



SUSTAINABILITY IN THE NATURAL RUBBER SUPPLY CHAIN

GETTING THE BASICS RIGHT



PUBLISHED: JANUARY 2022

VERSION: 2

AUTHORS: Fabrice Inkonkoy, Zoological Society of London **CITATION:** Inkonkoy, F., (2021). Sustainability in the natural rubber supply chain: Getting the basics right. SPOTT. London: Zoological Society of London.

AVAILABLE AT: <https://www.spott.org/news/sustainability-in-the-natural-rubber-supply-chain/>



This publication was funded by the Good Energies Foundation, UK aid from the UK government, and Norway's International Climate and Forest Initiative (NICFI), however, the views expressed do not necessarily reflect the views of these donors.

ACKNOWLEDGEMENTS: ZSL would like to thank Annabelle Dodson, Clara Melot, Eleanor Spencer, Maggie FitzHerbert, Oliver Cupit and Sam Ginger for their input and contributions to this report.

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IMAGE CREDITS: Shutterstock
Version 4 (Sept 2022)



ABOUT SPOTT

Developed by the Zoological Society of London (ZSL), SPOTT is a free online platform supporting sustainable commodity production and trade. By tracking transparency, SPOTT incentivises the implementation of corporate best practice.

SPOTT assesses commodity producers, processors and traders on their public disclosure regarding their organisation, policies and practices related to environmental, social and governance (ESG) issues. SPOTT scores tropical forestry, palm oil companies and natural rubber annually against over 100 sector-specific indicators to benchmark their progress over time. Investors, buyers and other key influencers can use SPOTT assessments to inform stakeholder engagement, manage ESG risk, and increase transparency across multiple industries.

For more information, visit SPOTT.org



ABOUT ZSL

ZSL (Zoological Society of London) is an international conservation charity working to create a world where wildlife thrives. From investigating the health threats facing animals to helping people and wildlife live alongside each other, ZSL is committed to bringing wildlife back from the brink of extinction. Our work is realised through our ground-breaking science, our field conservation around the world and engaging millions of people through our two zoos, ZSL London Zoo and ZSL Whipsnade Zoo.

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CONTENTS

I. INTRODUCTION	4
1.1. THE NATURAL RUBBER SUPPLY CHAIN	4
1.2. SUSTAINABILITY IN THE RUBBER SUPPLY CHAIN – WHY IS THIS SO IMPORTANT?	4
2. KEY ENVIRONMENTAL AND SOCIAL IMPACTS OF THE NATURAL RUBBER INDUSTRY (SOURCING AND SUPPLY CHAIN)	6
2.1. ENVIRONMENTAL IMPACTS	6
2.1.1. DEFORESTATION	6
2.1.2. BIODIVERSITY LOSS AND FRAGMENTATION OF BIODIVERSITY HOTSPOTS	6
2.1.3. CHEMICAL POLLUTION AND HEALTH HAZARDS	6
2.2. SOCIAL IMPACTS	7
2.2.1. LAND GRABBING	7
2.2.2. ECONOMIC IMPACTS OF NATURAL RUBBER	7
3. TRACEABILITY IN THE NATURAL RUBBER SUPPLY CHAIN – WHY IS THIS CHALLENGING?	8
4. RISKS AND OPPORTUNITIES FOR NATURAL RUBBER PRODUCERS, BUYERS, AND FINANCIERS	10
5. EXISTING SUSTAINABILITY INITIATIVES IN THE RUBBER SUPPLY CHAIN	12
5.1. GLOBAL PLATFORM FOR SUSTAINABLE NATURAL RUBBER (GPSNR)	12
5.2. THE SUSTAINABLE NATURAL RUBBER INITIATIVE (SNR-I)	13
5.3. VOLUNTARY CERTIFICATION	13
6. A LOOK AT THE SPOTT 2021 RUBBER ASSESSMENT AND MAIN ASKS FROM COMPANIES	14
6.1. TRACEABILITY	14
6.2. ZERO DEFORESTATION AND BIODIVERSITY	15
6.3. CHEMICAL USE	15
6.4. LOCAL COMMUNITIES AND INDIGENOUS PEOPLE’S RIGHTS	15
7. CONCLUSION	16
8. A CALL TO ACTION	18
REFERENCES	19



EXECUTIVE SUMMARY

Downstream companies and financial institutions hold the key to driving significant environmental and social changes in the natural rubber industry by committing to and applying sustainable practices and improving sourcing procedures.

- Natural rubber plays a vital role in the economy of many countries as one of the most important raw materials supplying industries as diverse as automotive, foot-ware, and construction.
- Despite the economic advantages and livelihood benefits from the natural rubber industry, the growing demand for natural rubber and the resulting unsustainable expansion of rubber plantations pose social, economic, and environmental risks.
- Traceability is one of the most challenging aspects of sustainability in the natural rubber supply chain since more than 90 per cent of the global natural rubber is produced by independent smallholders, with little or no interaction with downstream companies.
- The natural rubber supply chain is also made up of many independent middlemen who buy latex from smallholder producers and sell it to processors, thus increasing its complexity.
- As one sign of hope, the necessity of adopting sustainable practices in the natural rubber industry is gaining momentum. Therefore, natural rubber supply chain stakeholders should have access to relevant information about sustainable practices in the industry.
- This report contributes to this sustainability movement in the natural rubber supply chain by providing key findings of the analysis on data from the 2021 SPOTT assessments of 15 natural rubber producers and processors, looking at key environmental and social issues.
- SPOTT scores natural rubber, palm oil, and tropical forestry companies annually against over 100 sector-specific indicators regarding the public disclosure of their operations, policies and practices related to key environmental, social and governance issues. This supports constructive industry engagement with the industry by financial institutions, buyers, and other supply chain stakeholders – those with the power to influence companies to increase disclosures and improve their practices on the ground.
- Companies and financial institutions have a unique opportunity to make significant environmental and social changes in the natural rubber industry by identifying and addressing key impact areas.

NATURAL RUBBER IN NUMBERS



GLOBALLY, MORE THAN
**12 MILLION
TONNES**
OF NATURAL RUBBER IS PRODUCED
EACH YEAR¹



90%
OF THE WORLD'S NATURAL RUBBER
PRODUCTION COMES FROM
SOUTHEAST ASIA. THAILAND 34%;
INDONESIA 26%; VIETNAM 8%; CHINA
7%; INDIA 7%; REST OF SE ASIA 8%²



THAILAND
IS THE LARGEST PRODUCER AND
EXPORTER OF NATURAL RUBBER,
ACCOUNTING FOR MORE THAN
ONE-THIRD OF GLOBAL PRODUCTION



70%
OF THE WORLD'S NATURAL RUBBER
PRODUCTION ENDS UP IN THE TYRE
MANUFACTURING INDUSTRY³



APPROXIMATELY
50,000
RUBBER-MADE PRODUCTS ARE
MANUFACTURED WORLDWIDE,⁴
INCLUDING TYRES, MEDICAL GLOVES,
FOOTWEAR, TOYS, SPORTS, AND
LEISURE GOODS.



OVER
5 MILLION
HECTARES OF NATURAL FOREST WERE
CONVERTED TO RUBBER PLANTATION
BETWEEN 2003 AND 2017 IN MAINLAND
SOUTHEAST ASIA AND SUB-SAHARAN
AFRICA⁵



6 MILLION
SMALLHOLDERS PRODUCE MORE
THAN 85% OF GLOBAL NATURAL
RUBBER PRODUCTION⁶



THE WORLD'S HARVESTED AREA OF
NATURAL RUBBER WAS ESTIMATED AT
12.5 MILLION HA⁷
IN 2019. BY 2024, ADDITIONAL LAND
OF BETWEEN 4.3 AND 8.5 MILLION HA
WILL BE REQUIRED TO COVER GLOBAL
DEMAND FOR NATURAL RUBBER⁸

1.

INTRODUCTION

1.1. THE NATURAL RUBBER SUPPLY CHAIN

Natural rubber is extensively used worldwide for everyday products such as tyres, shoes, footballs, condoms, gloves, sponges, roads, and balloons. On average, the annual consumption of rubber per person is estimated at ca. 3.5 kg.⁹

According to Food and Agriculture Organization, from 2000 to 2020, the global production and harvested area of natural rubber have respectively increased by 109 and 72% for the same period.¹⁰ The largest global consumer of natural rubber is the automotive industry, primarily tyre manufacturers, accounting for over 70% of annual global production.¹¹

Hevea brasiliensis is the rubber species that provides more than 99 percent of the natural rubber used for commercial applications worldwide.¹² Rubber trees are tapped for their latex, which is then processed into a variety of products by both local producers and national and international processors and traders. Rubber can be made synthetically, however the properties of natural rubber, such as its elasticity, mean it is indispensable in some industries.¹³

While natural rubber production can have significant environmental and social impacts, it can be grown sustainably, providing a livelihood for millions of people. Natural rubber production has been under the radar for many years in terms of its impacts, with other commodities such as palm oil and soy historically under more pressure to improve practices. But this is starting to change with the formation of the Global Platform for Sustainable Natural Rubber (GPSNR) and an increasing number of companies committing to producing and sourcing sustainable natural rubber.

1.2. SUSTAINABILITY IN THE RUBBER SUPPLY CHAIN – WHY IS THIS SO IMPORTANT?

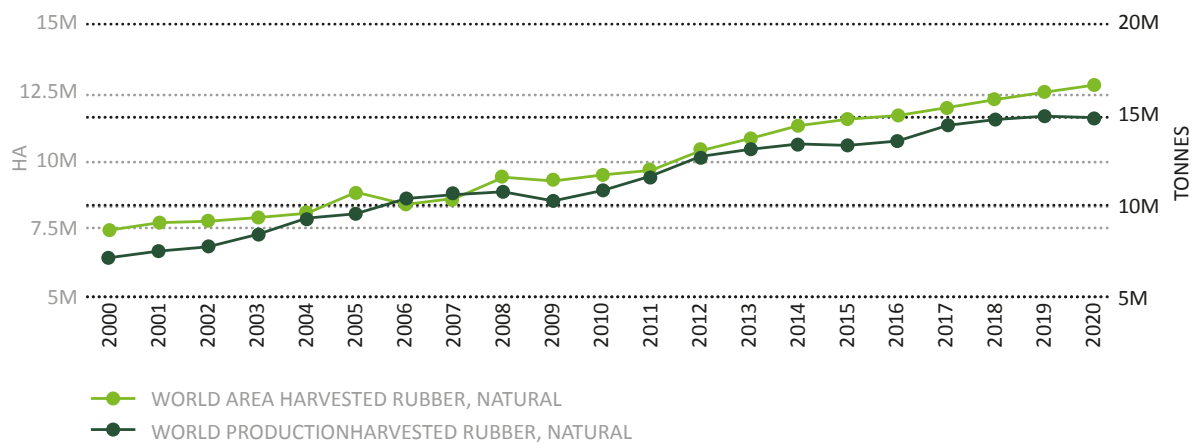
The natural rubber industry plays a critical role in the national economies of several developing countries, particularly in the main producing and exporting countries in Southeast Asia¹⁴ that produce about 90% of the world's natural rubber. This industry generates over USD300 billion a year and supports 40 million people including their families through direct and indirect employment.¹⁵

However, concerns over environmental degradation have been raised due to the expansion of agro-industrial plantations in the tropics, including for oil palm, soy, and natural rubber. Forest conversion to cropland and plantations is driving land clearing of high-biodiversity forests resulting in increased greenhouse gas (GHG) emissions.¹⁶ It is estimated that between 1980 and 2000, agricultural areas increased by over 100 million hectares across the tropics, half of which were at the expense of intact tropical forests.¹⁷ Likewise, studies have shown that the rapid expansion of natural rubber plantations is driving deforestation and biodiversity loss in some tropical regions.^{18,19} For instance, the European Union revealed that approximately 3 million hectares of forest have been lost to rubber cultivation in the Mekong region between 2000 and 2018.²⁰ Besides the environmental concerns, natural rubber production has also been linked to social issues such as rising inequality, loss of jobs due to income cuts, poor working conditions and land grabbing.^{21,22}

Therefore, it is crucial to promote sustainability in the natural rubber supply chain to address environmental and social issues. A sustainable natural rubber supply chain will contribute to maintaining healthy functioning ecosystems and promote the use of best harvesting practices in industrial and individual plantations. Additionally, sustainability is critical in the natural rubber supply chain as it fosters respect for customary land rights and improves the community's livelihood and working conditions of smallholder farmers.²³



FIG 1: WORLD PRODUCTION AND HARVESTED AREA OF NATURAL RUBBER FROM 2000 TO 2020 (FAO, 2021)





KEY ENVIRONMENTAL AND SOCIAL IMPACTS OF THE NATURAL RUBBER INDUSTRY (SOURCING AND SUPPLY CHAIN)

2.1. ENVIRONMENTAL IMPACTS

The natural rubber industry has come under criticism for concerns about its environmental impacts. A Proforest study commissioned by the Global Platform on Sustainable Natural Rubber (GPSNR) has identified six categories of environmental risks, namely, land use change, biodiversity loss, water, soil, air quality and climate change.²⁴ However, this report only highlights key environmental and social impacts of the rubber supply chain.

2.1.1. DEFORESTATION

Tropical forests continue to be lost at an alarming rate. This trend is likely to persist as the global demand for soft commodities such as natural rubber increases. From 2003 to 2017 over five million hectares of tropical forest were cleared for rubber plantations in Southeast Asia and sub-Saharan Africa,²⁵ and studies have shown that an additional 4.3–8.5 million hectares of land will be required to meet the projected growing global demand by 2024 leading to rainforest conversion to rubber plantations with subsequent consequences to biodiversity.²⁶

A main factor contributing to the agriculture-driven deforestation is the use of unsustainable farming practices such as slash-and-burn with discontinued fallow, which is causing the loss of approximately 20 hectares of land every hour worldwide.^{27,28} Slash-and-burn is a common land clearing method among smallholders in the rubber industry.²⁹

Furthermore, there is substantial evidence for a correlation between global rubber prices and deforestation in tropical regions.³⁰ Studies have demonstrated that increased global rubber prices incentivise the expansion of rubber plantations and lead to forest clearing in tropical regions. For instance, a significant increase in rubber tree plantations occurred after the demand for natural latex boomed in the mid-2000s.

2.1.2. BIODIVERSITY LOSS AND FRAGMENTATION OF BIODIVERSITY HOTSPOTS

Natural rubber is mainly cultivated in regions of critical ecological importance. Research revealed that in Southeast Asia 61% of rubber plantation expansions infringed upon protected areas and 70% in key biodiversity areas.^{31,32} Rubber production areas in Southeast Asia overlap with

four biodiversity hotspots: *Sundaland* (which includes parts of Malaysia and Indonesia), *Indo-Burma* (includes all non-marine parts of Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam, plus parts of southern China), *Wallacea* (Indonesia) and *the Philippines*.³³ This is particularly critical as these hotspots are home to many endemic and threatened species.

Clearing these forests for rubber plantations causes habitat fragmentation, decreases species richness, and threatens the integrity of High Conservation Values and High Carbon Stocks. Several studies have demonstrated a significant decrease in animal populations in rubber plantations compared to natural forests. For example, in Sumatra, forest-rubber conversion led to less diversified animal communities with fewer species of conservation importance.³⁴ Additionally, other studies have revealed that the loss of species richness and changed plant species composition are even higher when natural forests are converted into monospecific rubber plantation.^{35,36}

2.1.3. CHEMICAL POLLUTION AND HEALTH HAZARDS

Rubber trees are extremely vulnerable to pests and diseases because of their low genetic diversity.³⁷ Consequently, rubber cultivation uses more pesticides and herbicides to compensate for weak genetic resistance and requires more labour to carry out pest management activities.³⁸ Hence, the use of pesticides and herbicides is quite common and raises sustainability concerns.³⁹

The heavy use of herbicides and pesticides threatens species and pollutes rivers and water source.⁴⁰ Herbicides and pesticides are often non-selective, and adversely affect non-targeted species and remain in the environment for long periods. They move outside their immediate area of application and can harm fish and other aquatic life when they reach watercourses.⁴¹

Furthermore, rubber processing causes severe environmental concerns due to the release of polluted effluents with a high concentration of dangerous chemical products, such as ammonia and nitrogen, which threaten aquatic life when discharged in neighbouring rivers.⁴² Hazardous chemicals released from rubber latex processing also pose a risk to workers, and potentially the wider community.⁴³

Additionally, as pesticides and herbicides can pass into rivers, they are harmful to fish and other non-targeted species.

2.2. SOCIAL IMPACTS

Like other commodities, the natural rubber supply chain holds potential negative social impacts that should be mitigated. Smallholders are particularly vulnerable to social risks in the natural rubber industry as they are the most significant group of rubber producers and face power imbalance when negotiating with traders and large companies.

In Indonesia and Malaysia, research carried out in 2012 found many examples of poor labour practices including payment of less than legal minimum wage; discrimination against migrant labour; toxic herbicides being applied without protection; child labour used in tapping; violations of the International Labour Organization's conventions on freedom of association and the right to have permanent contracts for permanent jobs; and inadequate safety standards.⁴⁴

2.2.1 LAND GRABBING

The expansion of large- and small-scale rubber plantations into community lands has raised serious land tenure issues and various human rights violations such as coercion, dispossession, and subsequent loss of livelihoods.

Due to weak and unclear customary land tenure regulations, companies in the rubber sector have been the subject of court cases disputing land rights because of expansion from large-scale plantations. For instance, in Laos, Cambodia and Myanmar, farmers have lost access to their land, becoming labourers on rubber plantations, where they have been subject to coercion and disputes over terms and wages.⁴⁵

Likewise, the Vietnam Rubber Group was disassociated from the Forest Stewardship Council (FSC) in 2015, after claims that it had illegally seized land from local villagers in Cambodia who used to grow rice for their subsistence, and claims it converted at least 50,000 hectares of forest, including wildlife sanctuaries and protected areas, to rubber plantations.⁴⁶ Actors in the rubber industry need to address land grabbing as a challenge for social sustainability in the rubber supply chain.

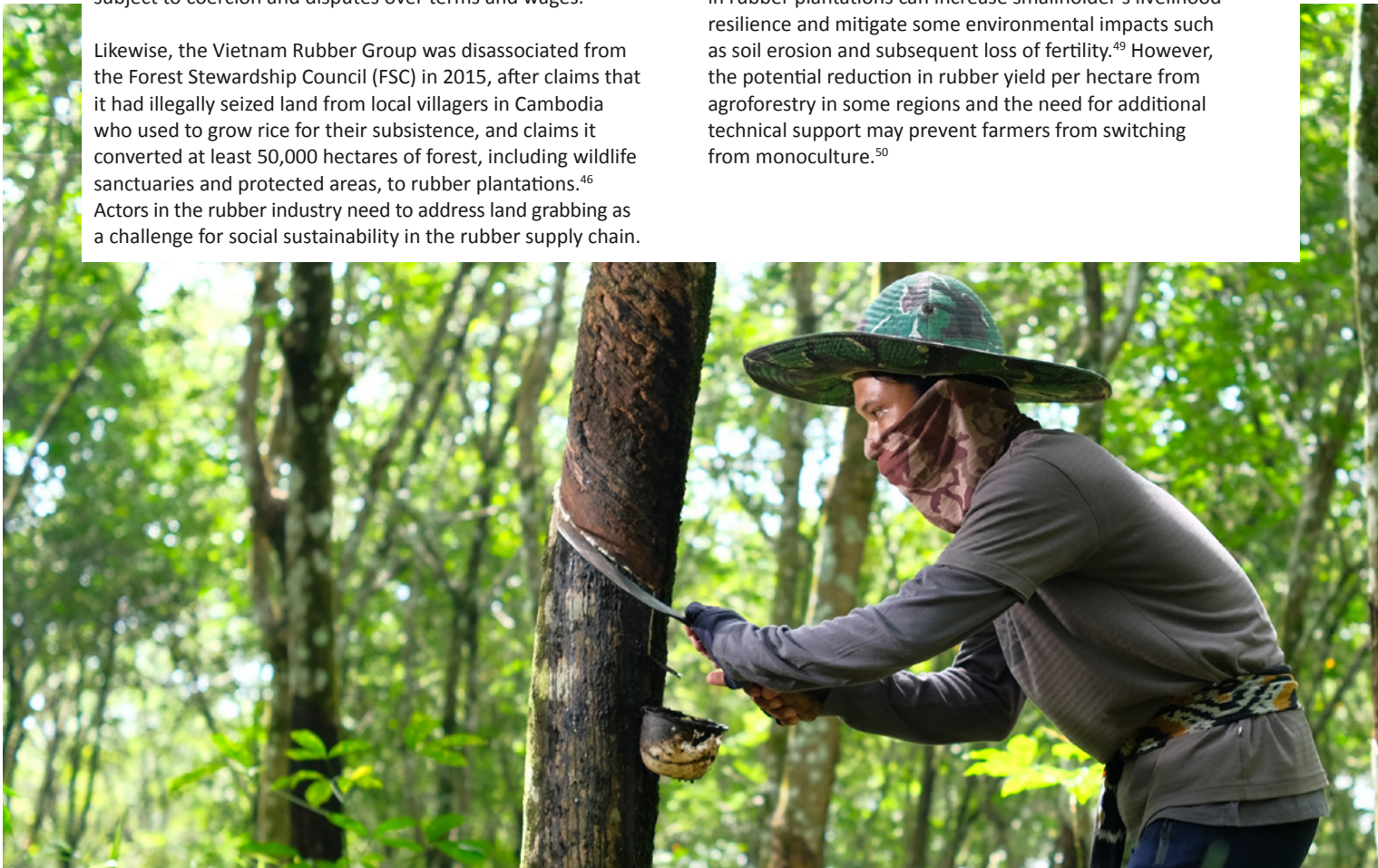
2.2.2. ECONOMIC IMPACTS OF NATURAL RUBBER

The market price of natural rubber is volatile. Since 2012, the price of natural rubber in the global market has significantly decreased, reducing smallholders' household incomes and livelihoods. In some countries, collapsing prices reduced the ability of producers to pay workers' wages, hence degrading the living conditions of farmers.

To adapt to periods of decreasing income, smallholders adopted various responses such as shifting production to other crops, leasing, or even selling their farms. In Indonesia, the collapse in the rubber price led farmers to shift to non-agricultural business activities. In Laos, some farmers stopped tapping and waited for the rubber price to increase again, while others replaced hired labour with family labour for latex harvesting.⁴⁷ Additionally, in other parts of the world farmers have adopted collective action, forming cooperatives to increase their bargaining power and thus the rubber price.⁴⁸

Furthermore, the falling prices of natural rubber prompted other farmers to engage in logging of rubber trees for more lucrative timber trades. While one-off payments for timber may solve short-term income shortfalls, they are less economically sustainable than maintaining a long-term productive crop.

To prevent financial hardship due to the fluctuation of income and increase their economic resilience, smallholders can diversify their income through mixed crop systems such as agroforestry. When applied effectively, agroforestry systems in rubber plantations can increase smallholder's livelihood resilience and mitigate some environmental impacts such as soil erosion and subsequent loss of fertility.⁴⁹ However, the potential reduction in rubber yield per hectare from agroforestry in some regions and the need for additional technical support may prevent farmers from switching from monoculture.⁵⁰



3.

TRACEABILITY IN THE NATURAL RUBBER SUPPLY CHAIN - WHY IS THIS CHALLENGING?

With an increasing number of companies committing to deforestation-free supply chains, traceability is an essential component in the implementation of these sustainable sourcing commitments. Without knowing its origin, it is highly challenging to verify if natural rubber is being produced sustainably, or in compliance with company policies.

The natural rubber industry is dominated by independent smallholder producers (about 6 million worldwide) who represent more than 85% of global production.⁵¹ Likewise, the natural rubber supply chain holds innumerable intermediary traders that buy and sell natural rubber between local producers and processing factories.

The combination of many smallholder producers alongside large-scale plantations combined with often long supply chains with many traders/aggregators, make natural rubber supply chains especially complex. Smallholders typically sell their latex to local traders, who then sell it to processors. Consequently, one rubber processor could end up sourcing latex from multiple independent suppliers of diverse origins. Keeping track of the source of latex in such a context is therefore challenging. Additionally, it is even more complex for buyers further downstream to assess sustainability performance and the production standards of the independent producers.

The supply base of natural rubber is also much wider than for other commodities such as palm oil. Around 80% of the

raw material comes from a radius of 150-200 km from the processor location, with 5% originating more than 500 km away. As natural rubber is non-perishable, it can be stored for a long time and travel long distances.⁵² This means having access to factory production dates and locations may not provide meaningful information related to smallholders and plantations, making traceability even more complex.

Due to this complexity, one approach which is being undertaken is a 'landscape approach', where sustainability efforts are focused within landscapes. This approach allows companies to implement a more pragmatic and collaborative approach to managing risk within their supply base, improve traceability and effectively allocate resources.⁵³ To assess risk in landscapes that a company is sourcing from, data on the occurrence of High Conservation Value (HCV) and High Carbon Stock (HCS) areas is vital to ensure that supply chains are deforestation-free. While some landscape level mapping of these areas exists for Indonesia, a single universal dataset is not available, and there is lack of data for other rubber producing countries. Companies should pool resources to collectively commission landscape-level HCV and HCS screening for key rubber-producing countries, and these should be made publicly available and used in conjunction with satellite monitoring platforms.⁵⁴ Identification of high and low risk areas within a landscape can then be used to inform whether traceability to province, village or even farm level is required.





SUSTAINABLE MODEL OF NATURAL RUBBER SMALLHOLDERS FARMING:

Einhorn's regenerative rubber initiative

To improve traceability and transparency of rubber sourcing in the condom industry, Einhorn reported having set up the Regenerative Rubber Initiative in Thailand and Malaysia.

According to Einhorn, this initiative increases transparency and traceability in its natural rubber sourcing while improving the working conditions and livelihood of farmers by paying fair prices and providing purchase guarantees.

Einhorn claims that their rubber is grown by a group of pioneer farmers

in Southern Thailand in agroforestry systems, supporting biodiversity, and using natural resources responsibly, with careful doses of fertilizers when necessary.

Reportedly, around 35 farmers are growing rubber in agroforestry systems instead of monocultures. They set the criteria for sustainable rubber with a Participatory Guarantee System (PGS). The Farmers self-organized into 3 Groups to make sure they all grow rubber trees with sustainable standards.

One group is responsible for visiting the different farms and checking that the PGS criteria are being met.

Another group oversees the three latex collection points - thus no more

middlemen are involved. They manage the quality and together with the latex processor ensure that the farmers receive their payment and premium price for the latex.

The third group collects data on the plant and animal species found on the agroforestry rubber plantations.

A latex processing factory in Thailand buys latex directly from agroforestry farmers within a premium pricing system. After processing the latex, it is sent to Malaysia where a manufacturer produces Einhorn condoms which are then shipped to Germany and the UK for distribution.

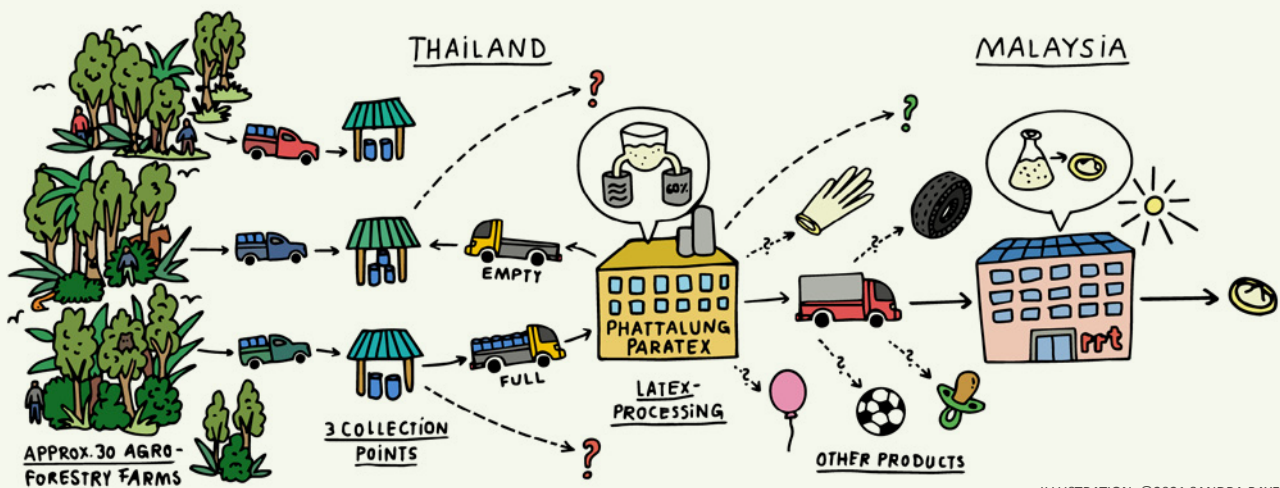


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4.

RISKS AND OPPORTUNITIES FOR NATURAL RUBBER PRODUCERS, BUYERS, AND FINANCIERS

While the natural rubber sector has remained unscrutinised, policymakers are aware of the need to redirect financial flows away from damaging activities and towards sustainable ones and are encouraging sectoral approaches which should eventually extend to rubber supply chains. Meanwhile, sustainability initiatives in the sector are gaining momentum, raising the bar on minimum best practice expectations.

The risks of buying and financing unsustainable natural rubber are therefore increasingly material, while a move to sustainable practices brings increasingly tangible advantages. Here we explore some of these risks and opportunities, in relation to company finances, operations, reputation, and external regulation.



FINANCIAL



OPERATIONAL

RISKS

- | | |
|--|--|
| <ul style="list-style-type: none"> Supply chain exclusion Divestment and loss of financing Increased capital investment in site infrastructure to comply with planning constraints, permit / consent conditions and new environmental, health and safety requirements⁵⁵ Transitional risks due to substantial investment in new/clean technologies to achieve reduced GHG emissions targets | <ul style="list-style-type: none"> Lower yields and downgrading/lower quality of latex products due to unsustainable agricultural practices leading to lower prices or fail to meet buyer expectations Increased climate change impacts and vulnerability Stranded assets |
|--|--|

OPPORTUNITIES

- | | |
|--|---|
| <ul style="list-style-type: none"> Access to finance Greater financial stability or outperformance | <ul style="list-style-type: none"> Improved yields and efficiency Increased climate resilience Improved community and employee relations Greater supply security if smallholders continue to favour rubber cultivation over other crops |
|--|---|



REPUTATIONAL



REGULATORY

RISKS

- | | |
|--|---|
| <ul style="list-style-type: none"> Buyer boycotts Loss of value over reputational concerns Loss of a social licence to operate due to poor environment, health, and safety performance⁵⁶ | <ul style="list-style-type: none"> Risk of fines affecting producers or buyers Reduced market access Supply chain disruptions/insecurity |
|--|---|

OPPORTUNITIES

- | | |
|--|---|
| <ul style="list-style-type: none"> Maintained or Improved market access, including preferential sourcing opportunities Increase stakeholder assurance by demonstrating ESG performance | <ul style="list-style-type: none"> Competitive advantages Assure stakeholders of legal compliance |
|--|---|



EXISTING SUSTAINABILITY INITIATIVES IN THE RUBBER SUPPLY CHAIN

5.1. GLOBAL PLATFORM FOR SUSTAINABLE NATURAL RUBBER (GPSNR)

GPSNR was initiated in 2018 by the World Business Council for Sustainable Development to address issues surrounding environmental, social, and economic sustainability of the natural rubber supply chain. GPSNR’s vision is to promote a fair, equitable and environmentally sound natural rubber value chain. Its mission is to lead improvements in the socio-economic and environmental performance of the natural rubber value chain. GPSNR is committed to promoting the uptake of sustainable

natural rubber in the global marketplace by addressing forest conversion, biodiversity loss, human and labour rights violations, and inequity in the natural rubber supply chain.

As of December 2021, GPSNR accounts for 156 members⁵⁷ (civil society organisations, smallholders’ producers, processors and traders, tyre makers and car makers) committed to the vision, mission and the 12 Principles of the platform. In the 2021 General Assembly, members voted in favour of implementing GPSNR’s reporting requirements. Companies will be expected to collect and report on a wide range of key sustainability indicators related to GPSNR’s 12 principles.

<p>GPSNR’S 12 SUSTAINABLE NATURAL RUBBER PRINCIPLES (GPSNR, 2021)</p> <ol style="list-style-type: none"> 1. FOREST SUSTAINABILITY: to advance natural rubber production and processing that protects peatlands, and avoids ecosystem conversion, deforestation and forest degradation based on identification and management of forests and other natural ecosystems as outlined in the guidelines of the High Conservation Value Resource Network, the High Carbon Stock Approach, or other applicable regulatory frameworks. 2. WATER MANAGEMENT: to appropriately manage water along the natural rubber value chain. 3. LAND RIGHTS (FPIC): To recognize, promote, and protect the rights of indigenous peoples and local communities; to not engage in “land grabbing”; to obtain Free Prior and Informed Consent (FPIC), as defined by the UNREDD Programme from existing land users; and to promote adequate compensation where land use is granted. 	<ol style="list-style-type: none"> 4. LABOUR RIGHTS: to comply with applicable labour laws for employees and contractors and fulfil the intent of the International Labour Organization’s eight core conventions. 5. HUMAN RIGHTS: to recognize and promote human rights within the natural rubber value chain, including alleviating poverty by promoting programs that improve smallholders’ livelihoods. 6. EQUITY: to promote principles of equity throughout the supply chain. 7. TRACEABILITY: to establish and implement protocols for rubber traceability from farm to end-user, working towards full traceability for industrial plantations and applying a risk-based approach for smallholder farms. 8. TRANSPARENT REPORTING: to support transparent reporting along the entire natural rubber supply chain. 	<ol style="list-style-type: none"> 9. ANTI-CORRUPTION: to not engage in corruption and to take a zero-tolerance approach on corruption within the value chain. 10. GRIEVANCE MECHANISM: to establish an open, transparent, and independent process to ensure that the GPSNR members are respecting, protecting, and contributing to the eventual standards and the reputation of the GPSNR. 11. AUDITING PROTOCOLS: to develop auditing protocols that allow those interested in these principles to learn which members of the natural rubber value chain are following these best practices. 12. TRAINING & EDUCATION: to support training and educational efforts to raise awareness and build capacity for the implementation of these principles, including improvement of production practices by focusing on vertical (improved yield and quality) rather than horizontal (increased planted area) expansion.
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5.2. THE SUSTAINABLE NATURAL RUBBER INITIATIVE (SNR-I)⁵⁸

The International Rubber Study Group (IRSG), an inter-governmental organisation composed of rubber producing and consuming stakeholders, launched the Sustainable Natural Rubber Initiative (SNR-I) in 2014 to ensure that the rubber industry can build on its best practices plus demonstrate and communicate throughout the natural rubber value chain.

SNR-I provides a set of Voluntary Guidelines with five criteria: (1) Increased productivity; (2) Improved quality; (3) Forest sustainability; (4) Water management; and (5) Respect for Human and Labour Rights. Each criterion has performance indicators, and companies are requested to self-assess their progress against each indicator.

The objectives of the SNR-I are to secure a global sustainable natural rubber economy that delivers benefits across the whole of the natural rubber value chain, through:

- Promoting the development of best sustainability practices in the natural rubber sector globally.
- Supporting the improvement of natural rubber plantations' productivity.
- Enhancing natural rubber quality.
- Supporting forest sustainability through the protection/conservation of protected areas.
- Demonstrating appropriate water management
- Demonstrating the highest respect for human and labour rights.

The SNR-I includes representatives from Governments, International organisations, National/Regional industry associations and representatives of Producers, Processors, Trader, and downstream companies. As of December 2021, SNR-I accounts for 28 members across all the categories.

5.3. VOLUNTARY CERTIFICATION

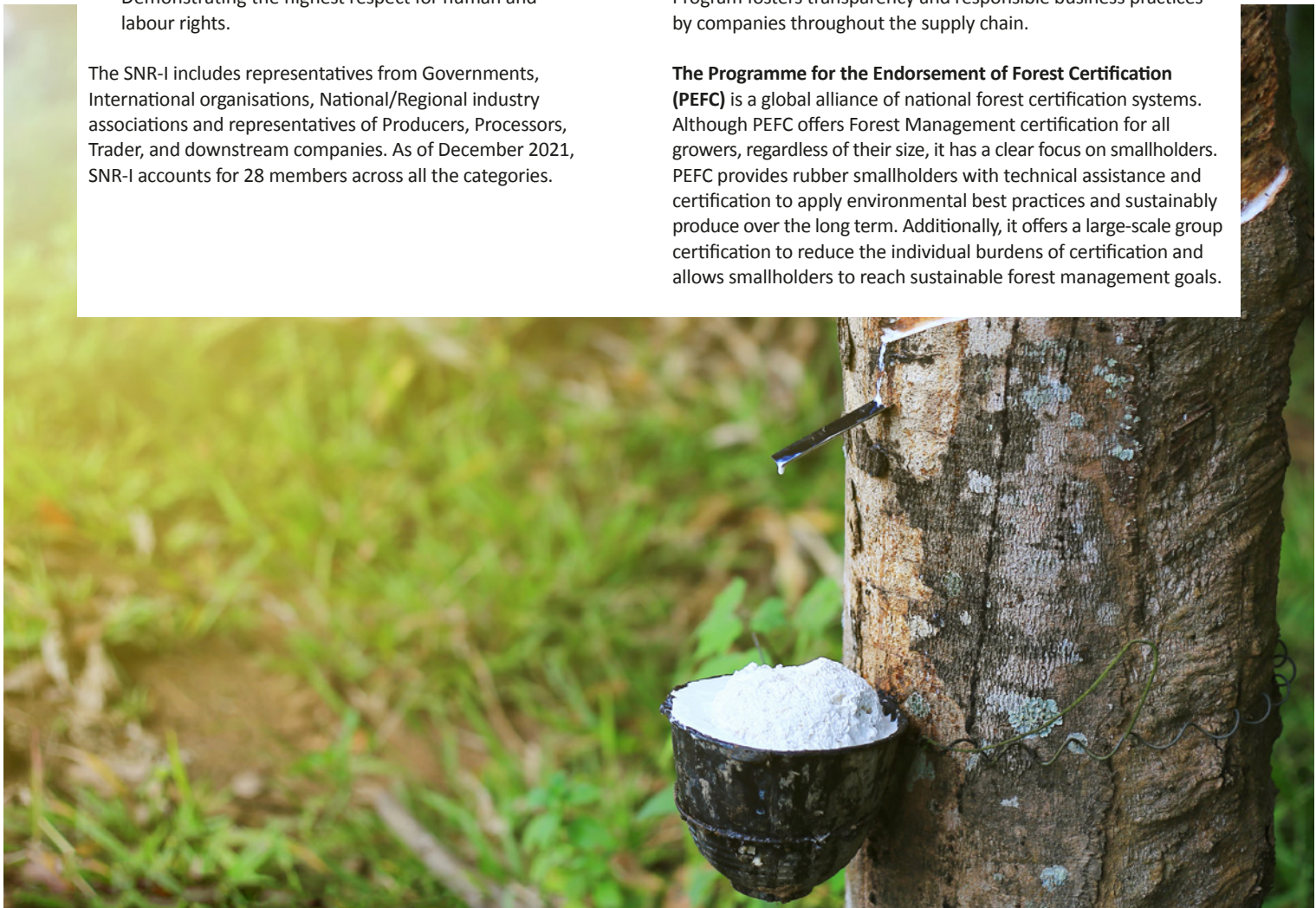
Voluntary certification systems provide actors of soft commodity supply chains with a credible mechanism to independently assess the economic, social, and environmental sustainability of their production units and supply chains. Currently, there are three main voluntary certification systems in the rubber sector.

The **Forest Stewardship Council (FSC)** offers forest management and chain of custody certification for timber, products derived from wood, such as paper, and non-timber forest products. FSC has developed a position statement for all companies that wish to source sustainable natural rubber, thereby contributing to better social and environmental management of natural rubber plantations worldwide and encouraging more companies to make the same commitment. Rubber growing within a forest ecosystem can be certified under the FSC standard.

According to the FSC, 2007 rubber production units were certified in April 2017, with a total area of 397,705 ha.⁵⁹ From the downstream companies, an important milestone has been achieved in 2021 as Pirelli introduced the world's first FSC-certified tyre, the Pirelli P ZERO tyre. The new Pirelli P ZERO tyre uses FSC-certified natural rubber and rayon as well as other materials.⁶⁰

The **Rainforest Alliance Sustainable Agriculture Standard** provides certification services to large or small agricultural plantations. Natural rubber in an agricultural system is eligible for certification under this standard. The Rainforest Alliance's 2020 Certification Program fosters transparency and responsible business practices by companies throughout the supply chain.

The Programme for the Endorsement of Forest Certification (PEFC) is a global alliance of national forest certification systems. Although PEFC offers Forest Management certification for all growers, regardless of their size, it has a clear focus on smallholders. PEFC provides rubber smallholders with technical assistance and certification to apply environmental best practices and sustainably produce over the long term. Additionally, it offers a large-scale group certification to reduce the individual burdens of certification and allows smallholders to reach sustainable forest management goals.



6.

A LOOK AT THE SPOTT 2021 RUBBER ASSESSMENTS

SPOTT is a free online platform that assesses forest-risk commodity companies on their public disclosure regarding their organisation, policies, and practices related to environmental, social and governance (ESG) issues. SPOTT scores palm oil, natural rubber, and tropical forestry companies annually against over 180 sector-specific indicators. This supports constructive industry engagement with the industry by financial institutions, buyers, and other supply chain stakeholders – those with the power to influence companies to increase disclosures and improve their practices on the ground.

This brief analysis draws on data from the 2021 SPOTT assessments of 15 natural rubber producers and processors, looking at key environmental and social issues. The following SPOTT indicators from the 2021 framework have been used for this analysis:

ID	INDICATOR TITLE	DISCLOSURE TYPE
21	Commitment to traceability of the whole supply chain	Policy
27	Commitment to zero deforestation or zero conversion of natural ecosystems	Policy
30	Evidence of monitoring deforestation	Practice
34	Commitment to biodiversity conservation	Policy
72	Commitment to minimise the use of chemicals, including pesticides and chemical fertilisers	Policy
76	Implementation of commitment to reduce chemical usage	Practice
77	Integrated Pest Management (IPM) approach	Practice
82	Commitment to respect legal and customary land tenure rights	Policy
83	Commitment to free, prior, and informed consent (FPIC)	Policy

To allow SPOTT users to better understand where companies currently are and how they are progressing, indicators used for this analysis are classified as Policy and Practice.

- **POLICY:** The transparency and content of company disclosure regarding the policies, commitments and processes it must guide its operations and practices on the ground.
- **PRACTICE:** The transparency and content of company disclosure regarding activities it undertakes, to actively progress towards its targets and implement its policies and commitments on the ground.

The focus of the SPOTT assessments is on the transparency of information, as this is key to sustainability in forest-risk commodity production. The following results therefore only consider policies and reporting that are made publicly available and meet the assessment criteria. It should be kept in mind that there may be cases where a company does not score points for an indicator but does in fact have a relevant policy or activities in place that it has not made publicly available.

6.1. TRACEABILITY

Only 8/14 (57%) companies publicly commit to trace natural rubber throughout the whole supply chain, to at least industrial plantation level. Having a traceable supply chain is essential in the implementation of sustainable sourcing commitments. Without full traceability, it is impossible to verify if natural rubber is being produced sustainably. It is vital that downstream buyers of natural rubber products engage with their suppliers to ensure traceability to the plantation level. Companies face reputational risks from deforestation in their supply chains, and while commitments are expected to cascade upstream, they have less influence if there is a lack of traceability and monitoring of compliance. Traceability is therefore essential to ensuring deforestation-free supply chains.



6.2. ZERO DEFORESTATION AND BIODIVERSITY

9/15 (60%) companies have a clear public commitment to zero deforestation and 13/15 (87%) companies have a clear commitment to biodiversity conservation. However, only 3/15 (20%) clearly specify how deforestation is being monitored. Soft commodity companies have increasingly been adopting zero-deforestation commitments over the last decade, but despite this they are still far from being realised. Without monitoring it is impossible to know if zero-deforestation policies are being implemented successfully.

The use of the High Conservation Value (HCV) and High Carbon Stock (HCS) Approaches are principal factors in achieving zero deforestation, through the identification and protection of forests with important biological, ecological, and social features (HCV) and forests that have high carbon and biodiversity values (HCS). For policies to be effective they should address the issue of non-compliant deforestation and specify a cut-off date after which restoring areas deforested is required.

The natural rubber sector has seen less pressure to move to more sustainable practices than other sectors such as palm oil, timber, and pulp, but there is growing momentum of downstream buyers and financiers requiring No Deforestation, No Peat, and No Exploitation (NDPE) policies covering all products they source. By sourcing from companies that implement these tools, downstream companies can work towards eliminating deforestation from their supply chains.

6.3. CHEMICAL USE

6/15 (40%) companies have a public commitment to minimise the use of chemicals, including both pesticides and chemical fertilisers. No companies report figures on the reduction

of pesticides or fertilisers, and only 3 report some form of reduction but give no figures. This is concerning given the industry's significant use of chemicals and the environmental and social impacts these chemicals can cause. Use of Integrated Pest Management (IPM) is one way to reduce chemical usage, leading to less water pollution and health problems among workers while contributing to biodiversity management. Only 4/15 (27%) companies report some form of IPM approach, with a further 4 providing limited details on this.

6.4. LOCAL COMMUNITIES AND INDIGENOUS PEOPLE'S RIGHTS

8/15 (53%) companies have a public commitment to respect legal and customary land tenure rights. Indigenous and local communities have a legal basis for land rights claims under International human rights law (and in an increasing number of states, national constitutions, and legislation). However, these claims are often not recognised in practice and Indigenous peoples and local communities frequently face the challenge of competing claims for their land. Land that they have occupied for generations might be handed to a natural rubber producer by national or regional authorities. There is often a lack of documentation demonstrating their legal ownership of the land.

Companies must therefore engage with communities through Free, Prior and Informed Consent (FPIC) processes to identify customary rights holders. Establishing good relationships with communities will help to prevent future conflicts which could affect the companies' operations and risk its social license to operate. 11/15 (73%) companies have a public commitment to the principle of free, prior, and informed consent (FPIC). While this is a more promising figure, natural rubber plantation expansion has been responsible for serious land conflicts and human rights abuses, so it is important that all companies increase transparent reporting on land and community rights, to help incentivise better on-the-ground practices.





7. CONCLUSION

Promoting sustainability in the natural rubber industry is a challenging but worthy investment. Increasing demand for natural rubber has caused forest conversion to rubber plantations with subsequent adverse impacts such as biodiversity loss. Likewise, volatility of the price of natural rubber has triggered severe social impacts such as loss of income and livelihood for producers and human rights violations.

Despite the growing momentum from producers, buyers and processors around sustainable production and sourcing of natural rubber, more needs to be done to advance sustainable practices that promote environmental protection, economic sufficiency, and social gains in the natural rubber supply chain. Hence, urgent actions are needed to boost progress towards more sustainability amongst actors of the natural rubber industry. Sustainable natural rubber improves livelihoods and fosters poverty alleviation for millions of smallholders globally. Likewise, implementing Good Agricultural Practices and well-targeted agroforestry techniques can help sustain livelihoods and reduce deforestation in rubber plantations.

Multi-stakeholder sustainability initiatives like GPSNR are striving to harmonize standards to improve respect for human rights, protect biodiversity, and increase supply chain transparency and traceability. The latest SPOTT transparency assessments showed that GPSNR members (6 companies) scored higher on Environmental, Social and Governance (ESG) disclosures than non-GPSNR members (9 companies), 58.4% vs. 29.8% on average, respectively.

As the largest consumers of natural rubber, tyre makers play a critical role in improving traceability in the natural rubber supply chain through their interactions with smallholders. Companies that fail to address sustainability considerations in the production and sourcing of natural rubber face significant financial, operational, reputational, and regulatory risks that can affect their social licence to operate due to poor environment, health, and safety. Conversely, transparent companies addressing environmental, social and governance issues can benefit from reduced regulatory scrutiny, decreased operational costs, a better corporate reputation and stronger financial performance.⁶¹

Therefore, companies need to apply their ESG policies to their suppliers, upstream producers, and all supply chain actors. Finally, companies should adopt a culture of shared responsibility – working with and sharing the cost of sustainability efforts.

8

CALL TO ACTION

ZSL urges increased company disclosure of sustainability information on operations, policies, and practices. This includes companies adopting sound and robust Environment Management Systems, best practices of human rights and labour rights, good agricultural practices, NDPE policies, improving transparency and traceability in their supply chain, disclosing, and regularly reporting progress on implementation of their sustainability policies. Using the list of key SPOTT indicators (see section 6) can be an effective starting point.

Additionally, it is crucial that commitments and best practices not only apply to a company's operations, but also to that of all its suppliers. Hence companies should promote close cooperation with their direct suppliers to communicate their requirements and standards to the supply chain. Companies should apply their ESG policies to their suppliers, upstream producers, and all supply chain actors.

Financial institutions should integrate ESG considerations into their natural rubber-related transactions and engage exposed companies on the adoption of production and sourcing best practices as well as reporting on progress on mitigating impacts of unsustainable natural rubber operations. Finally, financial institutions should actively engage in multi-stakeholder initiatives such as GPSNR and communicate effectively about the potential benefits and rewards related to the implementation of sustainable practices to support the business arguments for sustainable natural rubber.



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