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# Dutch Financing of Forest-Risk Sectors

## An Analysis of Financial Links with Key Sectors Driving Forest Loss

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## About this report

This report has been commissioned by Milieudefensie – Friends of the Earth Netherlands.

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## Authorship

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## Summary

Over the years, governments and companies worldwide have made various pledges to stop deforestation, recognizing the outstanding importance especially of tropical forests for biodiversity and carbon storage globally. Nonetheless, forests are still disappearing at alarming rates and tropical forests see particularly high rates. In 2020 alone, 12.2 million hectares of tree cover loss were observed in the tropics, of which 4.2 million hectares, an area the size of the Netherlands, occurred within humid tropical primary forests.

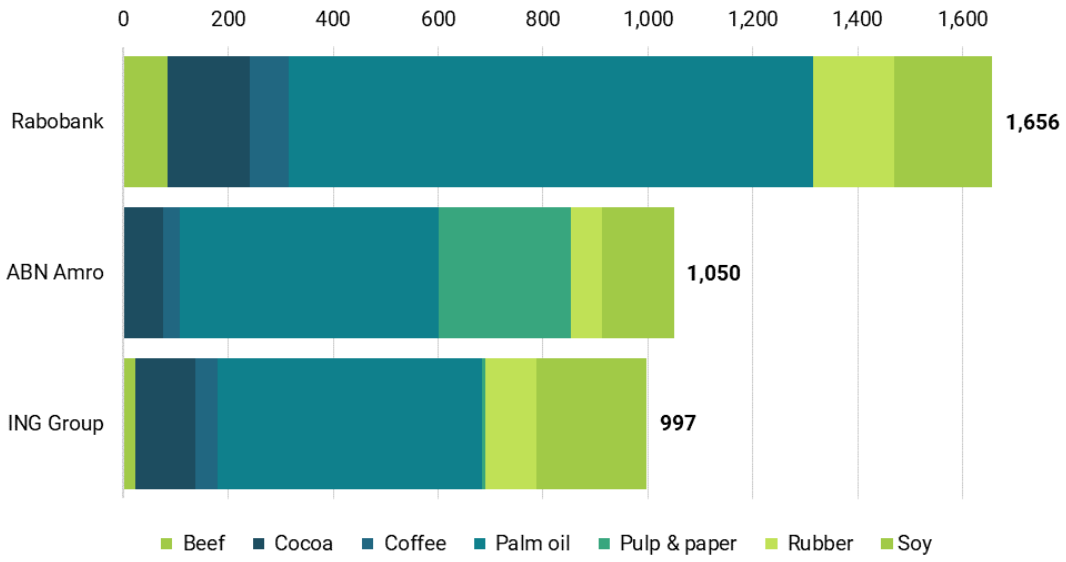
The expansion of crop farming land and pasture are the leading direct drivers of tropical deforestation across geographies during the last two decades, with regional and temporal variations. These commodities are often produced for international markets. The Dutch economy is linked to deforestation and greenhouse gas emissions caused in the global South during the production of carbon-intensive primary commodities for Dutch consumption. Moreover, Dutch companies can be directly involved in foreign operations which drive deforestation. A third factor and the focus of this research is the role of Dutch financial institutions in financing companies which run the risk of being directly or indirectly involved in deforestation and forest degradation in the tropics and subtropics.

For this purpose, ten countries with consistently high primary forest loss rates were identified based on tree cover loss data for the years 2002 to 2020, as well as important forest-risk sectors and key companies engaged in these sectors. The selection included five South American (Bolivia, Brazil, Colombia, Paraguay, Peru), one African (Democratic Republic of the Congo (DRC)), and four Southeast Asian countries (Cambodia, Indonesia, Laos, Malaysia). Together, the selected countries accounted for 84% of primary forest loss in the period 2002-2020. Key forest-risk sectors are beef, cocoa, coffee, palm oil, pulp & paper, rubber, and soy. A selection of 116 companies engaged in forest-risk commodities in one or more of the focus countries was included in the analysis. The focussed group of countries and economic sectors in combination with often limited availability of financial information, especially for privately-owned companies, means that the identified amounts of forest-risk financing are conservative estimates.

In the period 2016 to March 2021, global financial institutions provided a total of US$ 81 billion in forest-risk loans and underwriting services to the selected companies. Creditors from Indonesia, China and Malaysia provided just under half (45 percent) of the identified loans and underwriting services.

Financial institutions from the Netherlands ranked ninth globally, but first among the EU member states. In the period 2016 to March 2021, Dutch financial institutions provided US$ 3.7 billion in loans and underwriting services to the selected forest-risk companies active in the selected countries. More than half the loans and underwriting services provided to these companies were attributable to palm oil (US$ 2 billion). Soy accounted for 15 percent of the identified Dutch forest-risk financing (US$ 537million) and cocoa 10 percent (US$ 357 million). Most Dutch forest-risk loans and underwriting services were provided to companies active in Indonesia (US$ 2.3 billion, 63%), followed by companies active in Brazil (US$ 634 million, 17%).

**Figure 1** **Dutch forest-risk loans & underwriting per creditor and commodity (2016-2021 March, US$ mln)**

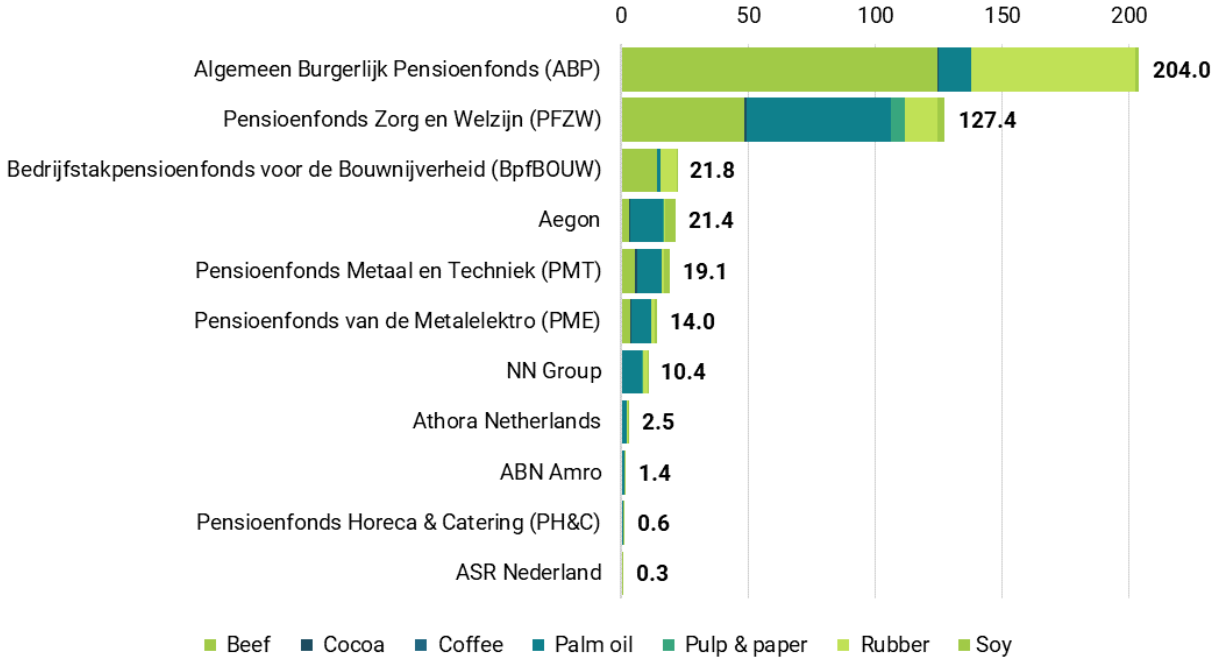



Rabobank was the largest Dutch creditor of forest-risk commodities in the selected countries. In the period 2016 to March 2021, it provided approximately US$ 1.7 billion in loans and underwriting services. It was followed by ABN Amro (US$ 1.1 billion) and ING Group (US$ 1 billion) (Figure 1).

As of March 2021, international financial institutions held US$ 30 billion in forest-risk bonds and shares of the selected companies active in the 10 focus countries. More than two thirds of these investments were attributable to palm oil (US$ 20 billion). A further 17% was attributable to rubber (US$ 5 billion) and 7% to beef (US$ 2 billion). Most of these investments were in companies active in Malaysia (US$ 14 billion), Indonesia (US$ 12 billion) and Brazil (US$ 3 billion). The largest investors in forest-risk commodities were financial institutions from the U.S. (US$ 11 billion), Malaysia (US$ 8 billion) and Japan (US$ 4 billion). Together, these financial institutions accounted for more than three quarters of the identified forest-risk investments in bonds and shares issued by the selected companies.

As of March 2021, financial institutions from the Netherlands held US$ 424 million in bonds and shares issued by the selected forest-risk companies active in the ten focus countries. Based on this amount, Dutch financial institutions were the tenth largest investors in these companies. Just under half of these investments were attributable to beef (US$ 199 million) and a quarter to palm oil (US$ 111 million). The largest Dutch investor, the pension fund for civil servants Algemeen Burgerlijk Pensioenfonds (ABP), held US$ 204 million in forest-risk bonds and shares (Figure 2).

**Figure 2** **Forest-risk bond- & shareholding per investor and commodity (2021 March most recent filings, US$ mln)**




Business activities in forest-risk sectors and financial relationships with companies active in these sectors do not yet constitute proof of a contribution to negative impacts. However, financing forest-risk companies may expose financial institutions to a range of significant environmental, social, and governance risks. The formulation and implementation of robust policies and due diligence procedures with zero tolerance for deforestation and other detrimental environmental and social impacts in all supply chain and financial relations forms a minimum step in managing the ESG risks inherent to these supply chains. However, the experiences from the last years have proven that voluntary commitments by companies or financial institutions are insufficient in severing the link between the production of commodities and detrimental impacts on ecosystems and human rights. The study confirms the need for comprehensive due diligence legislation for commodity supply chains that explicitly includes the financial sector. Such legislation should also entail the monitoring and supervision of financial institutions in relation to their ESG risk mitigation.

## Glossary of key terms

**Biome:** A biome is a large naturally occurring community of plants and animals occupying a major habitat. For example, tropical and subtropical biomes in Latin America include such diverse types of ecoregions like the Amazon rainforest, the Pantanal wetlands, and the seasonal Chaco forests.

**Dutch financial institutions:** Financial institutions can be broadly categorised into banks and institutional investors. In relation to the financing of companies, commercial banks generally provide loans and credits, while investment banks act as underwriters in the issuance of shares and bonds by business enterprises. Institutional investors invest in the bonds and shares issued by companies.

**Deforestation**: Deforestation refers to the long term or permanent conversion of forest to non-forest uses, such as agriculture or infrastructure.[1]

**Drivers of deforestation**: Causes of deforestation can be divided into proximate causes, referring to direct human actions leading to intended land use changes and underlying drivers, referring to fundamental social processes and reinforcing proximate causes. Alternatively, drivers of deforestation can also be distinguished into primary and secondary drivers based on their relative importance.[2]

**Forest:** The FAO defines a forest as an area of land of at least 0.5 hectares with a canopy cover of more than 10 percent, with trees higher than 5 meters.[3]

**Forest cover:** According to the FAO definition, the forest or canopy cover refers to the percentage of the ground covered by a vertical projection of the outer limits of the natural spread of the trees' foliage.[4]

**Forest degradation**: The degradation of forests refers to a situation where a forest still exists, but the functioning as an ecosystem is damaged. Human activities leading to degradation include for example road building, excessive logging or removal of fuelwood.[5]

**Primary forest**: A primary forest consists of native tree species and has remained largely undisturbed over a longer period. Primary forests have the highest importance for carbon storage and biodiversity.

**Shifting agriculture**: Shifting agriculture or swidden agriculture refers to a wide range of farming practices defined by the rotation of fields rather than crops. A short cropping period is succeeded by a long fallow period, which is the main source for maintaining productivity and which may be enhanced with productive species or not.[6]

**Small-scale agriculture**: The definition of producer size is most often measured by farm size, with small-scale farms commonly defined as those with less than 2 hectares of land.[7]

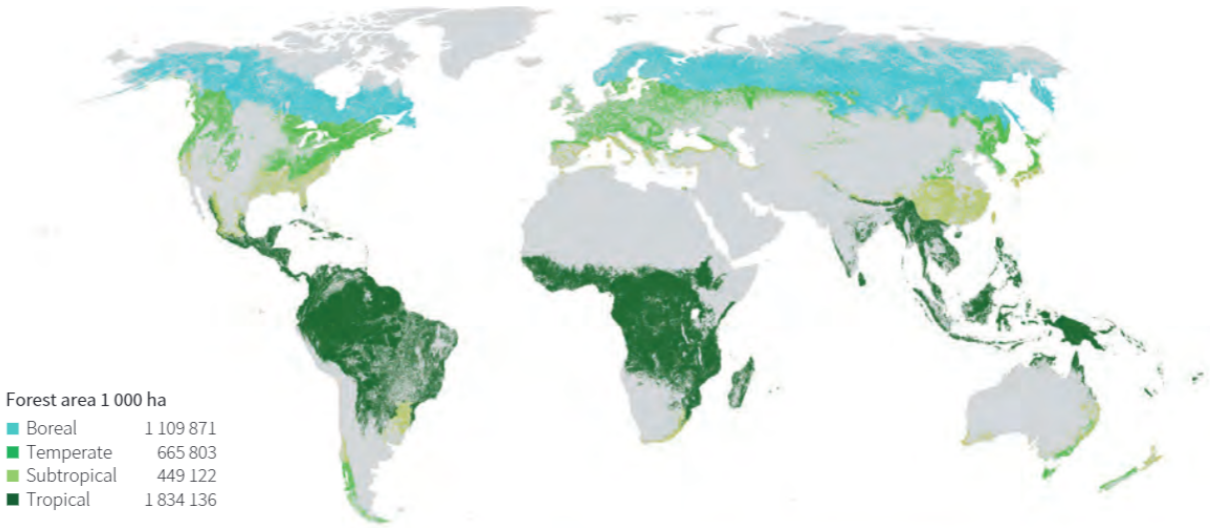
**Tree Cover Loss (TCL):** Tree cover as used in this report is defined as all vegetation greater than 5 m in height and greater than 30 percent tree canopy density. Tree cover may take the form of natural forests or plantations. TCL refers to the complete removal of tree cover canopy from more than 30 percent to about 0 percent. This loss may be caused by human activities (e.g. timber harvesting or deforestation) or natural causes (e.g. disease or storm damage). Fire as a cause of TCL can be either natural or human induced.[8]

**Upstream, midstream, and downstream operations**: In commodity supply chains, upstream activities refer to the production sector, for example the operation of a palm oil plantation or cattle ranch. Midstream refers to the storage, initial processing, and wholesale trading of a commodity as well as its transportation. The downstream part of the supply chain includes processors into end products and the supply stages to the endpoint of sale.

## Introduction

As reported in the latest Forest Resource Assessment of the FAO, the total global remaining forest area stretches today over 4.06 billion hectares. Of this forested area, only about 1.11 billion hectares are native, largely undisturbed forests.[9] The distribution of remaining forests is uneven, with two-thirds of global forests found in just ten countries (Figure 3).

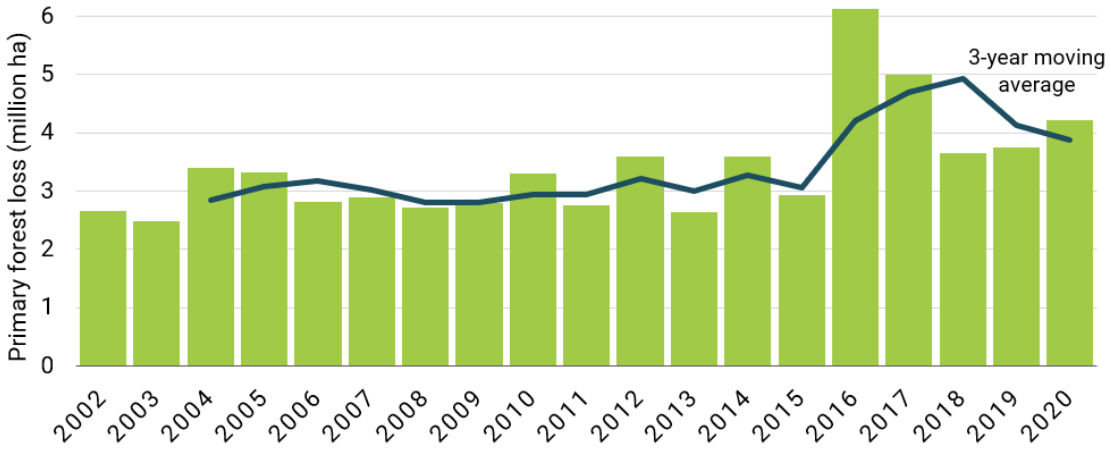
**Figure 3 Global distribution of forests**




Source: FAO (2020), Global Forest Resources Assessment 2020: Main Report, Rome, Italy: FAO, p. 10

Despite pledges by governments and companies, including individual as well as joint commitments like the New York Declaration on Forests or as made by the Consumer Goods Forum, forests are still disappearing at alarming rates and tropical forests see particularly high rates. Rather than slowing, the average annual humid tropical primary forest loss accelerated significantly in recent years.[10] In 2020 alone, the tropics lost 12.2 million hectares of tree cover. Of that, 4.2 million hectares, an area the size of the Netherlands, occurred within humid tropical primary forests, which are especially important for carbon storage and biodiversity. Primary forest loss was 12 percent higher than in 2019 and worsened the second year in a row (Figure 4).[11]

**Figure 4 Tropical primary forest loss, 2002 to 2020**




Note: Based on a 30 percent minimum tree cover canopy density. The three-year moving average may represent trends more accurately due to uncertainty in year-to-year comparisons.
Source: World Resources Institute (2021), "Primary forest loss", viewed in May 2021.

Deforestation leads to loss of biodiversity, impacts water cycles, destroys livelihoods of people who often depend on forest resources for their survival, and is a major cause of greenhouse gas (GHG) emissions. The annual $CO_2$ emissions from tropical tree cover loss have reached the same level as the total GHG-emissions of the European Union. Almost half of these emissions occurred within humid tropical primary forests.[12] Therefore, it is essential that further tree cover loss is minimized to meet climate change mitigation targets.

The Dutch economy is linked to GHG emissions caused in the global South during the production of selected carbon-intensive primary commodities for Dutch consumption. Moreover, many Dutch companies are directly involved in foreign operations which drive deforestation. A third factor and the focus of this research is linked to the financial institutions which enable business activities that cause forest loss. Dutch banks and institutional investors through credits and investments provide funds to establish, maintain and expand operations in forest-risk areas. This research aims to provide a snapshot of this exposure across relevant geographic regions and economic sectors.

A summary of the findings of this report can be found on the first pages of this report.

# 1

# Methodology

**The following sections explain the methodology used in identifying key countries with high rates of deforestation in tropical and subtropical biomes for inclusion in the analysis. Subsequently the approach to identifying key forest-risk sectors in these countries and key companies engaged in them is explained. This is followed by a description of the method to analyse the involvement of financial institutions in these sectors as well as the specific exposure of Dutch financial institutions.**

## 1.1 Research objective

The objective of this research project is to document the involvement of financial institutions active on the Dutch market (hereafter called Dutch financial institutions) in companies which run the risk of being directly or indirectly (through their supply chains) involved in deforestation and forest degradation in the tropics and the subtropics. Tropical and subtropical forests are of outstanding importance for biodiversity and carbon storage globally.

## 1.2 Research approach

To answer the principal research question - where and to which level are Dutch financial institutions exposed to the risk of deforestation and associated human rights violations, and through which real economic sectors and companies – a two-step approach is chosen, which combines different sets of information. Firstly, tropical and subtropical countries with consistently high rates of deforestation and forest degradation during the last two decades, and the most relevant economic sectors driving these disturbances through commodity production and extraction are identified. Based on these findings, financial relationships between key companies in these economic sectors and Dutch financial institutions are analysed.

The following sections explain the different steps and data sources used.

## 1.3 Selection of focus countries with high rates of tropical primary forest loss

The research aimed to include those tropical and sub-tropical countries in the analysis that accounted for a large share of deforestation of tropical primary forests globally in the past two decades. A list of 100 tropical and sub-tropical countries was matched with the annual country-level data on tree cover loss (TCL) in primary forests gathered by the University of Maryland and published on the Global Forest Watch (GFW) website and in related datasets.[13]

### Box 1 Definitions applied in Global Forest Watch data

In the GFW dataset, "tree cover" is defined as all vegetation greater than 5 meters in height and taking the form of natural forests or plantations across a range of canopy densities. "Tree cover loss" (TCL) indicates the removal or mortality of tree cover. Possible drivers include mechanical harvesting as well as fire, disease, or storm damage. Therefore, the measurement of TCL does not distinguish between permanent land cover change in the form of deforestation or temporary loss, in which forests will recover, or between natural or human causes of loss. TCL as applied by GFW includes loss in humid primary forest, as well as dry and non-tropical primary forests, secondary forests, and tree plantations. TCL estimates do not take potential tree cover gain into account.

GFW provides separate data on humid primary forest loss. Data insecurities are for example linked to primary forests that experienced selective logging. Moreover, primary forest types other than tropical humid forest are not included in the dataset, meaning that for example deforestation in dryland forest ecosystems is not included in the humid primary forest statistics.[14] GFW figures are therefore likely underestimating the overall primary forest loss in tropical countries.

TCL data is currently available for the years 2001 to 2020, with a baseline of tree cover in 2000 and 2010. Values are presented at different percentages of canopy cover levels.[a] Similar to the GFW website, this research applies a >=30 percent canopy cover threshold in the further analysis.

These data allowed to identify the ten countries most often appearing among the top ten with highest rates of TCL in tropical primary forests in the years 2002 to 2020. Countries were given an annual score according to rank (i.e., 1, 2, 3, 4… with smaller numbers equalling more deforestation), of which the top-ten with the smallest sum of scores across the analysed years were selected for inclusion in the further analysis. This approach covers 84% of primary forest loss across the two decades, however, it leaves out some important primary forest countries which also experienced comparatively high deforestation rates in certain years, like for example Madagascar and Papua New Guinea.

Table 1 lists the resulting top-10 selection, their total primary forest extent in 2001 and loss in the years 2002 to 2020, as well as their share in total tropical primary forest loss during these years.

These ten countries represent 84 percent of primary forest loss over the complete period, and consistently more than 80 percent across several different periods (2011-2020, 2016-2020, 2020). At the same time, they still boast a significant share of the remaining tropical primary forests and are therefore of outstanding importance for biodiversity conservation and carbon sequestration (Figure 5).

As mentioned in Table 1, these ten countries are overlapping with a range of deforestation fronts as identified in an analysis conducted by Pacheco et al. and published by WWF in 2021. It provides a comprehensive analysis of 24 "deforestation fronts", defined as *"[…] places that have a significant concentration of deforestation hotspots and where large areas of remaining forests are under threat."*[15] Findings from the Pacheco analysis, which uses GFW as well as a combination of other data sources, are referenced in the country profiles of this report.

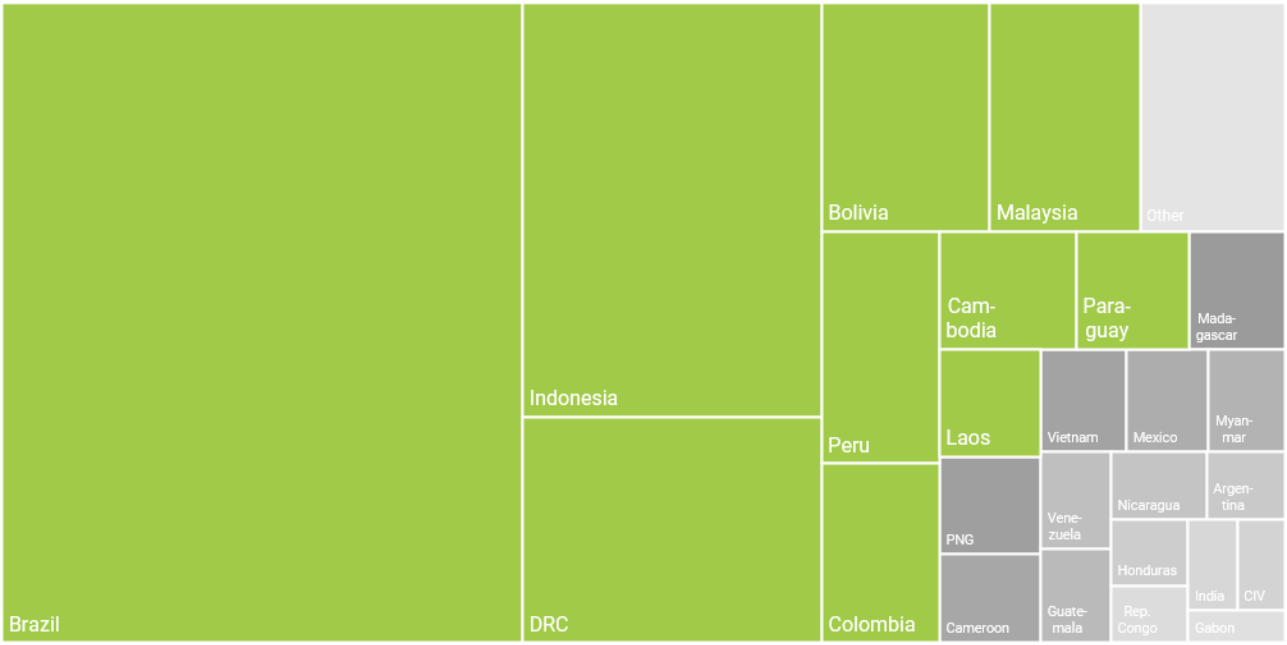
[a] Canopy cover levels are reported at >=10%, 15%, 20%, 25%, 30%, 50% and 75% levels.

## Table 1 Selection of tropical and subtropical countries for inclusion in analysis

| # | Country | Deforestation front | Tropical primary forest extent, 2001 (million ha) | Share in total tropical primary forest extent, 2001 (%) | Tropical primary forest loss, 2002-2020 (million ha) | Share in total tropical primary forest loss, 2002-2020 (%) |
|---|---|---|---|---|---|---|
| 1 | Brazil | Amazon/Cerrado | 343.2 | 33% | 26.2 | 40% |
| 2 | Indonesia | Sumatra/Borneo/New Guinea | 93.8 | 9% | 9.7 | 15% |
| 3 | DRC | Central Africa | 104.6 | 10% | 5.3 | 8% |
| 4 | Bolivia | Amazon | 40.8 | 4% | 3.0 | 5% |
| 5 | Malaysia | Borneo | 15.9 | 2% | 2.7 | 4% |
| 6 | Peru | Amazon | 69.1 | 7% | 2.2 | 3% |
| 7 | Colombia | Amazon/Chocó-Darién | 54.8 | 5% | 1.7 | 3% |
| 8 | Cambodia | Mekong | 4.3 | 0% | 1.3 | 2% |
| 9 | Paraguay | Gran Chaco | 3.5 | 0% | 1.1 | 2% |
| 10 | Laos | Mekong | 8.3 | 1% | 0.9 | 1% |
| | *Share top-10* | | *738.3* | *72%* | *54.1* | *84%* |
| | Other | | 289 | 28% | 10.6 | 16% |
| **Total analysed surface** | | | **1,027** | | **64.7** | |

Note: Tree cover loss at >30% canopy cover.
Source: Analysis based on World Resources Institute (2021), *Global Forest Watch Dataset (Excel);* Pacheco, P., Mo, K., Dudley, N., Shapiro, A., et al. (2021), *Deforestation Fronts: Drivers and Responses in a Changing World*, Gland, Switzerland: WWF.

## Figure 5 Share of selected countries in total tropical primary forest loss, 2002-2020




Note: Top-10 countries included in selection are marked in green.
Source: Analysis based on World Resources Institute (2021), *Global Forest Watch Dataset (Excel).*

The geographic distribution of deforestation and the underlying dynamics of forest loss have seen changes during the last 20 years. In 2004, Brazil and Indonesia alone accounted for 74 percent of tropical primary forest loss. In recent years, the deforestation fronts are starting to shift and diversify. While still accounting for a large share of global tropical deforestation, the share of Brazil and Indonesia decreased to 42 percent in 2013 but increased again to 60 percent in 2020. Overall, the analysis of GFW data for the period from 2002 to 2020 shows though that the top-countries and connected deforestation fronts with the highest tree cover loss in primary tropical forests showed considerable consistency over the years.

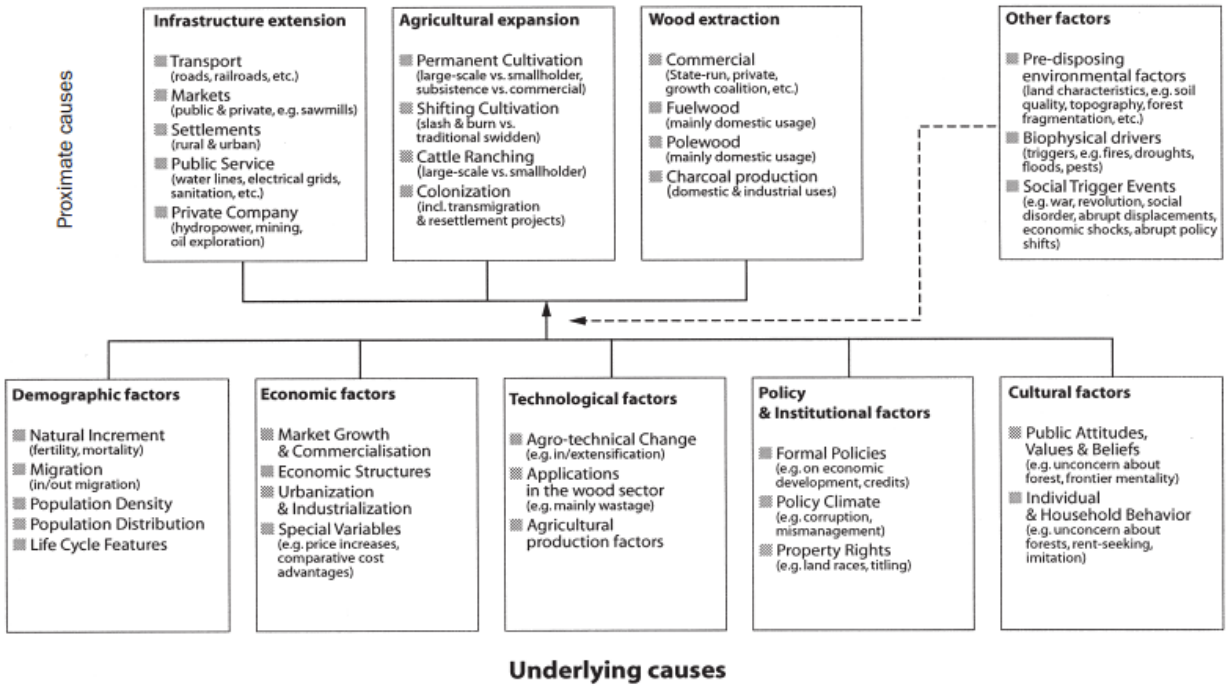
## 1.4 Identification of key forest-risk sectors and economic actors

Drivers of tropical and subtropical deforestation can be divided into proximate causes and underlying causes:

- Proximate causes are defined as immediate human actions at the local level, originating from intended land use and directly impacting forest cover. This encompasses agricultural expansion, infrastructure extension and wood extraction.
- Underlying causes are referring to fundamental social processes, such as demographic developments or policy changes, which underpin the proximate causes. Underlying causes can operate at the local level or indirectly impact from a national or global level.

Synergies between proximate causes and underlying (social) driving forces can best explain tropical forest cover losses. Forest decline is determined by different combinations of proximate causes and underlying driving factors in varying contexts.[16] Figure 6 illustrates the clusters of underlying forces driving proximate causes of tropical deforestation.

### Figure 6 Proximate causes and underlying driving forces of forest decline




Source: Geist, H.J. and E.F. Lambin (2002), "Proximate Causes and Underlying Driving Forces of Tropical Deforestation", *BioScience*, 52(2):143-150.

Generally, broad synergies among several different proximate and underlying causes determine deforestation processes. Geist and Lambin, who introduced these terms, identified agriculture, infrastructure extension and wood extraction as key drivers of deforestation in their fundamental work from 2001.[b] Among these, the expansion of crop farming land and pasture were identified as the leading proximate causes of tropical deforestation. Cattle ranching and colonization are not of the same importance in all tropical regions though. Only permanent cultivation and shifting cultivation were identified as robust proximate causes across different regions.[17]

More recent analyses confirm that these findings are still broadly valid, with additional factors coming into play in different geographic settings. Among the underlying causes that indirectly drive deforestation and degradation, a broad range of variables play a role, including population densities, accessibility through road networks, and governance factors such as land tenure systems.[18]

Curtis et al. conducted an analysis extending over the period from 2001 to 2015. The identified dominant drivers of forest disturbance are integrated into the Global Forest Watch (GFW) data and quoted in the country profiles in Chapter 2. The following categories are disaggregated:

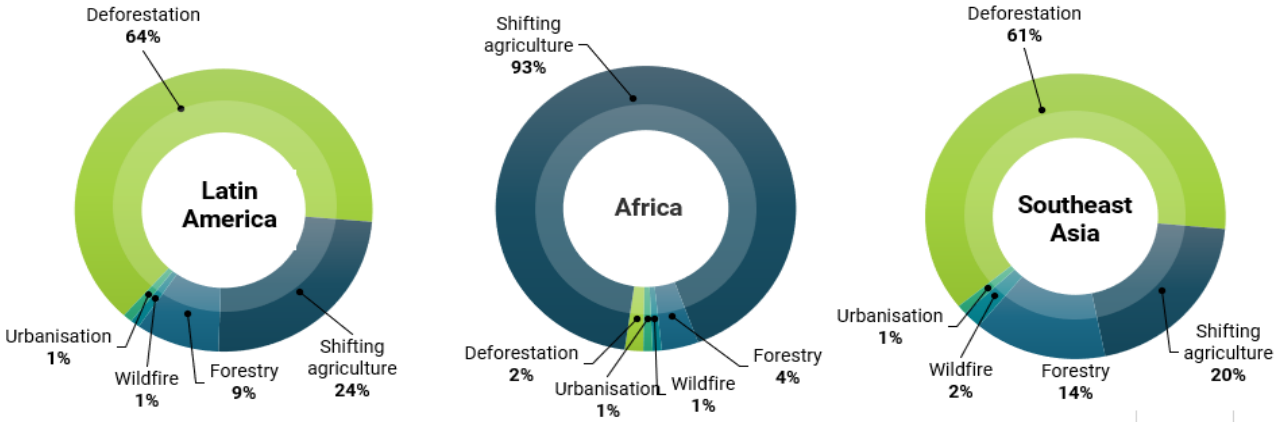
- *Commodity-driven deforestation*: land-use change for commodity production is the most important driver of permanent deforestation.
- *Shifting agriculture*: small- to medium-scale forest conversion for agriculture that is later abandoned, and forest regrows.
- *Forestry*: large-scale forestry operations in managed forests and tree plantations with indications of forest regrowth in following years.
- *Wildfire*: large-scale forest loss due to burning of forest vegetation with no sign of human involvement or subsequent agricultural activity.
- *Urbanization*: forest conversion for the expansion and intensification of urban settlements is another driver of permanent deforestation.[19]

Commodity-driven deforestation, urbanization, and shifting agriculture within primary forest are considered to represent permanent deforestation. In the other categories (forestry, wildfire, and shifting agriculture outside of primary forests), tree cover usually regrows.[20]

Between 2001 and 2015, 27 percent (±5 percent) of global forest loss was attributable to permanent land use change for commodity production, including importantly beef, soybeans, palm oil, and wood fibre. The rate of forest disturbance driven by commodity expansion remained steady across the 15-year period analysed at approximately 5 million hectares globally per year. Forestry accounted for 26 percent (±3 percent) and shifting agriculture for 24 percent (±3 percent).[21] Figure 7 illustrates the differences between geographical areas.

[b] As the authors explain, infrastructure, especially road construction, is not a land use and, thus, a proximate cause of deforestation as it only has direct impact upon forest cover. However, considering the many direct and indirect impacts of transport infrastructure, it was felt that it should be identified as a proximate cause.

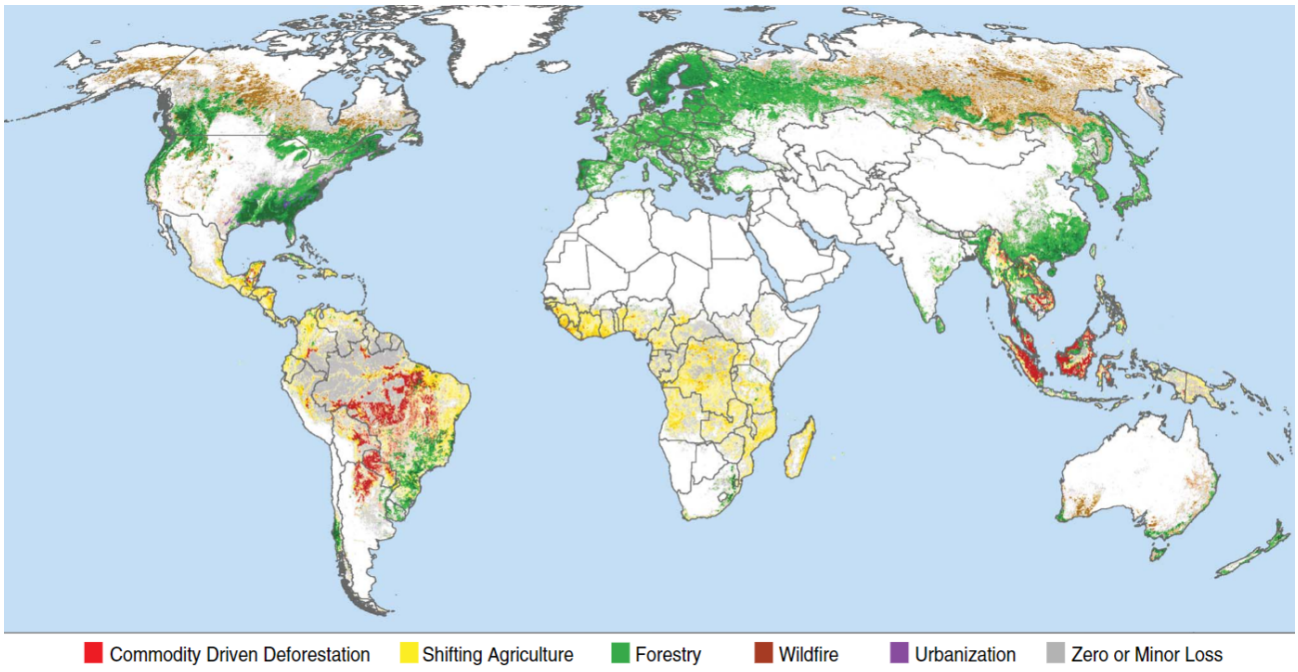
**Figure 7 Primary drivers of tree cover loss in selected regions, 2001 to 2015**




Note: the estimates a subject to a 95% confidence interval. Deforestation refers to permanent land use change.
Source: Curtis, P.G., Slay, C.M., Harris, N.L., Tyukavina, A. and M.C. Hansen (2018), "Classifying drivers of global forest loss", Science, 361: 1108-1111.

Temperate and boreal forests mostly saw forest disturbance due to forestry and wildfires, while in tropical forests, shifting agriculture and commodity-driven deforestation were the main causes. Within the tropical regions, Curtis et al. recognise considerable differences as commodity-driven forest conversion is much more relevant in large parts of South America as well as in Southeast Asia, while shifting agriculture dominates tree cover loss in sub-Saharan Africa, Central America, and parts of South America (Figure 8).[22] The regions of high forest loss rates due to commodity-driven conversion and shifting agriculture overlap largely with the remaining most-intact tropical forests.[23]

**Figure 8 Primary drivers of forest cover loss, 2011 to 2015**




Source: Curtis, P.G., Slay, C.M., Harris, N.L., Tyukavina, A. and M.C. Hansen (2018), "Classifying drivers of global forest loss", *Science*, 361: 1108-1111.

### 1.4.1 Deforestation dynamics in primary tropical and subtropical forest

Especially tropical regions are often characterised by a combination of large areas of remaining natural forests and high, continuous forest loss rates. Where these developments are commodity-driven and linked to global supply chains of raw materials, the likelihood is higher that international financial institutions are directly or indirectly financing such business activities.

Global tropical deforestation has remained high over many years now, however, it is important to note that trends fluctuate over time. This means that a certain region may be seeing high forest conversion rates for several years, but rates can also drop considerably within a few years, or the dominant driver can change. Reasons for downwards movements can be political decisions, such as a moratorium on developing concessions, or a voluntary agreement by industry to no longer accept commodities from newly developed land in a certain region.

Several recent publications have analysed global deforestation data covering the period from 2002 to 2015 or 2017. While there are some differences in the results, it is obvious that a comparatively small number of countries concentrate a large share of the recent deforestation, and that there is large overlap in the key drivers behind these developments. Considering geographic differences, the most important drivers of the conversion of biodiverse and carbon-rich tropical and subtropical forests in tropical and subtropical regions can be further disaggregated to account for regional and country-specific differences.

- The expansion of commodity-driven and small-scale (shifting) agriculture as well as tree plantations were and are the key direct drivers of deforestation and forest degradation across tropical and subtropical countries.[24] Although regional variations are strong, the commodities most commonly linked to deforestation are cattle ranching, plantation wood fibre, oil palm and rubber plantations, and cultivation of soybeans and cereals.[25] Land speculation often contributes to the dynamic of moving into still forested areas.[26]

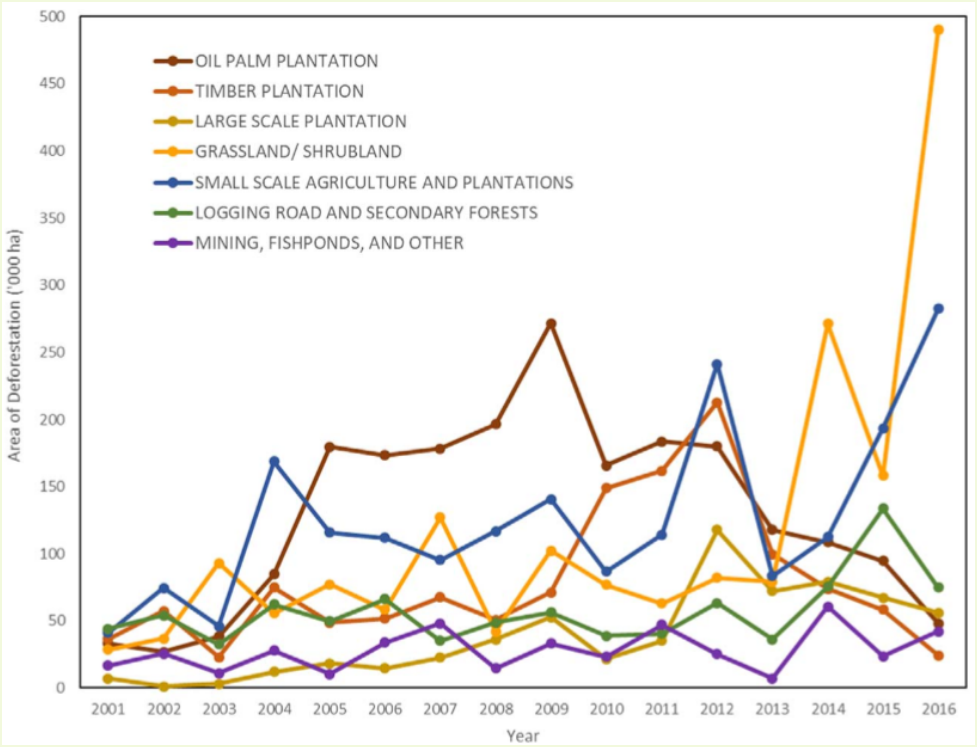
  Traditional tropical export crops, such as rubber, sugar, coffee, and cacao, overall contribute a comparatively small share to deforestation embodied in commodity production, however, their contribution is playing a more sizeable role in a small number of countries. Concretely, this is the case for rubber in Thailand, Vietnam and Indonesia, coffee and cacao in Liberia, Uganda, Congo, Ethiopia, Cameroon and Madagascar, and coffee in some Latin American countries, including Ecuador and Peru.[27] While small-scale agriculture is mostly linked to subsistence farming or supplying local markets, notable exceptions are coffee and cocoa. Both commodities are mostly cultivated by small producers but predominantly supplied to international markets and therefore linked to large actors in the mid-stream segment of the supply chain.

- The removal of timber and fuelwood are direct drivers of deforestation and degradation in all countries. Timber extraction is most clearly linked to forest degradation, specifically through the harvesting of valuable tree species. Degraded forests are subsequently more likely to be targeted for conversion to other land uses, notably to produce agricultural commodities.[28] Moreover, timber extraction is used to finance further forest conversion in frontier areas.[29] Fuel wood collection and charcoal production are also important degradation drivers.[30] Fuelwood is used locally, and timber is also difficult to link with mid- and downstream actors given the lack of transparency and traceability between upstream producers and mid- and downstream actors.

**Box 2** **Spatially and temporally dynamic drivers of deforestation in Indonesia**

Figure 9 illustrates the changing drivers of deforestation in Indonesia between 2001 and 2016. It clearly shows how deforestation driven by oil palm and pulpwood plantations loses in importance after a peak, while in the last years grassland and small-scale agriculture account for larger shares of deforestation as well as higher losses in absolute terms. Researchers observed that peak years in grassland conversion follow dry seasons with observed peaks in fire activity. Anecdotal evidence from satellite data suggests that fire may play an important role in these conversions. Around one third of deforestation for grassland expansion is later converted to another land use, with small scale mixed plantations and palm oil plantations as main uses.[31] In recent years, smallholder producers in Indonesia have seen declining yields due to aging trees. Financial hurdles and land tenure insecurity prevent effective financing of replanting, and consequently raise the risk of increasing deforestation.[32]

**Figure 9 Deforestation in Indonesia, 2001–2016, by driver category**




Source: Austin, K.G. et al. (2019), "What causes deforestation in Indonesia?", *Environmental Research Letters*, Vol. 14: 024007.

- Infrastructure and mineral extraction are mostly referred to as secondary causes of deforestation. They are not only posing the risk to indirectly drive forest loss but are also often linked to human rights violations. The risks are expected to grow in the light of growing projected future investments. A cause of concern is the reinforcement between resource extraction projects and infrastructure development and the enabling of population shifts and agricultural expansion into forested areas. Land speculation is another process linked to large-scale investments driving such developments.[33]
- An additional sizeable driver of forest destruction and degradation in many forest-rich countries are fires. Forest fires occur naturally but are also extensively used for clearing primary forests or to keep already cleared areas free from vegetation. This can for example be

observed in Brazil and Indonesia, where climate change and commodity-driven deforestation intensify the fire season.[34]

An analysis of forest loss dynamics results in a selection of key economic sectors that directly drive deforestation in the focus countries described in section 1.3. Various scientific studies as well as recent grey literature publications summarising a larger number of sources, notably the recent WWF study by Pacheco et al., were consulted to identify key sectors per focus country. These are referred to as "forest-risk sectors" in this research and generally relating to the upstream segment of commodity supply chains. Due to their prominent presence in production regions of forest-risk commodities, their important role as aggregators from often large numbers of producers, and a broad overlap between production and trading observed in some sectors, notably palm oil, the analysis also considers key actors the midstream segment of commodity trading.

Focussing on agricultural and forestry commodities as the most important direct drivers of forest loss, a study by Pendrill et al. covering the period 2005 to 2017 applies a land-balance model that quantifies the deforestation footprint of crop production at country level across the tropics and subtropics in the years from 2005 to 2017. These datasets certainly have limitations in their accuracy, and the data quality is likely to differ between countries.[c] However, the visualisation of the shares helps to understand and compare the role those different commodities play in driving deforestation in selected producer countries. Charts based on this data are included in each country profile, showing the share of different agricultural products in commodity-driven deforestation as well as the forest loss attributed to key land-use categories during the analysed period from 2005 and 2017.

### 1.4.2 Identification of companies engaged in forest-risk activities

Considering the focus of this analysis on the exposure of Dutch financial institutions to forest-risk sectors with strong direct links to deforestation, some sectors were excluded to increase the likelihood of identifying links with Dutch financial institutions:

- Timber extraction is a commonly observed cause of deforestation across geographies. However, due to the local character of fuelwood markets and the lack of transparency and traceability in the timber sector, these sectors are not further considered in the analysis.
- Owing to their strategic importance and their function for multiple stakeholders, road building and other transport infrastructure projects are more likely to be financed via public funds and multilateral development banks. As there is a low likelihood of international trade relationships connected to such projects, the involvement of Dutch financial institutions is presumably also of low relevance. Therefore, infrastructure projects are not further considered in the analysis.
- More generally, commodity sectors with dominant supply chain links to local markets and the prevailing involvement of privately-owned, small- or medium-sized actors have a low likelihood of relationships with Dutch financial institutions and were therefore not considered in the company selection.

A range of sources was consulted to identify key industry actors engaged in the up- and mid-stream segments linked to agricultural forest-risk sectors.

[c] The applied land-balance model does not cover some other land uses with predominantly indirect impacts, by making forest accessible to colonisers and displacing other land uses into forests (e.g. mining, urbanisation, infrastructure). Pendrill et al. aimed to capture such indirect land-use changes by using assessments of gross expansion of cropland and pastures. More importantly, the model does not capture forest clearing for timber without successive establishment of cropland, pastures, or tree plantations. Timber extraction can be an important driver of deforestation and forest degradation in some countries, however, the lack of a clearly delineated land use following forest loss hampers a quantification of this driver. As granular data on non-commercial agricultural production is mostly absent from official statistics, the model may also insufficiently capture the role of small-scale and subsistence farming in deforestation.

- First, companies included in the publicly available website Forests & Finance were considered.[d] It provides information on hundreds of company groups involved in the up- and midstream segments of a range of key forest-risk sectors in Southeast Asia, Central & West Africa, and Brazil. Sectors covered include beef, palm oil, pulp and paper, rubber, soybean and timber supply chains. Factors that led to the inclusion of companies in the database included importantly the size of the company and land area of operation, access to information on their financing, as well as known negative impacts of their sector of operation on tropical and subtropical forest biomes.[35]
- Second, key companies engaged in the up-and midstream segments of forest-risk sectors not yet considered in Forests & Finance but identified as direct drivers of TCL in focus countries were researched. Information was sought in company publications, market research, shipment data and other relevant sources. To keep the number of companies for inclusion in the financial analysis manageable, a selection of top companies (depending on data availability) per sector-country combination were chosen. Moreover, leading commodity traders with global activities in the identified sectors are considered in the analysis where already included in Forests & Finance.

The resulting selection forms a representative sample of companies active in economic sectors that are known to impact tropical and subtropical forests. It is not an exhaustive list of all companies impacting or having the potential to impact primary forests.

It must be stressed that while the involvement of a company in a specific sector increases the likelihood of it contributing to forest loss, the inclusion in the analysis does not constitute proof of such a contribution. However, involvement in these forest-risk sectors increases the need for comprehensive due diligence by the companies as well as by their financiers and companies further downstream trading or processing their goods. Moreover, documentation of links with deforestation or breaches of community rights exists for many of the included companies, example of which are given in the country profiles and in three case studies.

## 1.5 Analysis of Dutch financial institutions' exposure to forest-risk sectors

The Netherlands has a high risk of physical exposure to deforestation in tropical and subtropical countries, owing to its role as an important processor of tropical commodities like cocoa and coffee, its reliance on imported soy as a source crop protein for the large Dutch livestock industry, as well as its leading role as a European commodity transhipment hub. While this exposure is an important concern, it is also of interest to analyse the exposure of Dutch financial institutions to these risks through the provision of financing to companies active in forest-risk sectors. Through the provision of the required capital, financial institutions enable companies to conduct their business activities, including activities with links to tropical forests.

### 1.5.1 Selection of financial institutions

The 26 Dutch banks, insurers and pension funds selected for this research project are listed in Table 2. These financial institutions were selected due the size of their private customer deposits (banks), their total assets under management (insurance companies and pension funds) and the relative importance of Dutch customers/participants in their services.

[d] Forests & Finance is a joint project by Rainforest Action Network, TuK INDONESIA, Profundo, Amazon Watch, Repórter Brasil, BankTrack and Sahabat Alam Malaysia. See www.forestsandfinance.org for more information.

Table 2 Dutch banks, insurers and pension funds selected for this project

| Banks | Insurers | Pension funds |
|---|---|---|
| • ABN Amro | • Aegon | • ABP |
| • ING | • ASR | • BPF Bouw |
| • Rabobank | • Nationale Nederlanden | • Pensioenfonds Horeca en Catering |
| | • Athora Netherlands | • Pensioenfonds Zorg en Welzijn |
| | | • PME |
| | | • PMT |

### 1.5.2 Analysis of financial relationships

The full range of financial relationships is considered in the research, including holdings of shares or bonds, provision of corporate loans, project, revolving credit facilities or project finance, as well as underwriting for bond and share issuances. Indirect holdings through funds offered to customers are also included.

Where data from Forests & Finance was not up to date at the time of the research, they were updated to reflect recent developments.[e] Additionally, financing for additional companies outside the scope of Forests & Finance was researched using Bloomberg, Refinitiv, Orbis, IJGlobal and trade finance analytics databases; annual reports and stock exchange filings of companies; company registers and media sources. As with financial flows to companies included in Forests & Finance, all identified financing values were adjusted for the proportion of the borrower/issuer's activities related to the key forest-risk commodities in the relevant countries. For globally active trading companies this can mean that only a very small proportion of their overall financing is considered for a specific country sector.

### 1.5.3 Relative importance of Dutch financial institutions' financing to companies in key forest-risk sectors

The amount of finance and investment identified for Dutch financial institutions to selected companies was evaluated relative to overall finance and investment provided by financial institutions to the selected companies. It should be noted that the results are influenced by the company selection criteria, which included the likelihood of links with Dutch financial institutions. Moreover, the inclusion of a larger selection of companies from forest-risk sectors included in Forests & Finance gives these financial relationships a higher weight in comparison to the additional sectors for which only a small number of top actors is considered.

The findings exclude financing to smaller companies and commodities destined primarily for domestic consumption. In both cases, financing is most likely provided by local financial institutions. Consequently, the findings do not allow a comparison of the relative importance of Dutch financial institutions in a whole sector in any given country. The findings only allow a comparison of the relative importance of Dutch financing of the *selected* companies in a given sector and country.

[e] For pension funds the most recent available data at the end of Q1-2021 was used. For PME Q4-2019 figures were used, although more recent data was available.

# 2

# Forest-risk sectors in focus countries and exposure of financial institutions

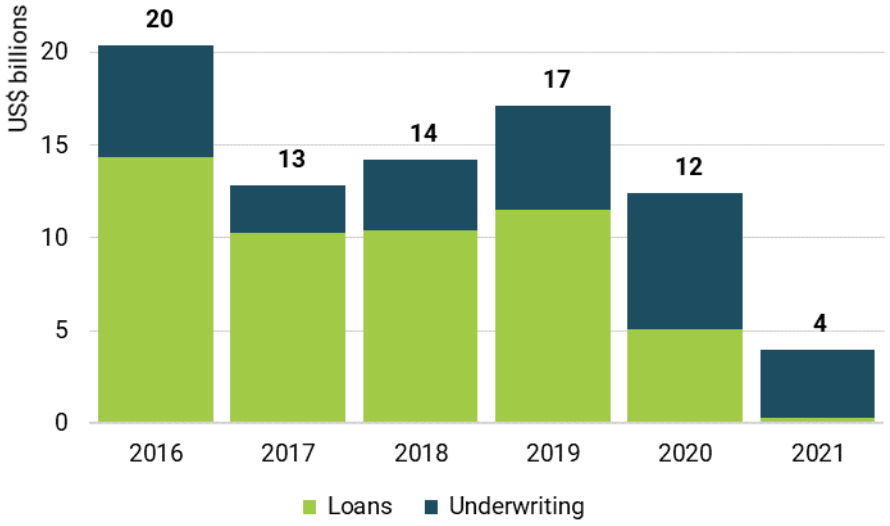
**In the following sections, first an overview of the overall findings on the exposure of financial institutions to forest-risk sectors in the focus countries is provided – both for financial institutions globally as well as specifically for the selected Dutch institutions. This is followed by country profiles giving the underlying analysis and data on deforestation drivers and key forest-risk sectors, as well as the country-level exposure of Dutch financial institutions.**

## 2.1 Overall findings on forest-risk sector exposure of financial institutions

### 2.1.1 Creditor analysis – Global

In the period 2016 to March 2021, financial institutions provided a total of US$ 81 billion in forest-risk loans and underwriting services to the selected companies engaged in forest-risk commodities in the focus forest-risk countries. These credit flows fluctuated between US$ 12 billion and US$ 20 billion annually (Figure 10). Figures for 2020 and 2021 are likely to increase as more information becomes available.

**Figure 10 Forest-risk loans & underwriting per year (2016-2021 March, US$ bln)**




Of these total loans and underwriting services, 44 percent were provided to palm oil (US$ 35 billion), 19% to pulp & paper (US$ 16 billion), 15% to rubber (US$ 12 billion) and 12% to beef (US$ 10 billion) (Figure 11). Soy, cocoa, and coffee together attracted US$ 8 billion in loans and underwriting services.

**Figure 11 Forest-risk loans & underwriting per commodity (2016-2021 March)**

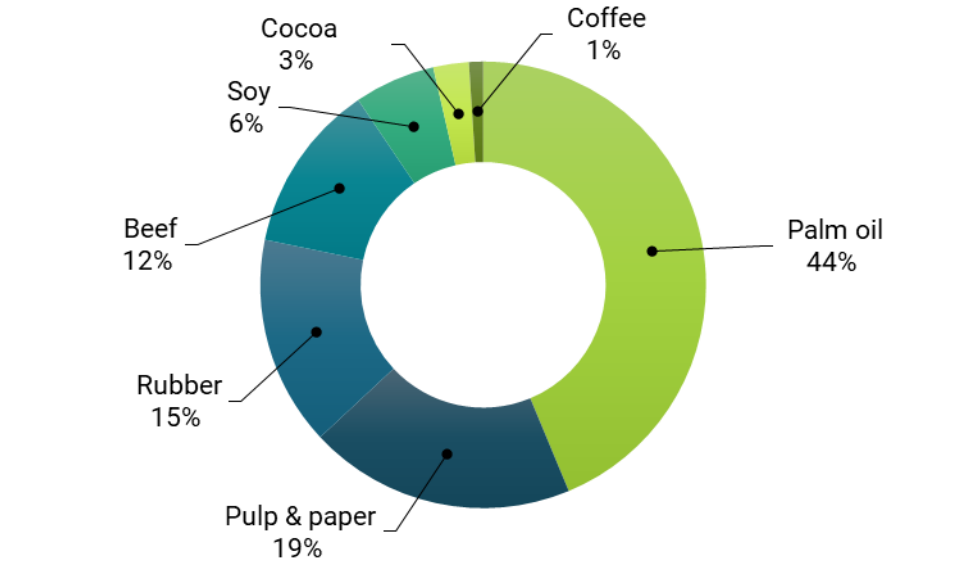
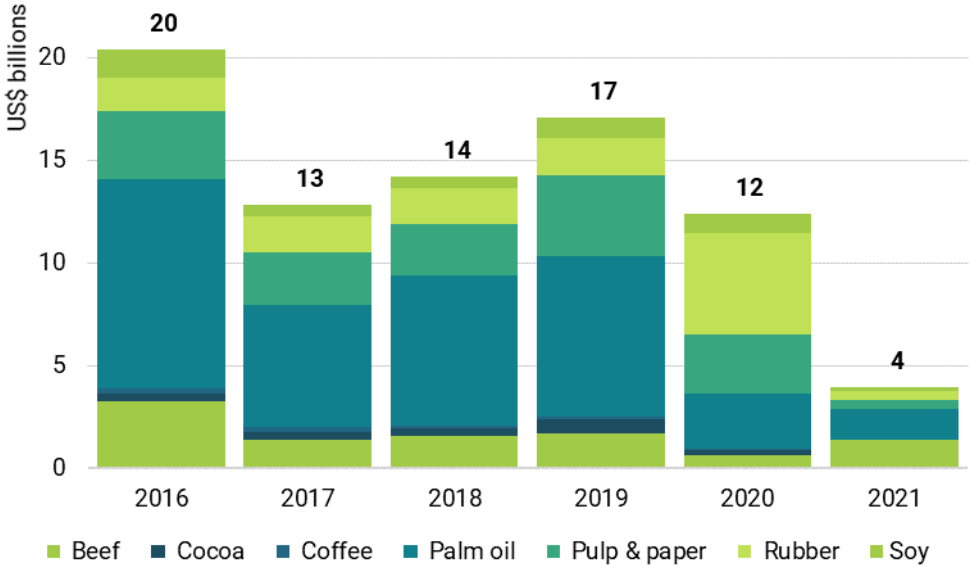


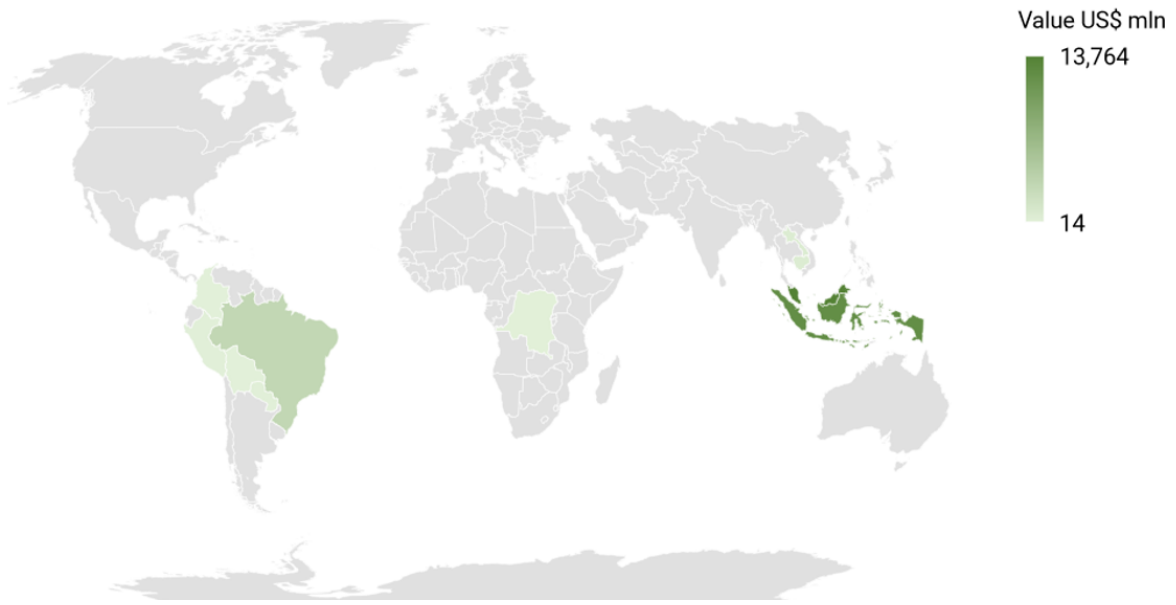

Figure 12 provides more details on the annual flows per commodity. It shows that palm oil consistently dominates the loans and underwriting services. In 2020, there is an increase in the proportion of credit attributable to rubber.

**Figure 12 Forest-risk loans & underwriting per year and commodity (2016-2021 March, US$ bln)**



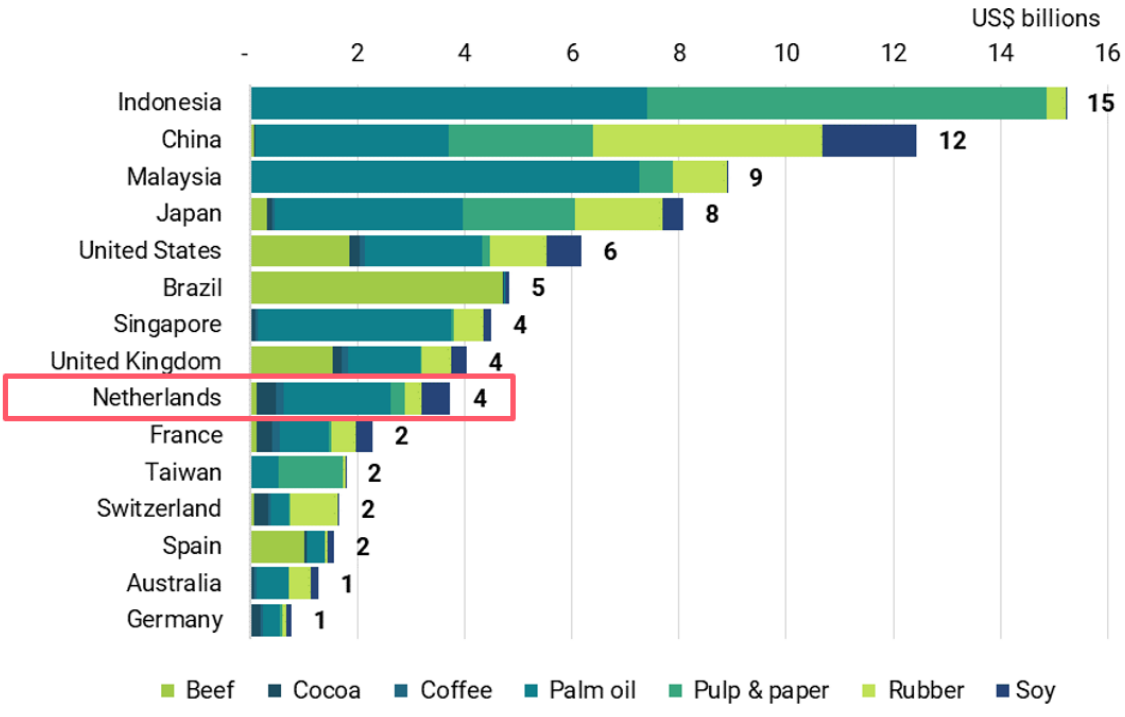

As Figure 13 shows, the bulk of financing was provided to forest-risk companies active in Indonesia (US$ 48 billion), Malaysia (US$ 16 billion) and Brazil (US$ 13 billion).

**Figure 13 Forest-risk loans & underwriting per recipient country (2016-2021 March, US$ mln)**




Creditors from Indonesia, China and Malaysia provided just under half (45 percent) of all identified loans and underwriting services to the selected companies in the period 2016 to March 2021. European financial institutions from the United Kingdom, the Netherlands and France ranked respectively eighth, ninth, and tenth. The Netherlands ranks as the first creditor amongst EU member states overall. It is also the third most important creditor for soy globally, after China and the US, the first European (EU27+UK) creditor for palm oil (see Figure 14), and the largest creditor of cocoa and coffee.

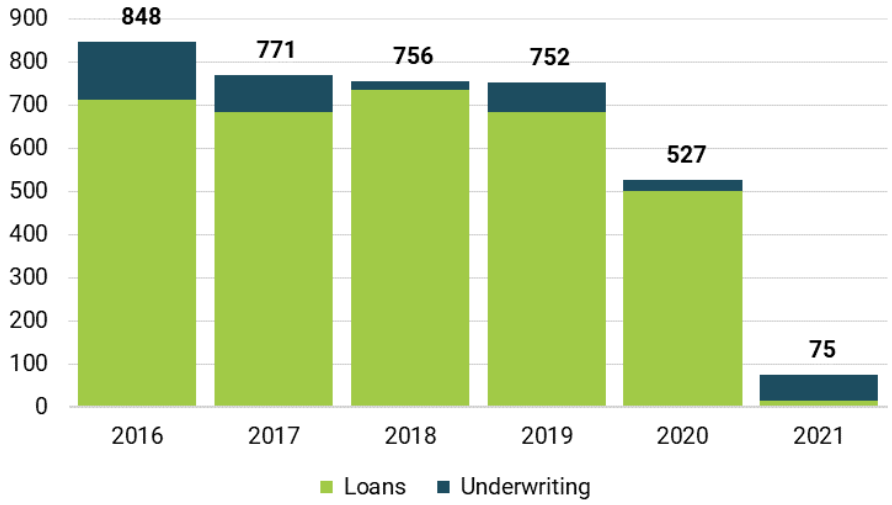
**Figure 14 Forest-risk loans & underwriting per creditor country and commodity (2016-2021 March, US$ bln)**



### 2.1.2 Creditor analysis – Dutch financial institutions

From a total of 96 companies included in the selection, 35 companies received loans and underwriting services from Dutch financial institutions. In the period 2016 to March 2021, financial institutions from the Netherlands provided US$ 3.7 billion in loans and underwriting services to the selected forest-risk companies active in the selected countries. As Figure 15 shows these credit flows were relatively stable fluctuating between US$ 752 million and US$ 848 million annually in the period 2016 to 2019. Figures for 2020 and 2021 are likely to increase as more information becomes available.

**Figure 15 Dutch forest-risk loans & underwriting per year (2016-2021 March, US$ mln)**




More than half the loans and underwriting services provided to the selected forest-risk companies were attributable to palm oil (US$ 2 billion). Soy accounted for 14 percent of the identified Dutch forest-risk financing (US$ 537 million) and cocoa 10 percent (US$ 357 million) (Figure 16).

**Figure 16 Dutch forest-risk loans & underwriting per commodity (2016-2021 March)**

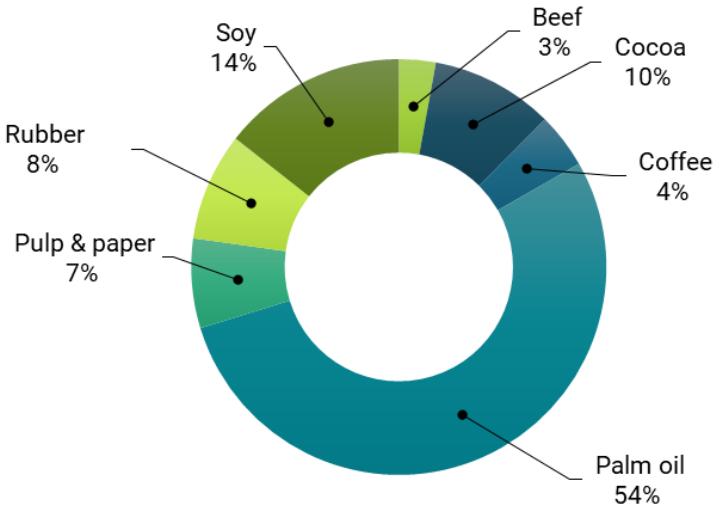
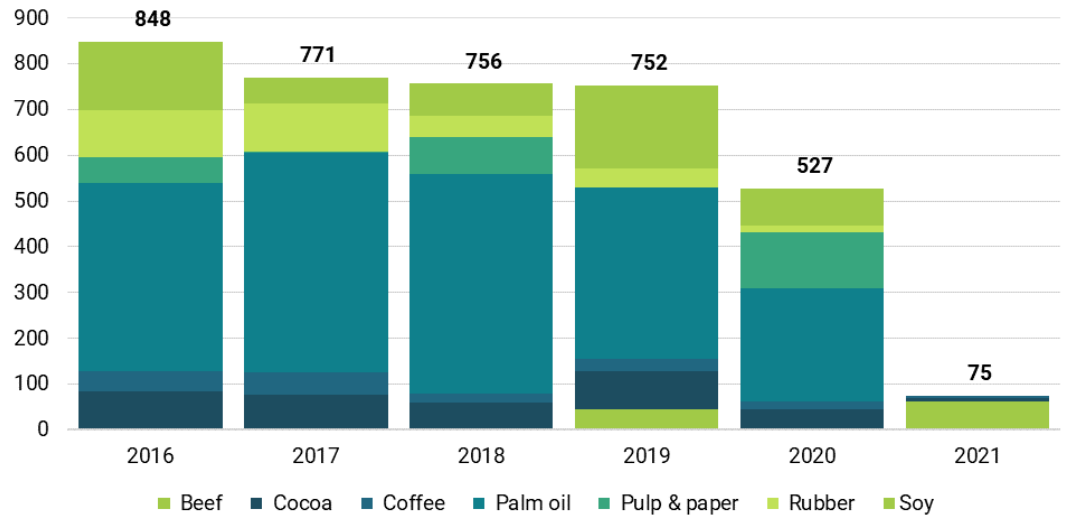


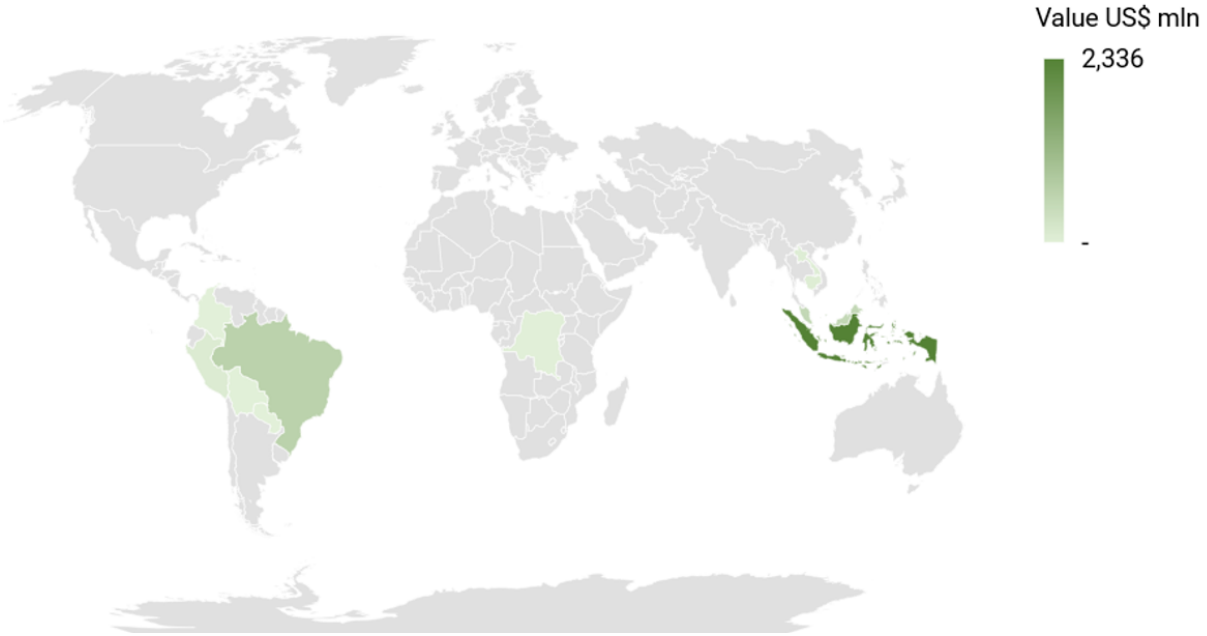
Figure 17 provides more details on the annual flows per forest-risk commodity. It shows that palm oil consistently attracted the bulk of the loans and underwriting services. In 2016 and 2019, the year the far-right Jair Bolsonaro came to power in Brazil, soy also attracted significant proportions of financing.

**Figure 17 Dutch forest-risk loans & underwriting per year and commodity (2016-2021 March, US$ mln)**



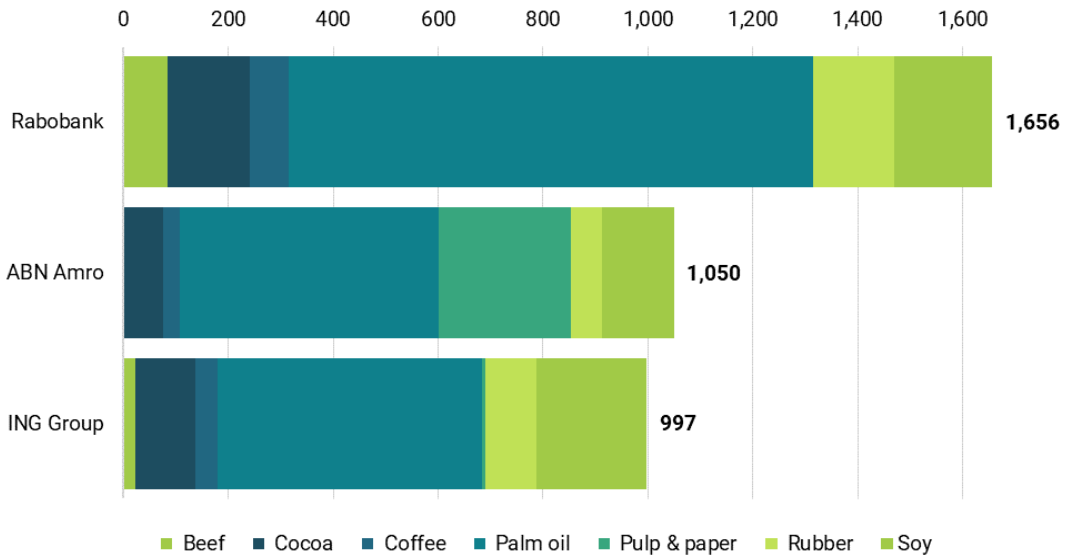

As Figure 18 shows, most Dutch forest-risk loans and underwriting services were provided to companies active in Indonesia (US$ 2.3 billion, 63%). This is followed by companies active in Brazil (US$ 634 million, 17%), and in Malaysia (US$ 504 million, 14%).

**Figure 18 Dutch forest-risk loans & underwriting per recipient country (2016-2021 March, US$ mln)**



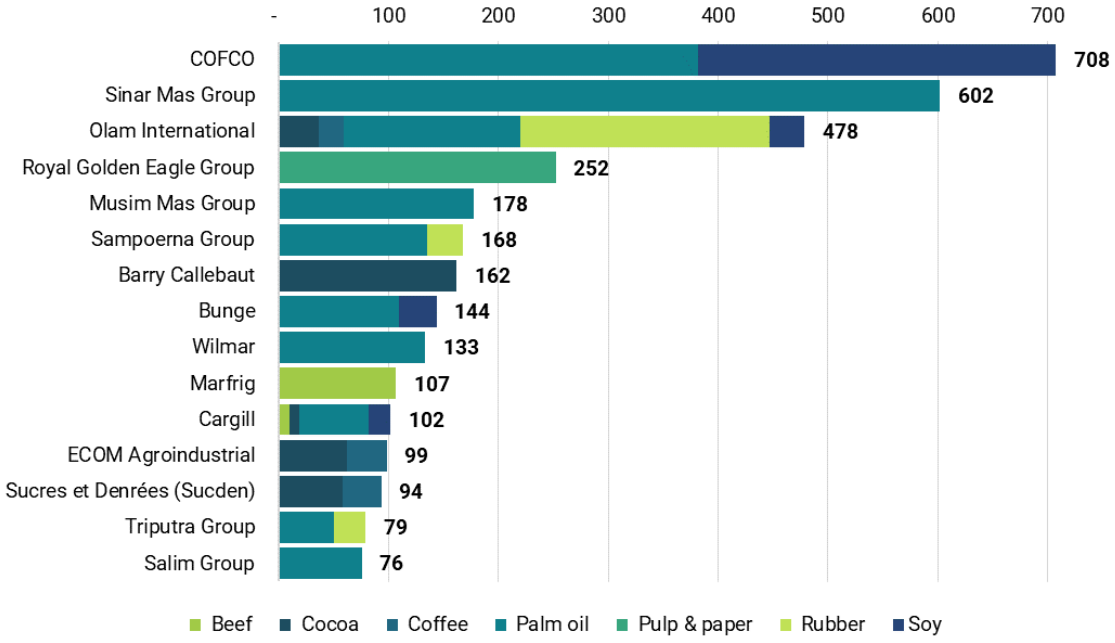
Rabobank was the largest Dutch creditor of forest-risk commodities in the selected countries (Figure 19). In the period 2016 to March 2021, it provided approximately US$ 1.7 billion in loans and underwriting services. It was followed by ABN Amro (US$ 1.1 billion) and ING Group (US$ 1 billion).

**Figure 19 Dutch forest-risk loans & underwriting per creditor and commodity (2016-2021 March, US$ mln)**




The largest recipients of Dutch forest-risk loans and underwriting services were Chinese agro-commodity trader COFCO (US$ 708 million), Indonesian palm oil and pulp & paper conglomerate Sinar Mas (US$ 602 million) and Singaporean agro-commodity trader and producer Olam (US$ 478 million) (Figure 20). These three companies accounted for just under half (48%) of all identified Dutch forest-risk credit to the selected companies.

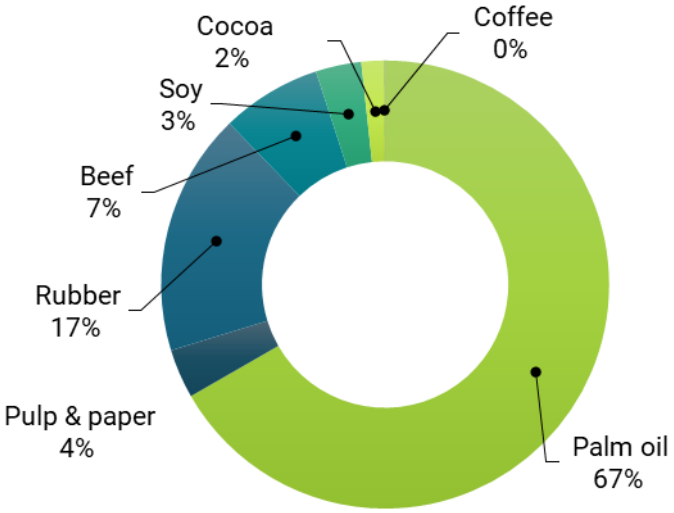
**Figure 20** Forest-risk loans & underwriting per group and commodity (Top 15 clients, 2016-2021 March, US$ mln)




### 2.1.3 Investor analysis - Global

As of the most recent filings available in March 2021, financial institutions held US$ 30 billion in forest-risk bonds and shares of the selected companies active in the 10 focus countries. More than two thirds of these investments were attributable to palm oil (US$ 20 billion). A further 17% was attributable to rubber (US$ 5 billion) and 7% to beef (US$ 2 billion). Pulp and paper, soy, cocoa, and coffee attracted approximately US$ 2.6 billion (see Figure 21).

**Figure 21** Forest-risk bond- & shareholding per commodity (2021 March most recent filings)

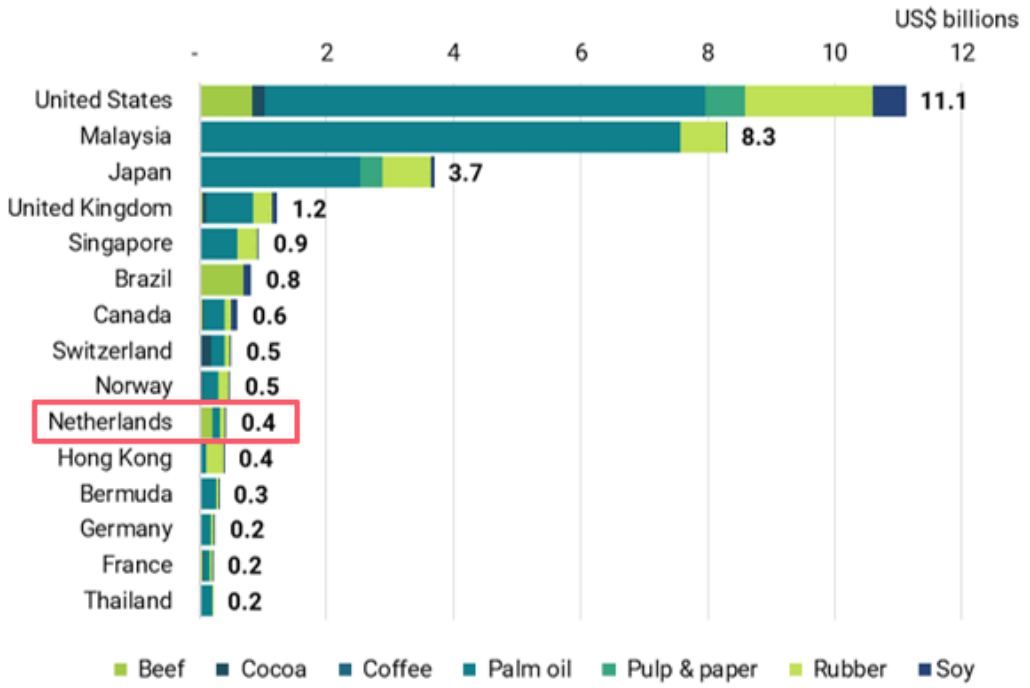



The majority of these investments were in companies active in Malaysia (US$ 14 billion), Indonesia (US$ 12 billion) and Brazil (US$ 3 billion) (Figure 22).

Figure 22 Forest-risk bond- & shareholding per recipient country (2021 March most recent filings, US$ mln)


The largest investors in forest-risk commodities were financial institutions from the U.S. (US$ 11 billion), Malaysia (US$ 8 billion) and Japan (US$ 4 billion). Together, they accounted for more than three quarters of the identified forest-risk investments in bonds and shares issued by the selected companies. Financial institutions from the Netherlands were the tenth largest investors in these companies and the largest investor group among financial institutions from EU member states (see Figure 23).

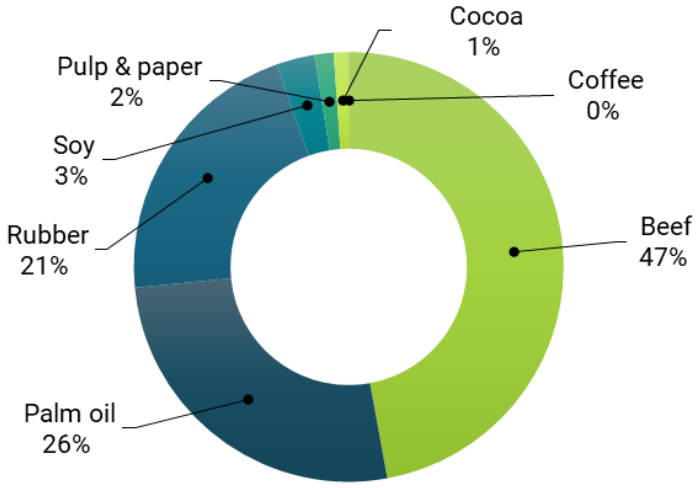
Figure 23 Forest-risk bond- & shareholding per investor country and commodity (2021 March most recent filings, US$ bln)



### 2.1.4 Investor analysis – Dutch financial institutions

Dutch financial institutions held or managed shares or bonds of 40 companies out of a total of 81 companies included in the selection that issue securities. As of the most recent filings available in March 2021, financial institutions from the Netherlands held US$ 424 million in bonds and shares issued by the selected forest-risk companies active in the 10 focus countries. Just under half of these investments were attributable to beef (US$ 199 million), a quarter to palm oil (US$ 113 million) and a fifth to rubber (US$ 89 million). Companies engaged in soy, cocoa, coffee, and pulp & paper attracted US$ 23 million in investments from Dutch financial institutions (see Figure 24).

**Figure 24 Forest-risk bond- & shareholding per commodity (2021 March most recent filings)**

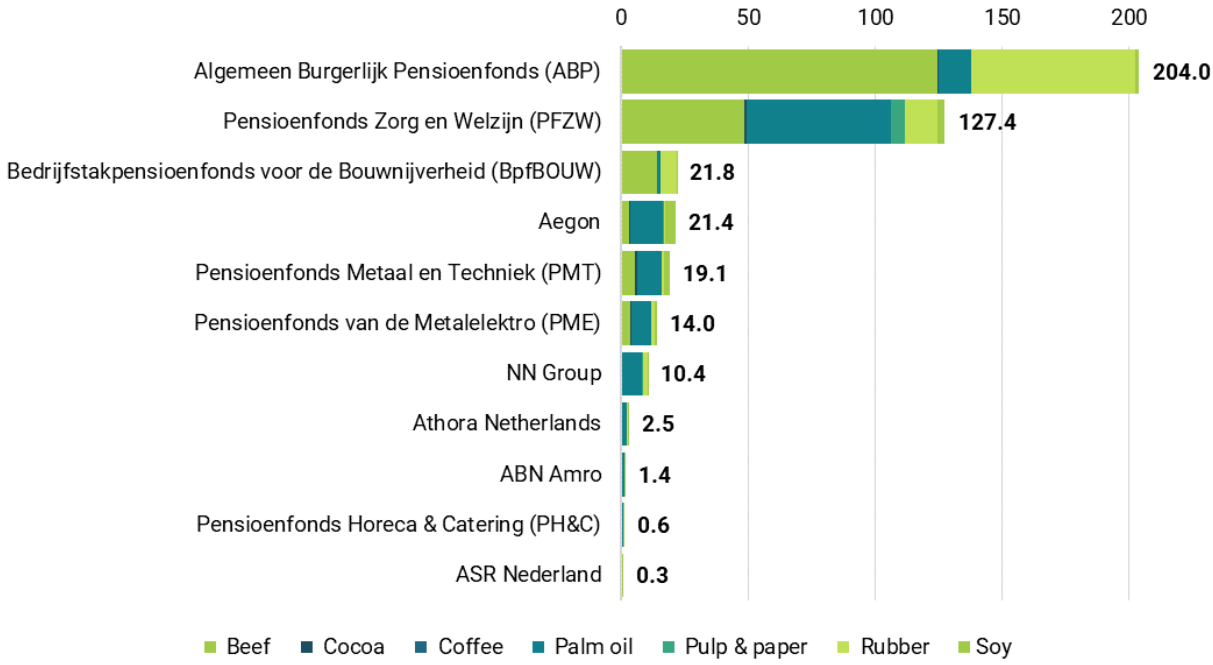



As Figure 25 shows, the majority of Dutch forest-risk investments were in companies active in Brazil (US$ 201 million). Companies active in Malaysia and Indonesia attracted US$ 122 million and US$ 83 million respectively in forest-risk investments from Dutch financial institutions.

**Figure 25** **Forest-risk bond- & shareholding per recipient country (2021 March most recent filings, US$ mln)**

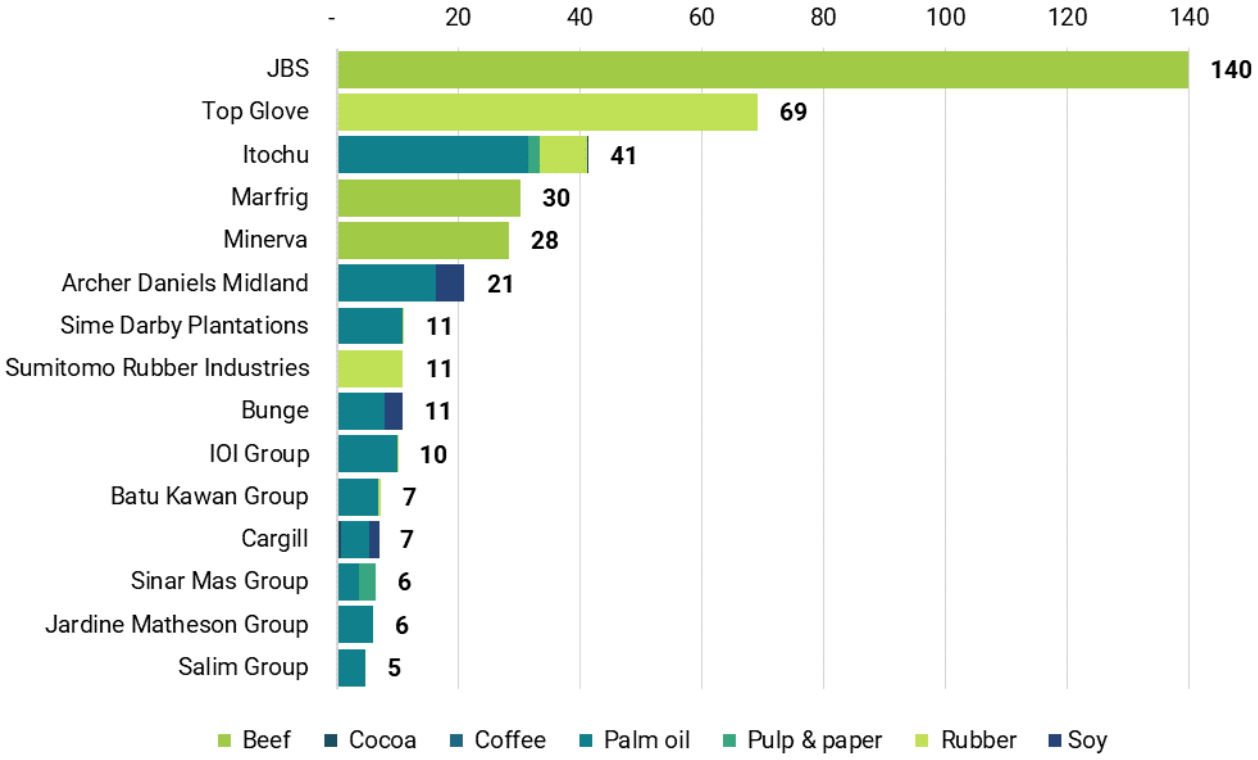

The largest Dutch investor of the pension fund for civil servants Algemeen Burgerlijk Pensioenfonds (ABP), held US$ 204 million in forest-risk bonds and shares (see Figure 26). It was followed by PFZW (US$ 127 million) and BpfBOUW (US$ 22 million).

**Figure 26** **Forest-risk bond- & shareholding per investor and commodity (2021 March most recent filings, US$ mln)**



The largest investments were in Brazilian beef producer JBS (US$ 140 million, all made by ABP), Malaysian rubber glove producer Top Glove (US$ 69 million) and Japanese general trader Itochu (US$ 41 million) (Figure 27). These three companies account for approximately 60% of all identified Dutch forest-risk investments. Dutch pension funds ABP and PFZW held together nearly US$ 200 million in beef producers. ABP has been named as one of the top investors in JBS.

**Figure 27 Forest-risk bond- & shareholding per group and commodity (Top 15 investees, 2021 March most recent filings, US$ mln)**

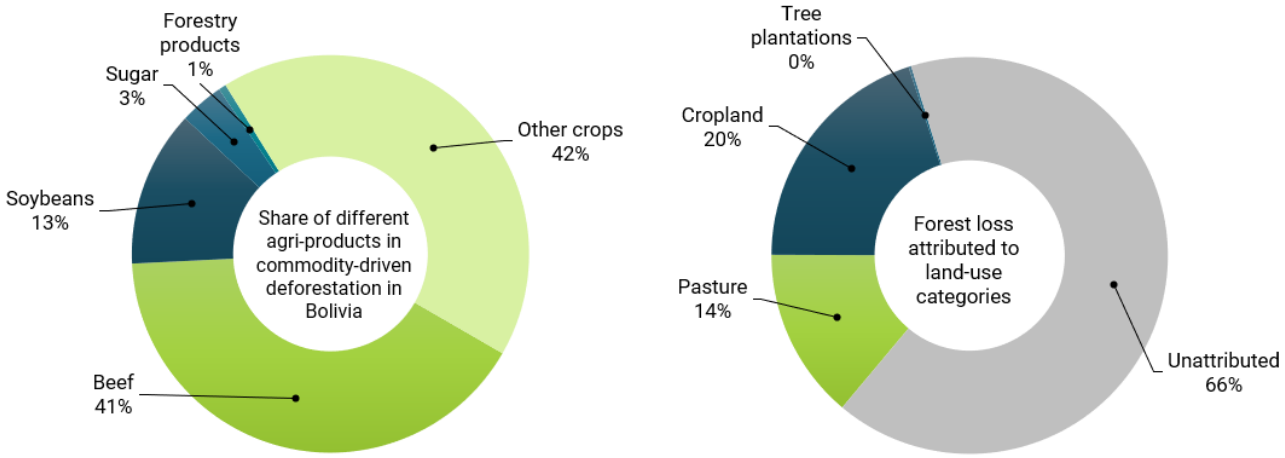



## 2.2 Bolivia

### 2.2.1 Drivers of deforestation

- Bolivia forms part of the Amazon deforestation front.
- Primary causes of deforestation: Cattle ranching, smallholder farming of commercial crops, and large-scale mechanised agriculture.[36]
- Bolivia lost 6.1 million hectares of tree cover between 2001 and 2020, a 9.5 percent decrease in tree cover. More than 3.0 million hectares of primary forest were deforested, an area around eleven times the land area of the province of South Holland.
- In 2019, the country saw with 852,000 hectares the highest forest loss during recent years. 57 percent took place in areas where the dominant driver was the expansion of commodity production. With a total area of 430,000 hectares, the annual conversion saw a significant decline in 2020.[37]
- Between 2004 and 2017, deforestation in the Bolivian Amazon destroyed 11 percent of the forest still standing in 2000.[38]

**Figure 28 Key commodities driving deforestation in Bolivia, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

The Santa Cruz region has been the centre of Bolivian deforestation for more than two decades. Intensifying conversion since 2008 made it a hotspot of Amazon deforestation.[39] Similar as in other Amazon countries, the expansion of the agricultural frontier is the key driver of deforestation in the Bolivian part of the Amazon biome. Conversion for industrial agriculture use and livestock production is playing an important role, and, to a lesser extent, agriculture and cattle ranching conducted by small farmers and indigenous peoples.[40] The introduction of the Brazilian Amazon Soy Moratorium in 2006 is seen as an agent for increasing leakage of soybean plantations from Brazil into neighbouring countries like Bolivia.[41]

Expansion of commercial crop production by smallholders is linked to a legal and regulatory framework of land allocation that stimulates small-scale deforestation on public forestlands and forest reserves. Among the mechanized production of cash crops, soybeans are the main driver of deforestation, while sugarcane, sunflower, rice, maize, wheat, and sorghum play a less important role.[42]

The role of cattle ranching as a driver of deforestation in the Bolivian Amazon may increase in the coming years, as Bolivian beef producers are aiming to increasingly supply international markets.[43] Beni province in the Bolivian Amazon accounted for 30 percent of the country's cattle herd in 2019.[44] Cattle is also the main deforestation driver in the Bolivian part of the Chaco.[45]

### 2.2.2 Links with companies and international markets

Only a very small share of the products of small-scale farming is exported. The same accounts still for beef, of which Bolivia exported around 3,000 tonnes to international markets in 2019, predominantly to China and Peru.[46] For sugarcane and other agricultural commodities linked to forest conversion, international trade is limited.

While investments of Dutch financial institutions in privately owned soybean producers in Bolivia are unlikely, the soy supply chain to other countries involves some large actors. Trade in soybeans is negligible, however, Bolivia exported around 450,000 tonnes of soybean meal in 2019. Key destinations were other Latin American countries, with Peru, Colombia, and Ecuador accounting for more than 90 percent of the trade in 2019.[47] Table 3 lists key actors in exports of soybean meal from Bolivia based on latest available data for the year 2018. Next to U.S. trader Cargill, subsidiaries linked to the Grupo Romero conglomerate from Peru are holding important market shares. Grupo Romero is the largest shareholder in the publicly listed company Alicorp. Alicorp in turn expanded its footprint in Bolivia recently, with the acquisition of ADM's Bolivian oilseed crushing and trading activities.[48]

**Table 3 Key soy traders in Bolivia**

| Commodity / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Soy trade | Alicorp (PE) (Grupo Romero (PE)) | Listed | • Est. 30% of soymeal exports in 2018 | [49] |
| | Cargill (U.S.) | Private | • Est. 11% of soymeal exports in 2018 | |

In addition, important soy traders with global activities are considered in the financial analysis based on a geographic adjuster.

### 2.2.3 Exposure of Dutch financial institutions to Bolivian forest-risk sectors

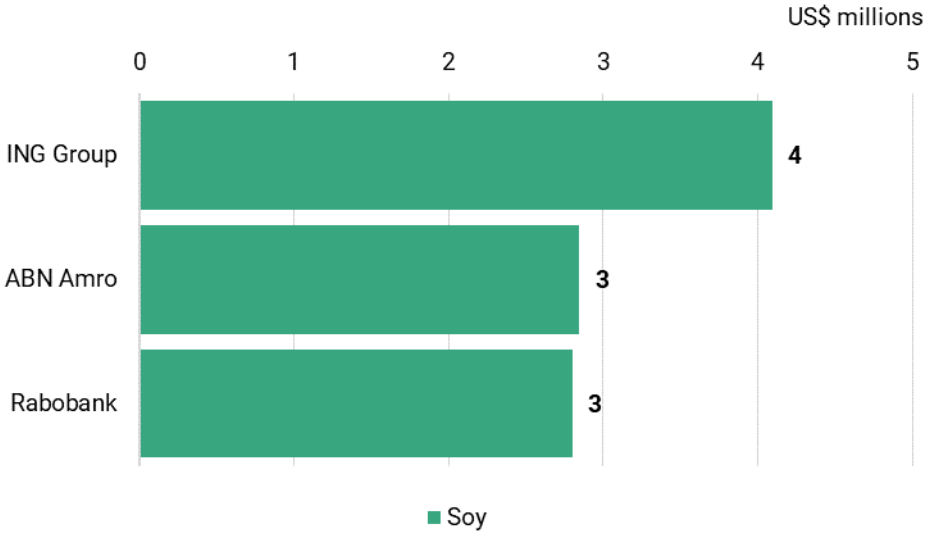
The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Bolivia.

#### *Creditors*

In total US$ 105 million in loans and underwriting to the selected companies active in soy in Bolivia were identified in the period 2016 to March 2021. Dutch financial institutions accounted for 9.3 (US$ 10 million) percent of all financing identified to the selected companies, ranking third after financial institutions from China and the U.S. Approximately 75% of the identified credit provided by Dutch financial institutions engaged in soy in Bolivia was provided to COFCO. The remaining 25% was largely provided to other large agro-commodity traders.

Figure 29 shows that ING was the largest creditor, followed by ABN Amro and Rabobank.

**Figure 29 Dutch loans & underwriting services to Bolivian forest-risk sectors (2016-2021 March, US$ mln)**

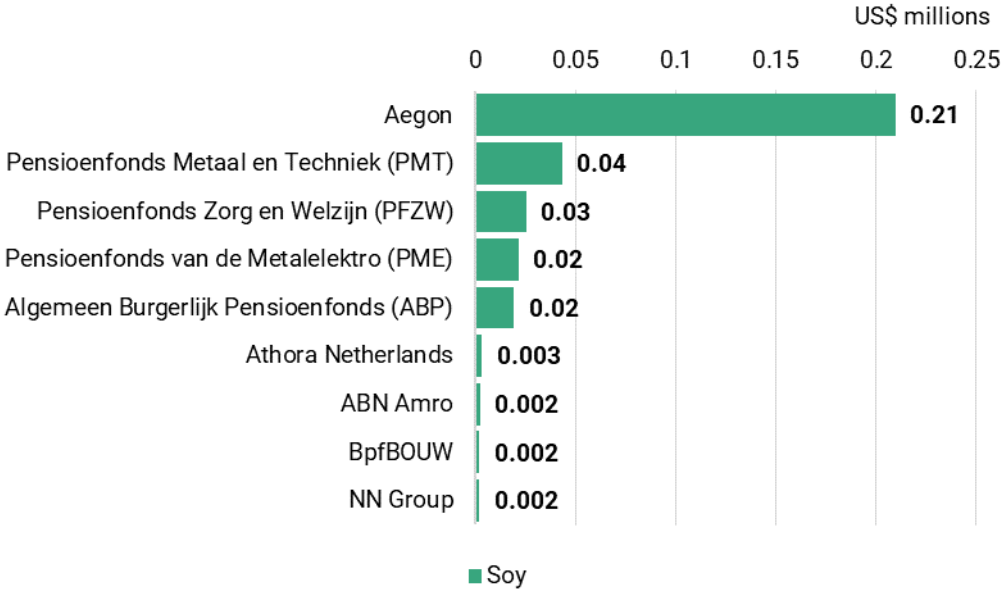



### *Investors*

At the most recent filing date in April 2021, investors held US$ 23 million in bonds and shares issued by the selected companies active in soy in Bolivia. Dutch financial institutions held bonds and shares worth US$ 0.3 million (1.5 percent of all identified) in the companies. They ranked nineth after investors from the U.S., Colombia and Peru. Approximately 40% of the identified Dutch investments were in Bolivian soy were in Alicorp. The remaining 60% was predominantly invested in global agro-commodity traders.

Figure 30 shows that the largest investor was Aegon, followed by PMT and PFZW.

**Figure 30 Dutch investments in Bolivian forest-risk sectors (2021 April most recent filings, US$ mln)**

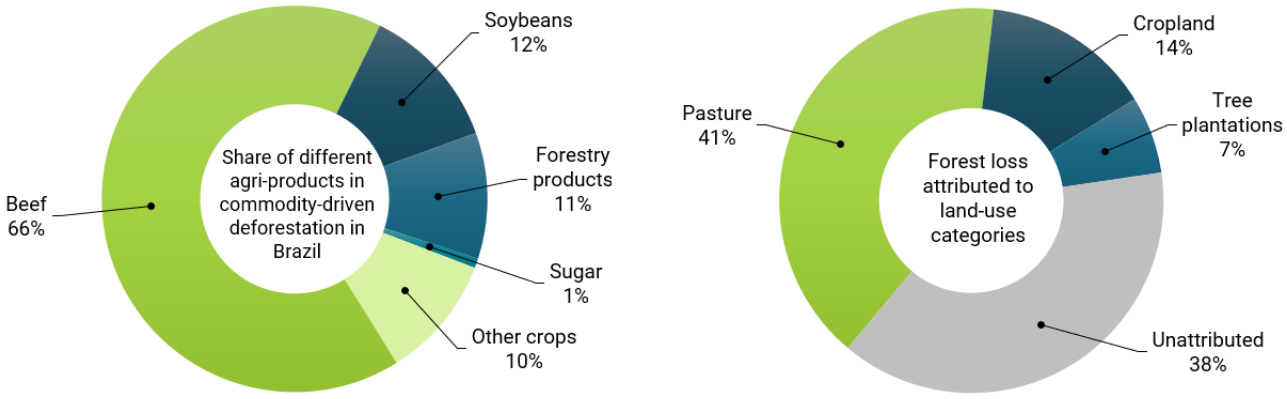


## 2.3 Brazil

### 2.3.1 Drivers of deforestation

- Brazil forms part of the Amazon and Cerrado deforestation fronts.
- Primary causes of deforestation: Cattle ranching and roads expansion in the Amazon; cattle ranching and large-scale agriculture in the Cerrado.[50]
- Brazil lost 59.8 million hectares of tree cover between 2001 and 2020. This area included more than 26 million hectares of humid primary forest, an area six times the land area of the Netherlands.
- The year 2019 saw 2.7 million hectares of forest loss, of which two-thirds in areas where the dominant driver was commodity production. In 2020, tree cover loss saw an increase to 3.3 million hectares, of which 1.7 million hectares humid primary forest.[51]
- Between 2004 and 2017, deforestation across the Brazilian Amazon and Cerrado biomes destroyed respectively 15 percent and 33 percent of the forest still standing in 2000.[52]

**Figure 31 Key commodities driving deforestation in Brazil, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

Extensive cattle ranching and intensive commodity-driven agriculture are the two leading causes of deforestation in Brazil. A self-declaratory system for land rights increases the risk of illegal land grabbing and deforestation.[53]

Areas of cattle ranching today show wide overlap with the Amazon and Cerrado biomes, especially in the states of Acre, Maranhão, Mato Grosso, Pará, Rondônia, and Tocantins.[54] Cattle ranchers are responsible for an estimated 80 percent of Amazon forest cover clearing.[55] Next to the growing beef industry, land speculation is another economic driver for the conversion of forests into pasture, with rearing cattle as a cheap way to prevent the forest from growing back.[56] Cattle ranching is not only a deforestation agent in the Amazon but also responsible for natural vegetation loss in the Cerrado savanna and Pantanal wetland biomes.[57]

In large-scale agriculture, soybean cultivation is the key driver for land conversion. Until the mid-2000s, the spread of soy cultivation was an important direct and indirect engine of deforestation in the Brazilian Amazon. Infrastructure projects enabled the rapid expansion, as port and road constructions made it easier to access remote areas. At the same time, the expansion of soybean cultivation in areas that were previously used as pastureland led to a relocation of extensive cattle ranching to still untouched forest areas, thus indirectly driving deforestation. The voluntary Amazon Soy Moratorium, first agreed in 2006, helped to significantly reduce deforestation caused

directly by soy in the Amazon biome.[58] It is based on a voluntary agreement between civil society, industry, and government not to buy soybeans produced in areas of the Amazon that were converted after July 2006.[f,59]

With the introduction of the Amazon Soy Moratorium, deforestation for the cultivation of soy and other arable crops increased in the adjacent Cerrado biome. The so-called Matopiba region as the frontier region of agricultural development, extending over the states of Maranhão, Tocantins, Piauí and Bahia, is particularly affected.[60] The Cerrado biome is a highly biodiverse forested savannah in the Central and Northeastern part of Brazil. With a surface of 2 million square kilometres, it is the second largest biome in South America, with great importance for carbon sequestration and the fresh water supply of large parts of the country.[61] Large-scale irrigation of soy plantations endangers the fragile water balance in the savannah.[62]

Around 850,000 hectares of Cerrado vegetation were cleared directly for soy between 2005 and 2016, 76 percent of which was in the Matopiba region. Around 3.6 million hectares or 38 percent of the 2016/17 soybean harvest in the Cerrado came from land that was still forested in 1999.[63] Today only about 55 percent of the natural Cerrado vegetation remains.[64] The overall deforestation rate in the Cerrado biome has shown a declining trend in recent years. However, legal and illegal deforestation remain at a high level in Matopiba and especially in 25 high-risk communities on the soy deforestation border.[65]

### 2.3.2 Links with companies and international markets

Both beef and soy from Brazil are important exports goods. However, while most of the beef is consumed domestically with only 25 percent going into export in 2020,[66] the share of soy exports is with 77 percent considerably higher.[67] Key beef meatpackers and traders are listed Table 4. The supply chains of major Brazilian beef traders have been repeatedly linked to illegal deforestation, fires, modern slave labour and infringement of indigenous communities' lands in recent years. More detailed examples are provided in the JBS case study in section 3.3.

**Table 4 Key soy and beef producers and traders in Brazil**

| Commodity/Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Beef production & trade | JBS | Listed | • Slaughter capacity 35,000 heads / day | 68 |
| | Marfrig | Listed | • Slaughter capacity 13,200 heads/day | 69 |
| | Minerva | Listed | • Slaughter capacity 10,980 heads/day | 70 |
| | Vale Grande/Frialto | Private | • Slaughter capacity 4,050 heads/day | 71 |
| | Frigol | Private | • Slaughter capacity 2,600 heads/day | 72 |
| | Prima Foods (JBJ Investments)* | Private | • Slaughter capacity 2,600 heads/day | 73 |
| | Mercurio | Private | • Slaughter capacity 2,000 heads/day | 74 |
| | Frigon - Irmãos Gonçalves | Private | • Slaughter capacity 1,800 heads/day | 75 |
| | Masterboi | Private | • Slaughter capacity 1,700 heads/day | 76 |

Note: *JBJ Investments is controlled by José Batista Júnior. The Batista family controls also JBS. Prima Foods is planning an IPO.

[f] The cut-off date was later changed to July 2008 to meet the criteria of the new Brazilian Forest Act passed in 2012. After initially being renewed annually, the agreement was established for an indefinite period in 2016.

Table 5 lists important soy producers, processors, and traders active in Brazil.

**Table 5 Key soy and beef producers and traders in Brazil**

| Commodity/Role | Company | Ownership | Description (partly estimated) | Source |
|---|---|---|---|---|
| Soy production | Grupo Amaggi (Amaggi Commodities & Amaggi Agro) | Private | • Soy production on 280,000 ha in 2019 | 77 |
| | Grupo Bom Futuro | Private | • Soy production on est. 270,000 ha | 78 |
| | SLC Agrícola | Listed | • Soy production on 235,000 ha in 2020 | 79 |
| | Bom Jesus | Private | • Soy production on est. 133,500 ha | 80 |
| | Terra Santa* | Listed | • Soy production on 80,500 ha in 2020 | 81 |
| | Brookfield Asset Management (CA) (Fazendas Bartira) | Listed | • Soy production on 73,450 ha in 2019 | 82 |
| | Adecoagro | Listed | • Soy production on 73,310 ha in 2019 | 83 |
| | Cresud (AR) (Brasilagro) | Listed | • Soy production on 51,843 ha 2019 | 84 |
| | Mitsui Corp (JP) (Agricola Xingu) | Listed | • Soy production on 40,000 ha 2018 | 85 |
| | Mitsubishi Corp (JP) (Agrex do Brasil) | Listed | • Soy production on 30,000 ha 2019 | 86 |
| Soy trade | Bunge (U.S.) (Bunge do Brasil) | Listed | • Exported 15.7 mt of soy in 2018 | 87 |
| | Cargill (U.S.) (Cargill Agrícola) | Private | • Exported 12.8 mt of soy in 2018 | |
| | ADM (U.S.) (ADM do Brasil) | Listed | • Exported 11.4 mt of soy in 2018 | |
| | LDC (NL) (LDC Brasil) | Private | • Exported 9.8 mt of soy in 2018 | |
| | Grupo Amaggi | Private | • Exported 5.9 mt of soy in 2018 | |
| | COFCO (CN) | Private | • Exported 5.3 mt of soy in 2018 | |
| | Viterra (Glencore Importadora e Exportadora) | Private | • Exported 4.3 mt of soy in 2018 | |

Note: *SLC Agrícola received approval to acquire Terra Santa Agro in January 2021.

A couple of traders handling much smaller soy volumes are also included in Forests & Finances with values adjusted for their geographic exposure (Olam International, Mitsubishi, Marubeni, and Itochu).

### *SLC Agrícola repeatedly linked with Cerrado deforestation*

SLC Agrícola is the largest publicly listed soy producer in Brazil. It operates 14 farms in six states in the Cerrado, of which eight in Matopiba.[88] Between 2011 and 2017, the company had already deforested around 40,000 hectares on its farms. Chain Reaction Research investigations documented deforestation of Cerrado vegetation on another 6,500 hectares between January 2019 and April 2020.[89] In the full year 2020, the company could be linked to deforestation on around 10,000 hectares, making it the top-deforester in the Cerrado.[90] In September 2020, SLC Agrícola had announced to stop Cerrado conversion in 2021, but to first clear another 5,000 hectares on the border between the states of Maranhão and Piauí.[91]

While the company claims that conversions are legal under the Brazilian Forest Code and that it has the required environmental licenses, they are in breach of the zero-deforestation commitments of several of the traders sourcing from SLC and their downstream customers. In 2019, SLC's most important client were Cargill Agrícola (26 percent of revenues), Amaggi LD Commodities (20 percent) und Bunge Alimentos (12 percent).[92] All three traders have committed to deforestation-free supply chains, but do not sanction legal deforestation.

### 2.3.3 Exposure of Dutch financial institutions to Brazilian forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Brazil.

#### *Creditors*

In total US$ 13.2 billion in loans and underwriting to the selected companies active in the two forest-risk sectors in Brazil were identified in the period 2016 to March 2021. Of this US$ 8.6 billion was provided to companies engaged in beef, and US$ 4.6 to soy.

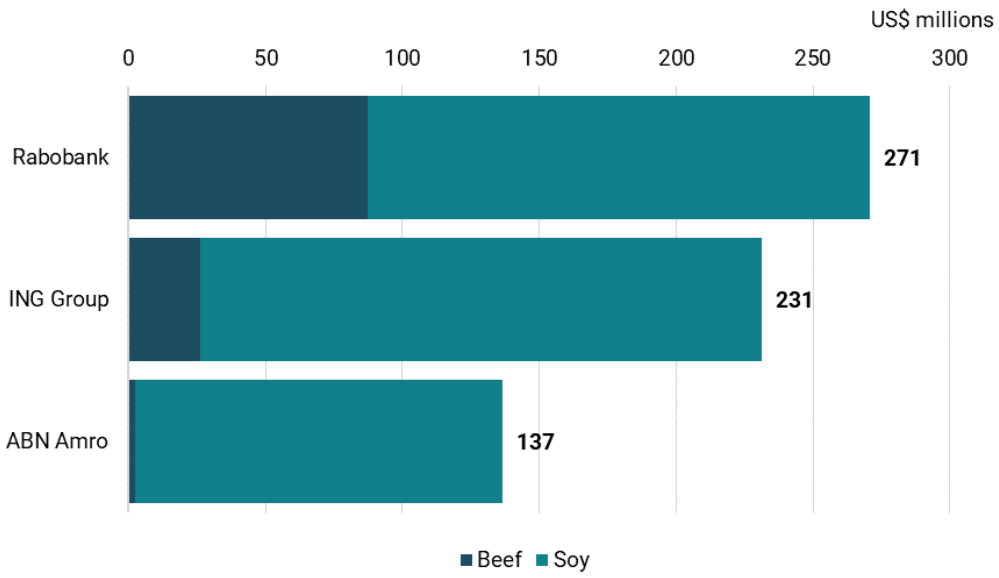
Dutch financial institutions provided a total of US$ 643 million of credit to the selected companies in Brazil. With this amount they accounted for 4.9 percent of all identified credit, ranking seventh. The largest creditors were financial institutions from Brazil, the U.S. and China.

Dutch financiers provided US$ 527 million to companies engaged in soy (11.3 percent of total identified soy finance in Brazil), making them the third largest creditors of soy in Brazil, after financial institutions from China and the U.S. Approximately 60 percent (US$ 319 million) of Dutch financing was provided to COFCO. Viterra (formerly Glencore Agriculture) (US$ 40 million) and Grupo Amaggi (US$ 39 million) also received financing.

Moreover, Dutch creditors provided US$ 116 million to companies engaged in the Brazilian beef sector (1.4 percent of identified beef finance in Brazil). The vast majority (US$ 109 million) of this was provided to Marfrig.

Figure 32 shows that Rabobank was the largest creditor, followed by ING Group and ABN Amro. ING was the largest Dutch creditor of soy (ranking 4th), after three Chinese banks (ICBC, Agricultural Bank of China, and Bank of China). Rabobank ranked 6th after another Chinese bank, China Construction Bank.

**Figure 32 Dutch loans & underwriting services to Brazilian forest-risk sectors (2016-2021 March, US$ mln)**



### *Investors*

At the most recent filing date in April 2021, investors held US$ 3 billion in bonds and shares issued by companies active in the two forest-risk sectors in Brazil. Of this, US$ 2.2 billion was invested in companies engaged in beef, and US$ 987 million in soy.

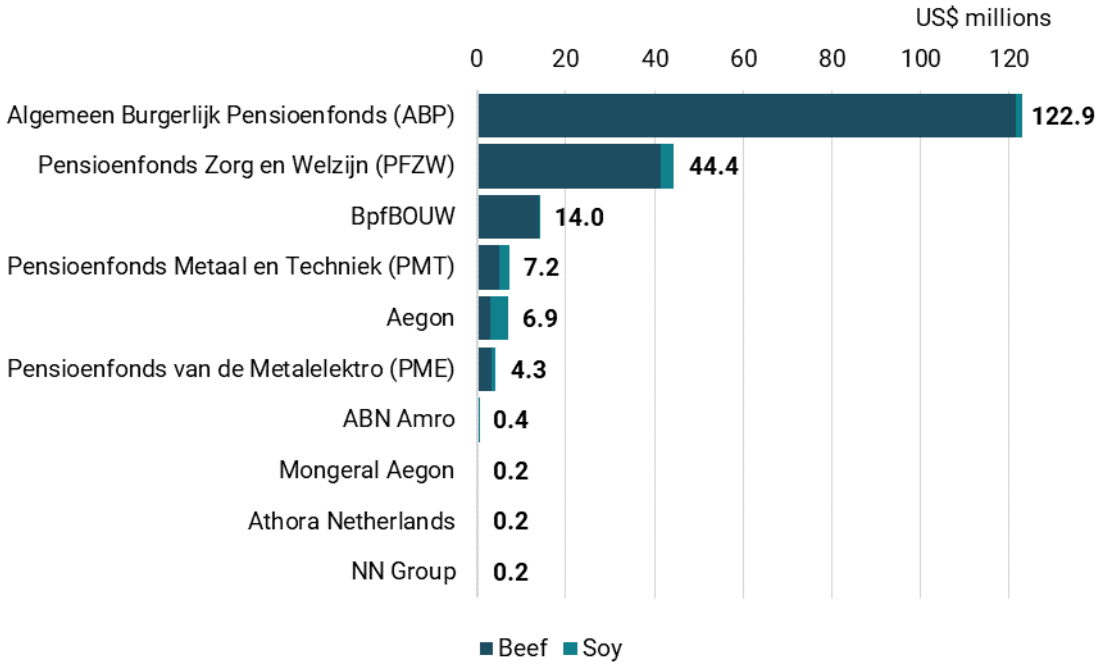
Dutch financial institutions held bonds and shares worth US$ 201 million (1.5 percent of all identified) in companies active in the two forest-risk sectors in Brazil. They ranked third after investors from the U.S. and Brazil.

In the beef sector, Dutch investors held bonds and shares worth US$ 189 million (8.7 percent of total identified investments in beef in Brazil). Approximately three quarters of these investments (US$ 140 million) were in JBS, followed by Marfrig (US$ 30 million) and Minerva (U$ 18 million).

Moreover, Dutch financial institutions held bonds and shares worth US$ 12 million in companies engaged in soy (1.2 percent of total identified investments in soy in Brazil). 40 percent of these investments were in ADM (US$ 4.6 million), followed by Bunge (US$ 2.8 million) and Adecoagro (US$ 1.6 million).

Figure 33 shows that the largest investor was ABP, followed by PFZW and BpfBOUW. It should also be noted that ABP is the third largest investor in the selected forest-risk companies in Brazil, after large US asset managers BlackRock and Vanguard. It is also the second largest investor in beef in Brazil after BlackRock.

**Figure 33 Dutch investments in Brazilian forest-risk sectors (2021 April most recent filings, US$ mln)**



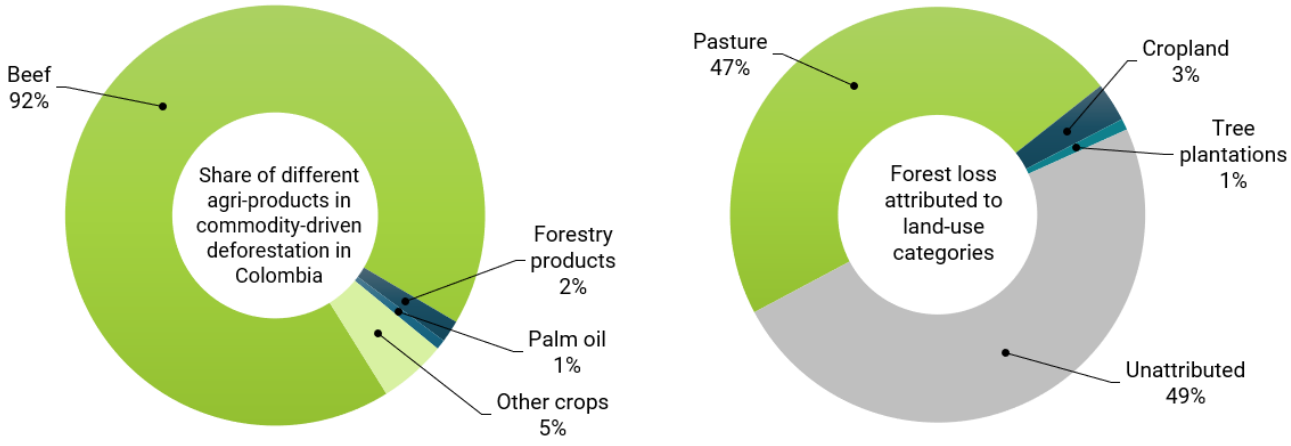
## 2.4 Colombia

### 2.4.1 Drivers of deforestation

- Colombia forms part of the Amazon and Chocó-Darién deforestation fronts.
- Primary cause of deforestation: Cattle ranching.
- Colombia lost 4.7 million hectares of tree cover between 2001 and 2020. Almost 1.7 million hectares of humid primary forest were lost, more than four times the surface area of North Holland.
- The year 2019 saw 268,000 hectares of tree cover loss, of which around one third was observed in areas where commodity production was the dominant driver. The deforested area increased to 324,000 hectares in 2020, of which 51 percent was humid primary forest.[93]
- Between 2004 and 2017, deforestation destroyed 7 percent of the forest still standing in 2000.[94]

After the demobilisation of the FARC, deforestation in the Colombian Amazon quickly increased.[95] The most important economic deforestation driver in the Colombian Amazon is cattle ranching. Moreover, land hoarding with the intent to expand cattle ranches or to subsequently make a legal claim to it and increase its value plays an important role in expanding the agricultural frontier. Land hoarding as well as coca cultivation are mostly financed through illegal markets.[96]

**Figure 34 Key commodities driving deforestation in Colombia, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

### 2.4.2 Links with companies and international markets

Exports of beef and dairy are still small.[97] Most of the products of cattle ranching are consumed on the national market.[98] Two publicly listed beef companies are included in the analysis of financial relationships (Table 6).

Table 6 Key beef companies in Colombia

| Commodity / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Beef production | Grupo Nutresa (Alimentos Cárnicos / Industria de Alimentos Zenú) | Listed | • No. 1 meat products company<br>• Market share 2017: 16.79% | [99] |
| | Minerva (BR) (Red Cárnica / Minerva Colombia) | Listed | • No. 2 meat products company | |

*Illegal deforestation in Colombian cattle supply chain*

In May 2021, the Environmental Investigation Agency (EIA) published a report on illicit deforestation in the domestic supply chain of beef in Colombia. It found evidence that supermarket chains such as Grupo Exito are buying meat from suppliers that source cattle that has been illegally raised in protected forests, including Chiribiquete National Park, the world's largest tropical forest national park. Allegedly cattle from illegally deforested lands also enters the supply chain of Minerva in Colombia. In reaction to the allegations, Minerva shared information on its activities related to sustainable cattle ranching in South America and announced an in-depth review of the issues raised by EIA.[100]

### 2.4.3 Exposure of Dutch financial institutions to Colombian forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Colombia.

*Creditors*

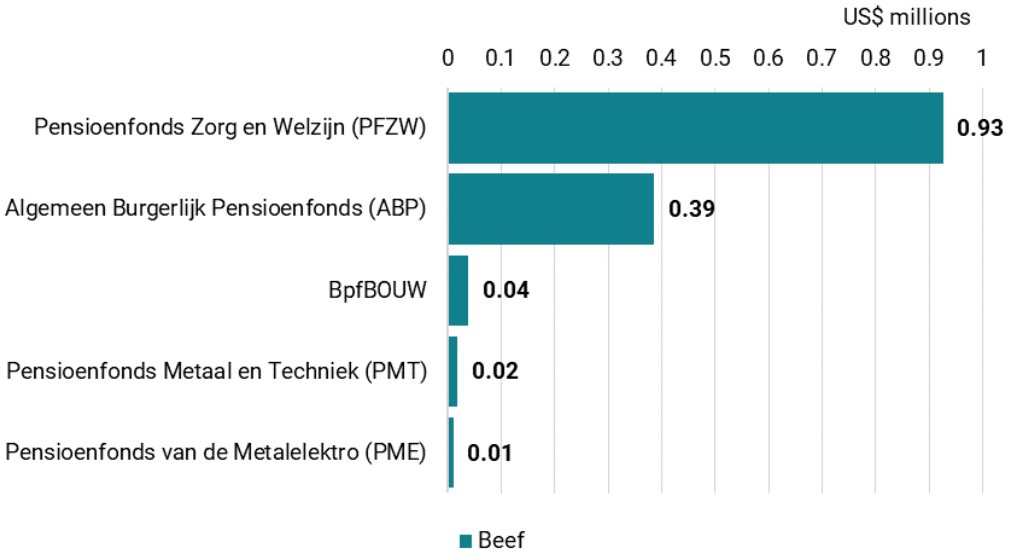
In total US$ 193 million in loans and underwriting to the selected companies active in beef in Colombia were identified in the period 2016 to March 2021. Financial institutions from Brazil, the U.S., the United Kingdom and Spain provided all the identified loans and underwriting services.

*Investors*

At the most recent filing date in April 2021, investors held US$ 13 million in bonds and shares issued by companies active in beef in Colombia. Dutch financial institutions held bonds and shares worth US$ 1.4 million in companies active in the beef in Colombia (10.3 percent). They ranked third after financial institutions from the U.S. and Brazil. All these investments were bonds and shares issued by Minerva.

Figure 35 shows that the largest investor was PFZW, followed by ABP and BpfBouw.

**Figure 35 Dutch investments in Colombian forest-risk sectors (2021 April most recent filings, US$ mln)**

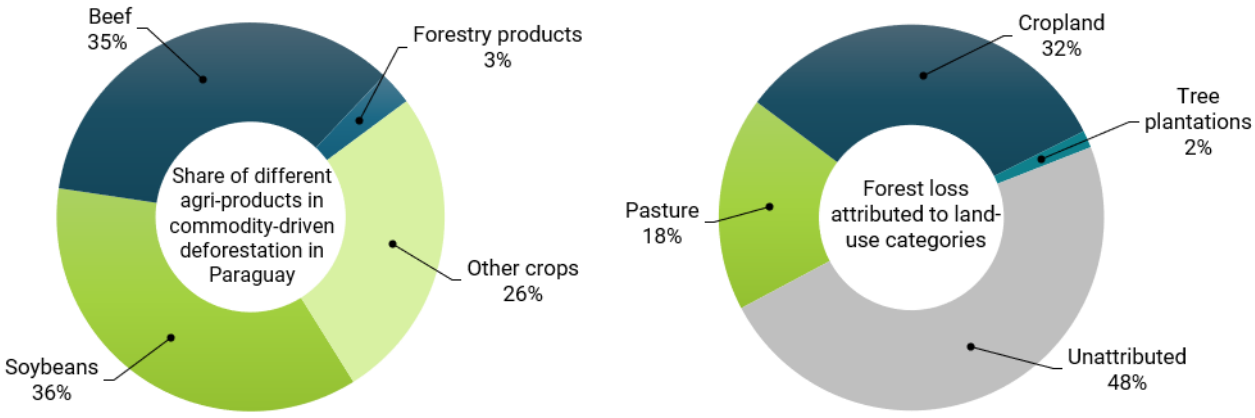



## 2.5 Paraguay

### 2.5.1 Drivers of deforestation

- Paraguay forms part of the Gran Chaco deforestation front.
- Primary causes of deforestation: Large-scale agriculture and cattle ranching.
- Paraguay lost 6.3 million hectares of tree cover between 2001 and 2020. Around 1 million hectares of primary forest were deforested.
- In 2019, tree cover loss totalled 314,000 hectares, of which more than 80 percent took place in areas where commodity production was the dominant driver. Most forest loss was observed in the dry subtropical forests of the Paraguayan Chaco, extending into Argentina. The annual forest loss decreased somewhat in 2020, to 243,000 hectares.[101]
- Between 2004 and 2017, deforestation across the Argentinian and Paraguayan Chaco destroyed 26 percent of the forest still standing in 2000.[102]

**Figure 36 Key commodities driving deforestation in Paraguay, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

Soy production is mainly taking place in the eastern part of Paraguay. The role of soy in deforestation of the Atlantic Forest was significant, but reduced considerably since the introduction of a 'Zero Deforestation Law' in 2004. However, illegal forest conversion still occurred.[103] Deforestation for extensive cattle pastures is still the primary driver of deforestation in the Paraguayan Chaco.[104] The development of large-scale cattle ranches is an important governmental instrument to promote economic growth in the country.[105] Further production increases are anticipated as export markets in the U.S., Canada or Singapore are eyed.[106] Meanwhile, illegal deforestation is widespread. In January 2019 alone, the National Forestry Institute (INFONA) detected over 10,000 hectares illegal deforestation on farms in the Chaco.[107]

### 2.5.2 Links with companies and international markets

Exports of beef are currently mostly destined for neighbouring Latin American countries, Russia, Israel and destinations in Asia and the Middle East. Another important commodity derived from cattle ranching is leather, of which Paraguay exported around 42,000 tonnes in 2019. Italy is the most important destination, accounting for a share of around 60 percent of leather exports in 2019.[108] According to an industry source from 2017, the hides are shipped to Italy for finishing and eventually used for upholstering European cars.[109]

The largest exporters of beef and leather from Paraguay are listed in Table 7.

**Table 7 Key exporters of beef and bovine leather from Paraguay, 2019**

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Beef & leather production | Minerva (BR) (Frigomerc) | Listed | • 37% of beef shipments in 2020<br>• 33% of bovine leather shipments in 2020 | 110 |
| | Frigorífico Concepción | Private | • 31% of beef shipments in 2020<br>• 18% of bovine leather shipments in 2020 | 111 |
| | Cencoprod | Private | • Alliance between largest cooperatives in Paraguayan Chaco<br>• 3,000 hides per day<br>• 17% of bovine leather shipments in 2020 | 112 |

### 2.5.3 Exposure of Dutch financial institutions to Paraguayan forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Colombia.

#### *Creditors*

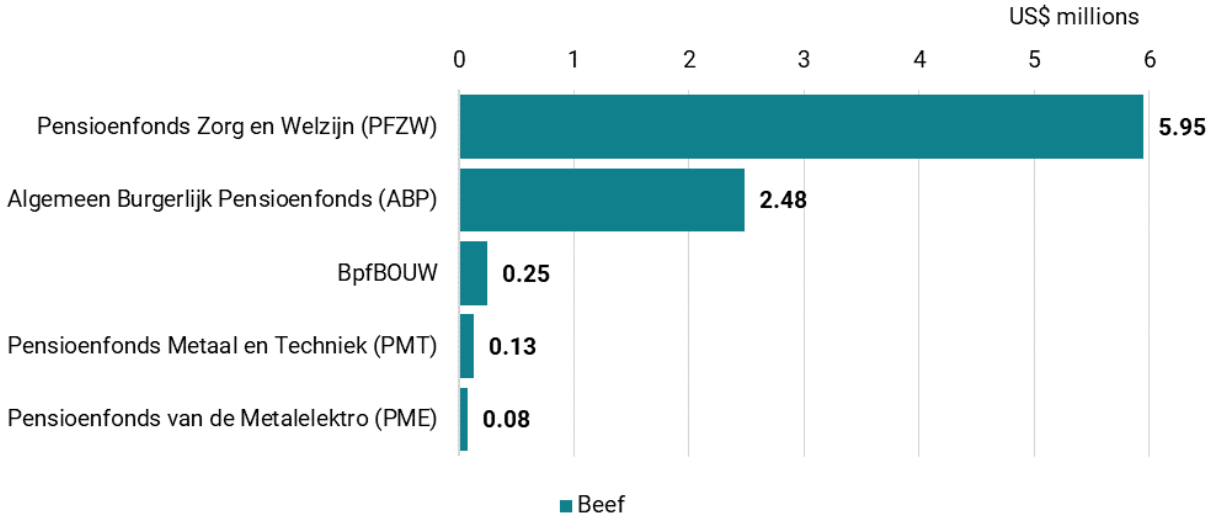
In total US$ 1.1 billion in loans and underwriting to the selected companies active in beef in Paraguay were identified in the period 2016 to March 2021. Financial institutions from Brazil, the U.S., the United Kingdom and Spain provided all the identified loans and underwriting services. The findings are the same as Colombia, as the identified financial links all relate to Brazilian beef company Minerva which is active in both countries.

#### *Investors*

At the most recent filing date in April 2021, investors held US$ 86 million in bonds and shares issued by companies active in beef in Paraguay. Dutch financial institutions held bonds and shares worth US$ 8.9 million in companies active in the beef in Paraguay (10.3 percent). They ranked third after financial institutions from the U.S. and Brazil. All of these investments were bonds and shares issued by Minerva; therefore, the findings are similar to Colombia where Minerva is also active.

Figure 37 shows that the largest investor was PFZW, followed by ABP and BpfBouw.

**Figure 37 Dutch investments in Paraguay forest-risk sectors (2021 March most recent filings, US$ mln)**

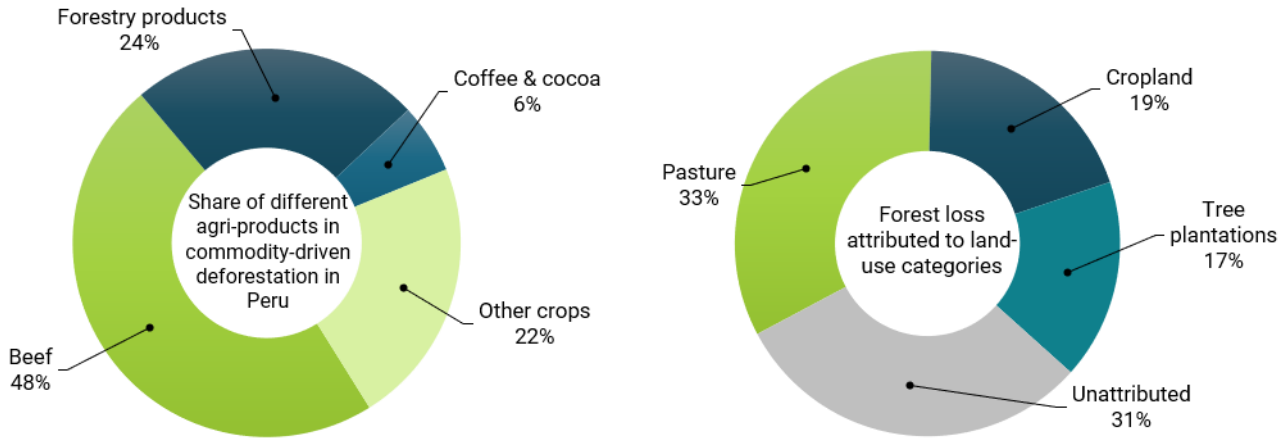



## 2.6 Peru

### 2.6.1 Drivers of deforestation

- Peru forms part of the Amazon deforestation front.
- Primary causes of deforestation: Smallholder farming of coffee and cocoa, coca cultivation, and cattle ranching.[113]
- Peru lost 3.4 million hectares of tree cover between 2001 and 2020. Around 2.2 million hectares of humid primary forest were deforested.
- In 2019, the country experienced the loss of around 230,000 hectares of tree cover. Commodity production was the dominant driver on around one quarter of this surface. The documented annual tree cover loss increased to 279,000 hectares in 2020.[114]
- Between 2004 and 2017, deforestation in the Peruvian Amazon destroyed 6 percent of the forest still standing in 2000.[115]

**Figure 38 Key commodities driving deforestation in Peru, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

The main direct causes for deforestation or forest degradation are seen in the expansion of the agricultural frontier, however, the high deforestation rates in the Peruvian Amazon in recent years were mostly connected to small- (<5 hectares) or medium-scale (<50 hectares) events.[116]

As in other Amazon states, also in Peru cattle ranching is an important driver of forest conversion. Some large-scale oil palm plantations were realized in Ucayali and Loreto/San Martin and linked to deforestation and land rights infringements; however, other projects did not materialize.[117] Overall, the area of palm oil plantations in Peru increased from 18,000 hectares in 2009 to 68,000 hectares in 2019.[118]

Cultivation of cocoa and coffee also play a role in deforestation. Complex interactions between different population groups influence the deforestation dynamics, involving indigenous peoples, migrants from the Andes and large-scale intensive agriculture.[119]

### 2.6.2 Links with companies and international markets

Production of palm oil has increased over the years, but Peru remains a very small producer and exporter globally with local actors dominating the supply chain. This may change though if recent plans are realised to triple the area covered by the crop.[120] Exports of beef are not relevant as Peru is itself an importer of beef.

The export of cocoa and coffee from Peru is handled by a mix of companies, including local cooperatives as well as large, multinational traders with activities in the important producing countries. The globally leading coffee traders Neumann Kaffee Gruppe (NKG), Olam, ED&F Man, Ecom, and LDC are all present in Peru, even though their role in exports cannot be confirmed for all (Table 8).

**Table 8 Key Peruvian coffee exporters**

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Coffee exporters | Olam International (SG) (Olam Agro Peru) | Listed | • States to be largest processor & exporter of green coffee from Peru | 121 |
| | ED&F Man (UK) (ED&F Man Peru) | Private | • Exports of est. 13,000 tonnes (2020), 7% export share | 122 |
| | LDC (NL) | Private | • Operates 2 dry mills and warehouse; Merchandizing and logistics | 123 |
| | Ecom (CH) (Cafetalera Amazónica (CAMSA)) | Private | • Among top-10 coffee exporters in Peru | 124 |
| | NKG (DE) (Compañia Internacional del Café (Coinca)) | Private | • Unknown export share<br>• 9 coffee buying agencies in Peru | 125 |

It is unlikely that Dutch financial institutions are invested in privately-owned Peruvian companies engaged in cocoa export from Peru. As the export markets for Peruvian cocoa are in key processing markets like the Netherlands, the U.S., Belgium, and Indonesia, it is relevant to include the leading international cocoa traders and processors, which are likely to be involved in the midstream supply chain (Table 9).

Table 9 Key cocoa traders globally

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Cocoa exporters | Ecom (CH) (Compañia Agroindustrial del Peru SAC (AGROPESA)) | Private | • States to be among top-5 Peruvian cocoa exporters<br>• Among top-6 cocoa traders globally | 126 |
| | Barry Callebaut (CH) | Listed | • Largest cocoa trader globally | 127 |
| | Olam International (SG) | Listed | • Among top-6 cocoa traders globally | 128 |
| | Cargill (US) | Private | • Among top-6 cocoa traders globally | 129 |
| | Sucden (FR) | Private | • Among top-6 cocoa traders globally | 130 |
| | Touton | Private | • Among top-6 cocoa traders globally | 131 |

### 2.6.3 Exposure of Dutch financial institutions to Peruvian forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Peru.

#### *Creditors*

In total US$ 531 million in loans and underwriting to the selected companies active in the two forest-risk sectors in Peru were identified in the period 2016 to March 2021. Of this US$ 220 million was provided to companies engaged in coffee, US$ 311 million to cocoa.

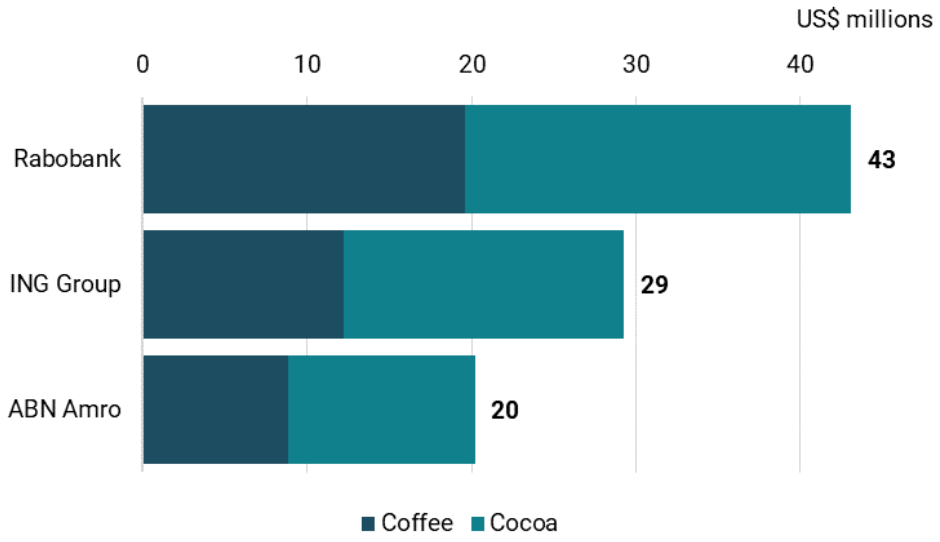
Dutch financial institutions provided US$ 96 million to companies engaged in the two forest-risk sectors in Peru. They accounted for 18 percent of all identified credit, ranking first before financial institutions from France and the United Kingdom. The prominent role of European financial institutions likely relates to the selection of companies, which are generally midstream operators.

Dutch financial institutions provided US$ 44 million to companies engaged in coffee in Peru (19 percent of all identified credit to coffee in Peru). ECOM Agroindustrial and Sucres et Denrées (Sucden) accounted for a combined 45% of the identified loans and underwriting from Dutch financial institutions. They attracted US$ 10 million and US$ 9 million in credit, respectively. They were followed by Neumann Kaffee Gruppe (US$ 8 million) and ED&F Man (US$ 6 million).

Moreover, Dutch creditors provided US$ 53 million in loans and underwriting services to companies engaged in cocoa in Peru (17 percent of all identified credit to cocoa in Peru). Barry Callebaut accounted for more than half of this credit (US$ 24 million). It was followed by ECOM Agroindustrial (US$ 9 million) and Sucres et Denrées (Sucden) (US$ 9 million).

Figure 39 shows that Rabobank was the largest creditor, followed by ING Group and ABN Amro.

**Figure 39 Dutch loans & underwriting services to Peruvian forest-risk sectors (2016-2021 March, US$ mln)**



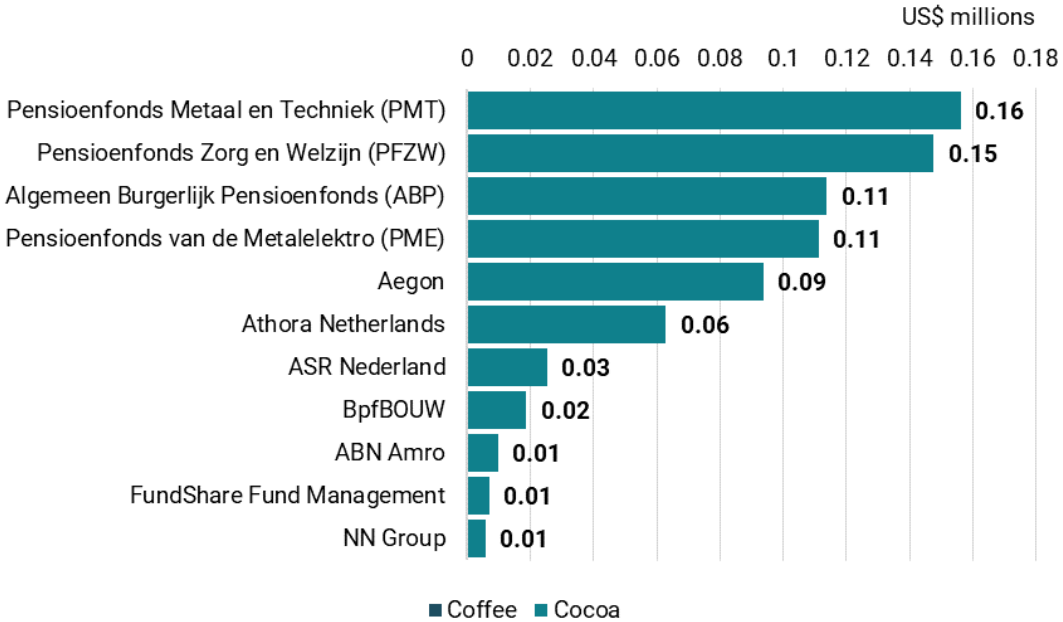

### *Investors*

At the most recent filing date in April 2021, investors held US$ 78 million in bonds and shares issued by companies active in the two forest-risk sectors in Peru. Of this, US$ 74 million was invested in companies engaged in cocoa and US$ 4.2 million in coffee.

Dutch financial institutions held bonds and shares worth US$ 0.7 million in companies active in the two forest-risk sectors in Peru (0.9 percent of all identified). They ranked 11th after investors from the U.S., Switzerland, and the United Kingdom. Most of the identified financing was linked to cocoa. 86 percent of these investments were in Barry Callebaut (US$ 0.6 million) and 14 percent in Cargill (US$ 0.1 million).

Figure 40 shows that the largest investor was PMT, followed by PFZW and ABP.

**Figure 40 Dutch investments in Peruvian forest-risk sectors (2021 March most recent filings, US$ mln)**

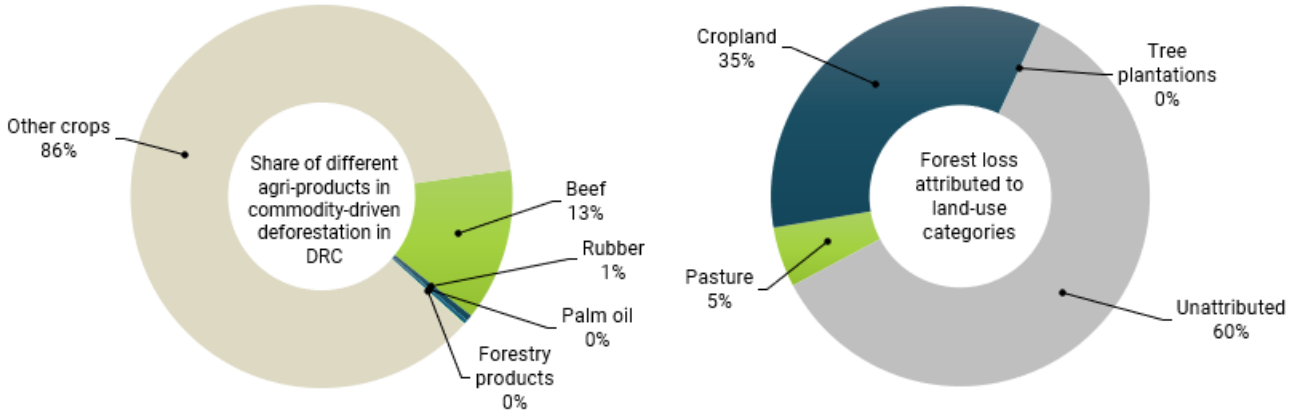


## 2.7 Democratic Republic of the Congo

### 2.7.1 Drivers of deforestation

- DRC forms part of the Central Africa deforestation front.
- Causes of deforestation: Logging operations open forests to smallholder shifting agriculture.[132]
- DRC lost around 16 million hectares of tree cover between 2001 and 2020. More than 5.3 million hectares of humid primary forest were deforested.
- In 2019, 1.2 million hectares of tree cover was lost in areas where shifting agriculture dominates, which rarely leads to permanent deforestation.[133]
- DRC holds the largest part of the highly biodiverse Congo Forest of Central Africa, the second largest intact area globally of tropical rainforest.[134]
- Between 2004 and 2017, deforestation in the DRC and the Central African Republic destroyed 2 percent of the tropical moist forest still standing in 2000.[135]

**Figure 41 Key commodities driving deforestation in DRC, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

Most studies from recent years have linked deforestation in the DRC to population growth and shifting agriculture activities by smallholder farmers as primary causes. However, a recent analysis of forest loss patterns suggests a more prominent role of logging concessions as a direct driver, with logging roads opening as yet difficult to reach forested areas to subsequent deforestation for agricultural purposes.[136] The distribution among smallholders is uneven, with households with better market access deforesting more.[137] Main crops are cassava, oil palm, cocoa, and maize. Large-scale plantations of palm oil, rubber and other commodities play a minor role still.[138] There are indications though that illegal clearance of natural forest is occurring under the guise of re-developing abandoned plantations.[139]

### 2.7.2 Links with companies and international markets

Among the agricultural crops driving deforestation in DRC, cocoa is the only commodity with sizeable exports, totalling around 19,000 tonnes in 2019. Key destinations were India (41 percent), Europe (39 percent) and the U.S. (10 percent).[140] It can be reasonably assumed that the large international cocoa traders are also involved in the trade of cocoa from DRC (see section 2.6.2.)

Industrial palm oil and rubber plantations in DRC are operated by Feronia (Canada), GBE, and SOCFIN (Belgium) (Table 10).

Table 10 Palm oil plantation companies in DRC

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Palm oil producer | Feronia (CA) (Plantations et Huileries du Congo (PHC)) | Listed | • 107,300 ha of palm plantations | 141 |
| | Groupe Blattner Elwyn (B.L.O., C.C.P.) | Private | • 7,500 ha of palm plantations<br>• 11,000 ha of rubber plantations | 142 |
| | SOCFIN (LU) (Brabanta) | Listed | • 6,200 ha of palm plantations | 143 |

In addition, relevant traders with global activities in these sectors are considered in the financial analysis based on a geographic adjuster.

#### *Feronia linked to violations of workers' rights*

In 2019, Human Rights Watch published a report linking Feronia's palm oil business in DRC, Plantations et Huileries du Congo (PHC), to workers' rights breaches as well as dumping of untreated waste into local waterways. Workers were exposed to dangerous pesticides, and wages were found to be so low that workers remained in extreme poverty. The Canadian company received financing from four European development banks, investing a total of more than US$ 100 million since 2013. These were BIO from Belgium; CDC Group from the United Kingdom; DEG from Germany; and FMO from the Netherlands.[144] The long-term loan by FMO was already provided in 2015, outside the scope of financial relationships considered for this report.[145] In reaction to the allegations, the four banks published a statement, outlining progress made by the company so far and announcing further actions for Feronia in response to the report.[146]

### 2.7.3 Exposure of Dutch financial institutions to Congolese forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in the DRC.

#### *Creditors*

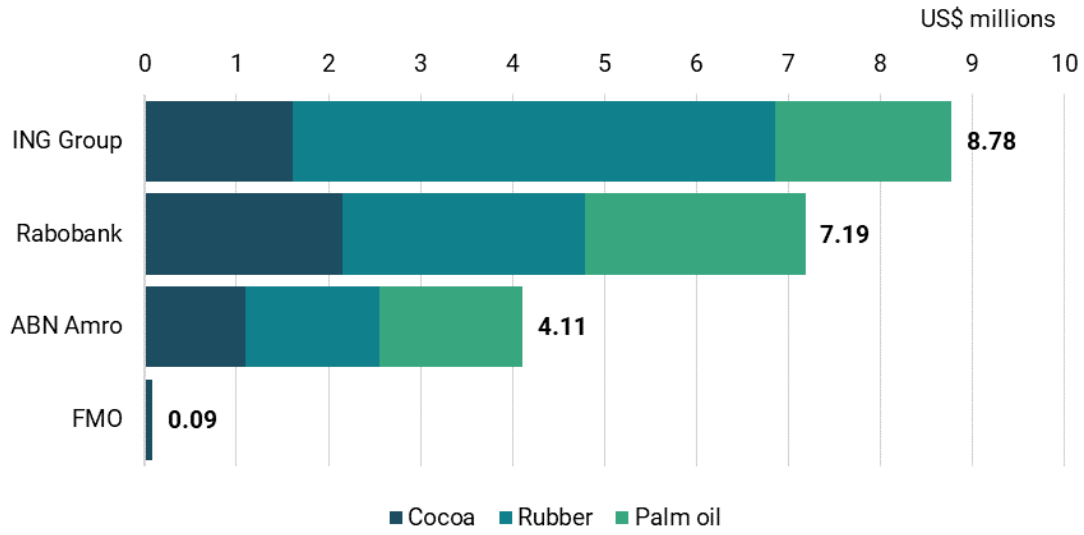
In total, US$ 155 million was provided in loans and underwriting services to the selected companies active in three forest-risk sectors in the DRC in the period 2016 to March 2021. Of this total US$ 67 million was provided to companies engaged in palm oil, US$ 59 million to companies engaged in rubber and US$ 28 to companies engaged in cocoa.

Dutch financial institutions provided a total of US$ 20 million to the selected companies in the DRC. They ranked first above financial institutions from the United Kingdom and Japan, accounting for 13% of all identified finance.

As part of these flows, Dutch creditors provided US$ 9 million in credit to companies engaged in rubber (16 percent of all credit to rubber in the DRC). 60 percent of this was provided to Olam (US$ 5.5 million), and 41 percent to French Socfin (US$ 3.8 million).

Moreover, financial institutions from the Netherlands provided US$ 6 million in loans and underwriting services to companies engaged in palm oil in the DRC (9 percent of the total). 49 percent of this was to Olam (US$ 3 million) and 32 percent to COFCO (US$ 2 million).

**Figure 42 Dutch loans & underwriting services to DRC forest-risk sectors (2016-2021 March, US$ mln)**




In the cocoa sector, Dutch financial institutions provided US$ 5 million in loans and underwriting (18 percent of all identified credit to cocoa in the DRC). 45 percent of this was to Barry Callebaut (US$ 2 million), 17 percent to ECOM Agroindustrial (US$ 1 million) and 16 percent to Sucres et Denrées (Sucden) (US$ 1 million).

Figure 42 shows that ING was the largest creditor, followed by ABN Amro and Rabobank.

### *Investors*

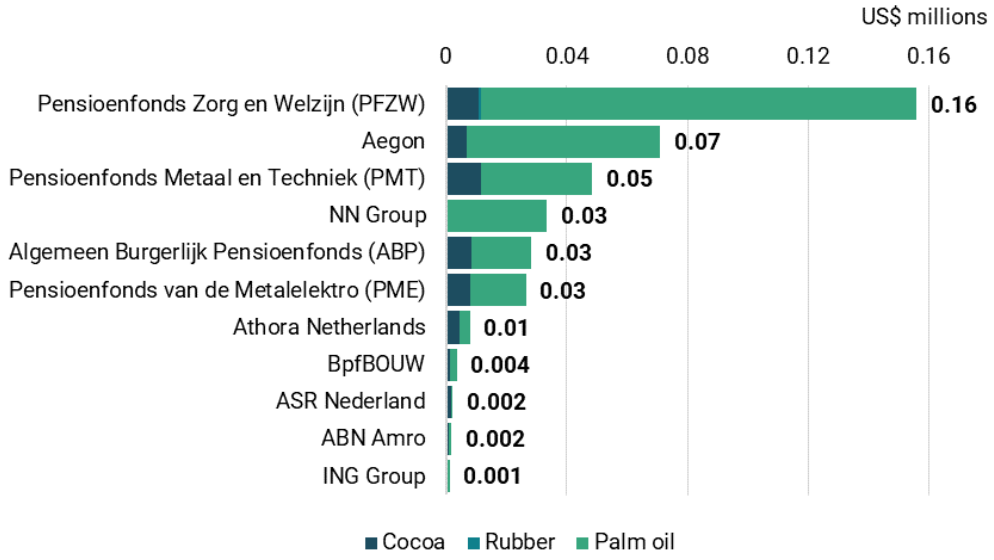
At the most recent filing date in April 2021, investors held US$ 60 million in bonds and shares issued by the selected companies engaged in the three forest-risk sectors in DRC. Of this US$ 50 million was provided to palm oil, and US$ 5 million each to companies engaged in cocoa and rubber.

Dutch financial institutions held investments of US$ 0.4 million, accounting for 0.6 percent of all identified investments in the bonds and shares issued by the selected forest-risk companies active in the DRC. Based on this amount, Dutch investors ranked 13$^{th}$, after financial institutions from the U.S., Japan, and Singapore.

Moreover, Dutch investors held bonds and shares worth US$ 0.32 million in companies engaged in palm oil in the DRC (0.6 percent of all DRC palm oil investments). Around half of these investments were in Japanese trader Itochu (US$ 0.17 million).

Figure 43 shows that the largest investor was PFZW, followed by Aegon and PMT.

**Figure 43 Dutch investments in DRC forest-risk sectors (2021 March most recent filings, US$ mln)**

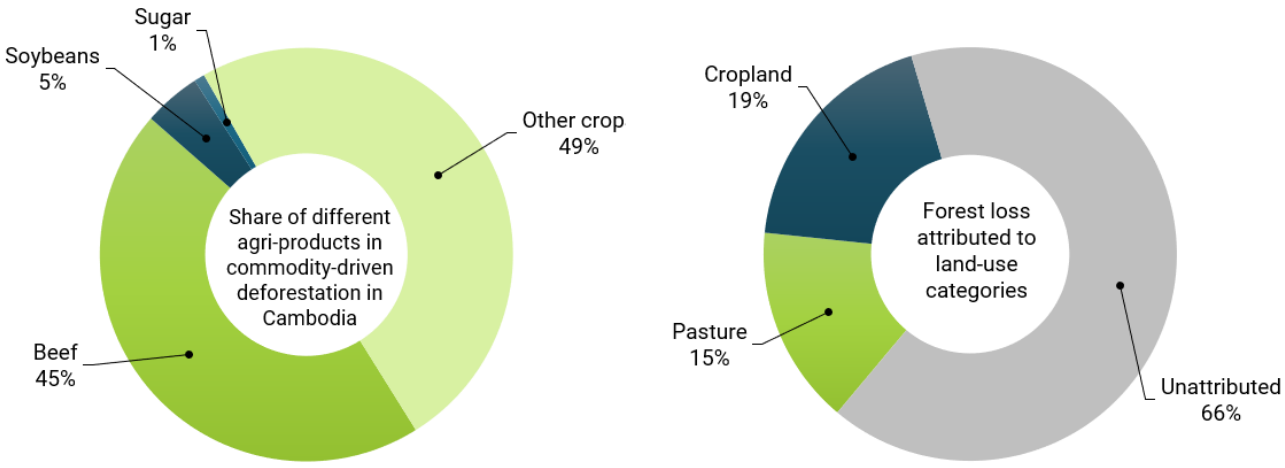



## 2.8 Cambodia

### 2.8.1 Drivers of deforestation

- Cambodia forms part of the Mekong deforestation front.
- Primary causes of deforestation: Large-scale agriculture and smallholder farming.[147]
- Cambodia lost 2.5 million hectares of tree cover between 2001 and 2020. Around 1.3 million hectares of humid primary forest were deforested.
- In 2019, 143,000 hectares of tree cover were lost, of which around 90 percent in areas where commodity production was the primary driver. A comparable area was converted in 2020.
- Between 2002 and 2020, Cameroon lost 30 percent of the humid primary forest still standing in 2001.[148]

**Figure 44 Key commodities driving deforestation in Cambodia, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017*.

Large-scale industrial agriculture plantations are established through so-called economic land concessions (ELCs) by local or international companies. Among deforestation-linked commodities, rubber is most important.[149] Research of the period from 2001 to 2015 found that almost one quarter of the forest cleared during this period was converted to rubber (23.5±1.8 percent). Annual forest to rubber conversion rates were found to be closely correlated with global rubber prices.[150]

The relative role of subsistence farming in deforestation has been decreasing in the meantime, albeit remaining significant in more remote areas. Illegal conversion for land speculation also plays a role.[151]

### 2.8.2 Links with companies and international markets

Cambodia was the sixth largest exporter of natural rubber in 2019, accounting for around 2 percent of global trade.[152] The most important export destination is Vietnam (60 percent in 2019) which typically re-exports forest-risk commodities from Cambodia and Laos to international markets, including China, India, and the U.S.[153] Important rubber companies active in Cambodia are listed in Table 11. SIAT Group, which palm oil and rubber plantation in several African countries, has set up an investment platform for prospecting in Cambodia.[154]

**Table 11 Rubber plantation companies in Cambodia**

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Rubber plantations | Vietnam Rubber Group (VN) | Listed | • Est. 90,000 ha of rubber plantations | [155] |
| | Hoang Anh Gial Lai (HAGL) (VN) | Listed | • 11,200 ha of rubber plantations | [156] |

In addition, relevant traders with global activities in these sectors are considered in the financial analysis based on a geographic adjuster.

### 2.8.3 Exposure of Dutch financial institutions to Cambodian forest-risk sectors

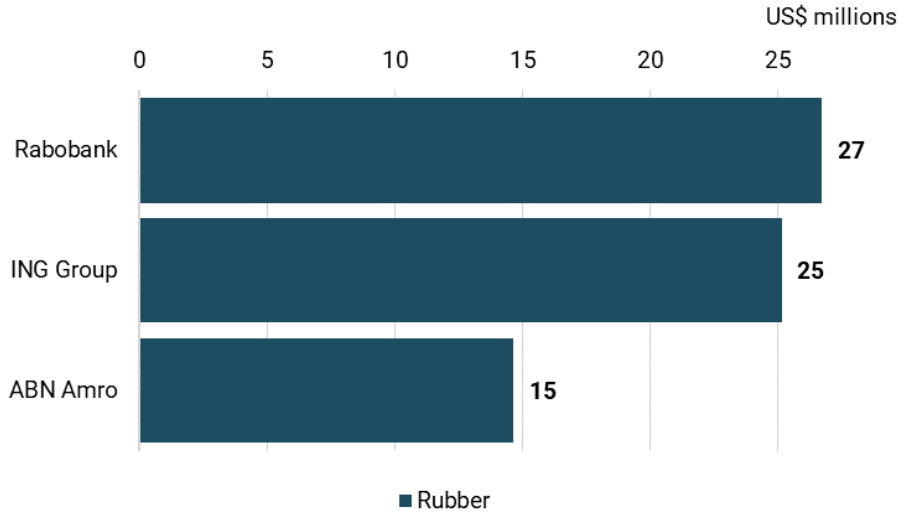
The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Cambodia.

#### *Creditors*

In total, US$ 975 million in loans and underwriting to the selected companies active in rubber in Cambodia were identified in the period 2016 to March 2021. Dutch financial institutions provided US$ 67 million in credit, accounting for 6.8 percent of all financing identified to companies engaged in cocoa rubber in Cambodia. They ranked fifth after financial institutions from Japan and the United Kingdom. More than 80% of this was provided to Olam (US$ 27 million) and 13 percent to Socfin (US$ 8 million).

Figure 45 shows that Rabobank was the largest creditor, followed by ING Group and ABN Amro.

**Figure 45 Dutch loans & underwriting services to Cambodian forest-risk sectors (2016-2021 March, US$ mln)**



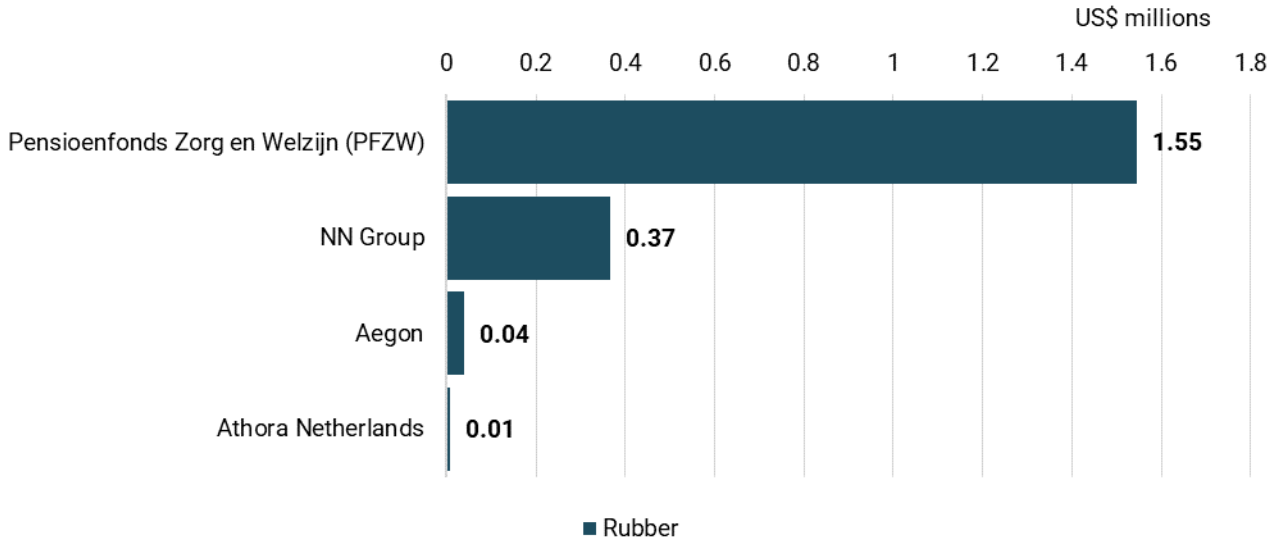

### *Investors*

At the most recent filing date in April 2021, investors held US$ 575 million in bonds and shares issued by companies active in rubber in Cambodia. Dutch financial institutions held bonds and shares worth US$ 2.2 million (0.4 percent of total identified). They ranked 12th, after financial institutions from the U.S., Japan, and Malaysia.

Almost of all the identified rubber sector investments in Cambodia by Dutch financial institutions were attributable to Itochu.

Figure 46 shows that the largest investor was PFZW, followed by NN Group and Aegon.

**Figure 46 Dutch investments in Cambodian forest-risk sectors (2021 March most recent filings, US$ mln)**

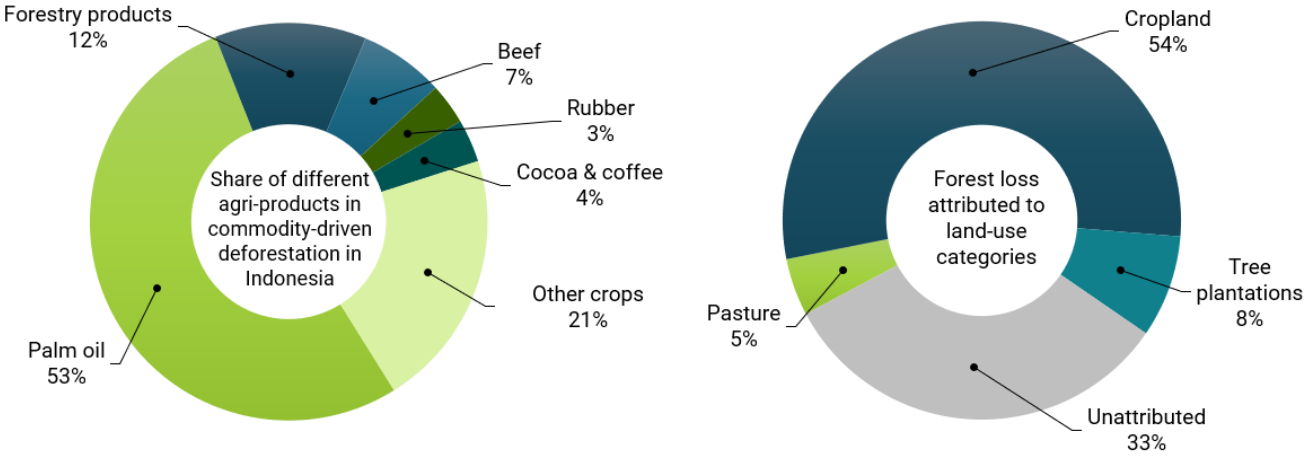


## 2.9 Indonesia

### 2.9.1 Drivers of deforestation

- Indonesia forms part of the Sumatra, Borneo and New Guinea deforestation fronts.
- Primary causes of deforestation: Large-scale oil palm plantations, tree plantations.[157]
- Indonesia lost 27.7 million hectares of tree cover between 2001 and 2020. Around 10 million hectares of humid primary forest were lost, more than twice the surface of the Netherlands.
- In 2019, 1.2 million hectares of tree cover were lost, of which 90 percent in areas with commodity production as the main driver of permanent deforestation. In line with the decrease since 2017, tree cover loss was again somewhat lower in 2020 at 962,000 hectares.[158]
- Between 2004 and 2017, deforestation in Sumatra and Borneo destroyed respectively 25 percent and 22 percent of the tropical moist forest still standing in 2000, while it affected 4 percent in Papua.[159]

**Figure 47 Key commodities driving deforestation in Cambodia, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

Deforestation rates showed a sharp drop after 2016.[160] Recent analysis shows that deforestation significantly increased at the height of the COVID-10 pandemic, while law enforcement on the ground was restricted. During the first 20 weeks of 2020, deforestation showed a 50 percent increase year-on-year. Reportedly newly deforested lands were turned into oil palm and coffee plantations. At the same time the Indonesian government is considering weakening environmental protections.[161]

Oil palm plantations have been the key driver of deforestation in Indonesia, both on cleared forestlands and converted peatlands. In addition to their own plantations, palm oil mills also source from independent smallholders. Pulpwood plantations have been developed on large stretches of land in Sumatra and Borneo. In contrast, New Guinea is referred to as the 'last frontier', as large natural forests remain, despite experiencing considerable deforestation.[162] In addition, Indonesia also produces considerable volumes of rubber, whose production also carries the risk of deforestation. In October 2020, a supposedly 'environmentally friendly' natural rubber joint venture by Michelin in Sumatra was in reality linked to deforestation and land tenure conflicts.[163] More than 2,500 hectares of rainforest had been deforested, partially overlapping with a Wildlife Conservation Area.[164] Indonesia is also a relatively large producer of coffee and cocoa, which is often done in small-scale production and linked to forest loss through shifting agriculture.[165]

### 2.9.2 Links with companies and international markets

Being the largest palm oil producer in the world, a large number of palm oil producers, processors and traders are active in Indonesia, many of them listed at a stock exchange, mostly in Indonesia, Malaysia or Singapore. The long list of companies active in the Indonesian palm oil sector that are considered in Forests & Finance based on their planted area is included in Table 22 (Appendix).[166] Table 12 lists five of the largest actors in the sector. In addition to own planted area, the companies also manage areas that are planted by smallholders. Most of these companies are not only engaged in the upstream production of the oilseed, but also in the midstream processing and trading.

**Table 12 Top Indonesian palm oil companies**

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Palm oil plantations / processing / trading | Golden Agri Resources (Sinar Mas Group) (SG) | Listed | • 400,000 ha of palm oil plantations | [167] |
| | Astra Agro Lestari (Jardine Matheson Group) | Listed | • 297,000 ha of palm oil plantations | [168] |
| | Kuala Lumpur Kepong (Batu Kawan Group) (MY) | Listed | • 150,000 ha of palm oil plantations | [169] |
| | Wilmar International (Wilmar Group) (SG) | Listed | • 150,000 ha of palm oil plantations | [170] |
| | Indofood Agri Resources (Salim Group) (SG) | | • 86,671 ha of palm oil plantations | [171] |

The palm oil sector in Indonesia has been linked to many cases of deforestation, peat conversion and human rights abuses. A more detailed case study on Sinar Mas Group is provided in section 3.2.

The Indonesian rubber sector has fewer large actors than the palm oil sector. Most of the rubber is produced by smallholders.[172] Nonetheless, the country is the second largest natural rubber exporter after Thailand.[173] Rubber companies included in Forests & Finance were selected based on their concession size, as stated in company publications and websites, trade journals, as well as the Indonesian Industrial Forest register (Hutan Tanaman Industri (HTI)) and the Forest Concession register (Hak Pengusahaan Hutan (HPH)). Where palm oil companies also have natural rubber operations, a rubber segment adjuster was also applied (Table 13).[174]

**Table 13 Companies engaged in rubber production in Indonesia**

| Rubber companies | |
|---|---|
| Anglo-Eastern Group | Samling Group |
| Bakrie Group | Sampoerna Group |
| Bolloré | Sime Darby Plantations |
| Felda Group | Sinochem Group |
| IOI Group | Sipef |
| Itochu | Sumitomo Rubber Industries |
| Olam International | Triputra Group |
| Perkebunan Nusantara Group | |

Source: Warmerdam, W. (2020, August 31), *Forests & Finance Financial Research Methodology*, Amsterdam, Netherlands: Profundo.

Pulp & paper companies included in Forests & Finance were selected based on their concession size, as stated in company publications and websites, trade journals, as well as the Indonesian Industrial Forest register (Hutan Tanaman Industri (HTI)) and the Forest Concession register (Hak Pengusahaan Hutan (HPH)) (Table 14).[175]

**Table 14 Companies engaged in pulp & paper production in Indonesia**

| Company | |
|---|---|
| Itochu | Oji Group |
| Kertas Basuki Rachmat Indonesia | Royal Golden Eagle Group |
| Marubeni | Sinar Mas Group |

Source: Warmerdam, W. (2020, August 31), *Forests & Finance Financial Research Methodology*, Amsterdam, Netherlands: Profundo.

The top coffee traders from Indonesia include subsidiaries of international business groups as well as domestic companies (Table 15).

**Table 15 Key coffee traders from Indonesia**

| Company / Role | Company | Ownership | Description* | Source |
|---|---|---|---|---|
| Coffee exporters | Olam International (SG) (Olam Indonesia) | Listed | • Exports of est. 63,000 tonnes (2020), 17% export share | [176] |
| | LDC (NL) (LDC Indonesia) | Private | • Exports of est. 39,000 tonnes (2020), 11% export share | |
| | Pt. Asal Jaya | Private | • Exports of est. 26,000 tonnes (2020), 7% export share | |

*Note: Dec. 2019 to Nov. 2020; based on reported shipments.

In addition, important global coffee traders are considered in the financial analysis based on a geographic adjuster.

Subsidiaries of the large global cocoa traders Barry Callebaut and Olam International accounted for a large share of exports in 2020 (Table 16).

**Table 16 Key cocoa traders from Indonesia**

| Company / Role | Company | Ownership | Description* | Source |
|---|---|---|---|---|
| Cocoa exporters | Barry Callebaut (CH) (PT. Papandayan Cocoa Industries) | Listed | • Important exporter, est. 189,000 tonnes of cocoa in 2020 | [177] |
| | Olam International (SG) (Olam Indonesia) | Private | • Important exporter, est. 16,000 tonnes of cocoa in 2020 | |

*Note: Dec. 2019 to Nov. 2020; based on reported shipments.

In addition, important global cocoa traders are considered in the financial analysis based on a geographic adjuster.

### 2.9.3 Exposure of Dutch financial institutions to Indonesian forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Indonesia.

#### *Creditors*

In total, US$ 47 billion in loans and underwriting to the selected companies active in the five forest-risk sectors in Indonesia were identified in the period 2016 to March 2021. Of this total, US$ 618 million was provided to companies engaged in coffee, US$ 1.8 billion to cocoa, US$ 15.6 billion to pulp & paper, US$ 4.6 billion to rubber, and US$ 25 billion to palm oil.

Dutch financial institutions provided US$ 2.3 billion to the selected companies in Indonesia. They accounted for 4 percent of all identified credit, ranking sixth after financial institutions from Indonesia, China, and Japan among others.

Creditors from the Netherlands provided US$ 1.5 billion to companies engaged in palm oil (6.1 percent of total identified palm oil credit in Indonesia). Approximately 50 percent of these loans and underwriting services were to Sinar Mar (US$ 602 million). A further 12 percent each was to COFCO and Musim Mas (US$ 190 million and US$ 178 million respectively). US$ 168 million was provided to Sampoerna Agro.

Moreover, financial institutions from the Netherlands provided approximately US$ 300 million to companies engaged in cocoa in Indonesia. They accounted for 17 percent of all identified credit. Just under half (45 percent) of these loans and underwriting services were to Barry Callebaut (US$ 136 million). A further US$ 52 million was provided to ECOM Agroindustrial and US$ 49 million to Sucres et Denrées (Sucden).

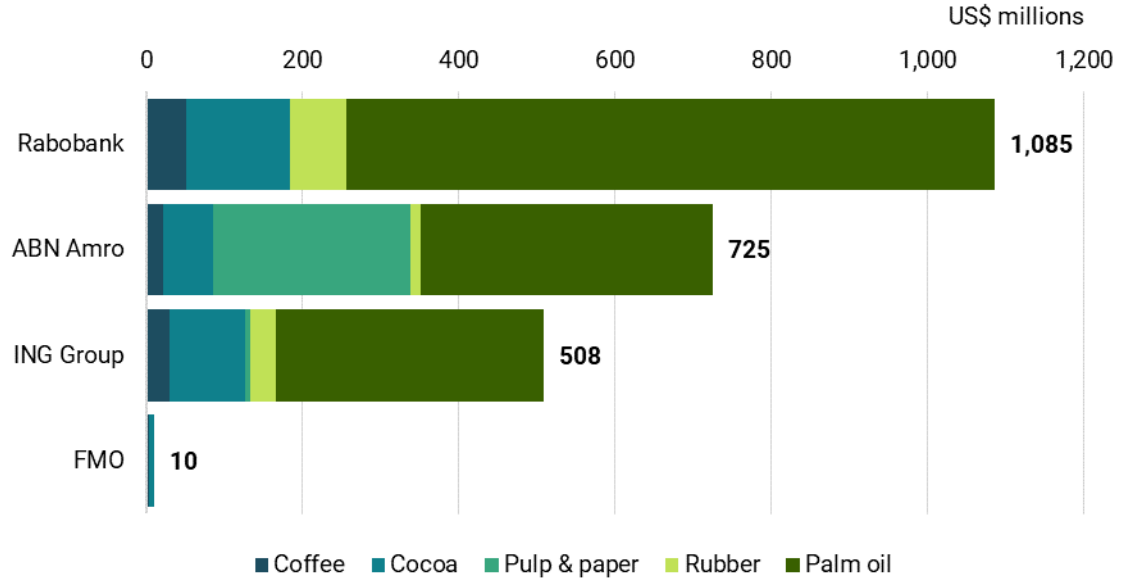
Dutch financial institutions provided US$ 260 million to companies engaged in pulp & paper in Indonesia. They accounted for 1.7 percent of all identified pulp & paper creditors in the country. Almost all this credit was provided to Royal Golden Eagle Group (US$ 252 million).

Creditors from the Netherland provided US$ 121 million to companies engaged in rubber in Indonesia. They accounted for 2.6 percent of all identified creditors. Just under half of this credit was provided to Olam (US$ 55 million), followed by Sampoerna Agro (US$ 33 million) and Triputra (US$ 29 million).

Financial institutions from the Netherlands provided US$ 113 million to companies engaged in coffee in Indonesia. They accounted for 19 percent of all identified creditors. More than 60 percent was provided to ECOM Agroindustrial (US$ 26 million), Sucres et Denrées (Sucden) (US$ 25 million) and Neumann Kaffee Gruppe (US$ 23 million).

Figure 48 shows that Rabobank was the largest creditor, followed by ABN Amro and ING Group.

**Figure 48 Dutch loans & underwriting services to Indonesian forest-risk sectors (2016-2021 March, US$ mln)**




### *Investors*

At the most recent filing date in April 2021, investors held US$ 12 billion in bonds and shares issued by companies active in the five forest-risk sectors in Indonesia. Of this, US$ 10 million was invested in companies engaged in coffee, US$ 427 million in cocoa, US$ 1.1 billion in pulp & paper, US$ 1.1 billion in rubber, and US$ 9.7 billion in palm oil.

Dutch financial institutions held bonds and shares worth US$ 83 million in companies active in five forest-risk sectors in Indonesia (0.7 percent of total identified). Dutch investors ranked 13th, after investors from the U.S., Malaysia, and Japan. They held bonds and shares worth US$ 60 million in companies active in palm oil, meaning that they accounted for 0.6 percent of all identified palm oil investors in Indonesia. A quarter of these investments were attributable to Japanese trader Itochu (US$ 16 million). A further US$ 8 million was invested in Archer Daniels Midland, and US$ 6 million in the Jardine Matheson Group.

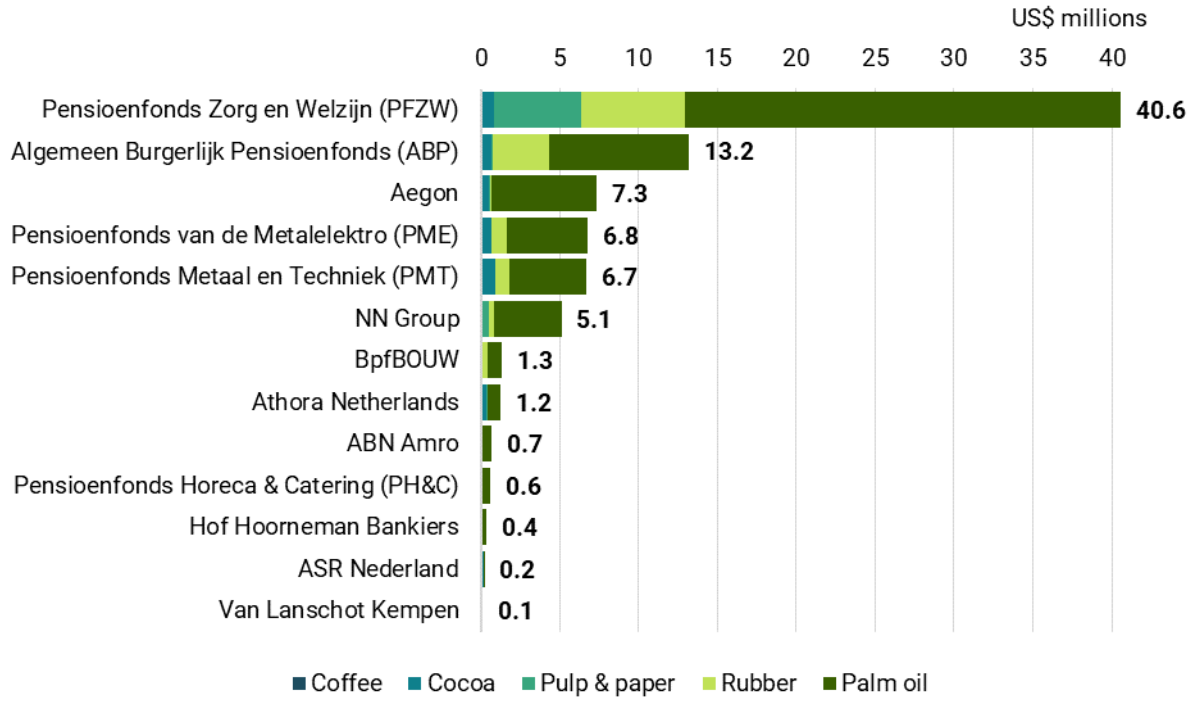
Dutch financial institutions held bonds and shares worth US$ 13 million in companies active in rubber in Indonesia. They accounted for 1.4 percent of all identified rubber investors in the country. More than 80 percent of these investments were attributable to Sumitomo Rubber Industries (US$ 11 million).

Moreover, Dutch investors had invested US$ 6 million in bonds and shares issued by companies engaged in pulp & paper in Indonesia. They accounted for 0.6 of all identified pulp & paper investments. Just under half of these investments were in Sinar Mas' listed pulp & paper subsidiaries (US$ 2.7 million).

In relation to companies active in cocoa in Indonesia, investors from the Netherlands held bonds and shares worth US$ 4 million. They accounted for 0.9 percent of all identified cocoa investors in the country. More than 80 percent of these investments were attributable to Barry Callebaut (US$ 3.4 million).

Figure 49 shows that the largest investor was PFZW, followed by ABP and Aegon.

Figure 49 Dutch investments in Indonesian forest-risk sectors (2021 March most recent filings, US$ mln)

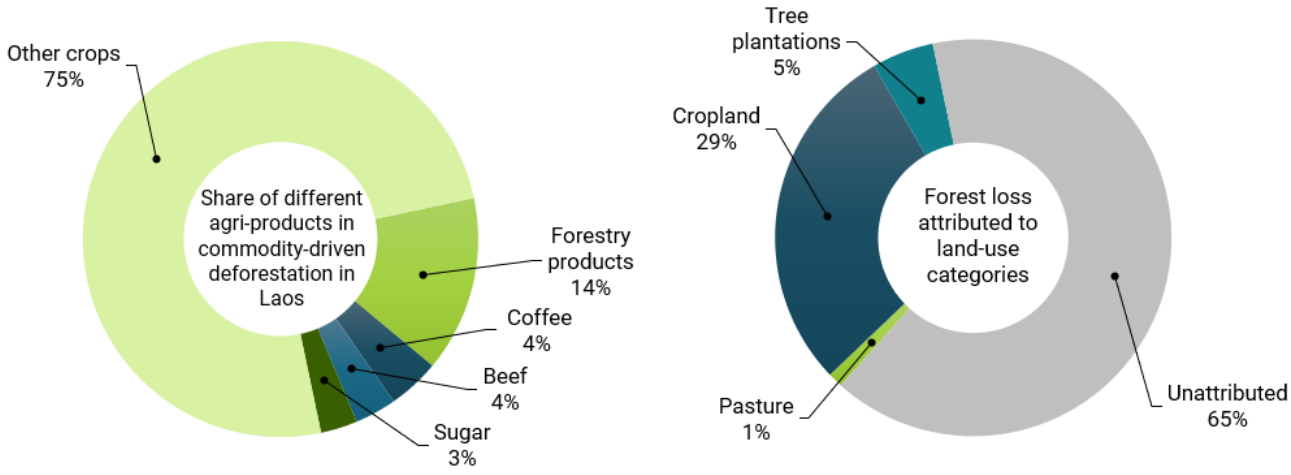



## 2.10 Laos

### 2.10.1 Drivers of deforestation

- Laos forms part of the Mekong deforestation front.
- Primary causes of deforestation: Smallholder farming, including contract farming schemes.[178]
- Laos lost more than 3.7 million hectares of tree cover between 2001 and 2020, with annual deforestation increasing since 2012 and remaining on a high level since 2016. More than 850,000 hectares of humid primary forest were deforested.
- In 2019, 365,000 hectares of tree cover were lost, of which around 62 percent in areas with commodity production as key driver.[179]
- Between 2002 and 2020, Laos lost 10% of the humid primary forest still standing in 2001.

Figure 50 Key commodities driving deforestation in Cambodia, 2005 to 2017 (estimates)




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

Laos holds some of the largest intact and highly biodiverse forests remaining in mainland Southeast Asia.[180] However, large areas of forest are converted under contract farming schemes for annual crops like maize and sugarcane as well as commercial plantations of perennial crops including rubber and coffee for export to regional and global markets. Moreover, rubber, sugarcane, and coffee are also cultivated through commercial agriculture in Southern Laos and linked to deforestation.[181]

### 2.10.2 Links with companies and international markets

International market actors are linked to deforestation-risk commodities from Laos through trade in rubber and coffee.

Similar as in Cambodia, key investors in rubber production in Laos are Vietnamese rubber companies Vietnam Rubber Group and Hoang Anh Gial Lai (HAGL) (Table 17).

Table 17 Rubber plantation companies in Laos

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Rubber plantations | Vietnam Rubber Group (VN) | Listed | • Est. 500 ha of rubber plantations | [182] |
| | Hoang Anh Gial Lai (HAGL) (VN) | Listed | • 18,200 ha of rubber plantations | [183] |

In addition, important global rubber traders are considered in the financial analysis based on a geographic adjuster.

Coffee producers in Laos include independent smallholder farmers, groups, and cooperatives; and large-scale commercial coffee concessions that may involve foreign investments and source coffee from smallholders. According to statistics of the Lao Coffee Association (LCA), 77 percent of coffee exports from Laos were destined to Vietnam in 2017.[184]

Table 18 Key coffee producers and traders in Laos

| Company / Role | Company | Ownership | Description* | Source |
|---|---|---|---|---|
| Coffee producer, trader | TCC Group (TH) (Paksong Highland) | Private | • 3,100 ha coffee plantation | 185 |
| | Olam International (SG) (Outspan Bolovens) | Listed | • 1,300 ha of coffee plantation | 186 |

*Note: Dec. 2019 to Nov. 2020; based on reported shipments.

In addition, important global coffee traders are considered in the financial analysis based on a geographic adjuster.

### 2.10.3 Exposure of Dutch financial institutions to Laotian forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Laos.

#### *Creditors*

In total, US$ 963 million in loans and underwriting to the selected companies active in the two forest-risk sectors in Laos were identified in the period 2016 to March 2021. Of this amount, US$ 23 million was provided to companies engaged in coffee and US$ 940 million to rubber companies.

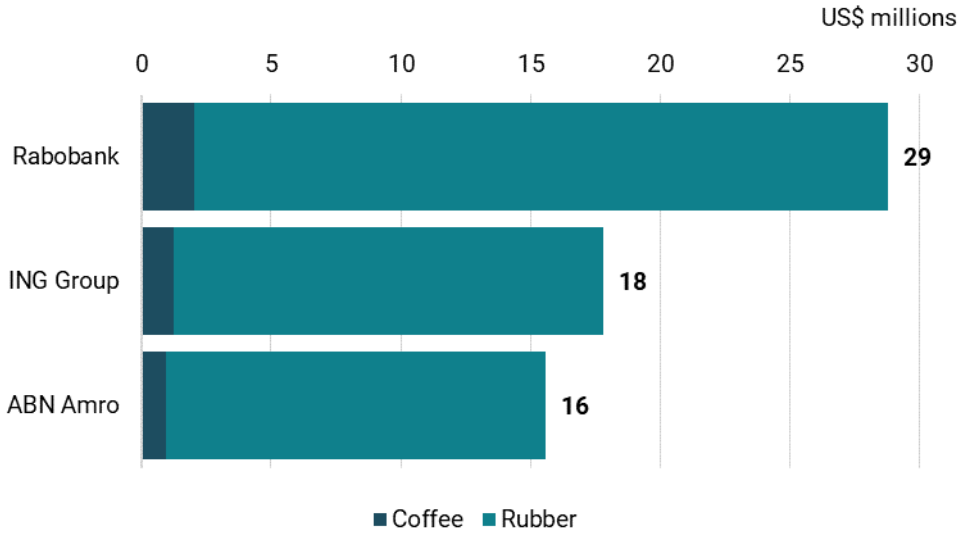
Dutch financial institutions provided US$ 62 million in credit to the selected companies in Laos. The accounted for 6.5 percent of all identified creditors, ranking fifth after financial institutions from Japan, the United Kingdom and Australia.

Creditors from the Netherlands provided US$ 58 million to companies engaged in rubber in Laos (6.2 percent of all identified rubber creditors in the country). Almost all of this was attributable to Olam (US$ 55 million).

Moreover, Dutch creditors provided US$ 4 million to companies engaged in coffee in Laos (accounting for 19 percent of all identified coffee credit in the country). More than 60 percent of this was attributable to ECOM Agroindustrial (US$ 1 million) Sucres et Denrées (Sucden) (US$ 1 million) and Neumann Kaffee Gruppe (US$ 0.9 million).

Figure 51 shows that Rabobank was the largest creditor, followed by ING Group and ABN Amro.

**Figure 51 Dutch loans & underwriting services to Laotian forest-risk sectors (2016-2021 March, US$ mln)**



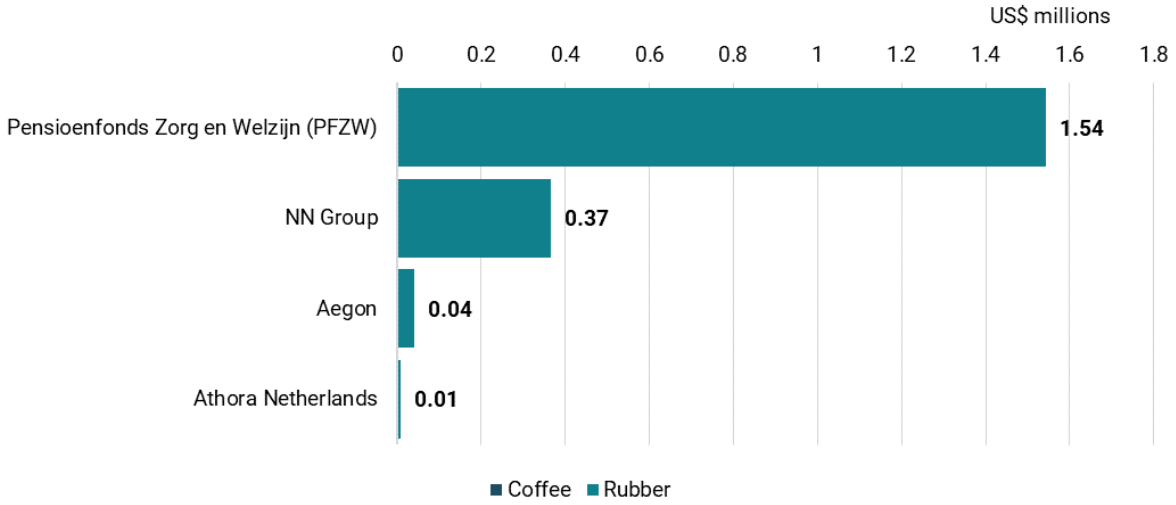

### *Investors*

At the most recent filing date in April 2021, investors held US$ 465 million in bonds and shares issued by companies active in the two forest-risk sectors in Laos. Of this, US$ 465 million was invested in companies engaged in rubber, and US$ 0.4 million in coffee.

Dutch financial institutions held bonds and shares worth US$ 2.2 million in companies active in rubber in Laos (0.4 percent of total identified). They ranked 11th, after investors from the U.S., Japan and Malaysia. Almost all the Dutch investments were attributable to Itochu (US$ 1.9 million).

Figure 52 shows that the largest investor was PFZW, followed by NN Group and Aegon.

**Figure 52 Dutch investments in Laotian forest-risk sectors (2021 March most recent filings, US$ mln)**

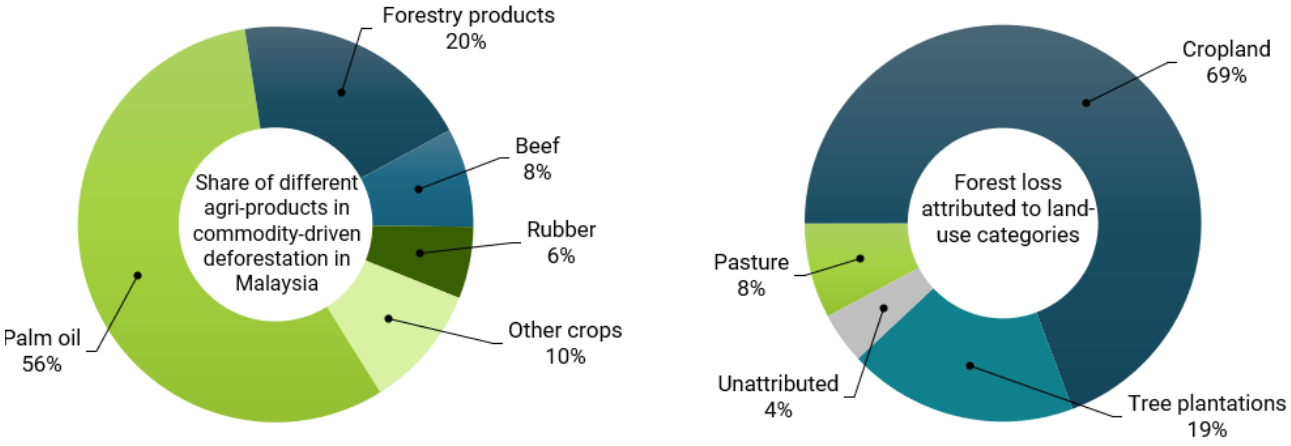


## 2.11 Malaysia

### 2.11.1 Drivers of deforestation

- Malaysia forms part of the Borneo deforestation front.
- Primary causes of deforestation: Tree plantations, large-scale oil palm plantations.[187]
- Malaysia lost 8.4 million hectares of tree cover between 2001 and 2020. Around 2.7 million hectares of humid primary forest were deforested.
- In 2019, 395,000 hectares tree cover were lost, of which more than 90 percent in areas where commodity production is the dominant driver.[188]
- Between 2002 and 2017, deforestation in Borneo (Indonesia/Malaysia) destroyed 22 percent of the forest still standing in 2000.[189]

**Figure 53 Key commodities driving deforestation in Malaysia, 2005 to 2017 (estimates)**




Source: Pendrill, F., Persson, U.M., Godar, J. and T. Kastner (2020, November 9), *Deforestation Risk Embodied in Production and Consumption of Agricultural and Forestry Commodities 2005-2017.*

Malaysia is the second largest producer of palm oil globally behind Indonesia and a producer of pulpwood. The island of Borneo, shared between Malaysia, Indonesia, and Brunei, contains highly biodiverse humid tropical forests, mountain, and peat forests. Logging operations followed by settlement of migrants and plantation developments have placed considerable pressure especially on lowland and peat swamp forests.[190] Oil palm plantations expanded rapidly on Borneo during the last decades, however, annual forest loss declined since 2017.[191]

### 2.11.2 Links with companies and international markets

Being the second largest palm oil producer in the world, a large number of palm oil producers, processors and traders are active in Malaysia. The long list of companies active in the Malaysian palm oil sector that are considered in Forests & Finance based on their planted area is included in Table 22 (Appendix).[192] Table 19 lists some of the largest actors in the sector. In addition to own planted area, the companies also manage areas that are planted by smallholders. Most of these companies are not only engaged in the upstream production of the oilseed, but also in the midstream processing and trading.

Table 19 Top Malaysian palm oil companies

| Company / Role | Company | Ownership | Description | Source |
|---|---|---|---|---|
| Palm oil plantations / processing / trading | FGV Holdings | Listed | • Landbank 417,000 ha | [193] |
| | Sime Darby Plantations | Listed | • Landbank 342,408 ha<br>• Oil palm planted area 298,965 ha | [194] |
| | IOI Group | Listed | • Palm area 156,000 ha | [195] |
| | Batu Kawan Group (Kuala Lumpur Kepong (KLK)) | Listed | • Land bank 118,000 ha | [196] |

### 2.11.3 Exposure of Dutch financial institutions to Malaysian forest-risk sectors

The following sections provide an overview of the financial flows identified between Dutch financial institutions and the selected companies in Malaysia.

#### *Creditors*

In total US$ 15.6 billion in loans and underwriting to the selected companies active in the three forest-risk sectors in Malaysia were identified in the period 2016 to March 2021. Of this US$ 5.7 billion was provided to companies engaged in rubber and US$ 9.9 billion to palm oil.

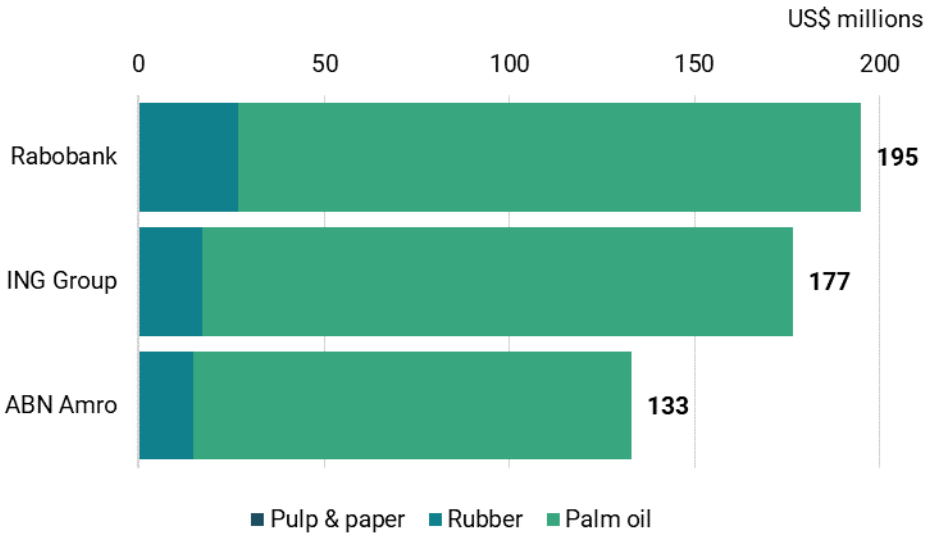
Dutch financial institutions provided 3.2 percent (US$ 504 million) of all identified financing to companies engaged in the three forest-risk sectors in Malaysia, ranking nineth after financial institutions from the Malaysia, China, and the U.S.

Financial institutions from the Netherlands provided US$ 59 million in loans and underwriting services to companies engaged in rubber in Malaysia. They accounted for 1 percent of all identified rubber creditors in the country. Almost all identified Dutch financing of rubber in Malaysia was attributable to Olam (US$ 55 million).

Moreover, Dutch creditors provided US$ 446 million to companies engaged in palm oil in Malaysia. The accounted for 4.5 percent of the identified palm oil credit in Malaysia. Just under two thirds of this was provided to agro-commodity traders. COFCO received US$ 190 million from Dutch financial institutions, followed by Olam (US$ 79 million) and Bunge (US$ 54 million),

Figure 54 shows that Rabobank was the largest creditor, followed by ING Group and ABN Amro.

**Figure 54 Dutch loans & underwriting services to Malaysian forest-risk sectors (2016-2021 March, US$ mln)**




### *Investors*

At the most recent filing date in April 2021, investors held US$ 14 billion in bonds and shares issued by companies active in the three forest-risk sectors in Malaysia. Of this, US$ 3.2 billion was invested in companies engaged in rubber, and US$ 10.6 billion in palm oil.

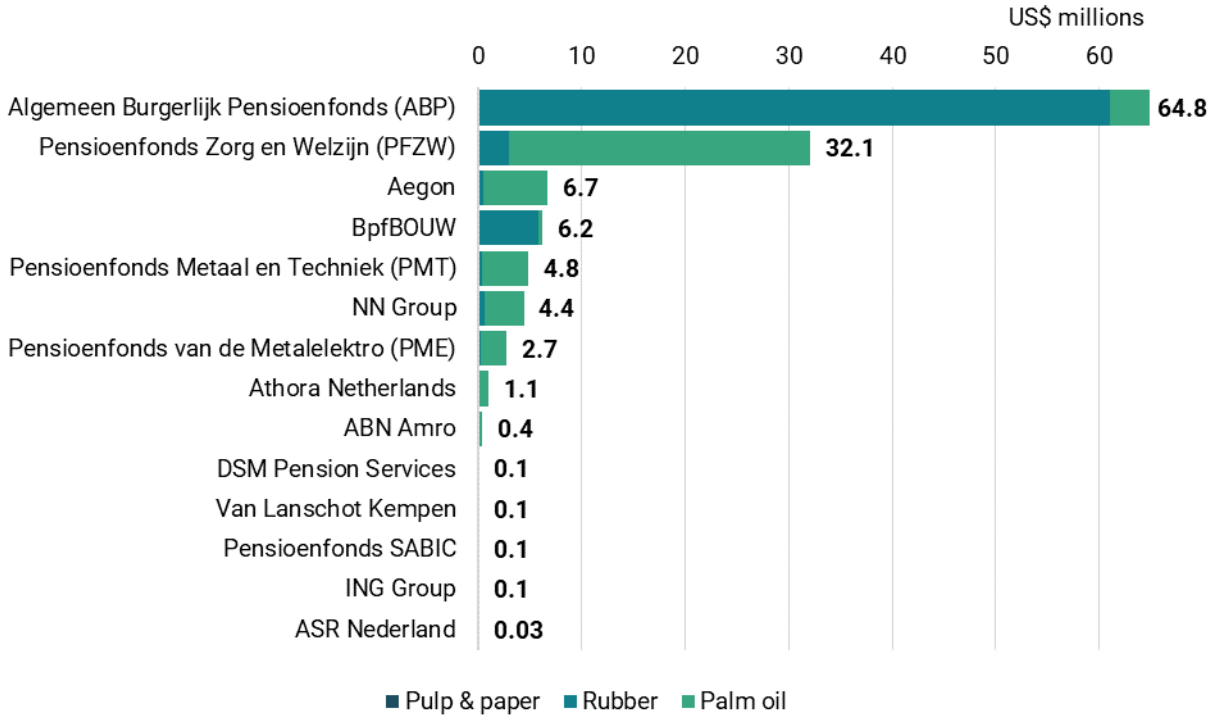
Dutch financial institutions held bonds and shares worth US$ 122 million in companies active in three forest-risk sectors in Malaysia (0.9 percent of total identified). With this amount, Dutch investors ranked tenth, after investors from Malaysia, the U.S. and Japan.

Dutch financial institutions held US$ 72 million in companies active in rubber in Malaysia (2.3 percent of all identified rubber investments in the country). Almost all these investments were in Malaysia rubber glove producer Top Glove.

Moreover, investors from the Netherlands held bonds and shares worth US$ 51 million in companies active in palm oil in Malaysia (0.5 percent of all identified Malaysian palm oil investments). A third of these investments were attributable to Itochu (US$ 16 million). It was followed by IOI (US$ 9 million) and Archer Daniels Midland (US$ 8 million).

Figure 55 shows that the largest investor was ABP, followed by PFZW and Aegon.

**Figure 55 Dutch investments in Malaysian forest-risk sectors (2021 March most recent filings, US$ mln)**



# 3

# Risks associated with financial exposure to forest-risk companies

**The following sections provide risk profiles of three exemplary companies identified in the country profiles in Chapter 2: COFCO (China), Sinar Mas Group (Indonesia), and JBS (Brazil). These companies are intensively engaged in tropical forest-risk sectors, and the analysis of financial relationships identified substantial links with Dutch financial institutions.**

The case studies show that the three companies have been linked with a variety of environmental, social, and governance issues in their own operations or in their supply chains (Table 20).

**Table 20 ESG flags of three key clients/investees of Dutch financial institutions**

| Group | Environmental issues | | Social issues | | Governance issues | | Section |
|---|---|---|---|---|---|---|---|
| | *Deforestation* | *Fire* | *Community rights* | *Labour rights* | *Corruption* | *Illegal operations* | |
| COFCO | S | S | S | S | S | S | 3.1 |
| Sinar Mas Group | X | X | X | X | X | X | 3.2 |
| JBS | S | S | S | S | X | X | 3.3 |

X = issues directly linked to company S = issues in company's supply chain

## 3.1 COFCO

### 3.1.1 Company profile

China Oil and Foodstuffs Corporation (COFCO) is active in the trading as well as production of agricultural commodities. It was established in 1949 and remains under the supervision of the Chinese State-Owned Assets Supervision and Administration Commission (SASAC). Until 1987, COFCO was responsible for all trade flows of agricultural commodities into China. Since then, the company has grown to become one of the world's top actors in agricultural trade, logistics, processing, and production. In 2007, COFCO subsidiary China Agri-Industries Holdings listed on the Hong Kong Stock Exchange. Currently the company has a global presence, including operations in the key forest-rich basins in South America, Africa, and Asia.[197]

In a move to accelerate its internationalisation and to secure supplies of animal feed grains for the growing Asian market through a strengthened presence in South America, COFCO International acquired stakes in Noble Agri and Nidera in 2014 and completed the acquisition in 2017.[198] Its rapid growth has made COFCO a contender for the traditionally leading commodity traders in the so-called ABCD group – ADM, Bunge, Cargill and Louis Dreyfus. Since the purchase of Noble Agri and Nidera, COFCO is playing a key role in exporting soybeans from Argentina, Brazil, and Paraguay.[199]

Although COFCO does not operate own palm oil concessions in Southeast Asia or soy farms in South America, it sources both oilseeds from these regions. As such, it is exposed to environmental, social and governance risks of these forest-risk commodities through its supply chains.

### 3.1.2 Environmental issues

COFCO is exposed to environmental issues through its palm oil and soy supply chains.

In its soy supply chain, COFCO is among the major customers of Argentinian company Cresud, which has large operations in neighbouring Brazil. Approximately 37 percent of Cresud's agricultural land is managed by BrasilAgro (Brazil).[200] In the period 2012 to 2017, BrasilAgro cleared 21,690 hectares of native vegetation in the Brazilian Cerrado.[201] In 2018, the company had cleared a further 1,194 hectares, and a further 5,000 hectares were at imminent risk of being clear.[202]

In May 2021, Repórter Brasil, the Bureau of Investigative Journalism, and Unearthed reported on purchases by leading soy traders from two Brazilian soy companies whose supply chains are allegedly linked to illegal deforestation and forest fires in the Brazilian Amazon. The investigations linked COFCO to soy purchases from Aliança Agrícola do Cerrado (part of Sodrugestvo (Luxembourg)) in 2019. Aliança had in turn been supplied with soy from a farmer fined and sanctioned multiple times since 2016 after destroying swathes of rainforest.[203] It remains unclear whether the soya bought from the farmer by Aliança and supplied to COFCO came from prohibited land as the farmer used a strategy of fragmenting ownership titles, operating farms with and without environmental embargoes and fines. Aliança as well as COFCO and the other traders are signatories to the Amazon Soy Moratorium, committing to not "*sell, purchase and finance soya from areas deforested in the Amazon biome after July 2008*". In a reaction to the allegations, COFCO stated that it conducts "*[…] monthly internal audits, as well as annual external audits, on suppliers' compliance with the moratorium. The 2019 audit confirmed that all our suppliers complied with moratorium requirements in the past season.*"[204]

COFCO's sourcing relationships with Cresud and Aliança expose it to risks of deforestation in its supply chain and with this the risk of violating its own commitments to not source from illegally deforested land as well as zero deforestation policies of COFCO's buyers.[205]

In the palm oil supply chain, COFCO is exposed to several sustainability issues. Combining COFCO's 2019 palm mill disclosure list with data on concessions in which fires occurred in the 2019 fire season, significant links are identified in the company's supply chain. Approximately a quarter of COFCO's supplying mills in Indonesia were operated by companies whose concessions had been sealed for the use of fire in 2019.[206] Among these are Kuala Lumpur Kepong, Austindo Nustantara Jaya, IOI Corporation and Tianjin Julong, among others.

A 2020 study by Chain Reaction Research found that eight of the 25 leading palm oil refiners had yet to adopt No Deforestation, No Peat and No Exploitation (NDPE) policies. Among these, at least four are suppliers of COFCO International: Tunas Baru Lampung, Incasi Raya, Darmex Agro (Duta Palma), and Perkebunan Nusantara (I, II, III, IV, V, VI, and XIII).[207]

Moreover, COFCO's palm mill list includes at least 15 palm oil producers and processors that have consistently failed to comply with their own NDPE policies or those of their buyers.[208] Among these are, for example, also Sinar Mas Group companies, for which details on their implication in environmental issues are provided in section 3.2. Other COFCO suppliers failing to meet NDPE policies include Torganda, which has a proven track record of deforestation in Sumatra.[209] COFCO also sources from Jhonlin Group, which was the second largest deforester in 2019 and the seventh largest in 2020.[210]

### 3.1.3 Social issues

COFCO is primarily exposed to social issues through its supply chains. As noted above, the palm mill list shows that among COFCO's supplier there are at least 15 palm oil producers and processors that have consistently failed to comply with their own policies or those of their buyers.[211] Details on social allegations against Sinar Mas Group as one of COFCO's suppliers are provided in section 3.2.

Another COFCO supplier failing to meet NDPE policies is Wilmar, with whom it also has a joint venture partnership, COFCO East Ocean Oils & Grains Industries. In November 2019, an interim report by Forest Peoples Project (FPP) and Nagari Institute alleged that community lands and customary forest areas in West Sumatra had been converted to oil palm plantations by Wilmar subsidiaries and its suppliers without free prior and informed consent (FPIC) of the fifty affected communities. They lost access and control of their customary lands and reported about intimidation and criminalisation after raising concerns with the companies.[212]

Another COFCO supplier exposed to labour issues is Felda Global Ventures. In October 2020, after a year of investigations, the US Customs and Border Protection (CBP) blocked the import of palm oil products from Felda Global Ventures over forced labour concerns. CBP referenced physical and sexual abuse, debt bondage and abusive conditions as the main motivations for banning products from the company. The CBP investigation also raised concerns over forced child labour potentially being used in FGV's palm oil production process.[213]

Allegations on similar labour issues and complaints have also been raised in relation to other COFCO suppliers.

### 3.1.4 Governance issues

In recent years, COFCO supplier Golden Agri Resources (GAR) has been the subject of several RSPO complaints. The most recent complaint – currently still under investigation – was filed by Forest Peoples Programme and Elk Hills Research in February 2020. The complaint reports the conviction of GAR officials in Central Kalimantan on bribery charges. The intention of the bribes was allegedly to prevent the publication and public hearing of in-site inspection results on GAR's PT Binasawit Abadi Pratama (PT BAP) concession. PT BAP was operating without the legally mandated HGU (Right to Business Use) permit and was disposing of waste in an unlawful manner.[214]

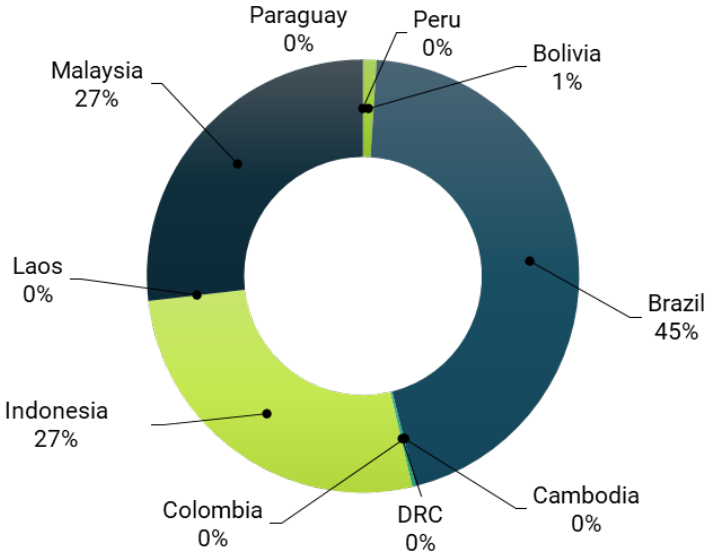
In 2019, a witness admitted to bribing an official at Perkebunan Nusantara III (PTPN III) – another COFCO supplier – approximately US$ 255,000. The bribe was intended to secure a long-term offtake contract between PTPN III and the company the witness worked for.[215]

### 3.1.5 Exposure of Dutch financial institutions

Dutch financial institutions provided US$ 708 million in loans and underwriting services to COFCO in the period 2016 to March 2021. They were the second largest creditors of COFCO after Chinese financial institutions (US$ 4.3 billion). Approximately 54 percent (US$ 382 million) of Dutch credit was attributable to palm oil, and the remaining 46 percent (US$ 326 million) to soy.

Figure 56 shows that approximately 45 percent of this Dutch credit to COFCO was attributable to Brazil (US$ 319 million). Indonesia and Malaysia, the leading palm oil producers globally, accounted for around 27 percent each (US$ 190 million).

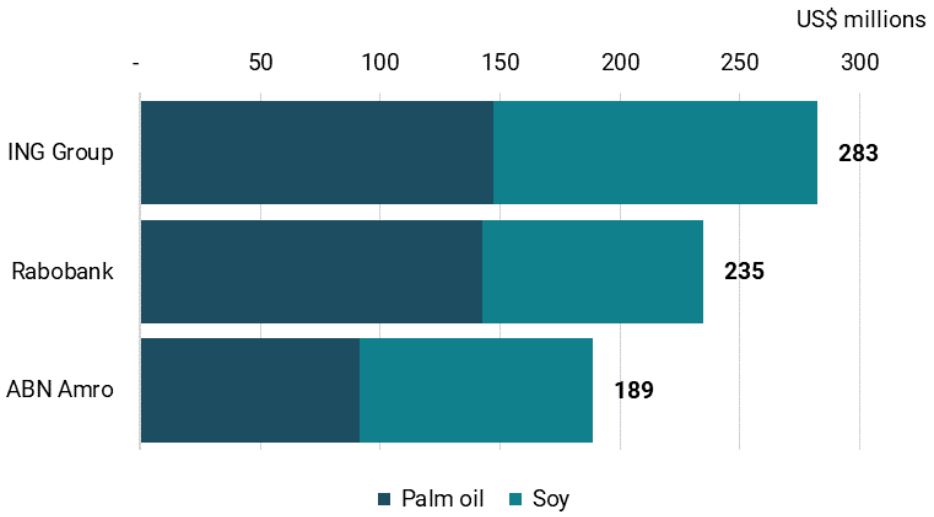
**Figure 56 Regional distribution of Dutch forest-risk loans & underwriting to COFCO (2016-2021 March)**




Source: *Forests & Finance*, online: https://forestsandfinance.org/, viewed in June 2021.

ING Group was the largest Dutch creditor of COFCO (Figure 57). It was followed by Rabobank and ABN Amro.

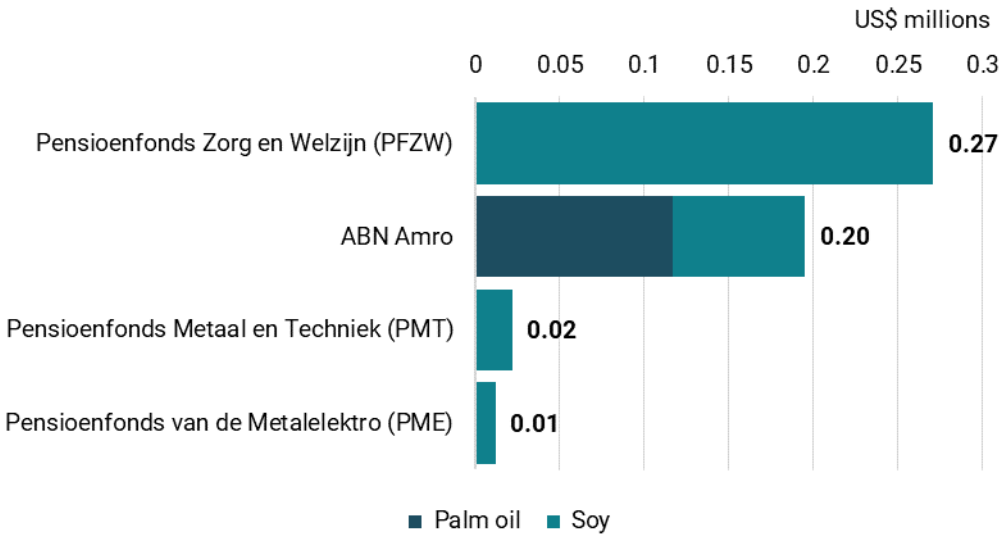
**Figure 57 Dutch providers of loans and underwriting services to COFCO (2016-2021 March, US$ mln)**




Source: *Forests & Finance*, online: https://forestsandfinance.org/, viewed in June 2021.

At the most recent filing date in April 2021, Dutch investors held US$ 0.5 million in the forest-risk bonds and shares issued by COFCO. PFZW was the largest investor (US$ 0.3 million), followed by ABN Amro (US$ 0.2 million) (Figure 58).

**Figure 58 Dutch investors in bonds and shares issued by COFCO (2021 March most recent filings, US$ mln)**




Source: *Forests & Finance*, online: https://forestsandfinance.org/, viewed in June 2021.

### 3.1.6 Discussion

COFCO has taken steps to improve the sustainability of its supply chain. It announced support to shoring up "sustainable" practices and curbing deforestation in commodity supply chains at the World Economic Forum in January 2019.[216] In its palm oil sourcing, COFCO is a member of the RSPO. Since 2019, it reports on its soy sourcing practices in the Cerrado biome under its commitment to the Soft Commodities Forum (SCF). The SCF was convened by the World Business Council for Sustainable Development (WBCSD) and includes the six leading soy traders from the area.[217] Moreover, it has partnered with the IFC in 2020 to improve the transparency and sustainability of its soy supply chain in Brazil.[218]

Nevertheless, as a review of its 2019 palm mill list and of relationships with soy suppliers suggests, forest-risks persist within COFCO's supply chain. These issues risk COFCO violating the policies of both its financiers and its buyers. An increasing number of buyers have NDPE policies in place. These buyers include the direct customers of COFCO, as well as the buyers of companies that source from COFCO.

Violations of creditor ESG risk mitigation policies may reduce the sources of funding for COFCO and increase the cost of capital from those funders willing to take on the risk. Violating the sustainable sourcing policies of its customers risks the company losing customers, put pressure on its revenues and thus its ability to meet its debt commitments.

## 3.2 Sinar Mas Group

### 3.2.1 Company profile

Sinar Mas conglomerate was founded in 1962. which is in turn controlled by the Widjaja family. Under the late tycoon Eka Tjipta Widjaja, the family amassed businesses worth billions of dollars, including, among others, large palm oil and pulp and paper companies as well as property and

banking operations.[219] Several of its companies are listed at stock exchanges, however, the Widjaja family remains in control of the Group.[220]

Sinar Mas Group's pulp & paper activities are carried out by Asia Pulp & Paper (APP) and its subsidiaries. APP is one of the largest pulp & paper companies in the world. It controls two pulp & paper companies listed on the Indonesia stock exchange: PT Indah Kiat Pulp & Paper and PT Pabrik Kertas Tjiwi Kimia. Both companies are controlled through PT Purinusa Ekapersada, holding 52.72 percent of Indah Kiat and 60 percent of Tjiwi Kimia.

In addition to these two listed companies, APP controls five other pulp & paper companies in Indonesia:[221]

- PT Univernus (in Riau)
- PT Pindo Deli Pulp & paper Mills (in West Jakarta)
- PT Ekamas Fortuna (in East Java)
- PT Lontar Papyrus Pulp & paper Industry (in Jambi)
- PT OKI Pulp & paper Mills (South Sumatra).

APP also owns several pulp & paper mills in China. Moreover, the Widjaja family controls Dutch holding company Paper Excellence B.V., which operates pulp & paper mills in Canada, France, and Brazil.[222]

Sinar Mas' palm oil activities are carried out by Golden Agri-Resources (GAR) and its subsidiaries. GAR was founded in 1996 and is since 1999 listed on the Singapore stock exchange. It is the largest oil palm plantation group in Indonesia and the second largest in the world. The vertically integrated activities of the company reach from plantations to processing and refining to marketing of consumer products. GAR's Indonesian plantations cover nearly half a million ha (including smallholder farmers).[223]

### 3.2.2 Environmental issues

#### *Asia Pulp & Paper (APP)*

APP has historically been responsible for more than 2 million hectares of deforestation, including habitat of tigers, elephants, and orang-utans.[224] In more recent years, various cases of deforestation, peat conversion and fires in APP's supply chain have been documented.

- In 2018, Greenpeace reported on almost 8,000 hectares of forest and peatland clearing since 2013 in two concessions in Kalimantan linked to APP and Sinar Mas Group, namely PT Hutan Rindang Banua and PT Muara Sungai Landak.[225] Subsequently, Greenpeace ended all engagement with APP/Sinar Mas over continued links to deforestation and a lack of credible action.[226]
- Also in 2018, a coalition of NGOs reported that despite of the company's 'no deforestation policy', APP was still linked to deforestation in its supply chain in East Kalimantan, by purchasing timber from plantation companies clearing rainforest. Allegedly, timber producer PT Fajar Surya Swadaya, (PT FSS) cleared nearly 20,000 hectares of natural forest in its 61,500-hectare concession in East Kalimantan between 2013 and 2018. Another APP supplier, forestry company PT Silva Rimba Lestari (PT SRL) has cleared more than 12,000 hectares of natural forest in its 88,000-hectare concession in East Kalimantan during the same period.[227]

  WWF recommended in 2018 that companies and financial investors avoid doing business with Sinar Mas Group/APP and its affiliates, as the company received supplies from illegal logging.[228]
- APP suppliers control tens of thousands of hectares of natural forest and peatlands on Sumatra, which forms a key habitat for the Sumatran tigers as well as the home of some of the last traditional forest tribes in Indonesia.[229] In May 2020, once more a critically endangered Sumatran Tiger was found dead in a trap inside a concession controlled by APP. The situation

for the tiger population and its habitat, already declining due to large scale conversion of natural forest and peatlands to plantations, has been worsened by the subsequent forest fires, leading the Sumatran tiger towards extinction.[230]

- In July 2020, it was reported that three APP subsidiaries and suppliers (PT Bumi Mekar Hijau, PT Bumi Andalas Permai and PT Arara Abadi) were suspected of clearing 3,500 hectares of peat and constructing 53 kilometres of canals between August 2018 and June 2020. Development on peat releases large amounts of soil carbon and increases the risk and severity of fires. At the end of June 2020 alone, there was a fire of around 50 hectares in PT Arara Abadi.[231]

In November 2020, the Environmental Paper Network published a list of issues where APP has not lived up to its own *Forest Conservation Policy* and backtracked on previous commitments.[232]

#### *Golden Agri-Resources (GAR)*

In recent years, GAR has been the subject if several RSPO complaints. The most recent complaint – currently still under investigation – was filed by Forest Peoples Programme (FPP) and Elk Hills Research in February 2020. The complaint reports illegal deforestation on concessions in Central Kalimantan as well as a bribery scheme by GAR officials to cover up known land-use violations in the region. The concerned concessions cover an area of around 140,000 hectares, of which around 76,000 hectares overlaps with land classified as 'forest zone'. Operate palm oil plantations on 'forest zones' is illegal under Indonesian law.[233]

Chain Reaction Research found that for the year 2019, GAR was linked to 926 fire alerts in its palm oil concessions in Indonesia. GAR was ranked 9$^{th}$ among the top 10 companies with the highest number of alerts in that year.[234] Greenpeace documented 323 fire hotspots in GAR-associated concessions between January and September 2019. In the 2015 fire season, GAR subsidiary PT Bahana Karya Semesta (PT BKS) was subject to a compliance order linked to fires.[235]

### 3.2.3 Social issues

#### *Asia Pulp & Paper (APP)*

APP fibre suppliers often developed their plantations on lands traditionally owned by local communities. As a result, many social conflicts have arisen. An extensive survey in 2019 found that in just five provinces of Indonesia, at least 107 villages or communities were in active conflict with APP affiliates or suppliers. More than 500 villages were identified as sites of potential conflict. The total area of (potential) conflict was estimated at more than 2.5 million hectares.[236] Only a few examples are named here.

- In 2014, APP started construction of Oki Pulp Mill before the Free, Prior and Informed Consent (FPIC) process was completed.[237] The mill is still operational today.
- In March 2015, a local farmer and activist was tortured and brutally murdered by the company's contracted security in an APP-controlled concession in the Jambi province.[238]
- In 2017, APP subsidiary PT Arara Abadi was reported to have been involved in land conflicts with at least six local communities in Bengkalis, Siak and Pelawan regencies in Riau.[239]
- In 2018, APP subsidiary PT Bumi Persada Permai in Musi Banyuasin Regency, South Sumatra, built roads on community land without compensation nor community consent.[240]
- In March 2020, an APP controlled plantation company in Jambi province, PT Wirakarya Sakti (WKS), allegedly sent drones flying over the community, spraying herbicide over villagers' gardens on disputed land. The drones killed villagers' crops in the middle of COVID-19 crisis.[241] Subsequently, WKS executives reportedly went to the local community gardens accompanied by an army officer who intimidated the villagers by shooting in the air.[242]

#### *Golden Agri-Resources (GAR)*

In 2018, a complaint was filed against GAR subsidiary Sinar Mas Agro Resources Technology (SMART), alleging termination of employment without severance payment.[243] In the same year, a separate complaint was filed with the RSPO regarding another GAR subsidiary, for terminating employment in violation of Indonesian Employment Law.[244]

### 3.2.4 Governance issues

#### *Asia Pulp & Paper (APP)*

In 2017, it was report that Sinar Mas subsidiary PT Satria Perkasa Agung was involved in a bribery case against the former Riau Governor Rusli Zainal.[245]

In 2018, a coalition of NGOs published a mapping of APP's corporate structure, including companies considered 'independent' but in fact controlled by APP. Investigations often find these 'independent' concession holders to be involved in forest fires and deforestation. Their independent status allows APP to claim that it does not have responsibility. The NGO map shows that while APP may not be the official owner of these independent companies, it does exercise control over them.[246]

#### *Golden Agri-Resources (GAR)*

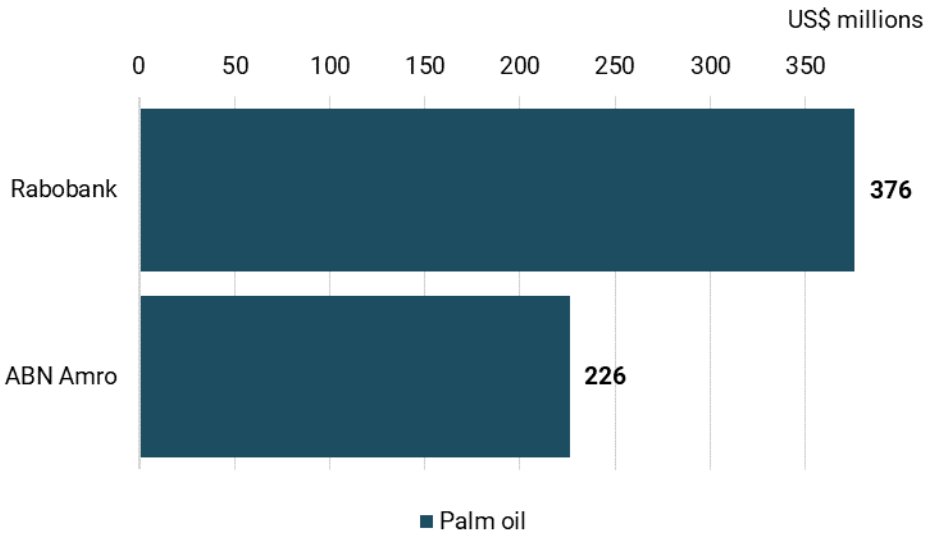
The FPP complaint mentioned above also reports the conviction of GAR officials in Central Kalimantan on bribery charges. The intention of the bribes was to prevent the publication and public hearing of in-site inspection results on GAR's PT Binasawit Abadi Pratama (PT BAP) concession. PT BAP was operating without the legally mandated HGU permit and was conducting unlawful waste disposal operations.[247]

### 3.2.5 Exposure of Dutch financial institutions

In the period 2016 to March 2021, Dutch financial institutions provided US$ 602 million in loans and underwriting services to Sinar Mas. Although Sinar Mas is engaged in both palm oil and pulp & paper (among other businesses), all Dutch financing to Sinar Mas was attributable to palm oil. Additionally, all loans and underwriting services were provided to Sinar Mas' activities in Indonesia. Dutch financial institutions were the fifth largest creditors of Sinar Mas after financial institutions from Indonesia, Japan, Malaysia, and China, and the third largest creditors of Sinar Mas' palm oil operations after financial institutions from Indonesia and Malaysia.

Figure 59 shows that the largest Dutch creditor of Sinar Mas was Rabobank (US$ 376 million), followed by ABN Amro (US$ 226 million).

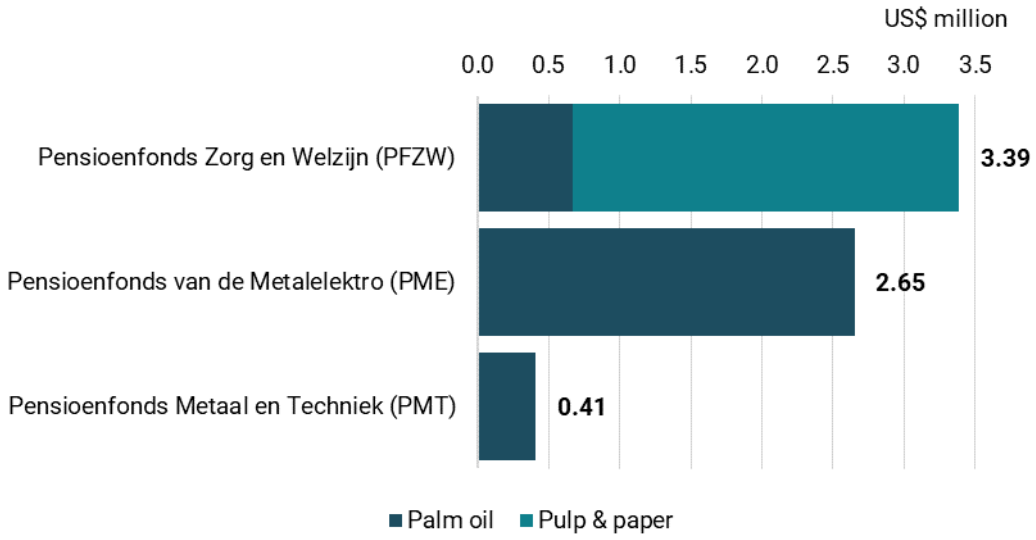
**Figure 59 Dutch providers of loans and underwriting services to Sinar Mas Group companies (2016-2021 March, US$ mln)**




Source: *Forests & Finance*, online: https://forestsandfinance.org/, viewed in June 2021.

At the most recent filing date in April 2021, Dutch financial institutions held US$ 6.5 million in forest-risk bonds and shares issued by Sinar Mas. Approximately 58 percent (US$ 3.7 million) of this was attributable to palm oil, and 42 percent (US$ 2.7 million) to pulp & paper. Figure 60 shows that the largest Dutch investor was PFZW (US$ 3.4 million) followed by PME (US$ 2.7 million).

**Figure 60 Dutch investors in bonds and shares issued by Sinar Mas (2021 March most recent filings, US$ mln)**




Source: *Forests & Finance*, online: https://forestsandfinance.org/, viewed in June 2021.

### 3.2.6 Discussion

As Dutch financial institutions continue to finance Sinar Mas Group, they remain exposed to financial risks. Sinar Mas Group subsidiaries have been for many years and continue to be linked to a range of environmental, social and governance risks that have resulted in and will continue to result in government and buyer responses which may impact the ability of the group and its subsidiaries to generate sufficient revenue to meets its financial obligations.

A report by the Environmental Paper Network released in May 2020 estimates that the pulp & paper industry in Indonesia may be exposed to US$ 1 to 10 billion in social compensation claims.[248] As one of the two largest players in the Indonesian pulp & paper sector, this finding poses a significant risk to Sinar Mas. Moreover, Sinar Mas is exposed to additional financial risks through environmental and governance issues in the pulp & paper industry, as well as broad environmental, social and governance issues in its palm oil activities.

## 3.3 JBS

### 3.3.1 Company profile

The Brazilian company JBS SA is the largest meat processor in the world based on sales. Its activities focus on the production of beef, pork, and poultry products. JBS' products are distributed under various brand names, including Friboi, Swift, Bertin, and Pilgrim's. The company is also operating in related businesses, such as leather, biodiesel, personal care and cleaning, solid waste management, and metal packaging. JBS has own operations in 15 different countries.[249]

The company has been listed on the São Paulo stock exchange since 2007. The founding Batista family maintains a 44.2 percent stake via the holding company J&F Investimentos.[250] JBS has received significant financial support from Brazil's development bank BNDES over the years, which it used for domestic and international acquisitions. The investment arm of the bank, BNDESPAR, is the second largest shareholder with 23.16 percent. The bank announced plans to divest from JBS in 2019, however, this step has not materialised yet.[251]

### 3.3.2 Environmental issues

Investigations since the late 2000s have linked JBS' cattle sourcing to deforestation and fires in its direct and indirect cattle supply chain. In 2009, Greenpeace published a report tracking the trade in cattle products back from the export-oriented processing facilities of JBS, Bertin, and Marfrig in the south of Brazil to deforestation frontiers in the Amazon.[252] Resulting from a subsequent international campaign, leading meatpackers JBS,[g] Marfrig and Minerva signed multilateral Cattle Agreements (G4) to increase sustainability in the sector.[253] Legally binding Terms of Adjustment of Conduct (TACs) with the Federal Prosecutor's Office of Pará as a federal counterpart to the G4 followed the initial agreements. The TACs commited the meatpackers to not buy cattle from illegally deforested areas, indigenous lands, conservation units, or areas with links to forced labour. Going further than that, the G4 agreement required zero deforestation post-2009 and the implementation of tracking systems for the indirect suppliers by 2011. Transactions with direct cattle suppliers commonly include purchases from several indirect suppliers.[254]

However, despite these agreements, neither JBS nor the other large meatpackers have implemented a comprehensive monitoring system for their indirect suppliers until today. Meanwhile, JBS and to a lesser degree also Marfrig and Minerva have been connected to a long list of environmental issues, with the following list just looking at examples since 2020.

[g] Bertin was acquired by JBS later the same year.

- In March 2020, Gibbs Land Use and Environment Lab (GLUE) published research on EU exports of beef linked to Amazon deforestation, based on the SISBOV identification systems for bovines. This system is obligatory for beef to be eligible for export to Europe under regulations to prevent foot-and-mouth disease and covers around 1 percent of Brazil's cattle ranches. The research found that 138 farms that sold cattle to EU-export approved slaughterhouses in 2019 purchased cattle from around 300 indirect suppliers with almost 13,000 ha of deforestation between 2010 and 2017. JBS and its peers Marfrig and Minerva were the only EU-exporting meatpackers that bought from the properties with Amazon deforestation in 2019.[255]
- In June 2020, Greenpeace published evidence that cattle grazing on deforested land within the Ricardo Franco national park in Mato Grosso was being sold to JBS, Minerva and Marfrig. The cattle were laundered through a nearby farm called Barra Mansa, which sold cattle to slaughterhouses in Mato Grosso owned by JBS, Minerva, and Marfrig between 2018 and 2019.[256]
- JBS had signed a more comprehensive agreement in 2011 that covers the so-called Legal Amazon and part of the Cerrado. However, in June 2020, investigations by Repórter Brasil linked JBS and Marfrig to unauthorized deforestation in the Cerrado Biome of Brazil. Both meatpackers received cattle from farms which deforested Cerrado vegetation between 2011 and 2016 without the required environmental licenses.[257]
- A Greenpeace report from March 2021 links the supply chains of JBS and other meatpackers with the record-breaking fires in the Brazilian Pantanal wetland in 2020. The fires had destroyed one-third of the world's largest inland wetland.[258]

Since 2009, JBS has repeatedly been found to backtrack on its commitments to eliminating deforestation from its supply chain. As mentioned above, the 2011 deadline for the monitoring of indirect suppliers as detailed in the G4 agreement was missed by JBS. In 2012, Greenpeace published a report on how JBS failed on all clauses that it signed as part of the G4 agreement.[259] Subsequently, in December 2012, JBS re-committed to the cattle agreement.[260] In 2017, federal investigations into purchases of cattle from illegally deforested land in Pará (operation "carne fria") led to high fines for JBS. These events led to Greenpeace stepping out of the negotiations with the company in 2017.[261]

More recently, in September 2020, JBS promised "*[a] new JBS Green Platform to leverage blockchain technology to extend livestock supplier monitoring (and zero-deforestation enforcement) to indirect suppliers by 2025*".[262] Already in March 2021, the company announced a further delay as it "*[…] will eliminate illegal Amazon deforestation from its supply chain including indirect suppliers by 2025, and in other Brazilian biomes by 2030. The company will achieve zero deforestation across its global supply chain by 2035*",[263] thus pushing the zero deforestation goal by another 14 years.

### 3.3.3 Social issues

Various investigations have uncovered links of JBS' supply chain with slave labour and invasion of indigenous lands. Among others, JBS was linked to slave labour by Greenpeace investigations in 2011 and 2012.[264]

In 2017, documents obtained by journalists showed that JBS paid GBP 2 million between 2013 and 2016 for cattle from a farm in the state of Pará where prosecutors claimed workers were being subjected to modern slavery as defined under Brazilian law.[265]

In March 2020, Repórter Brasil alleged that JBS and Marfrig sourced cattle indirectly from land owned by a fugitive named de Souza. He was charged in 2017 with the murders of nine men who were squatting on remote forest land, known as the Colniza slaughter.[266]

JBS' operations have been linked to various outbreaks of COVID-19. In March 2021, a Brazilian court ordered the company to pay BRL 20 million (US$ 3.6 million) in damages in connection to an outbreak at one of its plants in São Miguel do Guaporé the North of the country. The plaintiffs had

sued JBS over a lack of adequate health protocols. The plant had been shut down by a local judge in May 2020 as it was seen as the main source of virus spread in the town where it is the biggest employer. In the course of 2020, JBS faced at least 18 lawsuits in Brazil as prosecutors sought to force the company to implement stricter worker protections in various facilities.[267]

Also in the U.S., employees sued the company for compensation after contracting COVID-19 at JBS plants.[268]

### 3.3.4 Governance issues

JBS SA and the Batista family have been linked to some prominent bribery scandals. In 2017, its holding company J&F Investimentos, run by the Batista brothers Joesley and Wesley, agreed to pay US$ 3.2 billion after admitting bribing hundreds of politicians. It was one of the highest fines in corporate history.[269] The Batistas previously admitted to spending roughly $150 million to bribe more than 1,800 Brazilian government officials to secure $1.3 billion in loans from the Brazilian Development Bank and federal pension funds.[270]

In 2020, JBS SA agreed to pay more than US$ 280 million in fines to the U.S. Justice Department and Securities and Exchange Commission (SEC). J&F Investimentos agreed to pay a US$ 256 million fine to the Justice Department over charges it violated the Foreign Corrupt Practices Act (FCPA) by using funds obtained through a bribery scheme to expand its U.S. operations. J&F and the Batistas were fined another US$ 27 million to settle charges it used the illegally obtained funds to finance the purchase of poultry producer Pilgrim's Pride in 2009.[271]

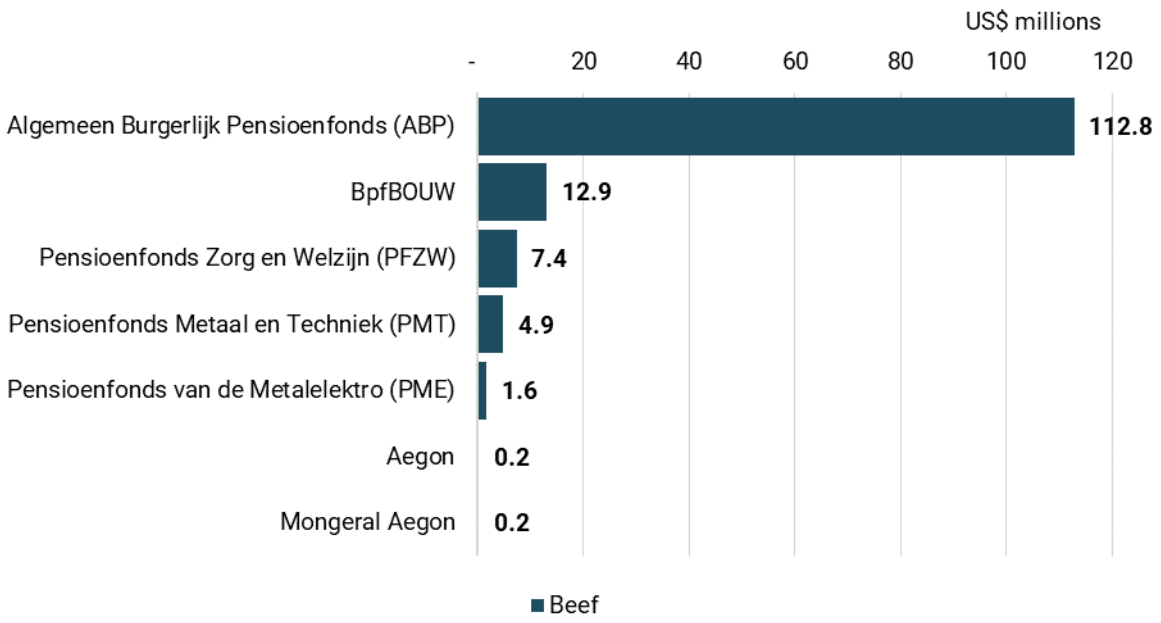
Whereas it publicly claims transparency, JBS has been found to be backsliding on disclosure in relation to its thousands of direct suppliers in 2019. While the transparency portal of its beef brand Friboi used to inform, through geographic coordinates, on the precise location of around 80,000 livestock farms in its direct supply chain, the information on suppliers provided since the change is too generic to be able to unambiguously identify farmers.[272]

### 3.3.5 Exposure of Dutch financial institutions

Dutch financial institutions did not provide any loans and underwriting services attributable to JBS beef operations in Brazil in the period 2016 to March 2021.

At the most recent filing date in March 2021, Dutch financial institutions held US$ 140 million in bonds and shares issued by JBS attributable to beef in Brazil. They were the third largest investors, after financial institutions from the U.S. and Brazil. As Figure 61 shows, ABP was the largest Dutch investor (US$ 113 million), followed by BpfBOUW (US$ 13 million) and PFZW (US$ 7 million). In fact, ABP was the second largest identified institutional investor in the bonds and shares issued by JBS, after US asset manager BlackRock.

**Figure 61 Dutch investors in bonds and shares issued by JBS (2021 March most recent filings, US$ mln)**




Source: *Forests & Finance*, online: https://forestsandfinance.org/, viewed in June 2021.

### 3.3.6 Discussion

Investors in JBS face increasing risks from environmental, social, and good governance violations in the meat supply chain. The switch by customers and consumers to competitors with better ESG credentials and to meat alternatives, also due to health reasons, could lead to lower volumes and earnings. Fines for environmental and social issues in its supply chain could also impact earnings.

An August 2020 analysis by Chain Reaction Research concluded that business risks from deforestation; shareholder action; restrictions on export markets and supply chain exclusions; growing Chinese consumer weariness for imported meat; availability of plant-based substitutions; and COVID-19 may impact the JBS' revenues, cost structure, and asset value. The analysis suggested that in a "high-impact" scenario, the company's EBITDA[h] could be negatively impacted by 26 percent or USD 1.3 billion, leading to increasing financing costs. JBS' cost of capital might rise as lagging ESG ratings are increasingly linked to cost of debt and cost of capital. Almost a third of its financing is through European investors and banks with stricter ESG policies.[273]

[h] Earnings before interest, taxes, depreciation, and amortization

# 4

# Conclusions

Based on commitments during the previous decade, the year 2020 should have been a key milestone for governments and companies to severe the link between commodity production and deforestation. However, while new commitments are being formulated and timelines are extended, deforestation continues at an alarming rate and agricultural expansion remains the most important driver of tree cover loss in tropical and sub-tropical regions of the world. The unrelenting growth in demand for internationally traded commodities like palm oil, soybeans, beef, rubber, and pulp & paper pushes the agricultural frontier into yet untouched forests in various countries around the world. The conversion of these forests not only contributes to the loss of invaluable biodiversity and livelihoods of local communities, but also results in massive carbon emissions.

Despite economies slowing down and movements being restricted in many parts of the world in 2020, the latest forest loss data reveals no clear, systematic shift in trends linked to COVID-19. For now, it remains to be seen in how far pandemic-related developments like supply chain disruptions, people moving from cities back to rural areas or weakened environmental regulations in the name of economic revival will affect forests in the years to come.[274]

The Netherlands is exposed to forest-risk commodities as an important consumer market as well as the key trading hub for product flows to other European countries. Moreover, besides this physical involvement, Dutch financial institutions play an important role globally in the provision of the financial means necessary to produce these commodities in the form of credits and investments. As demonstrated in the report, Dutch financial institutions ranked ninth globally and first among financiers from EU member states in the provision of loans and underwriting services to the selected forest-risk companies in the focus countries. Moreover, financial institutions from the Netherlands formed the tenth largest investor group in these companies.

The case studies in Chapter 3 illustrate that financing forest-risk companies may expose financial institutions to significant environmental, social, and governance risks. All three of the case study companies were linked to allegations of environmental, social and governance issues, either directly or through their supply chain relationships.

The formulation and implementation of robust policies and due diligence procedures with zero tolerance for deforestation and other detrimental environmental and social impacts from commodity production in all financial relations forms a minimum step in managing the ESG risks inherent to these supply chains.

Recent assessments conducted by *Forests & Finance* on forest-risk mitigation policies found that Dutch financial institutions scored best out of all 54 assessed financial institutions.[275] However, on closer scrutiny the detailed scores (Table 21) show that there remains considerable room for improvement. For example, ING Group was the largest creditor of soy companies in Brazil, yet it has the weakest policy score of the Dutch banks and its policy score for beef is even weaker. Moreover, the involvement of these banks in the case study companies demonstrates that a policy is not enough to prevent exposure to ESG risks. Similar documentation of links with deforestation or breaches of community rights exists for many of the analysed companies.

Table 21 Dutch bank forest-risk policy assessments (scale from 1 to 10)

| Bank | Beef | Palm oil | Pulp and paper | Rubber | Soy | Timber | Overall score |
|---|---|---|---|---|---|---|---|
| ABN Amro | 5.7 | 7.2 | 7.7 | 5.7 | 5.5 | 7.7 | 7.1 |
| ING Group | 2.8 | 6.5 | 6.9 | 4.7 | 4.7 | 6.9 | 6.2 |
| Rabobank | 6.5 | 7.3 | 6.8 | 6.3 | 7.0 | 6.8 | 6.8 |

Source: Forests & Finance (n.d.), "Bank policies", online: https://forestsandfinance.org/bank-policies/, viewed in June 2021.

The experiences from the last years have proven that voluntary commitments by companies or financial institutions are insufficient in severing the link between the production of commodities and detrimental impacts on ecosystems and human rights. The study confirms the need for comprehensive due diligence legislation for commodity supply chains that explicitly includes the financial sector and formulates clear requirements and sanctions. Financial institutions should be legally required to uphold the highest ESG standards in their financial decision-making. Such legislation should also entail the monitoring and supervision of financial institutions in relation to their ESG risk mitigation.

## Appendix 1 Overview of companies included in financial analysis

The companies operating in forest-risk sectors in ten countries with high forest loss that were considered in the analysis of relationships with Dutch financial institutions are listed in Table 22.

### Table 22 Companies considered in financial analysis

| Company | Country of incorp. | Forest-risk sectors | | | | | | | Dutch FIs? |
|---|---|---|---|---|---|---|---|---|---|
| | | Soy | Beef | Cocoa | Coffee | Palm oil | Pulp & Paper | Rubber | |
| Adecoagro | LUX | ■ | | | | | | | ■ |
| Albukhary Group | MYS | | | | | ■ | | ■ | |
| Alicorp | PER | ■ | | | | | | | ■ |
| Anglo-Eastern Group | GBR | | | | | ■ | | ■ | |
| Archer Daniels Midland | USA | ■ | | | | ■ | | | ■ |
| Asal Jaya | IDN | | | | ■ | | | | |
| Austindo Group | IDN | | | | | ■ | | | |
| Bakrie Group | IDN | | | | | ■ | | ■ | |
| Barito Pacific Group | IDN | | | | | ■ | | | |
| Barry Callebaut | CHE | | | ■ | | | | | ■ |
| Batu Kawan Group | MYS | | | | | ■ | | ■ | ■ |
| BLD Group | MYS | | | | | ■ | | | |
| Bolloré | FRA | | | | | ■ | | ■ | ■ |
| Bom Jesus | BRA | ■ | | | | | | | ■ |
| Boon Siew Group | MYS | | | | | ■ | | | |
| Boustead Group | MYS | | | | | ■ | | | |
| Brookfield Asset Management | CAN | ■ | | | | | | | ■ |
| Bunge | USA | ■ | | | | ■ | | | ■ |
| Cargill | USA | ■ | | ■ | | ■ | | | ■ |
| Cencoprod | PRY | | ■ | | | | | | |
| Charoen Pokphand Group | THA | | | | | ■ | | | ■ |
| Chin Teck Group | MYS | | | | | ■ | | | |
| COFCO | CHN | ■ | | | | ■ | | | ■ |
| Cresud | ARG | ■ | ■ | | | | | | ■ |
| DSN Group | IDN | | | | | ■ | | | |
| ECOM Agroindustrial | CHE | | | ■ | ■ | | | | ■ |
| ED&F Man | GBR | | | | ■ | | | | ■ |
| Feronia | CAN | | | | | ■ | | | |
| FGV Holdings | MYS | | | | | | | | |
| Frigol | BRA | | ■ | | | | | | |
| Frigon - Irmãos Gonçalves | BRA | | ■ | | | | | | |
| Frigorifico Concepción | PRY | | ■ | | | | | | |
| Genting Group | MYS | | | | | ■ | | | ■ |
| Golden Land Group | MYS | | | | | ■ | | | |

| Company | Country of incorp. | Forest-risk sectors | | | | | | | Dutch FIs? |
|---|---|---|---|---|---|---|---|---|---|
| | | Soy | Beef | Cocoa | Coffee | Palm oil | Pulp & Paper | Rubber | |
| Gozco Group | IDN | | | | | | | | |
| Groupe Blattner Elwyn | DRC | | | | | | | | |
| Grupo Amaggi | BRA | | | | | | | | |
| Grupo Nutresa | COL | | | | | | | | |
| Hap Seng Group | MYS | | | | | | | | |
| Harita Group | IDN | | | | | | | | |
| Hoang Anh Gia Lai | VNM | | | | | | | | |
| IJM Group | MYS | | | | | | | | |
| IOI Group | MYS | | | | | | | | |
| Itochu | JPN | | | | | | | | |
| Jardine Matheson Group | BMU | | | | | | | | |
| JBS | Brazil | | | | | | | | |
| Johor Group | MYS | | | | | | | | |
| Kertas Basuki Rachmat | IDN | | | | | | | | |
| Kim Loong Group | MYS | | | | | | | | |
| Kwantas Group | MYS | | | | | | | | |
| LG International | KOR | | | | | | | | |
| Louis Dreyfus Company | NLD | | | | | | | | |
| Marfrig | BRA | | | | | | | | |
| Marubeni | JPN | | | | | | | | |
| Masterboi | BRA | | | | | | | | |
| Mercurio | BRA | | | | | | | | |
| Minerva | BRA | | | | | | | | |
| Mitsubishi | JPN | | | | | | | | |
| Mitsui & Co | JPN | | | | | | | | |
| MP Evans | GBR | | | | | | | | |
| Musim Mas Group | SGP | | | | | | | | |
| Neumann Kaffee Gruppe | DEU | | | | | | | | |
| Noble Group | HKG | | | | | | | | |
| NPC Resources Group | MYS | | | | | | | | |
| Oji Group | JPN | | | | | | | | |
| Olam International | SGP | | | | | | | | |
| Perkebunan Nusantara Group | IDN | | | | | | | | |
| POSCO | KOR | | | | | | | | |
| Prima Foods | BRA | | | | | | | | |
| Provident Agro Group | IDN | | | | | | | | |
| PTT Group | THA | | | | | | | | |
| Puncak Niaga Holdings | MYS | | | | | | | | |
| QL Resources | | | | | | | | | |

| Company | Country of incorp. | Forest-risk sectors | | | | | | | Dutch FIs? |
|---|---|---|---|---|---|---|---|---|---|
| | | Soy | Beef | Cocoa | Coffee | Palm oil | Pulp & Paper | Rubber | |
| R E A Holdings | UK | | | | | | | | |
| Rajawali Group | IDN | | | | | | | | |
| Rimbunan Hijau Group | MYS | | | | | | | | |
| Royal Golden Eagle Group | SGP | | | | | | | | |
| Salim Group | IDN | | | | | | | | |
| Samling Group | MYS | | | | | | | | |
| Sampoerna Group | IDN | | | | | | | | |
| Samsung | KOR | | | | | | | | |
| Sarawak Oil Palms | MYS | | | | | | | | |
| Shin Yang Holding | MYS | | | | | | | | |
| Siat Group | BEL | | | | | | | | |
| Sime Darby Plantations | MYS | | | | | | | | |
| Sinar Mas Group | IDN | | | | | | | | |
| Sinochem Group | CHN | | | | | | | | |
| Sipef | BEL | | | | | | | | |
| SLC Agrícola | BRA | | | | | | | | |
| Socfin | LUX | | | | | | | | |
| Sodrugestvo | LUX | | | | | | | | |
| Sucres et Denrées (Sucden) | FRA | | | | | | | | |
| Sumitomo Rubber Industries | JPN | | | | | | | | |
| Sungai Budi Group | IDN | | | | | | | | |
| Ta Ann Holdings | MYS | | | | | | | | |
| Tadmax Group | MYS | | | | | | | | |
| Tanah Makmur Group | MYS | | | | | | | | |
| Tanjung Lingga Group | IDN | | | | | | | | |
| TCC Group | THA | | | | | | | | |
| TDM | MYS | | | | | | | | |
| Terra Santa | Brazil | | | | | | | | |
| TH Group | MYS | | | | | | | | |
| Tianjin Julong | CHN | | | | | | | | |
| Toba Bara Sejahtra Group | IDN | | | | | | | | |
| Top Glove | MYS | | | | | | | | |
| Touton | FRA | | | | | | | | |
| TPS Group | IDN | | | | | | | | |
| Triputra Group | IDN | | | | | | | | |
| TSH Resources | MYS | | | | | | | | |
| United Malacca Group | MYS | | | | | | | | |
| Vale Grande / Frialto | BRA | | | | | | | | |
| Vietnam Rubber Group | VNM | | | | | | | | |

| Company | Country of incorp. | Forest-risk sectors | | | | | | | Dutch FIs? |
|---|---|---|---|---|---|---|---|---|---|
| | | Soy | Beef | Cocoa | Coffee | Palm oil | Pulp & Paper | Rubber | |
| Viterra (Glencore Agriculture) | NLD | | | | | | | | |
| Wilmar | SGP | | | | | | | | |
| WTK Holding | MYS | | | | | | | | |
| ZTE | CHN | | | | | | | | |

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