FOREST 500

global canopy

Company
Selection methodology 2020

How are the 350 companies in the Forest 500 identified?

About the Forest 500:
Forest 500, a Global Canopy project, identifies and ranks the most influential companies and financial institutions in the race towards a deforestation-free global economy.

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INTRODUCTION

A limited number of companies globally report on total volumes of forest risk commodities they produce, process, use or retail, while reporting on exact quantities from specific forest countries is practically non-existent. A truly objective ranking of companies and their potential impacts on tropical forests through their direct involvement in forest risk commodity supply chains is therefore not possible using a universal methodology. Therefore, in order to identify which companies to include in the Forest 500, it was necessary to develop a methodology measuring relative risk of exposure to forest risk commodity supply chains. This combined quantitative and qualitative research; analysing trade patterns, product types and overall commodity supply chains from the countries where they originate to those where they are consumed. Specifically, it has been possible to identify which companies play the most important roles along forest risk commodity supply chains using a combination of market research data, customs data from ships' manifests, information on the major uses of forest risk commodities, and market share data for specific product segments and companies.

Market concentration in particular is an indicator of power within supply chains. Therefore, only companies occupying a relatively large market share within their respective areas of operations have been included in the Forest 500. Measures of market share have been prioritised over attempts to ensure equal representation of different supply chain stages to ensure the inclusion of true supply chain powerbrokers. Furthermore, the identification of supply chain bottlenecks provides strategic focus to supply chain stages where targeted action can achieve transformational change with regards to sustainability.

It is worth highlighting that the highly complex nature of supply chains, whereby many different actors are involved in transforming commodities and products or providing services along the value chain, has made it necessary to simplify supply chains into distinct segments. Furthermore, the absence of coherent reporting and the lack of definitive data in large sections of these supply chains and the jurisdictions in which they act has resulted undoubtedly in an incomplete list where additional relevant actors may exist but could not be identified or cases where the data has not allowed for a clear distinction of players.

SUPPLY CHAIN SEGMENTS

Forest risk commodity supply chains are complex. Some actors cover multiple stages within specific supply chains and similarly act across the supply chains of several different forest risk commodities. For example, international grain traders are involved not only in trading soya or palm oil, but in many instances also operate as initial processors of oilseeds, food ingredient producers and even manufacturers of consumer products.

Different forest risk commodity supply chains diverge and converge at different stages. For example, soy and palm oil are produced by a large number of farmers and plantation owners but are then traded internationally by just a handful of companies before diverging once more to a much larger number of processing companies, who then sell ingredients to an even larger number of food and feed product manufacturers. These manufacturers in turn usually sell their products to a smaller number of major retailers who offer a variety of products containing palm or soya products.

To identify companies active at various stages of the supply chain, five major company types corresponding to different supply chain segments were identified: (1) producers, (2) processors, (3) trader/importers/exporters, (4) manufacturers, and (5) retailers. Yet, many companies transcend these categories and are therefore represented in more than one segment. Ultimately, these companies are only listed once in the Forest 500 even if they have significant stakes in more than one forest risk commodity.

PRODUCERS

Producers operate at the first step of the supply chain and are defined as companies that cultivate raw materials, such as soya beans, timber, or oil palm. The 32 key tropical forest jurisdictions provided a focus for the identification of producers.

PROCESSORS

Processors are defined as companies that convert raw materials into products of added value before they are manufactured into finished consumer and industrial products. For example, slaughterhouses process cattle into beef; soy crushers produce soy oil and soy meal; while soy refineries may further refine soy oil to make ingredients for food products. With a general tendency towards increased processing and value addition within tropical forest countries, commodity processing is an important step in the supply chains of forest risk commodities. Having said that, processing also often occurs within importing countries, such as is the case in the cattle and soy industries, where live cattle or whole soy beans are exported, and multiple processing stages occur before commodities are used in final products. Particularly in the cases of timber and paper products, there may be more than ten stages and companies involved before a final product is manufactured. Processors are commodity specific and have been identified using a number of sources, including industry reports and customs data. Trade data has been considered in order to prioritise the inclusion of processors located in key importing countries, although processing can occur at multiple supply chains stages and follow complicated trade paths, making it difficult to map all stages and make sure all additional processors are included.

TRADERS/IMPORTERS

These supply chain actors do not transform or add value to commodities but are involved in the physical handling, such as the shipment and storage, of products. Examples include agricultural commodity traders and timber importers.

MANUFACTURERS

Manufacturers are defined as companies creating final products as sold to retailers, industrial users, or consumers. The focus in the manufacturing sector has been on identifying the companies holding the largest market shares in the production of goods that are most relevant to forest risk commodities, with the largest manufacturers able to influence production by adopting policies that rule out the use of commodities from deforested land. In order to incorporate current forest risk commodity trade patterns and the inclusion of the most relevant industries, the major uses of each forest risk commodity has been analysed and priority has been given to manufacturers operating in relevant industries within the key trading jurisdictions.

RETAILERS

Retail is the final supply chain stage linking finished manufactured products to consumers. Retailers sell products to consumers or industrial users via a large number of channels, including supermarket and convenience stores; speciality stores, for example, footwear stores and 'Do-It-Yourself' (DIY) stores; and via online retail sites. Market research has been used to identify the most important retailers worldwide and in specific consuming jurisdictions.

SOURCES

A number of data sources have been used to prioritise specific markets for further research in order to identify the most relevant companies. It is important to note that due to a lack of available data, each supply chain segment has been researched using a combination of the sources below.

PRODUCTION STATISTICS

The first step in compiling the private sector representatives to include in the Forest 500 was to identify the key companies responsible for the production of forest risk commodities (growers, ranchers etc.). Unfortunately, with few exceptions, there is limited data available when it comes to information on concessions, for example of consistent data on areas held and managed by logging companies. Moreover, for some producers, such as soya growers or cattle ranchers, there is low market concentration due to the high number of operators involved. In these cases, actors at later supply chains stages represent the major powerbrokers.

When looking for production data on companies, research was focused on the countries that we previously identified as key producing countries in our country research. For full details please see the country selection methodology and data on www.forest500.org.

COMMODITY MOVEMENTS AND TRADE DATA

With the majority of commodities traded internationally, understanding patterns of commodity movements is critically important for the Forest 500. For example, since the majority of Brazilian beef is consumed domestically, the domestic market and the actors in the domestic processing and retail industry need to be prioritised over international actors. On the other hand, it is important to recognise that individual companies with very large market shares in countries with relatively low imports may be more significant than those with smaller market shares in countries with higher imports. Where possible these have been identified and included in the Forest 500.

When looking at downstream companies, companies with high market shares in countries identified as key trading partners with the key producing countries were prioritised. For full details on how we selected key trading countries or regions for each commodity please see the country selection methodology and data on www.forest500.org.

CUSTOMS DATA

Many different companies can be involved in the shipment of a single commodity, including, for example, producers, exporters, traders, freight forwarders, shipping companies, and overseas importers. For some countries, customs data (from shipping manifests) is available and can provide information on specific supply chain actors. The quality and detail of this data, where available, varies between countries. However, where possible, it has been used to identify key players in commodity supply chains.

Trase.earth uses customs data to provide consistent information on exporters and importers for a growing number of forest-risk commodities and countries and was used to select traders wherever possible. There were many new Trase.earth datasets launched between 2018 and 2020, which have been included in the 2020 company selection data.

MARKET RESEARCH DATA

After the main importing and processing countries for each commodity had been established and the appropriate industry sectors identified, market research data was used to identify the key actors within the different supply chain segments, with a particular focus on identifying important manufacturers. For example, since one of the key uses of palm oil is its application in the manufacture of confectionery and baking products, data from market research was used to identify the major companies within these industries. Similarly, since China is a significant importer of leather from forest countries and footwear is a key sub-sector of leather processing in the country, major Chinese footwear manufacturers identified according to market research have been included. Market shares of specific companies and the general diversity of the market in each segment have been considered when choosing companies for the Forest 500.

ADDITIONAL SOURCES

The importance of individual companies to each of the forest risk commodities and specifically to their risk of driving deforestation has been assessed using the above sources and supplemented with information from industry and trade magazines, scientific literature, NGO reports and media articles, as well as from peer reviews by partner organisations.

PALM OIL

PRODUCERS

Compared to the soy and beef industries, there is a much higher concentration of players in the production of oil palm. A relatively small number of large producers, defined as plantation owners, in addition to tens of thousands of smallholders, make up a large share of total oil palm production in both Indonesia and Malaysia. An analysis of members of the Roundtable on Sustainable Palm Oil (RSPO) based on Annual Communication of Progress (ACOP) reports submitted by each member have been used to identify the major oil palm growers in Indonesia and Malaysia. However, since not all companies are RSPO members or detail specific figures in their ACOP reports, additional research has been carried out to identify key oil palm plantation companies.

PROCESSORS

For the purpose of this research, the processing sector refers to the transformation of crude palm oil (CPO) to refined palm oil (RPO), as well as the manufacturing of ingredients for various industries. The first step in processing palm oil is the milling of fresh fruit bunches (FFBs) in palm oil mills to obtain CPO. However, there are a large number of mills in operation, and most of these are linked to specific plantations and are commonly owned by larger companies also operating plantation estates. It is therefore the same companies that often mill FFBs from surrounding plantations and from smallholders. In the whole of Malaysia there are over 400 mills compared to around just 50 refineries[1]. Due to the large number of mills and the overlap with producers and additional processors, palm oil mills for CPO have not been assessed separately in this study. Especially since all large plantation holders (and mill operators) have been included in the section on oil palm producers.

In light of this, the focus in identifying the major players in the palm oil processing industry is on palm oil refiners and oleochemical producers. Various sources have been used to identify the main processors (refiners) of palm oil in forest and importing countries, with many refiners of palm oil in importing countries also operating as manufacturers of consumer products, such as cooking oil and margarines. In addition to these, the world's largest food ingredient producers have also been included, with these actors also being of relevance to several other forest risk commodity supply chains.

TRADERS/IMPORTERS

Responsible for moving products from suppliers to buyers internationally, commodity traders play a unique role in forest risk commodity supply chains. However, with increasing private sector concentration, the largest of these companies are not just active in the physical trade of agricultural commodities, but also operate in other capacities; as input suppliers, landowners, cattle and poultry producers, food processors, financiers and investors, transportation providers, and grain elevator operators[2]. Moreover, traders can also be involved in commodity processing and in the manufacture of consumer goods. As such it is not possible to use a strict definition for the companies in this supply chain segment.

Data from RSPO, Trase and the palm oil directory[3] were amalgamated to provide a picture of the largest traders of palm oil from the key countries. These were ranked by volumes that could be assigned to them.

MANUFACTURERS

As two of the most important oil seeds traded globally, there is significant overlap in the uses of palm oil and soy in food products. Both palm oil and soy bean oil are used as cooking oils, especially in some of the key exporting countries. Their derivatives are also important for food products, used as emulsifiers,

[1] PORAM, 2012. Perspectives on downstream activities. Presentation to professor Iwasa Kazuyuki, Kochi University, Japan. August 14, 2012.
[2] Murphy, S. et al. 2012. Cereal Secrets - The world's largest grain traders and global agriculture. Oxfam Research Reports. August 2012. [Online] Available from: https://www.oxfam.org/en/research/cereal-secrets-worlds-largest-grain-traders-and-global-agriculture [Originally accessed March 2014]
[3] https://palmoildirectory.com/

and as ingredients in confectionery and baking products, spreads, ice creams, and snacks. It has been argued that around up to half of all packaged food in supermarkets contains palm oil and soy products[4], with most companies manufacturing products containing palm oil also using significant amounts of soy and vice versa. The majority of palm oil produced globally is used in food products while a large percentage of soy is also used in animal feed.

A variety of sources have been used to identify key companies involved in the manufacturing sector. This includes market share data for various food production industries and other sources on market leaders, such as from industry magazines and other literature. Market share data was used globally, and looking at the key countries or regions that were identified as key importers of palm oil in our country research (see above).

Palm oil is also a significant ingredient in the cosmetics and detergent industries. The key players in the personal and home care industries have therefore been included in the Forest 500. In addition, as palm oil and soy are major biofuel ingredients in some regions, a small number of biofuel producers have also been identified. Although both commodities are also used as ingredients in industrial products, they are to a much lesser extent and no clear market concentration of specific companies has been determined.

Available data (such as on specific quantities of palm oil used in each industry) do not allow for a purely statistical approach to choosing the companies with the largest power within each sector. Therefore, manufacturers have been chosen according to a number of criteria using market research data. Product categories known to often contain palm oil have been identified. A breakdown of these sectors can be seen in Table 1.

Table 1. Information on market shares has been obtained for the following industry sectors.

RELEVANT INDUSTRY SECTORS	
PACKAGED FOOD	Spreads
Bakery	Sweet and savoury snack
Chilled processed food	**BEAUTY and PERSONAL CARE**
Confectionery	Skin care
Dairy	Sun care
Dried processed food	Hair care
Frozen processed food	Cosmetics
Ice cream	Bath and shower
Noodles	**HOME CARE**
Oils and fats	Dishwashing
Pasta	Laundry care
Ready meals	Surface care
Sauces, dressings and condiments	Toilet care
Soup	**BIOFUELS**

The top manufacturers of packaged food, home care and personal care were selected.

RETAILERS

Forest risk commodities are commonly found in finished consumer food products, such as those sold in supermarkets. Retailers therefore have significant leverage over forest risk commodity supply chains, especially in cases where they sell their own private label product lines and subsequently are directly involved in manufacturing.

Due to supply chain complexities, a lack of reporting, and the fact that most retailers sell products manufactured by other companies, it is not possible to calculate exactly how much of each commodity each retailer sells globally. However, it is clear that the majority of palm oil produced is used in food

[4] RSPO. 2008. Promoting the growth and use of sustainable palm oil. Fact sheets. Roundtable on Sustainable Palm Oil.

products and that around half of packaged supermarket food contains soya and/or palm oil. In countries where supermarkets dominate food retail channels, such as in most European and North American countries, market concentration is much greater than in countries where organised retail channels are still emerging and where most food is sold by small independent stores, such as in India. This variation in market concentration and fragmentation has been taken into account in shortlisting retailers for inclusion in the Forest 500.

As retailers have little control over the supply chains of some of the largest food manufacturers globally whose products they stock, retailers have been prioritised if they have significant sales of their own branded products. In these cases, they have been presumed to control production and have the ability to influence the ingredients used, through their contracts with product manufacturers.

Other highly relevant types of retailers include quick serve restaurants, which use significant amounts of forest risk commodities; such as palm oil, soy, and beef in food products, and paper in packaging. The largest relevant chains have been included, once again, with an emphasis on those chains operating in the main producing and importing countries. As in all other cases, retailers have only been listed once in the Forest 500 even when they prove to be significant players in the supply chains of multiple forest risk commodities.

SOY

PRODUCERS

Soy farming in producing countries is diverse and farm sizes vary greatly. Even though a large proportion of soy production comes from numerous individual farmers with relatively small land banks, a handful of companies operate large areas. The largest companies with soy production in South America were included in the Forest 500.

PROCESSORS

Processors in the soy industry include soy bean crushers - producing soy oil and soy meal – as well as edible oil refiners and ingredient manufacturers, independent of whether they are located in either the main forest or importing countries. In some cases, crushing facilities also have their own refineries attached. Sources for the identification of these players include lists of crushing facilities in forest and importing countries as well as refiners of soy bean oil.

Soy processing in forest countries is dominated by the same companies that also control the trade of these commodities (see *Traders/importers* below). However, there are a number of other players involved. These have been identified for the Brazilian and Argentinian industries, with research showing that in Brazil alone there are 87 soya bean crushing facilities operated by around 50 companies[5].

Unprocessed soy beans are also exported from forest countries to a number of trade partner jurisdictions, most notably to China where a number of companies have been shortlisted for the Forest 500 based on their share of the total Chinese soy bean crushing capacity.

TRADERS/IMPORTERS

Trase data was used to identify the largest exporters of soy from Brazil, Paraguay and Argentina. In addition, specific commodity traders from processing countries (most notably from China) have also been included due to their increasingly important role in the sector.

MANUFACTURERS

Given the overlap in many of the products most relevant to the supply chains of palm oil and soy, research to identify the key manufacturers in the soy industry follows that described in the previous section for palm oil. In addition to the industries detailed above, as palm kernel cake and, to a much larger extent, soy meal and cake are also used for animal feed, the largest animal feed manufacturers in key importing jurisdictions, such as in the EU, China, Thailand and Indonesia have been added to the shortlisted companies due their high potential exposure to forest risk commodities. The world's largest poultry companies; the sector being a major user of soy in animal feed, have also been included (note: dairy and beef companies have also been included for this reason but are covered through research into the processed food sector, described above, and into the beef commodity supply chain, described below).

RETAILERS

Retailers included for the soy commodity supply chain are the same as those that have been described above in the methodology for palm oil.

[5] Murphy, S. et al. 2012. Cereal Secrets - The world's largest grain traders and global agriculture. Oxfam Research Reports. August 2012. [Online] Available from: https://www.oxfam.org/en/research/cereal-secrets-worlds-largest-grain-traders-and-global-agriculture [Originally accessed March 2014]

BEEF AND LEATHER

PRODUCERS

The cattle rearing industry in tropical forest countries is less organised than the soya industry. An important factor to recognise is that in the Amazon, ranchers historically have been on the cutting edge of forest conversion while soya has tended to be a post-frontier crop that follows after initial land conversion for ranching, and other drivers of land use change. Cattle ranching operations in the Amazon are also extremely diverse with regards to size, productivity and organisation, with a significant number existing in the informal sector[6][7]. Beef supply chains are complex and vary greatly over time. Due to a lack of organisation in the sector and an associated lack of power by single players in global supply chains, no individual cattle ranchers have been included in the Forest 500.

PROCESSORS

In the context of this research, slaughterhouses (some of which also have tanning facilities for leather) comprise the initial step in cattle processing. In the last ten years there has been increasing consolidation in the beef processing sector with three companies, namely JBS, Marfrig and Minerva, rapidly expanding, financed by BNDES – Brazil's national development bank. As a result, although the beef sector continues to have more complicated and fragmented supply chains compared to the soya industry, complexity has decreased in recent years. Together, these three companies dominate beef production in Brazil[8], while JBS and Marfrig also have considerable production capacities in other countries, including other forest countries in South America.

As is the case with soy, most beef processing companies also act as exporters. However, as some live cattle are also exported from the Amazon, the dominant slaughterhouses and meat processing companies in importing countries have also been included.

Leather is a co-product of the beef industry and represents approximately 5-15% of the total cattle market value[9]. Tanneries represent the key processors in the industry and are included in the Forest 500. Both local tanneries in forest countries and tanneries and leather processing facilities in key importing countries have been accounted for. The industry can be highly dispersed. Brazil, for example, which accounts for the highest proportion of production, contains around 800 tanneries. Having said this, there are a number of major industry players, which are largely the same as those operating in beef production[10]. To identify the major leather producers (tanneries), customs data and data from market research reports and public sources. Since many slaughterhouses have tanneries attached, there is significant overlap between leather producers and beef manufacturers in the key producer countries.

TRADERS/IMPORTERS

Trase data was used to identify the largest traders of beef and leather from South American countries where data was available and prioritised based on trade to the key trading countries identified in our country selection.

MANUFACTURERS

Major beef and leather product manufacturers and manufacturers of ready meals not already identified in the previous commodity sections or in the beef/leather processing section have been identified and

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[6] Barreto, P. et al. 2005. Cattle Ranching and Challenges for Environmental Conservation in the Amazon. Imazon: Para, Brazil.
[7] Francelino-Gonçalves-Dias, S.L. & Mendonça, P. 2011. Deforestation and Slave Labour in the Amazon: contesting the sustainability of the cattle industry, y Paper presented at 7th International Critical Management Studies (CMS) Conference Naples, Italy, July 11-13 2011.
[8] Cleary, D. 2013. Beef and Soy Industries in Brazil: Sustainable Approaches, Proven Results. The Nature Conservancy.
[9] International Council of Tanners. 2014. Introduction to Leather. [Online] Available from: http://www.leathercouncil.org/introtoleather.htm [Accessed March 2014]
[10] Independencia. 2010. The Leather Industry. [Online] Available from: http://ir.independencia.com.br/independencia/web/conteudo_en.asp?idioma=1&conta=44&tipo=20877 [Accessed March 2014]

included. These have been identified using industry data, market research and customs data, where available.

Within the beef supply chain, many importers of beef sourced from Amazonian cattle also act as processors and manufacturers. However, it is important to point out that the beef supply chain differs from soy and palm oil insofar that beef is often used as a final product in itself rather than as an ingredient. Due to this and the fact that there is a lack of concentration in the market, fewer players have been identified in this supply chain segment for beef and leather compared to for the other commodities.

The most significant amounts of leather are used in the production of footwear, as well as in the manufacture of bags, suitcases and leather accessories and in the upholstery of furniture, including seating and other products for the automobile industry[11]. For example, in Brazil 71% of leather is used for footwear, followed by the luggage, handbags and saddler industry with a 6% share and the automotive industry with a 4% share[12]. However, as mentioned above, the market is often highly fragmented. In China, for example, the four largest companies in the production of luggage were estimated to account collectively for less than 2% of total industry revenue in 2013[13].

To shortlist companies for the Forest 500, market shares for footwear (both brand owners and actual manufacturers) and for bag and luggage manufacturers in leather producing forest countries and leather importing countries have been analysed. Market share data was also obtained for apparel companies.

RETAILERS

As is the case in the soy and palm oil supply chains, organised retail channels play an important role in the sale of beef products to consumers. The retail of leather products, such as footwear, bags and accessories often occurs at specialist stores or department stores and the largest of these stores globally as well as in the most relevant countries have been included.

[11] Euromonitor, a market research provider. 2012. [Online] Available from: http://www.euromonitor.com/ [Accessed March 2014]
[12] FAO. 2013. World Statistical Compendium for raw hides and skins, leather and leather footwear 1993-2012. Trade and Markets Division, Food and Agriculture Organization of the United Nations.
[13] IBIS. 2014. IBISWorld Industry Report 1923. [Online] Available from: http://www.ibisworld.com/ [Accessed March 2014]

TIMBER, PULP AND PAPER

The supply chains of tropical timber and timber products generally comprise more operators and are more complex than those of the other forest risk commodities[14]. The industry is highly fragmented and often dominated by a large number of small and medium enterprises with relatively minor market shares, making it difficult to identify the true powerbrokers.

Furthermore, tropical timber forms only a small share of the global timber market overall, with many of the major forest and forestry product companies based in, and sourcing raw materials from, non-tropical regions[15]. Although many of the companies involved in the manufacture and retail of timber products are likely to source timber and timber products from non-tropical regions only, the major players acting towards the consumer end of the supply chain are nonetheless exposed to the risk of using timber products linked to deforestation in tropical regions and have therefore been identified and included.

It is also important to note that a high proportion of timber extraction in tropical regions is illegal; with it estimated that illegal logging constitutes between 15% and 30% of forestry in the tropics and is worth around US$30-100 billion globally[16]. A significant amount of timber on the global market is therefore unlikely to be captured in production data. However, further down the supply chain once timber of illegal and legal origin may have been mixed, the same actors are exposed to the risk of sourcing both legal and illegal timber and are captured in supply chain assessments.

Although the timber industry is highly fragmented, the pulp and paper sector is more consolidated. This is evidenced by the fact that many of the companies in a ranking of the top 100 forestry, paper and packaging companies globally are paper and packaging companies, rather than companies involved in the production of other timber products[17].

PRODUCERS

Within each of the countries identified as important for timber/paper in the country selection, the major forestry companies have been identified. Up to date and accurate information on forestry companies and their respective areas under concessions is often not available. However, where possible, the largest forestry companies in terms of area under management have been identified and included. Although research has attempted to be as objective as possible, figures have been supported by further research. Whether companies also have operations in different supply chain segments or in several tropical forest countries, making them more likely to represent major powerbrokers has also been taken into account.

For the pulp and paper industry, the majority of tropical deforestation driven by conversion to monoculture plantations for pulp and paper production is occurring in Indonesia[18], therefore this is the focal jurisdiction for identifying the most important producers in this sector. Indonesia is the largest producer of pulp and paper in the tropical forest zone and the global leader in pulp and paper exports[19]. In contrast to the fragmentation apparent in the tropical timber industry, the pulp and paper sector is far more concentrated.

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14 Guan, W. 2010. Developments in distribution channels – a case study of a timber product distribution channel. Linköping Studies in Science and Technology, Thesis No. 1458. LiU-TEK-LIC 2010:29.
15 PricewaterhouseCoopers. 2013. Global Forest, Paper and Packaging Industry Survey. 2013 edition – survey of 2012 results. PricewaterhouseCoopers: London, UK.
16 Nellemann, C. 2012 Green carbon, black trade: illlegal logging, tax fraud and laundering in the world's tropical forests. A rapid response assessment. Interpol, Environmental Crime Programme. Interpol and UNEP.
17 PricewaterhouseCoopers. 2013. Global Forest, Paper and Packaging Industry Survey. 2013 edition – survey of 2012 results. PricewaterhouseCoopers. London, UK.
18 Rautner, M. et al. 2013. The Little Book of Big Drivers of Deforestation. Global Canopy Programme. Oxford, UK.
19 Global Timber. n.d. [Online] Available from: http://www.globaltimber.org.uk/indonesia.htm [Accessed June 2014]

PROCESSORS

For the purpose of this research, processors refer to companies involved in the conversion of raw timber products, such as logs, into materials, such as tropical sawnwood, veneer, paper and pulp products, used in the manufacturing of final goods.

Tropical forest countries are increasingly taking measures to boost downstream processing and value addition within country[20]. Many forestry companies in tropical forest jurisdictions are therefore increasingly integrated in the supply chain, with many involved in processing as well as harvesting logs. Where applicable the largest processing enterprises have been identified.

With regards to the pulp and paper sector, processing companies include those operating pulp and paper mills. There is often significant vertical integration in the paper supply chain, with many processors also active at the producer level. The largest processors in the pulp and paper supply chain are therefore captured with the inclusion of the largest integrated paper companies.

TRADERS/IMPORTERS

There is limited information available on the largest traders of tropical timber globally. However, many timber product companies import and export their products around the world and have either headquarters or distribution offices outside of the tropical forest countries in which they operate. The largest integrated timber companies therefore often have trading operations and are captured within assessments of the other supply chain segments. For example, several of the largest logging companies in West Africa are headquartered in Europe and China and are therefore directly engaged in exporting products to these regions.

MANUFACTURERS

For the purpose of this research, manufacturing is classified as the operations prior to retailing, during which processed products are made into finished products. For example, for tropical timber, this may include plywood manufacturers, furniture manufacturers, building material providers and the construction industry. For pulp and paper, this may include tissue manufacturers, paper manufacturers, book, magazine and newspaper publishers, and the packaging industry, which is the main end user of paper and paperboard[21].

As with assessments of the other supply chain segments, research into the context in each country has informed the focus for further research. For example, Malaysia and Indonesia are the top tropical plywood producers, collectively accounting for over 64% of total tropical plywood production from ITTO producer countries within identified important forest jurisdictions[22]. The plywood industries in these countries have therefore been assessed to gauge the level of fragmentation and the importance of including individual companies. The timber products industries in these countries are relatively fragmented and therefore only enterprises with significant operations throughout the supply chain have been included. Market data on furniture manufacturers is only available for brand-owning companies. This has therefore been supplemented with further research to identify significant manufacturers and exporters of furniture products made from tropical hardwoods.

Due to the high level of fragmentation in the industry, the largest companies globally involved in the manufacture of products at risk of involving tropical timber or pulp and paper from tropical forest jurisdictions have been included.

[20] ITTO. 2002. Tropical timber products: Development of further processing in ITTO producer countries, Geneva: ITC/ITTO
[21] U.S. & Foreign Commercial Service and U.S. Department of State. 1999. Indonesia – Pulp and Paper – ISA981101. USDOC, International Trade Administration.
[22] ITTO. 2014. Annual Review Statistics Database. [Online] Available from: http://www.itto.int/annual_review_output/ [Accessed May 2014]

RETAILERS

The main retailers assessed are furniture and home improvement/DIY retailers for tropical timber, and office supply retailers for pulp and paper. Due to the fragmentation in the industry, the largest retailers of products at risk of including tropical timber or pulp and paper from tropical forest regions globally.

MERGERS AND ACQUISITIONS

Between 2020 and 2022, a small number of the companies present in the original Forest 500 selection will merge or be acquired. In order to annually include 350 companies, reselection is undertaken each year to replace companies that no longer exist as independent entities. Powerbrokers are again identified by: (1) their risk of being linked to tropical deforestation through their involvement in, or potential exposure to, forest risk commodity supply chains; and (2) their influence within the political economy of tropical deforestation, for example through their influential positions in affecting supply chain sustainability, agricultural development or tropical forest conservation.

COMPANIES SELECTED IN 2020

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
3M Company	United States	Pulp & Paper		
AAK AB	Sweden	Palm oil	Palm oil, Soy	Also assessed for paper as packaging
Aceitera General Deheza SA	Argentina	Soy	Beef, Leather, Soy	Also assessed for paper as packaging
Adecoagro S.A.	Luxembourg	Soy		
Adidas Group	Germany	Leather		Powerbroker
Adient	United States	Leather		Also assessed for paper as packaging
Aditya Birla Group	India	Pulp & Paper	Pulp & Paper	
Advance Publications Inc.	United States	Pulp & Paper		
AEON Co. Ltd.	Japan	Beef, Palm oil, Soy		Powerbroker
AFA (Agric. Federados Args.)	Argentina	Soy		
Agrifirm	Netherlands	Palm oil, Soy		Also assessed for paper as packaging
Ahold Delhaize	Netherlands	Beef, Palm oil, Soy		Powerbroker
Aldi Group	Germany	Beef, Palm oil, Soy	Timber	Powerbroker
Allanasons Pvt Ltd.	India	Beef	Beef, Leather, Palm oil, Soy	Also assessed for paper as packaging
Alpargatas SA	Brazil	Leather	Leather	Powerbroker
Amaggi	Brazil	Soy		
Amazon	United States	Beef, Leather, Palm oil, Pulp & Paper, Soy	Timber	
Ameropa Ltd.	Switzerland	Palm oil	Soy	
AmorePacific Corp	South Korea	Palm oil	Soy	Powerbroker
Amul	India	Palm oil, Soy	Palm oil, Soy	Powerbroker
Angelini Group	Chile	Timber	Pulp & Paper	
Aokang Group Co. Ltd.	China	Leather	Leather	Powerbroker
Archer Daniels Midland Co.	United States	Soy	Palm oil, Soy	Also assessed for paper as packaging
Arcor SAIC	Argentina	Palm oil, Soy		Powerbroker
Arla Foods	Denmark	Palm oil, Soy		Powerbroker
Arre Beef S.A.	Argentina	Beef	Beef	
Ashley Furniture Industries Inc.	United States	Leather, Timber	Leather, Timber	Powerbroker
Asics Corp.	Japan	Leather		Powerbroker
Associated British Foods Plc	United Kingdom	Leather, Soy	Palm oil	Powerbroker

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Association Familiale Mulliez (AFM)	France	Beef, Palm oil, Soy	Timber	Powerbroker
BASF SE	Germany	Palm oil		Also assessed for paper as packaging
Bata Ltd.	Switzerland	Leather	Leather	Powerbroker
Behshahr Industrial Development Corp.	Iran	Palm oil, Soy		Powerbroker
Beidahuang Group	China	Soy	Soy	Also assessed for paper as packaging
Belle International Holdings Ltd.	Hong Kong	Leather		Powerbroker
Bertelsmann SE & Co. KGaA	Germany	Pulp & Paper		
Best Group	Indonesia	Palm oil		Also assessed for paper as packaging
Bestseller A/S	Denmark	Leather, Pulp & Paper		Powerbroker
BF Logistics	Brazil	Leather		Also assessed for paper as packaging
Bhartiya International Ltd	India	Leather	Pulp & Paper, Timber	Also assessed for paper as packaging
BioMar	Denmark	Palm oil, Soy		Also assessed for paper as packaging
Blondeau Group	Germany	Timber		
Boparan Holdings	United Kingdom	Soy	Beef, Palm oil, Soy	Powerbroker
BRF Brasil Foods S.A.	Brazil	Beef, Palm oil, Soy	Beef	Powerbroker
Bricapar S.A.	Paraguay	Timber	Pulp & Paper, Timber	
Bright Food (Group) Co. Ltd.	China	Palm oil, Soy		Powerbroker
Bunge Ltd.	United States	Soy	Palm oil	Also assessed for paper as packaging
C & J Clark International Ltd.	United Kingdom	Leather		Powerbroker
Calbee Inc.	Japan	Palm oil, Soy		Powerbroker
Camera Agroalimentos S.A.	Brazil	Soy	Soy	Also assessed for paper as packaging
Campbell Soup Co.	United States	Palm oil, Soy		Powerbroker
Capri Holdings	United States	Leather	Leather	Powerbroker
Caramuru Alimentos	Brazil	Soy	Soy	Powerbroker
Cargill	United States	Palm oil, Soy		Also assessed for paper as packaging
Carrefour S.A.	France	Beef, Palm oil, Soy		Powerbroker
Casino Guichard Perrachon S.A.	France	Beef, Palm oil, Soy	Timber	Powerbroker
CATTER MEAT SA	Argentina	Beef		
Cencoprod Ltda	Paraguay	Leather		

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Cencosud	Chile	Beef, Palm oil, Soy	Leather, Timber	Powerbroker
Charoen Pokphand Group	Thailand	Palm oil, Soy	Beef, Palm oil, Soy	Also assessed for paper as packaging
China Mengniu Dairy Co. Ltd.	Hong Kong	Palm oil, Soy		Powerbroker
China Resources National Corp.	Hong Kong	Beef, Palm oil, Soy		Powerbroker
China State Construction Engineering Corp.	China	Timber		Also assessed for paper as packaging
CJ Cheiljedang Corporation	South Korea	Palm oil, Soy		Also assessed for paper as packaging
CK Hutchison Holdings	Hong Kong	Palm oil	Beef, Soy	Powerbroker
Clariant	Switzerland	Palm oil	Soy	
Clorox Co, The	United States	Palm oil		Powerbroker
Coamo Agroindustrial Coop.	Brazil	Soy	Soy	
COFCO	China	Palm oil, Soy	Timber	Also assessed for paper as packaging
Cofra	Switzerland	Leather, Pulp & Paper		
Colgate-Palmolive Co.	United States	Palm oil	Beef, Soy	Powerbroker
COMPAÃ‘IA PARAGUAYA DE GRANOS S.A.	Paraguay	Soy		
CompaÃ±Ãa Bernal S.A.	Argentina	Beef	Beef	
CompaÃ±ia Industrial Aceitera Coto Cincuenta y Cuatro S.A	Costa Rica	Palm oil	Palm oil	
ConAgra Brands Inc	United States	Palm oil, Soy	Beef	Powerbroker
Coop Col Multiactiva Fernheim Ltda	Paraguay	Beef	Palm oil, Soy	Also assessed for paper as packaging
COOP FREIGHT LOGISTICS LTD	Taiwan	Leather		
CorporaciÃ³n De Abastecimiento Y Servicios AgrÃcolas S.A. (CASA)	Venezuela	Beef	Palm oil, Soy	
Corpovex - Corporacion Venezolana De Com. Exterior	Venezuela	Beef	Soy	
Costco Wholesale Corporation	United States	Beef, Palm oil, Soy	Timber	Powerbroker
Coty Inc	United States	Palm oil	Soy	Powerbroker
Cresud S.A.	Argentina	Soy	Beef	
Cyrela Brazil Realty	Brazil	Timber		Also assessed for paper as packaging

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Dai Nippon Printing	Japan	Pulp & Paper		
Daio Paper Corporation	Japan	Pulp & Paper		
Daiwa House Group	Japan	Timber		Also assessed for paper as packaging
Dalian Huafeng Furniture Co. Ltd.	China	Timber		Powerbroker
Danish Agro	Denmark	Palm oil, Soy		Also assessed for paper as packaging
Danone	France	Palm oil, Soy		Powerbroker
Danzer Group	Switzerland	Timber	Timber	Also assessed for paper as packaging
Darmex Agro	Indonesia	Palm oil	Palm oil	Also assessed for paper as packaging
De Heus	Netherlands	Palm oil, Soy		Also assessed for paper as packaging
Deckers Outdoor Corp	United States	Leather		Powerbroker
Deichmann Group	Germany	Leather		Powerbroker
DekelOil	Cote d'Ivoire	Palm oil	Palm oil	
Directa Line	Brazil	Leather		
DLG Denmark	Denmark	Palm oil, Soy		Also assessed for paper as packaging
Doctor's Associates Inc.	United States	Beef, Palm oil, Soy		Powerbroker
Domino's Pizza Inc.	United States	Beef, Palm oil, Soy		Powerbroker
Donto	Argentina	Leather	Leather	Also assessed for paper as packaging
Dunkin' Brands Group Inc.	United States	Palm oil, Soy		Powerbroker
DuPont	United States	Palm oil, Soy		Also assessed for paper as packaging
East Hope Group	China	Palm oil, Soy	Timber	Also assessed for paper as packaging
Ebro Foods	Spain	Palm oil, Soy		Powerbroker
Eight Capital Inc.	Singapore	Palm oil		Also assessed for paper as packaging
Emami Ltd.	India	Soy	Palm oil, Pulp & Paper, Soy, Timber	Also assessed for paper as packaging
Empresas CMPC S.A.	Chile	Pulp & Paper	Pulp & Paper	
Essity	Sweden	Pulp & Paper		
EstÃ©e Lauder Companies Inc.	United States	Palm oil	Soy	Powerbroker
EURO AMERICA	Brazil	Leather		
Evershining Ingredient	Thailand	Soy		Also assessed for paper as packaging
F.R.I.A.R. S.A.	Argentina	Beef	Beef	
Fast Retailing	Japan	Leather, Pulp & Paper		

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Felda Global Ventures Holdings Bhd.	Malaysia	Palm oil		Also assessed for paper as packaging
Ferrero Group	Italy	Palm oil, Soy		Powerbroker
Fleury Michon, Groupe	France	Beef	Soy	Powerbroker
ForFarmers B.V.	Netherlands	Palm oil, Soy		Also assessed for paper as packaging
Foshan Saturday Shoes Co. Ltd.	China	Leather	Leather	Powerbroker
Frialto	Brazil	Beef	Beef	
Frigorifico Concepcion S.A.	Paraguay	Beef	Leather	
Frigorifico Gorina S.A.	Argentina	Beef	Beef	
Fuga Couros S/A	Brazil	Leather	Beef, Soy	Also assessed for paper as packaging
Future Group	India	Beef, Palm oil, Soy	Leather	Powerbroker
Gap Inc.	United States	Leather, Pulp & Paper		
General Mills Inc.	United States	Palm oil, Soy		Powerbroker
Genting Bhd.	Malaysia	Palm oil		
GlaxoSmithKline Plc	United Kingdom	Palm oil	Soy	Powerbroker
Glencore	Switzerland	Soy	Palm oil	
Godrej Group	India	Palm oil	Beef, Palm oil, Pulp & Paper, Soy, Timber	Also assessed for paper as packaging
Gold Best Holdings	British Virgin Islands	Palm oil, Pulp & Paper	Pulp & Paper	
Granol	Brazil	Soy		
Groupe Avril	France	Palm oil, Soy		Also assessed for paper as packaging
Groupe Blattner Elwyn	Democratic Republic of Congo	Timber	Palm oil	Also assessed for paper as packaging
Groupe Lactalis	France	Palm oil, Soy		Powerbroker
Groupe Savencia S.A.	France	Palm oil, Soy		Powerbroker
Grupo Bimbo SAB de CV	Mexico	Palm oil, Soy		Powerbroker
Grupo Bom Retiro	Brazil	Leather	Leather	Also assessed for paper as packaging
Grupo Jari	Brazil	Timber		Also assessed for paper as packaging
Grupo Nueva	Chile	Timber	Timber	Powerbroker
GRUPO PILAR S A	Argentina	Soy	Soy	Also assessed for paper as packaging

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Grupo SLC	Brazil	Soy	Soy	
Grupo Viz	Mexico	Beef	Leather	
Gruppo Mastrotto Spa	Italy	Leather	Leather	Also assessed for paper as packaging
Gruppo Veronesi	Italy	Soy		Also assessed for paper as packaging
Guangdong Wens Foodstuff Group Co., Ltd	China	Palm oil, Soy		Also assessed for paper as packaging
Guangzhou Highest Industrial Co. Ltd.	China	Timber	Timber	Also assessed for paper as packaging
Guangzhou Liby Enterprise Group Co Ltd	China	Palm oil		Powerbroker
H & M Hennes & Mauritz AB	Sweden	Leather, Pulp & Paper	Palm oil, Soy, Timber	
Haid Group	China	Palm oil, Soy		Also assessed for paper as packaging
Hain Celestial Group, Inc.	United States	Palm oil, Soy		Powerbroker
Hamlet Protein	Denmark	Soy		Also assessed for paper as packaging
Harita Group	Indonesia	Palm oil	Palm oil	
Hayel Saeed Anam Group	United Arab Emirates	Palm oil	Palm oil, Pulp & Paper, Soy	Also assessed for paper as packaging
Hengan International	China	Pulp & Paper		
Henkel AG & Co. KGaA	Germany	Palm oil	Soy	Powerbroker
Hershey Co.	United States	Palm oil, Soy		Powerbroker
Home Depot	United States	Leather, Timber		Powerbroker
Hormel Foods Corp.	United States	Beef, Palm oil, Soy		Powerbroker
Htoo Group	Myanmar	Palm oil	Palm oil, Timber	Also assessed for paper as packaging
ICA Gruppen AB	Sweden	Beef, Palm oil, Soy	Timber	Powerbroker
IFFCO	United Arab Emirates	Palm oil	Palm oil, Soy	Also assessed for paper as packaging
IKEA Group	Netherlands	Leather, Timber	Beef, Palm oil, Soy	Powerbroker
Imcopa Food Ingredients	Brazil	Soy		Also assessed for paper as packaging
Inditex S.A.	Spain	Leather, Pulp & Paper	Timber	
Industrias Frigorificos Recreo SAIC	Argentina	Beef	Beef	
Inner Mongolia Yili Industrial Group Co. Ltd.	China	Palm oil, Soy		Powerbroker

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
International Paper	United States	Pulp & Paper	Pulp & Paper	
InVivo	France	Soy		Also assessed for paper as packaging
IOI Corporation Bhd.	Malaysia	Palm oil	Palm oil	Also assessed for paper as packaging
IrmÃ£os GonÃ§alves Comercio e Industria Ltda	Brazil	Beef		
J Sainsbury's PLC	United Kingdom	Beef, Palm oil, Soy, Timber	Leather	Powerbroker
JA Group	Japan	Palm oil, Soy	Palm oil, Soy	Also assessed for paper as packaging
Japfa Ltd	Indonesia	Palm oil, Soy	Beef	Also assessed for paper as packaging
JBJ Investimentos	Brazil	Beef	Beef	
JBS	Brazil	Beef, Leather, Soy	Palm oil	Also assessed for paper as packaging
JM Smucker	United States	Palm oil, Soy	Beef	Powerbroker
Johnson & Johnson	United States	Palm oil	Soy	Powerbroker
Kai Bo Food Supermarket	Hong Kong	Beef	Beef	Also assessed for paper as packaging
Kao Corp.	Japan	Palm oil	Soy	Powerbroker
Kellogg Co.	United States	Beef, Palm oil, Soy		Powerbroker
Kencana Agri Ltd	Singapore	Palm oil		
Kering S.A.	France	Leather		Powerbroker
Kewpie Corp.	Japan	Palm oil, Soy		Also assessed for paper as packaging
Kikkoman Corp.	Japan	Beef, Soy	Palm oil	Powerbroker
Kimberly-Clark Group	United States	Pulp & Paper		Powerbroker
Kingfisher Plc	United Kingdom	Leather, Timber	Palm oil	Powerbroker
Koninklijke DSM N.V.	Netherlands	Palm oil, Soy		Also assessed for paper as packaging
Koninklijke FrieslandCampina N.V.	Netherlands	Palm oil, Soy		Powerbroker
Korindo Group PT	Indonesia	Pulp & Paper	Palm oil, Timber	
Kraft Heinz Co.	United States	Beef, Palm oil, Soy		Powerbroker
Kroger Co.	Canada	Beef, Palm oil, Soy	Timber	Powerbroker
Kuala Lumpur Kepong Bhd.	Malaysia	Palm oil	Timber	Also assessed for paper as packaging
Land O'Lakes Inc.	United States	Palm oil, Soy		Powerbroker
Le Gouessant	France	Soy		Also assessed for paper as packaging
Lear Corp.	United States	Leather		Also assessed for paper as packaging

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Lenta OOO	Russia	Beef, Palm oil, Soy		Powerbroker
Li Ning Company Ltd.	China	Leather		Powerbroker
Lindt & Sprungli AG	Switzerland	Palm oil, Soy		Powerbroker
L'Oreal S.A.	France	Palm oil	Soy	Powerbroker
Lotte Co. Ltd.	Japan	Beef, Palm oil, Soy		Powerbroker
LOUIS DREYFUS	Netherlands	Palm oil, Soy		
Lowe's Companies Inc.	United States	Leather, Timber		Powerbroker
LVMH Moet Hennessy Louis Vuitton S.A.	France	Leather, Palm oil		Powerbroker
Magnit Group	Russia	Beef, Palm oil, Soy		Powerbroker
Makin Group	Indonesia	Palm oil	Palm oil	
MAR.VI SPED SRL	Italy	Leather		
Marfrig Global Foods	Brazil	Beef	Leather, Soy	Also assessed for paper as packaging
Marks & Spencer Group PLC	United Kingdom	Leather, Palm oil, Soy, Timber		Powerbroker
Mars Inc.	United States	Beef, Palm oil, Soy		Powerbroker
Maxingvest AG	Germany	Palm oil	Soy	Powerbroker
McDonald's Corp.	United States	Beef, Palm oil, Soy		Powerbroker
Meiji Holdings Co. Ltd.	Japan	Palm oil, Soy		Powerbroker
Meredith Corporation	United States	Pulp & Paper		Powerbroker
Metro AG	Germany	Beef, Palm oil, Soy		Powerbroker
Mewah International Inc.	Singapore	Palm oil	Palm oil	Also assessed for paper as packaging
Minerva S.A.	Brazil	Beef, Leather	Beef, Soy	Also assessed for paper as packaging
Mitsubishi Corp.	Japan	Soy	Beef, Palm oil, Soy	Also assessed for paper as packaging
Mitsui & Co. Ltd	Japan	Soy	Palm oil, Soy	Also assessed for paper as packaging
Mizkan Holdings	Japan	Beef, Palm oil, Soy		Powerbroker
Mondelez International Inc.	United States	Palm oil, Soy		Powerbroker
Mondi Group	Austria	Pulp & Paper	Pulp & Paper	
MRV Engenharia e Participacoes S.A.	Brazil	Timber		Also assessed for paper as packaging
MUSIM MAS	Indonesia	Palm oil	Palm oil	Also assessed for paper as packaging

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Nanyang Hooâ€™s Furniture Manufacturing Co. Ltd.	China	Leather, Timber		Powerbroker
Natura&Co	Brazil	Palm oil	Soy	Powerbroker
Natuzzi	Italy	Leather, Timber		Powerbroker
Neste Corp.	Finland	Palm oil, Soy		
NestlÃ© S.A.	Switzerland	Palm oil, Soy	Beef	Powerbroker
New Balance Athletic Shoe Inc.	United States	Leather		Powerbroker
New Hope Group	China	Palm oil, Soy		Also assessed for paper as packaging
News Corp.	United States	Pulp & Paper		
Nice Group	China	Palm oil		Powerbroker
Nike Inc.	United States	Leather, Pulp & Paper		Powerbroker
Nine Dragons Paper Holdings	Hong Kong	Pulp & Paper	Pulp & Paper	
Nippon Paper Industries Co. Ltd.	Japan	Pulp & Paper	Pulp & Paper, Timber	
Nisshin OilliO Group Ltd.	Japan	Palm oil	Soy	Also assessed for paper as packaging
Nitori Holdings Co. Ltd.	Japan	Leather, Timber		Powerbroker
NordSud Timber	Democratic Republic of Congo	Timber		Also assessed for paper as packaging
Oetker-Gruppe	Germany	Beef, Palm oil, Soy		Powerbroker
Offal Exp S.A.	Argentina	Beef		
Oji Holdings Corp.	Japan	Pulp & Paper	Pulp & Paper, Timber	
Olam International	Singapore	Soy, Timber	Palm oil, Soy	Also assessed for paper as packaging
Orkla Group	Norway	Palm oil, Soy		Powerbroker
Parker-Migliorini International	Switzerland	Beef	Beef	Also assessed for paper as packaging
Patanjali Ayurved	India	Pulp & Paper, Soy	Palm oil	
Pearson PLC	United Kingdom	Pulp & Paper		
PepsiCo Inc.	United States	Palm oil, Soy		Powerbroker
Perez Companc Family Group	Argentina	Soy	Palm oil, Soy	
Perkebunan Nusantara	Indonesia	Palm oil	Palm oil	
Permata Hijau Group	Indonesia	Palm oil	Palm oil	
Pertamina Persero PT	Indonesia	Palm oil	Palm oil	

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Perum Perhutani	Indonesia	Timber		
PHW Group	Germany	Palm oil, Soy		Also assessed for paper as packaging
Plukon Food Group	Netherlands	Soy		Powerbroker
Pou chen	Taiwan	Leather	Leather, Pulp & Paper	Powerbroker
Prada SpA	Italy	Leather		Powerbroker
Precious Woods Holding AG	Switzerland	Timber		
Procter & Gamble Co.	United States	Palm oil, Pulp & Paper	Soy	Powerbroker
PT Astra International TBK	Indonesia	Palm oil		
PT Rajawali Corp.	Indonesia	Palm oil		
R. R. Donnelley & Sons Co.	United States	Pulp & Paper		
Reckitt Benckiser Group PLC	United Kingdom	Palm oil	Leather	Powerbroker
RELX Group	United Kingdom	Pulp & Paper		
Restaurant Brands International	Canada	Beef, Palm oil, Soy		Powerbroker
Rewe Group	Germany	Beef, Palm oil, Soy	Timber	Powerbroker
Rezervnaja Prodovol'stvennaja Kompanija TD ZAO	Russia	Beef		
Rimbunan Hijau Group	Malaysia	Timber	Palm oil, Timber	Also assessed for paper as packaging
Rioverde OOO	Russia	Beef	Beef	Also assessed for paper as packaging
Rougier Group	France	Timber		Also assessed for paper as packaging
Royal Dutch Shell	Netherlands	Palm oil, Soy		
Royal Golden Eagle	Singapore	Palm oil, Pulp & Paper, Soy	Soy	
Sadesa	Argentina	Leather	Leather	
Saint Gobain S.A.	France	Timber		Also assessed for paper as packaging
Salim Group	Indonesia	Palm oil		Also assessed for paper as packaging
Samko Timber Ltd.	Singapore	Timber	Timber	Also assessed for paper as packaging
Samling Group	Malaysia	Timber	Palm oil, Timber	Also assessed for paper as packaging
Sampoerna Agri Resources Pte. Ltd	Singapore	Palm oil	Palm oil	
Samsonite International S.A.	Hong Kong	Leather	Leather	Powerbroker
SC Johnson & Son Inc	United States	Palm oil		Powerbroker
Schwarz Group	Germany	Beef, Palm oil, Soy	Timber	Powerbroker

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Sekisui House Ltd.	Japan	Timber		Also assessed for paper as packaging
Seven & I Holdings Co. Ltd.	Japan	Beef, Palm oil, Soy	Leather, Timber	Powerbroker
Shandong Chenming Paper Holdings Co. Ltd.	China	Pulp & Paper	Pulp & Paper, Timber	
Shanghai Construction Group	China	Timber		Also assessed for paper as packaging
Shiseido Co. Ltd.	Japan	Palm oil	Soy	Powerbroker
Shuangbaotai Group (Twins Group)	China	Palm oil, Soy		Also assessed for paper as packaging
SHV holdings	Netherlands	Palm oil, Soy		Also assessed for paper as packaging
SIFCA Group	Cote d'Ivoire	Palm oil	Palm oil	Also assessed for paper as packaging
Sime Darby Bhd.	Malaysia	Palm oil		Also assessed for paper as packaging
Sinar Mas Group Co. Ltd.	Indonesia	Palm oil, Pulp & Paper, Soy	Pulp & Paper	
Sinograin	China	Soy	Palm oil	
Sipef Group	Belgium	Palm oil	Palm oil	
Skechers USA Inc.	United States	Leather		Powerbroker
Socfin Group	Luxembourg	Palm oil		
Sociedad Cooperativa Colonizadora Chortitzer Komitee Ltda	Paraguay	Beef		
Sodrugestvo Group S.A	Luxembourg	Soy	Soy	
Soyuz Corporation	Russia	Palm oil	Soy	Also assessed for paper as packaging
SPAR International B.V.	Netherlands	Beef, Palm oil, Soy		Powerbroker
Staples Inc.	United States	Pulp & Paper, Timber		
Starbucks Corp.	United States	Palm oil, Soy		Powerbroker
Steve Madden Ltd	United States	Leather	Leather	Powerbroker
Stora Enso	Finland	Pulp & Paper	Pulp & Paper, Timber	
Strong OOO	Russia	Beef		
Suguna Foods	India	Palm oil, Soy	Palm oil	Powerbroker
Sumitomo Forestry	Japan	Timber	Pulp & Paper, Timber	Also assessed for paper as packaging
Suzano Group	Brazil	Pulp & Paper	Pulp & Paper	
Tangrenshen Group (TRS)	China	Palm oil, Soy		Also assessed for paper as packaging

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Tangshan sanyou	China	Pulp & Paper		
Tapestry	United States	Leather		Powerbroker
Target Corp.	United States	Leather, Palm oil, Soy, Timber		Powerbroker
Tesco plc	United Kingdom	Beef, Palm oil, Soy	Leather, Timber	Powerbroker
Tetra Laval	Switzerland	Pulp & Paper		
The Woodbridge Company Ltd	Canada	Pulp & Paper		
Ting Hsin International Group	Taiwan	Palm oil, Soy		Powerbroker
TJX Companies	United States	Leather, Timber		Powerbroker
Toppan Printing Co. Ltd.	Japan	Pulp & Paper		
Total Enterprise Limited	Hong Kong	Beef		Also assessed for paper as packaging
Toyo Suisan Kaisha Ltd.	Japan	Palm oil, Soy		Powerbroker
Tradewinds (M) Berhad	Malaysia	Palm oil	Palm oil	
Triputra Group	Indonesia	Palm oil		
Tyson Foods Inc.	United States	Beef, Palm oil, Soy	Leather	Also assessed for paper as packaging
Unicharm Corporation	Japan	Pulp & Paper	Palm oil	
Unigra	Italy	Palm oil	Soy	Also assessed for paper as packaging
Unilever PLC	United Kingdom	Palm oil, Soy	Beef	Powerbroker
Uni-President Enterprises Corp.	Taiwan	Palm oil, Soy		Powerbroker
UPM	Finland	Pulp & Paper, Timber		
Vancouros IndÃºstria e ComÃ©rcio de Couros LTDA	Brazil	Leather	Leather	
VF Corp.	United States	Leather		Powerbroker
Vicentin S.A.I.C.	Argentina	Soy	Beef, Soy	
Vicwood Group	China(HK)	Timber		Also assessed for paper as packaging
Wal-Mart Stores Inc.	United States	Beef, Leather, Palm oil, Soy, Timber		Powerbroker
Want Want	Taiwan	Palm oil, Soy		Powerbroker
Weltra	Italy	Leather		
Wendy's Co.	United States	Palm oil, Soy		Powerbroker
Westrock	United States	Pulp & Paper	Pulp & Paper	
WH Group	Hong Kong	Beef, Palm oil, Soy		Powerbroker

Company	Company HQ	Powerbroker	Also assessed for	Exposed to paper in packaging
Wilmar International Ltd.	Singapore	Palm oil, Soy		Also assessed for paper as packaging
Wings Corp	Indonesia	Palm oil	Palm oil, Soy	Also assessed for paper as packaging
Wm Morrison Supermarkets PLC	United Kingdom	Beef, Palm oil, Soy	Timber	Powerbroker
Wolverine World Wide Inc.	United States	Leather		Powerbroker
Woolworths Group Ltd.	Australia	Beef, Palm oil, Soy	Timber	Powerbroker
X5 Retail Group N.V.	Russia	Beef, Palm oil, Soy		Powerbroker
Yakult Honsha Co. Ltd.	Japan	Palm oil, Soy		Powerbroker
Yamazaki Baking Co.	Japan	Palm oil, Soy		Powerbroker
Yihua Group	China	Leather, Timber	Timber	Powerbroker
Yildiz Holding	Turkey	Palm oil, Soy		Powerbroker
Yomiuri Group, The	Japan	Pulp & Paper		
YPF	Argentina	Soy		
Yum! Brands Inc.	United States	Beef, Palm oil, Soy		Powerbroker
Zhejiang Tongtianxing Group Joint-Stock Co Ltd	China	Leather	Leather, Pulp & Paper	Also assessed for paper as packaging

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