countries. Think tanks include:

Chatham House (www.chathamhouse.org)

Centre de coopération internationale en recherche agronomique pour le développement (CIRAD) (www.cirad.fr)

International Institute for Environment and Development (www.iied.org)

Overseas Development Institute (www.odi.org)

Wageningen University and Research Centre (www.wageningenur.nl)

In addition to EU-based think tanks, institutions in the United States such as Forest Trends (www.forest-trends.org) and the World Resources Institute (www.wri.org) also produce research on VPAs.

Global policy level actions

There is not one action alone which can help to solve the deforestation and forest risk commodity challenge. A combination of work on the ground with smallholders and large multi-national stakeholders, government policy (in both producer and consumer countries) and stronger certification schemes are needed jointly. Government policy changes took a major step forward in 2021, consumer and producer countries stepping up on forest risk commodities.

COP26

The Glasgow Leaders' Declaration on Forest and Land Use was announced and signed at the COP26 meeting in November 2021. Leaders representing over 85% of the world's forests committed to halting and reversing deforestation and land degradation by 2030. £8.75 billion ($12bn) of public funds will be committed to protect and restore forests, alongside £5.3 billion ($7.2 billion) of private investment. 141 countries signed this declaration.

EU

Europe can play a key role in helping to transform the market for forest risk commodities. The EU is taking a lead in a strong law addressing deforestation, forest degradation, ecosystem conversion and degradation, and the protection of human rights. Encouraging and supporting change within these markets, even where the EU is a relatively small buyer, can progress positive change across the whole industry and have an impact in countries where the demand for sustainability isn't as high.

In late 2020, EAZA took part in a consultation through which the EU collected advice on how to limit imported deforestation. We responded together with some 150 other NGOs and over a million individual citizens, under a common initiative called #Together4Forests. The EU introduced the draft new law in November 2021, with the hope that it will become law by 2023.

France

In July 2017 , France adopted its National Strategy against Imported Deforestation which aims, by 2030, to put an end to deforestation caused by importing unsustainable forest and agricultural products. The goal is to encourage every actor (producers, businesses, investors and consumers), to change their practices in order to reduce deforestation. The strategy is firstly aimed at agricultural commodities which contribute the most to imported deforestation, such as soy beans, palm oil, beef and beef co-products, cocoa, rubber, as well as timber and timber products.

Norway

As part of the Norwegian governments Action Plan on Nature Diversity, the Norwegian parliament committed to a deforestation-free supply chain of goods coming into the country in 2016. This includes the commodities soy, timber palm oil and beef which

have the greatest impact on forests globally. The government will now require sustainable policy and practice in producing products if they are to be procured by the government.

UK

The UK due diligence on forest risk commodities was launched as a public consultation in 2020 and was passed as part of the Environment Act in 2021. The law would make it illegal for larger businesses to use forest risk commodities that have not been produced in accordance with relevant local laws, and they would need to take steps (undertake due diligence) to show that they have taken proportionate action to ensure this is the case. This would set a clear requirement on businesses, and those who do not comply would be subject to fines.

As of December 2021, a consultation on the implementation of the law was announced, which will determine the secondary legislation of the law, including detail such as type of business that will be accountable, and identify key commodities. BIAZA are involved in these consultations and will be working with EAZA UK members as these laws progress.

Next steps

EAZA recommends that all Member institutions put sustainable procurement, particularly with regards to forest risk commodities, onto their organisations' agendas over the next critical few years. Some of these new laws may also impacted our organisations as businesses, however more detail as the laws and secondary legislations progress is required. Forest risk commodities is a key area which as leading conservation organisations in our own countries and collectively in Europe, we can have a significant impact on.

The Imported Forestry and Sustainable Agriculture Working Group will continue to input at a European and individual country policy level to encourage the adoption of stricter measures in terms of forest risk commodities coming into European countries.

The Working Group will also continue to develop background information and recommendations for further commodities as information becomes available and include procurement guidance for EAZA Members where relevant.