MICHELIN NATURAL RUBBER OPERATIONS

2020 REPORT

MICHELIN
A BETTER WAY FORWARD

CONTENTS

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INTRODUCTION

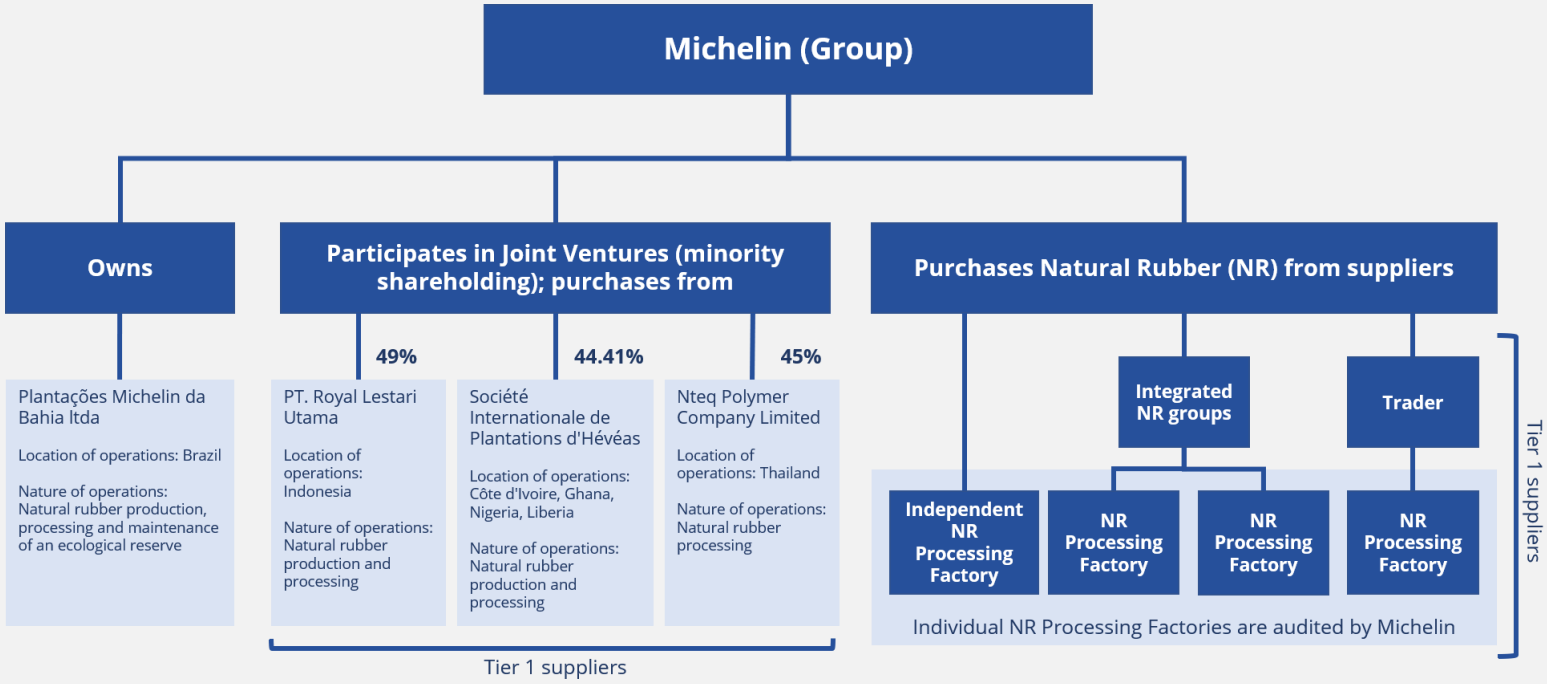
This document provides a description of Michelin's natural rubber operations and engagements in sustainable natural rubber, in addition to the Group-level reporting information available in its Universal Registration Document. Michelin is primarily a buyer of natural rubber, either from independent suppliers, or from natural rubber joint ventures where Michelin has participation through minority shareholding. All natural rubber sourcing is traceable to the processing factory level, and Michelin conducts yearly on-site audits, which include environmental and labor aspects, on individual natural rubber processing factories before they are added to an approved factory list. Michelin has ownership of only a limited number of natural rubber operations in Brazil.

Michelin is committed to a sustainable natural rubber supply chain that promotes sustainable development, and more information on our commitments and approaches can be found on our Sustainable Natural Rubber Dashboard. Our Sustainable Natural Rubber Policy defines our commitments and guides our efforts to transform the supply chain. Our policy, which is aligned with the GPSNR Policy Framework, commits us to care for the environment, people, rubber farmers, natural resources and our stakeholders, and is now accompanied by our Sustainable Natural Rubber Roadmap 2020-2025 which will guide the implementation of these commitments.

OWN OPERATIONS: NATURAL RUBBER

ORGANIZATION OF MICHELIN'S NATURAL RUBBER SUPPLY CHAIN

While Michelin is primarily a buyer of natural rubber, it does own a limited number of natural rubber assets, which are located solely in Brazil: two natural rubber processing facilities and a 4,578 hectare property in Bahia, Brazil. A majority of the property's surface area is dedicated to the Michelin Ecological Reserve, which preserves a significant remnant of the southern Bahian Atlantic rainforest and is helping scientists understand the role industrial rubber plantations can play in landscape matrix alongside natural forest blocks.



NATURAL RUBBER PROCESSING FACILITIES

Michelin's two natural rubber processing facilities in Brazil are the Bahia site and the Sooretama site. Both factories source raw natural rubber primarily from third party suppliers, with the Bahia site taking on limited amounts of raw material from Michelin's own production area.

Michelin is concerned with improving the environmental performance of its facilities, and in 2005, established the Michelin Environmental Footprint (MEF), a composite indicator which is monitored by the Environment Governance Body and which tracks greenhouse gas emissions and water withdrawals among other metrics. The Group's 2020 ambition to reduce the MEF by 50% compared with 2005 has been reached and a new composite indicator has been defined for 2021 onward. Both facilities, and the Bahia production area, are certified ISO 14001[1].

WATER QUALITY

Michelin commits that all wastewater generated from natural rubber production is properly treated in full compliance with national and local regulations[2]. It therefore ensures effluent parameters are compliant in its natural rubber operations in Bahia and Sooretama. Both plants have efficient effluent treatment systems with anaerobic and aerated lagoons of appropriate capacity, as well as water recycling systems. In reporting years 2019 and 2020, both sites maintained BOD levels in effluent that were within specified legal limits in Brazil (defined as a maximum of 120 mg/l or a minimum 60% reduction efficiency) [3]. This is assured by the maintenance of ISO 14001 certifications at both sites.

[1] ISO 14001 Certificate of *Plantações E. Michelin Ltda* and *Plantações Michelin da Bahia Ltda* available at this link
[2] See Michelin Sustainable Natural Rubber Policy pg. 19
[3] *Resolução CONAMA* Nº 430 DE 13/05/2011

NATURAL RUBBER PROCESSING FACILITIES

ODOR MITIGATION

Odor management and mitigation are a concern for Michelin's manufacturing activities, including its natural rubber processing sites. Both the Bahia and Sooretama sites are equipped with an air scrubber and filter respectively that reduce and control odor that can be generated from natural rubber processing.

HEALTH AND SAFETY AT THE WORKPLACE

Assessing and preventing workplace safety and security risks is an important concern for the Group. Health, safety and quality of work-life policies are implemented through the Environment and Prevention Management System, which is based on the international ISO 14001 and OHSAS 18001 standards[4]. Health and safety risk assessments are regularly carried out and updated, and in recent years, a comprehensive prioritized risk map has been created, based on standardized risk assessments conducted for every workstation; training courses and programs are also allocated when needed. The Environmental and Prevention Management System is also applied for natural rubber operations. Each role in the production and processing of natural rubber has been assessed for specific risks, which informs the specific allocation of personal protective equipment and training required for each employee according to their role.

Bahia Site

Location:
-13.7754, -39.1541

Sourcing from (2020):
Third parties: Yes
Own production area: Yes

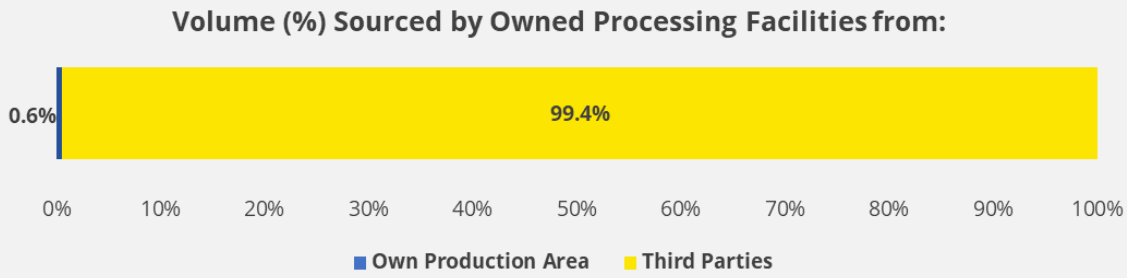
ISO 14001 certified: Yes

Sooretama site

Location:
-19.1811, -40.1343

Sourcing from (2020):
Third parties: Yes
Own production area: No

ISO 14001 certified: Yes

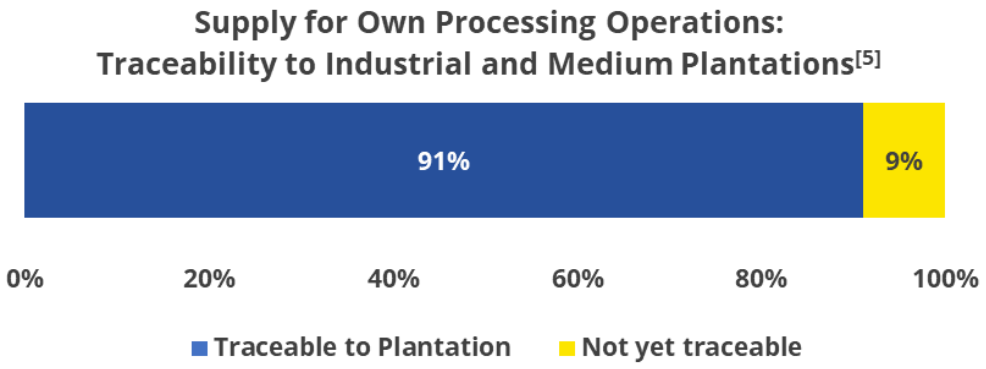


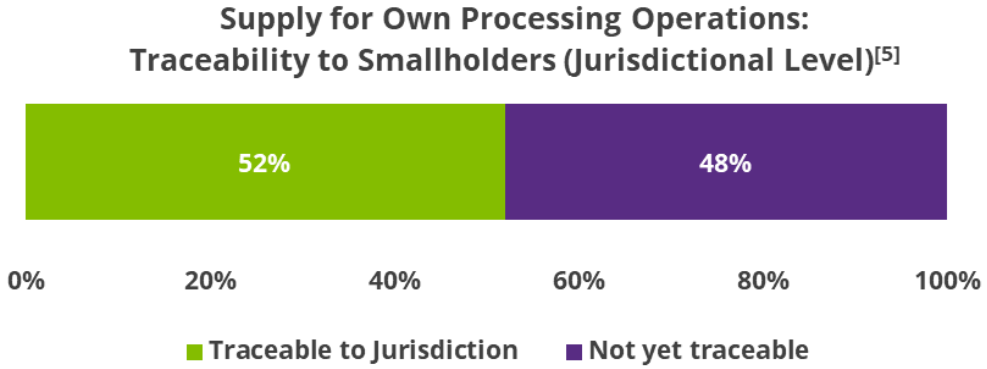
[4] See Michelin Universal Registration Document 2020 pg. 192-196

NATURAL RUBBER PROCESSING FACILITIES

LOCAL PROCUREMENT

Michelin's natural rubber purchases in Brazil are coordinated by a natural rubber procurement team. Our procurement team in our Brazil operations is working closely with both direct and indirect suppliers to determine their compliance with the national laws (such as the Brazilian Forest Code) and our Sustainable Natural Rubber Policy. Not unlike the global natural rubber supply chain, smallholder farmer supply chains in Brazil are complex due to the sheer number of actors and the presence of intermediaries. To help tackle this and map risks, we are deploying RubberWay in smallholder supply shed in Brazil. Michelin also plans to work more closely with cooperatives, dealers and directly with smallholders to tackle more complex issues such as documentation in light of the Brazilian Forest Code requirements. In 2020, 91% of natural rubber procured for our own processing operations from industrial and medium plantations was traceable to the plantation, and 52% of rubber procured from smallholders was traceable to the jurisdictional level[5].



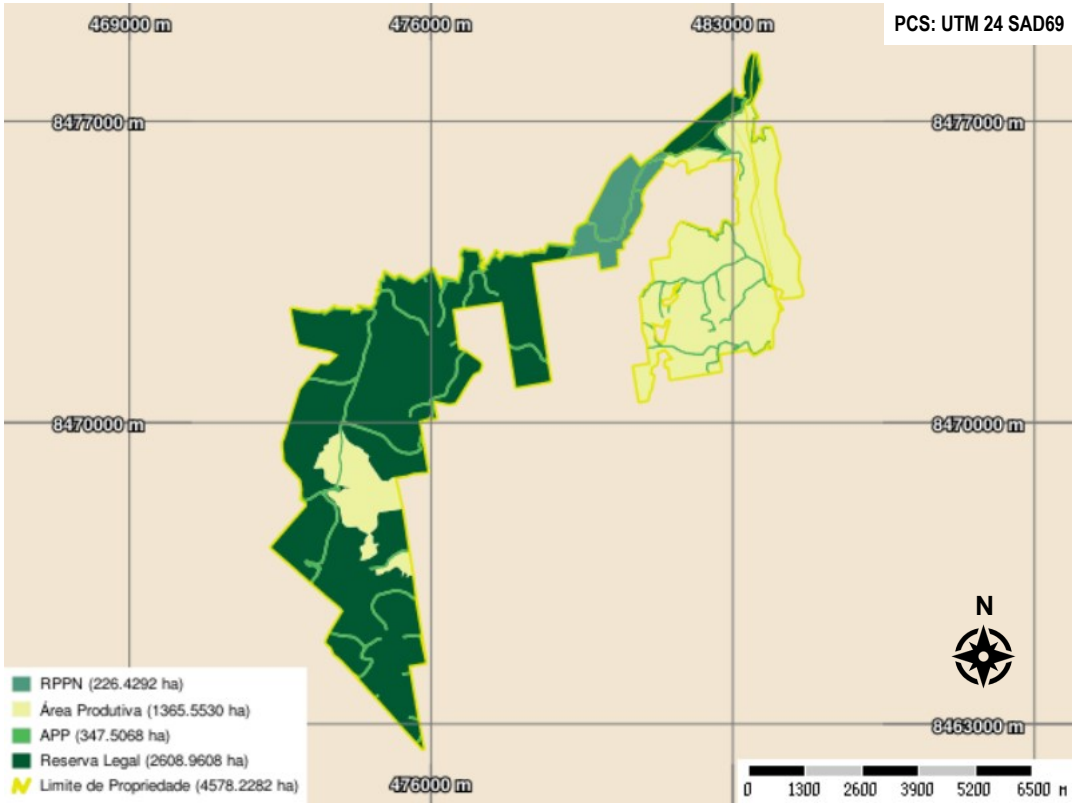


[5] Industrial plantations: >500ha. Medium plantations: <500 and >50ha. Traceability refers to knowledge of farm or plantation location (geolocation through central GPS location or address) or boundary information (polygon). Traceability to smallholders at jurisdictional level currently defined as minimum 'province level or equivalent' (sub-national level; state in Brazil), but in Brazil is in practice typically municipality level.

LAND MANAGEMENT

Michelin (PMB - *Plantações Michelin da Bahia Ltda*) manages 4,578 hectares of land in Bahia, Brazil, along the southern Bahia coast (13º50´S, 39º10´W). Of this, 3,182 hectares are officially designated as protected areas, and most of this area is managed as part of the Michelin Ecological Reserve.

Of the 1,366 hectares currently designated as Productive Area (*Areas Productivas*), 350 hectares are now managed under the purview of the Michelin Ecological Reserve since 2018; production activities in these rubber groves have stopped with the aim to restore a natural forest matrix and increase connectivity for the adjacent reserve areas—with this addition the reserve now comprises 3,350 hectares. This makes the Pachanga River valley the only one in the region with no economic or agricultural activity. In the rest of the Productive Area, 513 Ha remained active in 2020, of which 208 ha is dedicated to research and development of varieties resistant to pest and disease.



Key Figures: Michelin PMB Property, Data Year 2020	
Total Area	4,578 Ha (Area on peat: 0 Ha)
Productive area (*Areas Productivas*)	1,366 Ha • Active area: 513 Ha (208 Ha for R&D) • Retired area: 807 Ha • Unplanted area: 0 Ha • Other (e.g. infrastructure): 44 Ha
Set-aside Area	3,182 Ha officially designated set-aside area which includes: • Legal Reserve (*Reserva Legal*): Conservation for native vegetation and biodiversity • Permanent protected areas (APP – *Área de Preservação Permanente*): Protection for essential ecosystem functions (riverbank buffers) • Private Reserve of Natural Patrimony (RPPN – *Reserva Particular do Patrimônio Natural*)

LAND MANAGEMENT

MANAGEMENT AND BIODIVERSITY IDENTIFICATION

As PMB lies in the Bahia Center of Endemism, it harbors one of the most diverse and unique forests on the planet, with many of the plants and animals found nowhere else, not even in other parts of the Atlantic Forest. The global value of these forests is extraordinary, and the forests in Bahia can support >400 tree species/Ha. Recognizing the importance of this area, Michelin organized the Michelin Ecological Reserve in 2006 for protection and restoration of this critical habitat.

Since the property was acquired in the 1980's, all forest areas have been retained and there has been no new development of area within property boundaries. In order to guarantee it's zero deforestation commitment and natural ecosystem protection commitments Michelin will systematically carry out HCS-V and SEIA studies should it embark on any new development (within its current or future countries of operation). In line with supporting certification as part of a toolbox of solutions for sustainability that includes risk-based approaches, the group aims to regularly increase the certification of natural rubber (FSC, PEFC or other equivalent certification schemes). Due to the limited extent of our production area (which is indicated only for research and development), this may include supporting certification schemes or through procurement.

Since the reserve was organized, retired rubber groves have also been incorporated into the reserve area to increase the contiguous area and connect forest fragments. A restoration program has been organized and has planted 108,500 trees spanning 275 species over 300 hectares of forest.

LAND MANAGEMENT

A specific management plan is available for the RPPN Ouro Verde, but also guides the management of the property and Michelin Ecological Reserve in general. The plantation operation, as with the two processing operations, are certified for ISO 14001 Environmental Management for assurance for compliance with prevailing environmental regulation.

A list identifying species of concern present or discovered in the Michelin Ecological Reserve and property boundaries has been compiled. The original list compiled in initial biodiversity assessments is continually updated based on findings new discoveries from the Ecological Research Program; 20 species new to science are also included in the list. These species do not yet have IUCN threat categories but are assumed to be endangered or critically endangered as they have only been found in the reserve, and in some cases, in a few other forests in the region.

- Rare, Threated and Endangered Species List

Monitoring information on the implementation of management plan (performance against objectives)

Management objectives	Related indicators	Indicator metrics
1. Protect the integrity of biodiversity, and waterways	Maintain a forest ranger team for forest protection	In 2020: 5 rangers conducted 635 patrols, hunting pressure reduced 83.6% compared to 2011
2. Maintain facilities for the community and students participating in environmental education programs	Infrastructure is provided and maintained	In 2020: Sanitary facilities, benches, and trails continue to be maintained
3. Enable accessibility for scientific research while maintaining environmental integrity and compliance with laws related to scientific research	Supporting scientists with reserve access and facilities Publications as a result of research conducted or sponsored in the Michelin Ecological Reserve	An average of 100 scientists a year Cumulative till 2020: 117 scientific papers published
4. Restore retired plantation area by planting native species	Hectares restored; species planted	Cumulative till 2020: 300 hectares planted with 107,000 trees of 275 species No sites were identified for active planting in 2020, but restored areas continue to be protected and natural regeneration is allowed to take place.
5. Integrate the RPPN with the rest of the reserve so that the entire reserve is managed as one unit	nil	Management of the Michelin Ecological Reserve continues to be centralized with unified objectives under the Centre for Biodiversity

LAND MANAGEMENT

FOREST AND BIODIVERSITY PROTECTION

Deforestation monitoring and biodiversity protection is conducted primarily through physical monitoring by a dedicated team of five rangers hired from the local community. Illegal access and use of the property and forest, including hunting, is mitigated by regular forest patrols, access control with security facilities at the main entrances of the property, and environmental education of surrounding communities. Forest rangers conduct a total of 7,744 patrol hours/year, with 635 patrols conducted in 2020. Hunting pressure has generally been the most prevalent risk historically, and the area experienced high hunting pressure until the ranger team was established[6]. Since 2011, regular patrols and continued environmental education of the surrounding communities have resulted in hunting pressure falling 83.6%.

Due to comprehensive patrol efforts and engagement with communities, deforestation has not been a noted issue in recent years, and there were no incidents of deforestation in 2020. While physical patrols continue to be the primary means of monitoring and deterrent against deforestation and other illegal activities, the property's boundaries are also included and monitored in the Global Forest Watch Pro tool as part of Michelin's global deforestation analysis framework as of 2021. Together, the monitoring efforts encompass the entire extent of the boundary—4,578 hectares are monitored, with deforestation monitoring focusing specifically on 3,500 hectares (set-aside areas and additional area managed under the purview of the Michelin Ecological reserve).

Year	Deforestation recorded
Since 2015[7]	0 Ha
2019	0 Ha
2020	0 Ha

[6] See (Flesher 2013) Protecting Wildlife in a Heavily Hunted Biodiversity Hotspot: A Case Study from the Atlantic Forest of Bahia, Brazil.
[7] Michelin published its first set of commitments for natural rubber in 2015. It has since aligned its Sustainable Natural Rubber Policy with the GPSNR Policy Framework, which includes a specific cut-off date.

LAND MANAGEMENT

FIRE MONITORING AND MANAGEMENT

All forest patrol guards are trained to monitor and respond to fire incidents. Monitoring is primarily carried out by physical patrols that cover the full extent of the property. They are required to undergo a course conducted by the Ilhéus Fire Department on procedures for water and forest rescue, firefighting, as well as first aid courses every two years. Due to the prevalence of agricultural and forestry models that do not incorporate fire as part of the agricultural cycle and a wet climate in the immediate landscape, uncontrolled fire is generally not a major threat to the property. On-going management activities include preventing illegal access and environmental education of the surrounding communities. No fire incidents were recorded in either the production area (productive area) or the set-aside areas in 2020.

Year	Fire Incidents in Production/ Productive and Set-aside Areas
2019	0 Incidents
2020	0 Incidents

BEST AGRICULTURAL PRACTICES

The Bahia plantation has long been a center of excellence in the region and has contributed to rubber production in the greater region by promulgating best tapping and agricultural practices and investing heavily in research and development of rubber tree varieties.

In recent years, production areas have been progressively retired and are planned to be incorporated into the Michelin Ecological Reserve. From 2021 onwards, only research and development activities continue in the production areas.

BEST TAPPING PRACTICES

To ensure tappers use sustainable and best tapping practices, particularly in the highly standardized research plots, all new rubber tapping staff undergo an intensive 4-week training course. This includes tapping techniques (depth and angle of cut, consumption of bark according to established templates) as well as training on health and safety and outfitting with appropriate personal protective equipment for their tasks. More widely, Michelin in collaboration with CIRAD (a French agricultural research institute), and through its involvement in the Institut *Français du Caoutchouc* (IFC – French Rubber Institute), participates in research contributing to sustainable natural production through good latex harvesting practices[8]. Teaching best tapping practices is also a key feature in our smallholder farmer training programs and projects more widely, these are focused on proper tapping techniques and lower-frequency tapping that is more labor efficient.

[8] See, among other publications hosted on Agritrop, (Gohet et al. 2013) Sustainable rubber production through good latex harvesting practices: An update on mature rubber fertilization effects on latex cell biochemistry and rubber yield potential.

BEST AGRICULTURAL PRACTICES

MINIMIZING CHEMICALS AND PESTICIDES

As part of Michelin's commitment to continuously strive to reduce and minimize its global use of chemicals and pesticides, it has taken two additional commitments for its own and joint-venture plantation operations: (1) A reduction of pesticides (herbicides and fungicides) by 50% in 2025 (as compared to a 2019 baseline) (2) to ban all pesticides classified under the FSC 'Prohibited and Highly Restricted' list (including Paraquat), which is in place as of 2021.

To work toward this commitment, Michelin implements and encourages practices including: Integrated Pest Management approaches; mechanical weeding and optimization of use of fertilizer. Michelin also contributes to research on these topics within the framework of the IFC[9]. Within the Bahia plantation, the implementation of nitrogen fixing cover crops in the plantation area (Desmodium ovalifolium) is one of the specific approaches that has been used; they remain in use in some research plots .

Between 2019 and 2020, there was a 9% decrease in use of pesticides in the Bahia plantation[10]. While Michelin remains committed to optimizing pesticide and fertilizer use, the transition of its remaining production area to purely research and development activities means that going forward, impact will be best achieved in promulgating these best practices with its partners and suppliers.

[9] See (Vrignon-Brenas et al. 2019) Nutrient management of immature rubber plantations: A review.
[10] Base hectarage corresponds to active plots as of end-2020

	2019	2020	% reduction
Pesticide use (kg active ingredient/Ha[10])	2.9	2.7	9%
Fertilizer use (kg/Ha[10])	74.8	44.7	40%

BEST AGRICULTURAL PRACTICES

SOIL AND WATERWAY MANAGEMENT

The same principles on reducing and minimizing chemical and pesticide use apply to good soil management in plantation areas. Mechanical weeding is preferred over the application of herbicide use where appropriate, which helps avoid unnecessary nutrient depletion of the soil; this is bolstered by the use of cover crops in some areas. Through the IFC, Michelin is also contributing to research in this area. As part of the FERTIM project, also funded by the IFC, recent findings[11] have contributed to a better understanding of how soil health can be quickly restored at the end of a rubber plantation planting cycle through biomass retention and the use of legume cover crops.

Waterway buffers are maintained via designated Permanent Protection Areas (APP – *Área de Preservação Permanente*) which are required by law; their maintenance falls under the scope of the ISO 14001 certification maintained by PMB. These areas are not used for the production of rubber but are left with native vegetation. Enrichment plantings have been carried out in some APPs that experienced degradation before the property was acquired, more than 100 species have been planted to increase biodiversity of these areas. In total, 347.5 hectares of APP are maintained[12].

[11] See (CIRAD, 2021) Rubber production: How can soil health be restored after clear-cutting of a 40-year-old plantation?

[12] See page 8 for map of Área de Preservação Permanente (APP) within property boundaries

ENGAGING AND EMPOWERING COMMUNITIES

MICHELIN GREEN GOLD BAHIA PROGRAM (MOVB—PROJECTO OURO VERDE BAHÍA, MICHELIN)

Michelin's community engagement and development in the Igrapiúna, Bahia region has deep roots. In 2005, to facilitate a process of socially responsible restructuring of its operations in the region, Michelin established its landmark Michelin Green Gold Bahia Program (MOVB). This project would see a significant portion of plantation area reconstituted as independent medium-sized rubber farms that would operate agroforestry models in an effort to retain agricultural jobs in the area. To support workers and their families on these newly independent farms, Michelin set up several public-private partnerships to develop infrastructure and services in the region. This included two schools (including transport infrastructure), a health clinic, subsidized housing for low-income families and the upgrading of electricity, water and telecom infrastructure[13]. Through the project, Michelin covered much of the upfront costs of the infrastructure and has since transferred maintenance and operation to the local municipality. While Michelin no longer bears any costs for these projects, the outcomes are a testament to a successful public-private partnership in local community development.

As part of the MOVB, Michelin also developed the 'Family Agriculture Program' to empower smallholder farmers on best rubber farming practices and agroforestry models, to improve their livelihood and food security. The program, developed in partnership with the federal government comprised of donations or at-cost provision of rubber tree varieties resistant to the *Microcyclus ulei* disease to farmers, coupled with an agroforestry model with cocoa and banana crops to promote diversification.

[13] See (Sucher & Winterberg, 2016) Michelin: Socially Responsible Industrial Restructuring. Research Report, Harvard Business School.

ENGAGING AND EMPOWERING COMMUNITIES

Technical assistance was also provided by Michelin on best agricultural practices. The program has since concluded with 1,307 beneficiary families becoming self-sufficient. Michelin continues to collaborate with regional agricultural authorities in pest and disease prevention, including through involvement in the Bahia Phytosanitary Defense Commission. It also continues to facilitate knowledge transfer to smallholders in the region through these partnerships, and in 2020, distributed informative flyers on the low-frequency tapping model to farmers in the region.

Today, the MOVB continues to contribute to the environmental and social vitality of the region. The Michelin Ecological Reserve supports the conservation of rare habitat and continues to offer technical and logistical support from visiting scientists from all over the world. The reserve also manages the RPPN Ouro Verde (Private Reserve of Natural Patrimony Ouro Verde), which hosts the Pancada Grande waterfall, a site of cultural importance and a place of leisure for the region. The waterfall area and designated forest trails are open to the public and are also used to host environmental education activities. These activities are managed in line with regulation while minimizing impact on the site, and facilities (including sanitary infrastructure) are maintained for the public at no cost to the community. The production areas on the property continues contribute to research and development of adaptive and disease-resistant rubber varieties, collaborating with agricultural bodies regionally and globally to ensure the long-term resilience of rubber farming .

ENGAGING AND EMPOWERING COMMUNITIES

COUNTRY HOUSE PROJECT (*CASA FAMILIAR RURAL*)

To support the agricultural sector in the region, and to empower the next generation of farmers to develop sustainable farms, Michelin donated land and has partnered with other stakeholders to create the *Casa Familiar Rural - Igrapiúna* (Country House Project). This agricultural technical school is catered to youth 14-18 years old, who are the children of farmers and smallholders in the region of Igrapiúna, Bahia. The school provides a professional education that covers techniques for the cultivation of rubber and other diversified crops, along with agricultural business strategies and management, giving them the skills and knowledge to develop sustainable small agricultural businesses. The training on technical and soft skills aims to foster food and livelihood security, and to develop community leaders that multiply this impact in their local communities. Environmental and social responsibility are also core parts of the curriculum. The project, set up in 2007 and still running today, has seen 249 graduates and 436 productive education projects.

Key Figures

Beneficiaries of the Program

249 Graduates from 2007-2021

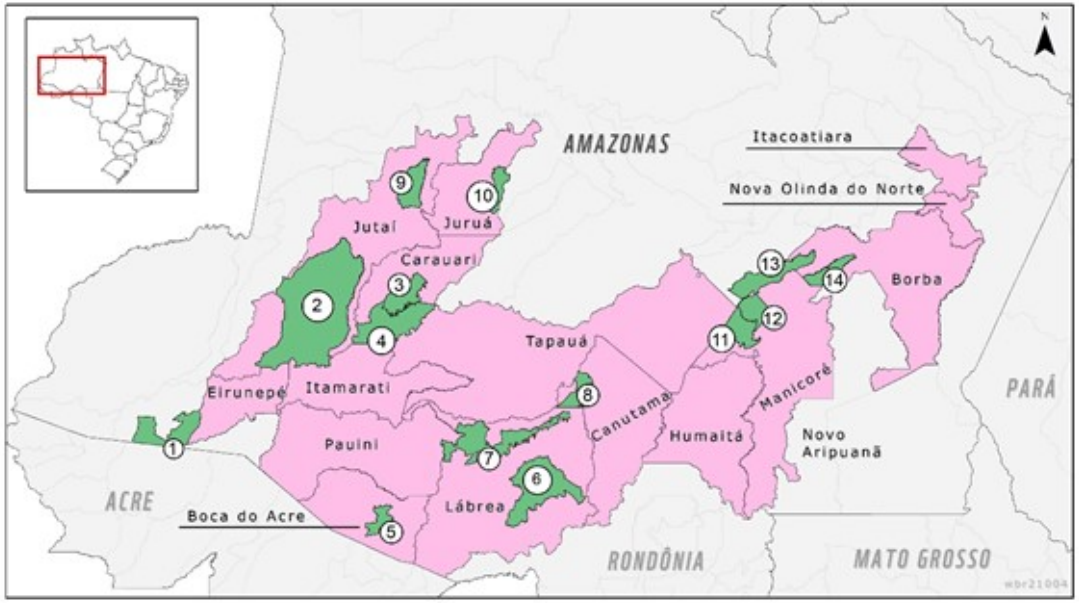
Education Projects

436 Since 2007

ENGAGING AND EMPOWERING COMMUNITIES

STRENGTHENING THE NATURAL RUBBER VALUE CHAIN IN THE BRAZILIAN AMAZON

Latex extraction is an important part of the local economy for communities in the Amazon. Here, local communities, especially indigenous people groups, collect latex from naturally occurring rubber trees scattered in the Amazonian rainforest. The practice, when done sustainably, has minimal impacts on the forest, and provides an important income source for communities in the area. Understanding the difficulties faced in recent year by the Covid pandemic and the gradual exodus from the practice, the Michelin Foundation partnered with WWF Brazil to empower the communities in the area. In the short run, the project aims to preserve the existing ecosystem by improving the way natural rubber is extracted and commercialized by traditional communities. Better organizing the process and making it more viable will sustain employment for local people, mitigate the negative impacts of the health crisis, help promote forest conservation and reduce deforestation and the carbon emissions that go with it. Practically, in the medium term, the project potentially covers 14 conservation units with a total surface area of 6,8 million hectares of forest, directly providing sufficient revenues for the guardians of the forest, some 3,800 families who currently inhabit the forest and ensure its conservation.



ENGAGING AND EMPOWERING COMMUNITIES

GENDER EQUITY IN THE NATURAL RUBBER SUPPLY CHAIN

Empowering women and gender equity is a key consideration in our natural rubber supply chain and community empowerment initiatives. In the CASCADE smallholder capacity building project in Indonesia, women are an important target group, and the project has a specific KPI for 25% of smallholder participants to be women; Michelin aims to implement similar KPIs in other planned projects. They will be trained in best agricultural techniques for rubber and other diversified crops, as well as in soft skills. Through the Arte Solidária (Solidary Art) Michelin Ouro Verde project in Brazil, Michelin, in partnership with Maria Oiticica, a Brazilian jewelry designer, aims to promote the development of a self-sustainable model that reconciles conservation, the conscious use of natural resources and the generation of social benefits and income, through training of local communities, especially women, to create artisan jobs that create value out of seeds, fibers and the bark of rubber and other local trees.

In our operations, including natural rubber operations, diversity is a key concern of the group, and Michelin has developed a Diversity Policy and tracks a Diversities and Inclusion Management Index, of which gender balance “Achieve parity among Group managers and, by 2030, set the gender balance benchmark in our industry", is a key component[14]. Wage parity is also closely tracked. An international Diversities & Inclusion network supports this effort, led by the Corporate Vice President of Sustainable Development and Mobility, brings together 20 Diversities Managers from each of the Group’s host countries and/or regions.

[14] See Michelin Universal Registration Document 2020 pg. 174-177

NATURAL RUBBER SUPPLY CHAIN

As the world leader in tires and one of the world's biggest purchasers of natural rubber, Michelin aims to lead the way in sustainable management of the natural rubber supply chain. Michelin's natural rubber supply chain is primarily supplied by smallholders. In 2020, 87% of global sourcing originated from smallholders, while 13% originated from industrial and medium plantations[13].

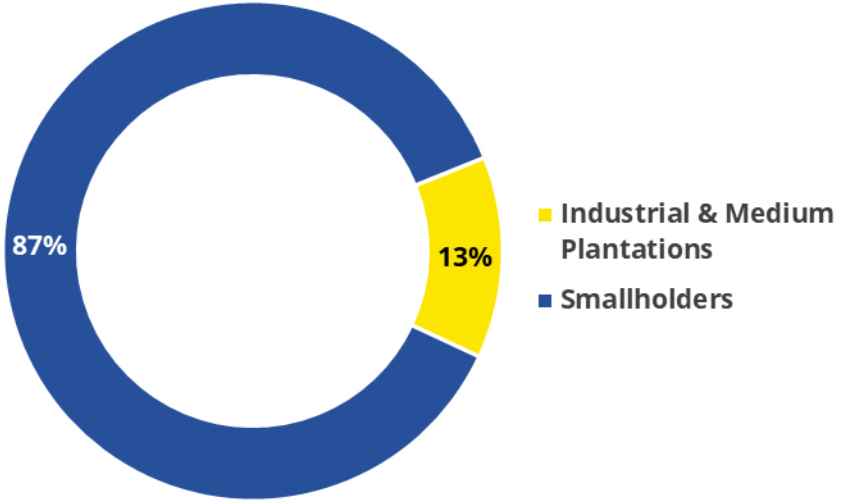
ENGAGING SMALLHOLDER FARMERS

With a vast majority of Michelin's and the world's production of natural rubber originating from smallholder farmers, Michelin firmly believes that empowering smallholders to be resilient and responsible is a key part of the solution for a sustainable natural rubber value chain. Michelin is working through a risk-based approach, where tools are first used to highlight priority risk themes and geographies, followed by targeted action to engage smallholder suppliers so that their practices are in line with our policies and expectations.

This process begins with the RubberWay®, a risk mapping tool that maps environmental and social risks throughout the natural rubber supply chain. The tool was developed to overcome the complex nature of the natural rubber supply chain, in that farmers often sell their raw material through layers of intermediaries, making it hard for processing factories to engage farmers or understand the risks in their upstream supply chains. RubberWay allows Michelin and its suppliers to rapidly identify risks and identify mitigating actions.

[15] Global sourcing includes own operations and third party processing factories. Data includes information from supplier declarations and supply chain studies, and sourcing mix from each individual processing factory is assigned proportionally based on Michelin purchased volumed per factory. Industrial plantations: >500ha. Medium plantations: <500 and >50ha. Medium plantations are typically owned by individual landowners and exist in limited number primarily in West Africa and South America; they are sometimes difficult to differentiate from smallholder farms. Michelin working with its suppliers to refine the delineation between small and medium farms, as well as to consider specific approaches for non-industrial medium farms.

Industrial & Medium Plantations vs. Smallholders [15]



NATURAL RUBBER SUPPLY CHAIN

ENGAGING SMALLHOLDER FARMERS (CONT.)

The identification of priority risks and geographies allows for targeted engagement with smallholder suppliers towards improved practices aligned with the sustainability commitments of Michelin and its suppliers. Working with RubberWay, Michelin identifies improvement areas based on the results of our suppliers' RubberWay risk mapping results, and mitigation actions or improvement plans are discussed for implementation by suppliers. As of end-2020, we are currently deploying the tool with suppliers representing 55% of our volumes and have reached almost 40,000 smallholder farmers in six countries.

Engaging Priority Jurisdictions Through Project CASCADE

In priority jurisdictions, Michelin has also elected to engage smallholder farmers with direct intervention projects. At the end of 2020, it launched a targeted capacity building project for smallholder farmers to address livelihood, environmental and social risks identified through RubberWay, which will target three jurisdictions in Sumatra, Indonesia. Project CASCADE (Committed Actions for Smallholder CAapacity DEevelopment), in Sumatra Indonesia, aims to foster the livelihoods of 1,000 smallholders and their families while improving environmental and social practices.

The four-year project was developed from the ground up based on results from RubberWay. It couples in-person training and a digital training tool to enhance accessibility and measure impact. Agricultural training enables farmers to increase their rubber yields, and to pursue income diversification to improve their economic resiliency. Social and environmental training is a core part of the project, including human and labor rights training, and the promotion of environmentally friendly farms: reduction of agrochemicals, agroforestry, environmental education for deforestation-free farms, and exploration of a CO2 sequestration model. It is the first natural rubber project that encompasses the entirety of the supply chain: smallholder farmers and partners, a natural rubber processor, tire maker, and car maker.

NATURAL RUBBER SUPPLY CHAIN

Leveraging Technical Training as an Engagement Platform

In our own operations, as well in collaboration with our rubber-industry joint ventures in Indonesia and the region of West Africa, we are supporting smallholder farmers through technical assistance, extension services and capacity building events, while disseminating technical training material and high -yielding agricultural inputs. These trainings also serve as a platform to engage farmers on identified risks and towards sustainable practices. In 2020, Michelin and its partners conducted 422,950 field trainings for around 100,000 farmers[16].

Engaging Smallholders in a Multi-Stakeholder Approach

Michelin also continues to seek opportunities to collaborate in a multi-stakeholder approach to address risks in the natural rubber supply chain. In 2021, it pledged funding for a smallholder capacity building project under the Global Platform for Sustainable Natural Rubber. The three-year project will empower smallholder farmers to enhance their livelihoods and diversify their income through agroforestry systems, while creating positive environmental outcomes.

SUPPLY FROM AGROFORESTRY

Michelin hopes that agroforestry can be a lever to achieve natural rubber farming that is climate-smart. On top of funding a GPSNR capacity building project on agroforestry in Thailand, Michelin hopes to work on identifying volumes originating from agroforestry and other high biodiversity systems of rubber farming, and explore the implementation of agroforestry models in its smallholder capacity building projects. In 2020, 0.54% of Michelin's natural rubber supply by volume originated from farms operating agroforestry models[17].

[16] Includes farmers engaged through Michelin's own initiatives or as part of our partnerships with our rubber-industry joint ventures (where Michelin offers its agricultural expertise).

[17] Accounted as supply originating from farms operating the *Sistema Agro Florestal* model in Brazil.

NATURAL RUBBER SUPPLY CHAIN

SOURCING FROM THIRD-PARTY PROCESSING FACTORIES

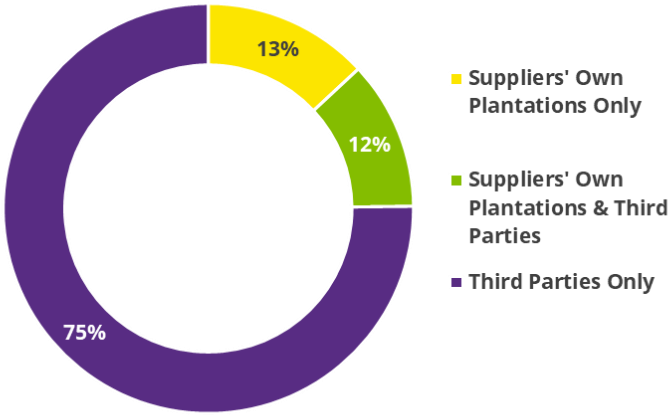
Michelin sources natural rubber primarily from independent suppliers. These suppliers can be independent natural rubber processing factories, a group with multiple factories or traders (natural rubber wholesalers). In every case, Michelin conducts on-site audits, which include environmental and labor aspects, on individual natural rubber processing factories before they are added to an approved factory list. All suppliers, including groups and traders, have to abide by this list, and 100% of supply is traceable to the factory level. Michelin occasionally purchases rubber through traders instead of directly from the factories (sourcing remains limited to the approved factory list with 100% traceability); this accounted for 12% of volume by spend in 2020[18] . In 2020, Michelin sourced natural rubber from approximately 150 processing factories. This includes joint venture partners, where Michelin maintains a minority shareholding; they are part of Michelin's global natural rubber network.

[18] 100% traceability to factory maintained. Some factories sell on the international market using traders. Also includes purchasing based on short term demand. Factories that sell through affiliate marketing offices or wholesalers are considered factory direct.

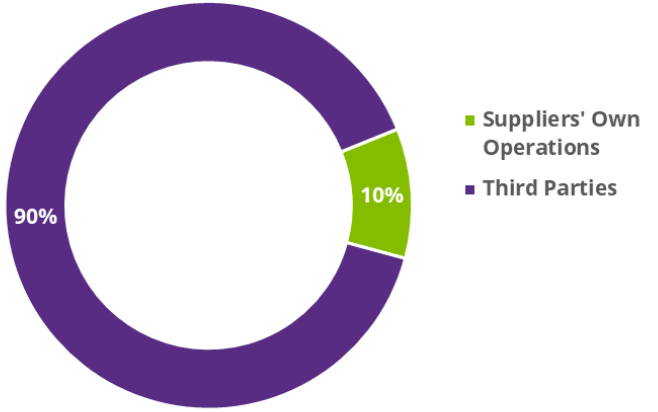
NATURAL RUBBER SUPPLY CHAIN

SOURCING FROM THIRD-PARTY PROCESSING FACTORIES: DATA YEAR 2020

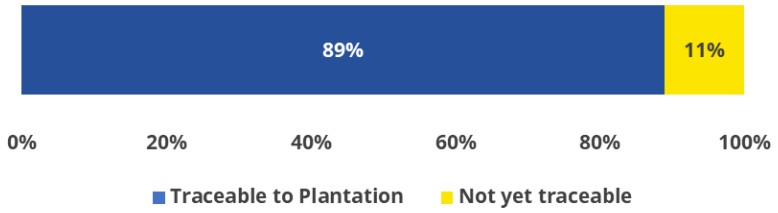
Third Party Processing Factories Sourcing[19] from:



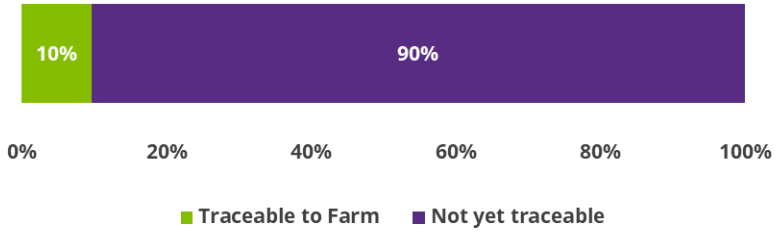
Volumes (%) Sourced from Third Party Procesing Factories[20] from:



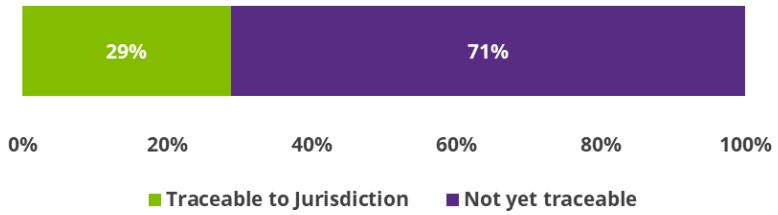
Traceability to Industrial and Medium Plantations[20]



Traceability to Smallholders (Farm Level)[20]



Traceability to Smallholders (Jurisdictional Level)[20]



[19] Number of factories expressed as a percentage of total number of third party factories. Includes data based on supplier declaration.
[20] Data includes information from supplier declarations and supply chain studies, and sourcing mix from each individual processing factory is assigned proportionally based on Michelin purchased volumed per factory. (e.g. if Michelin sources 10% from a factory, and the factory sources 10% from suppliers' own plantation and 90% from 3rd parties, this is accounted for as 1% from suppliers' own plantations and 9% from 3rd parties in Michelin's sourcing; same methodology applies to traceability calculations). Industrial plantations: >500ha. Medium plantations: <500 and >50ha. Traceability refers to knowledge of farm or plantation location (geolocation through central GPS location or address) or boundary information (polygon). Traceability to smallholders at jurisdictional level currently defined as minimum 'province level or equivalent' (sub-national level).

NATURAL RUBBER SUPPLY CHAIN

MONITORING RISKS IN SUPPLIER OPERATIONS

Understanding the specific risks of deforestation, Michelin is working with WWF on a global deforestation risk analysis of its suppliers' supply sheds, conducted at the natural rubber processing factory level, which started end-2020. In 2021, a preliminary analysis was completed, covering all major sourcing countries. This preliminary risk analysis will now be further refined with updated datasets and feedback from the ground through consultations with suppliers. Processing factories which have been preliminarily identified as high risk through the initial analysis will also be prioritized for engagement.

Michelin is also exploring deforestation monitoring approaches with a number of tools. Two of its joint venture suppliers are implementing satellite monitoring approaches with Satelligence to monitor encroachment. One of these projects is exploring the use of satellite monitoring in the context of the landscape approach, with coverage in its smallholder sourcing areas in addition to its own operations. With industrial plantations, Michelin is progressively incorporating supplier plantation boundaries into monitoring tools such as Global Forest Watch Pro, which will allow it to monitor and track deforestation and hotspot alerts.

Since the GPSNR cut-off date of 1 April 2019, no instances of deforestation from new development was reported by suppliers operating industrial plantations, although one supplier reported 11 Ha of accidental clearing on the margins of a set-aside area in 2020; they plan to rectify the incident with rehabilitation at the site or other equivalent area. In 2020, Michelin also recorded a number of fire incidents reported by its major suppliers[21] operating industrial estates, it maintains engagement with suppliers on their fire prevention activities.

[21] Major suppliers operating industrial plantations (>500 Ha). Reporting is not currently standardized between fire incidents/area affected but Michelin is working to streamline reporting amongst its suppliers

Fire Incidents Reported by Major Suppliers[21] Operating Industrial Plantations in 2020

Country	# Industrial Estates Reporting	Fire incidents/ Area affected
Côte d'Ivoire	11	12 Incidents
Ghana	1	4 Incidents
Nigeria	5	0 Incidents
Indonesia	3	41.2 Ha affected

NATURAL RUBBER SUPPLY CHAIN

List of Third-Party Processing Factories (Natural Rubber Network): Data year 2020

Supplier	Name	Location (Coordinates)
Côte d'Ivoire		
Société Internationale de Plantations d'Hévéas	SAPH Bettie	6.084, -3.392
	SAPH Bongo	5.498, -3.515
	SAPH Rapides Grah	5.104, -6.638
	SAPH Toupah	5.311, -4.562
	SAPH Yacoli	5.967, -6.514
Ghana		
Société Internationale de Plantations d'Hévéas	GREL	4.921, -1.980
	GREL TSIBU	4.883, -2.089
Indonesia		
PT. Multi Kusuma Cemerlang	Multi Kusuma Cemerlang	-0.546, 117.162
Nigeria		
Société Internationale de Plantations d'Hévéas	RENL Araromi	6.646, 4.441
Thailand		
NTEQ Polymer Co. Ltd.	NTEQ Polymer	16.740, 104.675

Appendix: Version Control

Version number	Published	Change Log
V1.0	18 January 2022	nil
V1.1	01 February 2022	Page 5: Legal limits for BOD in Brazil explicitly stated Page 7: Added traceability data for local procurement Page 8: Added PCS reference to map Page 15: *Área de Preservação Permanente* (waterway buffer area), hectares maintained specified. Page 18: Area monitored and area monitored for deforestation and degradation specified. Page 20: Additional information on the inclusion of women in capacity building projects, replaced illustration, Page 23: Added data for supply from agroforestry

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