

Assessing the G7's international deforestation footprint and measures to tackle it

2022



The
Food and Land Use
Coalition

Contents

1. Introduction	6
2. The G7's international deforestation footprint	9
3. How are G7 members tackling their international deforestation footprint?	15
3.1 Voluntary commitments	16
3.2 Demand-side regulatory measures	19
3.3 Legality and deforestation-free regulatory measures	22
3.4 Market Leakage	24
4. Implications for stakeholders	27
4.1 Smallholders	28
4.2 Multinationals	30
4.3 Small and Medium Enterprises (SMEs)	31
5. Conclusion and recommendations	33
Annexes	36
References	37

Acknowledgements

Established in 2017, the Food and Land Use Coalition (FOLU) is a community of organisations and individuals committed to the urgent need to transform the way we produce and consume food and use our land for people, nature and climate. We support science-based solutions and help build a shared understanding of the challenges and opportunities to unlock collective, ambitious action.

This project was made possible by the generous support of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.

The drafting of this report was led by: Danielle Gent, Elizabeth Petykowski, and Katie McCoshan of FOLU. FOLU would like to thank the large number of individuals and institutions that have generously contributed time and energy to comment on drafts of this report. In particular, we would like to thank representatives of G7 governments who offered their time for interviews and Duncan Brack for peer review. We also thank FOLU core partners and members of FOLU country platforms for their insights throughout the development of this work. This report reflects the opinions of the authors only and not necessarily those of the donor or of consulted experts.

FOLU would like to thank the following individuals:

James Allen	Marco Daldoss Pirri	Jake Ireland	Daniel Oberhauser
Charles Barber	Ed Davey	Shivani Kannabhiran	Fabian Schmidt-Pramov
Scarlett Benson	Emily Fripp	Peter de Koning	Guido Schmidt-Traub
Christine Blackburn	Morgan Gillespy	Michael Lathuillière	Tina Schneider
Carolina Brandão	Sophia Gnych	Alison Midgley	Alexandra Skinner
Felipe Carazo	Daniela Göhler	Sophie Mongalvy	Lucie Smith
Julia Christian	Jonathan Gorman	Klara Nilsson	Talia Smith
Josephine Cutfield	Timo Herberz	Emily Norton	

Supported by:



Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

based on a decision of
the German Bundestag



The
Food and Land Use
Coalition



Executive summary

There is no IPCC pathway to 1.5°C without immediate action taken to halt deforestation.¹ Tropical regions are of highest priority for halting and reversing deforestation and conversion of native habitats due to their vital role in climate regulation, food security, and as hosts of vast biodiversity. Yet, in 2021 alone, the tropics lost 3.75 million hectares of primary forest, which is equivalent to roughly the same annual fossil fuel emissions of India.²

The world is currently on track for a rise of at least 2.5°C, and climate change impacts are no longer a future threat – they are happening now. With every increment of warming, food production systems will become more susceptible to climate-related extremes, with implications for global food security, nutrition, and livelihoods.³ Continued deforestation and land conversion escalates worst-case scenarios and risks threatening not only the stability of commodity supply chains, but also connected livelihoods and communities that are on the frontlines of food production and climate risks.

90% of tropical deforestation is caused by agricultural expansion including commodity-driven deforestation and shifting agriculture.⁴ Most of this clearing is to produce seven main commodities: palm oil, soy, cattle, wood fibre, cocoa, coffee, and rubber.⁵ Deforestation-related carbon emissions are embodied in the international trade of agricultural commodities destined for major international markets, including the Group of 7 (G7) nations.

New analysis from Food and Land Use Coalition (FOLU) estimates that between 2005 and 2017, G7 members (including the EU) were responsible for 30% of tropical deforestation linked to imports of agricultural commodities. This contributed over 2.7 billion tCO₂. Within the G7's footprint, imports of beef and palm oil accounted for the largest share of associated deforestation between 2005 and 2017. EU member states and the United Kingdom have showed a downward trend of imported commodities linked to tropical deforestation. Meanwhile, the US and Japan have continued to increase imports of tropical deforestation-linked agricultural commodities. Canada's exposure has remained consistently low over the same period.

There is no shortage of commitments from business and governments to end commodity driven deforestation. While voluntary and non-binding approaches have provided important frameworks, they have not reached the scale needed to effect systematic change at a global level. There is growing momentum for national action to produce binding, legislative measures on environmental and social aspects in supply chains. Several G7 members are developing legislative proposals on environmental aspects of supply chains, including deforestation, that specifically refer to due diligence requirements. At the time of writing, the EU and UK are leading with regulatory measures introduced, the US is at an earlier stage of proposal development, while Canada and Japan do not have published plans to regulate. Annex 1 offers a comparative table outlining the respective legislative plans from the EU, UK and US.

Demand-side regulation is one measure that G7 members can employ to help support their shared commitment for a world free of deforestation by 2030. There is a need for legislative coverage across all G7 members to avoid market leakage, with alignment required on key criteria including commodity coverage, approach, cut-off dates and timeframes. The G7 must engage other emerging consumer markets on these measures to avoid further leakage. For demand-side measures to be truly effective, G7 members must pair regulations with support and measures that help to improve enabling environments on the ground in tropical forest countries. This includes forming genuine partnerships with producer countries that in particular recognize the importance of smallholders who are estimated to produce a third of our food globally.

This report examines the G7's responsibility for tropical deforestation related to internationally traded agricultural commodities, what measures are being proposed to address this and specific actions G7 members should consider. Section 2 presents the G7's deforestation footprint and the key commodities driving this, as well as observed trends. Drawing on expert interviews and literature, Section 3 examines the measures proposed or adopted by G7 members, with a particular focus on emerging legislative proposals that seek to prohibit commodities that have been produced unsustainably or illegally. With different legislative proposals emerging across major consumer markets, Section 4 discusses what different approaches could mean for various stakeholders, including businesses and producers. The fifth section lays out a series of recommendations for G7 members to take forward.

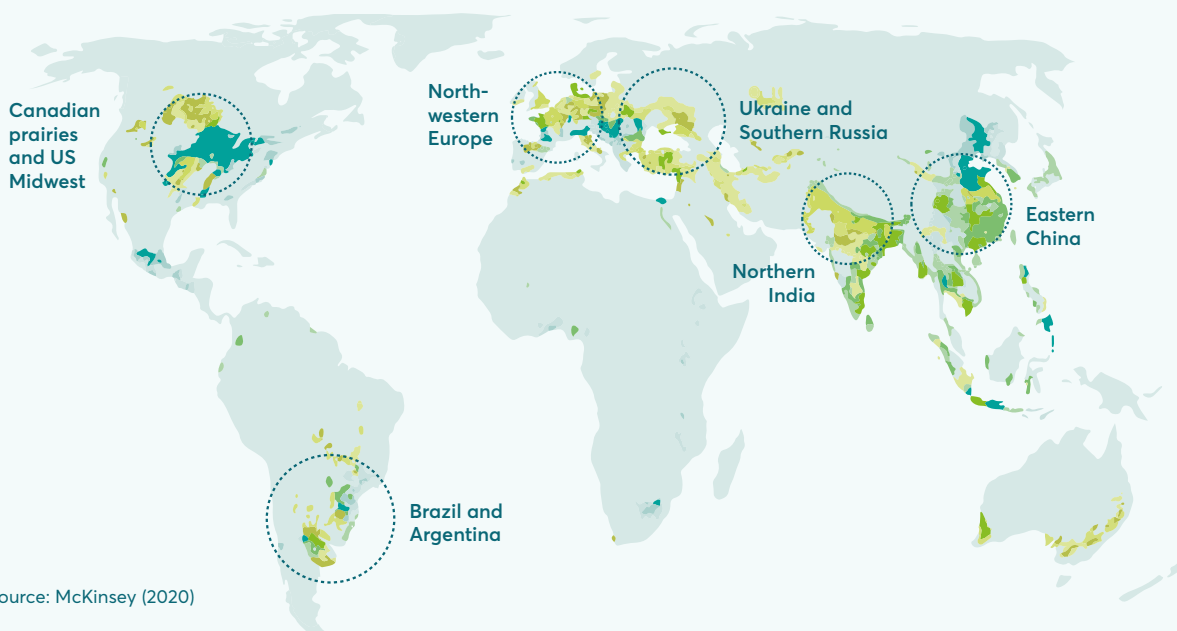
1. Introduction

At COP26 in Glasgow, leaders from 141 countries stood together, committing to 'halt and reverse forest loss and land degradation by 2030'.⁶ Governments are recognizing the important role that forests play in global food security and climate change mitigation. Forests store carbon above and below ground, regulate weather patterns, secure soil and water supplies, and host a vast variety of biodiverse plants and animals.⁷ In tropical regions, forests are home to 50% of global biodiversity and provide the highest carbon sequestration rate per hectare.^{8,9} Yet, evidence shows the world is falling short in protecting these vital assets. **In 2021 alone, the tropics lost 3.75 million hectares of primary forestⁱ, which is equivalent to the loss of 10 football pitches per minute.¹⁰** There is no IPCC pathway to 1.5°C without immediate action taken to halt deforestation.¹¹

Without a serious course correction, continued deforestation and subsequent worsening of climate change will make catastrophes, such as crop failures in several of the world's main food producing regions or pandemics, increasingly more likely.¹² Exhibit 1 illustrates the trend of consolidating food production of key food staples to just a few regions, which ultimately leaves food production more vulnerable to disruption. The Russian war of aggression against Ukraine gives a tragic insight into what happens when a major breadbasket region is no longer able to produce. Implications include record-breaking food prices, supply chain disruptions, export bans and tense trade relations. Even prior to the conflict, droughts were recorded on all inhabited continents in 2021 – leading to a spike in food prices that was further exacerbated by the conflict.^{13,14} **With every increment of warming, food production systems will become more susceptible to climate-related extremes, with global food security, nutrition, and livelihoods impacted. These impacts will be especially felt across sub-Saharan Africa, Asia, Small Island States, Central and South America, as well as by small-scale food producers across the world.¹⁵**

Exhibit 1: Production of the world's major food staples (corn, rice, soy, wheat) is highly concentrated in a few major 'breadbasket' regions.

○ Major grain production areas ● Corn ● Rice ● Soy ● Wheat



Source: McKinsey (2020)

ⁱ Primary forests are natural forests that possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function. Primary forests have not been subject to major human impacts in recent history. Source: Accountability Framework definitions, available from: <https://accountability-framework.org/the-framework/contents/definitions/>

To date, voluntary and non-binding commitments to halt agriculture-driven deforestation have not yet delivered the systemic changes needed. While the private sector clearly has an important role in implementing measures to ensure sustainability in supply chains, regulatory measures are critical to levelling the playing field and sending a clear market signal. Proposals for demand-side restrictions on high deforestation commodities are gaining increasing prominence as one part of the policy mix for ending deforestation. Addressing deforestation and forest loss in supply chains feature on the agenda of several intergovernmental fora in 2022. This includes the Group of Seven (G7) Environment Ministerial – Canada, France, Germany, Japan, Italy, United Kingdom and the United States.

G7 members play a unique leadership role in the international system with the potential to send a strong demand signal and set the direction of travel for other emerging consumer markets. A significant volume of deforestation-linked commodities are destined for high-income markets, including G7 members. In response, several G7 members have proposed new legislative schemes that seek to address the entry of deforestation-linked products into markets and oblige or encourage companies to examine their supply chains for environmental harm. G7 leaders met in June 2022 and affirmed their commitment to halt and reverse land degradation and forest loss by 2030, to share best practices and to foster dialogue with stakeholders to reach solutions along whole supply chains.¹⁶ G7 Climate, Energy and Environment ministers further agreed to develop regulatory frameworks or policies where appropriate and review collective progress by the end of 2023.¹⁷

In light of the G7's latest round of commitments, this report examines the G7's responsibility for tropical deforestation related to internationally traded agricultural commodities and some of the demand-side measures being implemented or proposed to address this. It also makes specific recommendations to the G7 to consider in developing new policy measures. Section 2 presents the G7's deforestation footprint and the key commodities driving this, as well as observed trends. Drawing on expert interviews and literature, Section 3 examines the measures proposed or adopted by G7 members, with a particular focus on emerging legislative proposals that seek to prohibit commodities that have been produced unsustainably or illegally. With different legislative proposals emerging across major consumer markets, Section 4 discusses what different approaches could mean for various stakeholders, including businesses and producers. The fifth and final section lays out a series of recommendations for G7 members to take forward domestically and collectively on the topic of addressing deforestation in supply chains.



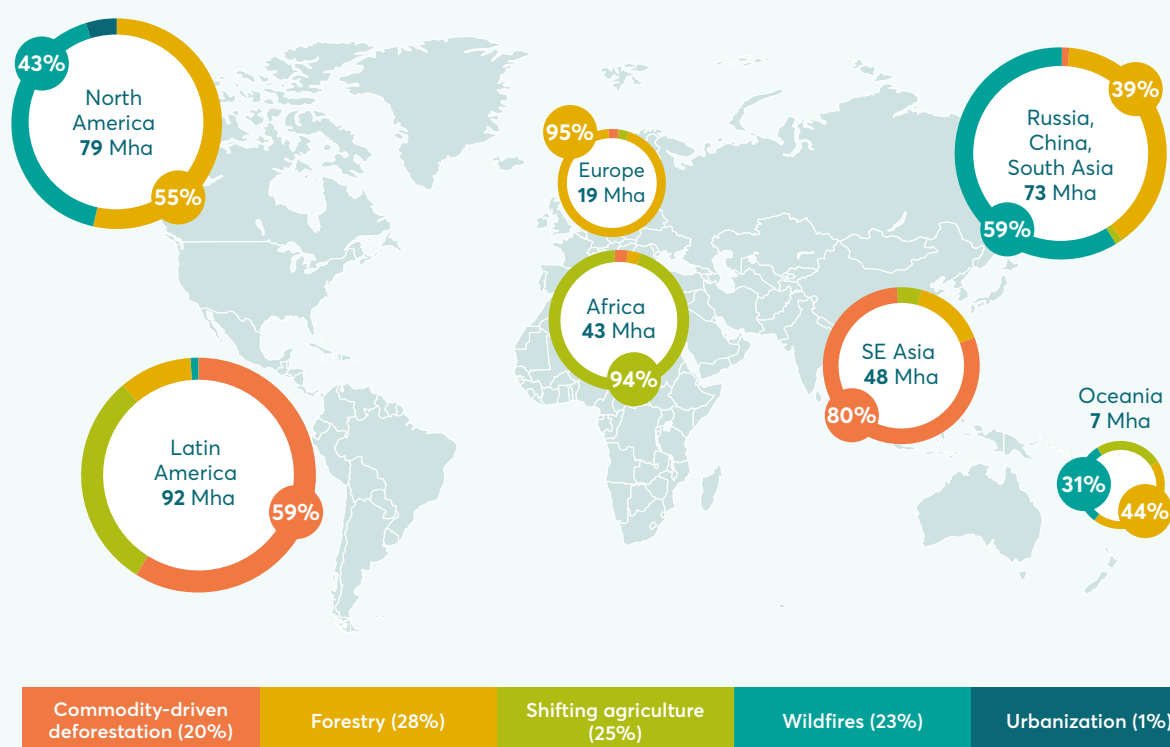
An aerial photograph of a dense, green forest. A winding road with yellow lane markings curves through the trees on the right side of the image. The text '2. The G7's international deforestation footprint' is overlaid in white on the top left.

2. The G7's international deforestation footprint

Using satellite data to assess global forest loss, Global Forest Watch shows that the majority of permanent tree cover loss occurs in the tropics¹⁸ – of which nearly 90% is due to agricultural expansion including commodity-driven deforestation and shifting agriculture.^{ii,19} See Exhibit 2. Much of this clearing is for the production of seven main commodities: palm oil, soy, cattle, wood fibre, cocoa, coffee, and rubber.²⁰ **Agricultural commodities are then traded internationally, which distributes the responsibility of deforestation globally. An estimated 29–39% of deforestation-related carbon emissions are embodied in international trade destined for markets, particularly in Europe and China.²¹**

ⁱⁱ Commodity-driven deforestation is defined by the long-term, permanent conversion of forest and shrubland to a non-forest land use such as agriculture (including oil palm), mining, or energy infrastructure. Shifting agriculture is defined as small-to medium-scale forest and shrubland conversion for agriculture that is later abandoned and followed by subsequent forest regrowth.

Exhibit 2: The majority of permanent tree cover loss occurs in the tropics – of which 89% occurred due to agricultural expansion.



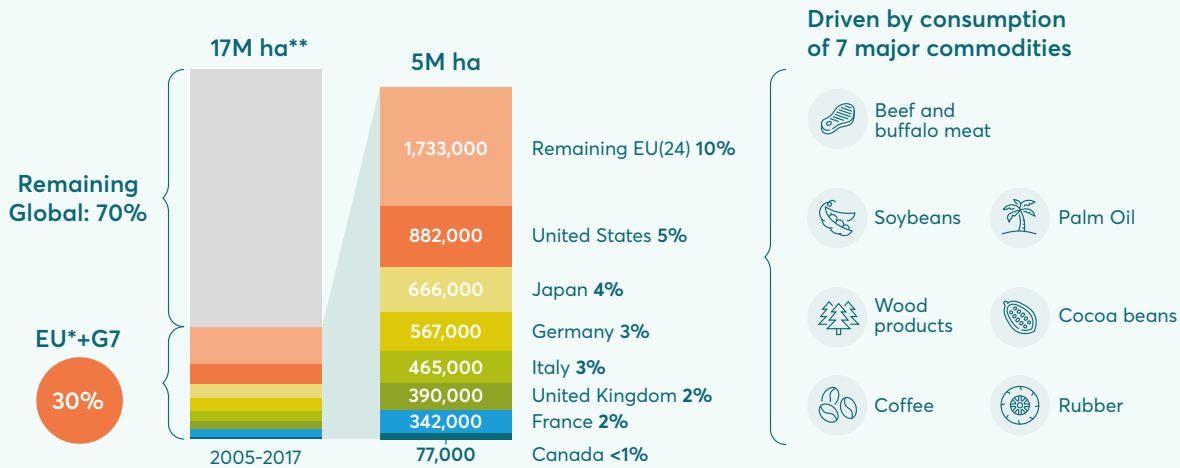
Source: Global Forest Watch (2019)

Pendrill et al. (2020) estimate that roughly 17 million hectares of tropical forests were depleted to produce agricultural commodities that were later traded internationally between 2005 and 2017.²² This is equivalent to nearly all the available arable land in France, estimated at 18 million hectares. Pendrill et al. draw from the latest data available on tropical deforestation embodied in the production, exports, imports and consumption of agricultural and forestry commodities by country, year and commodity.ⁱⁱⁱ

ⁱⁱⁱ Pendrill et al (2020) use a land-balance model to attribute deforestation across 135 countries in the tropics to expansion of cropland, pastures and forest plantation and the commodities produced on this land and tracing these commodities to consumption using a physical trade model. The bilateral trade data was drawn from FAOSTAT. The dataset includes over 400 primary and processed agricultural and forestry products, as well as production data for 130 crop commodities, seven primary livestock products and industrial roundwood. Forest loss (or deforestation) is defined as the complete loss of both natural forests and the harvesting of planted forests observed at the pixel scale.

As major consumer markets for agricultural products linked to tropical deforestation, the G7 plays a critical role in tackling this issue. **Between 2005 and 2017, FOLU estimates that G7 members (including the EU) were responsible for 30% of tropical deforestation linked to imports of agricultural commodities, contributing over 2.7 billion tCO₂.** This is equivalent to the annual emissions of India²³ and roughly the same land area of Costa Rica (51,214 km²).²⁴

Exhibit 3: G7 and EU global share of international imports of agricultural commodities linked to tropical deforestation between 2005 and 2017.

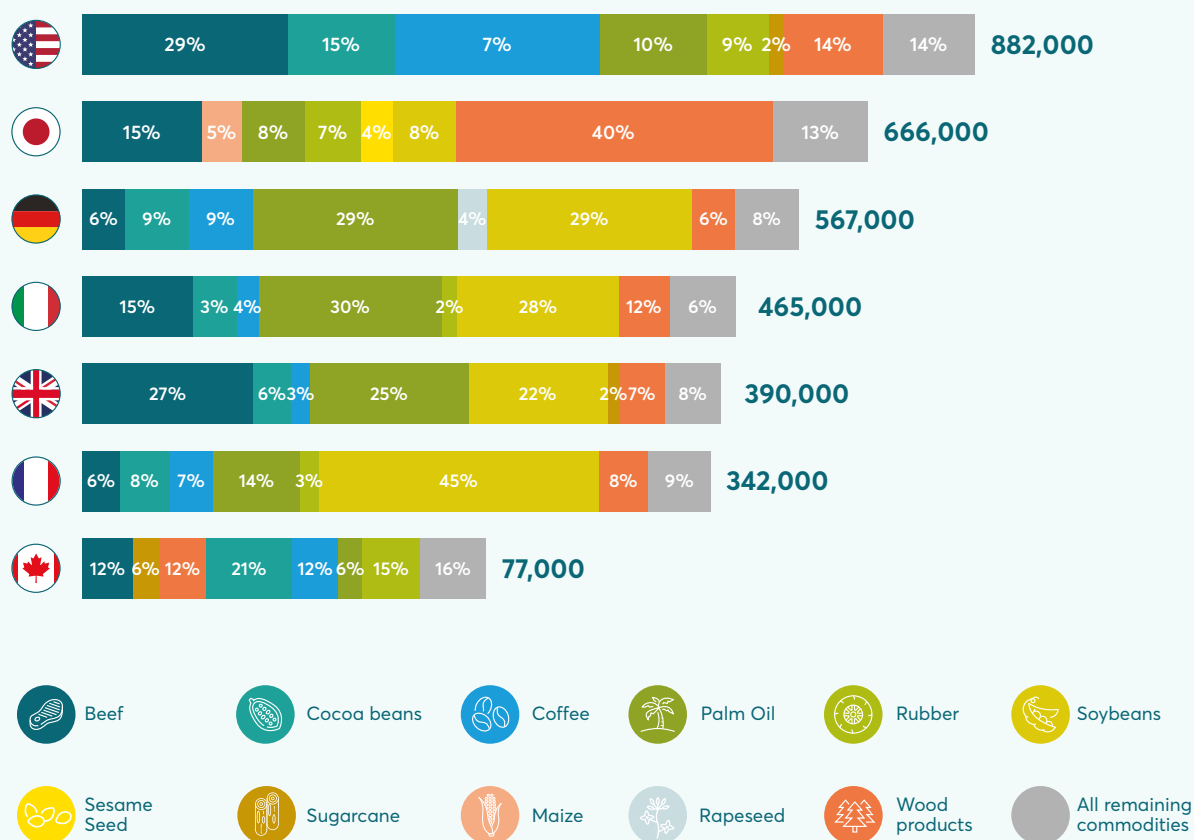


*EU27
 **Total global hectares of tropical forest loss linked to production of agricultural commodities from 2005–2017.
 Sources: Pendrill (2020). Analysis by the Food and Land Use Coalition

The EU has been included in this assessment as the European Commission is a 'non-enumerated' member of the G7. The combined G7 and EU picture gives an illustration of the impact major consumer markets have on driving agricultural production and pressuring forests and other ecosystems through trade.

A major driver of deforestation globally is agricultural expansion and subsequent trade and consumption of the seven major commodities linked to deforestation: palm oil, soy, cattle, coffee, cocoa, rubber, and wood products, driven by key consumer markets.²⁵ Within the G7 footprint, imports of beef and palm oil accounted for the largest share of associated deforestation between 2005 and 2017. However, as Exhibit 4 illustrates, each G7 member footprint is constituted of different deforestation-linked commodities. This is due in large part to differences in domestic production capabilities, cultural food preferences, and trade relations.

Exhibit 4: Deforestation footprint associated with commodities by country between 2005 and 2017.

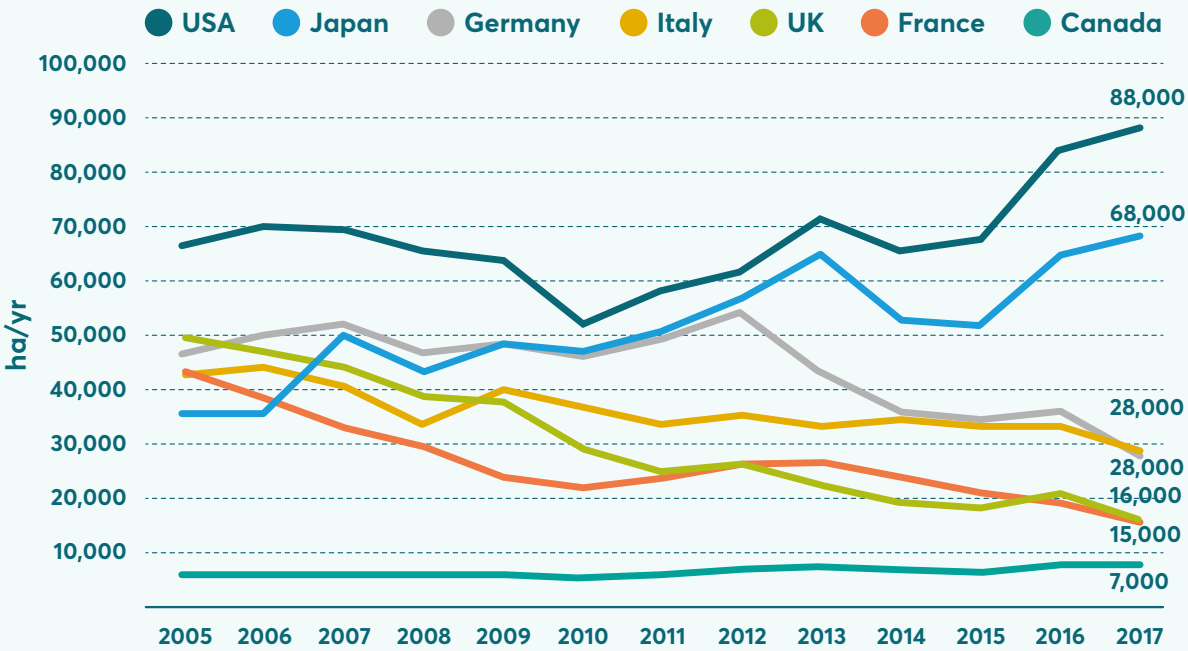


Sources: Pendrill (2020), Analysis by the Food and Land Use Coalition.



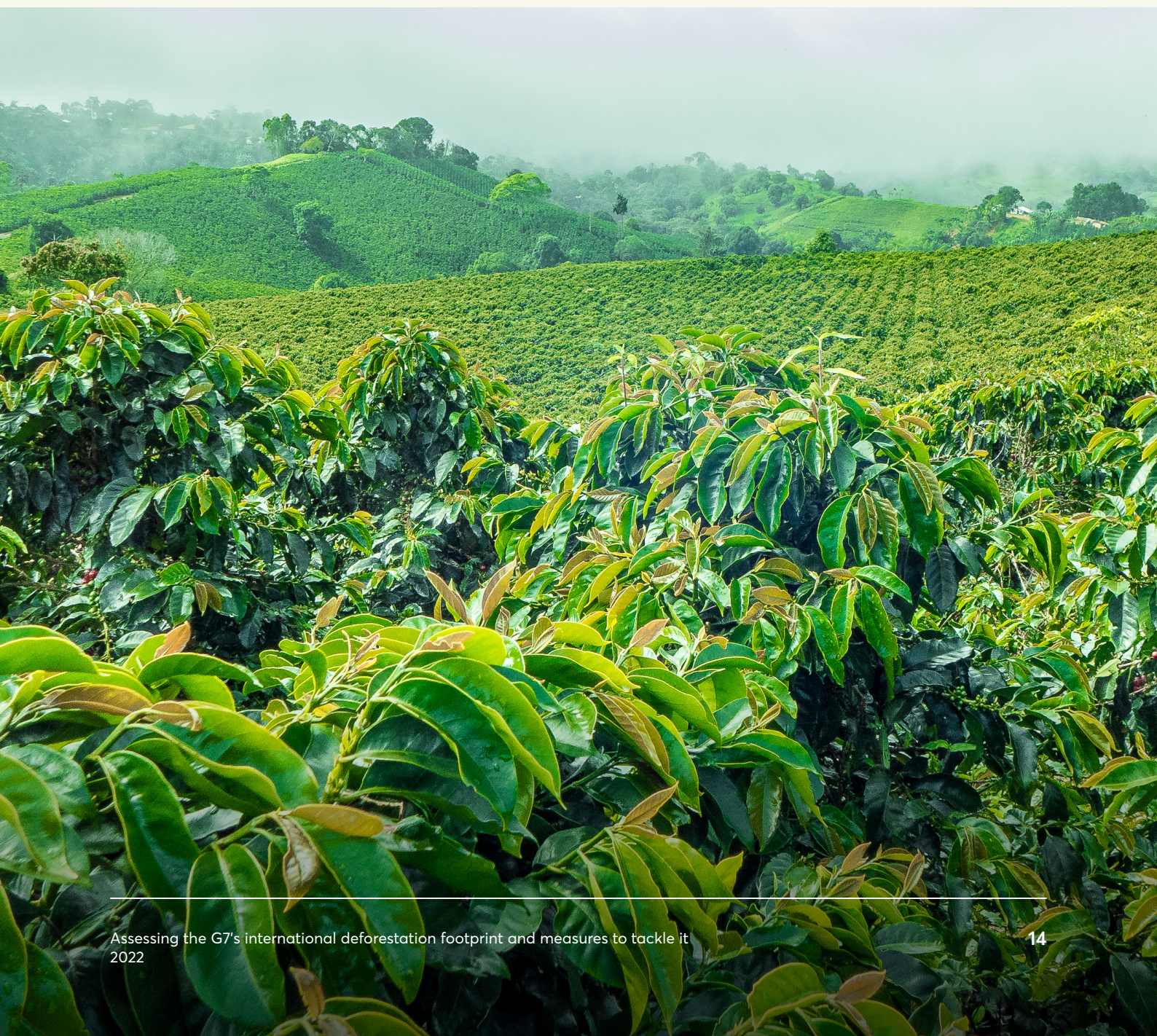
As illustrated in Exhibit 5, between 2005 and 2017, EU member states and the United Kingdom have showed a downward trend of imported commodities linked to tropical deforestation. Meanwhile, the US has continued to increase its imports of tropical deforestation-linked agricultural commodities. Notably, in 2017 the US banned beef imports from Brazil due to concerns over product safety, but in 2020 reversed this measure.²⁶ This fluctuation is not reflected in this data set, which ends in 2017, but should be considered by future studies. Japan also has a rising trend of deforestation linked imported commodities as one of the largest net-importers of food due to dietary preferences, population size, and geographical constraints.²⁷ Canada's deforestation-linked imports has remained consistently low over the 2005–2017 period as more than 60% of its agricultural products imported are from the US and Mexico, facilitated by the USMCA Free Trade Agreement.²⁸

Exhibit 5: G7 country deforestation footprint related to international trade of agricultural commodities, trends between 2005 and 2017.



Key takeaways

- Between 2005 and 2017, G7 members (including the EU) were responsible for 30% of tropical deforestation linked to imports of agricultural commodities. This contributed over 2.7 billion tCO₂ - equivalent to the annual emissions of India.
- Within the G7's footprint, imports of beef and palm oil accounted for the largest share of associated deforestation between 2005 and 2017. EU member states and the United Kingdom have showed a downward trend of imported commodities linked to tropical deforestation. Meanwhile, the US and Japan have continued to increase imports of tropical deforestation-linked agricultural commodities. Canada's exposure has remained consistently low over the same period.



3. How are G7 members tackling their international deforestation footprint?






There is no shortage of commitments to end deforestation, with the most recent Glasgow Leaders' Declaration on Forest and Land Use signed at COP26, urging governments to 'halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation'.²⁹ This section of the report examines the voluntary commitments and regulatory developments G7 members are involved in to help address their international deforestation footprints.

Tropical deforestation rates continue to climb, demonstrating that the existing voluntary measures have not been sufficient to deliver results at the pace needed to achieve progress in line with the Paris Agreement's 1.5°C goal. With new legislative proposals emerging across some G7 members, this section discusses what new demand-side approaches could mean for issues such as leakage – where a policy designed to protect forests leads to deforestation in another area.

3.1 Voluntary commitments

All G7 countries have committed to a range of voluntary and legally non-binding political targets since 2014, yet the rate of primary tropical forest loss during this period has been stubbornly high and consistent.³⁰ Table 1 summarises the major high-level commitments, their membership, goals and progress to date.

Table 1: Summary of international commitments targeting deforestation.

Name of Commitment	Year	 Signatories	 Goal	 Progress
New York Declaration on Forests	2014	40 Governments - including all G7 Members	Halve the loss of natural forests by 2020 and striving to end it by 2030.	NYDF goals mostly unmet to date, with Goal 2 (to eliminate deforestation from the production of agricultural commodities by 2020) not met.
Amsterdam Declarations Partnership	2015	9 Governments - including France, Germany, Italy and the UK	The overall goal of these Declarations is to lend public sector support to the implementation of existing private and public sector commitments to achieve fully sustainable and deforestation-free agro-commodity supply chains in Europe by 2020.	In January 2021, ADP released an Ambition Statement for 2025. It renewed partners' commitment to promote sustainability in agriculture by eliminating deforestation in relation to agricultural commodities, and by working in partnership with consumer and producer countries and all other supply chain actors. ADP welcomed two new members: Belgium and Spain.
Sustainable Development Goals	2016	196 Governments - including all G7 members	Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	Target 15.2 (by 2020 promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally) missed.
Glasgow Leaders' Declaration on Forests and Land Use	2021	141 Governments - including all G7 Members	Halt and reverse forest loss and land degradation by 2030.	Discussions on commitments and implementation continued in 2022.
Forest Agriculture and Commodities Trade (FACT) Dialogue	2021	28 Governments - including all G7 Members	Promote sustainable development and trade of agricultural commodities while protecting and managing sustainably forests and other critical ecosystems.	A Roadmap of Action was endorsed by 28 members at COP26. Dialogue continues around the four key themes of the Roadmap: trade and market development; traceability and transparency; smallholder support; and research, development and innovation.

The New York Declaration on Forests (NYDF) launched in 2014, was the first major voluntary and non-legally binding international declaration calling for action to halt global forest loss. All G7 members endorsed the Declaration. The majority of the NYDF goals have not been met, with Goal 2, which aimed to eliminate deforestation from agricultural commodities, missing its 2020 deadline. Whilst there are signs of progress, the rate of deforestation from commercial agriculture has declined since its 2016 peak, in 2020 rates were similar to the decade preceding the adoption of the NYDF.³¹ NYDF Assessment Partners find there is still a long way to go to achieving the NYDF's overarching goal of ending natural forest loss and restoring 30 million hectares of degraded landscapes by 2030. On commodity-driven deforestation, commitments lag across all commodities and geographies, there is limited uptake of certification schemes, and financial institutions exposed to deforestation risk lack comprehensive policies.³²

The Amsterdam Declarations Partnership (ADP) was launched in 2015 to cooperate with the private sector and producer countries to promote sustainability and deforestation in commodity supply chains. ADP aims to build on the NYDF and has a specific focus on cocoa, palm oil and soy and a smaller membership focusing on nine governments (accounting for 80% of Europe's forest-risk commodity consumption) including France, Italy, Germany and the UK. The partnership has influenced national demand-side policies, bolstering political interest in tackling deforestation in consumer markets and is helping to strengthen alignment with other initiatives.³³ However, in its 2020 status report, the ADP acknowledged that these are 'relatively small steps on the path to reducing commodity-driven deforestation'³⁴ and that private sector commitments regarding fully deforestation-free supply chains by 2020 have not been met.³⁵

Developed and launched around the same time as NYDF and ADP, the Sustainable Development Goals include Goal 15.2 which targets the year 2020 to 'promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally'. The FAO's 2020 impact assessment shows that while there has been significant progress towards sustainable forest management, forest loss remained consistently high.³⁶

Due to the slow pace of progress, a NYDF refresh process was launched in 2021³⁷ with the Glasgow Leaders' Declaration on Forests and Land Use (GLD) announced at COP26. The GLD is another non-binding high-level political commitment featuring all G7 members, however comprising a larger membership of 141 governments and a later deadline of 2030. The Forest, Agriculture and Commodity Trade (FACT) Dialogue was also launched at COP26 and includes a roadmap endorsed by 28 countries, including all G7 members, who committed to working together to protect the world's forests while also promoting sustainable trade.³⁸ While it is too early to reflect on the progress of these latest commitments, it is clear from previous initiatives that voluntary and non-binding approaches have their limitations.

Regulatory measures and existing voluntary commitments can be complementary and self-reinforcing.

Success in achieving the goals of political commitments is linked to progress amongst supply chain actors. Ambitious voluntary approaches set by companies can serve as proof points to demonstrate that legislation is operational. Regulatory measures can then help to standardize competitive spaces where sustainability efforts may otherwise be undercut by late movers. For example, sectoral platforms like the Soft Commodities Forum bring together major agribusiness players to advance collective action on conversion-free soy supply chains.³⁹ The idea of harmonizing a select group of large players could then be supported and enhanced with regulatory measures to level the playing field across all firms in the sector.

Despite progress amongst the private sector, a recent assessment of the most influential companies and financial institutions linked to deforestation in their supply chains and investments found that 72% still do not have a deforestation commitment for all of the forest-risk commodities in their supply chains and one third of companies have no deforestation commitments at all.⁴⁰ Some of the reasons for this have

been business concern about the cost and complexity of implementing deforestation-free commitments, lack of incentives, lack of tools to ensure full traceability of commodities, as well as a concern about competitiveness in the absence of an international standard or regulation – all of which could be supported with public-private partnerships on data transparency, traceability systems, and standardization.

A range of tools and guidelines exist or are being developed to support corporate action on deforestation and improve corporate governance. For instance, the Organization for Economic Cooperation and Development (OECD) has produced *Due Diligence Guidance for Responsible Business Conduct* and OECD-FAO are developing a *Handbook on Deforestation, Forest Degradation and Due Diligence in Agricultural Supply Chains*, which promote a common understanding of what responsible businesses look like and outlines how companies can implement due diligence.^{41,42} Similarly, in 2022 the Science Based Targets initiative (SBTi) will publish methodologies for forest, land and agriculture (FLAG) sectors to align with a 1.5°C pathway, requiring companies to halt deforestation across their operations and supply chains. With over 3000 companies working with the SBTi, this could help to accelerate corporate voluntary action on deforestation. Similarly, advancements in Geographical Information Systems and traceability technologies are supporting greater adoption of deforestation risk assessments and traceability systems.⁴³

Key takeaways

- While voluntary and non-binding approaches have provided important frameworks and proof points, they have not reached the scale needed to effect systematic change at a global level.⁴⁴ Complementing existing voluntary efforts with regulatory measures and reporting can help to level the playing field, spur companies into taking the actions needed and drive change at the scale and pace required.
- G7 countries share membership of a range of voluntary and legally non-binding political commitments, but many of the targets have been missed while the rate of primary tropical forest loss has remained consistently high over the past decade.
- The introduction of regulatory measures alongside existing voluntary commitments can be complementary and self-reinforcing: regulation helps to level the playing field and spur business into action to reach goals. Voluntary initiatives that bring together key supply chain actors to harmonize standards and disclose performance can help to support policy objectives.

3.2 Demand-side regulatory measures

Driven by the limitations of voluntary measures, there is growing momentum for national and international action to produce binding, legislative measures on environmental and social aspects of supply chains. There is a growing trend for legislation on environmental related aspects that specifically refer to due diligence.⁴⁵

Due diligence – originally a legal concept applied to individuals where reasonable steps are taken by a person to avoid committing an offence – is increasingly being applied to businesses, particularly with regards to the impact or potential impact of companies' operations and supply chains on the environment, human rights and labour rights.⁴⁶ There is increased interest in due diligence approaches specifically in light of new EU and UK legislation that will require companies to conduct due diligence on supply chains to reduce their impact on deforestation and forest degradation. Regulations to establish due diligence systems have taken two forms, which are often conflated:

- 1. General corporate obligation of due diligence**, which applies to an enterprise's entire operations and supply chains usually relating to human rights and environmental criteria (which could include deforestation), but is not specific to a sector or product, and importantly, not a requirement for placing products on the market.
- 2. 'Market-related obligation of due diligence'**, where due diligence is required to be undertaken before certain products can be placed on the market, imported or exported, and is often combined with a prohibition.⁵⁵

Both types of due diligence increase awareness of the actions companies are taking to tackle environmental issues such as deforestation in their supply chains. In the first category of general due diligence obligations, France and Germany have existing legislation, and the EU is also proposing legislation that covers a range of social and environmental criteria. This concept of due diligence derives from the UN Guiding Principles on Business and Human Rights which clarified the basic obligations and responsibilities of states and companies regarding human rights.⁴⁸ Business enterprises should carry out 'human rights due diligence' to 'identify, prevent, mitigate and account for actual or potential adverse human rights impacts a company may be involved in through its own activities or business relationships'. Brack and Ozinga (2020) classify this approach as a 'continuous process of improvement', where due diligence is a dynamic, ongoing process where companies are not expected to be able to solve all problems immediately.⁴⁹

The 2017 French Corporate Duty of Vigilance Law requires companies within its scope to prepare a 'vigilance plan' that contains measures to identify risks and prevent severe impacts on human rights and fundamental freedoms on the health and safety of people and the environment.⁵⁰ The subsequent 2021 Climate and Resilience law, further clarifies that large companies must include vigilance measures to identify and mitigate risks of deforestation associated with imported goods and services.^{51,52} Similarly, Germany's 2020 Supply Chain Due Diligence Law obliges companies to fulfil due diligence obligations in their supply chains with regard to human rights and environmental protection by 2023.⁵³ The EU's proposed Directive on Corporate Sustainability Due Diligence would place an obligation of due diligence on large companies registered or operating in the EU with regard to human rights abuses (deforestation is explicitly included as a human rights abuse), as well as environmental harms in their operations, subsidiaries and entities with which the company has an 'established business relationship'.⁵⁴ These three pieces of legislation include due diligence requirements that apply to all companies and do not relate specifically to deforestation.

Examples of market-related obligations of due diligence introduced by G7 members include a range of timber-related legislation (notably the EU Timber Regulation). More recently, the UK and EU have moved

forward with regulatory proposals to cover a wider range of commodities. Schedule 17 of the UK's 2021 Environment Act includes provisions prohibiting large businesses operating in the UK from using regulated 'forest risk' commodities that were produced on land illegally occupied or used.⁵⁵ The European Commission has proposed regulation that means relevant commodities may be placed or made available on the EU market, or exported from the EU, only if: 1) they are deforestation- and forest degradation-free; 2) they have been produced in accordance with the relevant legislation of the country of production; and 3) they are covered by a due diligence statement.⁵⁶ The UK and EU will refine and clarify their regulations over the coming year.

The US is at an earlier stage of developing regulatory measures at the Federal level. The US Fostering Overseas Rule of Law and Environmentally Sound Trade (FOREST) Act proposal adopts a commodity-based approach and focuses on prohibiting products on the US market that originate from land that is subject to illegal deforestation.⁵⁷ The passage of the US bill is more uncertain, particularly without bipartisan sponsorship and timing challenges related to the upcoming mid-term elections. US Federal engagement on this topic received a boost from President Biden's recent forest-focused Executive Order, which amongst other domestic action areas calls for a cross-departmental assessment of 'foreign assistance, trade tools, finance, and international partnerships [that can be utilized] to combat deforestation and support sustainable forest management around the world'.⁵⁸ The table at Annex 1 highlights some of the key features of proposed EU, UK and US regulations – while there are some similarities between proposed regulations, there are important differences.

Japan and Canada do not have published plans to introduce regulatory measures on international commodity-driven deforestation. In the case of Japan, there is existing legislation relating to timber. Japan's 2017 Act on the promotion of use and distribution of legally harvested wood and wood products (the 'Clean Wood Act'), considers legal timber as wood from trees harvested in compliance with the laws of Japan or the country of origin.⁵⁹ This law states that business entities 'must endeavour' to use legally harvested wood and wood products, and there is no prohibition for trading in illegal timber or penalties for not registering as a legal timber supplier.⁶⁰ This Act could provide lessons learned for future development of regulatory approaches; however, the Government of Japan has no published plans to introduce regulation that covers a wider range of commodities.

In the case of Canada, existing regulation covers illegally sourced forest products through the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA). The WAPPRIITA prohibits the importation into Canada of species whose capture, possession, and export are prohibited or regulated by laws in their country of origin.⁶¹ An expert interviewee suggested that Canadian consumers are increasingly interested in learning more about the sustainability of the products they consume and the Government is committed to supporting industry-led efforts to develop sustainability assurance systems, standards and tools, through engagement, financial support and the provision of data, metrics and scientific expertise. Canada has no published plans to introduce regulation that covers imports of deforestation-linked agricultural commodities.⁶²

Recent regulatory developments emphasise 'products' – specific commodities and supply chain activities – but there is increased international focus on the financial institutions investing in those companies associated with forest-risk commodities. COP26 saw 30 financial institutions, managing over USD 8.7 trillion of global assets, committed to act on commodity-driven deforestation⁶³ and leaders committing to 'facilitate the alignment of financial flows with international goals to reverse forest loss and degradation'.⁶⁴ However, the sector has work to do. According to Forest 500's 2021 Report, two thirds (93) of the 150 financial institutions providing USD 2.6 trillion in finance to the companies with the highest exposure to deforestation risk did not have deforestation policies.⁶⁵ Only 40% of those with a deforestation policy report on progress towards implementation.⁶⁶

The EU is addressing the financing issue through its corporate sustainability due diligence directive which will require companies (including financial institutions) to integrate due diligence into policies and identify, prevent and mitigate actual or potential human rights and environmental impacts.⁶⁷ In the UK, mandatory climate disclosure from April 2022 means that companies are required to disclose climate-related financial information, ensuring they consider the risks and opportunities they face as a result of climate change in line with Taskforce on Climate-related Financial Disclosures (TCFD) recommendations.⁶⁸ The US Securities and Exchange Commission is proposing rule changes that would require disclosure similar to TCFD recommendations.⁶⁹ However, there are concerns that disclosure approaches are insufficient to tackle the unique challenges of deforestation.⁷⁰ The Global Resource Initiative concludes that the TCFD approach focuses on measurable emissions and risks; however, emissions from forest loss or land use change are embedded in scope 3 emissions and TCFD does not require companies or financial institutions to address these emissions within their supply chain.⁷¹ Furthermore, disclosure frameworks are not designed to provide an accountability framework for illegal activities that have driven a significant amount of deforestation.⁷² As major financial hubs, G7 members have the potential to play a significant role in promoting deforestation-free finance.

Key takeaways

- There is growing momentum for national and international action to produce binding, legislative measures on environmental and social aspects of supply chains including deforestation, with a growing trend for due diligence approaches.
- Regulations to establish due diligence systems have taken two forms: a 'general corporate obligation of due diligence' and a 'market-related obligation of due diligence'. There are examples of both forms currently in place and coming into force across G7 members. The EU and UK are leading with regulations and there is an interesting proposal in the US at the Federal level, while Canada and Japan do not have published plans to regulate.
- The EU, UK and US have adopted or proposed measures that would prohibit products that do not meet certain criteria from entering their markets. While there are some similarities, there are important differences including in approach, commodity coverage, prohibitions and timeframes for implementation (Annex 1 provides more details).
- The link between deforestation and worsening climate change is an issue that G7 members have jointly committed to tackle. The lack of regulatory coverage across the G7 membership is problematic from a leakage perspective. All G7 members should seek to introduce measures that cover imports of deforestation-risk commodities as one part of a strategy to end deforestation.
- There is increasing attention on the financial institutions that bank with companies linked to deforestation. Financial institutions fall within the scope of the EU's corporate sustainability due diligence directive, however deforestation-linked finance is not directly addressed in other existing or proposed regulatory measures across other G7 members. As key financial hubs, G7 members could play a significant role in promoting deforestation-free finance.

3.3 Legality and deforestation-free regulatory measures

While some G7 members are introducing legislative measures to combat deforestation linked to imports of agricultural commodities (detailed in Annex 1), approaches vary, which raises questions about the overall impact of legislation and the difficulties this could pose for producer countries seeking to comply. The two approaches being adopted are 'legality' and 'deforestation-free'. The first requires that commodity production, sourcing, and imports are not the product of illegal deforestation or illegal conversion. This approach refers to the country of origin's national legislative frameworks (laws, regulations, instructions, and any other legal instrument that penalizes non-compliance) at the time the deforestation took place.⁷³ The UK's Environment Act and proposed US FOREST Act fall into this category. The second, captured in the EU regulation, requires that in addition to legality, relevant commodities and products, including those used for or contained in relevant products, were produced on land that has not been subject to deforestation, and that wood harvested from forests is done so without causing forest degradation – both after December 31, 2020.

Legality-based approaches are considered to support partnership with producer countries, as legality is defined by the local laws in which production is taking place. Forest Trends estimates that nearly 70% of agro-conversion that occurred between 2013 and 2019 was in violation of national laws and regulations.⁷⁴ Proponents of legality approaches argue that demand-side measures that enforce the weight of local laws and regulations can help to support governance systems in producer countries. The EU Timber Regulation and Voluntary Partnership Agreements (VPAs), part of the wider FLEGT initiative,^{iv} are examples of regulatory approaches that aim to improve forest governance and law enforcement and ensure that all timber exports to the EU (and potentially other markets) are legally sourced.⁷⁵ Evidence gathered by Fern on countries involved in VPAs demonstrate several instances where local governance was enhanced, including in cases where projects worked with forest communities and Indigenous Peoples to combat illegal mining in the Republic of the Congo and an example of strengthened tree tenure policies in Ghana.⁷⁶ A legality-based approach is seen as cooperative since according to Wolosin (2022), there is not enough political consensus around the term 'deforestation-free' across producer countries, and therefore avoids the need to impose 'extraterritorial criteria' to tropical forest trading partners.⁷⁷

The EU's proposed regulation opts for a deforestation-free approach, noting that a sole focus on legality would still allow large-scale deforestation and land conversion. For example, an assessment of forest laws in Argentina, Paraguay and Brazil finds that 7 million hectares of land in Paraguay, 10.5 million hectares in Argentina and 88 million hectares in Brazil could still be legally deforested.⁷⁸

In a worst-case scenario, limiting the scope to legality could incentivize producer countries to lower the bar on environmental governance systems altogether.⁷⁹ For instance, Indonesia's 2020 Omnibus law, which included a repeal on requirements for at least 30% of forest area conservation land to be maintained per watershed area or island, was an example of lowered environmental governance policies introduced to bolster the national economy.⁸⁰ The UK, which plans to use legality criteria, is understood to be considering steps to re-evaluate the scope of regulation if producer countries backtrack on environmental protections and governance systems in response to demand-side measures.⁸¹

^{iv} Forest Law Enforcement, Governance and Trade (FLEGT) is the EU's Action Plan to eradicate illegal logging and subsequent trade in tropical countries.

Significant energy is being dedicated to debating the pros and cons of legality and deforestation-free approaches, but commentators argue this is a 'false dichotomy'.⁸² Demand-side measures that focus on legality could offer a pathway for tropical forest countries to achieve deforestation-free goals.

Adopting a legality approach, as a minimum qualification for market access, could help to promote cooperation between producer and consumer countries as it recognizes local laws at the source of production. Furthermore, this approach may appeal to other emerging consumer markets currently considering whether to implement demand-side measures. However, going above legality with the goal of eliminating all deforestation sends a clear market signal that deforestation-linked products are unattractive in the international marketplace. The priority for G7 members should therefore be to:

1. Align on a legality approach as a minimum but also consider the benefits of a higher bar deforestation-free approach;
2. Align on key aspects of legislative cover including the same list of deforestation-risk commodities, cut-off dates^{*}, and commitment to near-term implementation to send a strong demand signal across markets.

Key takeaways

- The two main approaches in approved and proposed regulations are 'legality' and 'deforestation-free'. A legality approach requires that commodity production, sourcing, and imports are not the product of illegal deforestation or illegal conversion, whereas 'deforestation-free' requires that relevant commodities and products, including those used for or contained in relevant products, were produced on land that has not been subject to any deforestation.
- There are pros and cons to each approach. Adopting a legality approach is considered to support partnership with producer countries, as legality is defined by the local laws in which production is taking place, however there are concerns that this would still enable large scale deforestation and conversion.
- Aligning on a legality approach as a minimum offers a pathway to achieving deforestation-free goals. The priority for G7 members should therefore be to: 1) as a minimum, adopt a legality approach but consider the benefits of deforestation-free criteria; 2) align on key aspects of legislative cover such as coverage across the same list of deforestation-risk commodities, cut-off dates, and committing to near-term timelines for implementation in order to send a strong demand signal across markets.

^{*} The date after which deforestation or conversion renders a given area or production unit non-compliant with no-deforestation or no-conversion commitments, respectively.

Source: <https://accountability-framework.org/the-framework/contents/definitions/>

3.4 Market Leakage

Regulatory proposals coming into force across some G7 countries present a risk that commodities linked with tropical deforestation could be displaced to other markets. This is known as 'market leakage', which can take several forms depending on the supply chain section and scope.

On the supply side, leakage can occur when a policy prohibits unsustainable production, but rather than eliminate the undesired methods, production shifts from one region or geographical market to another outside of the regulatory scope. A good example of this is the establishment of the Brazilian Amazon Soy Moratorium, which helped to decrease deforestation in the Amazon by 84% from 2004 to 2012,⁸³ but simultaneously displaced soy expansion into the neighbouring Cerrado's biodiversity-rich region.⁸⁴

Similar displacement may take place on the buyers' side, where policy approaches that prohibit the entry of goods linked to deforestation or produced contrary to national laws may shift goods to markets without comparable regulation. A recent study modelled the impact that a hypothetical European ban on high-deforestation palm oil would have had between 2000 and 2015.⁸⁵ The study estimated that the measure would have resulted in only 1.6% less deforestation in Indonesia than actually occurred during that period.⁸⁶ The measure would therefore have had only a marginal effect, given that 10% of Indonesia's palm oil is consumed in European markets. The study also concluded that 52% of deforestation-linked palm oil in Indonesia would have been absorbed by increased consumption in countries without prohibitions, including domestic consumption.

The risk of leakage is considered in the EU's proposed regulation, with its impact assessment noting the need for cooperation with producing and consumer countries, as well as with international organizations, to avoid leakage and to achieve the goal of halting global deforestation.⁸⁷ The EU Timber Regulation is cited as a successful example of cooperation, where other major consumer countries adopted similar legislative approaches.⁸⁸

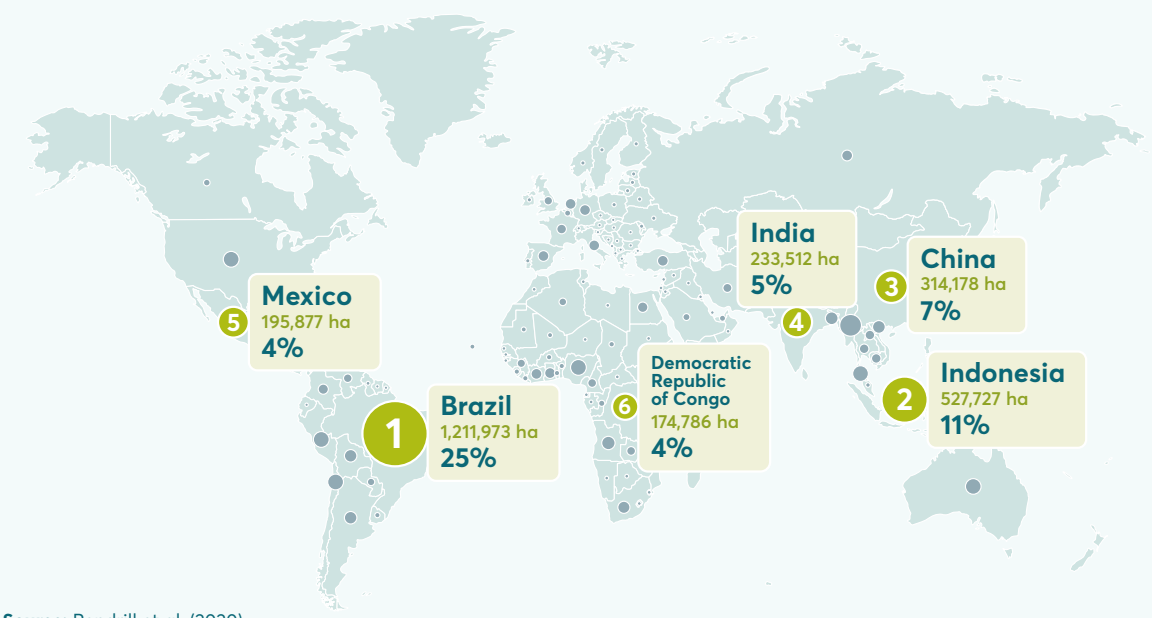
On the consumer side, this means G7 members should share experiences on demand-side regulatory approaches and consider how to ensure coverage across the membership. For example, Canada and Japan are not currently considering demand-side regulation on deforestation linked commodities which increases the likelihood of leakage within the G7. Japan is a net-importer of food products⁸⁹ and an increase in deforestation-linked commodity imports is observed over the period of data available (see Exhibit 3).⁹⁰ While Canada's global share of imported agricultural commodities linked to tropical deforestation is relatively small (<1%), regulatory measures aligned with G7 could help to strengthen the market signal for more sustainable supply chains. In the recent G7 Climate, Energy and Environment ministers' communique, there was a commitment amongst G7 members to, where appropriate, develop regulatory frameworks or policies (potentially including the introduction of due diligence requirements) for commodities associated with the risk of deforestation and forest degradation, and review progress by the end of 2023.⁹¹ This offers an opportunity for G7 members to consider and review their collective ambition on policy measures.

Bringing other major consumer markets along with the G7 will also be critical for avoiding market leakage. Recent years show a trend of reduced economic relevance of traditional consumer markets such as the EU. G7 members therefore need to engage emerging consumer markets like China. For example, China's food demand is projected to keep increasing in the coming decades with demographic and dietary shifts,^{92,93} and increased reliance on food and feed imports.⁹⁴ It is estimated that meeting this demand would increase reliance on agricultural imports, particularly for livestock, dairy, and animal feed products, which could require up to 175 million hectares of pasture by 2050.⁹⁵

Engagement and partnership with key producer-consumer countries like Brazil and Indonesia are critical. Brazil and Indonesia consumed products domestically with a deforestation footprint more than four times that of the G7. The data presented in this study considers the agricultural commodities traded across international borders. However, if the deforestation associated with commodities that are both produced and then consumed within the borders of tropical forest countries (i.e., not traded internationally) is factored in, it changes the global rankings of deforestation footprints dramatically (see Exhibit 6). Trends indicate that China and India's imports, combined with Brazil and Indonesia's domestic consumption of deforestation-related commodities, could rise by 43% to 264 million metric tonnes by 2025.⁹⁶ In this scenario, the likelihood for segmented markets increases. Some producer countries export deforestation-free commodities but commodities on recently cleared forest are either consumed domestically or exported to countries with no sustainability requirements.⁹⁷ Solutions to this issue depend on cooperation and partnership not only with other consumer countries, but also with major producing nations to ensure alignment of sustainable production and domestic consumption patterns. Without this, there is a limitation to what demand-side policies from a relatively limited market share can achieve in reducing global deforestation and forest degradation.

Exhibit 6: Highest ranking countries (and share of global total, %) of tropical forest loss associated with deforestation-linked agricultural commodities, consumed domestically and traded internationally (2017).

- Top 6 deforestation footprints linked to domestic consumption and international trade of agricultural commodities
- Other country deforestation footprints linked to domestic consumption and international trade of agricultural commodities



Source: Pendrill et al. (2020)

Key takeaways

- Market leakage can occur at both ends of the supply chain risking progress on eliminating deforestation. On the production side, leakage occurs when a policy prohibits unsustainable production, but rather than eliminate the undesired methods, production shifts from one region or geographical market to another outside of regulatory scope. On the demand-side, policy approaches that prohibit the entry of goods linked to deforestation or produced contrary to national laws may shift goods to markets without comparable regulation.
- The G7 must act together by introducing measures that help to limit exposure to deforestation-risk commodities, but also engage with other major consumer markets, like China and India, to achieve greater market share and send a clear demand-signal.
- Countries like Brazil and Indonesia are both producing and consuming commodities domestically that are associated with deforestation. Engagement and partnership with producer countries to support the transition to more sustainable production methods is essential to tackling the root causes of deforestation.





4. Implications for stakeholders

Proposed and existing legislation that seeks to prohibit the entry of unsustainable or illegal commodities into G7 member markets has potentially significant implications for a range of stakeholders. While not yet in force, the following sections examine the implications of different approaches as well as a lack of coverage across major consumer markets from the perspective of producer countries and businesses.

4.1 Implications for smallholders

Smallholders^{vi} play critical roles in global value chains and in implementing activities to tackle deforestation. Smallholders make up the majority of the estimated 570 million agricultural farms globally.⁹⁸ Of these, 84% are small farms on less than two hectares, which together produce an estimated one third of global food.⁹⁹

Value created in agricultural supply chains is unevenly distributed and smallholders risk exclusion from markets that are becoming more concentrated. Despite the significant role of smallholders in global value chains, two-thirds of the 740 million people living in extreme poverty^{vii} are agricultural workers and their dependents.¹⁰⁰ For example, cocoa farmers in Côte d'Ivoire and Ghana earn between USD 0.50 and USD 0.84 a day despite together producing 60% of cocoa for the USD 50 billion-a-year chocolate industry upstream.¹⁰¹ Inability to access credit, insecure land titles, lack of access to extension services and limited bargaining power mean smallholders already face many barriers to full integration into global supply chains.

The impact of legislation on producers and smallholders is considered in the impact assessments of EU and UK due diligence regulations. For instance, in the EU regulation, the 31 December 2020 cut-off date is considered preferable because it would 'mitigate potentially negative social and economic impacts in partner countries, limiting the amount of smallholders that would be caught working on land whose products cannot be sold to the EU, and ensuring that nearly all current commodity production from producing countries can still make the cut.'¹⁰² The UK impact assessment notes that the UK will work in partnership with producer countries to reinforce their domestic governance and forge effective partnerships with key stakeholders, but it does not outline how that will be achieved.¹⁰³ Commentators argue there is evidence of limited engagement by those developing demand-side regulation with producer countries and a lack of specified pathways for transitioning smallholders in particular to more sustainable practices.¹⁰⁴ For example, one risk highlighted in the EU's deforestation regulation is that rather than engaging with areas to reduce deforestation, companies could switch to sourcing only from areas deemed as low deforestation risk.¹⁰⁵

Proposed and existing legislation seeking to prohibit the entry of commodities associated with deforestation or illegality into G7 member markets must consider support for producers, with a particular emphasis on smallholders to support a just transition. Regulations that are uncoordinated and require producers to comply with multiple sets of requirements may exclude some of the most vulnerable from participating in global markets and negatively impact livelihoods. Regulations are still being developed meaning there are opportunities to fully consider impacts on smallholders. This has been acknowledged by the European Economic and Social Committee which warns against transferring the costs of EU regulations onto smallholders and asks for assessing ex-ante the impact on smallholders and communities before the regulation comes into force^{viii}. **G7 members should consider complementary measures that support smallholders in changing their practices and in complying with legal requirements.**

^{vi} The FAO defines smallholders as 'small-scale farmers, pastoralists, forest keepers, fishers who manage areas varying from less than one hectare to 10 hectares. Smallholders are characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption'. Source: <https://www.fao.org/family-farming/detail/en/c/273864/>

^{vii} Defined as less than USD 1.90 a day purchasing power parity (PPP) 2011

^{viii} Towards deforestation-free commodities and products in the EU (europa.eu)

Partnership agreements to prevent illegal timber from entering markets have demonstrated effective frameworks for collaboration between producer and consumer countries. The Voluntary Partnership Agreements (VPAs) established under the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan were introduced as mechanisms to combat illegal timber from entering EU markets. While VPAs have been slow to implement across producer countries, analysis shows that VPAs can be credited with improving forest governance, improving stakeholder dialogue, and strengthening local legal and institutional frameworks.¹⁰⁶ The International Cocoa Initiative proposes the key elements of a 'model' time-bound partnership agreement between the EU and cocoa-producing countries – which could also be applied to other commodities and regions.¹⁰⁷ This involves establishing producer country national deliberative processes (modelled on the FLEGT VPAs), which are inclusive and determine the conditions needed to ensure sustainable production as well as the necessary reforms to policies, laws and institutions. The proposal emphasizes the importance of the deliberative process not being merely about consultation but embodying a coordinated effort to open up decision-making in the cocoa sector, involving farmers and cooperatives, local communities, including women, and civil society, and the private sector, alongside government, in a framework in which all stakeholders respect, argue, build trust, decide and collaborate on an equal level.¹⁰⁸ A 'model' partnership agreement would further include incentives (including financial, technical and capacity building support as well as rewards such as favourable trade and market access), as well as practical and independent joint monitoring and enforcement mechanisms to support effective implementation of partnership agreements.¹⁰⁹ **Governments introducing new demand-side measures should consider lessons learned from the VPA process to strengthen partnership approaches.**



4.2 Implications for multinationals

Legislative approaches that level the playing field across industry are generally welcome, yet the business responses to proposed due diligence legislation has been mixed. For example, some European trade associations and enterprises have argued to reduce the scope of the EU legislation or delay it altogether, citing among other reasons the Russian war of aggression against Ukraine and its implications for global food prices. Others have supported legislation, arguing that it makes voluntary commitments by frontrunner companies mandatory and thereby creates the conditions for fair competition. The Food Policy Alliance^{ix} released a statement in response to proposed US legislation noting that they 'agree that a legislative approach that ensures a pathway to no more than 1.5°C global warming and strengthens worldwide supply chains is necessary to complement voluntary efforts to address deforestation.'¹¹⁰ In the UK, McDonald's Corp., Tesco Plc and Nestle SA were among 21 companies urging officials to strengthen legislative plans beyond local laws in order to establish a true level playing field.¹¹¹

Estimating the cost implications of due diligence systems is a complex exercise, particularly given that the regulations in question are not yet implemented. However, preliminary data suggests costs will be manageable for large corporations. The European Commission's Impact Assessment, which was used to inform the development of the draft deforestation regulation, estimates that overall costs of due diligence could total between EUR 1.58 million and EUR 2.4 million a year based on information that compliance costs for the EUTR range from 0.29% to 4.3% of the value of the imports in the EU internal market.¹¹² An initial set up of the due diligence system would involve one-off payments of between EUR 5,000 and EUR 90,000, depending on various factors such as the complexity of the supply chain, including the number of suppliers.¹¹³

The greatest indicator of costs relates to the complexity of the supply chain, which is influenced by the same factors that determine transparency and accountability. Austin et al. (2021) estimate that the following factors have the greatest influence on operator costs:¹¹⁴

- Number of products
- Number of suppliers
- Size of the operator
- Length of each supply chain (value chain complexity)
- Country of production
- Availability of existing supplier information systems

Major commodity companies have been making voluntary commitments to combat deforestation for nearly a decade, yet clear accountability mechanisms to ensure progress against achieving those targets has been missing. Considering that two-thirds of the 350 most influential global companies currently have some form of deforestation commitment,¹¹⁵ progress on building the systems needed to achieve commitments should already be underway. Regulatory intervention can help to fill the gap on accountability and level the playing field across industries. Voluntary approaches that have demonstrated success can be scaled and supported through public-private partnerships to drive standardization, invest in high-risk areas, and serve as proof points that legislation is operational.

As global operators, those companies impacted by legislation from multiple G7 members will likely develop a cost-effective way to comply with different legislative requirements, instead of developing multiple systems. This does not mean that regulatory criteria will be applied across the entirety of their operations, particularly if they have major export destinations not covered by any legislation (i.e., leakage markets). **However, demand-side regulation from G7 members can help create incentives for alignment across industry, assisting companies and national governments to meet their own stated climate targets.**

^{ix} Food Policy Alliance members include Danone North America, Mars, Incorporated, Nestlé USA, and Unilever United States

4.3 Implications for Small and Medium Enterprises (SMEs)

The impact of regulation on Small and Medium sized enterprises (SMEs) has been raised as a significant concern during regulatory development processes. For example, one of the proposed state-level bills in the US – the California Deforestation Free Procurement Act (AB-416) - requires state contracts (i.e., public procurement) to ensure that the purchase of forest-risk agricultural commodities is not linked to tropical deforestation.¹¹⁶ While the bill passed through California's state legislature, it was ultimately vetoed by Governor Newsom in October 2021.¹¹⁷ Newsom's main concern was the burden the bill would place on businesses, particularly SMEs trying to participate in state bids. The California legislature plans to revise and resubmit AB-416 for consideration after addressing these concerns.

The EU's impact assessment takes a different position on this issue. While the impact assessment notes that setting up and operating a due diligence system can be more difficult for SMEs, evidence from the EU Timber Regulation shows that the main cost driver of due diligence obligations is the number and complexity of supply chains and the risks associated with the sourcing country, rather than the size of the company or volumes traded.¹¹⁸ It also notes that SMEs may already have considerable knowledge of their supply chains and sourcing footprints through direct relationships with producers; the impact assessment cites the example of the EU's artisanal chocolate market, where SME chocolate makers ensure high quality products through engaging directly with producers of speciality cocoa beans. Simpler supply chains with more direct supplier relationships mean there may be low additional costs to comply with legislative requirements. As such, the EU deforestation regulation requires that all operators first placing products on the EU market (or exporting from it) are within scope, although some exemptions are made for SME traders.¹¹⁹ As regulatory measures have not yet been implemented, it is difficult to anticipate the challenges and costs SMEs may face. **Regulations should not remove SMEs from scope but should be closely monitored to ensure smaller businesses are not disproportionately impacted by higher costs of compliance.**



Key takeaways

- Proposed and existing legislation seeking to prohibit the entry of commodities associated with deforestation into G7 member markets will impact a variety of stakeholders: smallholders, large and small and medium enterprises (SMEs) among others.
- Smallholders play a crucial role in the global food system, producing an estimated one third of global food; however, they risk exclusion without adequate support to transition to sustainable practices. Financial and technical support should be provided to smallholders to support this.
- Government-to-government partnership models, like Voluntary Partnership Agreements (VPAs) offer important lessons on enhancing forest governance, improving stakeholder dialogue, and strengthening local institutions. Partnership agreements should be considered by G7 members when designing and implementing new demand-side measures.
- For corporates, the cost of compliance with due diligence regulations is influenced by the same factors that determine the complexity of the supply chains, such as number of suppliers, size of operation, and country of production. There will be higher costs of compliance for those companies with more indirect suppliers and complex supply chains.
- As global operators, companies impacted by legislation from multiple G7 members will likely develop a cost-effective way to comply with different legislative requirements, instead of developing multiple systems. However, this excludes markets that have no legislation – which in the absence of expanded demand-side measures will likely capture leakage products.
- Regulations should include SMEs and should be closely monitored to ensure that smaller businesses are not disproportionately impacted.

5. Conclusion and recommendations

This study estimates that between 2005 and 2017, G7 members (including the EU) were responsible for 30% of tropical deforestation linked to imports of agricultural commodities, contributing over 2.7 billion tCO₂. To date, the voluntary, non-binding approaches to tackling deforestation have not delivered the significant reductions in deforestation needed to ensure a 1.5°C world. As major consumer markets, G7 members have the potential to send a significant market signal about the types of products they want in their markets. There is increasing momentum for approaches that seek to limit demand for deforestation-risk commodities, including due diligence approaches in the UK and EU, there are interesting proposals in the US (at federal and subnational levels), while other G7 members currently have no published plans to introduce measures. The absence of regulatory coverage is especially problematic in the case of G7 members where trends indicate an increase in the volumes of imported deforestation-linked agricultural commodities. Where there are gaps in legislative coverage, there is a risk of market leakage within the G7.

Recognizing that demand-side measures are one part of the theory of change for tackling deforestation, other measures are also critical for G7 members to support, such as the need to shift consumption patterns to more sustainable and nutritious diets, the impact of trade on other landscapes beyond tropical forests, and the power imbalances within our food systems. This means thinking about the whole food value chain and advocating for an inclusive, just, and affordable transition to a sustainable food system that places producers at the heart of decision-making, empowers the most vulnerable and seeks long-term solutions to ongoing crises: the dual nature and climate crisis, the global food price crisis, and Covid-19 recovery and conflict. G7 members must take on a critical leadership role at driving system-wide change throughout the food system. The following recommendations focus on issues that G7 members should consider when designing approaches to restrict demand for deforestation-risk commodities.

Recommendation 1: Aim for policy alignment across G7 members on criteria including commodity coverage, timelines, approaches and cut-off dates.

While each G7 member has its own legislative processes and timelines, there is alignment on policy outcomes: all members are committed to and have signed up to key international goals that target a world free of deforestation by 2030. **As a first step, all G7 members should introduce demand side measures that are aligned on key minimum criteria to avoid leakage.** For example, evidence shows that seven major commodities – oil palm, soy, cattle, wood fibre, cocoa, coffee and rubber – share responsibility for the bulk of deforestation attributed to agricultural expansion.¹²⁰ **At a minimum, G7 members should consider the same list of commodities and their derivatives.** Alignment on the commodities in scope of legislation could help to send a clear signal to industry. A phased approach covering only a few commodities at a time, as is considered by the UK's proposal for example, is insufficient. Analysis in this paper shows that regulatory proposals adopt different legality and deforestation-free approaches. **As a minimum, G7 members should adopt a legality approach but consider the benefits of deforestation-free criteria.** There are also differing timelines in terms of implementation: **proposals must be implemented on an accelerated timeline. G7 members should also align on cut-off dates to avoid leakage.** G7 Climate, Energy and Environment ministers in May 2022 committed (where appropriate) to 'develop regulatory frameworks or policies, which may include the introduction of due diligence requirements for commodities associated with the risk of deforestation and forest degradation, and review our progress by the end of 2023'.¹²¹ Japan's G7 Presidency offers an opportunity for G7 members to continue dialogue on this matter, align on minimum criteria for domestic policies and measures and demonstrate progress in implementing them.

Recommendation 2: Consider measures for financial institutions to prohibit lending and investment in illegally produced forest risk commodities.

All G7 members joined the Glasgow Leaders' Declaration on Forests and Land Use, which committed signatories to 'facilitate the alignment of financial flows with international goals to reverse forest loss and degradation'. The EU's Directive on Corporate Sustainability Due Diligence covers financial institutions, and EU and UK due diligence regulations will highlight the extent to which companies being financed by financial institutions are taking steps to avoid illegally or unsustainably produced commodities. While there are encouraging signs from the sector with 30 financial institutions voluntarily committing to deforestation-free finance, measures are needed to bring this shift sector wide. The G7 played an important role in developing the Task Force on Climate-Related Financial Disclosures (TCFD) framework, which is now mandatory in the UK. **As major financial hubs, G7 members could play a significant role in promoting deforestation-free finance, potentially through regulatory measures.** G7 members should consider how to include the financial sector in new policies and measures and collectively engage with the

Taskforce on Nature-related Financial Disclosures (TNFD), which is intended to provide a risk management and disclosure framework for nature-related risks.¹²³ If following the path of the TCFD, the TNFD could provide a foundation for mandatory reporting on nature-related risks in the future.¹²⁴











Recommendation 3: *Form genuine partnerships with producer countries that advance the transition to more sustainable production methods and facilitate continued participation in global markets.*

The G7 must form partnerships with producer countries and provide clear pathways for compliance. There are limitations to due diligence legislation and other measures that restrict market access for deforestation-risk commodities unless they are coupled with the creation of enabling environments that help to make progress on sustainable agricultural production within producer countries. Demand-side legislation must therefore be paired with financial and technical support for producers and develop partnership approaches that recognize the importance of smallholders who produce a third of our food globally. This is especially the case if regulators are requiring countries to go beyond legality approaches, as incentives are needed to go above the governing laws within producer countries. **G7 members should draw lessons from the EU's Voluntary Partnership Agreements (VPAs), which were successful in strengthening governance in some partner producer countries in the timber sector.** Partnership agreements go beyond classic development aid and include time-bound targets for producers to meet throughout the implementation period, offering meaningful stakeholder engagement as well as incentives including financial and technical assistance or favourable market access. **Partnerships that tackle the root causes of deforestation and link to poverty alleviation and rural livelihoods will be critical for meeting international goals for ending deforestation.**

Recommendation 4: *Engage with other major consumer markets to share lessons learned on demand-side regulation*

As discussed in Section 2, G7 members represent a declining global share of deforestation linked to the international trade of agricultural commodities. Evidence on anticipated demographic and dietary shifts in key markets such as China and India indicate that their share of tropical deforestation associated with imports of deforestation-linked commodities is expected to grow significantly. **The G7 must therefore enter into dialogue with other major consumer markets to avoid leakage outside of the G7. Similarly, producer countries are also consuming large volumes of deforestation-linked commodities within their own borders. G7 members must engage with other major consumers in intergovernmental fora such as the G20 or the Forest, Agriculture and Commodity Trade (FACT) Dialogue to share lessons and align on best practice.**

Annex 1: Comparison of proposed EU, UK and US regulations

	 EU Deforestation Regulation	 US FOREST Act	 UK Environment Act
 Overview	Prohibit designated products from being placed on the EU market unless they are deforestation- and forest degradation-free (after 31 December 2020), legal, and require companies placing them on the market to conduct due diligence to minimize the risk of handling prohibited products.	Restrict products from illegally deforested land from entering US markets, after the date of enactment.	Make it illegal for larger businesses operating in the UK to use key forest-risk commodities produced on land illegally occupied or used. No specific cut-off dates currently defined.
 Commodities in scope	<p>"Relevant commodities": palm oil, soy, cocoa, cattle, coffee and wood products covered under the EU Timber Regulation.</p> <p>"Relevant products": specific products that contain, have been fed with or made with relevant commodities, as outlined in Annex I of the EU proposal which lists HS codes of relevant products.</p>	<p>"Covered commodities": palm oil, soy, cocoa, cattle, rubber, and wood pulp.</p> <p>"Covered products": products made wholly or in part of a covered commodity.</p>	"Forest risk commodities" : current consultation proposes cattle, cocoa, coffee, maize, palm oil, rubber, and soy, but they will be phased in over time. UK government will decide which commodities to include first, based on the commodity's impact on global deforestation, the UK's role in this deforestation and the ability to deliver effective regulation.
 Prohibition	No relevant commodities and products can be placed, made available on or be exported from the EU, unless they are: deforestation- and forest degradation-free after 31 December 2020; produced in accordance with relevant legislation of the country of production; and covered by a due diligence statement.	Import declaration required for all covered products, with simplified requirements for default risk countries.	No use of forest-risk commodities or products derived from that commodity in UK commercial activities unless 'local laws were complied with in relation to that commodity' in the country of production. Local laws in relation to a forest risk commodity means local laws which relate to the ownership and uses of the land on which the commodity was produced.
 Business in scope	Applies to operators (actors that first place on the market a commodity) and traders (actors using commodities in their commercial activities) that are not small and medium enterprises (SMEs).	All businesses.	All large businesses that exceed a specified turnover threshold with potential exemptions (to be determined through secondary legislation).
 Due diligence system	Covered businesses need to gather information about the sources and suppliers of commodities, provide a risk assessment and risk mitigation plan. Information gathered should include geographic data of all the plots of land where the relevant commodities and products were produced to show that deforestation and forest degradation did not occur after the cut-off date. Based on this information, businesses need to assess the risk of possible non-compliance, and where necessary, mitigate such risks to a negligible level. A due diligence statement must then be submitted.	Importers of any of the 'covered commodities' or derivative products must file a declaration upon entry reasonable care was exercised to assess and mitigate the risk that covered commodities products did not originate from illegally deforested lands.	The due diligence system must include a system for identifying and obtaining information about the forest-risk commodity. It must also include a risk assessment of whether local laws were not complied with in relation to the forest-risk commodity; and a plan for mitigating that risk.
 Country risk assessment	Benchmarking system that classifies countries (or sub-regions) as low, standard, or high risk based on assessment criteria. Lower due diligence requirements would apply for low-risk sources.	Classifies countries as 'high risk' or 'not high risk' and applies additional due diligence measures to high-risk countries. For countries identified as high risk, US Trade Representative develops action plans with measurable goals.	Businesses to determine whether there is a low, medium, or high risk of illegal land use in a source country and plan its mitigation according to that level of risk.
 Timeframe	Target to have the regulation adopted by 2022 with a 12-month implementation period thereafter.	Passage and timing are uncertain.	Primary legislation enacted in November 2021. Secondary legislation is needed to implement provisions, and consultation on the design of legislation and accompanying guidance closed in March 2022.

References

1. Intergovernmental Panel on Climate Change (IPCC), Working Groups I, II and III. 2020. *Climate Change and Land – Summary for Policymakers*. https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf
2. World Resources Institute/Global Forest Review. *Forest Pulse: the latest on the world's forests*. <https://research.wri.org/gfr/latest-analysis-deforestation-trends> Accessed 30 June 2022.
3. IPCC, Working Group II. 2022. *IPCC Sixth Assessment Report: Impacts, Adaptation and Vulnerability*. <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>
4. Curtis, P., Slay, C., Harris, N., Tyukavina, A. and Hansen, M. 2018. 'Classifying drivers of global forest loss'. *Science*, 361 (6407), pp. 1108-1111. <https://doi.org/10.1126/science.aau3445>
5. Goldman, E., Weisse, M.J., Harris, N. and M. Schneider. 2020. 'Estimating the Role of Seven Commodities in Agriculture-Linked Deforestation: Oil Palm, Soy, Cattle, Wood Fiber, Cocoa, Coffee, and Rubber'. Technical Note. World Resources Institute. <https://files.wri.org/d8/s3fs-public/estimating-role-seven-commodities-agriculture-linked-deforestation.pdf>
6. UN Climate Change Conference UK. 2021. *Glasgow Leaders' Declaration on Forests and Land Use*. <https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use>
7. Seymour, F. and Busch, J. 2016. *Why Forests? Why Now? The Science, Economics and Politics of Tropical Forests and Climate Change*. Center for Global Development. <https://www.cgdev.org/publication/why-forests-why-now-science-economics-and-politics-tropical-forests-and-climate-change>
8. Lewis, S. L., 2006, Tropical forests and the changing earth system, <https://www.sciencedirect.com/science/article/abs/pii/S0169534712001231>
9. Bernal, et al. 2018. 'Global carbon dioxide removal rates from forest landscape restoration activities'. *Carbon Balance and Management*, 13, 22 (2018). <https://doi.org/10.1186/s13021-018-0110-8>
10. World Resources Institute/Global Forest Review, Op cit.
11. Intergovernmental Panel on Climate Change (IPCC), Working Groups I, II and III. 2020. *Climate Change and Land – Summary for Policymakers*. https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf
12. IPCC, Working Group II, Op cit.
13. Laje, D., Faiola, A. and Herrero, A. V. 2021. 'South America drought: Argentina, Brazil, Chile, Bolivia suffer climate change'. *The Washington Post*.
14. de Sousa, A. and Durisin, M. 2021. 'Global Food Costs Jump Back Near Decade-High on Harvest Woes'. *Bloomberg*. 2 September. <https://www.bloomberg.com/news/articles/2021-09-02/global-food-prices-jump-back-near-decade-high-on-harvest-woes#xj4y7vzkg>
15. IPCC (2022), Op cit.
16. G7 Germany 2022. *G7 Leaders' Communiqué*. Elmau, 28 June 2022. <https://www.g7germany.de/resource/blob/974430/2062292/9c213e6b4b36ed1bd687e82480040399/2022-07-14-leaders-communique-data.pdf?download=1>
17. G7 Germany 2022. *G7 Climate, Energy and Environment Ministers Communiqué*. Berlin, 28 May 2022. <https://www.g7germany.de/resource/blob/974430/2044350/84e380088170c69e6b6ad45dbd133ef8/2022-05-27-1-climate-ministers-communique-data.pdf?download=1>
18. Global Forest Watch. <https://www.globalforestwatch.org/>
19. Curtis, P., Slay, C., Harris, N., Tyukavina, A. and Hansen, M. 2018, Op cit.
20. Goldman, E., Weisse, M.J., Harris, N. and M. Schneider. 2020, Op cit <https://www.wri.org/research/estimating-role-seven-commodities-agriculture-linked-deforestation-oil-palm-soy-cattle>
21. Pendrill, F., Persson, M., Godar, J. et al. 2019. 'Agricultural and forestry trade drives large share of tropical deforestation emissions'. *Global Environmental Change*, 56: 1-10. <http://dx.doi.org/10.1016/j.gloenvcha.2019.03.002>
22. Pendrill, F., Persson, U., Kastner, T. 2020. 'Deforestation risk embodied in production and consumption of agricultural and forestry commodities 2005-2017'. Zenodo. <https://zenodo.org/record/4250532#.YxoZENbMKUk>
23. Hannah Ritchie, Max Roser and Pablo Rosado. 2020. 'CO₂ and Greenhouse Gas Emissions'. *OurWorldInData.org*. <https://ourworldindata.org/co2/country/india>
24. Worldometers. *Largest Countries in the World (by area)*. <https://www.worldometers.info/geography/largest-countries-in-the-world/>
25. Goldman, E., Weisse, M.J., Harris, N. and M. Schneider, Op cit.
26. Mano, A. and Spring, J. 2020. 'Brazil says US will allow fresh Brazilian beef imports'. Reuters. 21 February. <https://www.reuters.com/article/us-brazil-beef-idUSKBN20F2QE>
27. USDA Economic Research Service, (n.d.). 'Agri View: Japan's Agriculture Import-Exports'. Available at [https://www.merlofarminggroup.com/agri-view-japan%E2%80%99s-agriculture-imports-exports#:~:text=Japan's%20agricultural%20imports%20\(nearly%20%2460,of%20its%20food%20each%20year](https://www.merlofarminggroup.com/agri-view-japan%E2%80%99s-agriculture-imports-exports#:~:text=Japan's%20agricultural%20imports%20(nearly%20%2460,of%20its%20food%20each%20year)
28. ResourceTrade.Earth. <https://resourcetrade.earth/>
29. Glasgow Leaders' Declaration, Op cit.

30. Global Forest Watch, Op cit.
31. New York Declaration on Forests. 2022. *Progress on the NYDF: Goal 2*. https://forestdeclaration.org/wp-content/uploads/2022/02/Eliminate-agriculture-driven-deforestation_Progress-since-2014.pdf
32. Ibid.
33. Partnership for Forests. 2021. *Raising ambition to reduce agricultural commodity-driven deforestation: what has the Amsterdam Declarations Partnership achieved so far?* <https://partnershipsforforests.com/2021/06/28/raising-ambition-to-reduce-agricultural-commodity-driven-deforestation-what-has-the-amsterdam-declarations-partnership-achieved-so-far/>
34. Ibid.
35. Amsterdam Declarations Partnership. 2020. *Status Report of the Amsterdam Declarations Partnership 2016-2020*. <https://ad-partnership.org/wp-content/uploads/2021/01/ADP-Status-Report-2016-2020-vFINAL.pdf>
36. Food and Agriculture Organization of the United Nations (FAO). *Sustainable Development Goals: Indicator 15.2.1 – Progress towards sustainable forest management*. <https://www.fao.org/sustainable-development-goals/indicators/1521/en/> Accessed 30 June 2022.
37. United Nations Development Programme. 2021. *A renewed call to halt deforestation by 2030*. <https://www.undp.org/blog/renewed-call-halt-deforestation-2030>
38. Forest, Agriculture, Commodity and Trade (FACT) Dialogue. *Fact Roadmap*. <https://www.factdialogue.org/fact-roadmap>
39. World Business Council for Sustainable Development. 'Soft Commodities Forum' <https://www.wbcsd.org/Programs/Food-and-Nature/Food-Land-Use/Soft-Commodities-Forum> Accessed 24 August 2022.
40. Forest 500. 2022. *A climate wake-up: but business failing to hear the alarm on deforestation*. Global Canopy. <https://forest500.org/publications/climate-wake-business-failing-hear-alarm-deforestation>
41. Organization for Economic Cooperation and Development (OECD). 2018. *OECD Due Diligence Guidance for Responsible Business Conduct*. <https://mneguidelines.oecd.org/OECD-Due-Diligence-Guidance-for-Responsible-Business-Conduct.pdf>
42. OECD. *OECD-FAO Guidelines for Multinational Enterprises*. <http://mneguidelines.oecd.org/annualreportsontheguidelines.htm>
43. New York Declaration on Forests. 2022. *Progress on the NYDF: Goal 2*. Op cit.
44. Wolosin, M. 2022. *Navigating the False Dichotomy Between Legality and Zero Deforestation*. Forest Trends. <https://www.forest-trends.org/publications/navigating-legality-and-zero-deforestation-intl-partnership-pathway/>
45. Garcia, B. 2022. *Strengthening the 'E' in HREDD: Why the environmental dimension of sustainable supply chains matters*. Adelphi Research GmbH. <https://www.adelphi.de/de/system/files/mediathek/bilder/HREDD%20BF%20220509.pdf>
46. Brack, D. and Ozinga, S. 2020. *Enforcing due diligence legislation 'plus'*. Fern. <https://www.fern.org/publications-insight/enforcing-due-diligence-legislation-plus-2230/>
47. Ibid.
48. UN Human Rights Office of the High Commissioner. 2011. *Guiding Principles on Business and Human Rights*. https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinessshr_en.pdf
49. Brack, D. and Ozinga, S., Op cit.
50. European Commission (EC), Directorate-General for Justice and Consumers, Smit, L., Deringer, H., Salinier, C., et al. 2020. *Study on due diligence requirements through the supply chain. Part III, country reports*. Publications Office of the EU, <https://data.europa.eu/doi/10.2838/703732>
51. Hogan Lovells. 2021. 'Update on amendments to the French duty of vigilance Law'. Lexology. <https://www.lexology.com/library/detail.aspx?g=873f7d8a-a1fd-4ece-9833-d6db2ae39438#:~:text=Scope%20of%20the%20French%20Duty%20of%20Vigilance%20Law,and%20For%20over%2010%2C000%20employees%20worldwide%2C%20including%20affiliates%27%20employees>
52. Marolleau, L. 2021. 'French Climate and Resilience Law: what impact on corporate law?' Soulier Avocats. https://www.soulier-avocats.com/en/french-climate-and-resilience-law-what-impact-on-corporate-law/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=LinkedIn-integration
53. EC (2020). *Study on due diligence requirements through the supply chain*, Op cit.
54. Directorate-General Justice and Consumers (2022). *Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937*. European Commission. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0071>
55. UK Environment Act 2021, Schedule 17. <https://www.legislation.gov.uk/ukpga/2021/30/schedule/17>
56. Directorate-General for Environment. 2021. *Proposal for a regulation on deforestation-free products*. European Council. https://ec.europa.eu/environment/publications/proposal-regulation-deforestation-free-products_en
57. US 117th Congress, S-2950 – Forest Act of 2021. <https://www.congress.gov/bill/117th-congress/senate-bill/2950/text?r=2&s=2>
58. The White House. 2022. 'Fact sheet: President Biden signs executive order to strengthen America's forests, boost wildfire resilience and combat global deforestation'. Press release, 22 April. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/22/fact-sheet-president-biden-signs-executive-order-to-strengthen-americas-forests-boost-wildfire-resilience-and-combat-global-deforestation/>
59. 62 Ministry of Agriculture, Forestry and Fisheries. 2017. *Act on Promotion of Use and Distribution of Legally-Harvested Wood and Wood Products*. Government of Japan. <https://www.rinya.maff.go.jp/j/riyou/goho/english/attach/pdf/english-index-3.pdf>
60. Ibid.

61. Government of Canada. 'About WAPPRIITA: wild species protection and trade'. <https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/acts-regulations/wild-species-protection.html> Accessed 24 August 2022.
62. Expert interviewee, May 2022
63. UN Framework Convention on Climate Change (UNFCCC). 'Tackling Deforestation and Scaling NBS'. <https://climate.unfccc.int/system/nature-and-tackling-deforestation/> Accessed 16 August 2022.
64. *Glasgow Leaders' Declaration*, Op cit.
65. Forest 500, Op cit.
66. Ibid.
67. EC. 2022. 'Just and sustainable economy: Commission lays down rules for companies to respect human rights and environment in global value chains'. Press release, 23 February. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1145
68. UK Government. 2021. 'UK to enshrine mandatory climate disclosures for largest companies in law'. Press release, 29 October. <https://www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law>
69. US Securities and Exchange Commission. 2022. 'SEC Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors'. Press release, 21 March. <https://www.sec.gov/news/press-release/2022-46>
70. Efeca/Global Resource Initiative Taskforce. 2022. *Global Resource Initiative: Finance Report*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1087635/global-resource-initiative-finance-report-may-2022.pdf
71. Ibid.
72. Ibid.
73. Wolosin, Op cit.
74. Dumett, C. and Blundell, A. 2021. *Illicit Harvest, Complicit Goods: The State of Illegal Deforestation for Agriculture*. Forest Trends. https://www.forest-trends.org/wp-content/uploads/2021/05/Illicit-Harvest-Complicit-Goods_rev.pdf
75. VPA Africa – Latin America (n.d.). *Combating illegal logging through forest governance*. <https://flegtvpafacility.org>
76. Fern. 2017. *Independent Forest Monitoring: a chance for improved governance in VPA countries*. <https://www.fern.org/fileadmin/uploads/fern/Documents/forest%20monitoring%20final.pdf>
77. Wolosin, Op cit.
78. World Wide Fund for Nature (WWF). 2021. *Stepping Up? The Continuing Impact of EU Consumption on Nature Worldwide*. https://wwfeu.awsassets.panda.org/downloads/stepping_up_the_continuing_impact_of_eu_consumption_on_nature_worldwide_fullreport_low_res.pdf
79. Ibid.
80. Earth.org. 2020. *The Indonesia Omnibus Law: Prioritising economic growth at the expense of the environment*. <https://earth.org/the-indonesia-omnibus-law/>
81. Anonymous interviewee, 2022
82. Wolosin, Op cit.
83. Heilmayr, R., Rausch, L. L., Munger, J. and Gibbs, H. K. 2020. 'Brazil's Amazon Soy Moratorium reduced deforestation'. *Nat. Food* 112 1, 801–810 (2020). <https://doi.org/10.1038/s43016-020-00194-5>
84. Earth Observatory. *Soybeans in the Brazilian Cerrado*. <https://earthobservatory.nasa.gov/images/85364/soybeans-in-the-brazilian-cerrado> Accessed 30 June 2022.
85. Busch, J. et al., Op cit.
86. Ibid.
87. EC. 2021. *Commission Staff Working Document Impact Assessment: minimising the risk of deforestation and forest degradation associated with products placed on the EU market, part 1*. Publications Office of the EU, https://ec.europa.eu/environment/forests/pdf/SWD_2021_326_1_EN_Deforestation%20impact_assessment_part1.pdf
88. Ibid.
89. World Atlas. *Countries Most Dependent on Others for Food*. <https://www.worldatlas.com/articles/the-countries-importing-the-most-food-in-the-world.html> Accessed 30 June 2022.
90. Pendrill et al., Op cit.
91. *G7 Climate, Energy and Environment Ministers Communiqué*, Op cit.
92. OECD. 2019. *OECD–FAO Agricultural Outlook 2019–2028*. <https://www.fao.org/publications/oecd-fao-agricultural-outlook/2019-2028/en/>
93. Tropical Forest Alliance. 2018. *Emerging Market Consumers and Deforestation*. World Economic Forum. https://www.tropicalforestalliance.org/assets/Uploads/47530_Emerging-markets_consumers_and_deforestation_report_2018.pdf
94. Zhao, H., Chang, J., Havlík, P. et al. 2021. 'China's future food demand and its implications for trade and environment'. *Nat Sustain* 4, 1042–1051 (2021). <https://doi.org/10.1038/s41893-021-00784-6>
95. Ibid.
96. Tropical Forest Alliance, Op cit.
97. Amsterdam Declarations Partnership, Op cit.

98. Lowder, S., Scoet, J. and Raney, T. 2016. 'The Number, Size, and Distribution of Farms, Smallholder Farms, and Family Farms Worldwide'. *World Development*, Volume 87, 2016, pp. 16-29. <https://doi.org/10.1016/j.worlddev.2015.10.041>
99. FAO. 2021. *Small family farmers produce a third of the world's food*. <https://www.fao.org/news/story/en/item/1395127/icode/>
100. Food and Land Use Coalition (FOLU). 2019. *Growing Better*. FOLU. <https://www.foodandlandusecoalition.org/wp-content/uploads/2019/09/FOLU-GrowingBetter-GlobalReport.pdf>
101. Allegra Strategies, International Trade Centre, FT Calculations. 2019.
102. EC. 2021. Op cit.
103. UK Department for Environment, Food and Rural Affairs (Defra). 2021. Impact Assessment: Due diligence on forest risk commodities, https://consult.defra.gov.uk/international-biodiversity-and-climate/implementing-due-diligence-forest-risk-commodities/supporting_documents/duediligenceconsultationimpactassessment.pdf
104. Fair Trade Advocacy Office, Fern, IUCN NL, Solidaridad and Tropenbos International. 2021. 'Including smallholders in EU action to protect and restore the world's forests'. Briefing paper. <https://www.fern.org/fileadmin/uploads/fern/Documents/2021/Briefing-paper-Including-smallholders-EU-action-final.pdf>
105. Sustainable Trade Initiative (IDH) and Proforest. 2022. *EU regulation on deforestation-free products*. https://www.idhsustainabletrade.com/uploaded/2022/03/IDH_Forest_Positive_Options_Policypaper.pdf
106. Fern. 2021. *Raising the bar: Strengthening EU biodiversity and climate leadership through FLEGT and Forest Partnerships*. https://www.fern.org/fileadmin/uploads/fern/Documents/2021/Raising_the_bar_CSOs_statement-EN.pdf
107. International Cocoa Initiative. 2021. Joint position paper on the EU's policy and regulatory approach to cocoa Partnership agreements, <https://www.cocoainitiative.org/sites/default/files/Partnership-agreements.pdf>
108. Ibid.
109. Ibid.
110. Sustainable Food Policy Alliance (SFPA). 2021. *SFPA Commends Efforts to Address Deforestation in Ag Supply Chains*. <https://foodpolicyalliance.org/news/sfpa-commends-efforts-to-address-deforestation-in-ag-supply-chains/>
111. BNN Bloomberg. 2020. *UK to help protect world's forests with laws for shops and restaurants*. 10 November. <https://www.bnnbloomberg.ca/u-k-to-help-protect-world-s-forests-with-laws-for-shops-and-restaurants-1.1520643>
112. EC (2021), Op cit.
113. EC. *EU Timber Regulations Report and Reviews*. https://ec.europa.eu/environment/forests/eutr_report.htm Accessed 30 June 2022.
114. Austin, K. et al. 2021. 'Mapping and Monitoring Zero-Deforestation Commitments', *BioScience*, Volume 71, Issue 10, pp. 1079–1090, <https://doi.org/10.1093/biosci/biab082>
115. Forest 500. Ibid.
116. Friends of the Earth. 2021. *California Governor Newsom fails to pass the Deforestation Free Procurement act*. 6 October. <https://foe.org/news/newsom-fails-pass-deforestation/>
117. Ibid.
118. EC (2021), Op cit.
119. European Parliament, Op cit.
120. Goldman, E., Weisse, M.J., Harris, N. and M. Schneider, Op cit.
121. *G7 Climate, Energy and Environment Ministers' Communique*. Op cit.
122. UN Framework Convention on Climate Change (UNFCCC). 'Financial sector commitment letter on eliminating commodity-driven deforestation'. <https://racezero.unfccc.int/wp-content/uploads/2021/11/DFF-Commitment-Letter-.pdf> Accessed 24 August 2022.
123. Taskforce on Nature-related Financial Disclosures. 'Introducing the TNFD framework'. <https://tnfd.global/>
124. Efeca/Global Resource Initiative Taskforce, Op cit.

Assessing the G7's international deforestation footprint and measures to tackle it

2022



The
Food and Land Use
Coalition