GOOD GROWTH PARTNERSHIP
Led by UNDP

ADOPTING FOREST POSITIVE APPROACHES IN COMMODITY PRODUCTION: WHAT'S WORKING?

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About FOLUR

This research briefing was made possible with funding from The Food Systems, Land Use and Restoration Impact Program (FOLUR). FOLUR is an integrated platform designed to transform food systems by mobilizing sustainable production landscapes eight major commodities, including livestock, cocoa, coffee, maize, palm oil, rice, soy and wheat. World Bank-led, supported by the Global Environment Facility, FOLUR collaborates with the Global Landscapes Forum, Food and Agriculture Organization of the United Nations, International Finance Corporation, United Nations Development Programme, Good Growth Partnership, and World Resources Institute and Food and Land Use Coalition.

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Author: Matthew Stancliffe Bird – ISEAL

Email: matthew@isealalliance.org.uk or evidensia@isealalliance.org.

Document review: Vidya Rangan – ISEAL, Patrick Mallet – ISEAL, Pascale Bonzom – UNDP, Lavinia Gasperini – UNDP, Pascal Fabie – UNDP, Iwan Kurniawan – UNDP, Dorsla Farcarthy – UNDP, Oscar Gadea – UNDP

Report design: Olenka Varzar

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Introduction

The beef, palm oil, soy and pulp supply chains are among the biggest drivers of deforestation. The UN Food and Agriculture Organization (FAO) estimates that over 90% of global deforestation was attributable to agricultural expansion between 2000-2018[1]. Deforestation has profound sustainability impacts. Converting high carbon ecosystems into agricultural land leads to increased carbon emissions and biodiversity loss. While supporting local livelihoods and boosting exports in producing countries is fundamental, there is now consensus that tackling deforestation in commodity production is of critical importance.

In recognition of this, several global initiatives have emerged in recent years that aim to adopt multistakeholder and locally driven approaches. The Good Growth Partnership (GGP), funded by the Global Environment Facility (GEF) and led by the United Nations Development Programme, is one such initiative. The GGP is currently working as part of the Food Systems, Land Use and Restoration (FOLUR) impact programme, a collaboration of organisations aiming to transform the global food system by developing efficient commodity value chains and promoting sustainable and restored landscapes[2]. Prior to FOLUR, the GGP completed its pilot phase between 2017-2022, focusing on decoupling agricultural commodity production from deforestation by working across the whole supply chain – production, finance, demand.

This research brief draws out key insights from the GGP's forest positive approach, which addressed commodity-driven deforestation in a range of geographies – beef in Paraguay, soy in Brazil and palm oil in Liberia and Indonesia. The GGP has employed innovative, systems-thinking approaches to tackle complex problems. This briefing aims to pull out learnings from this work led by GGP, supplemented with insights and evidence from other research on this topic. Our briefing is aimed at practitioners working in this field to support learning from the GGP's approach, to understand what has worked to drive changes in behaviour and practice to inform future action.

What Are 'Forest-Positive' Approaches?

Forest-positive approaches have been gaining traction in the sustainability space, with increasing resistance to the 'zero-deforestation' concept that became a buzzword in the early 2000s. Many feel that the complex reality of deforestation is not captured in the simplistic and definitive idea of the zero-deforestation concept[3]. In contrast, the forest-positive concept was coined with a more open-ended and qualitative framing, highlighting ambition that goes beyond merely the reduction of harm. The FAO summarises it as[4]:

"A systematic approach to eliminating deforestation, forest degradation and conversion, not only from supply chains, but also from business models. It entails supporting sustainable forest management, restoration, and integrated land use planning in key production landscapes for positive impact on forests, while supporting local communities, workers' rights and improving livelihoods."

The Forest Positive Coalition (FCP), launched by the Consumer Goods Forum, comprises 21 companies with exposure to deforestation within their supply chains. Members of the Coalition have acknowledged the shortcomings of previous approaches to tackle deforestation and have committed to "accelerating systemic efforts to remove deforestation, forest degradation, and conversion from key commodity supply chains"[5]. One company member of the FCP is Nestlé, which has adopted its own three-stage strategy to work toward forest-positive outcomes:

[1] Deforestation-free supply chains;

[2] Long-term forest conservation and restoration in its supply chains;

[3] Sustainable landscapes.

This strategy highlights the importance of minimising deforestation risks (Stage 1) in supply chains and the significance of taking proactive measures to deliver positive impact (Stages 2 and 3).

The objective of the forest-positive concept is to encourage actors to adopt a more comprehensive approach to deforestation responses. One example is by including references to livelihoods and human rights issues, a crucial step forward in the space, as zero-deforestation commitments have been criticised for taking a narrow approach to sustainability. However, such a broad understanding could result in variable interpretations and may encompass a wide range of activities with varying degrees of credibility and impact potential. It is therefore imperative to focus on monitoring and measuring change to track the outcomes and impacts of forest-positive action, alongside guidance to ensure credible action.

Implementing Forest-Positive Approaches in Key Sectors

Beef

Paraguay

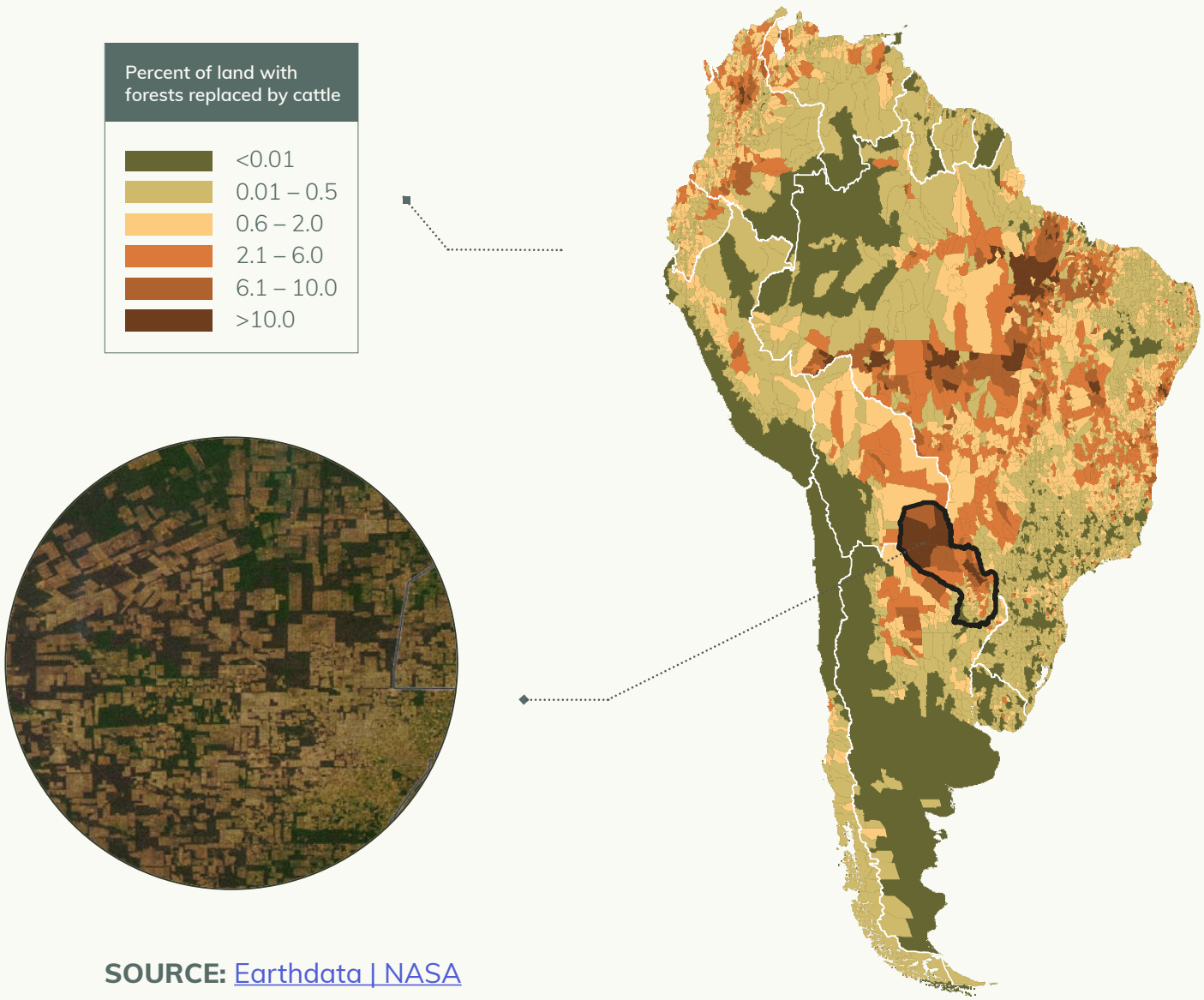
Issue

Increasing pressure is placed on tropical and subtropical forests due to the expanding area required for food production[6], a direct result of global population growth and higher levels of consumption associated with shifting diets[7].

Cattle farming is the single biggest driver of deforestation worldwide and accounted for 36% of all commodity-driven deforestation during 2001-2015*[8]. The World Resources Institute (WRI) estimates that cattle farming was responsible for 3 million hectares of deforestation annually in the same time period. The majority of cattle-driven deforestation occurs in South America. Brazil accounted for 48% of the total, followed by Paraguay with 9% and Colombia with 5%. The Chaco region of Paraguay has historically suffered from extremely high rates of deforestation[9], driven by clearance for cattle ranching. It is important to acknowledge that the Chaco's situation is nuanced. Recent deforestation trends highlight a noticeable reduction in deforestation within the Chaco (according to INFONAn[11]) and it is also key to differentiate between legal and illegal deforestation. The Chaco's legal framework mandates property owners to retain approximately 45% of their land area as forests, without receiving any direct benefits or incentives for maintaining this forest cover.

FIGURE 1: Forest area replaced by cattle in South America (2001-15)

SOURCE: Adapted from WRI



SOURCE: Earthdata | NASA

The Chaco's situation is nuanced. Recent deforestation trends highlight a noticeable reduction in deforestation within the Chaco

Interventions

System mapping: At both national and regional scales, a critical lack of knowledge about the complex interdependencies driving deforestation can obstruct efforts to tackle the issue[12]. The GGP has used system mapping to demonstrate key structures and influences acting as drivers of deforestation, a prerequisite for implementing a forest positive approach[13]. The map was created in a collaborative manner, designed with input from development practitioners working across the value chain. The process shed light on some fundamental blockages to transformational change, such as the lack of financial incentives for producers. This allowed the GGP to increase efforts on interventions which enable economic incentives for producers to protect forests. Further, disruptions and shocks within the supply chain could be better anticipated because of the map.

Collaborative action mechanisms: In the Chaco, a regional-level beef platform is providing an effective space for collaboration to promote sustainable beef production. Prior to the creation of the platform, the divergent views of cattle ranchers, government regulators, cooperatives and Indigenous communities were often a cause of friction and hampered collective action. The platform helped to build trust between these different groups, reiterating the shared goal of a more sustainable and productive environment. The project engaged 33 organisations in collaborative action, resulting in the creation of a Chaco Beef Action Plan. Since the start of the plan's implementation in 2019, investments have been made to intensify producer capacity in an environmentally sustainable manner. This has been achieved through training, on-site demonstrations and technical assistance.

Policy reform: Stakeholders developed regional criteria to identify and map High Conservation Value (HCV) and/or High Carbon Stock (HCS) areas in the Chaco. They also highlighted key corridors for preserving biodiversity. The map, covering over 7 million hectares, has been supplied to the Paraguay's Ministry of Environment and Sustainable Development to inform the issuing of environmental permits for land-use change[14]. In addition, the GGP worked with municipalities to develop land-use plans for 430,000 hectares of HCV forest and supported the Ministry of Defense to protect conservation areas – over 17,000 hectares of HCV forest[15]. At the national level, a policy was adopted to combat the use of inconsistent terminology in licences for land-use change. This language harmonisation allowed for better data aggregation into internal systems. A recommendation was also given to grant the Ministry of Environment and Sustainable Development more authority to address violations in land-use change licence agreements.

Producer support: In the first five years of the GGP's intervention, 4,915 cattle ranchers received technical training in sustainable intensification techniques, including topics like water-smart production technology. Workshops on sustainable intensification practices were also delivered by public institutions, academia and civil society. Tailored approaches were used to meet the needs of different producer groups in the Chaco, and GGP monitoring studies reported a high level of adoption[17]. An average of 79% of all good agricultural practices taught were employed within two years of the sustainability training.

Insight

Transaction and demand: Producers and meatpackers who adhere to performance standards for sustainable beef received $16 million from the International Finance Corporation (IFC)[17] – a member of the GGP. Comprehensive training programs have been implemented to educate ranchers about fire prevention and control, as well as sustainable cattle ranching practices. These training initiatives are aimed at benefiting the diverse range of producers in the Chaco region, as well as financial stakeholders involved in the industry. There is high consumption of beef in Paraguay and the major markets for their beef include Chile, Russia, and Brazil. Unfortunately, both consumers and downstream sourcing companies are largely unaware of the sustainability concerns related to beef production. To bridge this knowledge gap, GGP and partners have been actively working to raise awareness while also helping to establish a national definition for sustainable beef, alongside working to position Paraguay as a producer of sustainable beef in the global market[18].

Fully evaluating the impacts of GGP's interventions on beef-driven deforestation in the Chaco will take time. However, it is evident that the GGP has laid important foundations for transformative change. Identifying key blockages through system mapping and building trust between stakeholders that are part of, or impacted by, the supply chain are important elements of a holistic forest-positive approach. If possible, the exercise of system mapping should be repeated mid-way through the FOLUR Country Project in Paraguay to ensure changing conditions are captured[19]. The more easily quantifiable outcomes from policy reform (identifying priority areas for conservation) and producer support (providing training to cattle ranchers) should also be instrumental in long-term change. The impact of the demand side work is harder to measure but nonetheless a fundamental element of a systemic approach, helping to establish Paraguay's reputation as a sustainable beef producer. Integrated approaches embrace the complexity of supply chains: this makes the work challenging but should ultimately lead to more transformational change.

Soy

Brazil

Issue

The production of soy has risen dramatically over the last 50 years. The majority of soy is produced in two countries, Brazil and the USA, which account for 69% of global production. In 2018, 75% of global soy was used as animal feed, 20% directly used for human food, and 5% used in industry[20]. Global meat production has tripled over the last 50 years[21] with a particularly steep rise in poultry, a big consumer of soy feed. Soy production has grown in parallel with rising meat demand, along with increased use of processed soy as a vegetable oil and in biofuels. In the same period there has only been a modest increase in soy consumption as part of direct human food – such as tofu and soy milk.

While soy production remains significant in the USA, the largest expansion and consequent land-use change has recently occurred in South America. From 2001 to 2015, the WRI estimates that soy production resulted in half a million hectares of deforested land annually[22], 97% of it in South America[23]. In fact, despite moderate yield improvements, the increasing demand for soy has necessitated the expansion of land, a significant proportion of which has been forested. In Brazil, land used for soy production has tripled since the 1980s[24].

An average of 79% of all good agricultural practices taught were employed within 2 years of the sustainability training

Interventions

System mapping: The GGP created a system map of Brazil's soy supply chain to identify the interactions involved in the production, demand and finance of the commodity. The results led the GGP to focus on promoting financial mechanisms for restoring degraded land for productive use, instead of converting natural ecosystems. and finance of the commodity. The results led the GGP to focus on promoting financial mechanisms for restoring degraded land for productive use, instead of converting natural ecosystems[25].

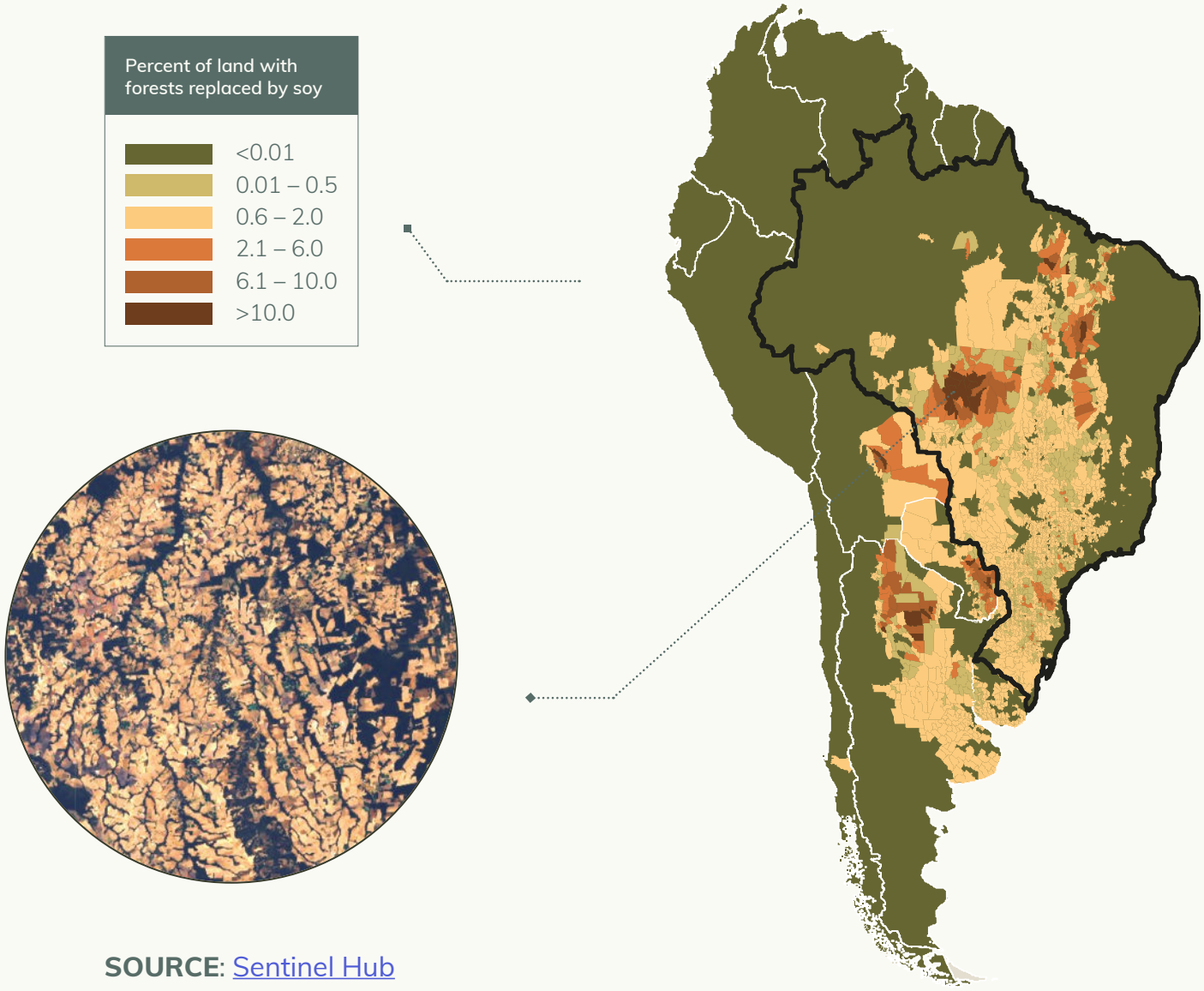
Private sector engagement: IThe GGP has played a crucial role in facilitating a transition towards more sustainable practices by improving traceability for buyers. Increasing market demand has led to a growing number of companies committing to sourcing sustainable soy. As of 2022, 77 companies signed up to commitments to source reduced-deforestation soy in Brazil, and an additional seven companies have been supported in implementing these commitments[29]. In 2020, the China Oil and Foodstuffs Corporation (COFCO) partnered with the IFC to create a traceable and sustainable soy supply chain in the Matopiba region, situated in the ecologically significant Cerrado Biome of Brazil. The project aimed to track soy back to its farms and assess them against environmental and social criteria. Initially targeting 85% coverage by 2021, the project surpassed expectations, achieving visibility over all of COFCO International's direct supplies from regional suppliers[30].

Policy reform: Brazil's Forest Code laws impose restrictions on expanding production in Permanent Preservation Areas (APP) and Legal Forest Reserves while incentivising producers to adopt modern agricultural technologies and productivity-enhancing practices[26]. However, to qualify for incentives, producers must register their properties in the Rural Environmental Registry (CAR) and have their entries validated by the respective states. Many states, however, have fallen behind on validation, hindering Brazil's ability to fully leverage its environmental legislation. To tackle this problem, the GGP provided support to target states in the Matopiba region for CAR validation, resulting in strengthening environmental protection across 1,158,000 hectares in Conservation Areas located in the States of Bahia and Tocantins.

Digital tools: The Sustainability Radar is a digital mapping tool created to aid integrated territorial planning[27]. It was developed by Conservation International and Agrosatélite as part of the GGP. The tool's primary aim is to provide analysis, data, and reports to support decision-making in the public and private sectors as well as civil society. The Sustainability Radar allows different stakeholders throughout the production chain to develop effective policies and actions to contribute to more sustainable soy production. Moreover, the GGP has supported mapping by Trase of the soy supply chain through Brazilian municipalities[28], leading to enhanced transparency.

FIGURE 1: Forest area replaced by soy in South America (2001-15)

SOURCE: Adapted from WRI



SOURCE: Sentinel Hub

Insight

The system map provided GGP with a renewed emphasis on finding financial mechanisms, particularly blended finance, to support the transition to restoring degraded land and producing there as opposed to opening up forests and other important ecosystems. The presence of effective governance mechanisms plays a vital role facilitating the reduction of deforestation. By strengthening the ability to access existing government support, the GGP enabled safeguarding of critical biodiversity zones while promoting sustainable practices on already cultivated or degraded land[31].

Encouraging land restoration is also a key element of the FOLUR programme and can help avoid encroachment into pristine ecosystems. Digital tools that highlight potential deforestation exposure in the soy value chain have transformed data into useful information, enabling stakeholders across the value chain to make more informed decisions.

Palm oil

Liberia
Indonesia

Issue

Palm oil is present in a wide range of products, primarily in foods and cosmetics. It is a high-yield crop, offering low production costs compared to similar vegetable oils. Its perennial nature also offers stability in adverse weather conditions. Rapid population growth, particularly in Asia, combined with consumption shifts to more energy-dense diets high in fat and increasing use of biofuels, has led to a sharp increase in demand for the commodity, particularly since the 2000s. This rise has been driven both by increased demand and by the relatively low cost and high efficiency of palm oil production. Palm oil production has been responsible for lifting a significant proportion of people from poverty, the social and economic importance for countries like Liberia and Indonesia must be considered when assessing environmental impacts. An estimated 1.3 million people were lifted from poverty in Indonesia from 2000 – 2017 due to the growth of the palm oil sector[32].

Palm oil plantations have expanded rapidly to meet global demand, at the expense of tropical rainforests. This has led to the destruction of critical habitats and biodiversity loss, as well as increased greenhouse gas emissions. According to Global Forest Watch, palm oil production was responsible for 4.5% of global deforestation between 2001 and 2015 – over two-thirds of this deforestation occurred in Indonesia[33]. In response, certification schemes, governments and companies have created initiatives to promote sustainable palm oil production. Data demonstrate that the proportion of palm-driven deforestation in Indonesia declined by over 50% between 2012 and 2015[32]. Although more recent data detecting commodity driven deforestation are limited, this number has likely continued to decline markedly. Whilst responses have succeeded in slowing the rate of palm-related deforestation[33], linked deforestation has not been eradicated completely.

During 2001-2015 Liberia experienced significantly less palm development than Indonesia, but a high proportion resulted in deforestation – 74%[36]. As a country with high proportion of forest cover, palm expansion is likely to result in deforestation, highlighting the need for forest-positive interventions in Liberia.

Interventions | Indonesia

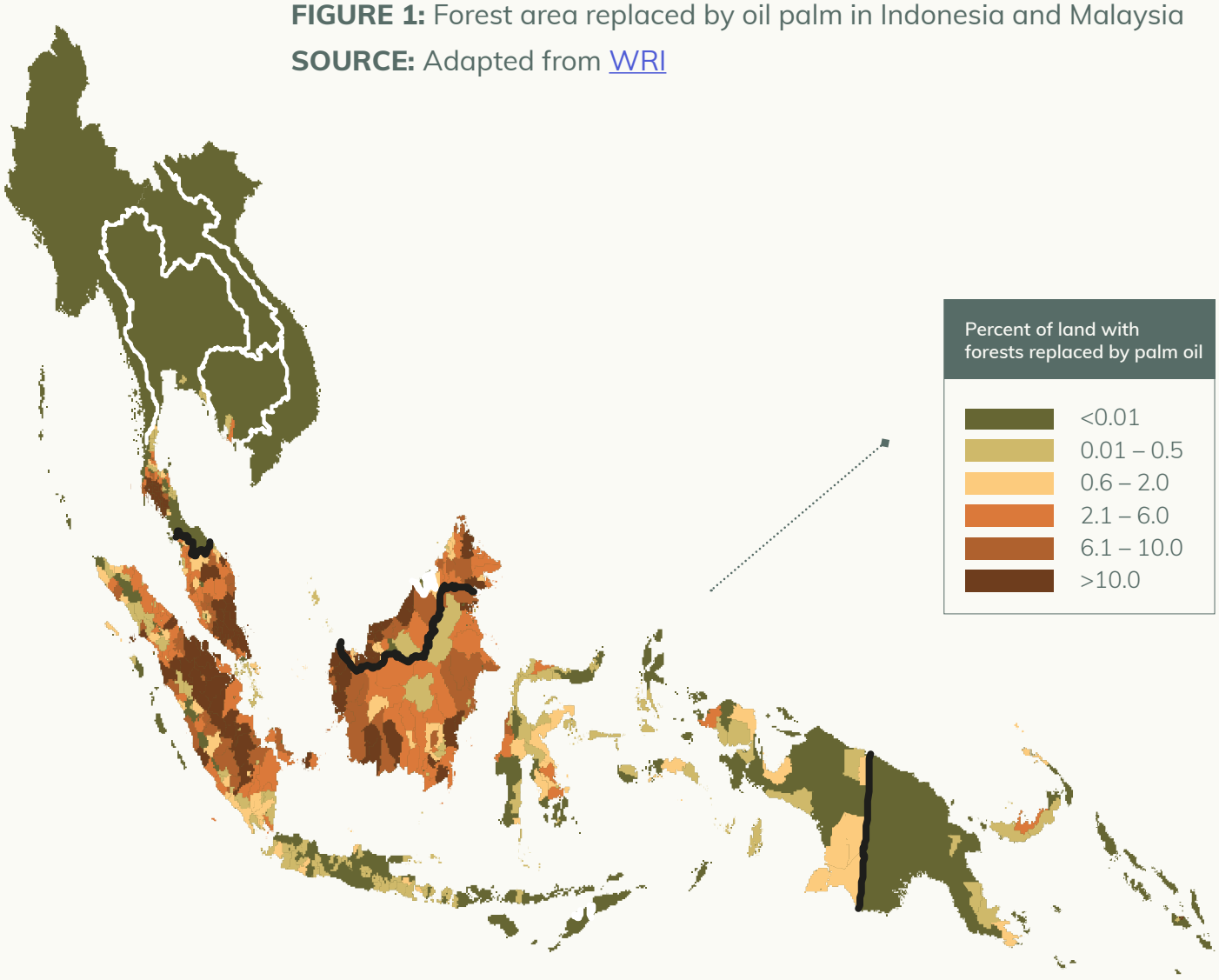
Policy reform: Through efforts focused on land-use policies, over 800,000 hectares of HCV and/or HCS areas were protected in Indonesia. This included almost 200,000 hectares of HCV forest. The GGP supported district and provincial governments to identify areas of environmental and social value and create local regulations to safeguard them. Additionally, recommendations were formulated at the national level for categorising and protecting 'essential ecosystem areas' within productive areas, which have the potential to protect more than 100 million hectares.

Demand: Awareness about the environmental impacts of unsustainable palm oil varies across countries and communities. In Indonesia, the GGP Integrated Approach pilot project focused on increasing retail consumer demand for sustainable palm oil. As a result, between 2019 and 2021, 10% more Indonesian consumers became aware of the consequences of unsustainable palm oil[37]. The palm oil market extends beyond producer countries and retail consumers. Downstream companies in China, one of the largest palm oil consumers, are not always aware of the link between palm oil and deforestation. To bridge this knowledge gap, the GGP partnered with Proforest, an NGO, to develop the Palm Oil Toolkit in English and Mandarin. This accessible guide and accompanying training workshops aim to educate downstream palm oil companies in China about responsible sourcing and production practices.

Producer support: The GGP sought to improve farmer support systems in 3 districts in Indonesia. In the Pelalawan for instance, the GGP looked to encourage funding for and to coordinate those involved in farmers capacity strengthening. This led to the adoption of three new regulations, promoting private sector involvement in supporting smallholders. As a result, 10 companies have established partnerships with smallholders, providing them with improved access to inputs and capacity building, and predictable market access for palm oil produced sustainably. Additionally, over 2,700 farmers have benefited from training and support from the GGP in sustainable production practices, financial management and environmental conservation. Training also incorporated preparation for certification, for both the Indonesia Sustainable Palm Oil (ISPO) and the Roundtable on Sustainable Palm Oil (RSPO) standards.

Transaction: The GGP has been actively involved in supporting the Asia Sustainable Finance Initiative (ASFI) Academy, which focuses on training finance professionals in responsible investing. At the national level, the GGP has collaborated with the Indonesia Sustainable Finance Initiative (IKBI) network of banks to define and implement a risk management strategy. This strategy aims to guide investments away from practices that contribute to deforestation. While banks were generally aware of deforestation and its detrimental effects, they faced challenges advising clients on alternative options that would avoid environmentally harmful investments and promote greater environmental sustainability.

FIGURE 1: Forest area replaced by oil palm in Indonesia and Malaysia
SOURCE: Adapted from WRI



Insight

The GGP's efforts have supported governments in identifying and protecting environmental and social values ahead of land-use change. Farmer training has encouraged a shift to more sustainable and climate-smart practices. Any resulting changes need to be followed up with monitoring to identify robust impacts. Nationally, the GGP's work led to over 800,000 hectares of land being protected. The GGP reports this has directly avoided 37 Mt of CO2 emissions. For comparison, the Global Carbon Atlas reported that Sweden (36 Mt) or Switzerland (35 Mt) had lower annual territorial emissions in 2021[38]. Ensuring a sustainable product is not sufficient on its own; it is equally important to generate demand. The GGP have worked to foster demand for sustainable palm oil through raising awareness between buyers and sellers, as well as producer and market countries. The GGP has used its multiscale, multisector approach to create awareness among financial organisations, demonstrating the benefits of responsible investments.

Interventions | Liberia

Policy framework for producer support: Liberia's National Oil Palm Strategy and Action Plan[39] (NOPSAP) facilitated by the multistakeholder National Oil Palm Platform of Liberia (NOPPOL) supported by GGP and under the leadership of Ministry of Agriculture aims to support smallholders, improve livelihoods and combat challenges in the palm oil sector. It aims to incorporate both social and environmental safeguards within investments. NOPSAP includes aspects relevant to foster strengthened farmer support system, including guidance on sustainable agricultural practices, providing agricultural inputs, advisory services and access to finance. NOPSAP proposes developing a five-year financing mechanism to encourage sustainable practices for those working in the palm oil value chain. NOPPOL also facilitated future access of Liberia´s palm oil sector actors through achieving the conception of a national interpretation of the RSPO standard.

Policy reform: The GGP put in place an agreement in 2019 with three communities of the Zodua clan in northwest Liberia to protect 5,000 hectares of HCV forest areas. GGP reports indicate that the agreement has led to a decrease in activities such as pit-sawing, charcoal production, hunting for bushmeat and cultivation in HCV areas. At the national level, studies carried out in collaboration with the government provided recommendations to enhance the legal framework for land-use planning. They also recommend that conservation agreements are changed to become legally binding and permanent instruments for land-use planning and call for conservation areas to be production-free.

Insight

The Liberia RSPO standard national interpretation is expected to enable easier access to certification. Entry into the RSPO certified market could have big ramifications for palm oil production as certification has been credited with increasing scrutiny on unsustainable practices in other geographies[40]. The GGP supported conservation agreement facilitated alternative sustainable livelihoods for over 2,800 people and resulted in the protection of 5,000 hectares of HCV forest, leading to the avoidance of almost 6 Mt of CO2 emissions thanks to land use planning work Forest-positive approaches involve working closely with local communities and supporting livelihoods, both clearly present in the GGP's work in Liberia.

Conclusion

Halting deforestation has emerged as a top climate and biodiversity priority[41]. The complexity underpinning the drivers of deforestation has become increasingly apparent. Forest-positive approaches have gained traction as they seek to embrace complexity, working across the entire value chain with different stakeholders. The GGP has embodied this in its approach to halting deforestation in three key commodities – beef, soy, and palm oil and across production, financing and demand aspects of supply chains.

System mapping has provided an integral step in Paraguay and Brazil, helping to identify and pinpoint which areas to focus work on. As these maps are static representations of evolving systems, refreshing this process during the FOLUR interventions as well as expanding the process to more FOLUR countries could prove useful. Working closely with local government has enabled the GGP to influence regional and national policy frameworks and land-use policies. Areas of high biodiversity and high carbon stock amounting to 28 million hectares have been placed under improved natural resource management, resulting in the avoidance of a reported 140 million tonnes of CO2 emissions (lifetime direct and indirect)[42].

There is increasing recognition that incorporating social equity and justice into environmental goals is not simply a nice-to-have, but integral to the success of such measures and preventing unintended consequences. Supporting local communities and improving livelihoods represent important elements of forest-positive approaches and the GGP's work. Addressing financial incentives for the protection of key ecosystems along with providing essential support and training to producers has built the foundations for transformative change. Most importantly, the GGP has collaborated directly with different actors across commodity supply chains – building platforms for collaborative dialogue that has helped create shared sustainability goals among groups with historically divergent views.

Endnotes

* Time lags can be necessary to accurately attribute commodity-driven deforestation data. The "latest confident year" published by the WRI is 2015. Please see the WRI's technical note for more details. The WRI is hoping to publish an update of this dataset by the end of 2023, including data up to 2018. Another key resource providing data on commodity-driven deforestation rates is Pendrill et al. (2022) "Disentangling the numbers behind agriculture-driven tropical deforestation". This resource quantifies the extent of commodity-driven deforestation; the latest year analysed is also 2015.

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