



Verifying Responsible Sourcing of Fiber

Primer and Resources for Paper and Paper-based Packaging

GUIDE



PACKAGING DESIGN

GreenBlue is an environmental nonprofit dedicated to the sustainable use of materials in society. We bring together a diversity of stakeholders to encourage innovation and best practices to promote the creation of a more sustainable materials economy.

The Sustainable Packaging Coalition (SPC) is a membership-based collaborative that believes in the power of industry to make packaging more sustainable. We are the leading voice on sustainable packaging and we are passionate about the creation of packaging that is good for people + the environment. Our mission is to bring packaging sustainability stakeholders together to catalyze actionable improvements to packaging systems and lend an authoritative voice on issues related to packaging sustainability. The Sustainable Packaging Coalition is a trademark project of GreenBlue Org.

Authors

Shea Wales, Formerly with GreenBlue

Tom Pollock, Director of Strategic Partnerships, GreenBlue

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INTRODUCTION

It is becoming increasingly common for brands and retailers to require 100% of fiber for their paper and packaging to be responsibly sourced. In most cases, these companies rely on fiber from certified forests, recycled content, or a mixture of both, to meet responsible sourcing requirements. But there is a challenge. Fiber from certified forests and recycled feedstocks is limited. Approximately 11% of forests globally are certified, and about 13% are certified in the United States.^{1,2,3,4,5} Furthermore, due to the fact that paper can only be recycled 5 - 7 times before it loses its integrity, the availability of recycled fiber is also limited.^{6,7} This leaves fiber from forests that have not been certified as the other main feedstock for paper and packing. Which leads to the question this Guide was developed to address: How do companies verify that all of the fiber in their paper and packaging has been responsibly sourced -- including fiber from forests that have not been certified?



KEY POINTS

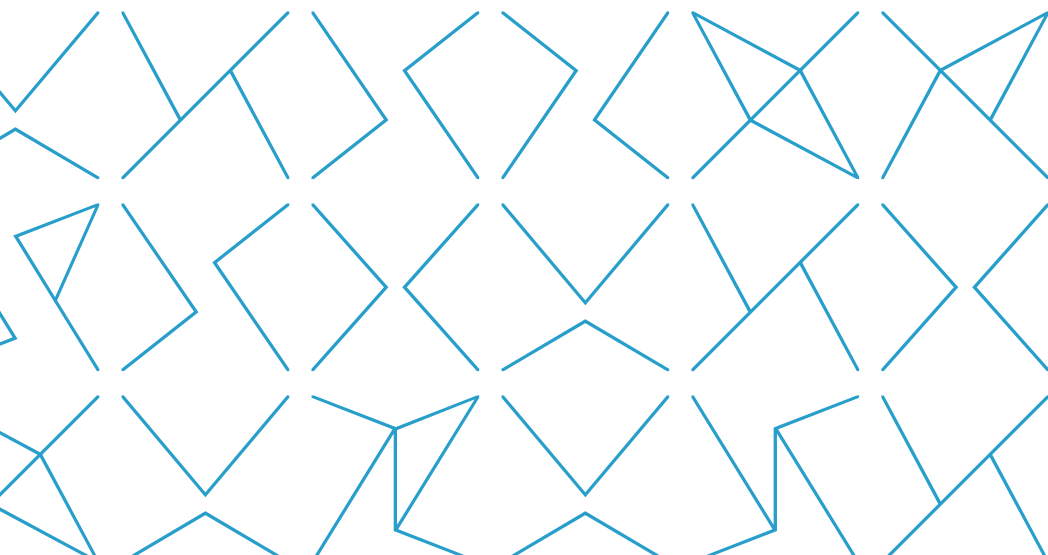
Fiber from certified forests and recycled feedstocks are not the only sources of responsible fiber. In the United States fiber from forests that have not been certified can be a responsible source of fiber. These forests are frequently managed in accordance with a set of standards, such as federal, state, and local forestry program requirements (and laws). The difference being that these forests may not have the additional level of assurance that comes with independent auditing. If companies choose to purchase products containing fiber from forests that have not been certified, they should understand that certain assurance mechanisms may not have been applied and that additional due diligence may be needed.

Purchasing 100% responsibly sourced fiber is increasingly the standard for paper and paper-based packaging. Forests provide essential environmental, economic, and social benefits, while being subject to intensifying climate change, disturbances, and human interventions globally. To meet new responsible sourcing commitments, companies need to know how and where to start.

The majority of wood fiber in the United States originates from privately owned forests. Collectively, 10.6 million private forest owners own 58% of the forests in the United States and supply more than 90% of the fiber that enters US supply chains.^{8,9,10,11} Of the private ownership group, 92% percent are categorized as family forest owners. They in turn own 38% of US forests.^{12,13,14,15} Privately-owned and family-owned forests may be well-managed but due to a variety of obstacles (e.g. high costs of certification on small parcels, infrequent harvests, varying ownership priorities, post-harvesting and long-term commitments, etc.) only a small fraction are certified.

In order for fiber to be verified as responsibly sourced, it must be evaluated using a due diligence process or system. This is true regardless of fiber origin (i.e. fiber from certified forests, recycled feedstocks or from forests that have not been certified). The risk mitigation that occurs during the due diligence process helps companies strengthen relationships with their suppliers, foster cross supply chain collaboration, avoid controversial sources, and build trust with customers.

In regions that have been designated as high-risk, companies should consider taking actions that go beyond relying solely on forest certification. This could include interacting with their supply chains more directly, using adapted versions of verification mechanisms outlined in this guide, and by taking more direct and localized action with key supply chain partners.





HOW TO USE THIS GUIDE

The Guide to Verifying Responsible Sourcing of Fiber (the “Guide”) was designed to help sustainability professionals and procurement managers understand what responsible sourcing of wood fiber (“fiber”) means and how to engage their supply chain through a due diligence process. Though the focus of the guide is on sourcing fiber in the United States, the guide does review foundational and globally applicable responsible sourcing concepts. Companies at various stages of their sustainability journey may benefit from this guide, but the primary target audience is businesses and professionals new to responsible sourcing.

In order to both level-set and offer practical, usable tools the Guide was organized into two main sections:

Section I provides a primer that explains the importance of responsible sourcing, the main sources of fiber, and the use of fiber from forests that have not been certified. Special sections on **certification** and the **Lacey Act** are also included.

Section II lays out the responsible sourcing process and provides context for the concepts and resources included in the guide. This section also includes four **guiding principles** for responsible sourcing, an example supply chain **questionnaire**, and a brief **overview** of why companies may choose to use additional tools and technologies to meet sourcing goals.

Following Section I and II are two Appendices with supporting resources and a glossary of terms.



Section I: Responsible Sourcing Primer

WHY SOURCE RESPONSIBLY?

Responsible sourcing gives companies an opportunity to address critical environmental issues such as climate change, pollution, ecosystem degradation, and biodiversity loss. Coupled with environmental benefits, companies also recognize that responsible sourcing builds trust with customers, drives innovation, and reduces exposure to risk.

Forests cover 31% of the world's land area and provide critically important ecosystem services.¹⁶ From clean water, carbon storage, and plant and animal habitat, to jobs, wood, and recreational activities, it is impossible to conceive of a world without this dominant terrestrial ecosystem. Despite the benefits they provide, forest ecosystems still face major threats, including:¹⁷

CLIMATE CHANGE AND GLOBAL WARMING

A changing climate influences the timing, frequency, duration, and intensity of disturbances (e.g. drought, forest fire, windstorms, ice storms, hurricanes, insects, pathogens, etc.)¹⁸ Since forest systems are adapted to historical climate conditions and disturbances, a rapidly changing climate may leave some forest systems ill-equipped and at risk.

PERMANENT FOREST CONVERSION (I.E. DEFORESTATION)

Deforestation eradicates forest systems and compromises many of the services they provide. Between 2015 and 2020, approximately 24.7 million acres of forest were impacted by deforestation globally.¹⁹ Agriculture (e.g. cattle, palm oil, and soybean monocultures) accounts for the majority of this land conversion. In the tropics, 73% of deforestation was a result of agriculture, with commercial agriculture accounting for 40% and local subsistence agriculture accounting for 33%.²⁰

UNSUSTAINABLE, UNREGULATED, AND/OR ILLEGAL HARVESTING

Illegal harvesting, etc. often occurs in countries without robust laws and effective enforcement. In 2013, 85% of illegal wood originated from only three producer countries: Indonesia, Brazil, and Malaysia.²¹ Consequences of such harvesting practices can negatively impact forest ecosystems, workers, local communities, organized crime, and legal wood markets.

By creating a demand for responsibly sourced fiber, companies help to ensure that working forests stay forests, that important ecosystem services are protected, and that valuable resources are preserved for current and future generations. Taken to scale, responsible sourcing encourages environmentally-sound forestry practices, helps to establish sustainable material flows, and builds trust with customers.

MAIN FIBER SOURCES: BACKGROUND & ASSURANCES

This Guide categorizes fiber as originating from three general sources: recycled feedstocks, certified forests, and forests that have not been certified. Since each category of fiber carries its own unique set of potential risks and assurances, understanding the source of fiber will help companies anticipate the types of risks they may need to mitigate. In this document, the term ‘assurance’ is used to describe information or attributes that provide confidence for responsible fiber procurement.

RECYCLED FIBER

Recycled fiber refers to fiber that was collected and converted back into a fiber feedstock that can be used in another product. Because the scope of this Guide focuses specifically on the responsible sourcing of wood-based materials from forests, fiber from recycled feedstocks do not pose a major threat to forest ecosystems or nearby communities and peoples. In fact, incorporating recycled content into packaging is one way to keep fiber in use longer, out of landfills, and promote a circular economy.

With all its important characteristics recycled fiber is still a finite resource. Fiber can only be recycled about 5–7 times. This is due to collection rates and process losses, where as much as 80% of the fiber can be lost after two rounds of collection and processing. These process losses mean that in North America, even if all the recoverable fiber is collected and processed - without new fiber inputs - most recycled paper products would run out of material in less than one year.^{22,23} So, while using recycled fiber in paper and packaging is undoubtedly beneficial, new fiber is always required. It is not a question of recycled versus new fiber, but rather what is the best use of these two interdependent feedstocks.

FIBER FROM FORESTS: CERTIFIED & NOT CERTIFIED

New fiber may originate either from forests that are certified to a forest management standard or from forests that have not been certified. Since certified forests are independently audited to confirm management aligns with comprehensive sustainability standards, fiber from certified forests provides assurance that important environmental features and social interests are addressed and protected.

However, as is the case with recycled fiber, there is a finite amount of fiber from certified forests available. Worldwide only about 10-11% of forests are certified to a credible third-party system.^{24,25} Most of these certified forests are located in industrialized nations like the United States, Canada, Sweden, Finland, and Russia.^{26,27,28} In the United States 13% of forests and 20% of timberlands are certified.^{29,30,31} In large part, this is a result of who owns these forests. Collectively, 10.6 million private owners control 58% forests and supply more than 90% of the fiber that enters US supply chains.^{32,33,34,35} Of this group of private owners, 92% are categorized as family forest owners, who in turn, own 38% of US forests.^{36,37,38} Getting these private, family forest owners to certify their forests is challenging. This is due to the sheer number of owners, the relatively high costs of forest certification on small parcels, small average parcel sizes, infrequent and/or the small size of harvests, long-term commitments associated with certification, and varying ownership priorities.³⁹ Together these dynamics create a large mismatch between the demand for – and supply of – fiber from certified forests.

WHAT YOU NEED TO KNOW ABOUT FIBER FROM FORESTS THAT HAVE NOT BEEN CERTIFIED

Many paper and packaging products made in the US and Canada use fiber from forests that have not been certified. This, however, does not mean that the fiber was not responsibly sourced. In these low risk countries, robust laws, regulations and effective enforcement are designed to protect important environmental features and social rights. According to the Forest Stewardship Council (FSC) National Risk Assessment, the continental US is low risk for illegally harvested wood, wood harvested in violation of traditional and human rights; and commercial wood from genetically modified trees. That is not to say that no risk exists. FSC does designate “Specified Risk” for certain areas of the US in which non-working forests are converted to plantations or to non-forest uses, or where high conservation values are threatened by management activities.⁴⁰

In regions that are designated as low risk, wood procurement standards (see certification), may help to reduce the likelihood that uncertified fiber comes from controversial sources (i.e. ecologically vulnerable, converted forests, culturally significant, etc.) and ensure that best management practices are used during harvesting. Whether or not additional assurance mechanisms (e.g. forest management certification, wood procurement standards, etc.) are in place, due diligence should always be performed to ensure that risks are mitigated and the fiber purchased aligns with a company’s sourcing policies.

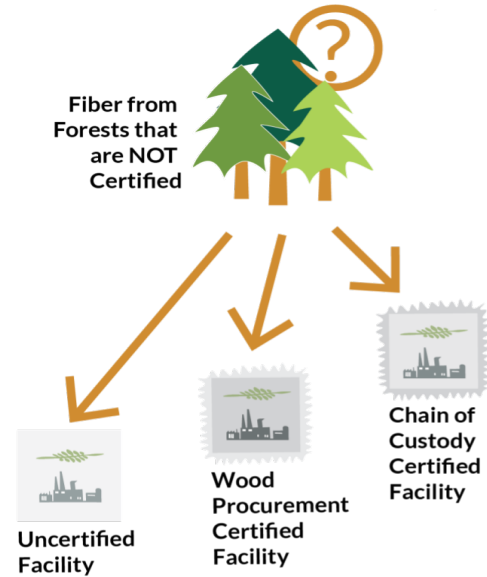


Fig 1. Uncertified Fiber in the Supply Chain. In the US, uncertified fiber enters the supply chain to be used by a variety of facilities (i.e. mills, converters, manufacturers, etc.) -- some of which are certified to a credible third party standard, and some of which are not.

Verifying that the material in your products is coming from responsible sources can be a big undertaking. Depending on the size and geographical distribution of your company’s numerous supply chains, a single product could contain fiber from: a handful of tree species, various countries, recycled feedstocks, certified forests and not certified forests. As a result, communicating with suppliers, tracking material, and vetting information can be complicated. If a company chooses to use products containing fiber from forests that have not been certified, they should (1) ensure that this fiber comes from low-risk regions, (2) understand that uncertified fiber generally has fewer assurances than fiber from certified forests, and (3) be prepared to perform the due diligence necessary to verify that their fiber has been responsibly sourced.




| |  Fiber from Recycled Feedstocks |  Fiber from Certified Forest |  Fiber from Forests that are NOT Certified |
|-----------------------------|---|---|--|
| a.k.a | – | Certified Fiber | Uncertified Fiber |
| Definition | Fiber from pre- and post- consumer sources that were diverted from the waste stream, and then collected, sorted, reprocessed, and converted into a feedstock to be used in another product. | Virgin fiber originating from forests that <i>have</i> been certified to a forest management standard (confirmed through reporting and third-party audits). | Virgin fiber originating forests that have <i>not</i> been certified to a management standard. |
| Assurances | Laws & Regulations | Forest Management and/or Chain of Custody Standards | – |
| Potential Assurances | Industry Standards | Laws & Regulations (country dependent) | Laws & Regulations (country dependent); Wood Procurement Standards |

Fig 2. The Three Main Fiber Sources. Fiber from recycled, uncertified and certified forests are compared (within the context of fiber procurement). ‘Assurances’ indicate information or attributes that provide confidence for responsible fiber procurement. ‘Potential Assurances’ refers to assurances that may or may not be available (or relevant) to a particular fiber supply.

SPECIAL: A DEEPER DIVE ON CERTIFICATION

Certification is one tool and a voluntary mechanism that uses agreed-upon standards to provide assurance for fiber in the supply chain. Such standards typically address environmental, economic, and social features like fiber origin, avoiding controversial sources, harvesting practices, worker conditions, etc. A third-party auditor is used to assess conformity to the standard and to provide confidence for companies and their consumers that certified products are sourced 'sustainably' (i.e. in accordance with the certification standard).⁴¹

'Certification' is a term so ubiquitous in corporate sustainability language that its meaning sometimes gets lost or confused. Fundamentally, there are three main types of certifications available for most forest products⁴²:

| Certification Type: | Applies To: |
|---|---|
| <p>Forest Management certifications are directed at a specific area of forest (e.g. stand, parcel, or thousands of acres) and confirm that the land it is being managed in accordance with a particular set of standards.</p> | <p>Forest Land</p> |
| <p>Wood Procurement certifications help to ensure there are controls in place to mitigate risk, especially when fiber is procured from forests that are not certified to a forest management standard. This type of certification primarily applies to manufacturers and suppliers of wood and fiber-based products. It does not apply to the forest itself. These certifications will typically have more requirements for primary producers and will outline acceptable harvesting practices, require risk assessments to be conducted and due diligence systems to be developed (to confirm fiber does not originate from unacceptable or controversial sources). See Appendix I.</p> | <p>Suppliers / Manufacturers</p> |
| <p>Chain of Custody (CoC) certifications provide a mechanism for tracking fiber from certified forests, as well as information such as amount/volume, species, ownership, use, etc. through the supply chain.*</p> | <p>Suppliers / Manufacturers</p> |

*Chain of Custody certifications allow for a mix of fiber from recycled feedstocks, certified forests management and forests that have not been certified. When this mixing occurs wood procurement certification is often required to ensure that the fiber from forests that have not certified is responsibly sourced.

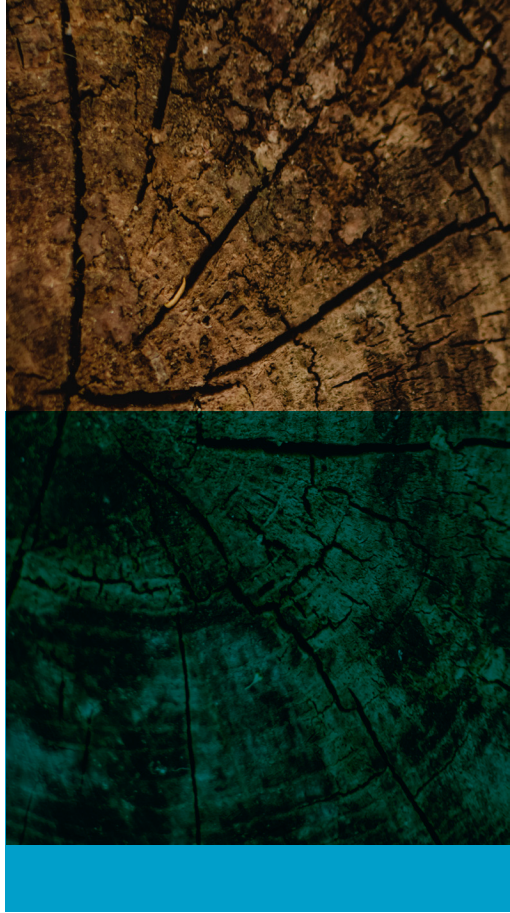
SPECIAL: THE U.S. LACEY ACT

The Lacey Act is a United States conservation law that makes it illegal to acquire, transport, sell, purchase, export, or import any fish, wildlife, or plant species that are taken or traded in violation of US or foreign law.^{43,44} The 2008 amendment to this law, which broadened the definition to include plants and plant products, has helped to reduce imports of illegally harvested wood into the United States. Currently, the law covers all species and their parts or products protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), as well as species protected by US State and Indian law.⁴⁵

Illegal logging often occurs in countries without robust laws and effective enforcement. In 2013, 85% of illegal wood came from three producer countries. Approximately 50% of illegal wood originated in Indonesia, 25% in Brazil, and 10% in Malaysia.⁴⁶ Because poor governance and corruption is often associated with these types of activities, illegal logging most often occurs in producer countries without clear legal frameworks and effective law enforcement (see related mapping efforts: Corruption Perceptions Index, Forest Governance and Legality and Timber Sourcing Hub; see Appendix I).^{47,48}

The impacts of illegal logging are far-reaching. Such practices can result in ecosystem degradation, species loss, permanent forest conversion (deforestation), increased erosion, changes in water quality, etc. On a global scale, these activities are so commonplace that the consequences of illegal logging are accelerating climate change.^{49,50} For example, in 2018 tropical deforestation accounted for 8% of global anthropogenic emissions.⁵¹ Beyond the environmental consequences, illegal logging has considerable social and economic repercussions. Such practices deplete forest resources and undermine land and use rights, which in turn harm local peoples and communities. Illegality also contributes to organized crime, results in a loss of tax revenue, and distorts global, especially legal, wood markets.^{52,53,54} Take, for instance, forestry crimes (i.e. corporate crimes and illegal logging) which according to 2016 INTERPOL data, accounted for an estimated 51 billion to 152 billion dollars per year.⁵⁵

One of the most well-known Lacey Act violations in recent years was by the American manufacturer, Gibson Guitar. After investigations into two allegations that Gibson ordered, purchased, or imported illegally harvested wood from India and Madagascar, Gibson reached a criminal enforcement agreement with the U.S. Department of Justice which resulted in a \$300,000 fine, a \$50,000 community service payment to the National Fish and Wildlife Foundation, the surrender of \$261,844 worth of seized illegal wood and the required implementation of a compliance program.^{56,57} Some viewed this agreement as an important demonstration of the effectiveness of the Lacey Act, as well as a case study for the reputational and legal risks that companies face if they choose to ignore the law or fail to perform adequate due diligence.⁵⁸





Section II: How To Verify Fiber Has Been Responsibly Sourced

THE RESPONSIBLE SOURCING PROCESS

Outlined in this section are four basic steps in a responsible sourcing process. These steps are general by design and intended to help companies understand where the Guide's concepts can be applied.

LEVEL-SET AND ESTABLISH BASELINE INFORMATION ABOUT YOUR SUPPLY CHAIN.

Supply chains are often complex and it may be daunting for companies new to responsible sourcing to know where to begin. Collecting useful information to promote supply chain traceability, establish the country(ies) of harvest, and cultivate an understanding of potential risks, etc. is an important first step that will help companies set goals, engage their supply chain, and improve their sourcing strategies over time.

DEFINE GOALS AND ACCEPTABLE SOURCES.

Setting measurable, time-bound goals helps a company clearly define "responsible sourcing" and manage progress towards their goals. Once a set of goals is defined, companies often find it helpful to outline clearly what fiber sources are preferred or acceptable as well as their expectations for suppliers. This process can help to create a transparent framework for rewarding compliance and addressing any possible non-compliance.

ENGAGE THE SUPPLY CHAIN AGAINST SET GOALS

By this phase, companies should have clarity on what they want to achieve, how it will get there, by when and with whom. That is to say, companies are now prepared to actively engage with their supply chain.

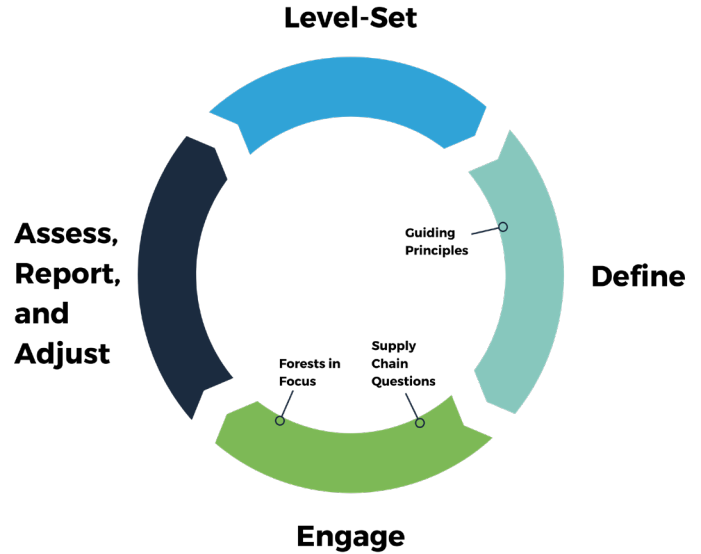
Some companies require their suppliers to complete questionnaires as a way to ensure compliance, mitigate risks, and confirm that the fiber they receive is coming from responsible sources. The example [questionnaire](#) provided in this guide was designed to help companies consider what information to collect – based on their supply chain realities, goals, and the [Guiding Principles](#).

Depending on the circumstances, some companies may leverage additional tools to gain further information about their fiber supply. Innovative tools such as [Forests in Focus](#), offer insights into sustainability criteria that can be used as part of a company's due diligence process.

ASSESS AND REPORT ON PROGRESS TOWARDS GOALS. IDENTIFY OPPORTUNITIES FOR IMPROVEMENT. ADJUST STRATEGIES ACCORDINGLY.

As a result of improved supply chain transparency and visibility, companies may find that they can more easily identify key information related to fiber origin, potential risks, and performance measures that are most critical to achieving responsible sourcing goals. Effective assessment, reporting and adjustment can help companies mitigate environmental risks, build trust with customers and create more resilient supply systems.

Please refer to the [Resources](#) section for additional information related to any of the above phases.



GUIDING PRINCIPLES EXPLAINED

The VRS Guiding Principles are designed to communicate the most important responsible sourcing concepts and should serve as the guideposts for responsible sourcing. Because responsible sourcing can be accomplished in many ways; the guiding principles are intentionally non-prescriptive.

Broadly, responsible sources of fiber are those that are:

TRACEABLE (T)

What it is:

The ability to identify, record, and track the origin and use of wood and fiber-based products through the supply chain.

Why it is important:

Effective traceability improves supply chain visibility and resilience, allowing companies to identify and target potential risks, improve system efficiency, and communicate more transparently with customers.

LEGAL (L)

What it is:

Confirms that the harvest, transport, and trade of timber and/or other fiber-based products is in compliance with international, national, and regional laws. At its core, legality requires a legal right to harvest and that all fees and taxes are paid.

Why it is important:

The use of illegal wood may contribute to or result in many serious consequences, such as; forest ecosystem degradation and conversion, corruption, organized crime, loss of government revenue, reduced profitability for legal goods, human rights violations, loss of consumer trust, financial and jail time penalties, etc.

RESPONSIBLY HARVESTED (RH) *Not applicable (NA) for recycled sources

What it is:

Requires that at minimum, harvesting is in compliance with relevant laws, protects traditional, human and workers rights, does not pose a significant threat to species or ecosystems of concern, and excludes the commercial use of genetically modified tree species.

Why it is important:

Responsible harvesting practices are designed to limit human and environmental risks, while helping to improve the long-term economic viability of the forest products industry.

SOCIALLY RESPONSIBLE (SR)

What it is:

Addresses and protects the rights and needs of workers, indigenous peoples and local communities affected or involved with fiber procurement.

Why it is important:

Regular assessments and monitoring (achieved through local partnerships and multi-stakeholder collaborations, etc.) can create strong mutualistic relationships which help to support local communities and peoples, confirm that rights and needs are being upheld, and ultimately, build trust with customers.

QUESTIONS TO ASK YOUR SUPPLY CHAIN

The following questions are designed to address the four guiding principles and help companies build traceability into their supply chain, exclude controversial sources, and ensure that the wood fiber they receive aligns with their sourcing policies. That said, while the questions reflect the typical procurement rationale of brands, retailers, converters, and manufacturers, etc. they are not necessarily exhaustive. If fiber is procured from higher-risk regions or from secondary producers who source from other secondary producers, additional information and work will likely be required (see Appendix I).

HOW TO USE THE EXAMPLE QUESTIONNAIRE

Before using the questionnaire, companies may find it useful to list and group all their suppliers into primary and secondary producer categories. Doing so may help companies visualize the complexity of their supply chain and evaluate how much additional information may be needed (e.g. in the case that a secondary producer sources fiber from many other secondary producers).

If companies choose to require their suppliers to complete a questionnaire, they should require that all applicable questions are answered. Incomplete responses or missing documentation may indicate a breakdown in communication, a potential risk, or an item that needs additional attention.

Following questionnaire completion, responses should be reviewed to ensure that (1) information is complete and accurate, and (2) that the fiber contained in the product meets your company's sourcing requirements (and the VRS Guiding Principles).

Beside each question, relevant guiding principles are indicated with their initials. The questions with brown squares beside them are intended for primary producers, and the questions with beige squares are intended for secondary producers. If both squares are present, the question is applicable to both producer (i.e. supplier) types. As illustrated below:

A primary producer is 'Any facility that uses roundwood or that sources most of their wood-based materials directly from a forest'.

A secondary producer is a 'facility that sources most of their wood-based materials from primary or secondary producers'.⁵⁹

SUPPLY CHAIN QUESTIONNAIRE

| Facility Questions: These questions can be completed once and updated as needed. | PRODUCER TYPE | | TRACEABLE (T) | LEGAL (L) | RESPONSIBLY HARVESTED | SOCIALLY RESPONSIBLE |
|--|---------------|-----------|---------------|-----------|-----------------------|----------------------|
| | PRIMARY | SECONDARY | | | | |
| 1. How does your company manage their purchasing to promote and ensure traceability within your supply chain? If a formal policy, program, or system exists please provide a copy. | X | X | X | | | |
| 2. What practices does your company employ to ensure your fiber sources are legal? If a formal policy, program, system, and/or risk assessment exists please provide a copy. | X | X | | X | | |
| 3. What actions do you take to ensure responsible harvesting? If a formal policy, program, system, and/or risk assessment exists please provide a copy. | X | X | | X | X | |
| 4. Does your company use landscape-level tools and technologies, such as Forests in Focus, to monitor and understand risks and trends in your region of sourcing? | X | X | | | X | |
| 5. What practices does your company employ to ensure your fiber is sourced, harvested and/or transported in a way that protects human and workers' rights? If a formal policy, program, system and/or risk assessment exists (Sedex, supplier code of ethics, etc.) please provide a copy. | X | X | | | | X |
| 6. Are you aware of any legal, environmental and/or social issues that have been publicly raised about the sourcing of the fiber contained in the product? If yes, what are those concerns and what are you doing to address those concerns? | X | X | X | X | X | X |
| 7. Please indicate which certifications the facility holds: a.Chain of Custody (FSC, PEFC, SFI) b.FSC Controlled Wood c.SFI Fiber Sourcing d.SFI Certified Sourcing e.None | X | X | X | X | X | X |

SUPPLY CHAIN QUESTIONNAIRE CONTINUED

| Facility Questions: These questions can be completed once and updated as needed. | PRODUCER TYPE | | TRACEABLE (T) | LEGAL (L) | RESPONSIBLY HARVESTED | SOCIALY RESPONSIBLE |
|--|---------------|-----------|---------------|-----------|-----------------------|---------------------|
| | PRIMARY | SECONDARY | | | | |
| 8. What is the product being supplied? | X | X | X | | | |
| 9. Where did the fiber contained in the product originate from? Please specify the country(ies), region(s), and province(s)/state(s) of harvest. | X | | X | X | | |
| 10. What are the names and addresses of all of your suppliers (primary producers) that provide the fiber contained in the product? Please specify the country(ies), region(s), and province(s)/state(s) in which they harvest. | | X | X | X | | |
| 11A. What tree species are contained within the product being supplied? | X | X | X | X | | |
| 11B. Are the tree species contained in the product listed in any of the three CITES Appendices? If yes, please list the species and provide a written explanation for their use. | X | X | X | X | | |
| 11C. Does the country of origin have a ban on any of the species of wood in your product? | X | X | X | X | N/A | |
| 12. What percentage of fiber contained in the product is recycled? | X | X | X | X | | |
| 13. Does this product come with a forest certification claim? If yes, indicate a specific claim. | X | X | X | X | X | X |
| 14. Is the ILO Declaration on Fundamental Principles and Rights at Work (1998) respected in the country(ies) and region(s) where the product originated from? | X | X | | | | X |

TOOLS FOR SUPPORTING DUE DILIGENCE

The supply chain questionnaire is an important due diligence mechanism that helps companies identify and mitigate risks, and confirm that the fiber that they receive is coming from responsible sources. That said, every sourcing situation is different. Depending on the circumstances, some companies may leverage tools and resources as a way to provide additional assurances to themselves and their customers (see Appendix I). For example, brands and retailers sourcing from higher-risk countries may use DNA analysis to corroborate supplier information, while suppliers and forest owners in high-risk regions may use satellite imagery to monitor forest cover and ensure illegal harvesting is not occurring within their lands.



FORESTS IN FOCUS

ASSESS RISK. IDENTIFY OPPORTUNITIES. MAKE AN IMPACT.

Forests in Focus is a US-based information management tool that helps companies meet their sourcing goals by providing sustainability insights into the landscapes where new wood and fiber is sourced. Forests in Focus leverages trusted data from the USDA Forest Service, NatureServe, and others to deliver risk assessments at a landscape-level (across certified and uncertified parcels). These assessments are based on seven key sustainability criteria and give members the information they need to:

- Create a more complete picture of the forests where they source
- Deepen their understanding of important environmental issues
- Engage their supply chain in a productive, data-driven dialog
- Invest in projects which deliver measurable conservation outcomes on the ground
- Demonstrate environmental stewardship
- Include family forests as a source for meeting responsible sourcing goals

The tool also serves as an important collaboration mechanism that connects state agencies, conservation organizations, and family forest owners with industry -- driving meaningful investments into conservation impact work.

Forests in Focus is a project of GreenBlue's Sustainable Packaging Coalition (SPC) and the American Forest Foundation (AFF). It was developed in collaboration with the following founding industry members:



For more information please visit: <https://forestsinfocus.com/>

APPENDIX I. RESOURCES

Resources either provide supplemental information or help users perform due diligence (via third-party certification, tools, technologies, etc). The four columns on the right indicate relevance to each of the four guiding principles.

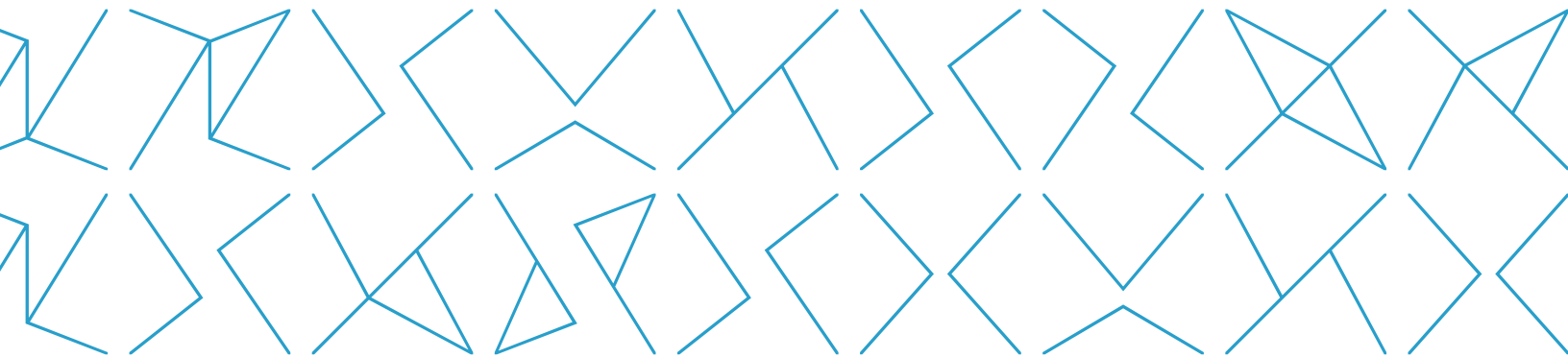
| Author | Name | Description | Define | Level-Set | Engage |
|--|--|---|--------|-----------|--------|
| | Certification | <p>See Certification Review</p> <p>Forest Management American Tree Farm System (ATFS) Canadian Standards Association (CSA) Forest Stewardship Council (FSC) Sustainable Forest Initiative (SFI)</p> <p>Wood Procurement FSC Controlled Wood SFI Fiber Sourcing SFI Certified Sourcing</p> <p>Chain of Custody (CoC) Forest Stewardship Council (FSC) Programme for the Endorsement of Forest Certification (PEFC) Sustainable Forest Initiative (SFI)</p> | X | | |
| ASTM International | ASTM D7612 - 10(2015) | Standard practice for categorizing wood and wood-based products according to their fiber sources | X | | |
| ISO | ISO 38200:2018 | Specifies requirements for a chain of custody (CoC) of wood and wood-based products | X | | |
| MetaFore (acquired by GreenBlue in 2009) | The Fiber Cycle (2006) . | These documents speak to how wood and fiber is managed, utilized, recovered and recycled in Canada and the United States. | X | | |
| NCASI | Update to the Fiber Cycle Technical Document | In this document, 2016 and 2017 data is used to update the original Fiber Cycle Technical Document results. | X | | |
| Proforests | Proforests. | Non-profit group that supports companies, governments and other organizations to implement their commitments to the responsible production and sourcing of agricultural commodities and forest products. | X | | |
| SPC | The Goals Database | A curated compendium of industry commitments aimed at improving packaging sustainability. Discover trends, analyze goals, and learn which topics have the most momentum in the world of sustainable packaging. This database is exclusively for SPC members. | X | | |

| Author | Name | Description | Define | Level-Set | Engage |
|----------------------------|--|--|--------|-----------|--------|
| United Nations (UN) | Sustainable Development Goals | Serve as a blueprint to achieve a better and more sustainable future for all. SDGs address the global challenges we face, including poverty, inequality, climate change, environmental degradation, peace, and justice. | X | | |
| United Nations's FAO | The State of Forests 2020. | Reports on the status of forests, recent major policy and institutional developments and key issues concerning the forest sector. It makes current, reliable, and policy-relevant information widely available to facilitate informed discussion and decision-making with regard to the world's forests. | X | | |
| WRI & WBCS | Sustainable Procurement of Forest Products | Provides simple, clear information about the 10 key issues related to sustainable procurement of wood and paper-based products. The guide is designed as an information support tool to assist users as they develop and implement their own procurement policies for forest products. | X | | |
| WWF | Responsible sourcing of forest products: The business case for retailers | This report sets out to understand the business case for retailers to commit to and act on responsible sourcing of forest products, and shows that retailers see a clear link between responsible sourcing and business opportunities. | X | | |
| WWF's GFTN | Guide to Legal and Responsible Sourcing | Outlines the various ways in which sourcing organizations can exercise due diligence and demonstrate compliance with best practice based on compliance with their own sourcing policies. | X | | |
| Sedex | Sedex | Provide practical tools, services and a community network to help companies improve their responsible and sustainable business practices, and source responsibly. | X | X | |
| Transparency International | Corruption Perceptions Index | The CPI scores and ranks countries/territories based on how corrupt a country's public sector is perceived to be by experts and business executives. It is a composite index, a combination of 13 surveys and assessments of corruption, collected by a variety of reputable institutions. | X | X | |
| United Nations's FAO | Traceability: A Management Tool For Enterprises and Governments | Provides a thorough review of traceability. Outlines the vital factors to be taken into account when designing a successful traceability system, and explains the importance of made-to-measure systems in different contexts. | X | X | |
| WRI | Forest Legality Initiative Risk Tool | Provides forest products and legality information by country and by species. | X | X | |

| Author | Name | Description | Define | Level-Set | Engage |
|---------------------------------------|--|---|--------|-----------|--------|
| WWF's GFTN | Global Timber Tracking Network (GFTN) | Promotes the operationalization of innovative tools for species identification and for determining the geographic origin of wood to verify trade claims. | X | X | |
| WWF's GFTN | Keep it Legal | This manual was developed to add detail to legality issues encountered by companies adopting a responsible purchasing program. | X | X | |
| | Timber Identification | Use of scientific and/or forensic methodology to confirm or disprove wood fiber origin and/or species declarations (through DNA analysis, wood fiber testing, near infrared spectroscopy (NIRS), etc.). | | X | |
| Chatham House | Forest Governance and Legality | Monitoring forest governance and legality in 19 countries to assess the effectiveness of government and private sector efforts to tackle illegal logging and trade. | | X | |
| CITES of Wild Fauna and Flora | CITES Appendices | Aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival. Appendices I, II, and III to the Convention are lists of species afforded different levels or types of protection from over-exploitation. | | X | |
| FSC | FSC National Risk Assessment (NRA) | Provides a risk designation and assessment of the contiguous United States for the FSC controlled wood category. | | X | |
| ILO | ILO Declaration on Fundamental Principles and Rights at Work | The Declaration commits Member States to respect and promote principles and rights in four categories, whether or not they have ratified the relevant Conventions. These categories are: freedom of association and the effective recognition of the right to collective bargaining, the elimination of forced or compulsory labour, the abolition of child labour and the elimination of discrimination in respect of employment and occupation. | | X | |
| ILO | Labor Standards | The ILO has maintained and developed a system of international labour standards aimed at promoting opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and dignity. | | X | |
| Preferred by Nature (formally NepCon) | Timber Sourcing Hub | Provides information on risks of illegality by country. The score is based on our assessment of the risk of illegality occurring in 21 areas of law relevant to timber legality. | | X | |

| Author | Name | Description | Define | Level-Set | Engage |
|--|------------------------------|---|--------|-----------|--------|
| Earthworm Foundation (formerly The Forest Trust) | <u>Earthworm</u> | A non-profit organization built on values and driven by the desire to positively impact the relationship between people and nature. | | | X |
| Earthworm Foundation (formerly The Forest Trust) | <u>Starling</u> | Starling combines cutting-edge monitoring technology with in-house expertise and market knowledge to allow users to take action and to drive change. Uses satellite imagery to help companies monitor and curb deforestation. | | | X |
| Global Traceability Solutions GmbH | <u>RADIX Tree</u> | Offers one solution for connecting and sharing data with your supply chain. Flexible tools provide visibility into the raw materials that make up products, help demonstrate compliance and mitigate risk. | | | X |
| SPC & AFF | <u>Forests in Focus (FF)</u> | A US based tool that helps members assess risks in the landscapes surrounding their new fiber mills, identify critical ecological needs in those areas, and make measurable conservation impacts on the ground (See dedicated section). | | | X |
| WRI | <u>Global Forest Watch.</u> | An open-source web application to monitor global forests in near real-time. | | | X |

*This is not an exhaustive list. The mention of specific companies, documents, or tools does not imply endorsement by GreenBlue, or a preference over other similar resources not mentioned. Descriptions were taken directly from the source whenever possible.



APPENDIX II. KEY & GLOSSARY

| Term | Definition |
|---|---|
| Assurance | Information or attributes that provide confidence for responsible fiber procurement. |
| Documentation | 'Suppliers' are expected to provide copies of documentation for all VRS Supplier Questions. Relevant documentation may include, but is not limited to, documents demonstrating legal right to harvest, country(ies), region(s) and province(s)/state(s) of harvest, species harvested, species contained within the product, legal purchase, shipping and export, paid tariff and tax receipts, accounts payable invoices, documents validating certification claims, audits, related corporate policies, systems or programs, etc. |
| Due Diligence | A systematic evaluation and mitigation of risks associated with the sourcing of [wood] fiber and fiber-based products materials. |
| Fiber | Simplified term used to represent all the wood, fiber and/or tree materials contained within a material or product. |
| Fiber from Certified Forests | (i.e. Certified Fiber) Fiber originating from forests that have been certified to a forest management standard (confirmed through reporting and third-party audits). |
| Fiber from Forests That Have Not Been Certified | (i.e. Uncertified Fiber) Fiber originating forests that have NOT been certified to a management standard. |
| Forests | (i.e. Forest land) Undeveloped areas that are at least an acre in size and contain at least 10% canopy cover. |
| Forest Management Certification | Forest Management certification confirms (through reporting and third-party audits) that a specific area of forest (like a stand, or a parcel or many acres) are being managed in accordance with a particular set of standards. |
| Legal (L) | Refers to the harvest, origin and related trade (such as transporting, purchasing, selling and processing) of timber and other fiber-based products that is in compliance with international, national, and regional laws. Compliance helps companies reduce the risk and/or avoid consequences of illegal harvesting and trade. Such consequences include; forest ecosystem degradation and conversion, corruption, organized crime, loss of government revenue, reduced profitability for legal goods, human rights violations, loss of consumer trust, financial and jail time penalties, etc. |
| New Fiber | Non-recycled wood fiber that is primarily extracted from hardwood and softwood trees. |
| Pre-Consumer Material | (i.e. Post-Industrial Material) Material diverted from the waste stream during a manufacturing process that cannot be reclaimed within the same process that generated it. |
| Primary Producer | Any facility that uses roundwood or that sources most of their wood-based materials directly from a forest. |
| Post-Consumer Material | Material generated by households, or by institutional, commercial or industrial facilities as end-users of products, that can no longer be used for its intended purpose. |
| Product | Refers to the 'fiber'-based material or product being supplied by the 'supplier'. |
| Recycled (R) Fiber | Fiber from pre- and post- consumer sources that were diverted from the waste stream, and then collected, sorted, reprocessed, and converted into a feedstock to be used in another product. |

APPENDIX II. KEY & GLOSSARY

| Term | Definition |
|----------------------------|--|
| Responsibly Harvested (RH) | At minimum, harvesting is in compliance with relevant laws, protects traditional and human rights, does not pose a significant threat to high conservation value species or ecosystems and excludes the use of GMO tree species. Responsible harvesting practices are designed to limit human and environmental risks, while helping to improve the long-term economic viability of the forest products industry. *Not applicable (NA) for recycled sources. |
| Secondary Producer | Facility that sources most of their wood-based materials from primary or secondary producers. |
| Socially responsible (SR) | The extent to which rights and needs of workers, indigenous peoples and local communities have been addressed and protected. Through regular assessments, monitoring, local partnerships and/or multi-stakeholder collaborations (etc.) brands and retailers can support local communities and peoples, expand their understanding of rights and responsibilities and build trust with customers. |
| Supplier | Refers to the entity or entities that supplies the wood-fiber, paper or paperboard product or components of the product. |
| Timberlands | A forest that is not legally withdrawn from timber production, that is at least one acre, and that is capable of producing more than 20 cubic feet per acre per year of [industrial] wood. |
| Traceable (T) | The ability to identify, record and track the origin, history, and use of wood and fiber-based products through the supply chain. Effective traceability improves supply chain visibility and resilience, allowing companies to identify and target potential risks, improve system efficiency, and communicate more transparently with customers. |
| Utilization Rate (UR) | <p>In this document it refers to the amount of recycled fiber used for North American paper and paperboard production as a percentage of total North American paper and paperboard production.</p> $UR = \frac{\text{Recycled Fiber Used in Paper and Paperboard Production}}{\text{Total Paper \& Paperboard Production}} \times 100$ |
| Verified Fiber | Fiber that has been evaluated through a due diligence process or system. |

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