

Beyond Supply Chains

Pulp, Paper and Packaging Companies Take Landscape Action for Sustainability at Scale

This paper is part of a global study on private sector engagement at landscape and jurisdictional scale initiated by the Tropical Forest Alliance (TFA) and conducted in collaboration with Proforest, CDP and others. The study aims to advance understanding of the use of landscape and jurisdictional approaches as a key corporate strategy and to map the way forward to mobilize more private sector action and multi-stakeholder collaboration at scale.

Through interviews and desktop research, the study explores why and how manufacturers, retailers, traders and integrated companies have used landscape and jurisdictional approaches to address deforestation driven by palm oil, soy, beef, pulp, paper and packaging, and cocoa. It also delves into other possible uses of these approaches, including to meet corporate climate, nature and people goals, and explains how companies can leverage their efforts and collaborate with others to accelerate progress. The papers will be made available on [the Jurisdictional Approaches Resource Hub](#).

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ABBREVIATIONS AND ACRONYMS

APRIL

Asia Pacific Resources International Limited

APP

Asia Pulp & Paper Sinar Mas

CGF FPCOA

Consumer Goods Forum Forest Positive Coalition of Action

CSO

Civil society organizations

ESG

Environment, social and governance

EU

European Union

FAO

Food and Agriculture Organization of the United Nations

FPIC

Free, Prior and Informed Consent

FSC

Forest Stewardship Council

GHG

Greenhouse gases

HCV

High conservation value

PEFC

Programme for the Endorsement of Forest Certification

PPP

Pulp, paper and fibre-based packaging

SBTN

Science Based Targets Network

TFA

Tropical Forest Alliance

TFD

The Forests Dialogue

WWF

World Wide Fund for Nature



Freshwater swamp forest, Sumatra, Indonesia.
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EXECUTIVE SUMMARY

The pulp, paper and fibre-based packaging (PPP) industry is one of the largest industrial sectors globally, with an estimated value of \$354 billion in 2022. Production of pulp and paper is spread around the world, with the United States the largest producer, and Brazil, Canada, Indonesia and Russia among the top 10.

The industry is associated with multiple social and environmental challenges, and these are aggravated when old-growth forests are replaced with fast-growing monocultures. In Indonesia, for example, 3 million hectares (ha) of forests were lost between 2001 and 2021, replaced by tree plantations to supply the pulp and paper industry.

Pulpwood plantations pose serious threats to biodiversity, degrading forests and peatland and reducing water supply, among others. Concentration of land ownership and the exclusion of communities can lead to land tenure conflicts and displacement of local and Indigenous communities, as observed in countries including Brazil, Canada, Chile and Indonesia.

“ **THIS STUDY ATTEMPTS TO BUILD UNDERSTANDING OF THE EVOLVING BUSINESS CASE FOR DOWNSTREAM AND MIDSTREAM COMPANIES TO ENGAGE AT LANDSCAPE SCALE TO ACHIEVE SUSTAINABLE LAND USE IN PPP PRODUCTION REGIONS.** ”

Efforts to achieve PPP sustainability have included certification, which dates back to the 1980s when concerns developed surrounding deforestation in tropical countries. Companies are also engaging on the ground, both traditionally within their supply chains and increasingly in the past seven years in collaboration with other stakeholders in production landscapes.

Landscape approaches involve the long-term collaboration of stakeholders within a natural or social geography to define and achieve shared social, economic and environmental goals. Sharing responsibilities between companies, producers, civil society and local communities on the ground means each can contribute according to their mandate and capacity. Outcomes are expected to be sustained in the long term as goals are determined together.

This study attempts to build understanding of the evolving business case for downstream and midstream companies to engage at landscape scale to achieve sustainable land use in PPP production regions. Information is derived from desktop reviews, interviews with companies, landscape initiative implementers and other experts, and company submissions to the 2022 CDP forest questionnaire, which includes questions on landscape engagement.



Landscape view of the Ingenika watershed ©Robin Barr

The study identified 32 landscape initiatives in pulp production areas in nine countries including Brazil, Canada, Indonesia and Portugal, and at least 26 downstream and midstream companies supporting them. Most of these companies are integrated corporations that play dual roles as producers as well as processors or manufacturers of paper products. Companies engage at this scale to meet their own sustainability commitments and improve relationships with local communities and stakeholders.

Specific lessons learnt from company landscape action in PPP include the benefits of complementing certification with engagement at landscape scale to protect the forests surrounding concessions. Companies in the PPP sector are also engaging at landscape scale to identify opportunities to enhance ecosystem services, including carbon and water retention.

Two sets of recommendations are proposed based on findings from this study.

“ **THE STUDY IDENTIFIED 32 LANDSCAPE INITIATIVES IN PULP PRODUCTION AREAS IN NINE COUNTRIES INCLUDING BRAZIL, CANADA, INDONESIA AND PORTUGAL, AND AT LEAST 26 DOWNSTREAM AND MIDSTREAM COMPANIES SUPPORTING THEM.**

The first set is targeted at downstream and integrated companies sourcing PPP:

- Companies need to improve their understanding of landscape approaches and their components in order to benefit more from these multistakeholder collaborations;
- Downstream companies need to invest in PPP landscapes to tackle systemic issues;
- Companies should increase collaboration among themselves and within the same PPP landscapes; and
- Companies need to actively engage more stakeholder groups.

The second set of recommendations is targeted at stakeholders interested in mobilizing more private sector action for sustainable land use at scale in commodity production areas. These recommendations include enabling corporate engagement at landscape scale to contribute to companies' climate, nature and people goals, clarifying how companies can make claims and providing tools to monitor and report progress.

Specifically to PPP, the study recommends stakeholders develop common definitions and monitoring systems for forest degradation, bring neutral facilitators and conveners to accelerate progress, and explore closer engagement with governments.

1. PULP, PAPER & PACKAGING PRODUCTION AND SUSTAINABILITY

1.1 PRODUCTION OF WOOD FOR PULP, PAPER AND PACKAGING

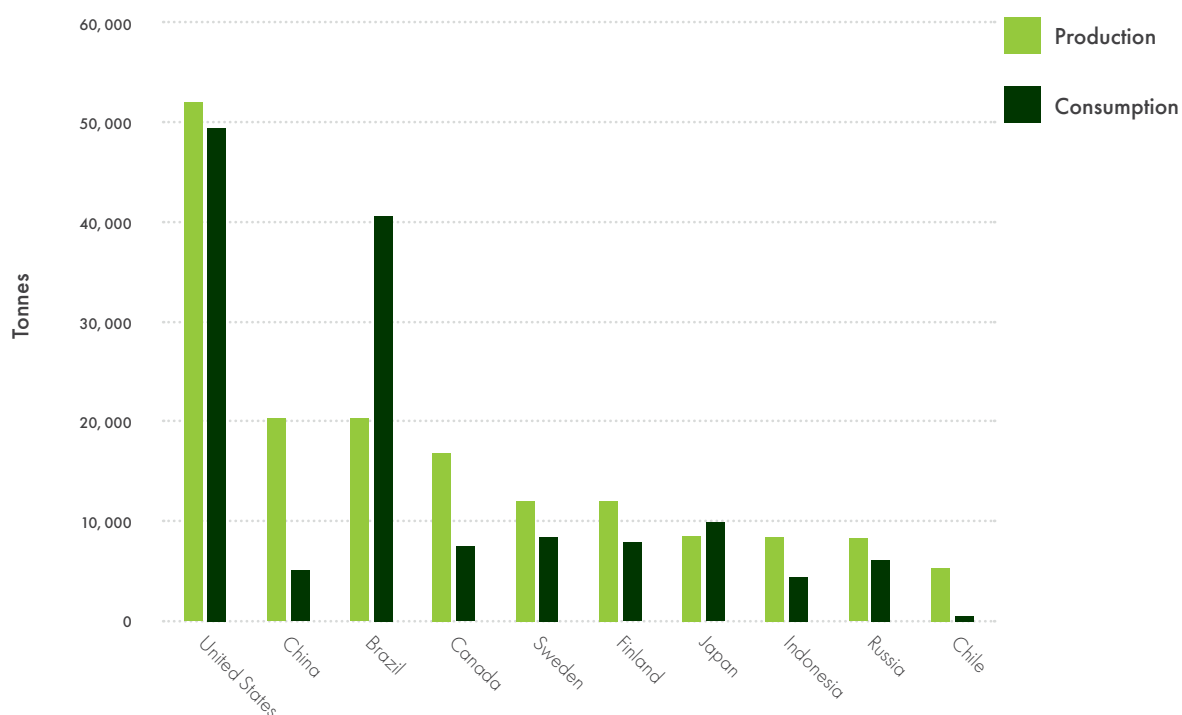
The pulp, paper and fibre-based packaging (PPP) industry is one of the largest industrial sectors in the world, using the fibres of trees taken from both natural and planted forests across temperate and tropical regions. Estimates suggest the industry accounts for 30–40% of the global industrial wood trade (WWF 2023).

There are two types of pulp wood: softwood accounts for around 44% of the global market and generally comes from conifers and evergreen trees in Europe’s Nordic countries, Russia, parts of Canada, and the southern United States; hardwood accounts for around 56% of the global market and comes from deciduous trees mostly produced in Latin America (which holds 80% of resources), Indonesia, the northern United States, southern Canada and some parts of Russia (Dillen et al. 2016).

According to the Food and Agriculture Organization (FAO) (Figure 1), the United States is the world’s largest producer for the pulp and paper industry, followed by Brazil, China, Canada and Sweden (FAO 2020). European pulp and paper production accounts for roughly 25% of global output, led by Finland, Russia and Sweden (World Atlas 2017). Brazil and Chile’s pulp and paper sectors are export oriented, while China’s consumption far outweighs its production. Data from the FAO (2020) shows the United States as the biggest consumer of pulp and paper products, while the EU is represented in the top 10 consumer countries by Sweden and Finland (Figure 1).

In terms of value, global demand for PPP is projected to expand from \$354 billion in 2022 to \$372 billion by 2029, mainly for wrapping, packaging and printed products (Fortune Business Insights 2023).

FIGURE 1 TOP 10 PULP AND PAPER PRODUCER COUNTRIES IN 2019



Source: FAO 2020

The pulpwood used to produce paper and packaging is sourced from a range of forest owners and managers. These may be commercial entities that own or lease large areas of land, by government bodies or private companies that manage state forestland, private owners of large and small

forests, small farmers and local communities (EFI 2021). The wood pulp is processed at mills, moving down the supply chain to be converted in paper, paperboard, wrapping, sanitary materials, components in other products, and packaging.

1.2 SUSTAINABILITY CHALLENGES IN PPP PRODUCTION

The PPP sector is associated with multiple social and environmental challenges, and these are aggravated when replacing old-growth forest with fast-growing monocultures. Pulpwood plantations continue to pose serious threats to biodiversity and habitats around the world (WWF 2021), despite a long history of sustainability certification schemes (see Section 1.3) and significant advances in deforestation-free commitments in some producing countries. Four out of the 24 deforestation fronts reported by WWF are associated to plantations for PPP production in Southeast Asia (WWF 2021). Previous WWF's report also identified risk of forest degradation for logging, which may be linked to PPP production, in boreal and temperate forests in Canada and Russia (WWF 2015b).



“ THE PPP SECTOR IS ASSOCIATED WITH MULTIPLE SOCIAL AND ENVIRONMENTAL CHALLENGES, AND THESE ARE AGGRAVATED WHEN REPLACING OLD-GROWTH FOREST WITH FAST-GROWING MONOCULTURES.

Many environmental and social risks associated with PPP are specific to the region in which it is produced. In Southeast Asia, deforestation and peatland degradation are the leading concerns, particularly in Indonesia, where between 2001 and 2021, 3 million hectares (ha) of forest were lost, including 630,000 ha of ecologically-sensitive peatland, for tree plantations to supply the pulp and paper industry (Nusantara 2023). In addition, communities have lost their lands for tree plantation resulting in conflicts with PPP companies or their suppliers in Indonesia (RAN 2018).

Brazil is the world's largest producer of planted forests with almost 10 million ha, of which 76% is eucalyptus trees (IBGE 2021; IBA 2019), the majority

of which are found in the Atlantic Forest biome in the north-east to southern part of the country. Production of PPP in large forest plantations in Brazil and Chile remains associated with soil erosion, landscape degradation, biodiversity loss, reduction in water supply and water retention issues, as well as conflicts with local communities (Guerino et al. 2022; Salas et al. 2016; Heilmayr et al. 2016). In European temperate forests, most of the environmental damage from sourcing pulpwood is caused by forest degradation and forest loss due to the removal of native and old-growth forests or their replacement with planted forests, for example in Eastern Europe's boreal forests (WRI 2022; Trase Earth 2021). In the United States, paper mills and the manufacturing of PPP products have been linked to groundwater pollution and damage to local ecosystems, biodiversity and human health (Dionne and Walker 2021).

In contrast to other major commodities in this study, the role of smallholders and local communities is less significant in forest management or tree production for the PPP industry in tropical regions. However,

there are often areas of farming, resource extraction or Indigenous territories within PPP production landscapes. Concentration of land ownership by a small number of integrated companies in some areas and the exclusion of communities can lead to land tenure conflicts and displacement of local and Indigenous communities. These challenges appear at least in Brazil, Canada, Chile and Indonesia (EJA 2022a; EJA 2022b; RAN 2018).

“ **CONCENTRATION OF LAND OWNERSHIP BY A SMALL NUMBER OF INTEGRATED COMPANIES IN SOME AREAS AND THE EXCLUSION OF COMMUNITIES CAN LEAD TO LAND TENURE CONFLICTS AND DISPLACEMENT OF LOCAL AND INDIGENOUS COMMUNITIES.**

1.3 ACTIONS FOR SUSTAINABLE LAND USE IN PPP

CERTIFICATION

The PPP and industrial wood sectors have among the longest histories of all commodities in voluntary sustainability standards and certification schemes, dating back to the 1980s and 1990s as concerns grew surrounding deforestation in tropical forests (Tuppura et al. 2015). The [Forest Stewardship Council \(FSC\)](#), founded in 1993, was the first voluntary sustainability standard for timber products, including wood fibre for PPP. This global standard was developed in multi-stakeholder assemblies comprising both private sector and NGO representatives, and national interpretations are developed to ensure local applicability.

“ **THE FOREST STEWARDSHIP COUNCIL FOUNDED IN 1993, WAS THE FIRST VOLUNTARY SUSTAINABILITY STANDARD FOR TIMBER PRODUCTS, INCLUDING WOOD FIBRE FOR PPP.**

The FSC has made significant contributions to sustainable practices in the sector. For example, the high conservation value (HCV) approach was developed under the FSC ([HCV Network n.d.](#)) and has been used widely to determine and preserve areas of value for society and environment since its publication in 1999. To date, FSC-certified forest is mostly found in Europe (51%) and North America (33%), while the remainder is distributed across South America, Asia, Oceania and Africa (Fernholz et al. 2021).

The second most relevant voluntary sustainability standard for forestry is the [Programme for the Endorsement of Forest Certification \(PEFC\)](#), created in 1999. The PEFC works differently to the FSC, as it endorses national forest certification schemes developed independently at country level. Around 70% of

certified forests are certified under a national scheme endorsed by the PEFC (PEFC 2022).

Globally, the area of forest certified through the FSC and through PEFC-endorsed national standards has remained fairly constant since 2016: it stood at 430 million ha in 2021 (Statista 2021) after adjusting for areas that are certified by both schemes. This represented approximately 11% of the global forest area, both production and non-production areas (Fernholz et al. 2021). A significant proportion of timber products entering the EU is certified: an estimated 74% of wood and 90% of pulp entering the region is FSC- or PEFC-certified (Cepi 2020).

Other voluntary sustainability standards in the global timber and pulpwood industries include the US Sustainable Forestry Initiative and the Canadian Standards Association, both of which are endorsed by the PEFC. It should be noted that there are differences between the various forestry schemes, both in terms of what is required by the standards as well as the set-up and running of the systems. Evaluations of a variety of forestry schemes have been carried out, for example by the WWF (WWF 2015).

COMPANY SUSTAINABILITY COMMITMENTS

In response to growing societal concerns to social and environmental impacts of PPP production, many companies across PPP supply chains have committed to social and environmental targets and have created sustainability programmes to meet them. Among downstream companies, for example, Nestlé has pledged to respect the rights of Indigenous Peoples and local communities in its [Forest Positive Strategy](#) (Nestlé n.d.). Mars traces all of its virgin fibre used in PPP to at least the country of harvest, and 95% of this was certified by one or

more of the FSC, PEFC and Sustainable Forest Initiative by the end of 2020 (Mars n.d.). Both companies have invested in landscape initiatives in pulp and paper producing areas (see [Box 6](#)).

In Brazil, Suzano, the largest integrated company producing eucalyptus for pulp and paper in Latin America, is committed to a net removal of 40 million tonnes of carbon from the atmosphere in their operations in Brazil by 2025 and has set up afforestation and native forest restoration programmes to meet this target (Suzano n.d.). In South Africa, Mondi has committed to not converting natural forests to timber plantations and respect and protect the rights of Indigenous Peoples and local communities (Mondi 2022).

CORPORATE PARTICIPATION IN COALITIONS

Companies also engage in coalitions, in addition to participating in the governance of voluntary sustainability standards bodies such as the FSC and PEFC. The [Consumer Goods Forum Forest Positive Coalition of Action](#) (CGF FPCoA) has brought together 22 retailers and manufacturers¹ sourcing commodities including PPP to leverage collective action and accelerate systemic efforts to remove deforestation, forest degradation and natural ecosystem conversion from commodity production. The Coalition has developed the [Forest Positive PPP Roadmap](#), building on individual members' policies and the sector's best practices.

Other company coalitions include the Forest Solutions Group, which is facilitated by the World Business Council for Sustainable Development (WBCSD) and comprising 17 companies working in the industrial wood sector. The Coalition issued its [Forest Sector Roadmap](#) in 2019 to guide the transition to sustainable PPP production (WBCSD 2023).



Aerial view of canal blocking in Dompas, Riau.
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“ WOOD-DERIVED PRODUCTS ARE THE FOURTH-LARGEST COMMODITY LINKED TO EMBEDDED DEFORESTATION (FOLLOWING SOY, PALM OIL AND BEEF) ENTERING THE EU

MANDATORY REGULATIONS IN CONSUMER COUNTRIES

Data from Trase (2021) shows that wood-derived products are the fourth-largest commodity linked to embedded deforestation (following soy, palm oil and beef) entering the EU. The EU started addressing this problem by adopting the Forest Law Enforcement, Governance and Trade Action Plan in 2003 to reduce illegal logging for timber production and related forest degradation and deforestation (FAO n.d.). The policy's two main components are voluntary partnership agreements, which are binding trade agreements between the EU and countries producing tropical timber to provide access to the market, and the EU Timber Regulation.

Negotiations for voluntary partnership agreements and timber legality assurance systems can take years. Indonesia is the only country that has been formally recognized by the EU for its timber verification system, Sistem Verifikasi Legalitas Kayu (recognized in 2016), out of the 15 countries that are undertaking the process (Jong 2022).

At the end of 2022, the EU finalized the EU Deforestation Regulation, which will ban the imports of commodities associated with deforestation and forest degradation after December 2020 (EU Commission 2022). The regulation, which applies also to timber products, is expected to replace voluntary partnership agreements and the EU Timber Regulation (Jong 2022).

The United States is reviewing a similar bill to outlaw products linked to deforestation, including wood pulp, under the Fostering Overseas Rule of Law and Environmentally Sound Trade Act. The bill builds on the Lacey Act, which prohibits illegal timber and wildlife from entering the country (McCarthy 2022).

¹ At the time of publication, the Coalition has the following companies as members: eight retailers — Carrefour, Jerónimo Martins, McDonald's, METRO AG, Sainsbury's, Sodexo, Tesco, and Walmart — and 14 manufacturers — Asia Pulp and Paper (APP) Sinar Mas, Colgate-Palmolive Company, Danone, Essity, General Mills, Grupo Bimbo, Mars, Incorporated, Mondeléz International, Neste, Nestlé, P&G, PepsiCo, Reckitt, and Unilever.

2. COMPANY ACTION AT LANDSCAPE SCALE IN PPP PRODUCTION AREAS

2.1 GROWTH IN PRIVATE SECTOR ACTION AT LANDSCAPE AND JURISDICTIONAL SCALE

Companies have become increasingly interested in landscape and jurisdictional approaches as they look for tools to achieve sustainable production of agricultural and forestry commodities. They have realized that successful resolution of major challenges – deforestation, natural ecosystem

conversion, land conflicts and human rights risks – requires on-the-ground collaboration of multiple stakeholders, including the private sector, governments, farmers and communities, and that individual supply chain action, while critical, is insufficient (TFA 2019).

BOX 1 DEFINING LANDSCAPE APPROACHES

Landscape approaches involve the long-term collaboration of stakeholders within a defined natural or social geography, such as a watershed, biome, jurisdiction or company sourcing area. These management approaches seek to reconcile competing social, economic and environmental goals and build resilience through multi-stakeholder discussions to reach consensus among stakeholders and integrated landscape management (TFA et al. 2020; CDP 2022).

Sharing responsibilities between companies, producers, civil society, local governments and local communities on the ground means each can contribute according to their mandate and capacity. Outcomes are expected to be sustained in the long term as goals are determined together.

The jurisdictional approach is a type of landscape approach that operates within sub-national or national administrative boundaries and with active involvement of government. Similar approaches characterized by multi-stakeholder collaboration at scale include territorial or catchment approaches or integrated land-use management. For the purpose of this study, the authors use the terminology of landscape and jurisdictional approaches.

Various organizations have identified components necessary for a landscape or jurisdictional initiative to operate effectively and achieve optimal results. These components include engaged stakeholders, agreement on shared goals, multi-stakeholder governance, financing and investment, monitoring and reporting and, particularly in jurisdictional initiatives, planning and policy frameworks (ISEAL 2022; LTKL 2022). While some initiatives have made credible progress in developing these components, many are in the early stages.

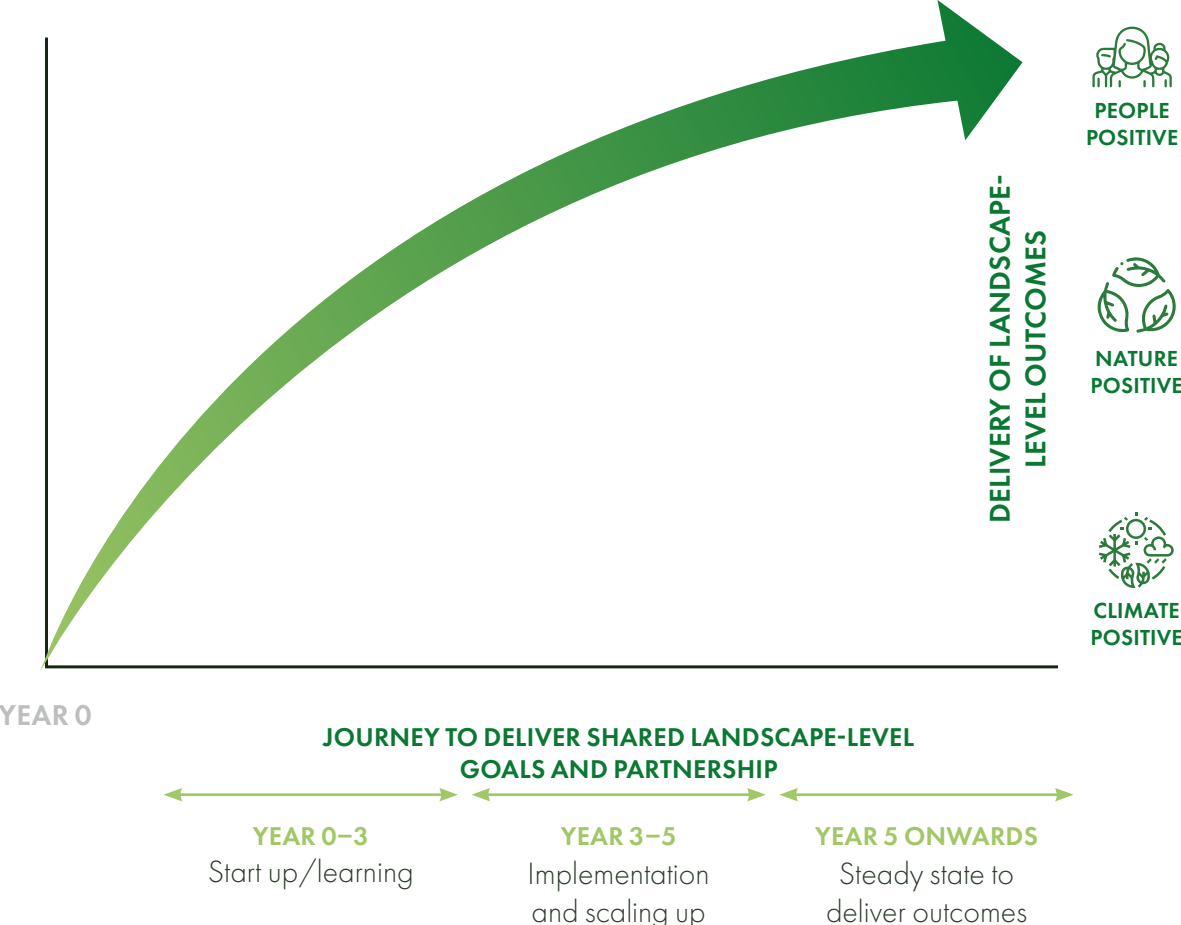
Some initiatives are being developed under wider landscape- or jurisdictional-scale multi-stakeholder processes and are contributing to one of the components above, or working towards one or more of the shared goals. Others do not have formal multi-stakeholder processes in place but engage different stakeholders and work towards multiple goals aligned with sustainable land-use practices.

This study considers and reviews diverse landscape and jurisdictional initiatives at different stages of development, with the basic tenets that they seek and promote multi-stakeholder collaboration to achieve shared sustainability goals in the landscape or jurisdiction.

Some downstream companies, often without operations in commodity production areas, are starting to engage at landscape scale both individually and collectively (Proforest 2021 b). The CGF Forest Positive Coalition of Action has been collaborating with other stakeholders in commodity production

regions, recognizing that landscape initiatives are long-term processes to deliver climate, nature and people impact at scale (see Figure 2) (CGF FPCoA 2021). The WWF Forests Forward initiative has also supported companies to take landscape action beyond their supply chains.

FIGURE 2 DEVELOPING LANDSCAPE INITIATIVES



Source: CGF FPCoA 2021

“ COMPANY ENGAGEMENT IN LANDSCAPE APPROACHES IS INCLUDED IN GLOBAL DISCLOSURE PLATFORMS FOR CORPORATE SUSTAINABILITY SUCH AS FOREST500 AND CDP

In general, the business case for retailers and manufacturers to take action at landscape and jurisdictional scale includes cost efficiency, supply chain security, risk mitigation, improving the resilience of

farmers, the possibility of achieving multiple ESG goals, meeting investor requirements and leadership in global disclosure platforms (CGF FPCoA 2022a).

Company engagement in landscape approaches is included in global disclosure platforms for corporate sustainability such as Forest500 and CDP (see [Box 2](#)), which saw the number of companies disclosing landscape engagements through its forest questionnaire quadrupling to 192 in 2022 compared to 47 in 2021 (CDP 2022).

2.2 PPP LANDSCAPE INITIATIVES IN NUMBERS

This study attempts to build understanding of the evolving business case for traders, manufacturers and retailers for engaging at landscape and jurisdictional scale to achieve responsible sourcing of virgin fibre for packaging. It also aims to identify the uniqueness and challenges in PPP landscape initiatives and pathways for building landscape engagement in the sector.

Information gathered for the study is derived from desktop reviews, interviews and submissions to the 2022 CDP forest questionnaire (see [Box 2](#) on the CDP questionnaire and Annex 1 for the research methodology). The study focuses on midstream and downstream companies, but also includes integrated companies that play dual roles as pulp mills or manufacturers and producers.

Representatives of nine companies and eleven landscape initiative implementers were interviewed for this report. Section 1 provides context, namely PPP production and sustainability efforts. Sections 2 and 3 share findings, while Section 4 offers recommendations for companies and the wider community to support the use of landscape approaches for PPP sustainability.



BOX 2

COMPANY LANDSCAPE ENGAGEMENT IN CDP FOREST QUESTIONNAIRE

CDP is a global non-profit running the world's largest environmental disclosure system for companies, cities, states and regions. CDP was founded in 2000 and works with more than 680 financial institutions with over \$130 trillion in assets. It pioneered using capital markets and corporate procurement to motivate companies to disclose their environmental impacts and to reduce GHG emissions, safeguard water resources and protect forests.

The CDP disclosure system has three corporate questionnaires – on climate change, on forests and on water security – and offers a framework by which companies can provide environmental information to their stakeholders on governance and policy, risks and opportunities, environmental targets and associated strategies. Companies

may be asked to disclose annually through CDP by investors or customers and can also disclose voluntarily.

This study includes data reported by companies through CDP's forest questionnaire of 2022, the second year for which the organization has included questions related to corporate engagement in landscape and jurisdictional initiatives. Recognizing that landscape engagement is relatively new for many companies, the CDP team reviewed all submissions to assess whether the programmes met the basic CDP criteria for landscape and jurisdictional initiatives (see Figure 3). Qualifying landscape initiatives are those that provide evidence of multi-stakeholder processes and collective goals for a defined territory (criteria 1 to 3 in Figure 3).

FIGURE 3 CDP CRITERIA FOR LANDSCAPE INITIATIVES



1. The scale of the approach is an environmental, productive, or geopolitical landscape/jurisdiction.

Heterogeneous land area composed of multiple and interacting ecosystems, people, functions, authorities, and land uses that are repeated in a similar form throughout.

BUILD BASED ON A SHARED LONG-TERM VISION OF SUSTAINABILITY AND INTEGRATED IN A MANAGEMENT STRATEGY OR ACTION PLAN WITH:



2. Multiple local stakeholder groups participate

in processes/platforms of discussion and decision making.



3. Collective goals and actions

on sustainable production (e.g. commodities), human well-being, and conservation.



4. Transparent reporting or information systems

on actions and progress are established and collectively acknowledged.

Source: CDP

In 2022, 107 companies in the timber sector disclosed landscape and jurisdictional engagements through CDP, the most of any sectors reporting to the platform. Of these, 32 are PPP companies² and they disclosed engagements with 44 landscape initiatives. After a qualitative review of the data using the criteria of Figure 3, CDP found a total of 19 qualifying landscape initiatives in which 15 PPP companies had reported engagements, an increase from 10 PPP companies in 2021. Only four out of the 15 reporting in 2022 are downstream companies without direct operations on the ground. For 25 landscape initiatives in which 19 PPP companies disclosed engagement to CDP in 2022 there was insufficient information to qualify them as landscape initiative, according to CDP and Proforest analysis. Another 13 PPP companies indicated in their responses to the questionnaire that they planned to engage at landscape scale in the next

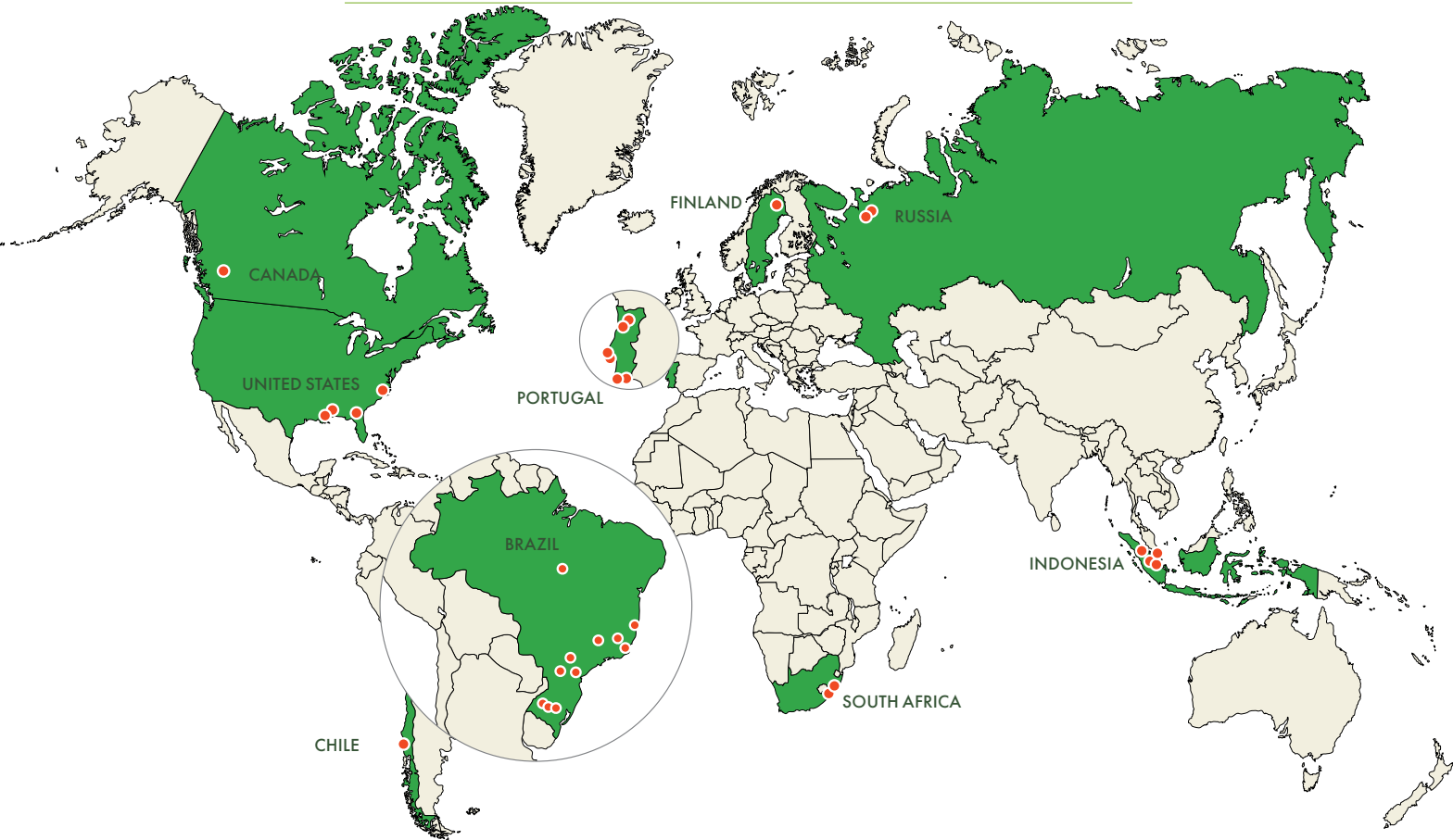
two years, but said lack of knowledge and immediate corporate priority were the reasons they had not yet done so.

The authors complemented the responses to the CDP questionnaire with desktop research and interviews and identified a total of 32 PPP landscape initiatives in nine countries including Brazil, Canada, Indonesia, Portugal and South Africa (see Figure 4 and Annex Table 3.1). The majority of the 26 midstream and downstream companies identified as having taking landscape-scale action are integrated companies that also manage forests (see [Annex Table 2.1](#)).

The fact that these integrated companies have operations on the ground makes the business case for their engagement in landscape initiatives different to that of pure downstream companies (see sections 2.3 and 2.4).

² In the CDP disclosure, a company was categorized as a PPP company if its primary activity was in paper packaging, paper products, pulp and paper mills, and/or wholesale wood and paper products.

FIGURE 4 PPP LANDSCAPE INITIATIVES IDENTIFIED IN THIS STUDY



Source: Interviews and published corporate reports; CDP forest questionnaire 2022

2.3 WHY COMPANIES ENGAGE AT LANDSCAPE SCALE IN PPP

MEETING OWN SUSTAINABILITY COMMITMENTS

Similar to companies in other sectors, some PPP companies have established ambitious commitments for climate, biodiversity, water, land use and people. For climate, leading companies such as International Paper, Stora Enso, Tetra Pak and WestRock have joined the Science Based Targets initiative and may have set targets for reducing their GHG emissions from the forest, land and agriculture sector by the end of 2024 (WWF 2022). Although it is still unclear how companies can claim their landscape-scale action as a contribution to meeting their climate goals, PPP companies are already investing beyond supply chains in their sourcing landscapes with this goal in mind. For example, Tetra Pak has committed to restore up to 7,000 ha of Araucaria forests adjacent to its sourcing areas, which are already FSC-certified, in the Atlantic Forest biome in Brazil by 2030 (Tetra Pak 2022). The company hopes a co-benefit is that

these investments may count against their operational target to reach net-zero emissions by 2030.

Landscape restoration and conservation undertaken by companies can also be linked to their commitments for biodiversity and water. For example, Suzano is committed to restore 500,000 ha of forests as biodiversity corridors in three biomes by 2030 (Suzano 2023). These conservation targets could be aligned with the [Science Based Targets Network \(SBTN\) framework for freshwater](#), for which the first draft was published in 2022, as well as Science Based Targets for land, the draft of which had been released for [public consultation](#) as this study was conducted.

Whether or not these investments can, as a co-benefit, count against their targets, companies will not be able to improve ecosystem services and biodiversity protection without multi-stakeholder collaboration and action at landscape scale with local communities.

BOX 3 COLLABORATING TO REDUCE PEATLAND LOSS AND FIRE

Winrock is implementing two initiatives in support of a district-level strategy to promote sustainable peatland management and reduce GHG emissions in Siak district in Riau, Indonesia, a major producing region for pulp and paper and palm oil.

The first, [Promoting Sustainable Peatland Management in Indonesia](#), employs a community-based approach to develop social forestry programmes in Siak, where communities manage forest. Peat covers more than half of the district (Martono et al. 2018) and the programmes are designed to improve water management in peat areas and develop advanced community-based sustainable forest management.

The second initiative, the Sustainable Peatland Business Model, promotes sustainable wetland

cropping systems to help palm oil smallholders diversify into crops that are native to peatland. This is a way to restore degraded peat areas, including those bordering pulp plantations, and reduce the frequency of fires, land subsidence, and GHG emissions.

These programmes are pilots and inform the implementation of the district's Green Siak strategy, which is focused on transforming the management of peatland and forests at jurisdictional scale to reduce GHG emissions and improve smallholder livelihoods. Community engagement is a key component of these initiatives, which have been supported since 2021 by several members of the CGF FPCoA, including those with PPP as a material commodity.

IMPROVE RELATIONSHIPS WITH LOCAL COMMUNITIES AND STAKEHOLDERS

Many stakeholders have called for greater accountability from companies to ensure that forest production does not impact local communities negatively. Respect for the rights and traditions of local and Indigenous communities is also a central tenet of the [UN Guiding Principles for Human Rights](#) as well as the HCV and free, prior and informed consent (FPIC) requirements of the FSC. As part of certification, forest managers must consult local communities and provide opportunities for meaningful participation in decision-making that affects landscape management.

Company commitments to protect human rights, pressure from civil society organizations, FSC requirements and risks (such as fire) to forest production have motivated downstream companies to work with both local communities and NGOs to develop landscape initiatives to improve community relationships and collaboration. The first can be observed in a landscape initiative led by the Tsay Keh Dene Nation in Canada (see [Box 6](#)), while the latter is evident in landscape initiatives in Brazil, where The Forests Dialogue (TFD) has led the development of multi-stakeholder platforms in six landscapes (see [Box 4](#)).



BOX 4

THE ROLE OF DIALOGUE IN FSC CERTIFICATION AND LANDSCAPES IN BRAZIL

The Forests Dialogue (TFD) is a global initiative set up in 1999 to bring together companies, communities and NGOs to exchange ideas and information related to forest management in an open and constructive dialogue. In 2002, TFD hosted its first dialogue, on forest certification, in Geneva, Switzerland (TFD 2020). Since then, the platform has been a vehicle through which FSC-certified companies have engaged with stakeholders in conflict areas. In 2005 the Brazilian Forests Dialogue, a partner forum, was created. It works closely with TFD, albeit independently, and now has seven regional Forest Forums.

For example, the Bahia Forest Forum was established in 2005 by local organizations inspired by and with the support of TFD and the Brazilian Forests Dialogue. It came amid continuous disputes over more than a decade between traditional communities and PPP companies in the state (Fiocruz 2014).

There was, at the time, a desire to understand the dynamics of occupation of the territory and to verify the accusations of deforestation against forestry companies. Also, there was a concern relating to the concentration of land and themes

related to forest and territory management and relationships with the community began to be debated (Dialogo Florestal 2019). The Bahia Forest Forum co-facilitated the establishment of 10 agreements between local communities and companies, which dramatically reduced disputes.

Processes led by the Brazilian Forests Dialogue have also resulted in the development of landscape initiatives, including one in a buffer zone surrounding the Pau Brasil National Park in the state of Bahia.

The initiative was established in 2020 and grew out of a multi-stakeholder process used to solve the earlier conflicts. In 2021 the stakeholders agreed on the shared goal of protecting and connecting the 19,000 ha national park with the 6,069 ha of natural forest reserve held by Veracel, one of the largest integrated PPP companies in Bahia (Dialogo Florestal 2022).

The local stakeholders have identified providing extension services for rural communities as the highest priority action needed to achieve this objective and improve biodiversity habitat and community well-being.

The motivations for landscape engagement discussed in the interviews with companies are reflected in the goals of the landscape initiatives supported by companies reporting to CDP in 2022 (Figure 5). Ten to 13 companies report the need for landscape protection, conservation and restoration as motivation.

Between six and nine companies aim to halt ecosystem degradation, prevent deforestation, build ecological corridors, improve water management and soil health, or prevent forest fires through landscape engagement. Goal to increase community engagement in the landscape was listed by five companies (Figure 5).



Mosaico Florestal © Brazilian Forest Dialogue

FIGURE 5 GOALS SUPPORTED BY COMPANIES IN PPP LANDSCAPE INITIATIVES



Source: Submissions to CDP's forest questionnaire 2022

2.4 KEY FACTORS FOR COMPANIES IN SELECTING LANDSCAPES FOR INVESTMENT

CDP's forest questionnaire identifies 19 factors that influence company decision-making when choosing landscape initiatives in which to invest. This study reviewed factors from 15 responses submitted by PPP companies and from interviews with nine companies. Based on this data, companies engage in landscape initiatives where they have:

EXISTING OPERATIONS IN SOURCING REGION

Integrated companies prioritize the regions in which they have their largest presence. Thirteen out of 15 companies (11 are integrated companies) disclosing to CDP mention this factor as key in selecting a landscape initiative. Interviews with downstream companies show that they also prioritize their sourcing regions, but the volume sourced was not a deciding factor for engagement.

FOREST POSITIVE AND CLIMATE CHANGE MITIGATION OPPORTUNITIES

Nine out of 15 companies reporting to CDP selected landscape initiatives that provide opportunities to protect and restore forests or implement other nature-based solutions. Companies interviewed said they selected landscapes with high potential for improving ecosystem connectivity for biodiversity conservation

(mentioned by six out of nine companies interviewed), protecting water sources (three companies) and carbon sequestration (three companies).

OPPORTUNITIES FOR COMMUNITY LIVELIHOOD IMPROVEMENT

CDP disclosure data shows that nine of the 15 companies prioritized landscapes where there are opportunities for community and smallholder inclusion, while four wanted to improve community well-being.

These opportunities include technical assistance, support for production and marketing of non-timber forest products and food crops, as well as forest restoration as a new income stream for local communities, either for the restoration work or through carbon market pilots.



Ingenika river in the Tsay Keh Dene landscape ©Robin Barr

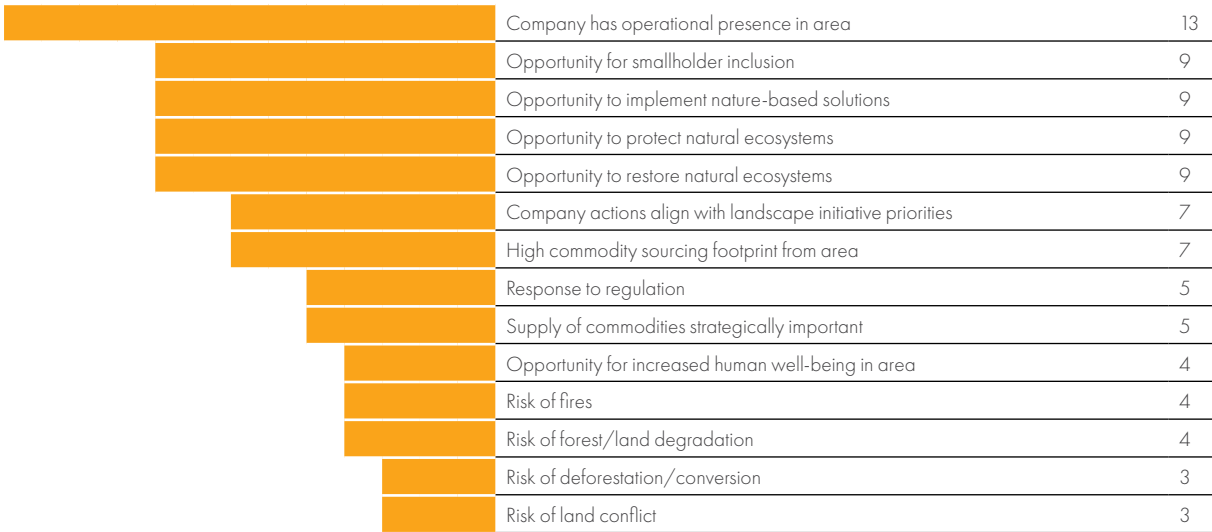
FOREST RISKS Several companies reported to CDP that they selected landscapes with risks of forest fires, deforestation and ecosystem conversion, and forest degradation. Interviewees pointed out that addressing these risks requires a holistic approach and collaboration with local communities.

RISKS OF LAND RIGHT CONFLICTS While only three companies mentioned this as a factor in selecting landscape initiatives, interviewees highlighted two examples where landscape initiatives were developed to address land right conflicts, namely in Bahia, Brazil (see [Box 4](#)) and a landscape initiative led by the Tsay Keh Dene in Canada (see [Box 6](#)).

PRESENCE OF PARTNERS Although not included in the options in CDP’s forest questionnaire, six out of nine companies interviewed mentioned this factor as key for engaging in landscapes. Integrated and downstream companies often partner with CSOs to facilitate dialogue with communities and/or implement some or all landscape interventions.

For example, WWF has brought companies to engage in PPP landscape initiatives in Brazil, Chile and Portugal, among others. Two downstream companies have also supported two landscape initiatives in Canada and Russia through the Earthworm Foundation (see Annex Table 2.1).

FIGURE 6 CHOOSING A LANDSCAPE INITIATIVE FOR INVESTMENT



Source: Submissions to CDP’s forest questionnaire 2022

3. HOW COMPANIES SUPPORT PPP LANDSCAPE INITIATIVES

3.1 TYPE OF ENGAGEMENT

The following sections highlight different types of company engagement in the PPP production landscapes identified in this study.

3.1.1 INTEGRATED COMPANIES DEVELOPING OWN LANDSCAPE PROGRAMS

The majority of the 26 PPP companies identified as having engaged in landscape initiatives are integrated companies with direct operations on the ground. Interviews with some of these companies show how these landscape programmes have evolved from community engagement under other programmes.

One example is from companies' programs to reduce forest and peat fires. APRIL initiated the [Fire-Free Village Programme](#) in Riau province in Indonesia in 2015 and collaborated with local NGOs and governments to engage 77 communities in 27 villages, offering to support village infrastructure if communities were able to reduce fire incidence. Twenty-three of these villages succeeded in preventing forest fires and the burned area in the landscape was reduced by more than 90% between 2015 and 2018 (RGE 2019).

In addition, APRIL has secured five ecosystem restoration concessions adjacent to its timber plantations to establish the [Riau Ecosystem Restoration](#). Under the landscape initiative, the company has worked with local organizations, such as BIDARA and Laskar Alam, to support alternative agricultural and forest-based incomes in at least 15 villages.

In Brazil, Suzano has supported the development of landscape planning in two landscape initiatives that grew out of [Land Use Dialogues](#) facilitated by Brazilian Forests Dialogue's Forestry Forum of the

Amazon. In 2021, Suzano announced its commitment to link two landscape initiatives, Gurupi Mosaik and Endemism Centre of Belem, via a 183 km biodiversity corridor connecting the company operations areas with other private forest reserves and Indigenous territories by 2030, covering a total area of 221,000 ha. As part of this commitment, Suzano is also engaging soy and beef farmers to restore riparian zones and food crop farmers to implement agroforestry within and between the two landscape initiatives.

3.1.2 COLLABORATIONS BETWEEN DOWNSTREAM AND INTEGRATED COMPANIES

Downstream and integrated companies are increasingly collaborating to expand positive impacts in PPP production landscapes in partnership with CSOs and communities. This section highlights two examples in Brazil as described below and in [Box 5](#).

Tetra Pak, a world-leading food processing and packaging company, has collaborated with its supplier Klabin and Brazilian NGO [Apremavi](#) to co-design the [Conservador das Araucárias](#) programme. The initiative built on a long-term partnership between Klabin and Apremavi in two programmes to support rural development and restore the Atlantic Forest in Brazil. The two organizations are also part of the Brazilian Forests Dialogue and participate in its steering committee.

Lessons from these programmes informed the development of the Conservador das Araucárias, which has succeeded in restoring 87 ha in its first year and piloting phase in 2022 (Tetra Pak 2022). With Tetra Pak's financing commitment, the initiative plans to restore up to 7,000 ha of Atlantic Forest by 2030.

BOX 5

COMPANY COLLABORATION FOR LANDSCAPE RESTORATION IN BRAZIL

HP has committed to becoming “forest positive” by 2030 and aims to protect, improve management, or restore an area of forest equal to or greater than the amount of all paper (regardless of brand) that runs through HP products and services (WWF 2020). To achieve this goal, HP is partnering with WWF and other companies in priority landscapes.

In 2020, HP joined the ongoing Raízes do Mogi Guaçu programme, a river catchment landscape initiative in Brazil that builds on a collaboration begun in 2017 between WWF and International Paper and, since 2021, Sylvamo³. The goal is to restore and protect critical riparian zones of the

Mogi Guaçu river, an important water source in the Brazilian Atlantic Forest. HP is financially supporting direct restoration interventions as well as enabling conditions that secure their durability including multi-stakeholder convening, landowner outreach, and nursery operations.

The landscape initiative had 157 ha of forests under restoration on private land by the end of 2022 and, due to the support of HP, increased its forest restoration target for 2024 to 200 ha from 100 ha.

³ In 2021, International Paper spun off a new company, Sylvamo, that includes International Paper's former Brazilian operations; Sylvamo has since taken over the partnership with WWF in this landscape initiative.

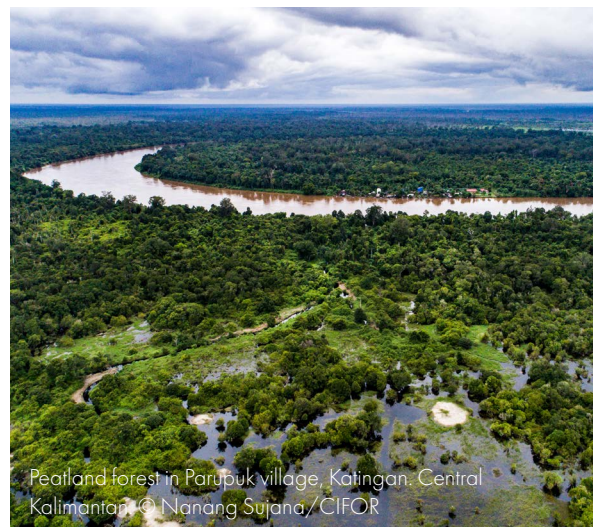
3.1.3 INDIVIDUAL AND COLLECTIVE ACTION BY DOWNSTREAM COMPANIES

Engagement of “pure” downstream companies – meaning those without direct operations on the ground – in PPP landscape initiatives appears to be at an early stage, as not many examples were identified in this study. Essity, a member of the CGF FPCoA, made an investment in a landscape initiative in Dvinsky in northwest Russia (implemented by the FSC) in 2021 as part of its commitment to the CGF FPCoA (Essity 2021). Nestlé has also supported the Nahuelbuta landscape initiative in Chile, implemented by the local governments with support from WWF (Nestlé 2022, WWF n.d.).

However, two collaborations between downstream companies and CSOs on the ground show quite advanced progress. First, Mars and Nestlé have been collaborating with Earthworm, WWF and the FSC since 2019 to promote sustainable forestry practices, biodiversity conservation and alternative livelihoods in Dvinsky (Earthworm Foundation 2021). The initiative builds on agreement between the government of Arkhangelsk, Greenpeace Russia and WWF Russia in 2018 to protect an intact 300,000 ha of the Dvinsky forest landscape.

Supported by Mars and Nestlé, the landscape initiative conducted a socio-economic survey and ecological zoning in 2020 to inform local stakeholders about priority land-use and livelihood

interventions. Activities in 2021 included tagging and monitoring wild reindeer to support the study of ecological networks in the area and establishing the requirements for a resource centre to support livelihoods other than forestry. Through this process, other stakeholders have been engaged. The government of Arkhangelsk and the Arkhangelsk Pulp and Paper Mill and Titan, two major pulp mills in the landscape, have committed to protecting intact forest and are using satellite monitoring to report on the commitment. It is important to note, however, that activities on the ground have been impacted and progress may halt after Russia invaded Ukraine in February 2022 and the war continues. See the second example of collective landscape action from downstream companies in [Box 6](#).



Peatland forest in Parubuk village, Katingan, Central Kalimantan. © Nanang Sujana, CIFOR

BOX 6

3M, MARS AND NESTLE SUPPORT FOR INDIGENOUS PEOPLES IN CANADA

Since 2019, 3M, Mars and Nestlé have partnered with Earthworm and the Tsay Keh Dene Nation in British Columbia, Canada, to protect HCV forests and respect the rights of the Indigenous population as part of these companies' commitments on responsible sourcing.

This collaboration grew from Earthworm's PPP traceability studies, which identified British Columbia, including the Tsay Keh Dene Nation's 3.2 million ha Indigenous territory, as a relevant sourcing area. This territory also includes the ecologically and culturally important Ingenika Indigenous Protected and Conserved Area.

Earthworm in 2019 signed a memorandum of understanding with the Tsay Keh Dene Nation to support their requests to major timber companies operating in their Indigenous territory to follow conservation and management rules and guidelines established by Tsay Keh Dene Nation. This includes respecting the boundaries of an Indigenous Protected and Conserved Area the Nation established, as well as supporting it to carry out

an HCV assessment in partnership with Earthworm Foundation (Earthworm Foundation 2022). Support from the three companies, through Earthworm, enabled this landscape initiative to raise awareness of FPIC among local stakeholders.

Currently, two out of the three companies managing the forest in the territory have signed agreements stating that they will not disturb sites of cultural value in the Ingenika and will respect a Forest Stewardship Framework proposed by the Nation.

In 2022, the Tsay Keh Dene Nation, Chu Cho Environmental and Earthworm piloted an HCV assessment in approximately 20,000 ha in Chuyaza, where there are important habitats for caribou, moose and subsistence plants. The findings of this assessment are being incorporated into the Tsay Keh Dene's management framework for Chuyaza. In addition, deforestation in the territory has been monitored annually using Starling since 2020. Watch a video of the initiative [here](#).

3.2 ACTIONS SUPPORTED BY COMPANIES

In its 2022 forest questionnaire, CDP listed 17 types of action that companies might support when engaging at landscape scale (see Figure 7). Based on information submitted to CDP in 2022 from 15 companies investing in 19 landscape initiatives companies are most interested in supporting:

FOREST RESTORATION AND CONSERVATION

In total, 11 landscape initiatives in Portugal, Indonesia, Brazil, South Africa and the United States supported by PPP companies are focused on supporting landscape restoration and forest conservation inside or outside managed forest units. For example, forest restoration is a priority in the Plantas Agua landscape initiative in Portugal, which is supported by Altri SGPS in collaboration with WWF, the Coca Cola Foundation and Tavira municipality.

STRENGTHENING LANDSCAPE INITIATIVE GOVERNANCE

Seven companies reporting to CDP are supporting efforts to establish governance at landscape scale and financially supporting multi-stakeholder entities leading landscape initiatives.

LAND-USE PLANNING

Companies are mapping, planning and monitoring land use in landscape initiatives, reporting that they have supported eight landscape initiatives to co-design shared goals and five to build land-use planning. One example is pulp and paper company Mondi, which invested in the uMhlathuze water catchment initiative in South Africa to connect forestry, dairy and sugar companies with local government, communities and NGOs to conserve water and promote sustainable agriculture (WBCSD, n.d.).

BOX 7

TFD'S LAND USE DIALOGUES FOR SHARED LANDSCAPE GOALS

The Forests Dialogue (TFD) in 2016 started the Land Use Dialogue to support multi-stakeholder processes for collaborative and adaptive land management across sectors, including forestry, agriculture and mining. The initiative is founded on the premise that through dialogue, people and institutions can create more sustainable, locally driven and durable solutions to landscape challenges as part of a landscape approach (TFD n.d.).

Through Land Use Dialogues, stakeholders – about 90% local and 10% global – are facilitated to learn from one another, develop a shared landscape vision and identify priority actions. The model has been deployed with donor funding through an international NGO in several landscapes in Ghana, Uganda, Congo, Tanzania

and Brazil. Many of these processes could not continue on to implement landscape action due to lack of continued funding. However, in Brazil, these processes, led by a partner of TFD, the Brazilian Forests Dialogue, have resulted in the development of at least five landscape initiatives supported by PPP companies and organizations such as Conservation International and the World Resources Institute (see Annex 2.1).

The experience of the Brazilian Forests Dialogue in the Land Use Dialogue may help the FSC to develop a national interpretation of its new requirements “intact forest landscape” and Indigenous cultural landscapes”, which it adopted at the end of 2022. Explore the Land Use Dialogue guide for implementers [here](#).

“ **COMMUNITY INCLUSION AND LIVELIHOOD IMPROVEMENT ARE ESSENTIAL FACTORS IN THE SUCCESS OF FOREST CONSERVATION AND RESTORATION.**

LANDSCAPE SURVEILLANCE

Five companies disclosed to CDP that they support landscape initiatives to share spatial data with stakeholders and six reported supporting the collaboration for monitoring of fire or land-use change in community areas. This collaborative approach is observed in the Riau Ecosystem Restoration, where APRIL supports forest fire and monitoring of land-use change in the villages as part of the initiative.

LOCAL COMMUNITY INCLUSION AND LIVELIHOOD IMPROVEMENT

Although livelihood improvements were only supported by companies in four PPP landscape initiatives reported to CDP, six companies interviewed for the study said that community inclusion and livelihood improvement are essential factors in the success of forest conservation and restoration.



Restorasi Ekosistem Riau © rekoforest.org

FIGURE 7 LANDSCAPE ACTION SUPPORTED BY PPP COMPANIES



Source: Submissions to CDP's forest questionnaire 2022

Apart from the corporate actions reported in the CDP disclosure, through interviews the authors identified that companies were supporting dialogue with Indigenous peoples to reduce or prevent conflicts with companies managing forests for pulp production. This action is observed in the territory of the Tsay Keh Dene Nation in Canada, Pau Brasil National Park buffer zone and Mosaico Gurupi in Brazil and the Näätämo basin in Finland. Some companies have supported dialogue by investing in neutral mediators,

while others are supporting Indigenous communities to improve land-use management planning.

It is worth noting that only two initiatives reported to CDP support local governments to develop public policies. Interviews also found that while some company landscape actions support government policies, not many initiatives engaged governments directly to institutionalize shared goals or to collaborate to take action to achieve them.

3.3 MONITORING AND REPORTING ON LANDSCAPE PROGRESS

Monitoring and reporting are crucial elements to identify success factors and constraints and to facilitate decision-making and course correction. According to 2022 data from CDP, all but one of the landscape initiatives had a monitoring system in place to track progress. Thirteen out of 19 landscape initiatives disclosed to CDP report their progress publicly, while five monitor but do not report publicly.

The study further identified through the interviews and desktop research that companies were monitoring actions through their own monitoring platforms and reporting progress in internal reports and external platforms, such as CDP.

Two landscape initiatives are using Verra Carbon Standard and its additional Climate, Community & Biodiversity Standards to monitor improvement in GHG emissions, biodiversity and social inclusion. The WWF Forests Forward programme has a public-facing [platform](#) that includes maps and descriptions of landscape actions that participating companies are supporting.

“ MONITORING AND REPORTING ARE CRUCIAL ELEMENTS TO IDENTIFY SUCCESS FACTORS AND CONSTRAINTS AND TO FACILITATE DECISION-MAKING AND COURSE CORRECTION.



Peatland, Peru, 2013. © Rupesh Bhojia/CIFOR

4. PATHWAYS FOR CORPORATE ENGAGEMENT IN PPP LANDSCAPES

One of the goals of this study is to identify commodity-specific lessons derived from the landscape engagement of midstream and downstream companies to achieve sustainability at scale and opportunities to expand landscape action. The lessons are influenced by many factors, including the production model of a commodity, the sustainability challenges specific to it, the level of maturity

of efforts to attain sustainable commodity production, land-use governance models in the regions that produce the commodity and company experiences in landscape engagement.

The following sections detail lessons, challenges and recommendations for corporate engagement at landscape scale for PPP sustainability.

4.1 PPP-SPECIFIC LESSONS IN COMPANY LANDSCAPE ENGAGEMENT

In the PPP sector, the fact that most production in tropical countries comes from large forests or timber plantations managed by integrated companies has contributed to the advance of certification in forests. Both these factors have affected corporate landscape engagement. The study's inclusion of integrated companies that play dual roles as processors or manufacturers and producers – and the fact that these are the bulk of companies identified as having engaged at landscape scale – also influenced the findings, as their operations on the ground create a different business case for landscape engagement compared with that for pure downstream companies.

Lessons specific to PPP company landscape engagement that may assist all stakeholders in the commodity, as well as in other sectors, include the following.

FSC CERTIFICATION HAS ENCOURAGED CORPORATE LANDSCAPE ENGAGEMENT

The FSC certification is an important mechanism for PPP companies to reduce pressure on forests and peatland, and to respect indigenous rights. Obtaining and maintaining FSC certification requires forest managers and integrated companies with operations on the ground to maintain a positive relationship with local communities and improve habitats for biodiversity. This was observed for example in Brazil, where TFD, Brazilian Forests Dialogue and local partners used Land Use Dialogues to engage local stakeholders to develop shared goals for the landscape, and where PPP companies have participated. While certification is based on forest management units, landscape approaches allow these units to be connected, which is key to improving biodiversity protection.

“ WHILE CERTIFICATION IS BASED ON FOREST MANAGEMENT UNITS, LANDSCAPE APPROACHES ALLOW THESE UNITS TO BE CONNECTED, WHICH IS KEY TO IMPROVING BIODIVERSITY PROTECTION.

NGO campaigns have also brought attention on the need to complement certification with landscape action to protect the forests surrounding concessions, for example Greenpeace’s campaign against the degradation of boreal forests in Dvinsky in Russia (Greenpeace 2016). The concept of intact forest landscapes, meaning large unfragmented forest areas without industrial timber harvesting in the past 30 to 70 years, was actually adopted by FSC in 2014. In 2022, FSC further strengthened its implementation by passing a motion to further develop stakeholder engagements and partnerships at landscape scale in forests with high social and environmental values, including Indigenous Cultural Landscapes (FSC 2022).

ADVANCED KNOWLEDGE ABOUT BIODIVERSITY

The PPP sector likely has more knowledge on biodiversity in their areas than do stakeholders in other commodities, considering the size of certified forest and timber plantations and the widespread application of the HCV approach to determine areas to protect, including for biodiversity, to achieve FSC certification. As the raw materials are produced within natural and planted forests, PPP sourcing areas are also closer to some of the highest biodiversity spots than other commodities. For example, the Dvinsky landscape initiative in Russia, supported by Earthworm, had begun tagging and monitoring wild deer and reindeer, which would enable stakeholders to better protect their key migration areas and therefore the resilience of the species.

This proximity to and knowledge of biodiversity-rich areas suggests that PPP companies can lead ambitious commitments and actions to protect biodiversity, for example by building habitat connectivity between forest management units or concessions. Guidance for these targets, for example under the SBTN, was still being developed during the study, but it is an area that warrants attention for landscape-scale action.

FOREST-POSITIVE RATHER THAN RISK-BASED APPROACH

Companies in the PPP sector are engaging at landscape scale not only to mitigate forest risks, as observed in other commodities, but also to identify opportunities to enhance ecosystem services. Downstream and integrated companies are investing in ecosystem restoration and climate change mitigation in at least five landscapes in the Brazilian Atlantic Forest, in four in Portugal and one in Indonesia. Restoration to protect water sources can also be observed in at least one landscape in each of Indonesia, Chile and South Africa. This forest-positive approach may derive from the high rate of certification in the sector, ambitious climate commitments and potential drought in sourcing regions.

CONFLICT RESOLUTION AND PREVENTION

Landscape initiatives have also been established with the main goal of reducing or preventing community conflicts with the managers of forest and timber plantations. These were observed in the initiative facilitated by Brazil’s Bahia Forest Forum (see [Box 4](#)), where long-term engagement has reduced conflict between PPP companies and traditional communities and evolved into a participatory monitoring system to prevent future issues.



SUPPORT FOR INDIGENOUS PEOPLES' RIGHTS

In a different context, downstream companies have supported the landscape initiative of the Tsay Keh Dene Nation in Canada to ensure that PPP supply chain actors operating in the Indigenous territory respect and secure FPIC (see [Box 6](#)). Support from 3M, Mars and Nestlé through Earthworm has proven useful in building the narrative to mainstream FPIC as demanded by downstream companies, required by FSC certification and viewed as best practice. The approach taken in this landscape initiative and the lessons learnt could be replicated in other regions with similar challenges.

4.2 CHALLENGES

Interviews with companies and implementers identified several challenges the private sector faces when engaging and investing in landscape initiatives. Many of these are also observed in other commodities. This section spotlights the main challenges in PPP, with current efforts to address them highlighted in Section 4.3.

MONITORING FOREST DEGRADATION, LANDSCAPE OUTCOMES AND MAKING CREDIBLE CLAIMS

Ecosystem degradation is a relevant issue in PPP landscapes, but the lack of shared definitions and monitoring systems compromises company capacity to prioritize landscapes to engage and also their ability to report contributions to addressing degradation.

It is also still unclear how companies can make claims for environmental and social outcomes from landscape action and link them to existing corporate commitments. For some companies, sharing stories of success, such as increased participation of Indigenous Peoples and local communities, have been the best, albeit qualitative, way to communicate information on landscape action.

“ ECOSYSTEM DEGRADATION IS A RELEVANT ISSUE IN PPP LANDSCAPES, BUT THE LACK OF SHARED DEFINITIONS AND MONITORING SYSTEMS COMPROMISES COMPANY CAPACITY TO PRIORITIZE LANDSCAPES TO ENGAGE

ENGAGEMENT WITH RELEVANT GOVERNMENT AUTHORITIES

Few landscape initiatives have shown support for and collaboration with governments to align landscape interventions with public policies. This may come from the fact that many already have a good capability to implement landscape action, as integrated companies have operations on the ground.

Another reason could be the complexity of coordinating with the different government levels and agencies involved in PPP production landscapes, not to mention the periodic changes in jurisdictional leadership, as also observed in other commodities.

LACK OF SUSTAINED FUNDING TO INCENTIVIZE LONG-TERM COMMUNITY ENGAGEMENT

Companies have supported landscape-scale action in PPP not only by providing funding, but also by sharing technical knowledge and experience, according to implementers of landscape initiatives.

However, it is worth noting that unlike other commodities such as cocoa and palm oil, PPP landscape initiatives have yet to attract significant sources of funding from philanthropic donors and development partners.

“ INCREASED AND SUSTAINED FUNDING IS NECESSARY IF INCENTIVES ARE TO BE PROVIDED

Increased and sustained funding is necessary if incentives are to be provided, such as support to local enterprises, construction of infrastructure and payment for ecosystem services, which have proven successful in quickly motivating communities to participate.

It has been challenging for integrated companies to sustain and expand such incentives in the long term due to limited funding for actions beyond their supply chains and the need to involve a large number of stakeholders. Additional financing from carbon markets, collaboration with other companies and other mechanisms on payments for ecosystem services may help to address this limitation.

RELATIVELY FEW DOWNSTREAM COMPANIES ENGAGE IN PPP LANDSCAPE INITIATIVES

Out of 15 companies reporting engagement in qualifying landscape initiatives to the CDP in 2022, only four are downstream companies without direct operations on the ground. Within the CGF FPCoA, while 19 companies reported PPP as a material commodity, only four have reported investing in PPP landscape initiatives (CGF FPCoA 2022).

This relatively low level of landscape engagement in PPP among downstream companies may be explained by three factors. First, they may prioritize landscape action in other commodities posing

greater risks to forests. Secondly, sustainability certification in PPP is high; 90% of all PPP consumed in Europe is certified against the FSC standard or a PEFC-endorsed national scheme.

Third, there are fewer platforms bringing together downstream companies to collaborate in production landscapes. WWF, through its Forests Forward programme, and Earthworm Foundation are two examples of organizations bringing companies to take landscape action (see [Annex Table 3.1](#) for details). Members of the CGF FPCoA may invest in more PPP landscape initiatives as the Coalition plans to scale up action from 2024 onwards (CGF FPCoA 2021).

4.3 RECOMMENDATIONS

4.3.1 RECOMMENDATIONS FOR INTEGRATED AND DOWNSTREAM COMPANIES

COMPANIES NEED TO IMPROVE THEIR UNDERSTANDING OF LANDSCAPE APPROACHES AND THEIR COMPONENTS

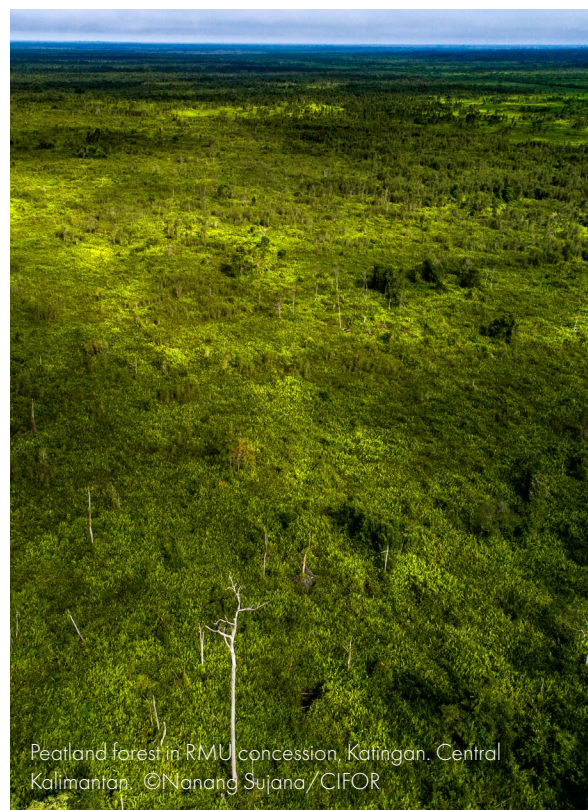
CDP's assessment found only 19 out of the 44 initiatives disclosed by PPP companies in 2022 qualify as landscape initiatives, meaning they meet the basic tenets of landscape approaches – multi-stakeholder collaboration and shared goals and action (with the most robust also showcasing transparent reporting) (see Figure 3). This indicates companies have a lack of understanding of landscape approaches and initiatives (see Box 1) and how the individual components support the attainment of sustainability at scale.

This lack of understanding may come from the relatively recent use of landscape approaches in the sector, which traditionally has relied on certification to ensure sustainable forest management and ecosystem protection within supply chains. Companies should invest more effort in understanding where, when and how to take effective landscape action, supported by the wider stakeholders.

DOWNSTREAM COMPANIES NEED TO INVEST IN PPP LANDSCAPES

The study identified only nine downstream companies – distant from forest production – that have taken landscape action in PPP (see [Annex Table 2.1](#)) of the 26 companies identified in the study as having done so. This is a relatively small number

of companies compared to the size of the sector and the number of companies with PPP as a material commodity. While certification has traditionally been the main tool used by downstream companies to ensure sustainability in PPP supply chains, complementary efforts are needed to tackle systemic issues, including forest degradation, biodiversity loss and social conflict in producing regions.



Peatland forest in RMU concession, Katingan, Central Kalimantan. ©Nanang Sujana/CIFOR

This is particularly important where robust certification schemes that address the issues are not available or have only reached a few companies.

Downstream companies should map their PPP sourcing areas and identify risks and opportunities as a way of prioritizing landscape engagement. They also need to build deeper understanding of issues on the ground and how to resolve them using multi-stakeholder collaboration at scale, as part of their wider strategy to achieve climate, nature and people goals.

INCREASE COLLABORATION AMONG COMPANIES AND WITHIN THE SAME PPP LANDSCAPES

Many downstream companies source PPP from the same regions, but only a few landscape initiatives are supported by more than one company. The study observed seven companies collaborating in nine landscape initiatives through engagements with WWF, Earthworm Foundation and the CGF FPCoA.

While this is a start, more can be done – and it can be done more efficiently if companies coordinate action in priority areas. The study identified six landscapes in Brazil and Indonesia where there

are overlapping initiatives supported by different companies and with limited coordination between them. While this study focuses on the PPP sector, it is highly likely that there is potential for companies to collaborate across different forest products, including sawn timber and biomass, particularly in boreal and temperate landscapes.

Collaboration and coordination between companies, conveners and landscape initiative implementers could make cost of entry for each stakeholder more attractive, accelerate progress and improve the effectiveness of landscape initiatives.

COMPANIES NEED TO ACTIVELY ENGAGE MORE STAKEHOLDER GROUPS

The private sector has actively participated and invested in multi-stakeholder platforms in several production landscapes, for example in Brazil with TFD and the Brazilian Forests Dialogue's Forestry Forums. These processes are essential for building shared goals, multi-stakeholder collaboration and coordination and local capacity. Several PPP landscape initiatives, such as Dvinsky in Russia and the Pau Brasil National Park buffer zone in Brazil, have shown that collaboration between companies, local communities, CSOs and local governments can lead to effective action for sustainability at scale.

4.3.2 RECOMMENDATIONS FOR ALL STAKEHOLDERS IN LANDSCAPE INITIATIVES

These are recommendations aimed at supporting all stakeholders, including companies, to achieve sustainable land use at landscape and jurisdictional scale in PPP production. The nature and magnitude of these tasks means they require the efforts of multiple stakeholders, not only the private sector.

DEVELOP COMMON DEFINITIONS AND MONITORING SYSTEMS FOR FOREST DEGRADATION

In theory, forest degradation can be identified using remote sensing techniques combined with on-the-ground verification and analysis using biodiversity or carbon proxies. However, there is a lack of consensus on common definitions, indicators and reliable systems to monitor degradation in different types of forests. Stakeholders in the PPP sector need to collaborate to develop these, not only to inform landscape prioritization and strategies, but also in response to the recently issued EU Deforestation

Regulation, which requires PPP entering the EU market to be free from forest degradation.

BRING NEUTRAL FACILITATORS AND CONVENERS TO ACCELERATE PROGRESS

Convener organizations such as TFD (through its Land Use Dialogues) and other neutral facilitators have played an important role in building multi-stakeholder processes to agree on shared goals and management plans in PPP landscapes.

These processes, which can take up to two years, and their results have enabled downstream and integrated companies to invest in coordinated landscape action aligned with societal demands, as shown in the Pau Brasil National Park buffer zone in Brazil and Sungai Linau in Indonesia. The leadership and long-term presence of neutral facilitators and conveners will be essential to enable companies to expand their landscape interventions.

ENABLE COMPANIES' LANDSCAPE ENGAGEMENT TO CONTRIBUTE TO CORPORATE CLIMATE, NATURE AND PEOPLE GOALS

Companies are increasingly committing to the climate and nature goals of the SBTN and are creating their own people goals. Significant sources of funding would be unlocked if the investments companies make beyond their supply chains and at landscape and jurisdictional scale counted towards these climate and nature goals – they do not do so at present. Three of nine PPP companies interviewed in the study mentioned that a key reason they engage at landscape scale is the expectation that such action will eventually count towards their climate goals.

Guidance for corporate commitment to climate and nature – such as the [GHG Protocol for the land sector and removals](#), the Beyond Value Chain Mitigation and the [land guidance of the SBTN](#) – was still in development at the time of publication of this study. Analysis conducted by several organizations, including TFA, Proforest, Conservation International and Emergent, found draft guidance issued in September 2022 by the GHG Protocol allows companies to account only for actions and GHG emission reductions at the farm level (TFA et al. 2022).

This would not incentivize companies to take action beyond their supply chains at landscape and jurisdictional scales and misses an opportunity to create multi-stakeholder collaboration on the ground. Further development of this guidance to connect corporate actions at landscape scale in sourcing areas with climate, nature and people goals could unlock significant corporate funding and expand companies' landscape action.



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CLARIFY CLAIMS AND PROVIDE TOOLS TO MONITOR AND REPORT PROGRESS

The private sector requires support to better understand the claims they can make for their investments in landscape or jurisdictional initiatives. This requires a publicly available monitoring system and shared metrics to measure implementation of activities and progress at landscape scale. One effort that could support the latter is the [framework for monitoring and reporting landscape progress](#) currently being developed by the CGF FPCoA, which includes PPP as one of its focus commodities.

Organizations such as the ISEAL Alliance are convening stakeholders to develop guidance on making credible claims about their contributions at landscape and jurisdictional scale. While the work continues, ISEAL has published [preliminary guidance on claims](#) and, in collaboration with other stakeholders, has also issued guidance on what constitutes a landscape action.

The inclusion of company engagement in landscape and jurisdictional initiatives in annual forest disclosures to CDP, starting in 2021 and with more questions added in 2022, means companies can now report their involvement and collaboration with other stakeholders beyond supply chains. Online platforms showcasing landscape initiatives are also developing, for example SourceUp and LandScale.

EXPLORE CLOSER ENGAGEMENT WITH GOVERNMENTS

Those interviewed for this study did not identify lack of government engagement as a challenge and, indeed, most of the initiatives do not follow jurisdictional borders. However, this lack of engagement with government agencies at various levels could represent a missed opportunity to integrate sustainability principles and best practices in public policies. Government agencies can also provide valuable support to bring different stakeholders together in processes to determine a shared vision.

Proponents of landscape initiatives in PPP may be able to learn from jurisdictional initiatives in palm oil, many of which are actively supporting and collaborating with local governments. This will be discussed in the next brief in this series.

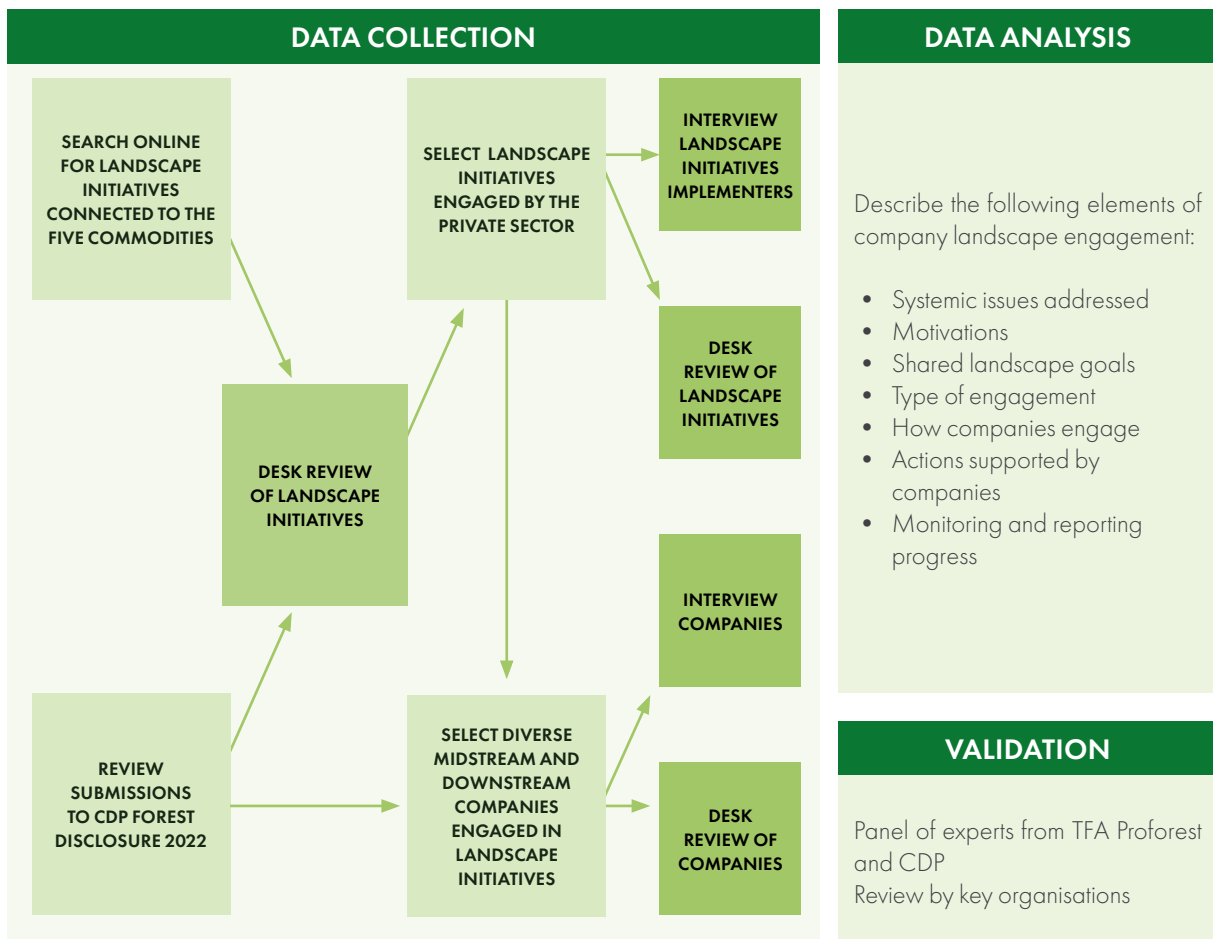
1. ANNEX 1

METHODOLOGY

This paper is part of a global study on private sector engagement at landscape and jurisdictional scale. The study aims to advance understanding of landscape and jurisdictional approaches as a key corporate strategy towards nature-positive businesses. It also aims to map the way forward to mobilize more private sector action and multi-stakeholder collaboration at scale.

Through interviews and desktop research, the study explores why and how manufacturers, retailers and traders have used landscape and jurisdictional approaches to address deforestation driven by palm oil; soy; beef; pulp, paper and packaging; and cocoa. The methodology to develop these papers is described in Annex Figure 1.1.

ANNEX FIGURE 1.1 METHODOLOGY FOR COMMODITY-SPECIFIC BRIEFS OF THE STUDY



The information provided by companies and the facilitators of landscape initiatives was codified, anonymized and analyzed to identify trends, challenges and recommendations. The research team presented draft findings and recommendations to a group of experts from CDP, TFA and Proforest. The brief also benefits from input into an advanced draft from representatives from the private sector and implementers of landscape initiatives.

2. ANNEX 2

COMPANIES ENGAGING IN PPP LANDSCAPE INITIATIVES

The authors identified companies that have invested in landscape initiatives focused on achieving sustainable land use and PPP production at scale based on desktop research, interviews and submissions to CDP's forest questionnaire in 2022. The list is presented in Annex Table 2.1 but is not exhaustive.

The study is focused on midstream and downstream companies, but also includes integrated companies that play dual roles as processors or manufacturers and producers. In PPP, most of the companies identified as having engaged at landscape scale are integrated companies.

ANNEX TABLE 2.1 COMPANIES ENGAGED IN PPP LANDSCAPE INITIATIVES

	COMPANY	BUSINESS TYPE	LANDSCAPE REGION
1	Altri SGPS	Integrated company	Portugal
2	Arauco	Integrated company	Brazil
3	Asia Pacific Resources International Holdings Limited (APRIL)	Integrated company	Indonesia
4	Asia Pulp & Paper (APP) Sinar Mas	Integrated company	Indonesia
5	Cenibra	Integrated company	Brazil
6	CMPC	Integrated Company	Brazil
7	DS Smith	Integrated company	Finland
8	Essity	Manufacturer	Russia
9	Graphic Packaging International	Manufacturer	US
10	HP Inc	Information technology	Brazil
11	International Paper Company	Integrated company	Brazil and US
12	Kimberly-Clark Corporation	Manufacturer	US
13	Klabin	Integrated company	Brazil
14	Mars	Manufacturer	Canada, Russia
15	Mondi	Integrated company	South Africa
16	Nestlé	Manufacturer	Canada, Chile, Russia, Indonesia
17	Oji Holdings Corporation	Manufacturer	Brazil
18	P&G	Manufacturer	Brazil
19	Sappi	Integrated company	South Africa
20	Sofidel	Manufacturer	Brazil
21	Stora Enso Oyj	Integrated company	Brazil
22	Suzano Papel e Celulose	Integrated company	Brazil
23	Sylvamo Corporation	Integrated company	Brazil
24	Tetra Pak	Manufacturer	Brazil
25	The Navigator Company	Integrated company	Portugal
26	Veracel	Integrated company	Brazil

Source: Published corporate reports and interviews

3. ANNEX 3

PPP LANDSCAPE INITIATIVES

The following is a non-exhaustive list of landscape initiatives supported by local and global PPP companies. These landscape initiatives are broadly aligned with the definition used in this study ([Box 1](#)) and focus on achieving shared sustainable goals for land use and PPP production at scale and beyond individual corporate supply chains.

ANNEX TABLE 3.1 LANDSCAPE INITIATIVES SUPPORTED BY PPP COMPANIES

#	LANDSCAPE INITIATIVE	COUNTRY	IMPLEMENTER	COALITION/ PLATFORM	COMMODI- TIES	START- ING YEAR
Americas						
1	Tsay Keh Dene Nation-led landscape initiative in British Columbia	Canada	Earthworm	—	PPP	2021
2	Forestlands Stewards Partnership	USA	National Fish and Wildlife Foundation	—	PPP	2019
3	Sustainable Forestry Initiative (SFI) in Georgia	USA	Sustainable Forestry Initiative	Sustainable Forestry Initiative	PPP	2021
4	Louisiana Sustainable Forestry Initiative programme	USA	Sustainable Forestry Initiative	Sustainable Forestry Initiative	PPP	2021
5	Mobile'Basin Heirs' Property Support Initiative	USA	WWF, Mississippi Center for Justice, Cultural Heritage Projects Program	—	PPP	2021
6	Land Use Dialogue – Alto Vale Itajaí, SC	Brazil	Apremavi and Forum Florestal Parana e Santa Catarina	TFD, Brazilian Forests Dialogue	PPP	2016
7	Land Use Dialogue in Pau Brasil National Park Buffer Zone	Brazil	Forum Florestal Bahia	TFD, Brazilian Forests Dialogue	PPP	2020
8	Land Use Dialogue in Gurupi Mosaik, MA	Brazil	Forum Florestal Amazonia	TFD, Brazilian Forests Dialogue	PPP	2019
9	Land Use Dialogue P3S in Itatinga, Botucatu, Pardinho e Bofete, SP	Brazil	Forum Florestal São Paulo	TFD, Brazilian Forests Dialogue	PPP	2021
10	Land Use Dialogue – Rio Doce State Park, MG	Brazil	Forum Florestal Minas Gerais	TFD, Brazilian Forests Dialogue	PPP	2022
11	Land Use Dialogue in Pampa (Rio Grande do Sul)	Brazil	Brazilian Forests Dialogue	TFD, Brazilian Forests Dialogue	PPP	2022
12	Legal Forest (Matas Legais) and Social Forest (Matas Sociais)	Brazil	Apremavi	—	PPP	2022
13	Forestry plans (Planos da Mata)	Brazil	SOS Mata Atlântica	—	PPP	2020
14	Mogi Guaçu Roots (Raizes do Mogi Guaçu)	Brazil	WWF, Copaiba	—	PPP	2021
15	Conservator of Araucarias (Conservador das Araucárias)	Brazil	Apremavi	—	PPP	2022
16	Forest Landscape Restoration Planning and Design in Espírito Santo: Aracruz, Santa Maria do Doce, North Espírito Santo	Brazil	WWF	Forests Forward	PPP	2020
17	Nahuelbuta	Chile	WWF	CGF FPCoA	PPP	2021
Europe						
18	Näätämö basin in Lapland	Finland	Skolt Sámi and Snowchange	Rewilding Europe	PPP	2018
19	Cabeço Santo project	Portugal	Cabeço Santo Association	—	PPP	2008
20	Costa Bacele	Portugal	Montis	—	PPP	2017

21	Renature Monchique	Portugal	Grupo de Estudo de Ordenamento do Território e Ambiente, Instituto da Conservação da Natureza e das Florestas	—	PPP	2018
22	Plantar Agua	Portugal	Associação Natural Portugal	—	PPP	2019
23	LIFE LxAquila project	Portugal	Bird Life (Sociedade Portuguesa para o Estudo das Aves)	—	PPP	2020
24	Integrated landscape management areas (AIGP) in Alvares	Portugal	Associação Natural Portugal	—	PPP	2021
25	Dvinsky Forest Landscape ⁴	Russia	WWF, Earthworm	CGF FPCoA	PPP	
26	North-west Russia Landscape Initiative ⁵	Russia	FSC	CGF FPCoA	PPP	2021
Asia						
27	Conservation Forest Management Framework (CFMF) and Restoration Ecosystem Riau (RER)	Indonesia	APRIL, BIDARA and Laskar Alam	—	PPP, palm oil	2013
28	Developing a Jurisdictional Approach for Sustainable Peatland and Forest Management in Siak	Indonesia	Winrock	CGF FPCoA	PPP, palm oil	2021
29	Riau landscape	Indonesia	Earthworm	—	PPP, palm oil	2018
30	Sungai Linau Landscape Conservation and Livelihood Programme	Indonesia	Proforest	—	PPP, palm oil	2021
Africa						
31	Sappi Khulisa	South Africa	Sappi	—	PPP	unknown
32	Mondi Water Stewardship Partnership in uMhlathuze catchment	South Africa	WWF	—	PPP	2014

Source: Submissions to CDP's forest questionnaire 2022, interviews and published corporate reports

⁴ The initiative was supported by CGF FPCoA member companies and international organizations until the beginning of 2022. Since then, the initiative continued with local organizations' engagement only.

⁵ Company contribution to the North-West Russia landscape initiative started in 2021 and ended in 2022; the project continued with local support.

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ABOUT TROPICAL FOREST ALLIANCE

The Tropical Forest Alliance is a multi-stakeholder partnership platform initiated to support the implementation of private sector commitments to remove deforestation from palm oil, beef, soy, cocoa and pulp/paper supply chains. Hosted by the World Economic Forum, our 170+ alliance partners include companies, government entities, civil society, indigenous peoples, local communities and international organizations. With our partners, TFA works to mobilize collective action to advance the world's transition to deforestation-free commodity production. TFA hosts and manages the Jurisdictional Action Network of 1,900+ proponents of landscape and jurisdictional approaches to achieve sustainability at scale and the JA Resource Hub. Visit www.tropicalforestalliance.org.



ABOUT PROFOREST

Proforest is a global mission-driven organisation, focused on the production base and supply chains of agricultural and forestry commodities including soy, sugar, rubber, palm oil, cocoa, coconut, beef and timber. We support companies with direct action to tackle environmental and social risks throughout a supply chain. We also work with governments, companies, and collaborative organisations, in order to address systemic issues beyond the supply chain, within a landscape or a sector, to deliver positive outcomes at scale for people, nature and climate. For more information: www.proforest.net.



ABOUT CDP

CDP is a global non-profit that runs the biggest world's environmental disclosure system for companies, cities, states and regions. Founded in 2000 and working with more than 680 financial institutions with over \$130 trillion in assets, CDP pioneered using capital markets and corporate procurement to motivate companies to disclose their environmental impacts, and to reduce GHG emissions, safeguard water resources and protect forests. Fully TFCF aligned, CDP scores are widely used to drive investment and procurement decisions towards a zero carbon, sustainable and resilient economy. CDP is a founding member of the Science Based Targets initiative, We Mean Business Coalition, The Investor Agenda and the Net Zero Asset Managers initiative. Visit cdp.net or follow us @CDP to find out more.