



FOR
YOUR
WORLD

PLAN FOR AT-RISK LANDSCAPES

DECOUPLING DEFORESTATION
AND CONVERSION FROM COMMODITY
PRODUCTION AND ACHIEVING BENEFITS
FOR NATURE, CLIMATE AND PEOPLE

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© AARON GEKOSKI / WWF-US
SAWIT KINABALU OIL PALM
PLANTATION IN TAWAU, SABAH,
BORNEO, MALAYSIA.

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ABOUT THIS REPORT

WWF is seeking to advise the UK government, and partner countries, in channelling efforts to reduce their overseas footprint¹ in key at-risk producer landscapes.²

The UK has committed to reduce its footprint overseas. Addressing the impacts of supply chains on nature, people and climate will be central to discussions in the run-up to the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties 26 (CoP26), including the Forest, Agriculture and Commodity Trade (FACT) Dialogue. It is also an important part of the UK government's work to implement its commitments while responding to the key recommendations of the Global Resources Initiative (GRI) taskforce.

To assist these discussions, we provide: (1) a compilation of learnings from initiatives on the ground to halt deforestation and/or conversion, emphasising the key elements for success, such as multi-stakeholder involvement, political leadership and finance; (2) a list of geographies linked to UK trade where action is most urgent, such as the Brazilian Amazon, the Cerrado, the Gran Chaco, Côte d'Ivoire and Kalimantan (Indonesian Borneo); (3) a summary of the opportunities and challenges for the UK, such as the global processes on climate (UNFCCC CoP26) and on biodiversity (Convention on Biological Diversity (CBD) CoP15); (4) a series of case studies from some of the above-mentioned geographies with insights on how to implement, improve and/or upscale actions to generate wider benefits to nature, climate and people.

¹ We define 'overseas footprint' as the environmental and human rights impacts overseas due to imports, including but not limited to deforestation and conversion of natural ecosystems.

² At-risk producer landscapes' are highly biodiverse and carbon-rich regions within main commodity producer countries which have high rates of deforestation or conversion and experience other negative impacts on climate, nature and people.

CONTEXT

The UK has a significant footprint overseas given its heavy reliance on imports. More than [half of its food](#) and [81% of its paper and wood products](#) are imported. WWF-UK's recent study, in partnership with RSPB, [Riskier Business: The UK's overseas land footprint](#), showed that **21.3 million hectares – or 88% of the UK's land area – were required overseas to supply the UK's demand for just seven agricultural and forest commodities**, including beef & leather, soy and timber, between 2016 and 2018.

Agricultural and forest commodity supply chains are strongly associated with deforestation, land conversion and degradation of natural ecosystems worldwide. These impacts have consequences such as biodiversity loss, emissions of greenhouse gases and loss of ecosystem services that impact both wildlife and human well-being. For instance, in Riskier Business, we found that the emissions associated with the production of only four commodities (cocoa, palm oil, rubber and soy) between 2011 and 2018 amounted to around **28 million tonnes of carbon dioxide (CO₂) equivalent annually**. For a sense of scale, this is equivalent to approximately [8% of the UK's net emissions of CO₂ in 2019](#). Another key finding was that the production of just seven commodities imported into the UK is exerting pressure on over 2,800 species already threatened with extinction. Social impacts such as human rights abuses and loss of access to land are also commonly associated with global commodity supply chains. Given our contribution to these impacts through our demand for commodities and derived products, it is imperative that the UK and other consumer countries take action to tackle the problem as soon as possible.

The UK has committed to reduce its global footprint in its [25 Year Environment Plan](#) and has set up the GRI taskforce to recommend the best set of actions. The [GRI taskforce report](#) has recommended, among other measures, that the UK should convene actors and start a global call to action in key at-risk landscapes. Action plans should be developed in collaboration with producer countries and other consumer countries to support a just transition towards sustainable production. They should incentivise other actions to reduce the pressure on nature, such as restoration, conservation and alternative livelihoods, and develop trade policies that are in line with the UN Sustainable Development Goals (SDGs). The UK, as the president of the next UNFCCC CoP26 and a key contributor to international climate finance, coupled with the wide influence of its finance hub, can lead on this agenda throughout 2021 and beyond.

In the next sections, we present a summary of key learnings from initiatives to stop deforestation and conversion; a list of the main geographies relevant to the UK that are at risk of deforestation and other impacts; and an overview of the key opportunities for pushing this agenda forward. We hope that these learnings can be used in discussions in the run up to UNFCCC CoP26 and other opportunities related to collaborative action within landscapes.

SUMMARY OF KEY LEARNINGS

Based on our research and experience working in at-risk landscapes, we highlight some of the key learnings below:

- Addressing the impact of global commodity production and trade starts with people.** Multi-stakeholder platforms that include representatives of all interest groups in a landscape, particularly rights holders as indigenous peoples and local communities (IPLCs), are fundamental at the inception of any landscape initiative. All interest groups should come together to agree on common goals for the landscape. Successful initiatives protect and restore nature by supporting the livelihoods of IPLCs and providing technical assistance and finance to enable smallholders to live in harmony with nature.
- Government leadership is critical.** Government leadership, at all levels, can effectively facilitate multi-stakeholder governance and ensure programme implementation and stability. Government buy-in can lead to locally developed land-use plans and roadmaps being embedded in law, stronger and better-enforced environmental laws and policies. This facilitates and attracts international finance. On the other hand, lack of leadership and political instability can jeopardise progress. Partnerships between countries can ensure alignment between standards and support producer countries.
- Markets are powerful levers to drive change.** Market demand must provide the right signals to incentivise sustainable production. Companies need to engage with actors across the entire supply chain by providing training, access to markets and financial support to facilitate the transition to sustainable agriculture. Transparency and traceability in supply chains allows higher accountability and helps to track, avoid and mitigate risks and impacts. Governments can support private sector action by implementing legislation and trade standards that level the playing field.
- Success takes time and continuous collective effort.** Delivering positive outcomes for nature and people through landscape initiatives takes considerable time, planning and resources. Accounting for different interests through integrated land-use planning and participatory governance is crucial to long-term success but has meant that for most initiatives, results have not materialised in the short term yet. Monitoring and adaptive management of programmes are key to building on interim progress, learning from shortcomings and sustaining stakeholder buy-in and financial support.
- Long-term finance must be secured at scale.** Because results can take time, securing long-term finance is critical to ongoing programme implementation and stability. Blended finance funds can resolve the dual challenge of limited public/philanthropic funding and the private sector risk associated with the longer time horizons and uncertainties of landscape programmes.

We expand on these key learnings in the section 'Factors Contributing to Success', and later on provide further examples in case studies from six specific landscapes.



FACTORS CONTRIBUTING TO SUCCESS

This report focuses on the elements for successful landscape and jurisdictional approaches. Broadly, we define a landscape approach as a framework for actions taken at a large geographical scale, in which stakeholders seek to reconcile competing environmental, social and economic objectives in a holistic way. A landscape could be a socio-ecological system containing natural and/or human-modified ecosystems or a jurisdiction (an area defined by government administrative boundaries). This integrated approach to natural resource management moves away from single sector approaches or a focus on individual production units, recognising that these narrow approaches have failed to achieve results at scale due to their inability to resolve directly competing claims on resources.³ A jurisdictional approach is simply a form of landscape approach in which the landscape is defined by administrative boundaries (e.g. a subnational state or province).

We outline below several elements that have contributed to successes in past landscape and jurisdictional initiatives, or constitute promising models to tackle deforestation and/or land conversion while achieving wider benefits. These elements were gathered from a series of reports, guidelines and scientific articles. They are organised roughly into different stages or phases required for landscape and jurisdictional approaches from conception to implementation, including key elements to facilitate and accelerate progress and support monitoring, evaluation and adaptation. Based on our research and experience in the field, we consider this collection of elements to be most valuable for securing the success of jurisdictional/landscape initiatives. We understand that not all initiatives have a similar structure to what we propose here, nor do they include all the elements mentioned below. Nevertheless, we believe this document can provide useful guidance to assist and improve different initiatives regardless their structure or stage of development. We illustrate each element with real examples, some of which are expanded on in the additional case studies that accompany this report.

WHERE TO START?

For a new initiative, multi-stakeholder platforms and dialogues are critical to promote a fair and inclusive plan that responds to the needs of the different actors across the landscape. We provide some examples that show how the process can be improved or accelerated.

MULTI-STAKEHOLDER PLATFORMS

A key first step in any landscape initiative is to set up a multi-stakeholder platform to build a shared understanding of the particular landscape conditions, challenges and opportunities and to set out mutually beneficial goals. Multi-stakeholder platforms and consultation processes should include representatives of the various interest groups within a landscape, ensuring participation of all rights holders, to enable cross-sector and cross-border collaboration, collective rulemaking and to secure buy-in from all relevant stakeholders. This will first require a mapping of the key stakeholders to participate in the platform, followed by an understanding of how collaborative action will happen, an implementation plan (with clear roles and responsibilities for each stakeholder) and shared monitoring and review mechanisms. Decisions should be taken through a participative and inclusive process, which should include deep engagement with local communities, indigenous peoples, smallholders and civil society groups, ensuring free, prior and informed consent (FPIC). This is particularly important as the exclusion of key players at the grassroots level has been shown to present significant risks for the success of jurisdictional and landscape approaches.⁴ When dealing with multiple objectives, trade-offs and power imbalances, multi-stakeholder platforms can play a vital role in first identifying a common problem to mobilise all stakeholders, and then negotiating priorities and giving a voice to weaker parties.⁵

WHEN DEALING WITH MULTIPLE OBJECTIVES, TRADE-OFFS AND POWER IMBALANCES, MULTI-STAKEHOLDER PLATFORMS CAN PLAY A VITAL ROLE IN FIRST IDENTIFYING A COMMON PROBLEM TO MOBILISE ALL STAKEHOLDERS, AND THEN NEGOTIATING PRIORITIES AND GIVING A VOICE TO WEAKER PARTIES

MULTI-STAKEHOLDER PLATFORMS AND CONSULTATION PROCESSES SHOULD INCLUDE REPRESENTATIVES OF THE VARIOUS INTEREST GROUPS WITHIN A LANDSCAPE

⁴ Chervier, C., Piketty, M.G. and Reed, J. 2020. A tentative theory of change to evaluate jurisdictional approaches to reduced deforestation. *Frontiers in Forests and Global Change*. doi: [10.3389/ffgc.2020.498151](https://doi.org/10.3389/ffgc.2020.498151)

⁵ Ros-Tonen, M. Reed, J. and Sunderland, T. 2018. From synergy to complexity: The trend toward integrated value chain and landscape governance. *Environmental Management* 62 : 1-14. doi: [10.1007/s00267-018-1055-0](https://doi.org/10.1007/s00267-018-1055-0)

EXAMPLES OF FACTORS LEADING TO A SUCCESSFUL START:

The examples below demonstrate how to accelerate and maximise the impact of landscape-level multi-stakeholder processes on the ground:

i) Leadership in producer countries

Government leadership at the national, state or local levels as well as individual leaders embedded in the local context are extremely important to progress landscape and jurisdictional initiatives, especially during the initial stages by bringing stakeholders together and motivating actors towards a common goal. For example, strong and sustained leadership from the Governor of East Kalimantan province in Indonesia has been instrumental in driving forward jurisdictional initiatives for low-carbon growth and reducing deforestation, including by bringing together stakeholders from district government, industry, civil society and local communities to develop the [Green Growth Compact](#) for the province. Moreover, establishing buy-in from subnational government leaders at first can help to secure federal-level support when there is little political interest at the national level.

ii) Consumer–producer country partnerships

Open and participative dialogues between consumer and producer countries allow for bilateral and multilateral partnerships that could help create and improve tools and infrastructure and strengthen other enabling conditions (e.g. governance, legal frameworks and law enforcement).⁶ Formal partnerships might take a few years to be agreed, like the Forest Law Enforcement, Governance and Trade ([FLEGT](#)) [voluntary partnership agreements \(VPAs\)](#). Therefore, it is important to identify easier entry points, such as previously established alliances in the region of interest, for example with local leaders and other key stakeholders. By working with these alliances, countries could build on what is already in place or ready to be implemented, thereby promoting efficiency, legitimacy and achieving results in a shorter period.

iii) Consumer–consumer country collaboration

Collaboration between consumer countries sourcing from a common producer landscape is crucial to share the responsibilities and costs to help improve sustainability. It is also important to ensure that efforts by one country to reduce deforestation or other negative environmental and social impacts from commodity production are not undermined by sustained demand for illegal and/or unsustainable products from other countries. To curb deforestation and other impacts, there must be a joint and sustained effort by all consumers. The collaboration among Amsterdam Declaration signatories is a great example of how consumer countries can work together to tackle deforestation. Nevertheless, so far this work has mostly focused on aligning principles and national initiatives. Further collaboration is expected to ensure effective implementation of policies and legislation that have wider impact on imports and global supply chains, such as the UK due diligence legislation and the EU's action to tackle deforestation.

COLLABORATION BETWEEN CONSUMER COUNTRIES SOURCING FROM A COMMON PRODUCER LANDSCAPE IS CRUCIAL TO SHARE THE RESPONSIBILITIES AND COSTS TO HELP IMPROVE SUSTAINABILITY

iv) National, regional and local government collaboration

Collaborative action across various government levels (national, regional and local) is critical to ensure alignment between different initiatives towards reducing deforestation/conversion and development overall. A good example of aligned policies was Brazil's [Action Plan for the Prevention and Control of Deforestation in the Amazon](#) (PPCDAm), which combined monitoring systems, strengthened enforcement, tighter legislation and more areas designated for conservation. This resulted in a significant reduction of deforestation rates in the Brazilian Amazon in the early 2010s. This effort not only required coordination across government ministries, but also collaboration and leadership from regional and local governments.⁷ Unfortunately, these policies have been discontinued in recent years, and coincidentally or not, we are now seeing a new alarming rise in deforestation rates and frequency of forest fires in the Amazon.

A review of the effectiveness of jurisdictional approaches in Indonesia has found that greater emphasis should be placed on facilitating coordination across jurisdictions and levels of government.⁸ Insights from the ground confirm that alignment among policies and regulation results in higher impact. A recent example of efforts to facilitate such coordination is the National Action Plan for Sustainable Palm Oil in Indonesia, enacted by Presidential Decree No. 6 / 2019, following stakeholder consultation through the [Forum for Sustainable Palm Oil](#) (FoKSBI as per its acronym in Bahasa). This forum aims to coordinate activities in the sector and encourage [joint action between local and national governments](#), the private sector and non-governmental organisations to improve levels of certification and sustainable production, thereby contributing to reduced pressure on forests.

**INSIGHTS FROM
THE GROUND
CONFIRM THAT
ALIGNMENT
AMONG POLICIES
AND REGULATION
RESULTS IN
HIGHER IMPACT**



© WWF
THE CERRADO, BRAZIL



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PLANTATION WORKER USES A SICKLE TO CUT DOWN OIL
PALM FRUIT BUNCHES AT AN OIL PALM PLANTATION.

v) Market presence

Given the powerful role market demand plays in driving changes in land use, many landscape and jurisdictional initiatives seek to leverage market forces to drive conservation and reward initiatives that are making progress in limiting deforestation and conversion. Involving businesses in jurisdictional or landscape initiatives is critical for accelerating progress. Businesses, especially large companies with global supply chains, can catalyse progress by, among other things, engaging and supporting their own suppliers, providing sustainable products with better access to markets, as well as getting involved and investing in initiatives that go beyond their own supply chains in a key sourcing landscapes.⁹ Benefits of engagement should be made clear to businesses, including enhanced resilience, and reduced reputational risks and risks of future financial losses.^{10, 11} To allow for transformational initiatives, inclusion of small and medium businesses in the planning and implementation is important, especially in regions/industries where they form the largest percentage of producers (e.g. palm oil producers in Indonesia). For example, after the Paris Agreement, a few large [consumer goods companies](#) (e.g. [Unilever](#) and [Marks & Spencer](#)) agreed on investing in jurisdictional initiatives to improve sustainable production and livelihoods of smallholders in key at-risk jurisdictions in Indonesia.

Other global companies are working together with local and international stakeholders to halt deforestation and conversion in the Cerrado in support of the [Cerrado Manifesto](#). Following engagement with the Cerrado Working Group, a multi-stakeholder platform led by the Brazilian soy industry and civil society, Tesco, Nutreco and Grieg Seafood agreed in December 2019 to contribute funding through the [Cerrado Funding Coalition](#) to support a fair and effective plan for ending deforestation from soy in the Cerrado. The UK, as a convener of the UK Roundtable on Sourcing Sustainable Palm Oil and UK Roundtable on Sustainable Soya, has the power to promote further business engagement, action and collaboration on the ground, without this being perceived as anti-competitive. Furthering the work and reach of the current UK roundtables and setting up new ones on other key commodities, such as beef and cocoa, would be an effective way to further promote corporate action domestically.

⁷ Nepstad, D., et al. 2014. Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains. *Science* 344: 1118. doi: [10.1126/science.1248525](https://doi.org/10.1126/science.1248525)

⁸ Seymour, F., Aurora, L. and Arif, J. 2020. The jurisdictional approach in Indonesia: Incentives, actions and facilitating connections. *Frontiers in Forests and Global Change*. doi: [10.3389/ffgc.2020.503326](https://doi.org/10.3389/ffgc.2020.503326)

⁹ WWF and Proforest. 2020. [Landscape scale action for forests, people and sustainable production: A practical guide for companies](#).

¹⁰ Dudley, N., et al. 2020. [Landscape Sourcing: Sustainable business using the landscape approach](#). Landscape Finance Lab, Vienna.

¹¹ Conservation International. 2019. [Exploring the reality of the jurisdictional approach as a tool to achieve sustainability commitments in palm oil and soy supply chains](#).

TAKING COMMITMENTS INTO ACTION

The following factors focus on the implementation stage of jurisdictional or landscape initiatives. There is usually a series of actions that are agreed by all stakeholders to progress with the initiative. This usually includes further data gathering and data analyses that will guide where and for how long activities should be taken to achieve the agreed common goals. We provide a list of useful concepts and tools followed by key actions that are usually related to some measure of success.

INTEGRATED LAND-USE PLANNING

After agreeing on a common set of goals for the landscapes, through an inclusive and fair multi-stakeholder process (see section on multi-stakeholder platforms above), it is important to undertake a careful spatial mapping of the landscape and agree on land-use zoning. This is to ensure the correct delimitation of areas relevant to conservation, including high conservation value (HCV) and high carbon stock (HCS) areas and other highly biodiverse and carbon-rich areas, as well as those with the highest potential for restoration and agricultural production. It should take into account protected areas, indigenous territories and the land rights of traditional populations and smallholders to will minimise land conflicts and help provide long-term solutions. This land use mapping and modelling should incorporate economic, social and environmental data at the landscape level.¹²

Integrated land-use plans are key elements of jurisdictional approaches in Malaysia, led by WWF's Living Landscapes Programme (now the [Sabah Landscapes Programme](#)) in collaboration with local government, the Roundtable on Sustainable Palm Oil (RSPO) and the private sector. This programme has worked with companies such as Sabah Softwoods to

[restore a wildlife corridor](#) through its oil palm and timber plantations to connect two protected forest reserves, Ulu Kalumpang and Ulu Segama, with co-benefits of preserving wildlife and reducing crop destruction from elephants.

A clear mapping of different land uses, including areas assigned for protection, restoration and production, which is recognised by the local authorities can reduce the risk of land-use conflicts. When integrated plans are incorporated at government level and supported by policy, this can guide all stakeholders in the landscape, helping to drive coordinated sustainable development activities not only for agriculture but also for infrastructure, transport, and other activities. For example, the regional government in Sintang, West Kalimantan is implementing integrated land-use planning as part of its plans to develop a sustainable palm oil sector. An assessment of HCV areas designated approximately 1.1 million hectares in the district as HCV land. This mapping is to be integrated into spatial planning to support the district-level Master Plan for Plantations.¹³ It is important to ensure coordination among departments and ministries so land use plans are taken into account across all activities.

A CLEAR MAPPING OF DIFFERENT LAND USES, INCLUDING AREAS ASSIGNED FOR PROTECTION, RESTORATION AND PRODUCTION, WHICH IS RECOGNISED BY THE LOCAL AUTHORITIES, CAN REDUCE THE RISK OF LAND-USE CONFLICTS

INTEGRATED LAND-USE PLANS ARE KEY ELEMENTS OF JURISDICTIONAL APPROACHES IN MALAYSIA, LED BY WWF'S LIVING LANDSCAPES PROGRAMME



¹² FAO. 2020. [Framework for integrated land use planning: An innovative approach.](#)

¹³ WWF-Indonesia. 2019. [Keeping the spirit alive in improving independent oil palm plantations.](#)

A HOLISTIC PLAN FOR THE LANDSCAPE SHOULD DEMONSTRATE HOW DIFFERENT INTERVENTIONS OR ACTIONS RELATE TO EACH OTHER AND JOINTLY CONTRIBUTE TO ACHIEVE THE WIDER LANDSCAPE GOALS

THE SUPPORT PROVIDED TO SMALLHOLDERS IS OF GREAT IMPORTANCE, ESPECIALLY WHERE THEY DOMINATE THE SUPPLY MARKET

© CÉSAR DAVID MARTÍNEZ
AERIAL VIEW OF THE BORDER BETWEEN OIL PALM MONOCULTURE AND
NATIVE FOREST ALONG THE ARIARI RIVER IN THE COLOMBIAN AMAZON,

WIDER BENEFITS AT SCALE

Effective landscape initiatives focus on the projects with the most promising combined benefits for nature, climate and people, as part of a collective and comprehensive programme aiming at solutions at large spatial and temporal scales. A holistic plan for the landscape should demonstrate how different interventions or actions relate to each other and jointly contribute to achieve the wider landscape goals. For example, Sintang district in West Kalimantan, Indonesia has adopted an [integrated sustainable development strategy](#), the Sintang Lestari Regional Action Plan (RAD-SL), which seeks to optimise socio-economic benefits while maintaining the integrity of natural resources and the environment. Alongside this overarching plan, the Sintang Sustainable Palm Oil Regional Action Plan (RAD-KSB) has committed to increase farmers' welfare and income diversification as well as supporting certification and training of good management practices, ensuring that smallholders and local communities see the benefits of Sintang's commitment to be a sustainable district.¹⁴ Both action plans have sustainability targets which align with provincial and national targets, such as maintaining 59% of land as protected or production forests and a ban on new permits for land openings.¹⁵

SHARED ROADMAPS FOR IMPLEMENTATION

Businesses, governments, civil society and farmers should work together to improve sustainability in the landscape, with each playing their own part and being accountable for meeting clear objectives. It is important that clear performance indicators and timelines are assigned for each stakeholder. These should be mutually agreed, taking into consideration the shared goals for the landscape, the landscape zoning and the capacity or mandate of each stakeholder.¹⁶

EXAMPLES OF ACTIONS LEADING TO SUCCESSFUL IMPLEMENTATION

Below we highlight elements associated with some successes in implementing commitments in a landscape or jurisdiction. These examples flag some important actions for companies and governments. However, there are also actions for other stakeholders, such as the role of NGOs for convening and informing, as well as the role of farmers in adopting more sustainable practices.

i) Supply chain engagement

Companies need to engage with their suppliers across the entire supply chain to facilitate the implementation of deforestation/conversion-free commitments. They should provide support to suppliers, such as training and extension services, access to markets, financial support for transition to sustainable agricultural practices and purchase agreements.¹⁷ The [Accountability Framework](#) is a valuable tool to guide supply chain engagement, providing guidance to companies on how to develop and implement ethical supply chain commitments, including

¹⁴ Sukri, W., et al. 2020. Sintang district, West Kalimantan. In: C. Stickler et al. (eds.). [The state of jurisdictional sustainability](#). Earth Innovation Institute.

¹⁵ Ibid, p.1.

¹⁶ WWF and Proforest, op. cit., p. 90.

¹⁷ WWF and Proforest, loc. cit.

smallholder inclusion. The support provided to smallholders is of great importance, especially where they dominate the supply market (e.g. palm oil producers in Indonesia or cocoa producers in Côte d'Ivoire). A good example is the work led by Unilever in partnership with local governments and NGOs in jurisdictional programmes providing training, support for certification and access to markets to [palm oil smallholders in Indonesia](#), and similarly in [Malaysia](#), in collaboration with Walmart. Large consumer goods companies have also partnered with the government in Sabah, Malaysia and have brought new ideas to extend RSPO certification to smallholders and medium-sized growers.¹⁸ Another example is how Olam, in partnership with Rainforest Alliance, has implemented [climate-smart agriculture projects in cocoa farms in Ghana](#), resulting in improved livelihoods for farmers, increased sustainable production and reduced emissions.

ii) Traceability and transparency – monitoring systems and tools

It is challenging to achieve full traceability and hold actors accountable in complex global supply chains, mostly due to the lack of transparency from traders, manufacturers and retailers. There are often many links along the supply chain where traceability can be lost. For example, in the palm oil sector, traceability must go back further to refineries, mills, fresh fruit bunch suppliers and, finally, plantations.

Increasing the levels transparency and traceability in supply chains is therefore critical. The use of remote-sensing monitoring systems and freely available data can help fill this gap. For instance, since the establishment of national monitoring systems in Brazil in the early 2000s, it has been possible to monitor deforestation/conversion. This data has helped improve levels of law enforcement,

contributing to an overall reduction in deforestation/conversion rates between 2005 and the early 2010s in the Brazilian Amazon.^{19,20} Unfortunately, deforestation/conversion rates in Brazil have subsequently increased as a result of political changes. Moreover, Brazil's National Institute for Space Research (INPE) which operates the PRODES deforestation/conversion satellite monitoring systems in both the Amazon and Cerrado is facing an uncertain future amid budget cuts and changes to its organisational structure.²¹ In the absence of federal support, securing external funding for this vital monitoring in key at-risk landscapes must be a priority.²²

The Environmental Defense Fund has provided a [summary of traceability tools](#) which companies, governments and civil society groups can use, alone or in combination with other tools, to monitor any risks or links to deforestation and conversion in commodity supply chains. The Accountability Framework has also established [regional guidance](#) for advancing deforestation-free and conversion-free supply chains in the Brazilian Amazon and Cerrado, and in the Gran Chaco of Argentina and Paraguay, which is being implemented by companies locally. This guidance recommends the use of [Mapbiomas](#) (a freely available tool developed by civil society and academia) for tracking deforestation and conversion in these areas, and [VISIPEC](#) (a tool to enhance traceability and deforestation monitoring via indirect suppliers in Brazilian cattle supply chains). Other consumer-facing tools can provide greater transparency about the environmental credentials of products, which can drive change in consumer demand. For example, the [WWF Palm Oil Scorecard](#) rates major food retailers, consumer goods manufacturers and food service companies based on a variety of criteria measuring action and impacts relating to palm oil in their supply chains.

SECURING EXTERNAL FUNDING FOR MONITORING IN KEY AT-RISK LANDSCAPES MUST BE A PRIORITY

18 WWF. 2017. [Tackling deforestation through a jurisdictional approach](#).

19 Union of Concerned Scientists. 2014. [Deforestation success stories](#).

20 Nepstad et al. 2014. Op. cit.

21 Gonzalez, J. 2020. [Brazil moves toward transfer of deforestation and fire monitoring to military](#). Mongabay

22 Gonzales, J. 2019. [Brazil adds deforestation monitoring for all biomes, so long as money lasts](#). Mongabay.



iii) Strong and well-enforced environmental laws

A strong forest or environmental law in producer countries is critical to provide a clear framework for action and ensure accountability. But robust legal frameworks only work if they are well implemented and enforced. Evidence from studies across the globe shows that a weak or poorly enforced forest law is usually associated with high deforestation or conversion rates.²³ There are, however, few publicly available examples of strong and well-enforced forest legislation. Brazil's [Forest Code](#) is one of the best-known forest laws among the main producer countries but its enforcement remains a challenge. Key components that helped reduce deforestation rates in Brazil in the early 2010s were freely available geospatial data and the ability to corroborate deforestation events in near real time (e.g. registry of rural farms – the Brazilian Rural Environmental Registry known as CAR in Portuguese, satellite monitoring systems such as [PRODES](#)). These were coupled with the right processes, resources and tools to enforce the law, including through empowerment of the competent authorities to apply penalties, and sufficient funding to environmental agencies.²⁴ In Indonesia, the three-consecutive-year decrease in the rate of primary forest loss between 2016 and 2019 has been attributed to a number of policies including increased law enforcement to prevent forest fires and land clearing, and a moratorium on clearing for oil palm plantations and logging.²⁵

In consumer countries, legislation ensuring high environmental and social safeguards on trade can help increase demand for sustainable products. Examples include the European Timber Regulation (EUTR), which prohibits illegally logged timber from entering the EU market, the equivalent UK Timber Regulation, and the French *Devoir de vigilance* (due diligence) law, which requires companies to ensure that their supply chains are not associated with environmental damage or human rights abuses. Other European countries and the state of California are considering implementing legislation similar to the French law. As part of its [new plan to tackle deforestation](#), the EU has consulted on legislation and other measures to stop trading products associated with deforestation. The UK is in the process of establishing a due diligence law to stop the trade and use in the UK of products that have not been produced according to the laws of the producer country. Lessons from the EUTR have shown that supply chain engagement has improved, and improved checks have made it harder to export timber to the EU without the assurance that it has been harvested legally.²⁶ Nevertheless, a recent study has shown that there is still a long way to go to ensure illegal timber is not sold in the EU market.²⁷ We are yet to learn from the impacts of the French due diligence law but there are some indications of improvements in supply chain engagement and transparency.²⁸

AS PART OF ITS NEW PLAN TO TACKLE DEFORESTATION, THE EU HAS CONSULTED ON LEGISLATION AND OTHER MEASURES TO STOP TRADING PRODUCTS ASSOCIATED WITH DEFORESTATION

CREATING A STRONG DISINCENTIVE REQUIRES WIDE ADOPTION OF THE MARKET INTERVENTION AMONG BUYERS TO AVOID LEAKAGE OF UNSUSTAINABLE PRODUCTS TO OTHER MARKETS



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DEFORESTATION OF THE AMAZON RAINFOREST,
IN MAJES, ON DECEMBER 11, 2020.

iv) Supply chain market interventions

Market interventions can be effective in reducing deforestation where they create a strong, instant disincentive by making it difficult and expensive to sell products grown on recently cleared land. Such interventions can be especially useful where there is limited political commitment at the local or national government levels. Creating a strong disincentive requires wide adoption of the market intervention among buyers to avoid leakage of unsustainable products to other markets. As such, in most cases, market interventions work best in conjunction with other measures such as government policy.

The Amazon Soy Moratorium is a well-known successful example of a voluntary market-led initiative that has resulted in significant reductions in soy-driven deforestation in the Brazilian Amazon.²⁹ Driven by a strong and well-organised civil society movement, the Brazilian soy industry and international buyers agreed not to source, trade

or finance soy produced on recently deforested land (the cut-off date³⁰ at the moment states that no deforestation is permitted after 22 July 2008, as established by the Brazilian Forest Code). The moratorium was later supported by the Brazilian government, and a number of other policies were implemented in parallel. As a result, a decline in deforestation rates in the Amazon of ~60-70% was recorded in the early 2010s.³¹ Similarly, the [Cattle Agreements](#) (G4 and MPF-TAC), established in Pará state in Brazil following pressure from international retailers, NGOs and the national government, also supported efforts in reducing deforestation in the Amazon.³²

While both market-led initiatives had substantial successes in temporarily reducing deforestation in the Amazon, conversion increased significantly in the adjacent Cerrado biome – the world's richest savannah. A holistic view must be taken in future initiatives to avoid unintended consequences such as leakage to neighbouring biomes.

23 Busch, J., & Ferretti-Gallon, K. 2017. What drives deforestation and what stops it? A meta-analysis. *Review of Environmental Economics and Policy*, 11(1), 3-23.

24 Nepstad et al. 2014. Op. cit.

25 Weisse, M. and Goldman, E.D. 2020. [We lost a football pitch of primary rainforest every 6 seconds in 2019](#). World Resources Institute.

26 Brack, D. and Ozinga, S. 2020. [Enforcing due diligence legislation 'plus'](#). FERN.

27 WWF. 2019. [WWF enforcement review of the EU Timber Regulation \(EUTR\)](#).

28 Brack and Ozinga. 2020. Op. cit.

29 Nepstad et al. 2014. Op. cit.

30 The cut-off date is the date after which no land clearance is permissible.

31 Nepstad et al. 2014. Op. cit.

32 Gibbs, H. et al. 2015. Did ranchers and slaughterhouses respond to zero-deforestation agreements in the Brazilian Amazon? *Conservation Letters* 9(1): 32-42. doi: [10.1111/conl.12175](#)

KEY ELEMENTS THAT ENABLE ACTION AND ACCELERATE PROGRESS

Landscape and jurisdictional initiatives are necessarily complex, and take considerable time, planning and resources before they can deliver their intended outcomes. There are many landscape programmes in their early stages which require additional support (financial and technical) and resources to enable implementation and accelerate progress. Where an initiative has been established and identified as having some or all the key elements identified above, a closer focus on the following catalysts could help accelerate existing efforts, implement planned programmes and ensure the long-term delivery of sustainable landscape goals.



GOVERNANCE

Any successful landscape or jurisdictional programme requires good governance.³³ A government-led body or a committee formed by partner institutions should be designated, with representation and broad participation from civil society and ideally holding a certain level of autonomy and the mandate to coordinate and hold stakeholders accountable. Participatory governance involving representatives of local stakeholders is critical to ensure that the challenges and opportunities for those most affected are included in the decision-making process and to ensure active implementation of the roadmap for action agreed by all members. As mentioned above, governance through a multi-stakeholder platform including representatives of the various interest groups within a landscape is important for ensuring affected stakeholders have a voice and securing their buy-in, reducing the likelihood of future conflicts.

MARKET DEMAND

Market influence, both locally and internationally, is critical to create the right signals to incentivise sustainable production. Given their buying power and the close dependence between large-scale commodity production and international markets, the role of buyers in setting environmental standards to fulfil their no deforestation/conversion commitments is very important. Markets can also accelerate changes as new requirements and standards can be put in place much faster than through legislation. By implementing no deforestation/conversion policies across their entire supply chains, large international companies can move a significant number of producers towards sustainable production. Good examples of these initiatives are the above-mentioned Amazon Soy Moratorium and Cattle

Agreements. Although these would not have reduced deforestation without other complementary command and control measures, they have nonetheless increased the pressure on deforesters and driven demand for products that are not associated with deforestation. Similarly, no-deforestation, no-peat and no-exploitation (NDPE) policies have increasingly been adopted by large palm oil and food companies, with early evidence suggesting that a significant number of palm oil growers and companies are halting forest clearing in order to comply.³⁴

To incentivise action from markets, the UK government and other consumer countries can also use the power of their procurement policies, which can be easily amended to secure high standards and safeguards in the products procured. This is a way of sending signals to markets and driving up the demand for sustainable products. The UK government [timber procurement policy](#) and [sustainable palm oil target](#) are good examples of initiatives that could help increase the demand for sustainable products. Although both have issues of implementation that [still need to be addressed](#), these two policies have helped raise awareness and drive further commitments and demand for sustainable timber and palm oil in the UK.

As the examples mentioned here show, initiatives are already under way in many producer countries that highlight best production practices. In many cases the know-how and willingness exist, but they depend on clear market signals in order to gain scale and achieve wider social and environmental impacts at the landscape level. For example, recent analysis on the effectiveness of jurisdictional approaches in Indonesia has highlighted the need for strengthening market incentives for performance in reducing deforestation through preferential commodity sourcing or green finance.³⁵

IN MANY CASES THE KNOW-HOW AND WILLINGNESS EXIST, BUT THEY DEPEND ON CLEAR MARKET SIGNALS IN ORDER TO GAIN SCALE AND ACHIEVE WIDER SOCIAL AND ENVIRONMENTAL IMPACTS AT THE LANDSCAPE LEVEL

³³ Defined here as governance that is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law, according to www.unescap.org/sites/default/files/good-governance.pdf

³⁴ Efeca. 2020. Palm Oil Sustainability: NDPE. www.efeca.com/wp-content/uploads/2020/03/Certification-Scheme-NDPE-Infobriefing-5-Part-4-Final.pdf

³⁵ Seymour et al. 2020. Op. cit.

FINANCE

Long-term finance should be secured for landscape and jurisdictional initiatives to provide stability and allow for programme implementation and continuity, ideally at least for long enough to demonstrate initial outcomes. Combining different finance sources and models across the landscape, in a coordinated way, can ensure appropriate finance mechanisms are used for each activity/intervention and that they all contribute to achieve wider goals in the landscape. Although still relatively new, the idea of a finance plan across the entire landscape is a promising approach and can support long-term resilience and increase impact³⁶ as well as reducing the financial risks and improving returns.³⁷

Finance can come in many forms. It may include incentives to farmers to adopt sustainable agricultural practices, for achieving certification or for using degraded areas for agricultural production, or be in the form of payment for ecosystem services from conservation and restoration activities beyond what is required by law (e.g. REDD+). Other forms of long-term finance include government grants (e.g. from the Global Environment Facility, the UK Partnering for Accelerated Climate Transitions (PACT) programmes with Argentina and Brazil, and the UK PACT Green Recovery Challenge Fund) as well as loans or bonds for green businesses (e.g. [Tropical Landscape Finance Facility](#), [Green Climate Fund](#)). Ideally, different sources of finance should be combined in a way that collectively supports the entire landscape programme over the long term to reduce financial risks and achieve landscape goals.³⁸

i) Examples of promoting public and private blended finance

Much of the current funding for stopping deforestation and supporting conservation comes from public or philanthropic funds. For example, international investments through REDD+ (including the Amazon Fund) have provided incentives to reduce

deforestation and strengthen conservation efforts in the Amazon.³⁹ These are usually provided by large international donors such as the governments of Norway or Germany, as well as producer countries' national governments. However, governments can often provide only a fraction of the amount needed, so harnessing private finance is vital. To ensure wider benefits across landscapes, more traditional programmes like REDD+ need to be complemented by other longer-term non-refundable payments and a portfolio of activities that can generate financial returns. These should ideally be embedded in a wider long-term finance plan for the landscape.

[Blended funds](#) can combine the power of development finance and private capital to reduce risks and increase opportunities for private investors, while advancing the agreed goals for a landscape. For example, the [Green Fund](#), a strategic partnership between the Norwegian government, Unilever and IDH Sustainable Trade Initiative, aims to de-risk and trigger private investments into deforestation-free agriculture to reduce tropical forest loss and peatland degradation in countries including Brazil, Colombia, Peru and Indonesia. The fund recently granted a US\$30 million loan, and catalysed a further US\$100 million from institutional investors, as part of a 10-year [partnership with palm oil company DSNG](#). The partnership aims to meet international sustainability standards like NDPE and incorporate third-party suppliers in a traceable no-deforestation supply chain in Kalimantan, Indonesia. Another blended finance example is the Unlocking Forest Finance project funded by the German government which combines private investments with public co-finance to invest in a portfolio of 'transition activities' in Acre and Mato Grosso in Brazil and San Martin in Peru. This initiative helped to overcome the mismatch between the financial requirements of commercial investors and the reality of on-the-ground investment opportunities in sustainable landscape initiatives, which tend to require greater technical assistance, monitoring and enforcement of environmental standards to be successful.⁴⁰

A FINANCE PLAN ACROSS THE ENTIRE LANDSCAPE CAN SUPPORT LONG-TERM RESILIENCE AND INCREASE IMPACT

36 Dudley et al. 2020. Op. cit.

37 Shames, S., and Scherr, S.J. 2020. [Mobilizing finance across sectors and projects to achieve sustainable landscapes: Emerging models](#). Washington, DC: EcoAgriculture Partners.

38 Dudley et al. 2020. Op. cit.

39 Boucher, D., Roquemore, S. and Fitzhugh, E. 2013. Brazil's success in reducing deforestation. *Tropical Conservation Science* 6(3): 426-445. doi: [10.1177/194008291300600308](#)

40 Rode, et al. 2019. [Why 'blended finance' could help transitions to sustainable landscapes: Lessons from the Unlocking Forest Finance project](#). *Ecosystem Services* 37: 100917.



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HERDING CATTLE AT EL CACHEPÉ RANCH AND WILDLIFE REFUGE, NORTHERN ARGENTINA.

Banks can also support blended finance approaches through direct investment or the provision of financial services. Rabobank, as one of the biggest funders of the agri-food sector, has been involved in a range of blended finance approaches to drive sustainable production, including establishing the [AGRI3 Fund](#) in 2020 with the United Nations Environment Programme, the Dutch development bank FMO and IDH. The fund is aiming to unlock at least US\$1 billion towards deforestation-free, sustainable agriculture and on-farm reforestation. While it is still too early to see the impacts of the fund, this mobilisation of public and private capital goes some way towards narrowing the financing gap in the transition to sustainable agriculture.

The UK has a key role in convening private sector and other actors and enabling the creation of these initiatives. The [Responsible Commodities Facility](#) is a positive UK-led example that promotes sustainable soy production and trade, through financial incentives given to farmers who commit to use degraded areas in the Cerrado.

WHAT NEXT?

MONITORING AND ADAPTIVE MANAGEMENT

The shared roadmaps for action and programmes' governance, among other elements, should be periodically monitored and adapted to ensure progress towards the landscape's goals. This may require a review period and a second round of multi-stakeholder discussions to agree on changes to the roadmap and individual actions. Jurisdictional monitoring tools have emerged which provide a number of indicators to measure progress towards landscape sustainability goals, such as the [Terpercaya Initiative](#) in Indonesia, developed through a multi-stakeholder advisory committee. A number of adaptive management frameworks can be used to assess the effectiveness of the project on the ground, but the key aspect is to establish a detailed and continued monitoring system that allows accurate assessment of implementation and facilitates decision-making in case changes are required.⁴¹

41 Williams, B. and Brown, E. 2013. Adaptive management: From more talk to real action. *Environmental Management* 53: 465-479. doi: [10.1007/s00267-013-0205-7](#)

CRITICAL PRODUCER LANDSCAPES

We used the following broad criteria to identify critical landscapes:

1. Level of risk of deforestation, conversion and other threats to the environment and people due to commodity production;
2. Importance in terms of biodiversity, water resources and carbon storage;
3. UK leverage to drive change in the region (e.g. trade, political links, other partnerships)

List of critical countries and landscapes under risk* of deforestation and conversion from commodity production

Argentina (Chaco)
 Brazil (Amazon and Cerrado)
 Indonesia (West Kalimantan)
 Côte d'Ivoire
 Malaysia (Sabah)
 Nigeria
 Papua New Guinea
 Paraguay
 China
 Colombia
 Ghana
 Peru

*According to WWF and RSPB's 2020 Riskier Business and WWF's 2021 Deforestation Fronts reports.

First, we used data from the [Riskier Business report](#) to identify key countries around the world with high rates of deforestation or conversion that are important trade partners with the UK for the following seven commodities: cattle and leather, cocoa, palm oil, pulp and paper, rubber, soy, and timber. Among those countries where the production and trade in these commodities is high or very high risk,⁴² we identified the following eight tropical and subtropical countries: Argentina, Brazil, Indonesia, Côte d'Ivoire, Malaysia, Nigeria, Papua New Guinea, Paraguay, and China. We have also included Ghana, classified as medium risk in the Riskier Business report, because of its significant trade links with the UK and its importance in terms of remaining biodiversity and carbon resources.

Second, through further literature research we identified those countries whose main agricultural products, although not among the seven commodities studied in the Riskier Business report, are also significant in the global market, that are of high importance for nature conservation and restoration globally, and where the UK would have some leverage to drive further action towards sustainable supply chains. This added Colombia and Peru. The former two countries have been identified in WWF's recent 2021 Deforestation Fronts report as the location of key deforestation fronts⁴³.

For some countries, trends and drivers differ significantly from region to region. In these cases, we focus on biomes or specific landscapes, as a way to more easily describe key drivers and suggest responses.

Below we provide a selection of eight key countries or landscapes and provide some further details on key deforestation or land conversion trends:

⁴² We assigned a risk score to each UK sourcing country, based on its deforestation/conversion rates according to Global Forest Watch and the Food and Agriculture Organization, labour rights according to the International Trade Union Confederation and rule of law indices according to the World Bank. These countries showed scores from 9-10 = high risk, or 11-12 = very high risk. For further details, [please refer to the publication](#).

⁴³ Pacheco, P. et al. 2021. [Deforestation Fronts: Drivers and responses in a changing world](#). WWF, Gland, Switzerland.

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 ONE OF THE THOUSANDS OF NEW FIRES DETECTED
 ACROSS THE AMAZON RAINFOREST BASIN IN 2019.



BRAZILIAN AMAZON

The Brazilian Amazon makes up around 70% of the entire Amazon, which holds 10–15% of the world's known terrestrial biodiversity⁴⁴ and 15% of all fresh water. It provides [valuable and irreplaceable ecosystem services](#), including climate change mitigation and water supply. It is also home to thousands of indigenous peoples. The Brazilian Amazon is under threat due to livestock, agriculture and infrastructure projects. Despite a 70% reduction in deforestation rates a decade ago due to strong command and control measures ([Action Plan for the Prevention and Control of Deforestation in the Legal Amazon – PPCDAm](#)), deforestation has accelerated in recent years, reaching over 1.1 million hectares in the past year – the highest in the past 12 years.

Pará state was identified as the second largest exporter of soy to the UK according to the Riskier Business report. It was also identified as having the [highest deforestation rate](#) of any state in the Amazon in the 12 months up to July 2020. In Pará, a comparison of two municipalities' efforts to reduce deforestation has highlighted strong municipal government leadership, political stability and capacity to coordinate and operationalise different sectoral policies as key factors that can help (or hinder) progress in the region.⁴⁵

44 Nobre, C. et al. 2016. [Land-use and climate change risks in the Amazon and the need of a novel sustainable development paradigm](#). PNAS 113 (39): 10759–10768.

45 Brandão et al. 2020 Lessons for jurisdictional approaches from municipal-level initiatives to halt deforestation in the Brazilian Amazon. [Frontiers in Forests and Global Change](#) 3(96).

CERRADO, BRAZIL

The Cerrado, much less known than the Amazon, is another biodiversity hotspot, consisting of a complex mosaic of grasslands, savannahs and forests spanning nearly 200 million hectares (an area four times the size of the UK). It is the most diverse tropical savannah in the world,⁴⁶ home to more than 12,000 plant species, 856 species of birds and 466 species of reptiles and amphibians – roughly [a third of all plant species found are endemic](#), meaning they can only be found there. Ecosystem services provided by the Cerrado are important not only for securing the survival of wildlife in the region, but also the stability of the regional and global climates through its large carbon storage capacity and water supply.^{47, 48} As in the Amazon, negative impacts in the Cerrado would also impact the productivity of the large-scale agriculture established the region – ultimately representing a threat to food security.⁴⁹ The Cerrado has lost more than half of its original vegetation cover. Despite apparently decreasing deforestation trends, the biome remains under threat because it is much less protected than the Amazon (lower legal requirements, lower percentage as conservation units) and land control largely lies in the hands of private farmers.

Our Riskier Business report revealed that the UK sources significant volumes of soy produced in the region. In particular, the states of Mato Grosso and Bahia are major producer regions exporting soy to the UK, and experience high rates of deforestation and land conversion. Mato Grosso has accounted for 16% of the deforestation in the Cerrado (the highest level of any state) over the last two decades; almost all the deforestation between 2012 and 2017 was illegal.⁵⁰ The 'Soy from Mato Grosso' case study in Riskier Business gives further details. After Pará, Mato Grosso was the state with the [second highest rate of deforestation](#) between August 2019 and July 2020.

KALIMANTAN, INDONESIA

Kalimantan is the Indonesian part of the island of Borneo, a global biodiversity hotspot known for its unique wildlife including the Bornean orangutan. The region also has extensive areas of peat swamp, which are vital for carbon storage. Kalimantan as a whole has experienced high rates of deforestation in recent years. WWF's Deforestation Fronts report records that deforestation is slowing in West and Central Kalimantan, but increasing in East Kalimantan with oil palm plantations emerging as the primary cause in the past two decades.⁵¹

West Kalimantan province has experienced high rates of deforestation and conversion in the past decade. This not only threatens the local biodiversity but also contributes to, among other issues, global climate change given the large CO₂ emissions caused by peatland conversion. The Riskier Business report highlighted that the UK sources significant volumes of palm oil from Indonesia (42% of total UK palm oil imports). Despite finding limited data on the direct links from Indonesian plantations to the UK market, we identified indirect links between UK financial institutions and oil palm companies across Indonesia and in West Kalimantan that have been associated with deforestation and land conversion in the region.⁵²

Central Kalimantan province is the biggest palm oil producer in Kalimantan and makes up 10.5% of palm oil land coverage [in Indonesia](#). From 2002 to 2019, Central Kalimantan lost 3.38 million hectares (around 24%) of its tree cover, almost half of which was humid primary forest.⁵³

East Kalimantan province has already lost more than half of its original forest cover.⁵⁴ Unsustainable oil palm production has also led to conflict with local communities like the Dayak, as plantations encroach on the traditional lands of people whose livelihoods, health and culture are tied to the forest. As noted above, the UK sources 42% of total palm oil imports from Indonesia, and there are supply chain links in East Kalimantan as well.

46 Colli, G.R., Vieira, C.R. and Dianese, J.C. 2020. Biodiversity and conservation of the Cerrado: recent advances and old challenges. *Biodiversity and Conservation* 29: 1465–1475. doi: [10.1007/s10531-020-01967-x](#)

47 Nepstad, D. et al. 2014. Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains. *Science* 344(6188): 1118–23. doi: [10.1126/science.1248525](#)

48 Resende, F. et al. 2019. Consequences of delaying actions for safeguarding ecosystem services in the Brazilian Cerrado. *Biological Conservation* 234 : 90–99. doi: [10.1016/j.biocon.2019.03.009](#)

49 Gomes, L. et al. 2019. Agricultural expansion in the Brazilian Cerrado: Increased soil and nutrient losses and decreased agricultural productivity. *Land* 8(1): 12. doi: [10.3390/land8010012](#)

50 Vasconcelos, A. et al. 2020. [Illegal deforestation and Brazilian soy exports: the case of Mato Grosso](#). Trase issue brief.

51 Pacheco, P. et al. 2021. *Deforestation Fronts: Drivers and responses in a changing world*. WWF, Gland, Switzerland. p. 120.

52 WWF-UK and RSPB. 2020. [Riskier Business: The UK's overseas land footprint](#).

53 Global Forest Watch Dashboard: Kalimantan Tengah Summary. [www.globalforestwatch.org](#)

54 Stickler et al. 2020. The state of jurisdictional sustainability: Synthesis for practitioners and policymakers. Earth Innovation Institute, p. 4.

CÔTE D'IVOIRE

Côte d'Ivoire once had the highest biodiversity in West Africa, with over 1,200 species of animals and 4,700 species of plants – of which about 16% can only be found there. The country has lost 349,000 hectares of natural primary forests in the past two decades (2001-2019) and deforestation for commodity production (primarily cocoa) continues apace, despite a slight reduction in rate since 2017.⁵⁵ The UK is one of the main cocoa consumers in Europe, responsible for 9% of the global land footprint for cocoa. The Riskier Business report found that more than half of the cocoa imported to the UK (2016-2018) was produced in Côte d'Ivoire.

Limited detailed data is available on which companies are exporting directly from Côte d'Ivoire to the UK and which subnational jurisdictions are producing the cocoa that enters the UK.⁵⁶ However, some of it is likely to come from the Cavally region, in the west of the country. The region has around [60% remaining forest cover](#) and is home to several endangered species including chimpanzees, forest elephants and pygmy hippos. Unfortunately, cocoa production – much of it illegal – as well as logging and immigration, are accelerating deforestation, including of classified public forest land.⁵⁷ There has been some movement to tackle deforestation and other impacts linked to supply chains in the region. For example, the recent [Cocoa and Forests Initiative](#) (CFI) launched by HRH the Prince of Wales has selected Cavally as a pilot region. CFI brings together leading companies in the cocoa supply chain and the governments of Ghana and Côte d'Ivoire to seek to end deforestation and drive forest restoration in these countries.



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⁵⁵ Global Forest Watch

⁵⁶ WWF-UK and RSPB, op. cit., p. 104

⁵⁷ Solano, D. & Simonet, G. 2018. "Cavally, Côte d'Ivoire". In C. Stickler et al. (Eds.). [The State of Jurisdictional Sustainability](#). Earth Innovation Institute.

GRAN CHACO, ARGENTINA, BOLIVIA AND PARAGUAY

The Gran Chaco is South America's second largest forest ecosystem after the Amazon rainforest. Lying between the Andes to the west and the Brazilian Plateau to the east, the Gran Chaco is a living tapestry of diverse plains, salt flats, marshes, woodlands and scrublands. It includes the largest remaining intact forest landscapes within Argentina. Despite legislation in place, illegal and legal deforestation continues apace in the region, driven by soy and beef production.

The Riskier Business report demonstrates that, alongside Brazil, the UK is highly dependent on soy from Argentina, and to a certain extent from Paraguay. Between 2011 and 2018, roughly 45% of the UK's soy land footprint was located in the latter two countries. While there are significant traceability and transparency challenges within the soy industry, it is possible that up to 20% of UK soy from Argentina is sourced from within the Gran Chaco⁵⁸ and, therefore, may be associated with high deforestation and conversion risks.

⁵⁸ According to the [UK Roundtable on Sustainable Soya](#).



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EL CACHEPÉ RANCH AND WILDLIFE REFUGE, LA EDUVIGIS,
GRAN CHACO REGION, NORTHERN ARGENTINA.

GHANA

Ghana, like Côte d'Ivoire, is part of the Upper Guinea tropical rainforest biodiversity hotspot. It is home to many vulnerable and endangered species such as the pygmy hippopotamus and chimpanzee and more than 20 unique species of birds. Cocoa expansion is the biggest driver of deforestation in Ghana, accounting for more than a quarter of forest loss between 1990 to 2008. From 2000 to 2018, more than one million hectares of Ghana's tree cover was lost – an area half the size of Wales – pumping nearly 300 million tonnes of CO₂ into the atmosphere. Most of it was replaced by cocoa crops. Alongside the deforestation, thousands of kilometres of new roads have been built, placing precious wildlife within easier reach of poachers. Without action, Ghana stands to lose its remaining forests outside its national parks in only a few years.

COLOMBIA

Colombia has the third largest expanse of Amazon rainforest and is the second most biodiverse country in the world. The primary cause of deforestation is cattle ranching, with 18% of the total Colombian cattle herd located in the Amazon region.⁵⁹ Secondary causes include smallholder farming, often linked to the expansion of coca cultivation, with around 27% of production located in the arc of deforestation.⁶⁰ Colombia also has a growing oil palm industry, and is the fourth largest producer of palm oil in the world.

Although UK imports of key forest risk commodities (beef, cocoa and palm oil) are relatively small, ensuring sustainable production in Colombia is critical to meeting global climate and biodiversity targets. Colombia has demonstrated strong political will to secure sustainable supply chains, committing to zero deforestation agreements for palm oil and cocoa,⁶¹ and more recently [beef and dairy](#). The UK and Colombia are [already collaborating](#) on reducing emissions from deforestation and protecting Colombia's unique biodiversity. However, wider collaboration with other consumer countries will be essential to secure continued incentives in the long term and avoid leakage of unsustainable products to other markets

⁵⁹ Pacheco, P. et al. Op. cit. p. 80

⁶⁰ Ibid.

⁶¹ IUCN and Climate Focus. 2020. Greater climate action through public-private collaboration on forest landscape restoration: Case study of advances in Colombia. www.iucn.org

MALAYSIA

Malaysia is one of the world's megadiverse areas, ranking 12th in the world on the National Biodiversity Index. Malaysia has an estimated 15,000 species of vascular plants, 306 species of mammals, 742 species of birds, 242 species of amphibians, 567 species of reptiles and 449 recorded species of freshwater fish.⁶² Malaysia lost 485,000 hectares of tree cover per year on average between 2016 and 2018, with commodity-driven deforestation responsible for approximately 90% of tree cover loss in that period.⁶³ Although this may include other non-forest land uses, palm oil is by far the main agricultural crop. Malaysia is the [second biggest global producer of palm oil](#) after Indonesia.

In the Malaysian state of Sabah, in the northern portion of Borneo, [WWF's Living Landscapes Programme](#) has been working with government on its commitments to certify all palm oil to RSPO standards by 2025, ensure no further deforestation for palm oil expansion and increase protected area coverage to 30% of Sabah's land.

⁶² [Convention on Biological Diversity Country Profiles: Malaysia](#)

⁶³ [Global Forest Watch](#)

CHALLENGES AND OPPORTUNITIES

The following is a compilation of the key factors and processes that present both challenges and opportunities for the UK and partner countries in order to tackle deforestation and land conversion during 2021 and years ahead. It will be important to act swiftly and take decisions that secure mutual benefits for the UK and the countries it collaborates with in addressing this global problem.

COVID-19 IMPACTS

Even though vaccination programmes are under way in the UK and around the world, there is no clear timeline for when we will be able to return to a certain 'normality'. The economic impacts are likely to persist for years. This will affect many countries' abilities to continue and implement projects on the ground and to preserve their remaining natural resources, given the limited resources available to enforce laws and the increased pressure on remaining biodiversity due to losses of livelihoods.

GREEN RECOVERY PLANS

Environmental issues must be kept at the heart of the UK's and other countries' economic recovery plans after Covid-19. While the UK Prime Minister recently announced a 10-point plan for a green industrial revolution, it did not set clear plans for the food industry or the UK's overseas footprint. The outcomes of Part 2 of the National Food Strategy review, expected by Summer 2021, may provide an opportunity to target specific industries/geographies for action or channelling funds to address the footprint of the food industry, for example by increasing the share of climate finance allocated for nature-based solutions.

UK TRADE POLICY AND AGREEMENTS

Environmental and social safeguards and high standards should be implemented to ensure that products imported into the UK are produced sustainably and do not lead to deforestation/conversion and other negative environmental and social impacts. The UK and future trade partners should align their trade policies and agree on trade deals that protect the environment and exclude any human rights violations. In order to prevent these risks, the UK government (and other countries) should commit to a sustainable trade policy which sets out how it plans to align trade with the protection of the environment and other priorities, by adopting a set of core environmental standards that would apply to all products consumed in the UK, whether domestically produced or imported. For example, the UK's upcoming negotiations for accession to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) must not undermine the UK's commitment to high environmental, animal welfare and labour standards. Joining the CPTPP would mean greater market access to the UK for palm oil and other high forest-risk commodities from countries like Malaysia and, subject to their accession, Indonesia and Colombia.



**ENVIRONMENTAL ISSUES MUST
BE KEPT AT THE HEART OF THE
UK'S AND OTHER COUNTRIES'
ECONOMIC RECOVERY PLANS
AFTER COVID-19**

COUNTRIES SHOULD RAISE THEIR AMBITION AND STEP UP THEIR ACTION TOWARDS HALTING DEFORESTATION IN A COLLABORATIVE WAY

BREXIT AND UK-EU FUTURE RELATIONSHIP

A UK trade agreement with Mercosur may represent an issue to the UK-EU relationship, due to the soaring deforestation and conversion rates in South America, especially in Brazil, Colombia, Argentina and Paraguay (many of which are major global soy producers).

The EU has been in the forefront of sustainable supply chains and trade in recent years. For example, the [EC's communication on stopping imported deforestation and supporting nature conservation and restoration](#), the [EC biodiversity announcement](#), the strong support for due diligence ([EP resolution](#) for due diligence framework, para.71; [EC's consultation on measures to tackle imported deforestation](#); report by the [EU parliament in support of due diligence legislation](#)) all demonstrate the EU's commitment to halt deforestation from supply chains. The UK and some other countries are following similar trends but should raise their ambition and step up their action towards halting deforestation in their own supply chains in a collaborative way.

UK-US COLLABORATION

The election of the new US president, Joe Biden, offers a number of opportunities for bilateral cooperation on deforestation and sustainable supply chains and trade. Biden has re-joined the US to the Paris Agreement and made tackling deforestation in the Amazon a priority for his administration, proposing to provide [US\\$20 billion to protect the Amazon](#). This agenda may spur action by US and global companies and investors with supply chain links to the Amazon and [raise international ambition](#) in the lead up to CoP26. It is a moment to use the strong US support for addressing climate change and work together in actions to tackle deforestation.

INTERNATIONAL CLIMATE FUNDING AND OTHER UK AID

The UK has [increased its contribution to international climate finance](#) to £11.6 billion over the next five years (until 2026), along with other official development assistance (ODA) for projects in key landscapes.⁶⁴ Moreover, the recent UK's commitment to use £3 billion of this climate finance to support projects that help preserve and restore biodiversity is welcome. This funding should be channelled to key biodiversity hotspots and combined with other climate funding to support the transformation of food production systems and forest management, and to invest in nature-based solutions for climate change, especially in landscapes that are under high risk of destruction. The recently announced cut of the UK foreign aid budget from 0.7% to 0.5% of gross national income is unfortunate and will impact the ability of lower income countries to recover. Ways to raise this lost ODA budget through other sources or international collaboration should be considered.

CONSUMER COUNTRY COLLABORATION

Collaboration with other key consumer countries sourcing from the same producer landscapes as the UK is critical to agree on demand-side measures to tackle deforestation and avoid leakage. Examples of key countries include China, the EU and the Amsterdam Declaration countries sourcing soy from Brazil, as well as India and China sourcing palm oil from Indonesia and Malaysia.

COUNTRY COMMITMENTS TO SUSTAINABILITY

Commitments to sustainability should be acknowledged and leveraged as benchmarks to raise ambitions in the FACT Dialogue and in the lead up to the CBD conference. For example, the Malaysian government's [commitment](#) to maintaining 50% of its total land mass as natural forest cover in perpetuity, Indonesia's [National Action Plan for Sustainable Palm Oil](#) or Côte d'Ivoire's commitment to end deforestation and forest degradation in the cocoa sector through the [Cocoa & Forests Initiative](#).

UNFCCC COP26 AND THE FACT DIALOGUES

The government to government FACT Dialogue on sustainable land use and commodity trade, convened by the UK government in the run-up to CoP26, is a key opportunity for the UK and partner countries to support landscape/ jurisdictional initiatives in key producer regions. Collaboration with producer countries could incorporate green recovery funding for sustainable production that can enable producer countries to transition towards sustainable, conversion-free supply, while securing standing forests and other ecosystems and the livelihoods of local and indigenous people. Such initiatives should form part of the package of measures and action plans to be announced at CoP26 by a group of countries participating in the FACT Dialogue.

US-CHINA TRADE DEAL

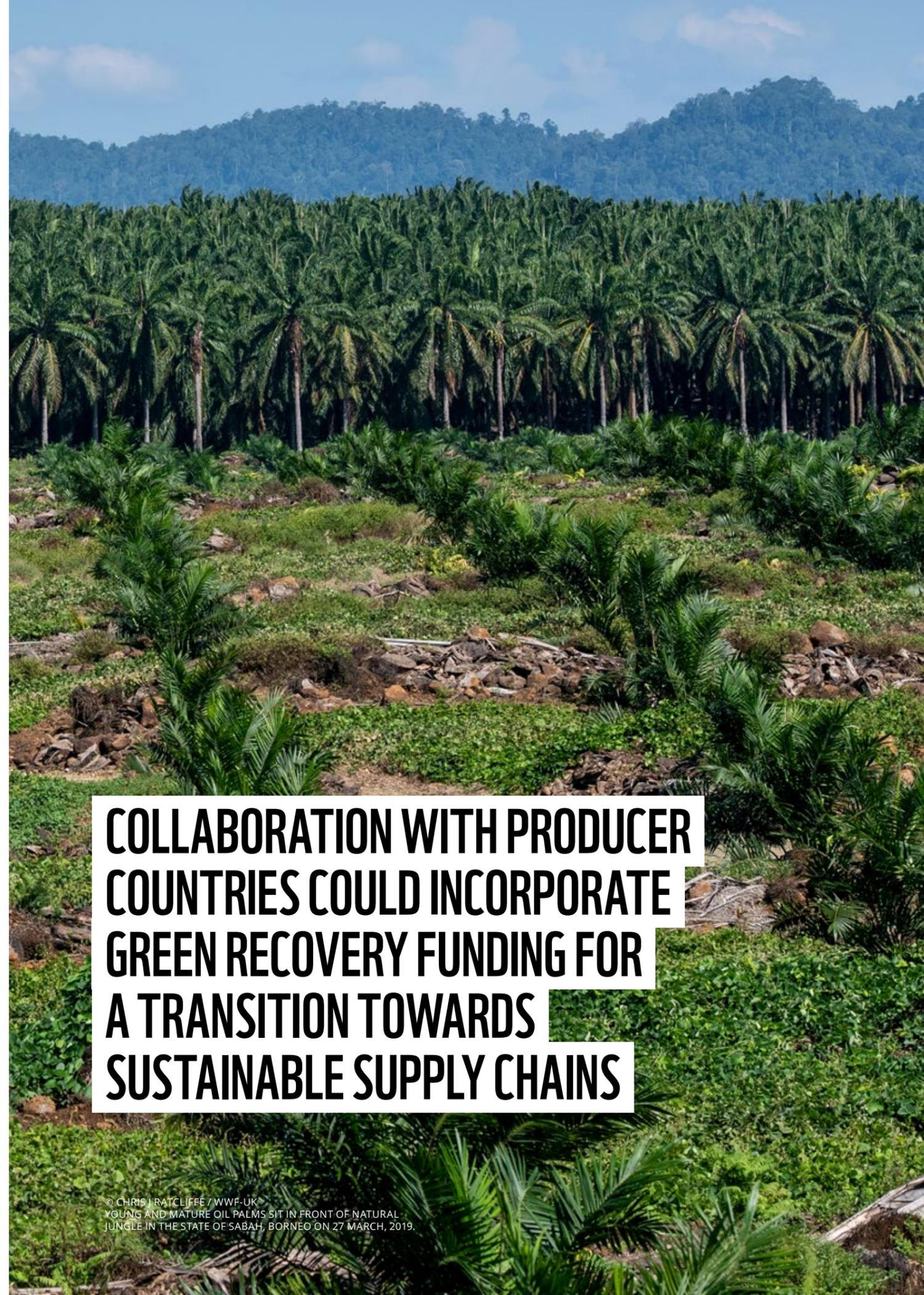
The recently signed US-China trade deal might impact demand for soy produced in Brazil and other South American countries due to [increased demand for US soy](#). The effects of this agreement are still to be seen but should be taken into consideration when discussing trade and supply chains.

KEY HIGH-LEVEL POLITICAL OPPORTUNITIES IN 2020-2021

Global processes and high-level events including the Leaders Pledge for Nature, One Planet Summit, the G7 meeting, the UN Food Systems Summit, the CBD CoP15, and the UNFCCC CoP26 have offered/will offer good opportunities for collaboration and collective action to pursue further initiatives in at-risk landscapes. It is important that the commitments and targets agreed in these processes are all aligned and have nature, climate and people benefits as goals.

IMPLEMENTATION OF THE GRI TASK FORCE RECOMMENDATIONS

The [UK government's response to the GRI recommendations](#) falls short in details and ambition to help the UK fulfil its commitments of halting deforestation, meeting the SDGs and making a fair contribution to keeping global temperature rise below 1.5°C. As the UK's government recent proposed due diligence law relies on producer country laws, a large proportion of legal deforestation and land conversion will still be embedded within UK supply chains. The government must strengthen the proposed due diligence law and implement all GRI taskforce recommendations in full to promote meaningful progress towards halting all deforestation and conversion from the UK's commodity supply chains. During the key high-level political opportunities happening in 2021, measures similar to the GRI in the UK should be discussed, refined and adopted by countries with a large consumption footprint abroad.



COLLABORATION WITH PRODUCER COUNTRIES COULD INCORPORATE GREEN RECOVERY FUNDING FOR A TRANSITION TOWARDS SUSTAINABLE SUPPLY CHAINS

CASE STUDIES



WEST KALIMANTAN, INDONESIA

Kalimantan is the Indonesian part of the island of Borneo, a global biodiversity hotspot that contains some of the largest remaining primary forests in Indonesia. Kalimantan has experienced high rates of deforestation, with oil palm plantations being the primary cause of forest loss in the province over the past two decades. Deforestation is slowing in West and Central Kalimantan but is still increasing in East Kalimantan.¹

West Kalimantan has around 5.8 million hectares (Mha) of remaining forest, just less than 40% of its original forest area.² Oil palm accounts for over half of agricultural production,³ with around 1.6Mha of the province covered by industrial oil palm plantations.⁴ Major global traders importing palm oil into the UK market source from a large number of mills in West Kalimantan, few of which are sustainably certified.⁵

Key drivers of deforestation/conversion:

Large-scale palm oil plantations, including companies' holding of forested areas under concessions as land banks. Secondary drivers include mining, fires and infrastructure.⁶

Key responses:

Protected areas, moratoria on natural forest and peatland clearing, land-use zoning, strengthening law enforcement, corporate voluntary commitments and certification.⁷

Challenges:

Achieving full traceability is still a major issue for delivering on corporate sustainability commitments.⁸ Limited training and knowledge transfer for local communities on sustainable production is also a challenge.

CASE STUDY FROM SINTANG DISTRICT, WEST KALIMANTAN

The Sintang district government has launched several promising jurisdictional initiatives to address commodity-driven deforestation which could be directly supported or used as a model in other districts.

In 2018 the Sintang district government, together with WWF-Indonesia, launched the Sustainable Palm Oil Development Coordination Forum (FoKSBI) in accordance with the Sustainable Palm Oil National Action Plan. This multi-stakeholder forum convenes representatives from government agencies, the private sector and civil society, and has been important for building trust among oil palm industry actors and resolving conflict over oil palm issues in Sintang.^{9, 10}

MAJOR GLOBAL TRADERS IMPORTING PALM OIL INTO THE UK MARKET SOURCE FROM NON-CERTIFIED MILLS IN WEST KALIMANTAN

1 Pacheco, P. et al. 2021. Deforestation Fronts: Drivers and responses in a changing world. WWF, Gland, Switzerland. p. 120

2 CIFOR – [Borneo Atlas: Sintang District](#).

3 Sukri, W. et al. 2020. Sintang District, West Kalimantan. In Stickler et al. (Eds.), [The State of Jurisdictional Sustainability](#).

4 Ibid.

5 WWF and RSBP. 2020. [Riskier Business: The UK's overseas land footprint](#).

6 Ibid., p.31

7 Ibid.

8 Pirard, R., Schulz, N. and Benedict, J. 2020. [Transparency gaps in Indonesian palm oil supply chains](#). Trase.

9 Seymour, F., et al. 2020. The Jurisdictional Approach in Indonesia: Incentives, Actions and Facilitating Connections. [Frontiers in Forests and Global Change](#). <https://www.frontiersin.org/articles/10.3389/ffgc.2020.503326/full>

10 Ibid.



FoKSBI was responsible for formulating the Sintang Regional Action Plan for Sustainable Palm Oil (known by its Indonesian acronym RAD-KSB), which was formalised in district regulations.¹¹ The RAD-KSB aims to increase farmers' welfare and income diversification by at least 30% and to increase training in good agricultural practices by 20% per year.¹² The RAD-KSB forms part of the broader Sintang Lestari Regional Action Plan (RAD-SL), which aims to facilitate a systemic transition to sustainability in the district. The latter contains seven missions in line with the Sustainable Development Goals, and a roadmap to achieve these goals by 2030.¹³

To implement these plans, WWF-Indonesia has been working with the district government to designate areas of high conservation value (HCV) to be integrated into a Plantations Master Plan, and has been involved with swaps of HCV land in palm oil concession areas for areas of degraded forest.¹⁴ [WWF has also partnered with HSBC in a programme to support oil palm farmers](#) in the district in adopting good agricultural practices and in attaining certification from the Roundtable on Sustainable Palm Oil (RSPO) and Indonesian Sustainable Palm Oil (ISPO).

So far, this programme has resulted in smallholder registration of more than 100 farmers and best-practice training in five villages.¹⁵ The programme has built business plans for smallholder communities based on alternative sources of income such as poultry farming and other crops such as guava, and has formed market connections for those sources of income.¹⁶ While it may be too soon to see the full results of the RAD-KSB and RAD-SL, data on forest loss and deforestation show an overall downward trend since 2016.^{17,18}

SPECIFIC CHALLENGES IN SINTANG

- There is a need to ensure initiatives like those mentioned above are stable following changes in local and provincial governments – the benefits of programmes must be laid out clearly to government leaders.
- There is a lack of investment opportunities in the district, particularly for smallholders who require greater finance and market access.
- There are only limited efforts from national government to develop/implement incentives mechanisms, such as ecological fiscal transfers or other payment for ecosystem services, that reward local governments and district stakeholders for efforts to reduce deforestation and implement sustainable development plans.¹⁹

HOW THE UK GOVERNMENT COULD SUPPORT EFFORTS IN KALIMANTAN

The UK and other countries could support efforts in Kalimantan by:

- Implementing domestic regulation and policies to prevent the import of products associated with deforestation/conversion and to incentivise sustainable sourcing, such as due diligence legislation and other trade requirements.
- Promoting investment in international finance mechanisms to reward actions that support sustainable production, forest protection and the maintenance of long-term ecosystem services (e.g. REDD+, green investment funds, carbon trading systems²⁰).²¹ It is vital that financial mechanisms are coordinated effectively between national and district levels to ensure benefits are cascaded to actors on the ground.
- Encouraging UK companies (or companies trading with the UK) to support smallholders and small and medium suppliers to achieve full compliance with their voluntary no-deforestation commitments and standards, and strengthening incentives for sustainable products through preferential sourcing and access to markets.
- Contributing to funding to support the further implementation of the Sintang Lestari Regional Action Plan.
- Supporting the Indonesian government to strengthen coordination and governance across policies and legislations.

11 FoKSBI. 2019. [Sintang Regency Sustainable Palm Oil Regional Action Plan Legalized](#).

12 Sukri et al., loc. cit.

13 Ibid.

14 Bayunada, A. 2019. [Market transformation for sustainable products](#). WWF-Indonesia.

15 Ibid.

16 Ibid.

17 CIFOR, loc. cit.

18 Sukri, loc. cit.

19 Ibid.

20 Aiming at high-quality carbon credits in addition to companies' Scopes 1, 2 and 3, and not as a way of permanent emissions offsetting scheme. [More on WWF's position on carbon credits](#).

21 Seymour et al., op. cit.

PARÁ, BRAZILIAN AMAZON

The Brazilian Amazon forest makes up around **60%** of the entire Amazon, which holds approximately 10-15% of the world's known terrestrial biodiversity and 15% of the freshwater that flows into our oceans²², providing valuable and **irreplaceable ecosystem services**. It is also home to hundreds of indigenous groups.²³ Pará contains almost 9% of the remaining tropical forest in the world, with 86.5Mha of forest covering around 70% of its total area.²⁴

Pará had the **highest deforestation rate of any state in the Amazon** in the 12 months up to July 2020. However, within Pará, the municipalities of Altamira and São Félix do Xingú (SFX) account for **more than 30%** of the deforestation, whereas the Paragominas municipality saw the **lowest deforestation figures in its history** in 2020 (1,075ha, down from 12,041ha in 2009).

Pará was the second largest exporter of Brazilian soy to the UK in 2017, according to the **Riskier Business** report. **Recent investigations** have exposed links between major Brazilian meatpackers operating in Pará and financial institutions and food companies in the UK, such as Sainsbury's and Nestlé.

Key drivers of deforestation/conversion:

Cattle ranching and related land speculation (**including inside protected areas**) and road infrastructure. Secondary causes include smallholder farming, logging and hydroelectric dams.²⁵

Key responses:

Protected areas, recognition of indigenous territories and traditional land tenure rights, the Amazon Soy Moratorium, public monitoring and verification systems, and forest law enforcement.²⁶

Challenges:

Weakened legal requirements and law enforcement in recent years; lack of capacity (e.g. limited staff, funding and technical knowledge) to implement programmes at subnational level; political instability and lack of political will to agree to zero-deforestation commitments.²⁷

²² Nobre, C. et al. (2016) [Land-use and climate change risks in the Amazon and the need of a novel sustainable development paradigm](#).

²³ Le Tourneau, F.M. 2015. [The Sustainability Challenges of Indigenous territories in Brazil's Amazonia](#). Current Opinion in Environmental Sustainability. Elsevier, pp.213-220.

²⁴ Pasishnyk, N. 2020. [Summary of JEC Assessment: Pará, 2020](#). &Green Fund.

²⁵ Pacheco et al. op. cit., p. 78

²⁶ Ibid.

²⁷ Brandão, F et al. 2020. Lessons for jurisdictional approaches from municipal-level initiatives to halt deforestation in the Brazilian Amazon. *Frontiers in Forests and Global Change*, 3(96).



**PARÁ HAD THE HIGHEST
DEFORESTATION RATE OF ANY
STATE IN THE AMAZON IN THE
12 MONTHS UP TO JULY 2020**

CASE STUDY FROM PARÁ, BRAZIL²⁸

Paragominas is championed as a success story in reducing deforestation,²⁹ being the first municipality to be taken off the federal list of high deforesters in 2010 (having been added in 2008) through the work of an alliance of municipal government, NGOs, ranchers and farmers.³⁰ This was achieved in part through the Paragominas [Green Municipalities Program](#) (PMV) which committed to ending illegal logging, ensuring zero net deforestation by 2014, and planting 100 million new trees in rural areas.³¹ While this deforestation target was not in fact met, deforestation rates dropped significantly between 2009 and 2012 and have remained stable since then.³² The [Pecuária Verde](#) initiative – which was launched in 2011 by the Rural Union, The Nature Conservancy and Imazon – promoted livestock intensification and best management practices, with pilot farm properties showing improved productivity and profitability.

On the back of these promising initiatives, in 2019 Paragominas was selected by the French Development Agency (AFD) to receive financial support through the [TerrAmaz project](#). Between 2020 and 2024, the project is promoting the transition to a low-carbon sustainable development model while combating deforestation.³³ As part of this project, a sustainable development plan was launched that aims to develop a territorial certification scheme to make the municipality more environmentally and economically attractive for all stakeholders, including businesses and investors.³⁴ A land use map of zones suitable for sustainable intensification of crop and livestock systems is being drawn up by the French Agricultural Research Centre for International Development (CIRAD), working with local stakeholders; and support for the transition to agroforestry practices is being provided.

Also in Pará, the SFX municipality had one of the highest levels of deforestation of any municipality in the Amazon between 2006 and

2017, with a corresponding significant increase in cattle ranching.³⁵ In 2009 the Federal Public Prosecutor's Office pressured slaughterhouses and ranchers in Pará to agree to legally binding Terms of Adjustment of Conduct (the Cattle Agreement) in which slaughterhouses agreed not to purchase cattle from deforested areas. This led to SFX achieving 80% registration through the Cadastro Ambiental Rural (CAR)³⁶ by 2011, alongside a drop in deforestation rates.³⁷

A Pacto Municipal was also developed, encompassing a multi-stakeholder forum, an agreement to reduce deforestation, and a focus on CAR implementation, but this was discontinued in 2014. [SFX has seen increasing deforestation rates since 2011](#), particularly among smallholders in protected areas, although these are considerably lower than in private landholdings outside protected areas (below 1000ha). The failure of programmes to achieve lasting results in reducing deforestation has been attributed to political instability and a lack of local government commitment. In the absence of government leadership, deforestation-free initiatives such as the [Cattle Agreements](#) have failed to gain traction due to poor enforcement, high implementation costs and lack of market incentives.³⁸

In 2020, Pará formalised the State Programme Amazon Now (PEAA) and its State Policy on Climate Change into state law.³⁹ The PEAA sets targets to reduce the state's emissions from land-use change and forestry by 37% by 2030 and 43% by 2035, supported by command and control measures, land tenure regularisation, sustainable agriculture and programmes to support smallholders, as well as financing from the recently launched [Fundo Amazônia Oriental](#) (Eastern Amazon Fund). The PEAA and other recent policies are encouraging signals of the renewed commitment of the state of Pará to halt deforestation and drive sustainable development. We look forward to seeing develop in the next few years.

SPECIFIC CHALLENGES IN PARÁ

Some of the specific challenges highlighted by these initiatives include:

- While the relative success of Paragominas has been attributed to strong and stable local government leadership and coordination with state and federal government initiatives, in SFX efforts have predominantly been led by NGOs from outside the municipality, which has made progress more difficult.
- In SFX political leadership has changed over time, which has led to coordination issues, a slow process for agreeing to sustainable development programmes, and a lack of capacity to implement them.⁴⁰
- The lack of access to finance, technical assistance and land tenure continue to be the main obstacles to adoption of sustainable land-use practices in Pará.⁴¹

HOW THE UK GOVERNMENT COULD SUPPORT EFFORTS IN PARÁ

The UK and other countries would struggle to solve the problem of land-grabbing and land speculation in the Brazilian Amazon without firm political commitment and stronger command-and-control actions by the Brazilian government. However, countries could support efforts in the region by:

- Facilitating payments for ecosystem services combined with market initiatives for sustainable production (this could involve a number of strategies including payments to landowners preserving forest and other native vegetation beyond what is required by law, and for restoration of degraded areas).
- Financing initiatives that provide smallholders with the technical means to transition to sustainable agriculture (such as those promoted by PEAA), for example through sustainable intensification practices or transition to other sustainable agricultural models, such as cocoa agroforestry.⁴²
- Providing funding for subnational governments to increase operational capacity and technology to monitor and enforce compliance with the Forest Code.
- Implementing domestic policy and legislation, together with other key importers of soy and beef, to drive market demand for deforestation- and conversion-free commodities (e.g. through a due diligence obligation and other trade requirements preventing the import of products associated with deforestation/conversion).

²⁸ This case study does not represent the official position of WWF-Brazil, which is conducting assessments to provide more detailed information on successes from the ground.

²⁹ While deforestation rates dropped significantly, they still remain high with around 0.05% of Paragominas' total area being deforested in 2020.

³⁰ Brandão et al., op. cit., p. 3

³¹ Keyassociados. 2018. IECA Report: Pará State (Brazil). & Green Fund.

³² Brandão et al., op. cit. p. 8

³³ CGIAR Research Program on Forests, Trees and Agroforestry. 2020. Annual Report 2019. p. 35

³⁴ Ibid. p. 34

³⁵ Carvalho, W. et al. 2019. Deforestation in the Brazilian Amazon – A conservation struggle being lost as agreements and regulations are subverted and bypassed. *Perspectives in Ecology and Conservation*, 17: 125

³⁶ The Rural Environmental Registry system established under the Forest Code (in force in Pará since 2006) which mandates the registration of all rural properties to facilitate social and economic planning and the monitoring of deforestation.

³⁷ Brandão et al., op. cit.

³⁸ Ibid.

³⁹ Pasishnyk, op. cit.

⁴⁰ Brandão et al., op. cit., p. 10

⁴¹ Ibid.

⁴² Fernanda Gebara, M. Sustainable Landscapes Pilot Program in São Félix do Xingu, Brazil. REDD+ Case Report: Brazil.

CERRADO, BRAZIL

The Cerrado is a [biodiversity hotspot](#) in Brazil, containing 5% of all species on Earth – 40% of which are unique to the region. The Cerrado's mosaic of grasslands, savannahs and forests provide valuable ecosystem services, thanks to its large carbon storage capacity and water supply.^{43, 44} Most of the biomass in the Cerrado is underground, where deep root systems absorb and store rainwater: this is distributed to millions of springs, and supplies eight of Brazil's 12 major river basins.

The Cerrado is a highly threatened ecosystem, of which half has already been cleared for agriculture expansion, primarily for soy and beef.⁴⁵ Land conversion increased by 12% between August 2019 and July 2020, with [730,000ha](#) converted during this period. The biome has far less legal protection than the Amazon biome,⁴⁶ with fewer protected areas and lower legal requirements in the [Brazilian Forest Code](#) for areas set aside for conservation. Its land is largely controlled by private farmers.

WWF's [Riskier Business](#) report revealed that the UK sources significant volumes of soy from the region.⁴⁷ In particular, the states of Mato Grosso and Bahia are major producer regions exporting soy to the UK, and both suffer high rates of deforestation and ecosystem conversion.⁴⁸ Mato Grosso has accounted for 16% of the conversion in the Cerrado over the last two decades (the highest level of any Brazilian subnational state), and between 2012 and 2017 almost all deforestation that took place was illegal.⁴⁹

Key drivers of deforestation/conversion:

Cattle ranching and large-scale agriculture (predominantly soy production).⁵⁰

Key responses:

Protected areas, recognition of indigenous land and tenure rights, land-use zoning (through the Forest Code).⁵¹

Challenges:

Powerful agribusiness with strong political influence, weak legal protection, and land speculation.

43 Resende, F. et al. 2019. Consequences of delaying actions for safeguarding ecosystem services in the Brazilian Cerrado.

Biological Conservation 234: 90-99. doi.org/10.1016/j.biocon.2019.03.009

44 Nepstad, D. et al. 2014. [Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains](#). Science 344 (6188): 1118-1123.

45 WWF. 2019. Saving the Cerrado: [How savannas and grasslands can tackle climate change](#).

46 8.3% of the Cerrado is covered by protected areas, and only 3% of these are fully protected, including parks and reserves. Brazil's Forest Code requires that 20-35% of private land in the Cerrado must be kept in legal reserves, compared to 80% in the Amazon.

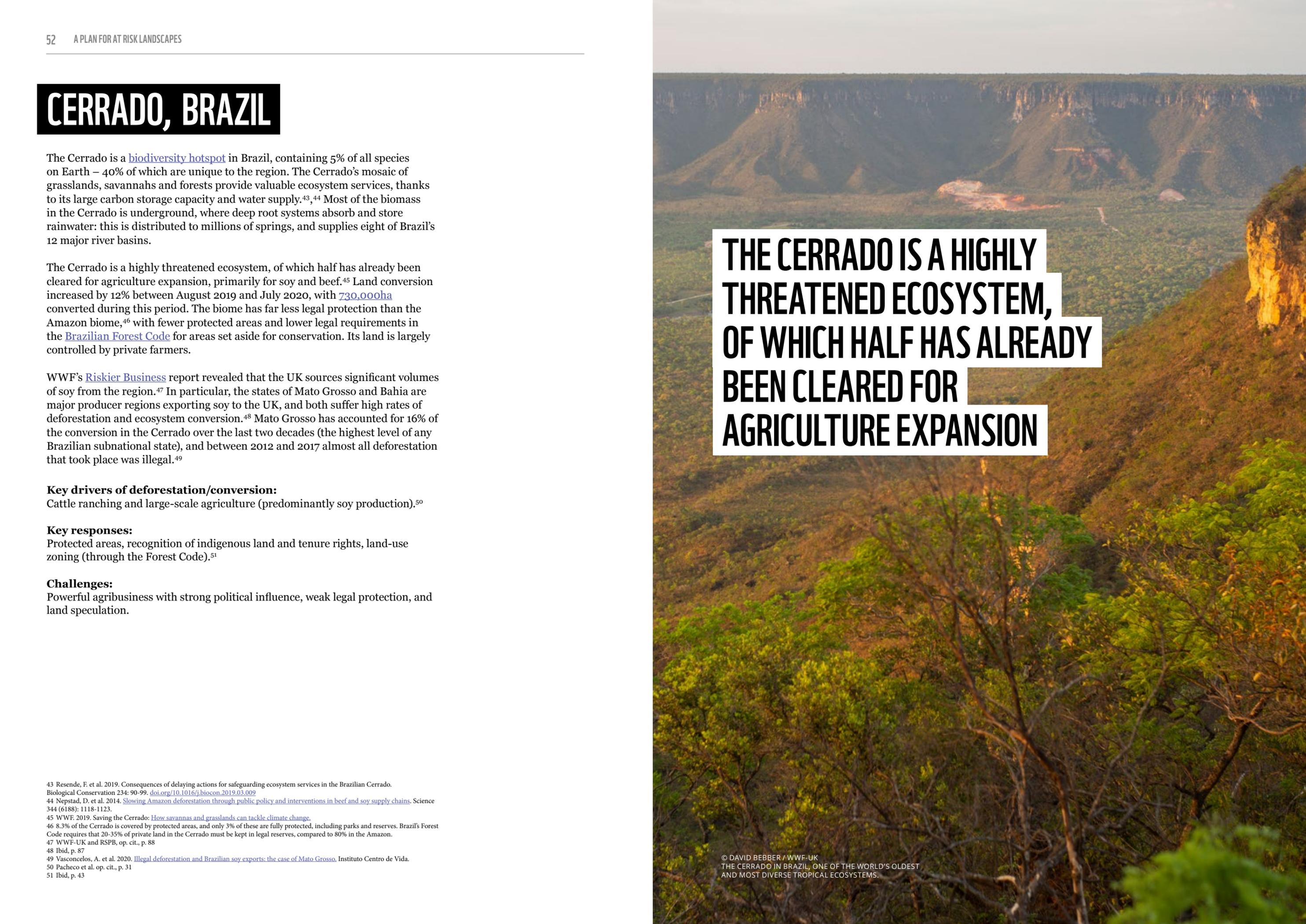
47 WWF-UK and RSPB, op. cit., p. 88

48 Ibid, p. 87

49 Vasconcelos, A. et al. 2020. [Illegal deforestation and Brazilian soy exports: the case of Mato Grosso](#). Instituto Centro de Vida.

50 Pacheco et al. op. cit., p. 31

51 Ibid, p. 43



THE CERRADO IS A HIGHLY THREATENED ECOSYSTEM, OF WHICH HALF HAS ALREADY BEEN CLEARED FOR AGRICULTURE EXPANSION

CASE STUDY FROM THE CERRADO

There are several landscape initiatives underway in the Cerrado. Together, they are seeking to reduce pressure on this precious biome by engaging with markets to change demand-side forces and supporting integrated landscape management by expanding protected areas and promoting sustainable use of biodiversity.⁵² WWF continues to drive and support these initiatives through its Cerrado Alive Landscape Initiative: key examples include the Cerrado Manifesto and the Cerrado Funding Coalition. In 2017, 60 NGOs and research institutions signed the [Cerrado Manifesto](#), a call to action for companies and investors that purchase soy and beef from the biome to adopt effective policies and commitments to eliminate deforestation and conversion from their supply chains. Following this, 23 global companies signed a [Statement of Support](#) (SoS) for the Cerrado Manifesto, committing to support and work with local and international stakeholders to achieve the Manifesto's objectives. The SoS is currently endorsed by more than 160 global fast moving consumer goods companies and institutional investors.

WWF-Brazil is helping to turn these corporate commitments into action on the ground. Leading SoS signatories have since engaged with the Cerrado Working Group (Grupo de Trabalho do Cerrado, or GTC)⁵³ and Brazilian soy supply chain experts, recognising that the most fair and effective way to conserve the Cerrado involves direct financial incentives to soy farmers.⁵⁴ In support of this, in 2019, SoS signatories Tesco, Nutreco and Grieg Seafood agreed to contribute through the [Cerrado Funding Coalition](#) to provide financial incentives necessary to support Cerrado farmers to transition to producing only on existing agricultural land.

To accelerate the implementation of corporate commitments, the [Accountability Framework](#) and the [Collaboration for Forests and Agriculture](#) (now the [Conservation and Markets Initiative](#)) created regional guidance for advancing deforestation-free and conversion-free supply chains in the Cerrado, which is being implemented by companies locally. This guidance recommends the use of monitoring systems and traceability tools, including [Mapbiomas](#) (a freely available tool developed by civil society and academia in Brazil) and [VISIPEC](#) (a tool to enhance traceability and deforestation/conversion monitoring of indirect suppliers in Brazilian cattle supply chains).²⁹

On the ground, there have been programmes supported by WWF-Brazil to conserve nature and secure the livelihoods of local communities, such as in the Sertão Veredas Peruaçu Mosaic (MSVP).⁵⁵ MSVP is a critical conservation area of the Cerrado, encompassing 31 protected areas over 27 municipalities.⁵⁶ In 2018, 10 new protected areas were included into the mosaic, its span of 3.5Mha making it [one of the largest mosaics in the Cerrado](#).

This programme also supports traditional extractivist communities in the MSVP who are making sustainable use of native biodiversity without threatening conservation efforts. This support has involved organising the community production process to drive efficiency and high-quality sustainable products, and opening up market access. For example, the programme has supported the [Central do Cerrado](#) business hub, which links community-based organisations in the Cerrado to purchasers, providing income to producers. Supporting livelihoods in these communities provides people with a higher quality of life and enables them to remain on their land despite pressure from agribusinesses seeking to expand. From 2015 to 2018, the quantity of marketed products from three cooperatives in the MSVP more than doubled, generating almost three million Brazilian reals of income and benefiting the 250 families involved in production.⁵⁷

HOW THE UK GOVERNMENT COULD SUPPORT EFFORTS IN THE CERRADO:

The UK and other countries could support efforts in the Cerrado by:

- Co-developing or funding innovative financial mechanisms that reward conservation and restoration of degraded landscapes in the Cerrado, such as the Cerrado Funding Coalition, and through rural credit schemes and investment readiness training.
- Supporting programmes that expand technical assistance to farmers in the soy and cattle sectors to promote the use of sustainable agricultural practices and the rehabilitation of degraded areas.
- Together with other major importers of soy and beef like China, implementing domestic policy frameworks to drive market demand for deforestation- and conversion-free soy (e.g. through a due diligence obligation and other trade requirements preventing the import of products associated with deforestation/conversion).
- Providing support and funding to scale up successful initiatives to enhance the livelihoods of local communities, such as the work underway in MSVP to provide training and access to markets for biodiversity-based products.⁵⁸
- Supporting calls from industry in the UK and other consumer countries for sustainable soy and beef imports, and establishing a level playing field to tackle commodity-driven conversion.

⁵³ A Brazilian multi-stakeholder forum led by the soy industry and civil society which grew out of the Soy Working Group. It has been conceptualised as a commodity-centric landscape governance initiative.

⁵⁴ The GTC initially proposed a Cerrado Conservation Mechanism as a means of incentivising farmers to not clear their land. This came very close to being agreed through GTC stakeholder negotiations until soy traders pulled back in late 2019. The Cerrado Funding Coalition was established as an alternative.

⁵⁵ Mosaics are broadly defined under the National System of Protected Areas (Law 9,985/00) as a set of protected areas that are close, juxtaposed or overlapping and are either public or privately managed. Management of protected areas in a mosaic must be integrated and participative and consider the different conservation needs of each area to ensure the compatibility of biodiversity and the value of social diversity and sustainable development.

⁵⁶ WWF-Brazil. Op. cit.

⁵⁷ WWF-Brazil. Op. cit.

⁵⁸ Products derived from nature that improve both livelihoods and biodiversity protection.

CAVALLY, CÔTE D'IVOIRE

Côte d'Ivoire is the [world's largest producer](#) of cocoa. The UK is responsible for 9% of the global cocoa land footprint, with nearly half of its cocoa footprint located in Côte d'Ivoire – a country with a very high risk of deforestation and land conversion, and poor social and labour indicators.⁵⁹ Côte d'Ivoire faces an immense challenge in securing the livelihoods and sustainable development of local communities engaged in cocoa production.⁶⁰

The Cavally Forest Reserve, located in the Cavally region in the south-west of Côte d'Ivoire, is one of the last standing classified forests⁶¹ in the country, [covering an area of 67,593ha](#). The reserve connects all key forest fragments in the surrounding area and is home to [diverse wildlife](#) including leopards, chimpanzees and pygmy hippos. The Cavally region is highly threatened, mostly by [smallholder cocoa production](#), and lost over 7% of its forest cover between June 2019 and May 2020. However, deforestation rates inside the Cavally Forest Reserve have stabilised in the past two years.⁶²

Key drivers of deforestation/conversion:

Shifting cultivation and expansion of tree crops, particularly cocoa.⁶³

Key responses:

Protected areas and voluntary standards, including through public and private partnerships.⁶⁴

Challenges:

Lack of monitoring and poor enforcement of illegal deforestation; lack of resources to support alternative livelihoods; lack of awareness at civil society level of the impacts of illegal deforestation.

CASE STUDY FROM CAVALLY, CÔTE D'IVOIRE

The UK's Department for International Development (now the Foreign, Commonwealth and Development Office) has been involved in the [Cocoa and Forests Initiative](#) (CFI) which launched in 2017, bringing together leading companies in the cocoa supply chain with the governments of Ghana and Côte d'Ivoire to end deforestation and drive forest restoration through agreed frameworks for action. The CFI frameworks' priorities reflect an integrated landscape approach targeting forest protection and restoration, sustainable agricultural production and improved farmer livelihoods, and strong community engagement and social inclusion.⁶⁵

Although progress in reducing deforestation in Côte d'Ivoire has been slow thus far, the CFI has had some key successes including the government's adoption of a new Ivorian Forest Code (No. 2019-675) in 2019, which promotes agroforestry to restore degraded land and improve forest cover in classified forests and rural zones. There has also been progress in developing financial models through the

59 WWF-UK and RSPB, op. cit., pp. 19-20

60 ESRI. [Cocoa Industry in the Côte d'Ivoire](#).

61 Classified forests are one of two kinds of protected areas in Côte d'Ivoire, the other being national parks and reserves. While classified forests are designated for conservation, they can be commercially exploited for forestry through a partnership agreement with the Forest Development Corporation (SODEFOR), while national parks and reserves are not available for commercial exploitation.

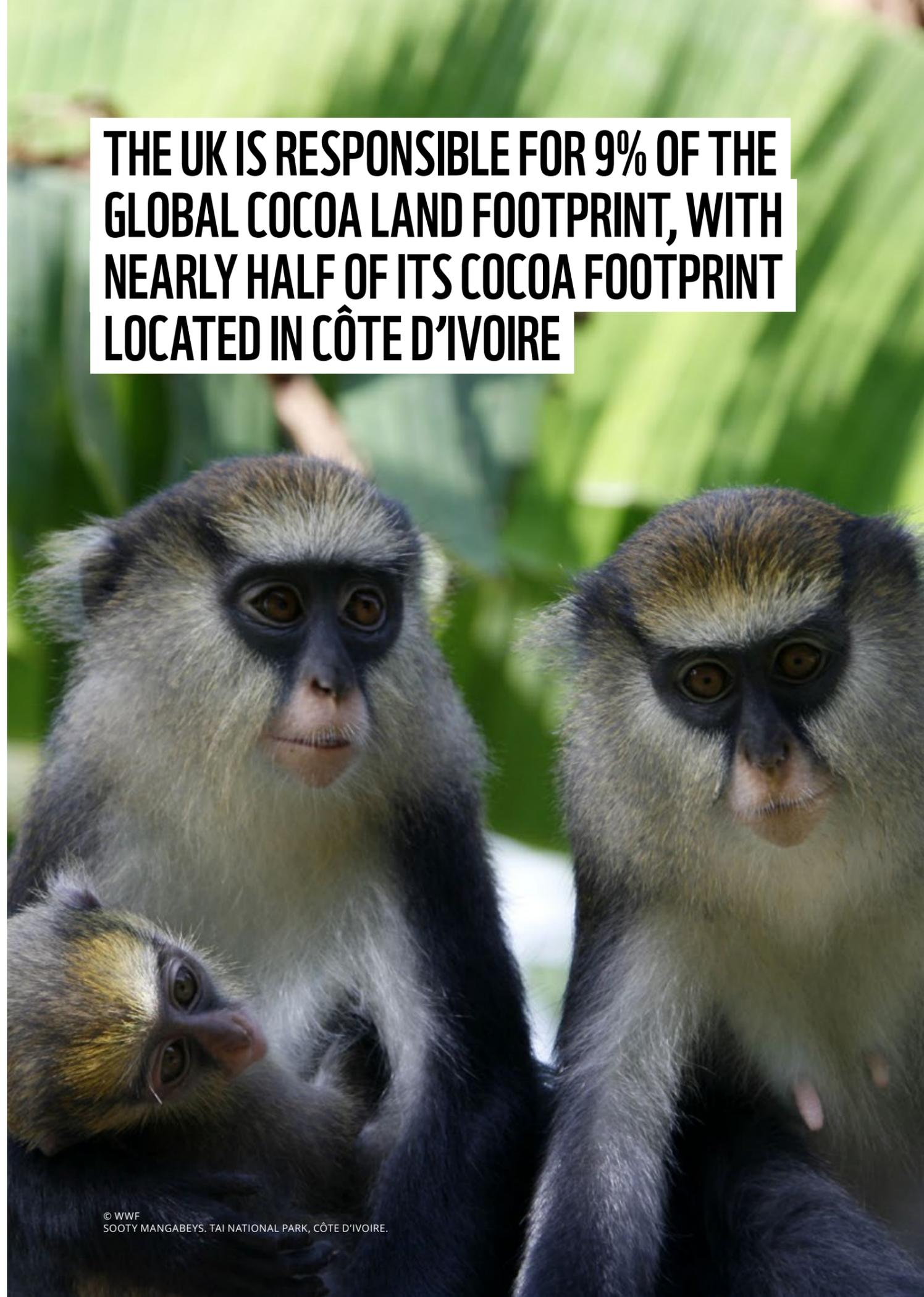
62 Vivid Economics. 2020. [State and Trends of Deforestation in Côte d'Ivoire \(2019-2020\)](#), p. 2

63 Pacheco et al. op. cit., p. 96.

64 Ibid.

65 Cocoa & Forests Initiative. 2020. [Private Sector 2019 Progress Report](#).

THE UK IS RESPONSIBLE FOR 9% OF THE GLOBAL COCOA LAND FOOTPRINT, WITH NEARLY HALF OF ITS COCOA FOOTPRINT LOCATED IN CÔTE D'IVOIRE



national REDD+ programme to incentivise farmers to protect and restore forested areas, with signatory companies engaging in payments for ecosystem services contracts with 1,340 farmers.⁶⁶

The Cavally region is one of five priority regions under the CFI, where partners are trialling key interventions such as cocoa-agroforestry, land-use planning, and satellite monitoring. Developing effective shared monitoring mechanisms has been identified as a vital step for tracking progress and accelerating efforts to reduce deforestation.⁶⁷ The development of a joint monitoring mechanism is also a commitment of CFI signatories, aimed at ensuring transparency and accountability.⁶⁸

Since 2017, SODEFOR (the Ivorian government's forest development authority) has been using Starling, a satellite monitoring tool developed by Earthworm, Nestlé (a CFI signatory) and Airbus, that can detect changes in forest cover caused by cocoa cultivation beneath the canopy. Using this tool, SODEFOR established a forest cover map of the Cavally Forest based on 2018 data. The map recorded a [7.4% decrease](#) in the rate of deforestation in the Cavally Forest from January 2018 to June 2019, while monitoring by Vivid Economics' [IMAGES](#) tool also recorded stable deforestation rates between 2018 and 2020, attributing this to forestry service actions.⁶⁹

SODEFOR field teams have linked the decline to the [precision of deforestation alerts](#), which allows for targeted action and increased patrols to detect illegal plantations. Importantly, this monitoring enables protection at an early stage, meaning that forests can restore themselves rapidly and without any active intervention. [Nestlé](#), which helped to fund the tool and is one of the CFI signatories taking action in the Cavally region, is using the data to verify [compliance with its own commitments](#) by establishing where and who is involved in deforestation, and to challenge its suppliers.

SPECIFIC CHALLENGES IN CAVALLY

- While progress has been made in developing monitoring tools (e.g. Starling and IMAGES), it is vital that these efforts are coordinated and scaled up to ensure alignment and accountability across Côte d'Ivoire.
- Corruption and bribery of law enforcement remain a problem in protecting vital forests.

HOW THE UK GOVERNMENT COULD SUPPORT EFFORTS IN CAVALLY

The UK and other countries could support efforts in the Cavally region by:

- Supporting the Ivorian government and the Cavally Regional Council to implement low-emissions development programmes, through financial support and knowledge transfer.
- Together with other consumer countries, such as those in the EU, Switzerland and the US, implementing legislation and trade standards to incentivise deforestation-/conversion-free cocoa, and further encouraging engagement by companies to support their suppliers in Côte d'Ivoire and other producer countries.
- Working with leading cocoa-producing countries to support their efforts to stabilise minimum prices for farmers to ensure that the consumer country legislation and trade standards are good for farmers as well as forests.
- Supporting the expansion of public spatial monitoring systems to monitor other critical high conservation value ecosystems, as well as supporting greater operational capacity to enforce forest protection at a low cost to users.
- Taking steps to launch a UK platform for sustainable chocolate bringing together government, civil society groups and the UK cocoa/chocolate industry. This platform could be modelled on the GISCO (German Initiative on Sustainable Cocoa) platform in Germany, and the other parallel 'ISCO' platforms in Switzerland, France, Belgium, Holland and Japan, which emphasise full and transparent supply chain traceability of all cocoa entering the country.

⁶⁶ Ibid.

⁶⁷ Mighty Earth. 2021. Côte d'Ivoire CFI Report Presentation: First Two Years of Implementation

⁶⁸ Proforest. 2018. Coffee case study, p. 28

⁶⁹ Vivid Economics. op. cit, p. 14

SABAH, MALAYSIAN BORNEO

Malaysia is the second-biggest global producer of palm oil after Indonesia.⁷⁰ [Borneo](#), the world's third-largest island, accounts for just 1% of the world's land yet holds approximately 6% of global biodiversity in its tropical forests. [Plantation industries](#) have been the main drivers of deforestation in Malaysian Borneo, which is comprised of the states of Sabah and Sarawak. Sabah and Sarawak have lost almost 2.4Mha of forest since 2000, an area 15 times the size of Greater London, with more than 1Mha of forest loss resulting from palm oil-driven deforestation.⁷¹

Sabah has been Malaysia's largest producer of palm oil during the past 25 years, producing up to 10% of global supply⁷² from a plantation area of about 1.6Mha. As of 2020, 26% of the oil palm plantation area was certified through the internationally recognised Roundtable on Sustainable Palm Oil (RSPO) standard, although most of this is comprised of large-scale plantations with their own mills.⁷³ There are also approximately 40,000 smallholder producers (<50ha) making up 16% of Sabah's total oil palm area, and middle-sized growers (>50ha, without a mill) make up over half of the total oil palm area.⁷⁴

Key drivers of deforestation/conversion:

Large-scale palm oil plantations,⁷⁵ [pulp and wood plantations and smallholder rubber plantations](#), and (increasingly) infrastructure development.

Key responses:

Protected areas and land-use zoning, mandatory certification standard for palm oil (Malaysian Sustainable Palm Oil – MSPO), and a timber legality assurance system.⁷⁶

Challenges:

Lack of funding and capacity to implement long-term projects; lack of transparency in supply chains; high cost of attaining certification for medium-sized plantations and smallholders.

⁷⁰ Global Market Report: Palm Oil ([iisd.org](https://www.iisd.org))

⁷¹ CIFOR – [Borneo Atlas: Malaysia](#)

⁷² Landscape Finance Lab. 2020. [Landscape Sourcing: Sustainable business using the landscape approach](#), p. 17

⁷³ Ong, S. 2020. [Common Ground: can palm oil be sustainable? WWF is working with communities in Malaysia to prevent palm oil deforestation and protect the country's important biodiversity](#). WWF.

⁷⁴ Landscape Finance Lab, loc. cit.

⁷⁵ Gaveau, D. et al. 2018. Rise and fall of forest loss and industrial plantations in Borneo (2000-2017). *Conservation Letters*.

doi.org/10.1111/conl.12622

⁷⁶ Ibid.



**SABAH HAS BEEN MALAYSIA'S
LARGEST PRODUCER OF PALM
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10% OF GLOBAL SUPPLY**

CASE STUDY FROM SABAH, MALAYSIA

Sabah is seeking the benefits of a green economy by becoming an international leader in certified palm oil and timber production, forest conservation and emissions reductions through a jurisdictional approach. In 2015 the Sabah government launched the Jurisdictional Certification for Palm Oil initiative, a commitment to ensuring all palm oil produced in the state is certified as sustainable by RSPO. The initiative is managed by a multi-stakeholder steering committee comprised of government agencies, private sector companies and non-governmental organisations.^{77,78} The Sabah state government has also committed to setting aside 30% of land under totally protected areas.

WWF-Malaysia has supported the implementation of this commitment through its 'Living Landscapes' approach (now within the [Sabah Landscapes Programme](#)) in Sugut, Tabin (Lahad Datu), and Tawau Hills. The programme has brought together key stakeholders including the local government, RSPO representatives, local communities and the private sector to engage in integrated land-use planning to achieve a balance between the programme's [three pillars](#): protect, produce and restore.⁷⁹

Through the 'produce' pillar, [the programme](#) envisages the certification of 70,000ha of medium-sized and smallholder growers in the three priority landscapes, and provides technical support and guidance through the certification process. Through the 'protect' pillar, WWF is supporting the Sabah government's goal of conserving 30% of land through protected areas, using spatial planning to reduce the chances of protected forest reserves and state parks being degraded or deforested. The 'restore' pillar has involved

working with companies such as Sabah Softwoods Berhad to [restore a wildlife corridor](#) through its oil palm plantations to connect two protected forest reserves, Ulu Kalumpang and Ulu Segama. The aim is to achieve the co-benefits of preserving wildlife and reducing crop destruction caused by wildlife.

It is important to recognise that this initiative is – as most jurisdictional/landscape approaches are – still in its early implementation stage. Nevertheless, Sabah Forestry Department has achieved a key success by leading efforts to map areas of high conservation value (HCV) and high carbon stock (HCS) across the state, to guide land-use planning. A unique element of this mapping is the identification of areas with HCV potential, regardless of current land use, based on their unrealised importance for connecting fragmented forests. WWF-Malaysia will be facilitating this work by bringing together planners, oil palm growers and civil society to agree on an integrated land-use planning approach for conservation and sustainable development.⁸⁰

The restoration of wildlife corridors on plantation land through the Sabah Landscapes Programme has had positive results for wildlife movement between protected areas and has also reduced the cost of damage to plantations from elephants.⁸¹

The requirement for all oil palm growers, large, medium and small, to be MSPO certified has set a clear policy course which supports the implementation of RSPO certified standards over time. This has been reinforced by state government [policy statements](#) in 2020 for the jurisdiction-wide certification of palm oil production.

HOW THE UK GOVERNMENT COULD SUPPORT EFFORTS IN SABAH

The UK and other countries could support efforts in Sabah by:

- Implementing legislation and trade standards to drive demand for certified commodities such as palm oil (for example through a due diligence obligation and other trade requirements preventing the import of products associated with deforestation/conversion, and calling for procurement of RSPO certified palm oil).
- Working with existing initiatives such as the Sabah Landscapes Programme to overcome barriers to achieving full smallholder and medium-size grower certification, including by [expanding training](#) on good agricultural practices and financial planning.
- Working with India and China (the largest buyers of Malaysian palm oil, whose demand for certified sustainable palm oil remains low)⁸² by supporting the [China Sustainable Palm Oil Alliance](#) and the [Indian Sustainable Palm Oil Coalition](#) in their engagement of key players in the Chinese and Indian palm oil markets.
- Engaging with Singapore (a palm oil trade hub, where companies that account for over 90% of global trade are headquartered) and other countries involved in palm oil trade in a consumer-consumer country partnership, coordinating efforts to influence large palm oil traders and financial institutions to trade in sustainable commodities.
- Helping to fund the institutions that oversee landscape/jurisdictional approaches in Sabah, sharing the costs between national and international finance streams.

⁷⁷ WWF. 2017. *Tackling deforestation through a jurisdictional approach: Lessons from the field.*

⁷⁸ Forest Peoples Programme. 2020. *Case study – Sabah. Preliminary findings.*

⁷⁹ Ong, op. cit.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Schleifer, P. & Sun, Y. 2018. *Emerging markets and private governance: the political economy of sustainable palm oil in China and India.* *Review of International Political Economy* 25(2): 190-214.

ARGENTINIA GRAN CHACO

The [Gran Chaco](#) is South America's second-largest forest ecosystem after the Amazon rainforest. Covering 100Mha, four times the size of the UK, the Gran Chaco is a living tapestry of diverse plains, salt flats, marshes, woodlands and scrublands. Roughly 60% of the Gran Chaco is located in Argentina, and it stores [more than half](#) of the country's CO₂. It is also one of 11 [global deforestation fronts](#) threatened by agriculture and livestock production. The Gran Chaco is home to more than nine million people, with hundreds of indigenous and criollo communities living there who depend on the forest for their livelihoods.⁸³

Argentina's Forest Law (N°26.331) sets out a system of environmental zoning, prohibiting deforestation and conversion in areas of high and medium conservation value (and restricting it in low conservation value areas).⁸⁴ Despite this robust legislation being in place, monitoring and implementation at the provincial level has been ineffective. Illegal and legal deforestation continue apace in the region, with soy and beef production being the main driver of deforestation and conversion.⁸⁵ The production of these two commodities is interconnected, as the stakeholders in the Argentinian market are virtually the same, and expansion for beef has tended to precede changes to soy production.⁸⁶

The [Riskier Business](#) report has demonstrated that the UK is highly dependent on soy from Argentina. According to the report, between 2011 and 2018 roughly 45% of the UK's soy land footprint was located in Argentina and to a lesser extent Paraguay, compared to 28% in Brazil.⁸⁷

There are significant transparency and traceability challenges within the soy industry, however based on Trase data around 8% of UK soy from Argentina

originates in the Gran Chaco.⁸⁸ There is a high risk of both legal and illegal deforestation and conversion associated with this soy, as well as of abuse of human and land rights through the historical and ongoing displacement of indigenous and local communities due to agricultural expansion.

There are clear parallels between the Argentinian Gran Chaco and Brazil's Cerrado, given its low levels of legal protection, high levels of beef- and soy-driven conversion, and relatively low public profile in terms of deforestation risk compared to the Amazon. It is also at risk of becoming a leakage market if efforts to curb deforestation and conversion in the Cerrado biome are successful and lead to a shift of soy and beef production to areas which are less protected.

Key drivers of deforestation:

Large- and medium-scale mechanised agriculture, predominantly for soy, as well as clearance for cattle ranching particularly under large-scale, low-productivity systems.⁸⁹

Key responses:

Protected areas (although only 5% of the Argentinian Gran Chaco is legally protected and these areas are isolated from one another), voluntary standards (the Round Table on Responsible Soy), land-use zoning, and payments for ecosystem services for farmers.⁹⁰

Challenges to reducing deforestation:

The high economic importance of the agricultural sector, ineffective enforcement of Argentina's Forest Law, ongoing construction of soy infrastructure intended to enable greater production in the region, low market awareness of the Gran Chaco as an at-risk biome, and misperceptions that Argentinian soy is associated with a lower risk of deforestation and conversion than Brazilian soy.

83 Arnold, I. & Brown, A. 2018. [Evaluación del Gran Chaco Argentino](#).

84 Vallejos, M. et al. 2021. [The law is spider's web: An assessment of illegal deforestation in the Argentine Dry Chaco ten years after the enactment of the 'Forest Law'](#). Environmental Development.

85 Fehlenberg, V., et al. 2017. [The role of soybean production as an underlying driver of deforestation in the South American Chaco](#). Global Environmental Change, 45: 24-34.

86 Ibid.

87 WWF-UK and RSPB, op. cit., p. 56

88 Mean value from 2016 to 2018. Data available from <https://trase.earth>

89 Pacheco et al. op. cit., p. 88

90 Ibid, p. 89



CASE STUDY FROM THE ARGENTINIAN GRAN CHACO

There are several initiatives in the Argentinian Gran Chaco seeking to curb deforestation and conversion for soy and beef production. While they may not be linked by an overarching landscape initiative, they mirror the conservation and sustainable production efforts underway in other landscapes: engaging markets to change demand-side forces, driving sustainable commodity production, and seeking to expand protected areas.

Similar to the Cerrado Manifesto, the [Compromiso Gran Chaco Argentino 2030](#) was launched in 2019 as a call to action to all sectors of society to protect the native forests of the Gran Chaco. Thus far, 120 organisations have committed to the Compromiso, which makes [a number of demands](#) on government to ensure effective enforcement of Argentina's Forest Law, as well as introducing new laws to control the use of agrochemicals, protect wetlands and expand existing protected areas. The demands on the private sector include strict compliance with forest laws, prioritising best use of already converted land to avoid further deforestation or conversion, as well as ensuring traceability throughout the supply chain.

Another initiative seeking to leverage the power of markets is the [Conservation and Markets Initiative](#) (CMI, previously known as the Collaboration for Forests and Agriculture). Supported by the Gordon and Betty Moore Foundation, the CMI has sought to eliminate deforestation and habitat loss driven by beef and soy production in the Amazon, the Cerrado and the Gran Chaco. Its approach has been to engage the private sector, promoting transparency and traceability tools across [beef and soy](#) supply chains, and creating financial incentives that encourage producers, meatpackers and traders to avoid beef and soy that are associated with deforestation and conversion. In this frame, monitoring and decision-making tools were developed – e.g. [Mapbiomas Chaco](#) and [Agroideal](#), respectively – as well as guidance to implement [AFi definitions](#) and a deforestation scenario assessment.⁹¹ An Argentine soy traders' platform, ViSeC (Visión Sectorial del Gran Chaco Argentino), was recently created with the aim of reducing the environmental impacts of the soy value chain, with a focus on deforestation and land-use change.

Efforts to engage the private sector are being complemented by [action on the ground](#), where Fundación Vida Silvestre Argentina (Vida Silvestre) is engaging with ranchers, governments and technical institutions in the Argentinian Gran Chaco to transition to sustainable production models. Beef production can be integrated with forest protection in a highly productive silvopastoral system, especially in the Gran Chaco region where the forest can provide forage and shadow to protect cattle and soil moisture against high temperatures, as well as other ecological services, timber and non-timber products.

Linking this work on the ground to the UK, modelling has been undertaken by Vida Silvestre on future deforestation and conversion scenarios based on a UK due diligence obligation that restricts imports of commodities from the Argentinian Gran Chaco linked to legal and illegal deforestation.⁹² This modelling indicates that by 2028, under a business-as-usual scenario, there is projected to be an additional 4Mha of forest loss. Under a scenario where all illegal deforestation is prevented there would still be 2Mha of forest loss, compared to 0.4Mha of forest loss under a no deforestation and conversion scenario. This study also demonstrates that it is possible to meet the expected growth trend of agricultural production, including soy expansion, in the Argentinian Gran Chaco by 2028 even under a no deforestation, no conversion scenario.

SPECIFIC CHALLENGES IN THE ARGENTINIAN GRAN CHACO

- There is a lack of awareness in international markets of the risks in the Gran Chaco, leading to low market demand for zero deforestation and conversion soy.
- There is weak implementation and monitoring of the Forest Law, and poor land zoning.
- The existing payment for ecosystem services system under the Forest Law pays less than could be earned from conversion to soy and is for a time period chosen by the farmer, meaning that land of high potential value often doesn't stay in the scheme for long.⁹³

HOW THE UK GOVERNMENT COULD SUPPORT EFFORTS IN THE ARGENTINIAN GRAN CHACO

The UK and other countries could support efforts in the Argentinian Gran Chaco by:

- Together with other major importers of soy and beef like China and the EU, implementing domestic policy frameworks to drive market demand for deforestation- and conversion-free soy (e.g. through a due diligence obligation and other trade requirements preventing the import of products associated with deforestation/conversion).
- Supporting programmes that expand technical assistance to farmers in the soy and cattle sectors to promote use of sustainable agriculture practices and rehabilitation of degraded areas, to enable the no deforestation/conversion growth scenario identified in the Vida Silvestre study.
- Using national roundtables for sustainable soy, like ViSeC and similar industry platforms, to amplify calls for securing sustainable soy imports from the Gran Chaco and promote the widespread adoption of traceability and monitoring tools to enhance the implementation of, and compliance by all actors along consumer country supply chains with, the Forest Law.

91 Fundación Vida Silvestre Argentina. Escenarios futuros de expansión agropecuaria en la Ecorregión Chaqueña.
92 Ibid.

93 Núñez-Regueiro, M. et al. 2019. Adding the temporal dimension to spatial patterns of payment for ecosystem services enrolment. *Ecosystem Services*, Elsevier, vol. 36(C).



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