WORLD RESOURCES INSTITUTE

ISSUE BRIEF

CASE STUDY

UNTANGLING THE PAPER CHAIN: HOW STAPLES IS MANAGING TRANSPARENCY WITH SUPPLIERS

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SUMMARY

This series of case studies is intended to show commercial buyers of wood and paper-based products, especially those who trade in species and/or source from places with a perceived risk of illegality, how their supply chains can conform with U.S. legal requirements on importing certain types of wood. The case studies, compiled by the Forest Legality Alliance (FLA), draw lessons from emerging best practices for managing risk in high-risk contexts. They discuss the impacts of the U.S. Lacey Act (see Box 1) and other market demands for legal wood products and identify and highlight potential problem areas as well as pragmatic opportunities for reducing the complexity of compliance.

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ABOUT THE SERIES

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The case studies, compiled by the Forest Legality Alliance (FLA) draw lessons from emerging best practices for managing risk in high-risk contexts. They discuss the impacts of the U.S. Lacey Act (see Box 1) and other market demands for legal wood products, and identify and highlight potential problem areas, as well as pragmatic opportunities for reducing the complexity of compliance.

The FLA hopes that the Lacey Act will encourage best practices in forest supply chains and provide valuable information about the global flow of forest products, without imposing significant burdens on the private sector.

To that end, the FLA case studies of best practices in private sector procurement describe:

- How the Lacey Act affects operations in countries that supply forest products to U.S. importers;
- How to supply information consistent with the Act's intent, while reducing transaction costs and unintended consequences for producers;
- Best practices along supply chains to streamline the flow of information about forest products; and
- How to scale up these best practices to support the private sector in complying with new legality requirements, consistent with the FLA's goal of increasing the capacity of supply chains to deliver legal wood and paper and to help the private sector respond to emerging forest product legality assurance requirements.

The case studies do not attempt to assess the legality of the supply chains in question. They are not investigations, legality verifications, product tracing, or chain-of-custody analyses. The FLA does not intend to suggest that the resources highlighted in the series are a model for supply chains, since supply chains differ vastly in size, location, and product. Nonetheless, the case studies presented in this series offer examples and insights that might spur actions by other companies.

EXECUTIVE SUMMARY

Staples, Inc., the world's largest reseller of office products, is in the midst of adapting its sourcing practices to ensure that its products meet not only its own sustainable procurement policy, but the requirements of the U.S. Lacey Act. Under the Lacey Act, it is illegal to trade forest products in the United States if they are of illegal origin, and importers are required to report the make-up and origin of the raw materials used to manufacture the products. Lacey Act violations can result in significant fines and jail time (U.S. Department of Justice, 2012; EIA, 2009).

Staples' overall strategy to meet both the U.S. Lacey Act requirements and its own Sustainable Paper Procurement Policy is to increase transparency in its supply chains. With the assistance of the Rainforest Alliance's SmartSource Program, Staples is deploying the tool *SmartSource360* to trace the origin of its products and manage the risk of sourcing unwanted or illegal materials. *SmartSource360* is an internet-based supply chain management system designed to compile, analyze, store, and manage supply chain information and documentation directly from suppliers and sub-suppliers. This issue brief documents the pilot testing of *SmartSource360* to trace the supply chains of five private label products that originate from China, the United States, and Brazil, through four suppliers.

The pilot testing revealed five key lessons:

- **POSITION IN THE SUPPLY CHAIN MATTERS.** The longer the supply chain, the more difficult it is for companies to obtain information about the origin of the raw materials. Pulp and paper manufacturers, or integrated paper companies, are better prepared to quickly answer specific questions about the origin of their raw materials. Paper converters often source from multiple suppliers and brokers who could be vertically integrated pulp and paper manufacturers or non-integrated paper manufacturers. In both cases, paper manufacturers may source wood from different suppliers, including on spot markets, at lower prices and without asking questions about the origin of the raw materials.
- **BUYERS' AND SUPPLIERS' PRIORITIES NEED TO BE ALIGNED.** High-level, direct, and consistent communication between the buyer and the supplier is critical to align the supplier's priorities with the priorities of the buyer. Obtaining

accurate, detailed, sufficient supply chain information and active supplier participation in a data disclosure process takes time and effort. This is especially true if supply chain transparency is not a priority for the supplier, and in markets where there is no history of tracking the origin of the raw materials or supply chain transactions.

- **IT IS CRITICAL TO OVERCOME CONCERNS ABOUT THE USE OF CONFIDENTIAL SUPPLIER INFORMATION.** Direct suppliers or their sub-suppliers, who are asked to provide the most information about the origin of the raw materials, may be suspicious of the buyers' motivation in requesting information. Suppliers and sub-suppliers may consider the information confidential, or may believe the data could be used to circumvent them. Buyers need to overcome this mistrust, communicate directly with their suppliers where needed, and incentivize supplier participation.
- **DIRECT COMMUNICATION WITH SUPPLIERS IS IMPORTANT.** Relationship building and trust can take years to develop and is influenced by cultural differences. Direct, high-level communication with suppliers can be key to overcome concerns about the use of the supply chain information being disclosed and align the corporate priorities.
- **INTERMEDIARIES CAN PLAY A ROLE SUPPORTING THE IMPLEMENTATION OF A PROCUREMENT POLICY.** An intermediary actor who supports the implementation of a procurement policy is useful in cases where the company does not have in-house expertise on forest

BOX 1

THE U.S. LACEY ACT

The United States enacted the Lacey Act of 1900 to ban trafficking in illegal wildlife. In 2008, the Lacey Act was amended to include plants and plant products such as timber and paper, making it the world's first ban on trade in illegally sourced wood products. The 2008 amendments also include a requirement that wood-product importers submit a declaration describing their product(s), including the scientific names of all tree species included in the product, the country of origin, the volume, and the value.

The Lacey Act's declaration requirement does not apply to all wood products. As of December 2012, U.S. importers of paper products were not required to complete the Lacey declaration requirement unless paper is part of a product that otherwise requires declaration—for example, a wooden frame with paper backing (Lougee, 2012). In cases where paper must be identified as part of a product, importers can use special codes assigned by the US Department of Agriculture's Animal and Plant Health Inspection Service, which oversees submission and reviews Lacey Act declaration forms (APHIS, 2012). It is unclear whether paper importers will be required to complete the Lacey declaration form in the future.

What is illegal under the Lacey Act?

There are two elements of a Lacey Act violation. First, a plant must be taken, harvested, possessed, transported, sold, or exported in violation of an *underlying law* in the United States or any foreign country that protects plants or regulates the following:

- Stealing plants;
- Taking plants from an officially protected area, such as a park or reserve;
- Taking plants from other types of "officially designated areas" that are recognized by a country's laws and regulations;
- Taking plants without, or contrary to, the required authorization, or;
- Failing to pay appropriate royalties, taxes, or fees associated with the plant's harvest, transport, or commerce; or
- Laws governing export or trans-shipment, such as a log-export ban.

Second, an individual or company must trade this illegally sourced plant in the United States to trigger a Lacey violation.

Penalties for unknowingly violating the prohibition are much less severe if a company can show that it exercised "due care" to prevent illegal material from entering the United States as a result of its business transactions. The notion of due care may encompass many different factors depending on the circumstances of the forest management, product manufacturing and trade. The Lacey Act does not prescribe how to exercise due care; however, the 2012 Criminal Enforcement Agreement between Gibson Guitar Corp. and the U.S. Department of Justice offers insights that companies can consider in developing their own due care systems. The systems could include training for purchasing staff, communication with suppliers, verification of foreign laws and licenses with in-country legal professionals and/or knowledgeable third parties, requesting sample documentation from suppliers and maintenance of records (U.S. Department of Justice, 2012).

For more information about the Lacey Act, please visit www.aphis.usda.gov/plant_health/lacey_act/.

issues. Intermediaries can also provide independent third-party verification and validation of the supply-chain information submitted by the suppliers. However, completely outsourcing implementation is not advisable because direct involvement from the buyer is critical to reinforce the importance of the policies, ensure that policy requirements are well understood, and encourage suppliers to fully disclose information.

The 2008 amendments to the U.S. Lacey Act are changing the way Staples sources its paper products. While Staples has long recognized the connection between corporate responsibility and business profitability, the Lacey Act amendments, and the emergence of other regulations, such as the European Union Timber Regulation, have helped accelerate the implementation of Staples Sustainable Paper Sourcing Policy. With the pilot testing of *SmartSource 360*, Staples' managers gained a better understanding of the complexity of their supply chains. The pilot test also informed next steps in the *SmartSource 360* deployment. These steps include continuing to reach out and educate suppliers and sub-suppliers, requiring new suppliers to participate in the program, and implementing incentives to improve disclosure.

This issue brief draws on relevant documents and interviews with key stakeholders. The FLA did not systematically review all the documents and information related to the products discussed in this brief, nor did it audit the supply-chain control system highlighted here.

CONTEXT AND BACKGROUND

In 2011, global paper and paper board production reached a record level of 399 million metric tons (UBM, 2012). People rely on paper products for communication, packaging materials, sanitary needs, documentation, and more.[1] The many grades and applications of paper rely on fiber from natural forests, recycled paper, wood byproducts, and increasingly, forest plantations (Figure 1).

Importers of pulp and paper products face challenges complying with the legality requirement of the U.S. Lacey Act. Identifying the raw materials used to make paper and assessing their legality can pose significant difficulties for various reasons. Papermaking is a complex process where the wood undergoes extensive transformation, involving a wide variety of actors (Figure 2). Also, raw materials are easy to blend, and finished products usually involve multiple types of papers, including recycled fibers. Finally, paper products are global commodities and the supply chains that bring finished products to the store shelves can originate in far-away countries. According to the UN Food and Agriculture Organization (FAO), China emerged as a major producer of pulp and paper products over the past decade. Other countries like Brazil, Indonesia, and South Korea have also increased production, while traditional European and North American producers have decreased outputs (Appendix 1).

The many grades and applications of paper rely on fiber from natural forests, recycled paper, wood byproducts, and increasingly, forest plantations.

Pulp and paper importers face risks of encountering illegal wood in their supply chains, and consequently, potential Lacey Act violations. Recent analyses and investigations link paper products, particularly from Asia, to controversial sources or timber harvested illegally. Examples of these claims include illegal logging in protected areas (Eyes on the Forests, 2011); use of protected tree species in papermaking (Greenpeace, 2012); taking trees without authorization and/or overharvesting (Greenpeace, 2005; Satriastanti, 2011); establishing plantations in violation of the law and without the consent of local communities; and failing to pay required taxes and fees (Gilbert and Cortesi, 2011).

STAPLES' APPROACH TO PAPER SOURCING

Staples is the world's largest reseller of a wide range of solid wood and paper-based office products. With annual sales reaching $25 billion USD, the company also provides services and expertise to other office-goods suppliers, copy and print services, and technology (Staples, 2012). Presently, Staples operates in 26 countries and employs more than 88,000 people worldwide.[2] Since the

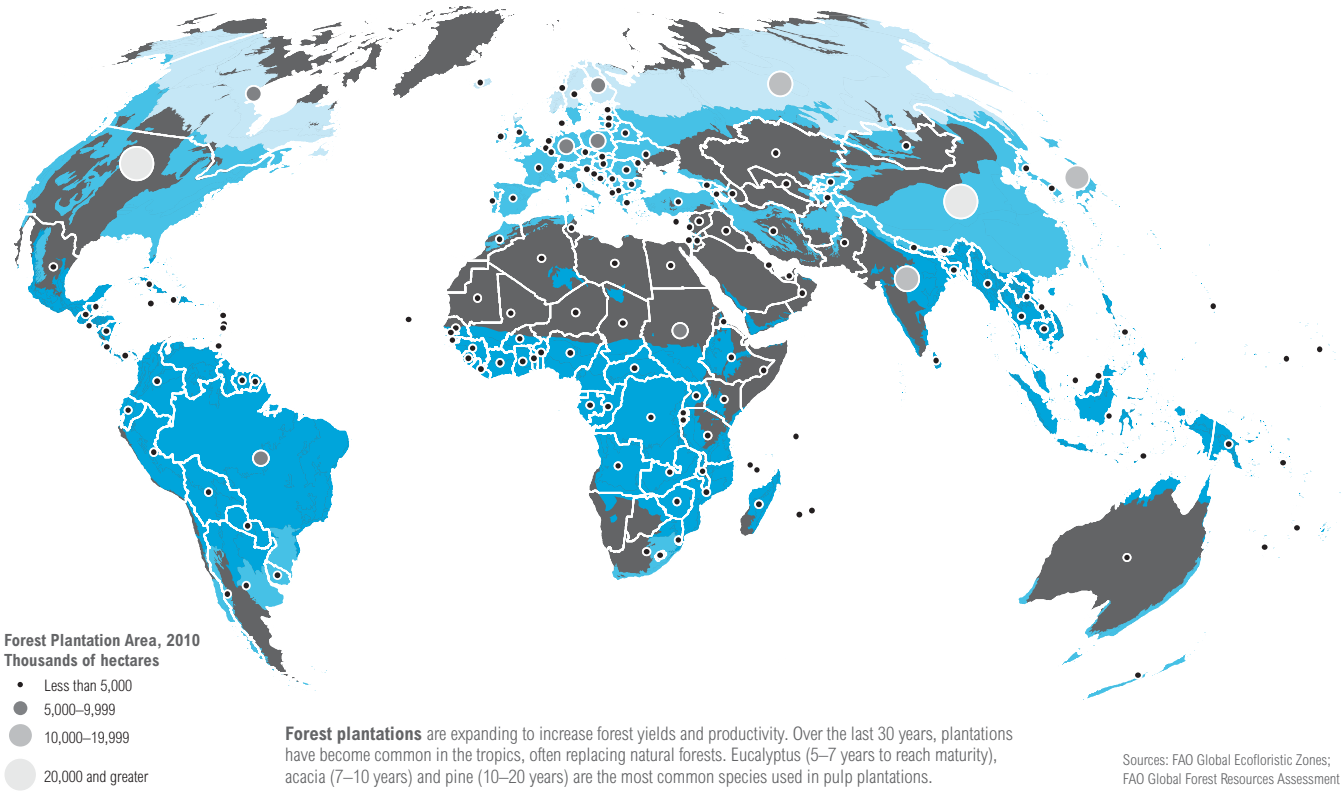
FIGURE 1

NATURAL FORESTS AND FOREST PLANTATIONS AS FIBER SOURCES

Boreal forest
Species found in paper products include spruce, aspen, birch, and poplar. These slow growing trees (60+ years to maturity) yield strong, high quality fiber, but are a costly source of fiber.

Temperate and subtropical forest
Species found in paper products include maples, oaks, pine, fir and cedar.

Tropical forest
Numerous species and very large trees are found in tropical forests. These forests are under pressure from extensive logging and agricultural expansion.



Forest plantations are expanding to increase forest yields and productivity. Over the last 30 years, plantations have become common in the tropics, often replacing natural forests. Eucalyptus (5–7 years to reach maturity), acacia (7–10 years) and pine (10–20 years) are the most common species used in pulp plantations.

Sources: FAO Global Ecofloristic Zones; FAO Global Forest Resources Assessment

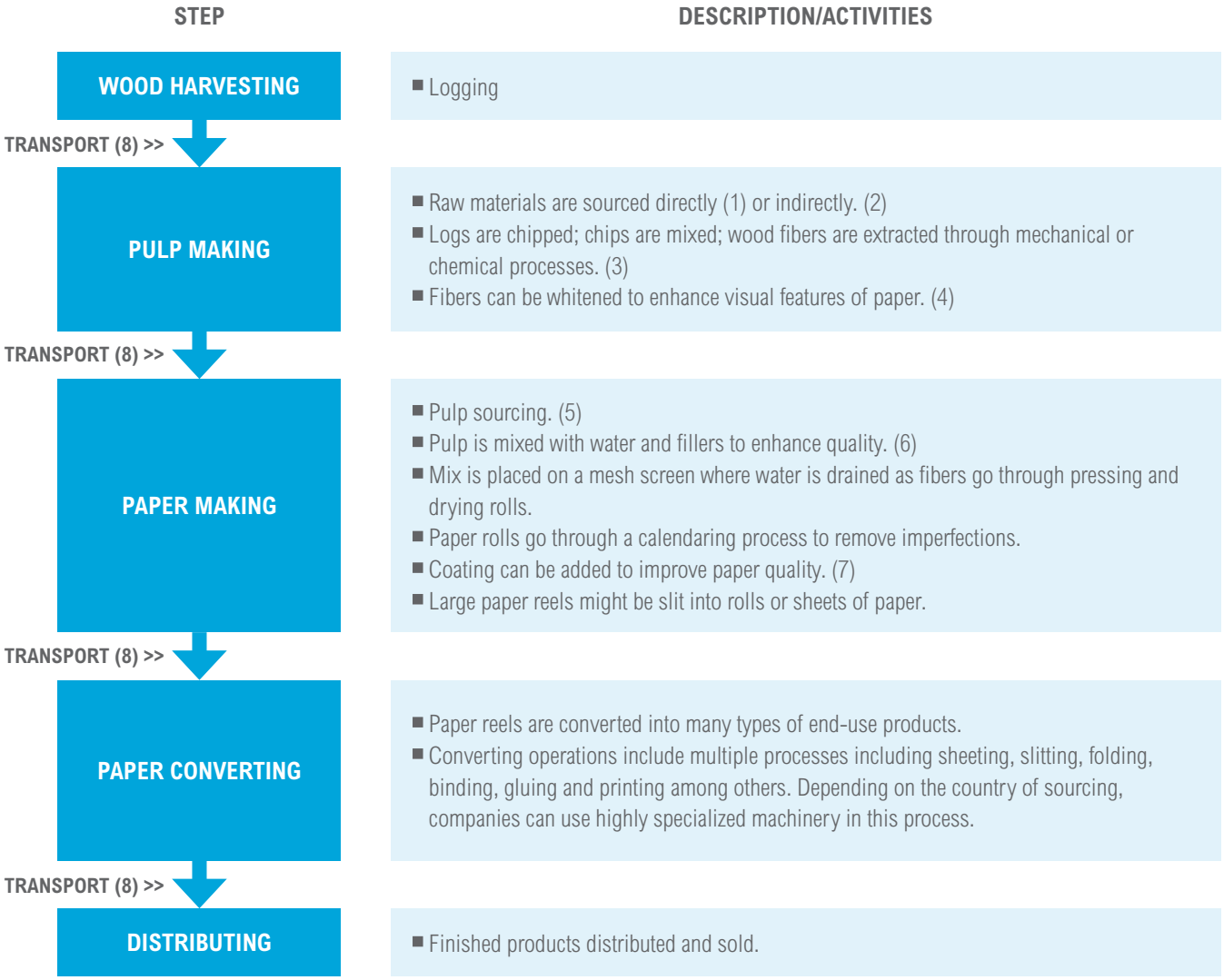
early 2000s, Staples has recognized the connection between corporate responsibility and business profitability. The company has been visibly involved in efforts to improve corporate environmental sustainability,[3] leveraging its role as a major buyer and retailer of wood products and working with other corporate players to build momentum and accelerate processes to achieve common environmental goals.[4]

To meet consumer demand, Staples sources its products from various countries, including Argentina, Brazil, Canada, China, and the United States. Many of Staples' suppliers have non-integrated, fragmented supply chains and could be sourcing fiber from many different countries (Staples, 2011; Buckley, 2012).

The company's overall approach to reducing the risk of sourcing illegal raw materials and implementing its own Sustainable Paper Procurement Policy (Box 2) is to increase transparency in their paper supply chains and work with buyers and suppliers to improve sourcing practices. Increasing transparency will enable the identification of the origin of the products, to enable Staples' management to assess and manage the risks of illegal wood, and eliminate it from their supply chains.[5]

FIGURE 2

GENERIC PAPER MANUFACTURING SUPPLY CHAIN



Notes:

1. For companies vertically integrated with forest companies.
2. Pulp manufacturer's suppliers can source from a number of sub-suppliers, including sawmills, logging companies, plantation owners, brokers, and private landowners. All these actors supply wood to both pulp and paper factories, and buy materials in the open markets and/or from smaller producers or intermediaries.
3. Companies that are vertically integrated with pulp manufacturers source directly from them, although they could still purchase materials on the open market. Non-integrated paper companies can source from a variety of sources, as in number 2.
4. Mechanical pulp: fibers are physically pulled apart through mechanical processes. Compared to chemical pulping, the process is less expensive and with high yield (approx. 90%), but fibers are not as strong. Chemical pulp: fibers are pulled apart using chemicals. The process yields is less (approx. 50%) but fibers are strong and ideal for most paper types.
5. Until the last 20 years, most of the fibers were bleached using chlorine dioxide. The industry has now moved largely to other agents such as oxygen or ozone. Bleaching processes include Elemental Chlorine Free (EFC) or Total Chlorine Free (TCF).

6,7. Commonly used fillers and coating pigments used include calcium carbonate, talc, clay, and titanium dioxide to enhance brightness and smoothness. Latexes and starches can be used to anchor coating pigments.

8. Depending on the level of vertical integration, there might be no transportation needs between pulp and paper manufacturing and/or between paper manufacturing and paper conversion.

IMPLEMENTATION AND VERIFICATION OF THE SOURCING POLICY

Staples Sustainable Paper Procurement Policy applies to all paper grades and to all suppliers at each step along the supply chain. Staples is rolling out its implementation of the policy in phases, beginning with markets in North America and moving to Europe and other international markets. The rollout prioritizes areas of perceived potential high risk based on the country of origin, source, and transparency of the supply chain. Suppliers sourcing from areas identified as potentially controversial are asked to demonstrate, through credible third-party certification, that the sourced products are non-controversial. Top suppliers are also requested to periodically report the environmental performance of their paper making facilities, or the papermakers furnishing purchased paper.

Since 2009, Staples has partnered with the Rainforest Alliance, and has participated in its SmartSource Program to develop and implement its paper procurement policy, and to assess the supply chain of the products based on random audits to validate information about its products. Staples chose to work with the Rainforest Alliance because of the Rainforest Alliance's expertise in the forest sector, history working with global companies on sustainable sourcing of forestry and agricultural products, and record in developing environmental standards and advancing forest certification.

SmartSource program overview

Through its SmartSource program, Rainforest Alliance provides tailored advice in developing and implementing forest-products sourcing policies to eliminate illegal and unsustainable raw materials and promote certified forest products (Rainforest Alliance, 2013).[6] In addition to direct advice and supply chain assessment, program participants receive corporate staff and supplier training on forest-related issues, and support with supplier and stakeholder communications (Rainforest Alliance, 2011B).

At the core of the SmartSource program is *SmartSource360*. *SmartSource360* is an internet-based application developed in collaboration with Credit 360.[7] It is designed to trace supply chains by facilitating data compilation, analysis, and reporting. *SmartSource360* is an interactive, automated replacement of manual, spreadsheet-based systems used to track, analyze, and validate supply-chain information. *SmartSource360* is designed to be intuitive and user-friendly, and to accommodate varying levels of knowledge about supply chains and

BOX 2

STAPLES SUSTAINABLE PAPER PROCUREMENT POLICY

The overall long-term goals of the Staples Sustainable Paper Procurement Policy are: to source paper products that are certified under the Forest Stewardship Council (FSC) standard, or alternative certification standards when FSC is not available or feasible; to obtain products made with post-consumer recycled or sustainable alternative fibers; and to procure materials manufactured in ways that minimize life-cycle environmental and social impacts.

Suppliers are asked to confirm the sources of the fiber in the products, indicate the legality of the fibers' harvest and trade, and demonstrate that products do not originate from controversial sources, including:

- Wood harvested in violation of traditional and civil rights;
- Wood harvested in forests where high conservation value forests are threatened;
- Wood harvested in forests being converted to plantations or non-forest use;
- Wood harvested in forests that contain species that have been genetically modified.

Where FSC products are not available, Staples accepts products certified under the Programme for Endorsement of Forest Certification standards, the Sustainable Forestry Initiative, and the Canadian Standards Association systems.

Consistent with Staples Sustainable Paper Procurement Policy, suppliers are required to comply with all environmental and forestry laws and regulations as part of Staples' Supplier Code of Conduct.

Sources:
The Staples Supplier Code of Conduct. Online at: http://www.staples.com/sbd/cre/marketing/staples_soul/documents/staples-supplier-code-of-conduct.pdf (4/27/12).
Staples Sustainable Paper Procurement Policy. Online at http://www.staples.com/sbd/cre/marketing/staples_soul/documents/staples-sustainable-paper-procurement-policy-1.pdf (4/17/12).
Mark Buckley, Vice President of Environmental Affairs, Interview, July 2011.

The data validation focuses mostly on the origin, legality, and certification of the product and product components.

forest issues. The reporting platform includes instructional support, including videos, documents, and wizards to guide users through the questions asked.

The *SmartSource360* platform is based on e-mail invitations where program participants invite their suppliers and sub-suppliers to login and provide information and documentation about the origin, legality, and sustainability of the products (Figure 3). Among other data, the information required from suppliers includes:

- **WEIGHT/VOLUME OF WOOD OR FIBER CONTAINED IN THE PRODUCT AS SOLD** (i.e., per unit or total).
- **PRODUCT COMPONENT DETAILS,** including the name, geographic location, and contact details of each sub-supplier, plus source categories (e.g., "unknown", "known", "legal", "certified", etc.), species, name, approximate volume/weight, and geographic origin of each component of the input material they supply.
- **SUPPORTING DOCUMENTATION,** such as purchase invoices, forest certification documents, and paper profiles. The SmartSource program requires specific documentation for each source category listed by the suppliers. This data is uploaded onto the *SmartSource360* system by the supplier, to directly correspond with the specific component input material it represents.

The platform is designed to securely capture data about the product and product components along the supply chain; suppliers only see their products (or product components) and the information provided by their immediate sub-supplier. However, all the supply chain information is available to Rainforest Alliance staff and the program participant—in this case, Staples.

The more information suppliers and sub-suppliers provide, the more complete and transparent the overall supply chain is. Once the data is uploaded to the system, a product report is automatically generated for each product, showing a breakdown of source category and source country. In addition, global reports can be generated, with a variety of views and data findings; for instance, the system can separate data by the total volume/amount of wood/fiber, broken down by source category or geographical origin, for all products purchased during designated timeframes. Rainforest Alliance staff then evaluates and validates the information and supporting documentation provided, including purchase orders, invoices, contracts, agreements, sustainable forest management certificates, and legality verification certificates, among others. The data validation is based on Rainforest Alliance staff expertise, and focuses mostly on the origin, legality, and certification of the product and product components. In effect, the data compiled and analysis generated by *SmartSource360* can then be used by the program participant to create an auditable supply chain, identify potential breaks in the chain of custody, assess risk of sourcing illegal and/or unsustainable products, direct suppliers to locate new sources when necessary, and thus, implement the company's procurement policy.

SmartSource360 is one of several platforms that have emerged to allow buyers and suppliers to collect, assess, and share information about paper products. Other platforms include the Publishers' database for Responsible Environmental Paper Sourcing (PREPS), and the Environmental Paper Assessment Tool (EPAT).[8]

SmartSource360 pilot-testing and deployment

Between 2011 and 2012, Staples and Rainforest Alliance pilot tested *SmartSource360* with five private-label products that were supplied by four companies. Two products were supplied by a Chinese converter, two by a U.S. pulp and paper manufacturer, and one by a Brazilian converter purchasing from vertically integrated pulp and paper manufacturers. The objective of the pilot was to assess the capabilities of the tool, with a future deployment to all of Staples' suppliers in mind.

FIGURE 3

HOW *SMARTSOURCE360* WORKS

SUPPLY CHAIN STEP	DESCRIPTION/ACTIVITIES
PROGRAM PARTICIPANT	■ Program participants identify the products and suppliers. ■ Rainforest Alliance uploads basic information about the products including product names, Stock-Keeping Units (SKUs, a unique tracking number code to identify products), quantities purchased, supplier company names, supplier company contact information and purchasing channels. ■ Rainforest Alliance e-mails direct suppliers inviting them to log into the system to provide information about the origin, legality and sustainability of the product. Reminders are sent as needed.
DIRECT SUPPLIER	■ Direct supplier (converter, distributor) accesses the system. ■ Supplier identifies product components (e.g. board, writing paper and the binding tape in notepads). ■ Supplier provides information and documentation about the paper, pulp and fibers used in the products by component, or ■ The supplier invites component manufacturer(s) to log into the system to provide information. Reminders are sent as needed.
PAPER MAKER	■ Paper manufacturers access the system. ■ Paper manufacturers provide information and documentation about the pulp and fibers used in the paper, or ■ Paper manufacturers invite pulp supplier(s) to log into the system and provide the information. Reminders are sent as needed.
PULP MAKER	■ Pulp manufacturers access the system. ■ Pulp manufacturers provide information and documentation about the fibers used in the pulp, or ■ Paper manufacturers invite wood supplier(s) to log into the system and provide the information. Reminders are sent as needed.
WOOD HARVESTING	■ Wood suppliers access the system. ■ Wood suppliers provide information and documentation about the raw materials. Reminders are sent as needed.

Costs

For paper/wood product buyers: Costs vary depending on the number of products and the level of support requested from Rainforest Alliance staff. As an example, for handling up to 4,000 unique product types, the price could be approximately US$40,000 per year, plus additional costs for validation. The costs cover the license fee for the use of the system, costs for training (staff and supplier training), internal operational alignment, and supplier management related to data collection, analysis and reporting.

For paper/wood product suppliers: In principle, there should be no significant additional expenses to suppliers to provide documentation about their products, provided that requesting documentation about the product from the immediate sub-supplier is a common business practice. However, there could be financial implications in implementing a traceability system and associated activities (i.e. educating and obtaining credible information from sub-supplier).

More critically important than the cost of obtaining information from the supply chain to establish traceability is the cost (time and expense) to suppliers to comply with the policy requirements. The cost of demonstrating compliance could be a barrier to compliance itself.

Each supplier volunteered for the pilot after being approached by Staples. Suppliers received a one-hour, web-based training session by Rainforest Alliance. Through the training, suppliers were introduced to the tool and learned to navigate its features using the 'live' tool. The goal of the training was to familiarize suppliers with the types of information requested and the actions required from them as pilot participants. Once the trainings were complete (five in total: one for the Staples staff involved in the project and one for each of the suppliers), suppliers and Staples received login details for the tool and a four-week timeline to enter data for products sold to Staples during calendar year 2010.

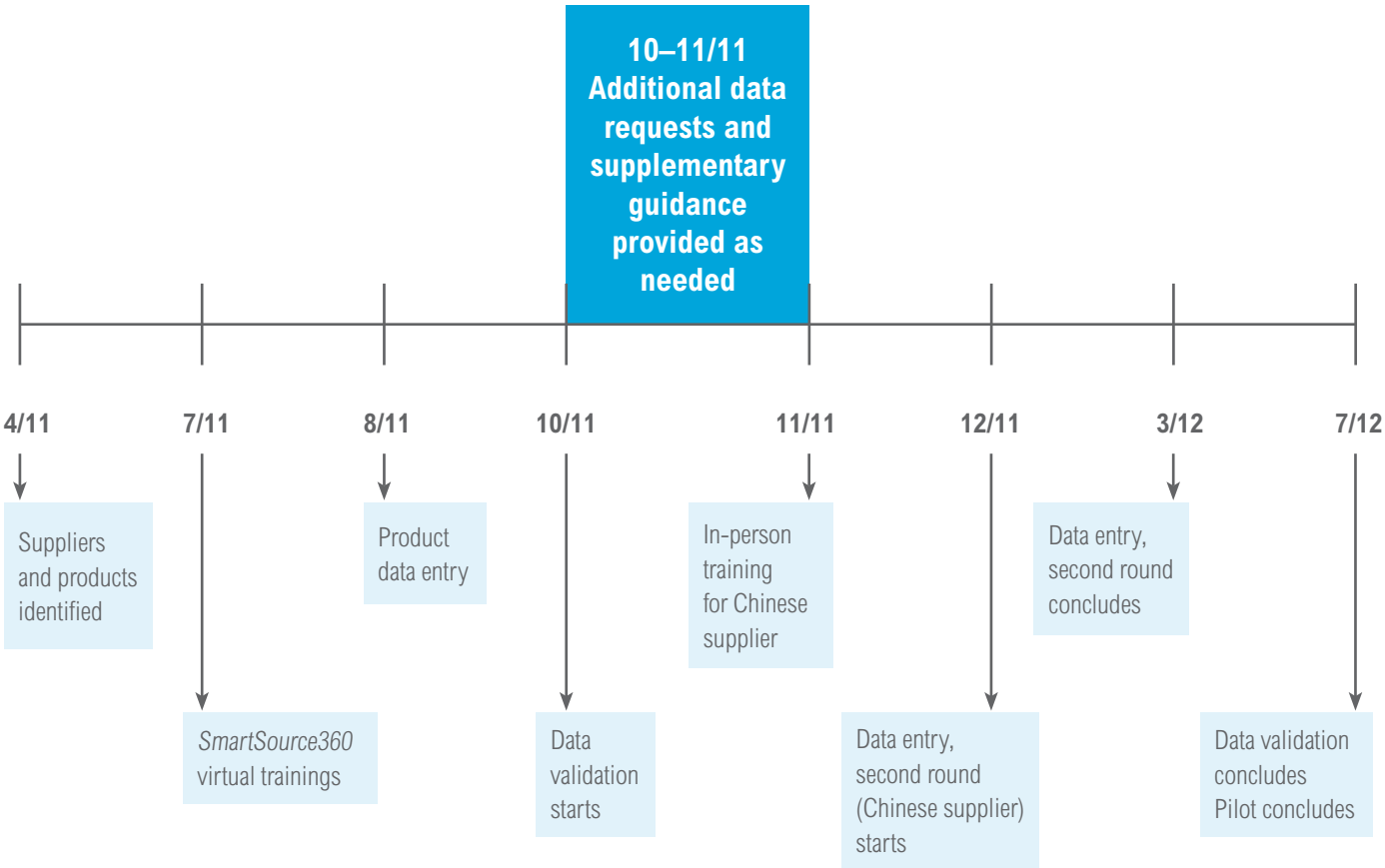
After the four-week period, Rainforest Alliance staff evaluated the information submitted. The data and documentation from the U.S. and Brazil-based suppliers was relatively complete and contained few errors. With support from a Staples' authorized buyer, Rainforest Alliance staff followed up with the suppliers via phone or e-mail to request clarification or additional information and documentation.

The data and documentation from the Chinese supplier, however, were incomplete and included errors. Based on their interactions with Rainforest Alliance staff, the Chinese suppliers appeared unaware of the legality requirements and the importance of supply chain transparency for Staples. They also lacked material traceability systems. In addition, the Chinese suppliers voiced concern that Staples would use the confidential business information to circumvent the supplier and source directly from sub-suppliers and brokers.

To address these shortcomings, Staples arranged a face-to-face meeting between Rainforest Alliance staff and high-level executives from both Staples and the Chinese supplier. The purpose of the meeting was to explain the importance of the data-disclosure process, discuss the use of the data collected, and explain the *SmartSource360* platform. After the meeting, the Chinese supplier was given an extended deadline to complete the reporting (Figure 4).

FIGURE 4

SMARTSOURCE360 DEPLOYMENT AND DEVELOPMENT



By the close of the second reporting period, the Chinese supplier had provided additional information and documentation, but it was still incomplete.

RESULTS

Through the *SmartSource360* pilot, the U.S.-based supplier demonstrated that its fiber originated from non-controversial sources, and the Brazil-based supplier demonstrated that all fiber sourced for the product was FSC certified. However, because the information provided by the Chinese supplier was inadequate, Rainforest Alliance was unable to determine the specific origin and species make-up for all of the fiber in its products.

Since the conclusion of the pilot, Staples has launched *SmartSource360* with existing private label suppliers, focusing on suppliers in Asia first. As part of the deployment, Staples and Rainforest Alliance have launched several training sessions to help build capacity within the Staples team that sources private label products out of Asia and direct Staples suppliers based in Asia. Capacity building so far has included organizing and participating in a responsible sourcing supplier event at PaperWorld China in Shanghai in 2012; delivering web-based and in-person training (bilingual) for Staples staff in 2013; bilingual and interactive in-person training for Staples suppliers in 2013; and providing a recorded bilingual web-based training for suppliers for ongoing use.

At the time of publication, six months after the pilot concluded, Staples was tracking approximately 100 products in the *SmartSource360* platform. Fifteen Asia-based suppliers were reporting through *SmartSource360*, including the China-based supplier from the pilot test. Staples and Rainforest Alliance hope that this supplier will close the gaps in the products piloted, as it continues to work through its supply chains. In general, the amount and quality of data and supporting documentation from the Asia-based suppliers for the additional products is in most cases better than that experienced during the pilot, and it continues to improve over time. As more companies ask suppliers for product data, suppliers will become more proficient at furnishing the information.

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ANALYSIS AND FINDINGS

The pilot highlighted challenges, identified areas critical to success, and yielded lessons to both improve the functionality of *SmartSource360* and shape the tool's deployment among Staples' suppliers.

Five key lessons emerged from the pilot:

Position in the supply chain matters

Position in the supply chain is an important consideration in the context of the U.S. Lacey Act; the more actors involved in the supply-chain, the more challenging it is to trace and exercise control over the supply chain, and the greater the risk of procuring illegally sourced raw materials. Compared with converters, distributors or printers, paper manufacturers or integrated paper companies are better prepared to quickly answer specific questions about the origin of their raw materials and the associated supply chain because they are closer to the source(s) of the raw materials.

In the pilot, the China-based supplier was a converter, and thus, it was more removed from the source of the raw materials. The company had to request its suppliers to provide information about their sub-suppliers in order to gather details and evidence about the origin and legality of the paper and the pulp. This took more time and additional effort compared to vertically integrated suppliers.

Buyers' and suppliers' priorities need to be aligned

Ensuring that buyers and suppliers share the same priorities is critical to ensuring that supply chain transparency initiatives work. The U.S. and Brazil-based companies that participated in the pilot test were most

It may be that suppliers in some regions of the world are not accustomed to detailed questions about the sourcing of their products, or requests to provide supporting documentation.

responsive to Staples' sourcing priorities because they have a long history of selling into developed markets and are likely accustomed to answering supply chain questions.

Staples' experience with its China-based supplier is not an exception. In fact, based on Rainforest Alliance's experience, obtaining good data and active participation by both the buying company staff and direct supplier during the first year of implementation is a common issue, regardless of the data collection tools used or the amount of "hand-holding" that has occurred. There have been situations in which the direct suppliers "agree" to disclose information and affirm that they understand the importance of these requests but the information disclosure is, in fact, poor. It may be that suppliers in some regions of the world are not accustomed to detailed questions about the sourcing of their products, or requests to provide supporting documentation. Also, suppliers may not be accustomed to finding or requesting information from their sub-suppliers about the origin of the products.

Despite these initial challenges, and building on the experience from the pilot, a major focus of the Staples procurement policy implementation process is outreach and training. To date, Staples has sponsored two Rainforest Alliance training events with Staples purchasing staff and Staples suppliers to introduce *SmartSource360*. These trainings aim to build understanding of why it is important to increase supply chain transparency.

It is critical to overcome supplier concerns about the use of confidential sourcing information

Suppliers might worry that by revealing supply chain information, they might enable their buyers to bypass them and source directly from sub-suppliers and brokers instead. This is a critical issue buyers need to overcome in order for tools like *SmartSource360* to work as intended. Even if direct suppliers are willing to provide supply-chain information, their sub-suppliers might be less trusting and feel that their supply chain should remain confidential. Lack of supplier and sub-supplier motivation to voluntarily engage in data disclosure—often born from a reluctance to reveal confidential information—is a major challenge to supply chain transparency.

The buyer can incentivize supplier participation through positive recognition. At the same time, the buyer could create negative consequences for failing to participate or fully disclose data. To be effective, this type of reward/consequence incentive must be made at the highest levels of the company and communicated to all purchasing staff and suppliers integral to purchasing decisions.

Staples is currently developing requirements for new suppliers, staff guidelines, and recommended action steps for existing suppliers who have not been able to adequately disclose at the end of the disclosure period. Staples expects to continue to focus on building capacity and transparency among existing suppliers but will take steps to ensure the suppliers meet disclosure requirements over time, including requiring third party legality verification or other methods.

From a broader perspective, supply-chain data requests from multiple buyers could be an important reason for suppliers to use tools like *SmartSource360*. Instead of responding to one data request, the supplier would compile data to answer to multiple requests. More information demand from buyers could make companies like Staples more influential with their suppliers, and better able to obtain better data. Some suppliers in the pilot stated that they had not received similar information requests from other buyers, including global companies that have made responsible procurement commitments, about the origin of the raw materials at the level of detail required by Staples in the pilot.

Direct communication with suppliers is important

Relationship building and trust can take years to develop and can be influenced by cultural differences. Direct communication between buyers and suppliers is critical to overcoming concerns about the use of disclosed

information. Direct communication can also help to align corporate priorities. In the pilot, Rainforest Alliance was the direct point of contact with the suppliers during the data collection stage. This arrangement was designed to expedite the pilot; Staples would be the main point of contact upon implementation of the tool more broadly. Although unplanned, Rainforest Alliance happened to have a direct relationship with the U.S.- and Brazil-based supplier prior to the pilot, but no prior relationship with the China-based supplier. Although the information provided by the Chinese supplier remained incomplete, progress was made only after an in-person meeting facilitated by Staples China. The meeting emphasized the importance of the supplier participation, and helped build trust between the two corporations. Even after the meeting, the China-based supplier was unable to obtain all the requested information. It is possible that trust issues and relationships farther down the chain to the forest source may have ultimately affected the supplier's ability to obtain the requested information.

Intermediaries can play a role supporting the implementation of a procurement policy

The presence of an intermediary actor to support the implementation of sourcing policies can be useful, especially if the buyers lack the in-house capacity to address legal and environmental issues related to forest products in the global context. The Staples-Rainforest Alliance partnership has worked in designing Staples Sustainable Paper Procurement Policy and rolling up its implementation, but also in reviewing and validating the legality and sustainability features of the products. Yet, completely outsourcing procurement policy implementation and control is not advisable. In the pilot project, for instance, Staples' involvement was required for reinforcing the importance of its procurement policies with its suppliers, ensuring policy requirements are well understood, and encouraging suppliers to fully disclose the information.

CONCLUSION

The 2008 amendments to the U.S. Lacey Act are changing the way Staples sources its paper products. The company already had a procurement policy in place and was interested in tracing the supply chain to reveal the source of the fiber used to make two paper products. The Lacey Act amendments, and the emergence of other regulations (such as the European Union Timber Regulation), have helped accelerate Staples' process. These legality requirements have focused Staples' overall sustainability agenda to take steps to increase transparency in their supply chains, exercise due care, address the risk of illegal wood in its products, and prepare for declaration requirements. According to Mark Buckley, the VP of Environmental Affairs at Staples: *"The Lacey legality requirements help focus attention on sustainability and gain visibility; when the legal department gets involved, people at all levels pay attention. We now need to accelerate the process and involve other companies."*

Through the pilot, Staples developed a better understanding of the complexity of its supply chains and a clearer vision of next steps. In the short term, these include reaching out to suppliers and sub-suppliers, and incorporating legality requirements into purchasing agreements. Staples is committed to use *SmartSource360* with its supplier base. If properly implemented, the system is expected to yield information at the level of detail required for the Lacey Act declaration requirements, should paper products be phased in in the future, and to support continued improvements against the commitments in Staples Sustainable Paper Procurement Policy.

Although progress is being made, challenges remain. Starting with communication, information and education, Staples intends to work with its suppliers and bring them to a position where they are able to meet Staples' legality requirements. A parallel approach that Staples has identified is to engage with other corporate actors with similar interests to build more collective demand for supply chain information. This would, in turn, incentivize data sharing and improve the quality of the data.

"The Lacey legality requirements help focus attention on sustainability and gain visibility; when the legal department gets involved, people at all levels pay attention."—Mark Buckley

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ENDNOTES

1 Paper products can be classified into four major grades: graphic, packaging, hygienic and specialty papers. Graphic papers are primarily used in newspapers, magazines, catalogs, promotional materials and general office paper. Many of these grades utilize special clays and coatings to enhance readability, gloss or other desired quality requirements. Packaging papers are papers of multiple grades used for shipping, food packaging, and grocery/shopping bags. The use of these grades is rising due to increasing global manufacturing and shipping, as well as rising consumption of prepared foods. Hygienic papers include tissues, toilet paper, kitchen towels, and diapers. Rising incomes in developing countries have increased the global use of these paper products. Specialty papers are essentially a catch-all category, including all other grades of paper used for a wide variety of purposes such as cigarette paper, wallpaper, paperware, wax paper, and paper for industrial use.

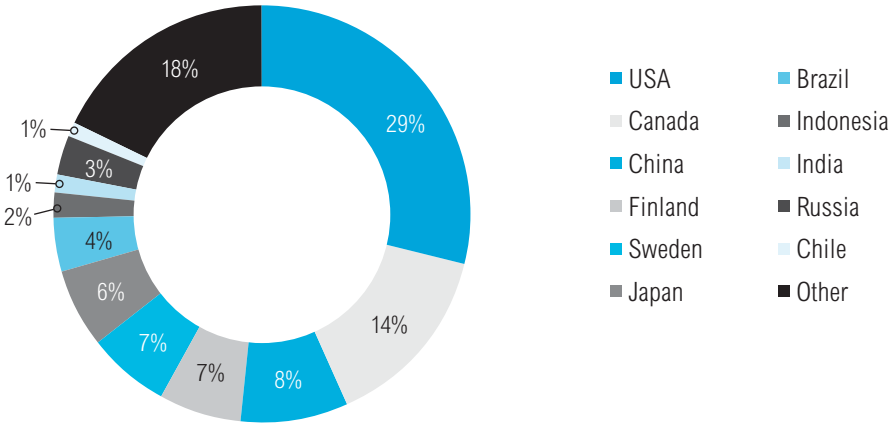
2. Jake Swenson, Director of Sustainable Products and Services, Staples. Review comment.
3. Efforts include: the Environmental Paper Working Group and the Environmental Paper Assessment Tool (www.epat.org), the Greenhouse Gas Protocol (www.ghgprotocol.org), the Green Power Market Development Group (www.wri.org/project/next-practice/history), the Forest Products Working Group (www.greenblue.org/activities/forest-products/forest-products-working-group/), and the Carbon Canopy project (www.carboncanopy.com).
4. Mark Buckley, Vice President of Environmental Affairs, Staples. Interview, July 2011.
5. Mark Buckley, interview, July 2011.
6. The Rainforest Alliance (RA) works to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices and consumer behavior. RA has over 20 years of experience working in over 65 countries with companies, farmers, and communities on sustainable agricultural production and sustainable forest management. For more information on the Rainforest Alliance and its projects, visit www.rainforest-alliance.org.
7. Credit 360 is a service provider specialized on corporate sustainability data compilation, management and analysis. For more information about Credit 360, please visit http://www.credit360.com/credit/site/home.acds (5/15/12).
8. For more information about PREPS and EPAT, visit http://prepsgroup.com/home.php and https://www.epat.org/EPATHome.aspx?request=119.
9. Mark Buckley, interview, July, 2011.

APPENDIX 1 – GLOBAL TRENDS IN PULP AND PAPER PRODUCTION

Historically the large majority of paper was manufactured near forests. The United States, Canada, the Nordic countries (Sweden, Finland) China and Japan were large producers of pulp. These countries, as well as Germany, have been the major producers of paper and paper board. In 2000, pulp manufactured in the US, Canada, China, Japan, and the Nordic countries represented 73% of total global pulp production, per Figure A. For paper and paper board, per Figure B below, the US, Canada, Nordic countries, China, Germany and Japan represented 67% of the total global paper and paper board production. In both of these categories, Brazil, Indonesia and India were relatively minor players.

FIGURE A

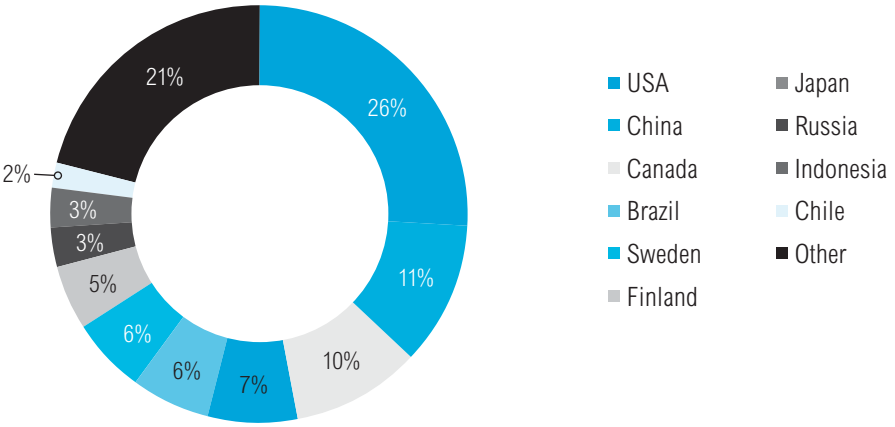
TOP PRODUCERS OF PULP FOR PAPER* IN 2000



*Pulp for paper includes all pulp (mechanical, semi-chemical, chemical) except dissolving pulp, which is not used for paper (Levedys, A., FAO. 2013. Personal comment).

FIGURE B

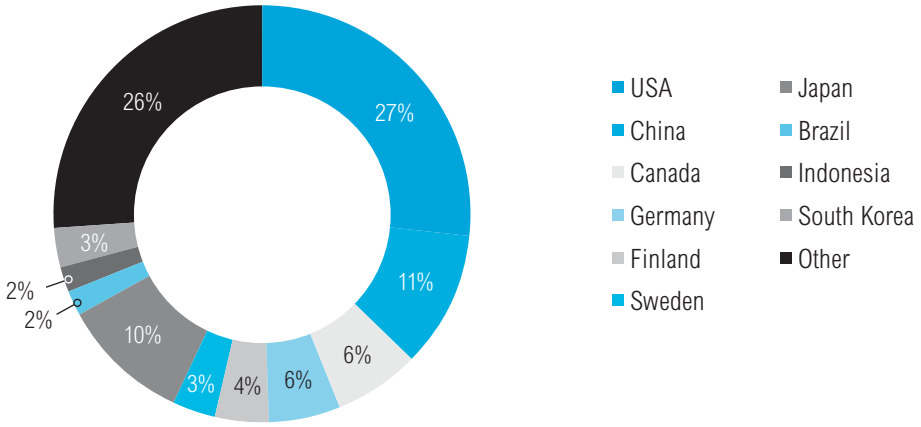
TOP PRODUCERS OF PAPER AND PAPER BOARD IN 2000



There have been very significant changes in pulp and paper and paper board production in the last decade. China is now the second largest global producer of pulp, surpassing Canada and following the United States. Brazil has become a significant pulp producer (4th largest, nearly doubling its capacity), and Indonesia, Chile and India are all in the top 11 countries. Per Figure C, these five emerging countries now represent 24% of total pulp production. The numbers for paper and paper board are even more startling. China has surpassed the United States, growing from 34.7 to 96.5 million tons and is now the world's largest producer. South Korea, Indonesia and Brazil are all in the top 10 countries. These four countries, per Figure D, now represent 33% of global paper and paper board production.

FIGURE C

TOP PRODUCERS OF PULP FOR PAPER* IN 2010



*Pulp for paper includes all pulp (mechanical, semi-chemical, chemical) except dissolving pulp, which is not used for paper (Levedys, A., FAO. 2013. Personal comment).

FIGURE D

TOP PRODUCERS OF PAPER AND PAPER BOARD IN 2010

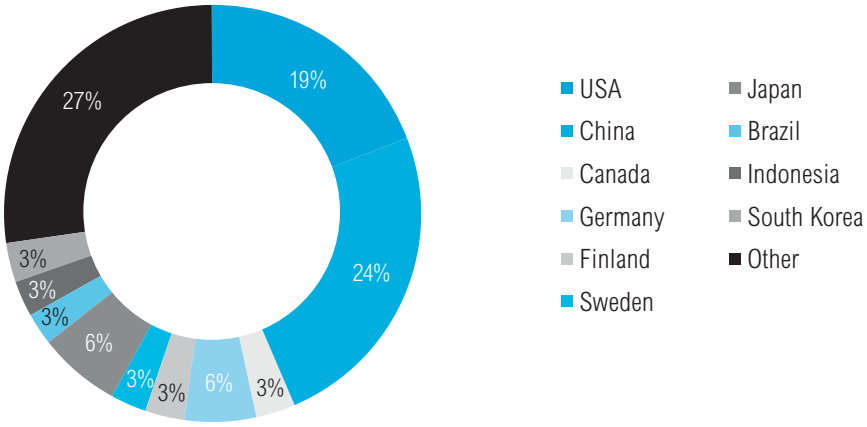
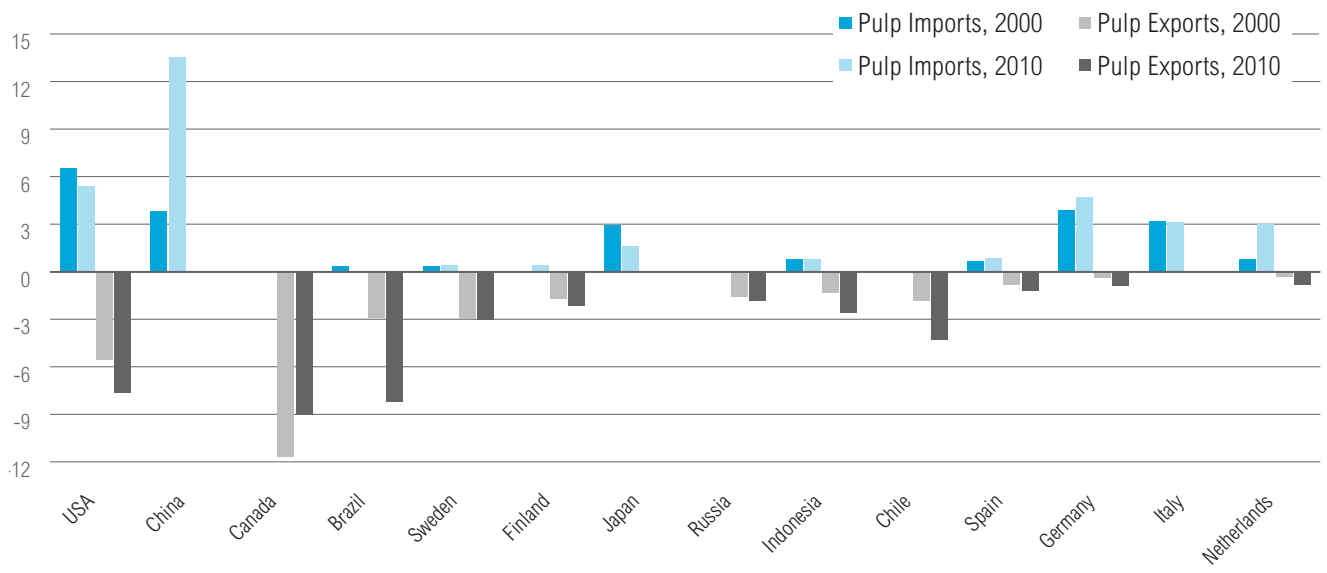


FIGURE E

TRADE FLOW OF PULP FOR PAPER



Demand for pulp and paper and paper board is significant in Western Europe and North America, although growth rates have slowed substantially since 2007, due to poor economic conditions and increased use of electronics. Demand is growing in the developing world, especially China, India and Brazil, due to generally improving economic conditions, increased literacy and a growing consumer culture that typically uses more packaging materials. Yet, per capita consumption in these countries is still considerably less than in Europe, North America and Japan.

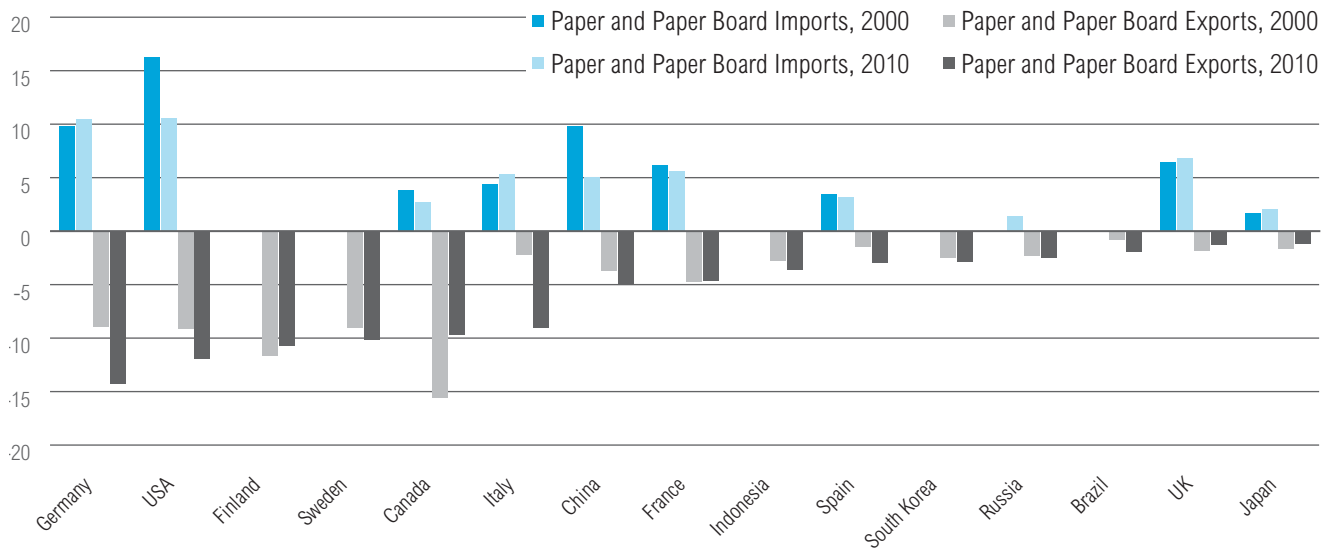
There has been a dramatic shift of trade flows over the last ten years. China has become by far the largest market for pulp, with close to 14 million tons now being imported to support its vast paper manufacturing operations. Major exporters into China include Canada and Indonesia. In addition, Brazil, Chile, Indonesia and Uruguay have now joined Canada, the U.S., the Nordic countries and Russia as major exporters of pulp. See Figure E comparing pulp trade flows from 2000 and 2010.

The shift for paper and paper board is less dramatic. However, the United States is now importing large quantities of paper and paper board from new manufacturers in China, Korea and Indonesia. Other major import markets include Western Europe (especially Germany), and developing countries. For exports, while Germany, the U.S., Canada and the Nordic countries remain the top five exporters, China, Indonesia, Italy, Spain and Brazil have grown substantially since 2000. See Figure F, comparing paper and paper board trends in 2000 and 2010.

Another emerging trend is the increased reliance on pulp from plantations, particularly Indonesia and Brazil. As production capacity increases in Asia, particularly

FIGURE F

TRADE FLOW OF PAPER AND PAPER BOARD



in China due to low production costs, more efficient equipment and improved infrastructure and ease of transportation, mills are becoming more dependent on plantation fiber that grows very quickly in the tropics. Yet, law enforcement protecting forests and forest communities may be lax. The use of recovered fiber, although growing, is not enough to meet the demands of a growing paper industry.

At the same time, pulp and paper mills in the United States, Canada and Western Europe are closing, as these facilities may be too small to operate efficiently. Then, the demand for paper starts to decline in local markets, along with manufacturing; hence the demand for packing moves to Asia. For companies like Staples, their dependence on extended global supply chains is likely to increase as domestic productions shrinks, new paper making facilities are based in Asia and demand continues to shift to new markets and away from traditional markets. These trends also put more pressure on forests in the tropics—key areas of concern.

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