



WORKING TOWARDS SUSTAINABLE FOREST PRODUCT SOURCING:

Capturing the Value of a Sustainable Supply Chain

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EXECUTIVE SUMMARY

Forests support life. They purify water, shelter wildlife, produce oxygen, store carbon, and provide vital raw materials we all depend on. But we are losing them at an alarming rate. Between 1990 and 2015, global forest area declined by 3%, a net loss of some 129 million hectares (FAO, 2015). While the primary driver of forest loss is agriculture, illegal and unsustainable logging and the trade of forest products from such sources remains a key factor in forest loss and degradation.

To halt deforestation and safeguard forest ecosystem services, the world has begun to take action. The governments of developed markets (e.g. U.S., EU, and Australia, etc.) have put in place requirements which prohibit timber product imports from illegal sources. Some large timber-exporting countries have also strengthened forest laws and their enforcement. China, the linchpin in the global forest product supply chain, is signaling its growing support for sustainable timber trade through government guidelines and green public procurement and credit policies. The private sector, often in partnership with the government and civil society, has also made ambitious and high-profile commitments globally on zero-deforestation, a broader effort which goes beyond the forest sector and also targets agricultural commodity production that drives forest conversion.

For companies committed to sustainable forest product supply chains, there are a host of tools that can help provide better assurance of legality and sustainability for the forest products procured. They range from various well-established and tested

certification schemes to the guidelines and verification services provided by international organizations.

In tandem with the development and adoption of these tools is the fact that sustainable forest product sourcing is becoming increasingly important in the business community. The U.S.-China CEO Council for Sustainable Urbanization, as a premiere multi-industry platform to harness the power of business to support China's sustainable urbanization, has a unique role to play to accelerate this trend. In fact, some CEO Council member companies have already taken great strides in their quest for sustainable forest product supply chains. In the case studies of Yihua, Apple, Vanke, and Walmart, they have championed sustainable forest product sourcing in their own industry and have reaped the business benefits in return. The value they each have captured varies slightly from company to company, but it is generally embodied in four key areas: reducing risk exposure, increasing competitiveness in environmentally conscious markets, improving supply chain efficiency and resilience, and enhancing brands and customer loyalty.

To build on the momentum and amplify the positive impact some CEO Council members have already generated, this report also calls on the business community, especially industry-leading companies, to take a series of specific actions: make a public commitment on sustainable forest product sourcing; conduct a baseline assessment; set an ambitious and measurable 5-year goal; engage suppliers in sustainable sourcing efforts; increase investment in sustainable forest management and forest conservation; and promote best practices and knowledge sharing. ■



INTRODUCTION

Seeking sustainable development that reconciles economic growth with the health of ecosystems is the defining challenge facing humanity in the 21st century.

Forests are an important part of this equation. Forests are one of the most critical terrestrial ecosystems. They sequester carbon, helping to combat global climate change. They provide habitat for other plants and animals. They filter our air and clean our water. They also provide natural resources for humans. But the continued loss of these invaluable natural assets, especially in the tropics, has remained unabated over the past 20 years. It is therefore imperative that the public and private sectors join hands to create and promote sustainable supply chains for forest products.



THE CHALLENGES

Deforestation threatens biodiversity and exacerbates climate change

Forests support life on earth. Global forests, estimated to cover 4 billion hectares in 2015, encompass some 31% of the earth's land area and provide vital habitat for over two thirds of terrestrial species. 44% of forests are in the tropics, home to the richest biodiversity on earth (FAO 2015).

If left unchecked, the current rate of deforestation would put limiting the global temperature increase to 2 °C above preindustrial levels out of reach.

Alarmingly, between 1990 and 2015, the world has lost 3% of its forests, or 129 million hectares, the size of South Africa (FAO, 2015). Tropical forest loss is even faster. In 2014 alone, 9.9 million hectares of rain forests were lost, making up half of global forest loss that year (WRI, 2014). Forests are also carbon sinks. Globally, they store a total of 861 billion tons of carbon, half of which is found in tropical rain forests (Pan et al, 2011). Deforestation has been identified as the second largest source of greenhouse gas (GHG) emissions, contributing 17%~24% of global GHG emissions (WRI, 2014). If left unchecked, the current rate of deforestation would put limiting the global temperature increase to 2 °C above preindustrial levels out of reach.¹

Forest degradation is another major challenge facing global forests. Forest degradation is generally defined as changes within the forests that negatively impact the structure or function of the forests, and thereby lower their capacity to supply ecosystem services and/or products (WWF, 2015). Like deforestation, it also affects biodiversity and weakens forest's role as a carbon sink. Forest degradation is often

caused by unsustainable timber harvesting and illegal logging (Kissinger, 2012). But there are also broader and indirect forces at play, such as population growth, poor governance, insecure land tenure, and poor natural resource management. Due to the intended focus of this report (i.e. deforestation) and limited space, forest degradation will not be discussed separately in this report.

Global trade of illegal forest products perpetuates deforestation and forest degradation

Global trade of forest products by value reached USD 492 billion in 2015, and 10% of it is estimated to have come from illegal logging (Hoare, 2015). Illegal logging has particularly impacted tropical forests. From 2000 to 2012, 31% of tropical timber traded on international markets came from land that was illegally deforested. Annual paper and pulp exports from illegal deforestation is valued at USD 6.1 billion to 6.4 billion (Forest Trends, 2015). The loss of revenue and tax income from illegally harvested wood is estimated to be at least USD 10 billion per year (INTERPOL/World Bank 2009). The statistics above all point to the persisting threat of illegality in the harvesting and trade of forest products globally.

The causes of illegal logging are manifold. Economically, illegally harvested timber has price advantages and higher profit margins because it abuses or circumvents laws, regulations, and required procedures, which results in significant 'cost-saving'. Fueled by higher profitability, trade of such illegally harvested timber and derived products continues to drive deforestation

¹ Limiting the global temperature increase is a goal formally adopted by parties to the U.N. Framework Convention on Climate Change (UNFCCC) in 2010.

and forest degradation in the tropical region.

Deforestation in the tropics is also increasingly driven by agricultural commodity production, such as soy, palm oil, beef, and rubber. But since such deforestation is out of the scope of this report, it will not be discussed in detail.

China remains the weak link in global green supply chain of forest products

China's trade in forest products totaled USD 137.8 billion in 2015, or one third of the global trade volume that year (SFA, 2015). China, as the world's largest timber importer, sources timber from over 100 countries, and it imported 44.56 million m³ of logs in 2015 alone, equivalent to nearly 60% of China's domestic log production in 2014 (SFA, 2015). China also ranks first in pulp imports. It imported 19.84 million metric tons of pulp and 3 million tons of paper and paper products in 2015. China remains unrivalled in the exports of wood furniture, flooring, and plywood. It exported USD 23 billion worth of wood furniture in 2015 (Forest Trends, 2015).

But China's dominance in timber trade is overshadowed by questions about its sourcing practices. Between 2000 and 2015, Papua New Guinea, the Solomon Islands, Myanmar, and the Republic of Congo were the top four exporters of tropical timber to China, and China was also their top export market. Illegal logging rates in these countries were as high as 70% in that period (Chatham House, 2015). Tropical timber, for its rarity and unique texture, is mostly used for high end wood furniture for both China's domestic market as well as exports. Russia, China's largest

supplier of temperate logs, also suffers from rife illegal logging.

The fact that China imports from these high-risk countries raises serious questions about potential illegality in China's timber sourcing. This has wide implications beyond China's domestic market, because 40% of China's exports of timber products are shipped to environmentally conscious markets, such as the U.S., EU, Japan, etc. The growing requirements on legality and sustainability of timber product imports in these markets will compel Chinese companies to improve their supply chain management. Given its large trade volume and central role, China will need to increase its efforts to green forest product supply chains to maintain access to these high value markets.

THE RESPONSES

Legislation to promote legality

Since 2008, major timber product importing countries have developed and passed an array of legislation and regulations to ensure the legality of their imported timber products. In 2008, the U.S. Lacey Act, a 1900 United States law that bans trafficking in illegal wildlife, was amended to include products made from illegally logged wood for trade. Under the amended Lacey Act, U.S. timber product importers are required to improve their supply chain management and exercise 'due care' to eliminate illegally harvested wood from their supply chains. For example, U.S. timber importers are required to fill out a declaration form that collects information on the species of plant, the name of the country where the plant was harvested, the

10% of globally traded forest products are estimated to have come from illegal logging.

value of the shipment and quantity of the plant material. This helps enhance the transparency of forest product supply chains.

The EU Timber Regulation, released in 2011, entered into force in 2013. The Regulation aims to prohibit illegally harvested timber and derived products from entering the EU market. It requires EU timber traders to implement a due diligence system so as to minimize the risk of placing illegally harvested timber and derived products on the EU market. Following the footsteps of the U.S. and EU, Australia also passed its *Illegal Logging Prohibition Act 2012* (ILPA). The Act prescribed 'due diligence' to ensure legality of timber products entering the Australian market. Japan and South Korea, as key consumer markets of timber products, are also in the process of passing similar legislation to address trade of illegally harvested timber and derived products.

In China, no legislation of similar nature is in place yet. But China's State Forestry Administration has already initiated efforts to assess the feasibility of implementing a timber legality verification system in the Chinese market. China has also relied on bilateral MOUs to address illegal logging and associated trade. By 2014, China had signed MOUs with Indonesia, US, EU, Australia, and Japan for this purpose. China's top legislative body is also considering the feasibility of passing new legislation to eliminate illegally harvested timber and derived products from China's imports.

In comparison, the timber exporting countries are also stepping up their law enforcement in the forest sector. Some of these countries have implemented bans or limits on log exports, primarily to promote their domestic value-added timber processing. These measures, however, also help reduce exports of illegally harvested timber. At present, a total of 86 timber-rich countries have implemented such bans or limits (Peng, 2014), of which Myanmar, Indonesia, Laos, Gabon, the Republic of Guinea-Bissau, and Mozambique are among key timber suppliers to China.

In addition, dialogues on enhancing collaboration to promote legal and sustainable forest product trade and green supply chain management have also gained momentum under various regional

platforms, from the Asia Pacific Economic Cooperation (APEC), to the Association of Southeast Asian Nations (ASEAN), to the China-Japan-South Korea Free Trade Agreement negotiations.

It is clear from the discussion above that current legislative efforts are largely focused on legality. Though legality is no equivalent to sustainability or perhaps even a responsible supply chain, it is a critical first step towards sustainable supply

chains and an inherent requirement of sustainability. Given this, promoting sustainable forest product sourcing can require a stepwise approach. This applies to public policies (as shown in the British government's procurement policies below) and to the private sector. As the companies this report intends to reach are on a broad spectrum of sourcing practices, this report therefore primarily focuses on legality, as a

Though legality is no equivalent to sustainability or a responsible supply chain, it is a critical first step towards sustainable supply chains and an inherent requirement of sustainability.

starting point, in order to galvanize immediate actions and build the momentum for their transition to a sustainable supply chain that extends beyond legality alone.

Policies to support legal and sustainable forest products

- *Public procurement of green forest products*
Public procurement is an important policy instrument to promote legal and sustainable forest products. Globally, over 26 countries have developed and implemented green public procurement policies for forest products, including member countries of the EU, Australia, China, Japan, Mexico, New Zealand, Norway, and Switzerland. These policies require or encourage the country's central government to preferentially purchase legal or sustainable forest products (Brack, 2014). In the UK, the public procurement policy on forest products became mandatory in 2000. After a policy update in 2014, the British government is required to only purchase forest products proven to have met certain sustainability standards.

China also developed its public procurement policy on forest products back in 2006 based

Globally, over 26 countries have developed and implemented green public procurement policies for forest products.

on its own Environmental Certification System. This system assesses and verifies the environmental impact of the production process of the forest products. The three major categories of forest products covered by the government's green public procurement catalogue include furniture, copy/print paper, and wooden beams and boards. In principle, this certification system sets relatively high standards for the sourcing of these forest products. But because this procurement policy on forest products is voluntary in nature, and there is

no technical guidance to support the verification of the legality and sustainability of these products, the impact of this policy is fairly limited at present.

- *Green consumption policies*

There is an emerging global consensus about the need for sustainable consumption. Discussions on the subject can be traced back to the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992 and the World Summit on Sustainable Development in 2002. The 2002 Summit also initiated the Marrakech Process in support of sustainable consumption and production. At the United Nations Conference on Sustainable Development (Rio+20) in 2012, heads of state reaffirmed the importance of sustainable consumption and production by adopting the 10-Year Framework of Programs from the Marrakech Process. This is clear indication that green consumption is recognized globally as an integral part of sustainable development.

Against this background, China is taking steps to promote green consumption. For example, the National Development and Reform Commission (NDRC) together with other ministries released the *Guidance on Promoting Green Consumption* in February 2016. The Guidance was intended to build a long-term mechanism for green consumption and develop a market for green products. By extension, sustainable sourcing of timber products and sustainable supply chain management are inherently part of the answer to this call.

- *Green credit*

Globally, green credit policies are increasingly a new lever to direct financial resources to curb environmental pollution, protect ecological balance, conserve natural

resources, and support sustainable sectors. Green credit initiatives, such as the 'Equator Principles'² and 'Banking Environment Initiative'³ are gaining wide recognition and adoption in the financial sector.

In China, green credit policy is also on the government's agenda. The *Green Credit Guidelines* released by the China Banking Regulatory Commission in 2012 has outlined

the principles for promoting green credit in support of sustainable development, both at home and abroad. The *Guidelines for Establishing the Green Financial System* released by the People's Bank of China, Ministry of Finance, and five other ministries provided new policy incentives for investment in the green sectors. For example, companies that have established green supply chains will

enjoy more favorable loan rates and have more privileged access to the capital market through green bond issuance. The development of green credit and green finance will no doubt open up opportunities for companies to create sustainable supply chains.

Zero-deforestation initiatives

To halt global deforestation, an array of zero-deforestation initiatives have come to the fore in recent years.

In 2008, the EU set the goal of reducing the loss of tropical rain forests by half by 2020 from 2008 levels. The Consumer Goods Forum put forward the Forest Resolution in 2010 that aims to achieve zero net deforestation by 2020. In 2013, the Food and Agriculture Organization of the United

Nations (FAO) called for a 'zero illegal deforestation' target. The UN Climate Summit 2014 culminated in the New York Declaration on Forests, a joint commitment endorsed by 36 national governments, over 50 large corporations, and over 50 NGOs. The Declaration asks its signatories to 'halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030'. The UN Climate Change Conference in 2015 (COP21) reaffirmed forest's role in combatting climate change. At a side meeting, ministers from the UK, France, Germany, the Netherlands, and Denmark signed the Amsterdam Declaration that aims to eliminate deforestation from agricultural commodity chains with European countries.

On the supply side, Brazil, as one of the world's largest exporters of agricultural commodities, also pledged in 2015 to root out illegal deforestation in the Amazon by 2030 (Mooney, 2016). It is clear that zero deforestation is increasingly a global consensus supported by concerted efforts and time-bound public commitments.

Protection of forests is also on the UN's sustainable development agenda. Of the 17 Sustainable Development Goals outlined in the 2030 Agenda for Sustainable Development, Goal No. 15 centers on sustainable forest management and deforestation reduction. This provides an overarching framework for promoting sustainable forest management and creating sustainable forest product supply chains in the next 15 years.

China is also taking a pro-active approach to reversing deforestation and contributing

2 'Equator Principles' is a risk management framework created in 2003 for assessing and managing environmental and social risks in projects.

3 'Banking Environment Initiative' is a banking sector-led effort that launched the 'Soft Commodities' Compact to support the Consumer Goods Forum's commitment on zero net deforestation supply chains.

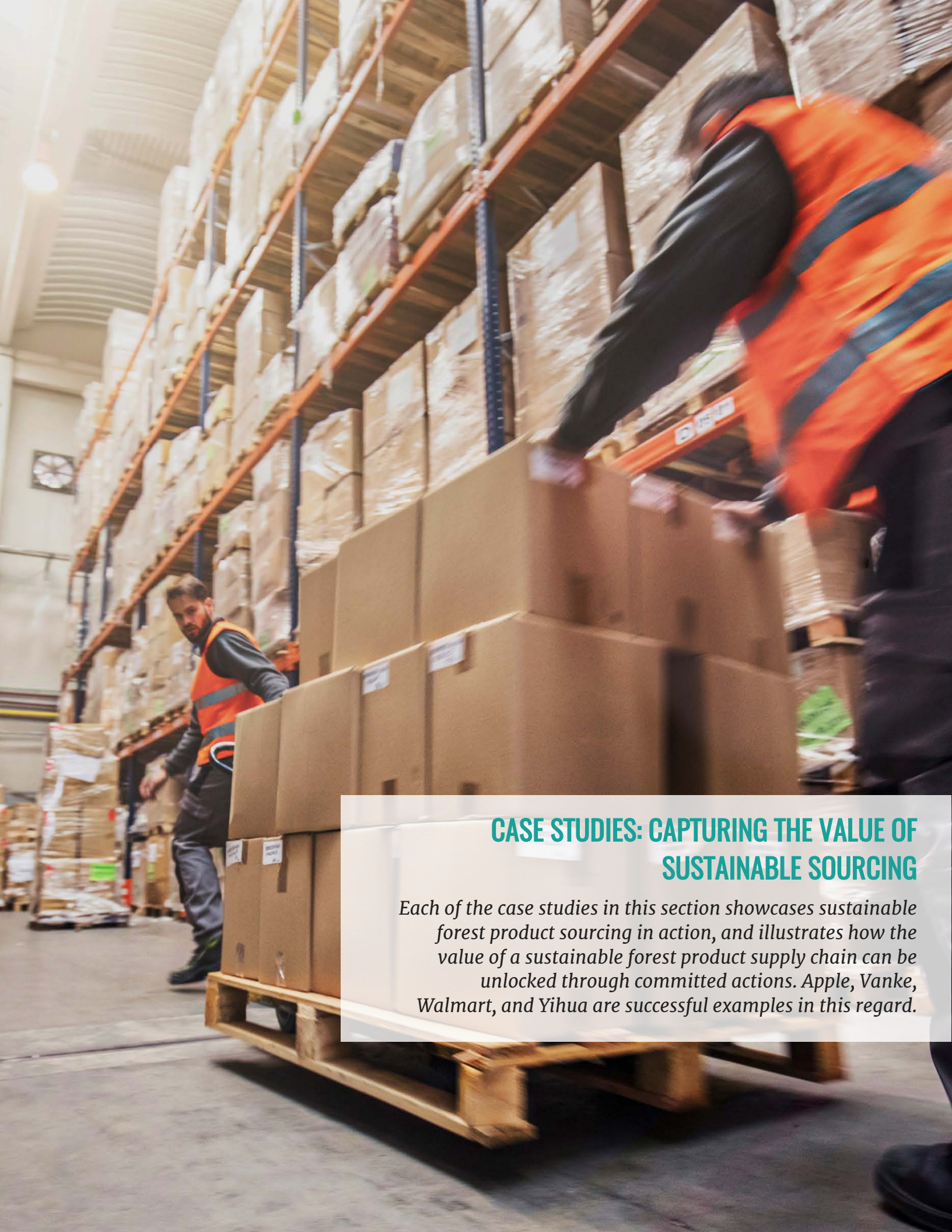
Sustainable sourcing of timber products and sustainable supply chain management are inherently part of the answer to sustainable consumption.

to climate change solutions by increasing its domestic forest cover. Based on its National Plan for Addressing Climate Change (2014–2020), China will increase its forest cover by 40 million hectares and forest stock by 1.3 billion m³ (SFA, 2014). The 13th Five-Year Plan (2016–2020) placed great importance on development of a green economy. Chinese President Xi Jinping also reaffirmed China's commitment to sustainable development, including the 2030 Sustainable Development Goals, at the recent G20 Summit in Hangzhou.

Creating green supply chains of forest products not only exemplifies China's overall green economic growth strategy, but also contributes substantially to existing global efforts to halt deforestation and combat climate change.

For companies ready to commit to sustainable forest product sourcing, there exists a host of tools and support systems that can help provide better assurance of legality and sustainability for the forest products procured. For details, please see Appendix I.





CASE STUDIES: CAPTURING THE VALUE OF SUSTAINABLE SOURCING

Each of the case studies in this section showcases sustainable forest product sourcing in action, and illustrates how the value of a sustainable forest product supply chain can be unlocked through committed actions. Apple, Vanke, Walmart, and Yihua are successful examples in this regard.

Yihua Lifestyle Technology Co.

Yihua Lifestyle Technology Co. is a leading publicly-listed furniture brand in China. Its combined sales of furniture and flooring products in 2014 were CNY 4.416 billion (USD 712 million). As an export-oriented company, about 80% of its revenues come from overseas markets, i.e. North America, Australia, and the EU. The company had its trademark registered in 35 foreign countries, and its products are sold overseas under its own brand. For the domestic market, it has built a network of over 600 franchised stores and 16 flagship stores in major cities.



Its raw materials (logs and sawn wood) come from three major sources: imports (45%, mostly from Russia, Africa, and South East Asia), domestic purchasing (35%), and company-owned forests (20%). The company owns 20,000 hectares of fast-growth plantations in China, as well as 350,000 hectares of forest concessions in Gabon.

Yihua has been one of the earliest Chinese furniture companies to address legality and

sustainability issues in its sourcing practices, and has taken concrete actions to build its sustainable timber supply chain.

- Yihua passed the International Organization for Standardization (ISO) 14001 certification which ensures that a comprehensive environmental risk management system is adopted.
- Yihua became one of the first group of Chinese companies that participated in Global Forest Trade Network (GFTN)-China, and began to apply 'legally-harvested timber' to its sourcing policies.
- As a participant in GFTN-China, Yihua developed its *Purchasing Policy*, *Sourcing and Supplier Management Protocol*, and *Timber Supply Chain Management Guidelines*. They together provide clear and actionable steps that ensure the company's raw materials come from legal sources.
- Yihua received the 'China Environmental Product Label' in 2006.
- Yihua initiated the effort to create its Forest Stewardship Council (FSC) Chain of Custody (CoC) system in 2008, and passed the FSC CoC certification in 2010. This provides better assurance of legality and sustainability for its raw materials.
- Yihua also cultivated long-term and strategic partnerships with top tier suppliers in China and overseas so that it can have better access to reliable information on the legality and sustainability of its raw materials.
- Yihua has also invested substantially in securing its supplies by acquiring plantations and concessions both in China and overseas. The company has developed and adopted sustainable forest management for these forests. By exerting more direct control of its supplies, the company is better positioned to filter out illegal and unsustainable timber.

- In 2015, Yihua, together with other leading Chinese forest product companies, endorsed the WWF-China initiated 'Forest Declaration', a commitment to completely avoid or eliminate timber products associated with deforestation by 2030.
- In 2016, Yihua participated in the publication of the 'China Forest Product Company Corporate Social Responsibility (CSR) Report', and shared its best practices in promoting legal and sustainable sourcing of timber products.

It is clear from Yihua's actions above that the company has taken its commitment to sustainable sourcing very seriously. Its continuous efforts extend to every link of its supply chain. For Yihua, sustainable sourcing is already an internal consensus, supported by well-developed internal policies and overseen by a dedicated senior vice president. Because of Yihua's exemplary performance in implementing its legal and sustainable sourcing policy, it has effectively reduced its exposure to the regulatory risks from developed markets. Despite increasingly stringent requirements on legality and sustainability for timber products in these markets, Yihua's sales to these markets continued to grow from 2012 to 2014. In addition, Yihua has also been included in the suppliers catalogue for China's green public procurement, which gives the company competitive advantages in expanding business opportunities.

Apple

Apple, the leading brand in consumer electronics, often tops the world's most valuable companies list. Consistent with its distinctive and top-quality product design, Apple has made meticulous efforts to fulfill its corporate social and environmental

responsibilities as well, establishing itself as a leader in the field.

- Environmental responsibility is a core value at Apple and the company has committed support from its executive leadership. Apple's environmental responsibility efforts are led by its Vice President of Environment, Policy and Social Initiatives, who reports directly to the CEO. The Office of Environment, Policy and Social Initiatives works with teams across the company to ensure that decisions about Apple values, including the environment, are reviewed and supported at the highest levels of the company.
- Apple has three priority areas within its environmental strategy: climate change, resources and safer materials.
- Within the resources priority, Apple has made a commitment to responsible forestry by: using paper in its product packaging more efficiently, sourcing virgin (non-recycled) paper responsibly and protecting sustainable forests.
- Apple has also baselined the amount of fiber it is using to produce its product packaging, publishing its *Fiber Footprint*.
- To use paper more efficiently, Apple looks for ways to make its product packaging smaller, uses recycled paper where possible, and has created technologies to increase paper efficiency. As a result, more than 60% of the paper used in its product packaging came from recycled wood fiber in fiscal year 2015.
- To source fiber more responsibly, Apple requires its suppliers to source virgin fiber from sustainably managed forests or controlled wood sources. And it conducts regular audits to ensure that its suppliers comply with its specifications. These specifications are fully detailed in a published document titled 'Sustainable

Fiber Specification'. Apple will not accept fiber from unknown forests of origin, wood illegally sourced, wood harvested in forests where high conservation values are threatened, or wood harvested in violation of traditional and civil rights. For both Apple-selected materials and supplier-selected materials, Apple requires that the wood fibers and non-wood fibers (if applicable) used in packaging or print applications be derived entirely from sources that are certified to or endorsed by one of the following sustainable management or sourcing programs: FSC, Programme for the Endorsement of Forest Certification (PEFC), sources that meet the requirements of FSC Controlled Wood, or others that have been reviewed and approved by Apple. In addition to the required certifications or endorsements, its suppliers are also required to provide proof of certified or FSC Controlled Wood product through a chain-of-custody program: FSC CoC certificate, PEFC CoC certificate, or other CoC schemes reviewed and approved by Apple. For all new materials provided to Apple, suppliers are required to produce a signed declaration of conformity, which must include the following key information: location and name of paper manufacturer or mill, country of origin for fiber, volume of certified products, and volume of virgin and recycled content.

- Apple conducts audits of its suppliers to ensure compliance to the requirements listed above.
- In conformity with the U.S. Lacey Act and EU Timber Regulation, Apple prohibits the use and harvesting of endangered species of flora and fauna for use in raw materials, parts, and components in any Apple product or packaging materials. Upon request by Apple, its suppliers

should provide Apple with evidence that no illegally sourced timber has been used for production.

- In Apple's Fiscal Year 2015, 99% of the fiber sourced for its product packaging met the requirements outlined in the company's *Sustainable Fiber Specification*. The company has set a goal to have 100% of the fiber sourced for its product packaging meet these requirements.
- Apple has also directed significant resources to promote sustainable forest management. The company is going beyond its own supply chain to increase the supply of sustainable wood fiber from responsibly managed and certified sources. Apple has committed to protecting—and creating—as much sustainable working forest as is needed to produce the paper in its product packaging (in equivalent terms). To achieve this, Apple has partnered with The Conservation Fund to protect 36,000 acres (or 14,569 hectares) of sustainable forests in North Carolina and Maine that not only produce abundant sustainably-harvested timber, but also provide important biodiversity value. Apple has also initiated a five-year pilot project with WWF that aims to transition up to 1 million acres (400,000 hectares) of forest, across five southern provinces in China, into responsible management by 2020. Specifically, this project will increase responsible management of working forests in China by creating up to 300,000 acres (120,000 hectares) of FSC-certified forests, and up to 700,000 acres (280,000 hectares) of forests under improved management; improving China's policy framework to encourage responsible forest management; and establishing long-term market incentives in China for responsibly sourced paper.

Apple's commitment to minimizing its environmental impact, including sourcing of wood fiber, continues to contribute to the unrivalled value of its brand. In the latest Corporate Information Transparency Index (2015) jointly released by the Institute of Public & Environmental Affairs (IPE) and the Natural Resources Defense Council (NRDC), Apple topped the list of 167 global brands. By implementing sustainable fiber sourcing and requiring FSC and PEFC certification, Apple has attained a higher level of assurance of legality and sustainability of the raw materials going into its product packaging. This helps minimize the company's exposure to regulatory and reputational risks arising from the new legislation and policies on timber legality and sustainability.

Vanke

Vanke is China's largest residential builder and flagship company in the real estate sector. In 2015, it generated a profit of CNY 33.1 billion (USD 5.17 billion) on a total revenue of CNY 261.5 billion (USD 41 billion).

As most of Vanke's property development projects are fully-fitted apartment buildings, the company's sustainable timber sourcing encompasses a wide range of product categories: wood flooring, kitchen cabinets, wood wardrobes and storage structures, wood doors, and paper-based products, etc. To date the company has taken a series of well-planned steps to green its forest product supply chain, and has achieved demonstrable progress.

- Vanke has passed the ISO 14001 certification.
- Environmental sustainability has been part of the company's growth strategy

underscored by internal consensus and championed by its top leadership. Since 2007, the company has published its CSR report annually to disclose its environmental performance, including its green building efforts and resource efficiency.

- To live by example, the company's headquarters office building was designed and constructed as a green building, and it passed the LEED Platinum certification. All the wood used for the construction of the building came from sustainable sources.
- Vanke, together with other leading Chinese forest product companies, endorsed the WWF-China initiated 'Forest Declaration' at a side event during the 2015 United Nations Climate Change Conference.
- Vanke has also managed to successfully reduce its timber use in on-site construction through innovation. In contrast to conventional construction in China, Vanke has been pioneering and promoting the practice of 'industrialization' of residential building through scaled-up prefabrication, a practice with proven success in many developed countries. This has significantly reduced timber use at the construction sites, shortened construction time, and increased capital turnover.
- Vanke was among the industry's earliest companies to switch to sustainable timber sourcing. In 2011, the company became a participant in WWF's GFTN-China, a groundbreaking step by a major builder in China. In the case of its procurement of solid wood flooring products, it pledged to stop buying oak flooring products made of Russian timber because of rampant illegal logging in the Russian Far East. As a result, in GFTN's audits in 2011, 2013, and 2015, the percentage of forest products

purchased by Vanke that came from unknown sources was reduced from 90% to 30% and to zero. The company was on a clear path to buying engineered flooring products only from legal sources.

- Vanke also used its clout to spur actions among its upstream suppliers. The company has urged all of its hard flooring suppliers to participate in GFTN-China. Furthermore, it has worked closely with them to address the challenges in their transition to a more sustainable timber supply chain. For example, Vanke collaborated with its key flooring suppliers to explore and identify viable substitution wood sources for the high-risk ones. Vanke's commitment to legal and sustainable timber sourcing has generated a ripple effect up its supply chain.
- Vanke also built and led the sector-wide collaboration to promote sustainable timber sourcing and combat climate change more broadly. Most recently, in cooperation with real estate trade associations, peer companies, and NGOs, Vanke helped forge the *China Real Estate Green Supply Chain Action Plan*, a commitment signed on to by 48 Chinese property developers and associated companies. Of these companies, 21 pledged to build a sustainable supply chain for their flooring and wood-based panel products. Specifically, they would work with WWF to conduct due diligence on their supply chains, develop sustainable sourcing policies and traceability systems, and craft supply risk mitigation plans. This Action Plan, once fully implemented, would ensure that up to 50% of all Chinese flooring products come from legal or FSC-certified wood sources.

Vanke has been leading Chinese residential property development not only by sales, but also by its commitment to green building and sustainable wood sourcing. The company understands its unique leadership role in the sector, and has made great efforts to bring along other builders and suppliers to amplify the impact of this commitment.

Vanke is widely recognized as the standard bearer in the Chinese real estate business, and its demonstrable progress and achievement in sustainable sourcing will only serve to further enhance its brand and reputation. This is critical because in China's maturing real estate market, such brand values and appeals will help the company preserve its competitive advantage and maintain healthy business growth. On the other hand, its target customers – affluent, well-educated, and increasingly environmentally conscious – also see perceived value in properties Vanke develops. As more and more Chinese property developers are looking overseas for opportunities, Vanke is better positioned than its competitors to succeed based on its established business reputation and sustainable supply chain management. By extension, because of its commitment to sustainable timber sourcing, Vanke is much less likely to run into regulatory compliance pitfalls in developed markets, minimizing the risks to its business expansion overseas.

In addition, Vanke's demonstrable and measurable progress in greening its forest product supply chain has shown that sustainable timber sourcing can be done, and done well in China. This has eased the concerns and doubt of many undecided Chinese companies over the issue, and has inspired them to make the 'leap'.

Walmart

Walmart is the world's largest retailer. Today, nearly 260 million customers visit its more than 11,500 stores in 28 countries and e-commerce sites in 11 countries each week. With fiscal year 2016 revenue of USD 482.1 billion, Walmart employs 2.3 million associates worldwide. Walmart entered the Chinese market in 1996, and has opened 423 stores as of July 2016. It now employs over 100,000 people and works with over 7,000 suppliers in China. Over 95% of products sold through Walmart in China are sourced from China.

Walmart has placed great importance on environmental sustainability through a series of initiatives aimed at maximizing resource efficiency and reducing its environmental footprint.

- In 2007, it revealed its 'Sustainability 360' program – a company-wide emphasis on taking sustainability beyond reducing the company's direct environmental footprint to engaging its associates, suppliers, communities and customers. The program outlined three specific aspirational goals: be supplied 100 percent by renewable energy; create zero waste; sell products that sustain people and the environment.
- As part of this broad effort, Walmart has taken steps to improve the environmental sustainability of its supply chains. At its supplier summit held in China in 2008, the company set a series of aggressive goals and expectations to build a more environmentally and socially responsible global supply chain.
- In 2012, the company reaffirmed and strengthened its earlier commitments to a sustainable global supply chain by announcing a series of new actions, including using the sustainability index to screen its suppliers and funding The Sustainability Consortium (TSC), an initiative dedicated to improving the sustainability of consumer products.
- Walmart has also adopted the approach of 'reduce, reuse, and recycle' to minimize waste, including paper-based packaging. This is often achieved through innovative solutions. For example, the company collected cardboard from some of its stores and turned it into raw materials for boxes used for its private-label take-and-bake pizzas, which helped save up to 125,000 trees. For its growing e-commerce operation, the company has developed new box sizes that have improved cardboard box utilization by more than 30%, without undermining product protection. This effort, according to the company's estimate, has the potential to reduce cardboard box consumption by 7.2 million cubic feet (203,881 m³) annually, which is equivalent to saving over 100,000 trees. Such innovations help the company measurably reduce its demand for virgin fiber.
- Walmart actively participates in and promotes cross-sector collaboration on sustainability. For example, Walmart championed the effort to create The Sustainability Consortium. It joined the Consumer Goods Forum (CGF). Through CGF's Deforestation Resolution, the company is committed to achieving zero net deforestation by 2020. The company is also a participant in the Closed Loop Fund, a USD 100 million social impact investment fund to increase the recycling of products and packaging. The Fund is also supported by other leading companies, such as the Coca-Cola company, Unilever, P&G, 3M, and Goldman Sachs.
- Walmart also seeks to work with leading conservation organizations to help

improve its environmental performance. For example, Walmart participated in WWF's GFTN program from 2008 to 2011 to phase out illegal and unwanted wood sources from its supply chain and to increase its proportion of wood products originating from credibly certified sources.

Given Walmart's scale and its influence over suppliers, its commitment to sustainable sourcing will likely engender transformational changes in the sectors it touches. By building its sustainable supply chain of forest products, it can minimize the regulatory risks it faces in developed markets. A sustainable supply chain, for its transparency and traceability, is inherently a better managed supply chain. It will help the company to streamline its supply chain management and ensure supply continuity in the long run. The company's attempts to reach out to its suppliers to help them better meet its sustainability requirements also provides a great example of how large companies can speed up the transition to a sustainable supply chain through proactive actions and joint efforts with their suppliers. Such collaboration will likely increase supply chain efficiency for the companies and their suppliers.

Furthermore, consumers are also becoming more environmentally conscious, and they are beginning to see the extra layer of value of environmental sustainability in sustainably sourced and produced products. Sustainable sourcing of forest products also adds to the company's broader efforts to help halt commodity-driven deforestation (i.e. deforestation caused by production of commodities like soy, palm oil, and beef, etc.).

Value propositions from the case studies

It can be inferred from the case studies above that sustainable sourcing of forest products provides companies with concrete benefits on multiple levels.

- *Reduced risk exposure*

A credible sustainable supply chain provides better transparency and traceability, which are key to filtering out forest products from unknown, illegal, and high-risk sources. The level of assurance of legality afforded by a sustainable supply chain helps companies to reduce their exposure to regulatory risks and reputational risks.

Since 2008, major developed markets have passed legislation aimed at stopping illegal timber product imports. Companies that have taken legality seriously and are working towards sustainable sourcing of timber products will be much better positioned to meet these new requirements. For those who have not switched to legal sourcing, they are either shut out of these markets or run the risk of getting entangled in expensive and damaging law suits. It should also be noted that sustainability certification helps minimize companies' exposure to illegality risks in their forest product supply chains, but certification alone does not guarantee full legal compliance with the Lacey Act, EU Timber Regulation, and Australia Illegal Logging Prohibition Act.

Companies that have built their sustainable forest product supply chains will also better protect their reputation. As illegal logging and unsustainable sourcing of timber is increasingly the center of attention of the media and conservation community, no illegal sourcing of timber, knowingly or unknowingly, will go unnoticed or uncaught for long. Once exposed, these companies

will almost certainly suffer considerable damages to their corporate reputation. A textbook case is Greenpeace's campaign against Asia Pulp and Paper (APP)'s conversion of natural forests into plantations. Almost overnight APP lost 130 of its major business customers. Despite the drastic actions APP took after the crisis to promote a green agenda, it still has a long way to go to regain its customers. In another example, a top U.S. retailer of hardwood flooring was fined USD 13.2 million in 2015 for importing illegally harvested timber from the Russian Far East, among its other violations of the Lacey Act.

- *Increased competitiveness in environmentally conscious markets*

Major developed markets have all raised environmental standards for imported forest products. To have continued access to these markets, companies have to develop sustainable supply chains to improve legality and sustainability of their products. This also presents well-prepared companies with opportunities for business growth. As in the case of Yihua above, the company, equipped with its sustainable supply chain of forest products, actually saw its sales to these markets grow after their environmental standards were raised.

- *Improved supply chain efficiency and resilience*

The process of building a sustainable supply chain also compels a company to streamline its supply chain and increase efficiency in supply chain management. The inherent rigor and safeguards built into a sustainable supply chain strengthen overall continuity and resilience of the supply chain and better shields a company from supply disruptions

and other contingencies. For example, some wood furniture companies in Yunnan had heavily relied on imported wood from Myanmar before the Burmese government imposed a ban on exports of logs in 2014. The ban virtually cut off all wood supplies to these companies, and some of them went out of business before long. In contrast, other companies that had implemented sustainable sourcing policies and stayed away from high-risk timber from Myanmar (such as Yihua), felt little impact.

- *Enhanced brand and customer loyalty*

Brands and products are inseparable. Sustainable sourcing can enhance a company's brand, increases the brand's appeal to the public, and nourishes customer loyalty. As more consumers begin to appreciate the value of sustainability embedded in products, companies committed to sustainable sourcing are best positioned to unlock the value of their sustainable supply chain through returning customers and increased sales. Sustainable supply chain commitments from industry-leading companies like Apple and Vanke are testament to the tremendous value they see in sustainable sourcing, the value for their business, for the environment, and for society at large.

The value propositions described above are largely consistent with the value of sustainable sourcing to businesses that has been widely documented in the literature, from managing regulatory risks, to improvement in public relations and brand reputations (WWF 2015). Furthermore, a most recent industry-wide global survey of 54 retailers by WWF finds that companies

The level of assurance of legality afforded by a sustainable supply chain helps companies to reduce their exposure to regulatory risks and reputational risks.

The inherent rigor and safeguards built into a sustainable supply chain strengthen overall continuity and resilience of the supply chain.

making public commitments to sustainable sourcing of forest products report greater positive impacts on business metrics such as supply chain stability, risk management, brand reputation, and stakeholder engagement, as compared to those that do not have public commitments (WWF forthcoming). This highlights that the implementation of sustainable sourcing practices is not only important for forest conservation, but also beneficial to business operations.

Lessons and recipes for success

For a sustainable supply chain of forest products to be effective, it needs the following key elements.

- *Senior leadership commitment and internal consensus*

In a company, nothing drives corporate performance more effectively than the commitments from its top leadership. To build and implement a green supply chain of forest products, a company's top leadership has to make it part of the corporate strategy and direct resources accordingly. In addition, the leadership will also need to make efforts to communicate this commitment and build consensus internally. The case studies of Apple and Vanke very well demonstrate this.

- *Clear goals, targets, and performance indicators*

A company should conduct a full baseline assessment of its existing supply chain, identify risk exposure, and set ambitious but feasible goals for sustainable sourcing. These goals need to be supported by a well-developed roadmap that specifies methodologies and milestones. These milestones should be translated and

embedded into concrete performance indicators, so employees at various levels will be held responsible for the progress towards these goals.

- *Traceability and transparency*

Companies should take a proactive and systematic approach to increasing transparency and improving traceability of their forest product supply chains. To achieve this, companies need to adopt the traceability schemes and tools that suit them best and take advantage of new technologies. In the cases of Vanke and Apple, they both opted for certification schemes that are most credible in assuring traceability. This, however, does not mean that companies should 'outsource' its responsibility in traceability entirely to external certification bodies. Instead, companies are encouraged to take one step further and go beyond passing certification. They should create and improve their internal traceability systems and conduct on-site inspection of their suppliers when necessary.

- *Broader environmental and social considerations*

Assurance of legality is merely a starting point for sustainable sourcing of forest products. A responsible corporate citizen will need to take into account the overall environmental and social impact of its business operations and sourcing practices. Such issues range from the potential threat to local habitat and High Conservation Value forests, the impact on water and soil, the equitable sharing of economic benefits, and improvement of the livelihood of local communities. Apple's extra efforts to support sustainable forest management is a case in point.



CALL TO ACTION

Almost all companies employ forest products, from paper and paper-based packaging to timber and timber products. Large companies, both Chinese and international, have great potential and opportunities to influence their upstream business partners in sustainable sourcing.

Make a public commitment on sustainable forest product sourcing

To further amplify the impact, it is important that companies in the same industry or even across sectors come together and make a joint commitment on sustainable forest product sourcing – a commitment that is aspirational yet feasible. With such a joint commitment, it will help build the critical mass needed to shift the market towards sustainability. By making such a commitment public, companies will have to stand the public scrutiny over their progress measured against the goal. This creates additional incentives for companies to take concrete actions to implement their commitments.

Conduct a baseline assessment

A successful sustainable supply chain begins with a thorough assessment of a company's existing supply chain. With this baseline assessment, the company will be able to identify the key issues and information gaps on legality and sustainability. Such information is critical for shaping the strategy and roadmap for building the company's sustainable supply chain.

This is especially crucial for companies that are relatively new to sustainable forest product sourcing. Without sufficient investment in conducting a baseline assessment to identify risk exposure and intervention points, the company is likely to end up with a misguided sustainable sourcing strategy, which can be ineffective, wasteful, and self-defeating in the long term.

Set an ambitious and measurable 5-year goal

Based on the baseline assessment, the company should set a clear five-year goal that specifies the target percentage of sustainably sourced forest products out of

all forest products purchased by the company. Important milestones should also be created against which the progress towards the goal can be measured.

A 5-year goal is not only a target, but also an instrument to guide a company's efforts and actions around sustainable forest product sourcing. The 5-year timeframe can be adapted to suit each company's circumstance. In general, five years is a reasonable medium-term timeframe that allows a company to implement its sustainable sourcing strategy substantively, and to achieve demonstrable and measurable progress.

Bring along the suppliers

It is important to engage the company's forest product suppliers. The long term success of a sustainable supply chain hinges on the collaboration between the company and its suppliers, which yields better information on product legality and sustainability, as well as choice of verification approaches.

A common challenge for companies in transition to sustainable forest product sourcing is the availability of qualified suppliers. This problem is particularly acute for companies dealing in large volumes of forest products. Instead of waiting for qualified suppliers to emerge, it would be much more effective for the company to reach out to its supplier and work together to address the issue as a shared challenge whose solution relies on joint efforts. Such collaboration can also open up new opportunities for both parties. As in the cases of Walmart and Vanke, they both worked closely with their suppliers to either provide training or identify solutions to help ease and quicken their suppliers' transition to a more sustainable supply chain.

Increase investment in sustainable forest management and forest conservation

Sustainable sourcing helps companies to assure that the materials they use come from responsible sources. But industry-leading companies should also be encouraged, where they are able, to go the extra length to support better forest management and protection of High Conservation Value forests, in a broader effort to curb deforestation and combat climate change. The work that Apple is doing in the U.S., with The Conservation Fund, and in China, with WWF, is an example of the additional effort needed.

Promote best practices and knowledge sharing

Companies should take advantage of various platforms created by trade associations, conservation communities, and various forest sector related initiatives. These platforms often provide opportunities for companies to learn and share best practices and innovative ideas. For example, in the

case studies above, both Apple and Walmart achieved great environmental benefits by taking an innovative approach to their product packaging, through reduced package size, better fitting cardboard boxes, or responsible sourcing. Such replicable innovations can be easily shared through these platforms with a broader group of companies. It may very well inspire these companies to rethink and reinvent their packaging practices.

For CEO Council members, the Council already provides a readily-available platform to share knowledge and best practices. Given the diversity of the Council members, companies that are further along in sustainable forest product sourcing have a lot to offer to those that have just embarked on this journey. Pairing of such companies through targeted trainings, workshops, and staff secondments can help accelerate the process of building a sustainable forest product supply chain. ■



APPENDIX I

International environmental and forestry certification schemes

- *ISO 14001 Certification*

ISO 14001, first released in 1992, is the world's first international environmental standard. It maps out a framework that a company or organization can follow to set up an environmental management system that helps minimize the negative environmental impact of its operations and production process. Although ISO 14001 is not designed to specifically address sustainable sourcing, the internal management process it outlines is fundamental to any successful sustainable supply chain management.

Its latest iteration (2015) places more emphasis on a pro-active approach to environmental risk management, and expands its scope to cover resource efficiency, climate change mitigation and adaptation, and protection of biodiversity and ecosystems. The framework that underpins the ISO 14001 can also be useful for companies to improve the sustainability of their forest product supply chains. ISO 14001 relies on third party organizations to perform certification. Globally, approximately 250,000 companies have passed ISO 14001 certification (BSI, 2013). In China, ISO 14001 has gained rapid adoption, with over 30,000 Chinese companies certified.

- *Forest Stewardship Council (FSC)*

FSC is an independent, non-profit organization founded in 1993 to promote responsible forest management with strong support from international NGOs. It provides what's considered to be the gold standard for forest management and forest

product traceability through two types of certification: Forest Management (FM) certification for forest owners and managers, and Chain of Custody (CoC) for traders, processors, manufacturers, and distributors along the supply chains. As a highly rigorous and credible certification system, it ensures the validity and integrity of FSC claims of all FSC-certified forest products and materials. It helps create a credible link between well-managed forests and end consumers by providing an assurance of social and environmental responsibility on the part of the producer. FSC certification is conducted by accredited third party certifiers. An FSC certificate is valid for five years, but the accredited certifiers will audit the certificate holder on an annual basis to ensure the FSC standards are met. Globally, FSC-certified forests total 191.6 million hectares, and 31,271 companies have passed the FSC CoC certification to date (FSC, 2016). In China, FSC-certified forests have reached 916,540 hectares, and over 4,600 Chinese companies have received FSC CoC certification.

- *Programme for the Endorsement of Forest Certification (PEFC)*

PEFC is another international certification scheme for sustainable forest management and forest supply chains provided through independent third parties. PEFC was founded in 1999 in response to the specific requirements of small- and family forest owners. As an international umbrella organization, it provides independent assessment, endorsement and recognition of national forest certification systems. It works by endorsing national forest certification systems (38 to date) tailored to local priorities and conditions. Each national forest certification system undergoes rigorous third-party assessment against PEFC's unique Sustainability Benchmarks to

ensure consistency with international requirements. PEFC is also described to be the world's largest forest certification system because PEFC-certified forests total 300 million hectares and account for two thirds of certified forests globally. In addition, more than 18,600 companies have passed FEFC CoC certification (PEFC, 2016). In 2014, PEFC and China Forest Certification Scheme (CFCS) became mutually endorsed. By December 2015, 19 forest operators in China passed PEFC FM certification with a combined area of 5.62 million hectares. Over 200 Chinese companies also passed the PEFC CoC certification. PEFC certification is conducted by third parties, and the certificates are valid for three years.

- *FLEGT License*

The EU's Forest Law Enforcement Governance and Trade (FLEGT) Action Plan was established in 2003. It aims to reduce illegal logging by strengthening sustainable and legal forest management, improving governance and promoting trade in legally produced timber. A key focus of FLEGT is to reach Voluntary Partnership Agreements (VPAs) between EU and timber-producing countries outside the EU to ensure that timber and timber products exported to the EU come from legal sources. A FLEGT license is issued by a VPA timber-producing country to certify the legality of its timber exports, and timber products with a FLEGT license will have unimpeded access to the EU market. To date, EU has signed VPAs with six countries. The first FLEGT license is expected to be issued by Indonesia for the EU market in November 2016. EU has also established a bilateral coordination mechanism with China to promote FLEGT and assess the Chinese market demand for FLEGT licensed timber products.

- *Leadership in Energy and Environmental Design (LEED)*

LEED, developed by the U.S. Green Building Council in 2003, is a verification system for green buildings. Its rating system rewards use of local and regional materials, and provides additional credits for using FSC-certified wood. LEED certification is performed by third parties. LEED is also gaining momentum rapidly in China, with 21.97 million m² of certified square footage and 2,022 registered projects.

Other international guidelines, tools, and support systems

Aside from well-developed certification systems discussed above, additional standards, guidelines, tools, and support systems (including capacity building programs) are available from an array of organizations. These resources, often underpinned by a stepwise approach, are designed to help companies to progress from the assurance of legality as the starting point to the final goal of sustainable forest product sourcing.

- *Due Diligence System (DDS), EU*

A Due Diligence System, an integral part of the EU Timber Regulation (EUTR), is mandatory for all EU timber traders and importers. A DDS consists of three key elements: information transparency on supplies, risk assessment, and risk mitigation. EU companies can choose to develop their own DDS, or to hire external DDS service providers. To date, EU has approved six accredited organizations to provide DDS services for EU companies to minimize the risk that timber products may come from illegal harvesting. These organizations include such international certifiers as BV, SGS, and Nepcon. BV China started to provide DDS services to Chinese timber companies in 2014, and has issued

about 100 certificates to date. SGS also provides DDS consultation for Chinese companies, but has not issued any certificate.

- *The Forest Trust (TFT)*

TFT is a UK-based non-profit organization, and it provides assistance to its members to verify the legality of timber sources and create responsible forest product sourcing systems. In 2011, it released *Good Wood, Good Business*, a practical and industry-oriented guide to help exclude illegal and other unwanted wood from supply chains. This guide maps out a six-stage process to help wood processors to verify wood legality. The TFT is membership based and only provides services to its members. TFT China Office was created in 2008 to offer wood legality verification to Chinese companies that export flooring and plywood products to the EU market.

- *Verification of Legal Compliance, Rainforest Alliance*

The Rainforest Alliance, as a U.S.-based organization committed to biodiversity conservation and sustainable livelihoods, also provides voluntary independent third-party verification of legal status for timber sources. Through its Verification of Legal Compliance (VLC) standard, it helps companies verify the legality of the wood at the forest level and ensures the traceability of legal timber at all points in the supply chain (Chain of Custody). In 2011, The Rainforest Alliance released the Chinese interpretation of its VLC. For companies, VLC verification is a stepping stone to embarking on an incremental process of obtaining FSC certification. Currently, over 20 companies are using its VLC service. This service is not yet available in the Chinese market.

- *The Global Forest & Trade Network (GFTN), WWF*

GFTN is WWF's initiative to eliminate illegal logging, drive improvements in forest management, and transform the global forest marketplace. Through a structured framework mechanism—the 'stepwise approach'—the GFTN works closely with companies and assist them in overcoming forest management and responsible purchasing challenges while progressing towards credible certification (FSC). GFTN links more than 200 companies, communities and governments in over 30 countries to create market incentives for responsible forestry and trade practices. GFTN member companies together manage a total of 20.4 million hectares of FSC certified forests, and their combined annual sales total USD 45 billion (GFTN, 2014). In China, GFTN established its localized operation in the form of China Forest Trade Network (CFTN) in 2005, and over 40 Chinese companies participated in GFTN-China.

GFTN has also developed a series of voluntary sourcing guidelines for companies. They include *Keep it legal manual* (2006), *Guide to Legal and Responsible Sourcing* (2010), *Exporting in a Legal Shifting Landscape* (2010), among others. By working hand in hand with its participants, GFTN's long term goal is to help these companies to pass FSC CoC certification.

- *The Responsible Asia Forestry & Trade partnership (RAFT)*

RAFT is a regional program that brings together the skills and knowledge of leading conservation organizations to provide capacity building and knowledge sharing services to Asia Pacific countries in support of their efforts to promote trade in

responsibly harvested and manufactured wood products.

Through supply-side capacity building, technical support and networking opportunities, RAFT, in cooperation with its many partners, helps bridge the gap between market and policy incentives and current management practices in order to help Asia Pacific suppliers meet the growing demand for verifiably responsible wood products.

RAFT has worked with the Chinese government and forestry industry sector since 2009. It supported training workshops to help the Chinese forestry industry to better understand timber legality requirements of the U.S. and EU markets, and facilitated responsible purchase policy discussions across sectors.

- *Responsible Purchasing Policy, Greenpeace*
Greenpeace has been part of the driving force behind responsible timber sourcing to reduce deforestation of tropical forests. It released *Responsible Purchasing Policy* in 2008, an effort to help timber processors and timber product retailers to identify and filter out illegal timber. This guidebook outlined key actions that companies need to take to implement their responsible timber sourcing policies.

- *Sustainable Procurement of Wood and Paper-Based Products, WRI*

WRI is a DC-based research organization. It published *Sustainable Procurement of Wood and Paper-Based Products*, a guide and resource kit that provides in-depth information about 10 key issues related to sustainable procurement of wood and paper-based products. This guide is designed as an information support tool to assist users as they develop and implement

their own purchasing policies for forest products. It has also compiled public procurement policies and NGO-led sustainable sourcing initiatives to help businesses understand the environmental and social dimensions of forest product sourcing. More information is available from the WRI Forest Legality Alliance portal at <http://www.forestlegality.org/>.

Chinese forest product certification schemes

In addition to the international certification schemes and sustainable procurement standards for forest products, the Chinese government has also developed its home-grown certification schemes.

- *China Environmental Certification Labeling*

China Environmental Certification Center (CEC) is the environmental certification body authorized by the Chinese Ministry of Environmental Protection and the Certification and Accreditation Administration of China to conduct environmental certification of ‘green’ products. Its current certification scheme covers many categories of forest products, including wood furniture, copy/print paper, kitchen cabinets, wood doors, wood toys, and wood-based panels. CEC-certified furniture, copy/print paper, and wood-based panels are also on China’s green public procurement catalogue. In CEC’s updated technical standards for forest products in 2012, it required that timber used in these products come from legal sources. Specifically, it required assurance of legality for both imported wood and domestic grown wood as well as compliance with CITES for certain tree species. This is testament to the growing importance of legality and sustainability in forest product supply chains. A CEC certificate is valid for three years, and it is audited annually.

- *China Forest Certification Council*

China Forest Certification Council (CFCC) is China's top forest certification body and is hosted under the State Forestry Administration. China Forest Certification Scheme (CFCS) covers both Forest Management (FM) certification and Chain of Custody (CoC) certification. The former is targeted at Chinese forest operators and managers to promote sustainable forest management, while the latter is oriented towards Chinese forest product processors and manufacturers to ensure legality and sustainability of the source of the wood. Both categories of certification are performed by third parties, and CFCC certificates are valid for five years. As mentioned earlier, CFCC and PEFC achieved official mutual endorsement in 2014. As a










result, all CFCC and PEFC certification applications in China are now processed jointly. By 2015, CFCC/PEFC certified forests in China surpassed 5 million hectares, and the number of issued CoC certificates are also on the rise (SFA, 2015).



- *'Codes of Conduct' developed by Chinese forestry trade associations*

The Chinese forestry sector has developed various versions of 'Code of Conduct' to encourage forest product companies to improve their performance on legal and sustainable sourcing. For example, the China National Forest Product Industry Association developed and piloted its timber legality verification system in 2014. To date, eight Chinese companies have enrolled in this pilot program.

APPENDIX II

Comparison of available forest sector certification/verification tools and support systems in China

	Certif./Verification Support sys.	Forest products covered	Certifiers/ implementer	Legality	Sustain-ability	Logo	Certified area/ Remarks
Third party certification	Forest Stewardship Council (FSC)	All forest product categories, incl. timber, timber products, paper, paper-based packaging	Accredited third-party certifiers, either international companies (BV, SGS) or Chinese domestic ones (CQM)	○	○	  	Forest Management: 916,540.40 hectares Chain of Custody certificates: 4600
	PEFC/ CFCS	All forest product categories, incl. timber, timber products, paper, paper-based packaging. (PEFC and CFCS applications in China are processed jointly starting from 2016. A PEFC/CFCS joint logo is used.)	Accredited third-party certifiers, either international companies (BV, SGS) or Chinese domestic ones (CQM, ZTFC)	○	○		Forest Management: 5,620,093 hectares Chain of Custody certificates: 200
	Due Diligence System (DDS) on timber legality	All forest product categories, incl. timber, timber products, paper, paper-based packaging (DDS is oriented towards Chinese companies exporting to the EU market)	Accredited third-party certifiers (BV)	○	N/A		DDS certificates: 180
	China Environmental Labeling (also applicable to furniture, paper, and wood-based panels on China's green public procurement catalogue)	All forest product categories, incl. timber, timber products, paper, paper-based packaging	China Environmental Certification Center (CEC)	○	partially		Furniture companies: over 1000 Printing companies: 158
Second party verification	Rainforest Alliance (RA)	No longer available in Chinese market since 2013	RA	○	N/A		
	The Forest Trust (TFT)	Mostly timber products destined for the EU market (furniture, flooring, and plywood)	TFT China Office	○	N/A		Service available to members only
	China National Forest Product Industry Association legality verification system	Mostly timber products, furniture, flooring, and plywood.	International Dept., China National Forest Product Industry Association	○	partially		8 pilot companies

Support Systems	Global Forest Trade Network (GFTN) /WWF	All forest product categories, incl. timber, timber products, paper, paper-based packaging	WWF China/ Global Forest Trade Network -China (GFTN-China)	○	○		40 Chinese companies participated in GFTN-China
	The Responsible Asia Forestry & Trade partnership (RAFT)	Timber products	TNC and partner organizations	○	○		Worked with Chinese business partners
	Sustainable Procurement of Wood and Paper-Based Products, World Resource Institute(WRI)	All forest product categories, incl. timber, timber products, paper, paper-based packaging	WRI	○	○		Chinese version available
	Responsible Purchasing Policy, Greenpeace	Timber, timber products	Greenpeace China	○	○		

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