



# Creating Sustainable Value, From Plantation to Fashion

Sustainability Progress Report  
January 2019 - June 2020



# The Value Chain



**From renewable raw materials**  
Sustainable sourcing: p28



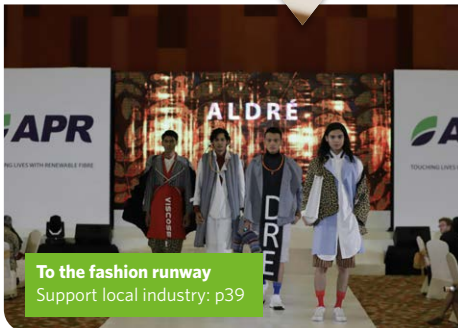
**To fibre production**  
Clean manufacturing: p20



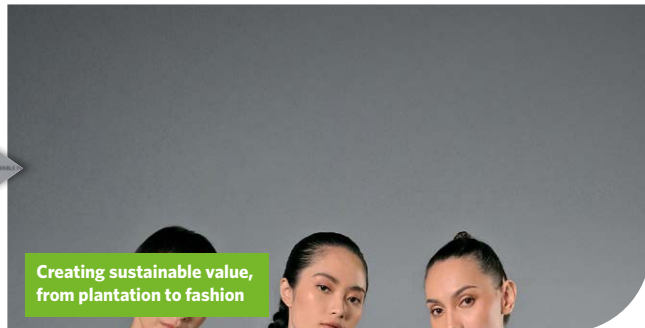
**Garment making**  
The story of viscose: p11



**Spun into yarn**  
At APR's fully integrated rayon facility. p8



**To the fashion runway**  
Support local industry: p39



**Creating sustainable value,  
from plantation to fashion**

## Contents

About this Report.....	2
Letter to our Stakeholders.....	3
Performance Highlights .....	5
Doing Good for the Community and Country during COVID-19 .....	7
About APR .....	8
About Viscose Rayon .....	11
Our Approach to Sustainability .....	14
Clean & Closed Loop Manufacturing .....	20
Sustainable Sourcing .....	28
Our People, Our Communities.....	34
GRI Content Index .....	41
Glossary .....	45

# About this Report



**At Asia Pacific Rayon, (APR) our ambition is to become the most efficient and responsible viscose staple fibre (VSF) manufacturer. This sustainability progress report, our first, reflects our commitment to accountability, driving continuous improvement in all aspects of mill performance as we embark on our sustainability journey.**

We hope that it provides our stakeholders with useful and relevant information, insights into the viscose industry, and how we strive towards a sustainable future for viscose and the textile industry.

## **Boundary and Scope**

The performance disclosures contained in this progress report pertain to the period January 1, 2019 to June 30, 2020. It consists of the full year 2019 and an interim performance for the first six months of 2020. The report accounts for VSF mill operations in our 240,000-tonne capacity mill located in Indonesia. We will publish our sustainability report on an annual basis.

Complementary to this report is our online **Sustainability Dashboard**, which is updated regularly.

## **Reporting Approach and Framework**

This report has been prepared with reference to the Global Reporting Initiative (GRI) Standards, including referencing the relevant GRI principles for defining report content:

- Stakeholder Inclusiveness: Being responsive to stakeholder expectations and interests;
- Sustainability Context: Presenting performance in the broader context of sustainability;
- Materiality: Focusing on issues through which we can create impact, and which are of critical importance to our business and stakeholders; and
- Completeness: Including all information that is of significant economic, environmental and social impact to enable stakeholders to assess our performance.

A GRI Content Index detailing the specific standards referenced can be found on page 41 of this report.

The data included in this report has undergone a rigorous internal review. We have not sought external assurance for this inaugural report but will do so in future reports.

## **Contact**

We value opinions from internal and external stakeholders to help us improve and progress in our approach to sustainability and sustainability communications.

We welcome your comments and feedback:  
[sustainability@aprayon.com](mailto:sustainability@aprayon.com)

# Letter to our Stakeholders

**Dear Stakeholders,**

**I am pleased to present to you Asia Pacific Rayon's (APR) inaugural Sustainability Report. As a relatively new player in the man-made cellulosic fibre industry, it is important to us that our future is built on a foundation of responsible and sustainable operations. Our purpose is about touching lives with renewable fibre. This is embedded in our 5Cs business philosophy: whatever we do must be good for the Community, the Country, the Climate and our Customers, and only then will it be good for the Company.**

This report reflects a commitment to the responsible and sustainable production of viscose, ensuring that sustainability is integral and rooted in the core business and operations.

## **Our First Progress Report**

APR is a vertically-integrated operation, from sustainable fibre plantations to high-value textile manufacturing facilities, located in the heart of Pangkalan Kerinci in Riau, Sumatra. Formally inaugurated by President Joko Widodo in February 2020, APR symbolises a diversification of Kerinci's operations to downstream value creation and supports the realisation of Indonesia's Industry 4.0 vision.

As Indonesia's leading integrated VSF manufacturer, we contribute to the transformation of the country's textile industry and the growth of sustainable textile production globally. Since our first VSF bale was produced on December 1, 2018, we have focused on fine-tuning our operations, attaining sustainability certifications and working with our stakeholders to promote viscose as an enabler for a sustainable fashion and textile industry.

Sustainability has been a core focus in our first 18 months of operations. One of our top priorities was to establish the clean manufacturing of VSF. Our facility incorporates the latest production technology to produce high-quality VSF while minimising pollution and waste. During this time, we successfully obtained several sustainability certifications for our operations and product. We began establishing a baseline for our carbon footprint to inform the setting of carbon emissions reduction targets for 2030. We also launched our Sustainability Dashboard, where we publish our critical sustainability performance indicators benchmarked against global industry standards like the EU Best Available Techniques (EU BAT).

Another priority is assuring that 100% of the dissolving wood pulp (DWP) we source is from fibre plantations certified to internationally recognised forest certification standards. Our primary supply of DWP comes from Asia Pacific Resources International Limited (APRIL), whose operation is co-located with APR's in Pangkalan Kerinci. APRIL's Sustainable Forest Management Policy 2.0 (SFMP) includes a steadfast commitment to no deforestation, no new development on peatland, as well as policies and practices to promote responsible peatland management, and forest conservation and restoration.

We have developed the capability to have 100% traceability of DWP along the entire value chain. Our platform, Follow Our Fibre, is powered by block-chain technology to provide our customers and stakeholders with a transparent way to trace our product back to its source. Our next goal is to extend this capability to retail stores and provide seedling-to-garment traceability to consumers.

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*This report reflects a commitment to the responsible and sustainable production of viscose, ensuring that sustainability is integral and rooted in the core business and operations.*

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Supporting local communities is a key part of our business ethos and a pillar of our sustainable development strategy. Our facility in Pangkalan Kerinci generates positive socio-economic benefits for the surrounding communities, providing employment opportunities and bringing initiatives on training and development to the communities.

### Addressing COVID-19

This report is published at a time when the world continues to deal with the COVID-19 pandemic. There has been minimal impact on our day-to-day operations owing to the advantage of having integrated DWP and VSF production in the same complex.

The focus of our efforts is to ensure the health and safety of all our employees, contractors and their families. We are enforcing safe distancing measures, temperature screening and travel restrictions within our facility. We have a dedicated medical team to keep our people and local communities safe, and to provide prompt medical attention.

Together with APRIL, we have partnered with provincial and district level health officials to coordinate efforts to support frontline health workers and maintain public hygiene. We have donated personal protective equipment, including medical gowns, face masks and surgical gloves and goggles to Riau's COVID-19 taskforce team. We helped disinfect public spaces in our surrounding communities and around our area of operations as part of a collective effort. Our contribution to the COVID-19 relief efforts reflects our belief that businesses like APR have a responsibility to ensure the safety and wellbeing of our community.

### Looking Ahead

In our first 18 months of business, we focused on establishing a strong operational foundation backed by a sustainability roadmap that is informed by a good understanding of our baseline performance and benchmarking of industry peers. We are proud to have earned the trust of our customers in providing reliable service and a high-quality product. We will safeguard this trust with our customers and stakeholders. We will adhere to the commitments made in our sustainability policy and use only 100% certified DWP.

Innovation and collaboration will underpin the next stage of our efforts to advance sustainability in our industry. APR is part of the RGE Group which has committed US\$200 million to accelerate next-generation textile fibre innovation and technology, and pave the way for circularity and closed-loop production systems. We will continue to work closely with stakeholders across the value chain to promote and facilitate these efforts.

We are acutely aware that global attention is focused on the role businesses will play to meet science-based climate targets and achieving the Sustainable Development Goals (SDGs) over the next decade.

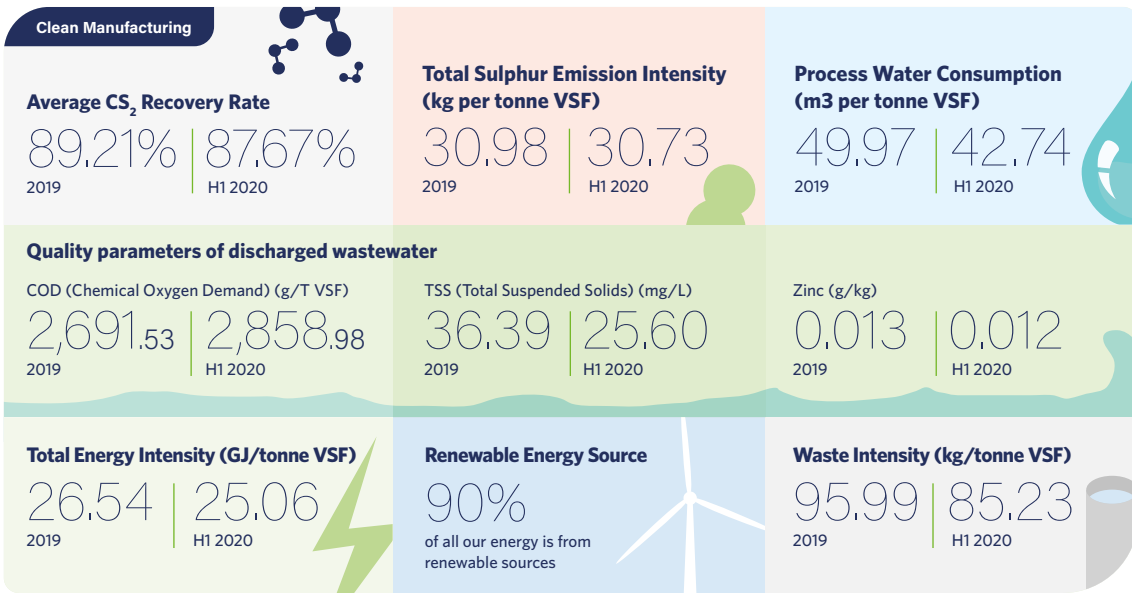
While we have made a good start, we have much more to do to raise the bar for sustainable textile production across our supply chain and industry. I hope this report provides a snapshot of our progress to date and an understanding of our commitment to further advancing sustainable practices across APR in the future.

“  
*Innovation and collaboration will underpin the next stage of our efforts to advance sustainability in our industry*  
”



**Basrie Kamba**  
APR Director

# Performance Highlights



# Doing Good for the Community and Country during COVID-19

**In this unprecedented time brought about by the COVID-19 pandemic and the disruptions to global businesses, APR is playing its part to support the communities, our customers and our staff in the countries where we operate.**

The health, safety and wellbeing of all our employees, contractors and their families is our highest priority.

Within our operational complex, we enforce safe distancing measures, limit visitations, and ensure that employees observe personal hygiene protocols to prevent the occurrence and spread of COVID-19.

Thermal scanners or thermometers are installed for temperature screening at all entry points into the complex and some offices. We conduct regular disinfection of offices and public areas.

We have a dedicated medical team in the complex working hard to keep our employees and their families safe and healthy during this time.

We produced reusable face masks made of viscose fabric at our yarn factory. Between April to June 2020, we made nearly 88,000 fabric masks and distributed them to employees, their families and households in the Kerinci complex. We continue to produce additional masks to distribute to surrounding communities.

## Partnering with provincial and district health officials to support frontline efforts

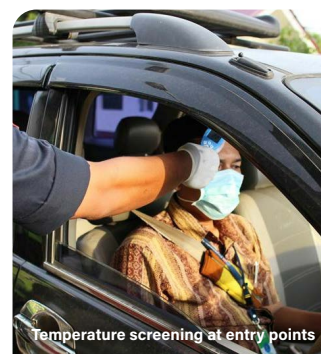


*"On behalf of the Riau Task Force, we would like to thank Riau Andalan Pulp and Paper and Asia Pacific Rayon for their valuable support, donating PPE, face masks and other supplies during this urgent time of need. These materials are being used by our health workers who are working to test and treat patients in several hospitals throughout the Riau province,"*

Governor of Riau, Mr Syamsuar



Compulsory wearing of masks



Temperature screening at entry points

Together with APRIL, we coordinated efforts at the provincial and district levels to combat the spread of COVID-19 in the local communities around the area of our operations:

# 165

hygiene kits were distributed to Maternal and Child Health Outposts (Posyandu), in places of worship and to other public facilities

# 32k

litres of disinfectant provided to help the local authorities disinfect public spaces

### Supporting those who are most affected and in need

This year, Ramadan was celebrated without the usual festivities. It is a reminder that APR has a responsibility to respond to communities in this time of both need and celebration.

On May 20, 2020, APRIL and APR distributed around 11,000 household packages (Sembako) to impacted communities in 176 villages across five regencies - Pelalawan, Siak, Kuansing, Meranti and Kampar. The goodwill packages, packed by our employee volunteers, consisted of rice, cooking oil and instant noodles.

The Sembako assistance complements the existing support from the local government to communities to ease the burden on low-income households affected by COVID-19 and the resulting economic downturn.

15k

PPE gowns, 150,000 medical face masks and surgical gloves were donated to Riau's COVID-19 taskforce

11k

packages of basic goods were distributed to regions within Riau province, during the week before Eid Al-Fitr

### RGE group of companies deliver urgently needed supplies to frontline medical staff in Indonesia

Together with Tanoto Foundation, APR and other RGE group of companies donated medical supplies to the National Agency for Disaster Countermeasure, Badan Nasional Penanggulangan Bencana (BNPB), delivered in three shipments via chartered flights on Garuda Indonesia from China to Jakarta.



1m

medical masks

1m

surgical gloves

100k

PPE gowns

3k

surgical goggles

*"Tanoto Foundation has brought assistance (PPE and masks) from China to support our frontline teams in fighting COVID-19 in Indonesia. Thank you, Tanoto Foundation and the RGE Group, for working with the BNPB to distribute the needed assistance to the frontline medical staff."*

Indonesian Ambassador to China, HE Djauhari Oratmangun



# About APR



Integrated facility of APR and APRIL in Pangkalan Kerinci, Riau, Indonesia

## Asia Pacific Rayon (APR) is Asia's first fully integrated viscose staple fibre (VSF) producer, from fibre plantations to VSF.

APR produces 100% wood-based, renewable and biodegradable VSF for the textile industry. Our mill in Pangkalan Kerinci, Riau, Indonesia, is one of the newest in the world, and became fully operational in February 2019. We are co-located with APRIL, a sister company under RGE, where the majority of our renewable dissolving wood pulp (DWP) supply originates. This co-location allows integrated operations from fibre plantations to VSF production, enabling us to reap the full benefits of operational and resource efficiency.



The President of Indonesia H. E. Joko Widodo led the inauguration of APR in February 2020

APR is also the first VSF manufacturer in Indonesia to receive the internationally recognised STeP (Sustainable Textile & Leather Production) by OEKO-TEX® certification, for the responsible manufacturing of VSF. We invest in the latest production technology to produce high quality VSF and adopt a circular approach to minimise waste in our operations.

# First

viscose staple fibre manufacturer in Indonesia to receive the internationally recognised STeP certification from OEKO-TEX®.

## Ministerial Visit

*Minister of Research and Technology appreciates Asia Pacific Rayon's commitment to Research and Development (R&D)*

The Minister of Research and Technology and the National Innovation Research Agency (BRIN), Mr. Bambang Brodjonegoro, visited APR's manufacturing facility in March 2020, and observed the spinning process and the APR Textile Lab. The newly opened lab is dedicated to improving quality control and ensuring APR's VSF meet customer needs.

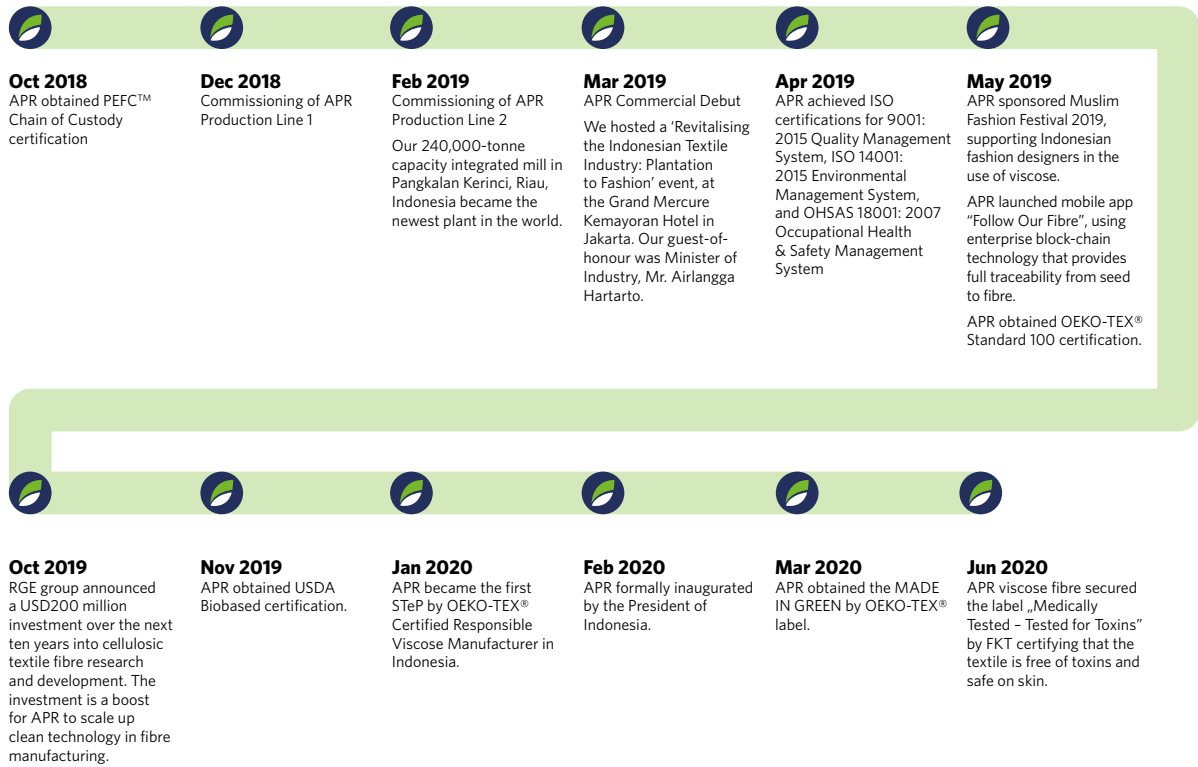
The Minister acknowledged the value of APR's investment in the latest technology and R&D, as part of the company's contribution to the national textile growth agenda, "What APR is doing is in line with President Joko Widodo's direction to encourage the private sector to increase research activities in the development of high-value products



APR produces 240,000 tonnes of VSF a year. Half of this is consumed domestically and helps to reduce the country's dependence on textile raw material imports. In line with the country's 'Making Indonesia 4.0' roadmap, which prioritises the development of five manufacturing sectors - textiles included - to boost its exports and GDP, the remaining half is exported to international textile hubs such as Turkey, Pakistan, Bangladesh and Vietnam. Our customers include yarn spinners, fabric and garment makers.



## Our Milestones



### Our Purpose

Improving lives by developing resources sustainably

### Vision

To be a world-class responsible and efficient viscose staple fibre producer, creating value for the Community, Country, Climate, Customer, and Company.

### Core Values

We are aligned by our common purpose and work together as a **Complementary Team**.

We take **Ownership** to achieve outstanding results and seek value at all times.

We develop our **People** to grow with us.

We act with **Integrity** at all times.

We understand our **Customers** and deliver best value to them.

We act with zero complacency and always strive for **Continuous Improvement**.

# About Viscose

**Viscose possesses many qualities that make it the preferred fibre in the textile market for sustainable fashion.**

Viscose is a type of man-made cellulosic fibres (MMCF), which is the second-largest cellulosic fibre group after cotton. With an annual production volume of around 6.7 million metric tonnes (MT), MMCFs have a market share of around 6.2% of the total fibre production volume, after polyester at 52.5% and cotton at 23.7%<sup>1</sup>. Most commonly made from dissolving wood pulp (DWP), MMCF is a popular and increasingly important fibre material. It is an alternative to resource-intensive cotton, which has limited growth potential due to the availability and suitability of agriculture land, and to other synthetic fabrics, due to the following properties:



Viscose fibre



## Natural

Made from 100% wood cellulose, viscose is a natural alternative to acrylic, polyester, nylon and other petroleum-based synthetic fabrics. The highly absorbent nature of cellulose fibre enables it to take dyes very well, bringing about rich and radiant colours without losing its natural lustre.



## Renewable

Our DWP supply is sourced from sustainably managed fibre plantations in Indonesia made up of fast-growing tree species that excel at carbon sequestration and oxygen release. These trees are harvested every 5 years before the next cycle of planting and harvesting.



## Biodegradable

Consisting of natural plant-based polymers, our VSF is fully biodegradable and naturally decomposes into soil.



## Comfortable

Soft and breathable as cotton and smooth as silk, our VSF drapes beautifully, while providing comfort, breathability and absorbency for multiple applications.

## Viscose Applications



### Knitted Fabrics

High-end knitted innerwear, dresses and T-shirts



### Woven Fabrics

Different styles of dresses, denim, shirts, batik and casualwear



### Home Textiles

High-end towels, bedding, tablecloths, napkins and decorative fabric

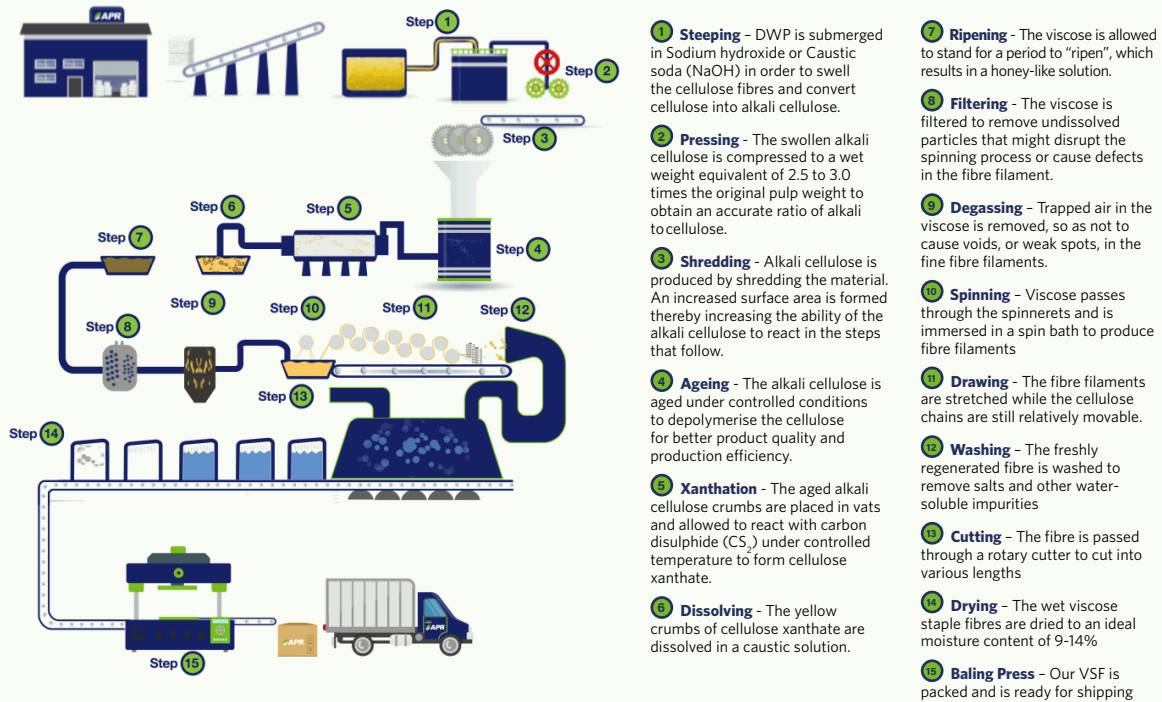
## Types of APR Fibre Offerings

	<i>Recommended Application</i>	<i>Product Characteristics</i>
Microfibre	High thread count yarns. Suitable for blending with wool, linen, and long-staple cotton	Fabric is softer, smoother and easier to print and dye
High Tenacity Fibre	High-medium thread count yarns	Easier for spinning and resistant to pilling
High Whiteness Fibre	Medium thread count yarns	Easier for spinning and resistant to pilling

1. Textile Exchange: "Preferred Fiber and Materials Market Report 2019"

## Viscose Production Process

The production of our VSF starts with DWP, the main raw material.



## Our Membership and Industry Associations

Being part of the broader textile value chain, we see ourselves as more than just a material supplier to yarn and garment manufacturers. We are committed to driving sustainable practices throughout our entire value chain and actively collaborating with stakeholders both upstream and downstream to improve the positioning of viscose in the marketplace and creating positive impact across the fashion and textile industry. We believe that only with collective effort can we fulfil the potential for viscose to be a sustainable fibre of choice.

### Indonesia Business Council for Sustainable Development (IBCSD)

IBCSD is a platform for businesses to share and promote best practices in managing environmental risks and leveraging partnerships in support of the SDGs. APR's partnership with IBCSD seeks to encourage dialogue between the private sector in the Indonesian textile industry to advance efforts on sustainability.



### Indonesia Fashion Chamber (IFC)

APR is an active supporter of IFC, an association of fashion designers promoting Indonesian fashion on the national and international stage. In 2019, APR sponsored three fashion shows featuring the works of IFC during the Muslim Fashion Festival, the Jakarta Fashion Trend and the Bali Fashion Trend.



### Indonesia Textile Association (API)

APR is an active member of API, an association of industry and the private sector in the promotion of Indonesia's textile industry. It comprises members across garment manufacturers, spinners, weavers and all textile fibre manufacturers. APR is on the board of API and chairs the fibre material working group.



### **Indonesian Fiber and Filament Yarn Producers Association (APSyFI)**

APR is a member of APSyFI, an association of fibre manufacturers in Indonesia. The member association meets regularly to discuss challenges as they relate to the fibre business in Indonesia and the world.



### **Textile Exchange (TE)**

Textile Exchange is a global non-profit that promotes sustainability in the textile value chain. TE provides a global platform to learn from industry peers, encourage industry transformation in preferred textile fibres, and collaborate on innovations in support of the UN SDGs.



APR is a member on the Man-made Cellulosic Fibre Roundtable.

*In 2019, Forum for the Future together with TE and industry stakeholders collaborated to develop a new Man-made Cellulosic Fibres 2030 Vision. The year-long process to form the vision solicited inputs from 50 individuals and organisations, including producers, suppliers, brands, NGOs and standards organisations. APR contributed to and supported the process.*

### **Zero Discharge of Hazardous Chemicals (ZDHC) Foundation**

ZDHC is a multi-stakeholder collaboration of global brands, chemical suppliers, manufacturers and other organisations committed to drive the Roadmap to Zero Programme and reduce the industry's chemical footprint. APR became a contributing member in October 2019.



# Our Approach to Sustainability



APR Production Interior

**As one of the largest VSF facility in the world and the first fully integrated production facility in Asia, APR is firmly committed to continuous improvement in the sustainability, transparency and efficiency of our operations.**

We are helping to build a vibrant and sustainable textile industry in Indonesia and globally by engaging and working with our key stakeholders along the entire value chain – from fibre plantations to processing, retail and consumption- making a positive environment and social impact in our communities and industry.

Our purpose is about touching lives with renewable fibre. At the heart of this is our aspiration to bring to life our 5Cs philosophy to serve and deliver value to Community, Country, Climate, Customers and only then is it good for the Company.

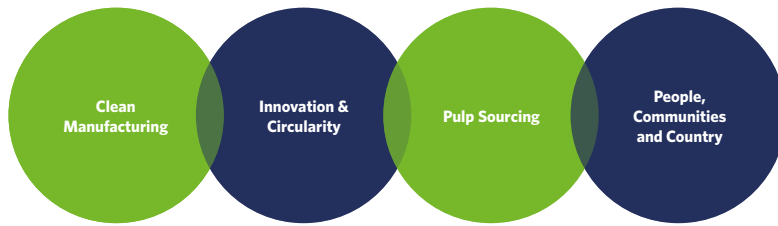
## APR's Sustainability Policy

Our Sustainability Policy, first published in 2018, and updated in 2020, governs our operations and sustainability efforts. It is guided by the RGE **Forestry, Fibre, Pulp and Paper Sustainability Framework**.

It also builds from the Sustainable Forest Management Policy 2.0 (SFMP) of our key supplier APRIL. At its core, the SFMP commits to eliminating deforestation, protecting fibre and peatland landscapes and supporting best practices in fibre plantation management.

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*Our purpose is about touching lives with renewable fibre.*  
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This policy reflects our four key priorities in sustainability.



APR strives to utilise energy produced from renewable resources in our mill operations and aims to recover more than 90% of the CS<sub>2</sub> used in operations.

See Page 20 on how we work towards clean and closed-loop production.

APR recognises the opportunities in alternative feedstock and particularly the recycling of textile and agricultural waste into new fibres.

See Page 26 on our commitment to sustainable innovations.

APR commits to sourcing from suppliers who have demonstrated commitments to no deforestation and to the adoption of high conservation value (HCV)/high carbon stock (HCS) area practices which include recognition of Intact Forest Landscapes (IFL) and ancient and endangered forests.

See Page 28 on how we ensure a sustainable and traceable supply chain.

APR cares about the communities around our operations and commits to improving community well-being by focusing on employment opportunities, income generation, community health and quality education for children.

APR is committed to the development of our people, prioritising skills development and training, while focusing on employee wellbeing and diversity.

See Page 34 on our commitment to our people and communities.

APR's Sustainability Policy can be found on the [APR website](#).

## Sustainability Governance

The APR leadership team shapes the strategy and drives sustainability policy implementation consistent with the organisation's values and direction. The development, implementation and compliance monitoring of APR's sustainability strategy is the responsibility of the Vice-President of Communications and Sustainability. The incumbent leads a sustainability team comprising an operational sustainability specialist based at the mill in Pangkalan Kerinci and a coordinator for local stakeholder relations and community development. The operational sustainability specialist participates in monthly APR mill management meetings to review operations, environment, health and safety performance and certification. The sustainability team leverages the other operational functions and the support of APRIL's cross-functional teams working on community development, social capital and stakeholder engagement, certification and environment compliance.

Sustainability Leadership Team:

- Basrie Kamba, APR Director
- Thomas Handoko, Director, Operations
- Cherie Tan, VP, Sustainability and Communications
- Tapan Sannigrahi, VP, Product and Business Development
- Sachin Malik, Global Head of Sales

Sustainability Operations

- Susan Slabbert, Operational Sustainability Specialist

## The Sustainable Development Goals

APR strongly believes we have a part to play in the global agenda for sustainable development. The 17 SDGs, unanimously agreed on by the Member States of the United Nations in 2015, provide a globally accepted framework to create a better and more sustainable future for all. The SDGs provide guidance as to how we can best deliver on our purpose and create value for the community, country and climate.

### SDGs Prioritisation

In 2019, APR embarked on an exercise to prioritise the SDGs that are most relevant to our business, operations and our involvement in the textile

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The team leverages the other operational functions in the company and the support of APRIL's cross-functional teams working on community development, social capital and stakeholder engagement, certification and environment compliance  
”





value chain. Other factors considered were Indonesia's development needs at the national and provincial levels as well as peer benchmarking.

The exercise was conducted by an internal working group, made up of staff members from sustainability, operations, community development and stakeholder relations functions. The work also built on an assessment conducted by APRIL to identify the most relevant SDGs for its business.

At the conclusion of the exercise, we identified three sets of goals:

**Core Goals - Most considerable relevance** to APR's business



**Catalytic Goals** - What APR **voluntarily takes on** to address the most pressing needs and where we can make a positive, direct and **significant impact** on surrounding communities



**Contributed Goals** - What APR **directly or indirectly contributes to**



The next phase will involve mapping the goals and targets to material topics and business activities, and incorporating the outcome into a 2030 Vision for APR.

The Core and Catalytic goals will form the focus of our efforts going forward.

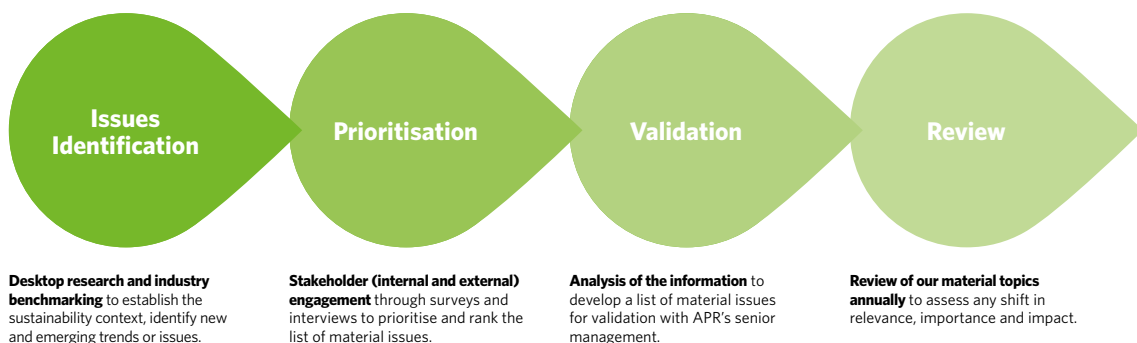
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The SDGs provide guidance as to how we can best deliver on our purpose and create value for the community, country and climate  
”

## Materiality Assessment

APR undertook a comprehensive assessment of our material sustainability topics to identify the economic, environmental and social issues where APR has the most significant impact, and which are of most considerable interest to our stakeholders. More than 60 stakeholders, including non-governmental organisations (NGOs), agriculture/forestry industry associations, manufacturers, consumers, fashion brands and retailers were consulted in this process. The results have informed our approach to managing and reporting sustainability, to ensure that we are addressing the issues that matter. The process comprised the following stages:

60

stakeholders were consulted when APR undertook a comprehensive assessment of our material sustainability topics to identify the economic, environmental and social issues where APR has the most significant impact,



## Our Material Topics

### Sustainable pulp sourcing and traceability

Ensuring 100% sustainably sourced dissolving wood pulp (DWP) from renewable wood cellulose, from certified suppliers, following internationally recognised certification standards such as PEFC™, FSC® or equivalent, and providing full traceability of supply chain.

### Freshwater and wastewater management

Ensuring efficient use of precious and scarce freshwater, not withdrawing from areas with water stress and ensuring that wastewater discharge is in line with regulations and international best practice.

### Chemical management, use and recovery, and related air emissions

Ensuring the management, use and recovery of process chemicals such as carbon disulphide (CS<sub>2</sub>), hydrogen sulphide (H<sub>2</sub>S), sodium sulphate (Na<sub>2</sub>SO<sub>4</sub>), are in compliance with internationally recognised chemical management guidelines, as well as managing and reducing related air emissions such as CS<sub>2</sub> and H<sub>2</sub>S and the odour released to the environment.

### Occupational health and safety

Protecting the health and safety of our employees and ensuring proper systems are in place and in line with international best practice.

### Employment, labour practices and people development

Providing a fair and conducive work environment for our employees which embraces diversity and equal opportunity, protects human rights and ensures no child and forced labour. Managing the human capital needs of the organisation, through the attraction, retention and development of a talented workforce.

### Waste

Managing solid waste generated as part of the production process, including through reduce-reuse-recycle, and closed-loop manufacturing.

### Climate change

Managing and reducing Scope 1, 2 and 3 greenhouse gas (GHG) emissions critical to mitigating climate change, ensuring efficient use of energy and decreasing the reliance on coal.

### Community development

Improving the quality of lives and wellbeing in communities where we operate, with a focus on employment, health and education.

### Innovation

Investing in research and development of products, processes and technologies that offer positive impacts and benefits to the environment, society, and the business (including value chain partners).

### Business ethics and anti-corruption

Upholding the highest standards of business ethics, including through anti-corruption policies and procedures and taking action on any breaches to our standards and principles.

## Stakeholder Engagement

APR believes in open and constructive engagement with our stakeholders to drive sustainability in the textile industry. Our key stakeholders are identified based on their influence on and relevance to APR, as well as our impact on them.

Effective and regular stakeholder engagement is essential to the implementation of APR's sustainability objectives, as well as building and maintaining trust with our diverse community of stakeholders. We value stakeholders' opinions and feedback to help us continuously improve our practices and performance.

“  
APR undertook a comprehensive assessment of our material sustainability topics to identify the economic, environmental and social issues where APR has the most significant impact  
”

“  
APR believes in open and constructive engagement with our stakeholders to drive sustainability in the textile industry  
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**Local and National Governments**



**Local Communities in Kerinci and Riau**



**NGOs**



**Employees**



**Media**



**Suppliers**



**Customers**



**Industry Peers**



**Industry Associations**

### Obtaining Stakeholder Inputs Before Commencing Operations

APR proactively pursues stakeholder engagement with community leaders. We often host visits to our operations for our customers and regional and local association members. We regularly attend regional and provincial level business expos to promote our company, and educate community residents and students, academics and Indonesian fashion influencers about our products and businesses.

Before we commenced operations in 2018, APR facilitated two consultative sessions with stakeholders. Over 40 individuals and organisations participated in these sessions that took place on October 11 via webinars and in person on October 30 in Pekanbaru.

APR shared our operation plans and policies, and solicited stakeholder perspectives on the current and future sustainability issues for the APR team to manage.

In the consultation, there was consensus among many of our stakeholders on the potential of the viscose sector and the positive impact APR can deliver in job creation, local community development and to Indonesia's growth in the textile sector.

We also noted questions about raw material sourcing, responsible peatland management and setting GHG emissions reduction targets.

APR concluded the consultation by reiterating our commitment to be a transparent, responsive and responsible industry stakeholder. The topics we discussed during these stakeholder consultations are now reflected in our Sustainability Policy and have enabled the successful commencement of our operations.



### Dialogue with Canopy

Canopy releases a 'Hot Button Ranking and Report' yearly as a guide for CanopyStyle brands that are committed to eliminating the use of Ancient and Endangered Forests in viscose and other cellulosic fibres. The report cites supply issues with APRIL as APR's supplier.

APRIL is engaged in a mediated dialogue with Canopy to understand Canopy's position, and made progress on some of their suggestions. The dialogue is also intended to enable Canopy to gain a deeper understanding of the ground realities of operating in a developing economy.



APRIL have provided statements on different aspects of the claims made by Canopy on [APRIL Dialog site](#).

## Responsible Business Practices

### Business Ethics and Anti-Corruption

APR is committed to following the highest standards of ethics and abiding by the legislation and regulations of the jurisdictions where the company operates. As part of the RGE group of companies, all employees and Board members must abide by the RGE Group Code of Conduct upholding ethical and professional business conduct, anti-corruption practices and complying with applicable legal requirements.

The development, review and improvement of the Code of Conduct falls under the responsibility of the Head of Human Capital at RGE with inputs and support from the APR Human Resources (HR) team. In 2019, APR HR conducted Core Values training that was attended by 656 participants.

Every APR employee is responsible for applying and complying with the Code, and reporting any misconduct in breach of the Code. Employees are encouraged to get in touch with their reporting manager or HR representative as the first point of contact, or through a confidential Internal Audit hotline. All breaches reported are treated promptly, fairly and in accordance with our legal obligations, with appropriate penalties or disciplinary actions sought.

Beyond internal compliance, we also communicate our values and principles of conducting business to our supply chain partners. We require our suppliers to acknowledge our Code of Procurement Ethics which includes compliance to the RGE Sustainability Framework and APR's Sustainability Policy.

### Grievance Procedure

We have a robust procedure to handle grievances raised by internal and external stakeholders, including individuals, government organisations and non-governmental organisations, concerning APR's operations and those of our suppliers. The grievance process is managed and implemented by the APR Grievance Committee. Grievance can be submitted by email to [APRgrievance\\_responses@aprayon.com](mailto:APRgrievance_responses@aprayon.com) or through [APR's website](#).

We recognise that providing this feedback mechanism for stakeholders is critical because it helps monitor compliance with APR's policy throughout our operations. The grievance procedure ensures feedback is dealt with in a fair, transparent and accountable manner that achieves a consensual agreement among those parties involved.

2019 was our first year of operations, and there were no grievances formally raised relating to APR's activities.

“  
*APR is committed to following the highest standards of ethics and abiding by the legislation and regulations of the jurisdictions where the company operates*  
”

Zero

grievances formally raised relating to APR's activities since our first year of operations in 2019.

# Clean & Closed Loop Manufacturing



APR Exterior Mill

## **Viscose has immense potential to drive sustainability in the fashion industry and is projected to occupy 8.5% of the fibre market by 2030 .**

To meet the growing demand and fulfil the potential of viscose as a sustainable fibre of choice, APR is committed to responsible and clean viscose staple fibre (VSF) manufacturing.

VSF is derived from dissolving wood pulp (DWP), a natural and renewable feedstock, and the production process requires significantly less water and energy compared to traditional cotton fibre. While the VSF manufacturing process involves the use of chemicals, some of which produce by-products, managing these chemicals responsibly through recovery and reuse can significantly reduce emissions.

As one of the newest manufacturing mills in the world, Asia Pacific Rayon (APR) has incorporated best-in-class technology and designed, from the onset, processes that adopt circular and closed-loop approaches.

*We are committed to driving continuous improvement in our manufacturing processes and investing in innovation, such as alternative feedstock solutions, which present further opportunities to advance circularity in our industry. This is imperative for our business to respond to the growing demand for VSF without compromising the health and wellbeing of our employees, the surrounding communities or the environment.*

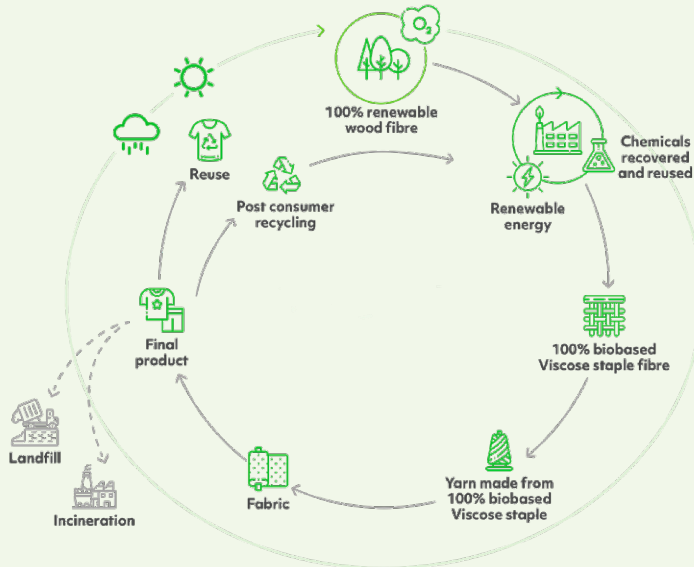
“  
*We are committed to driving continuous improvement in our manufacturing processes and investing in innovation to advance circularity in our industry.*  
”

## What does circularity mean for viscose?

The concept of circularity rests upon the fact that we have limited resources on our planet. It is a powerful way to balance growth with this reality, changing the way we produce and consume resources to be more sustainable. In practice, this means using products and materials for as long as possible, extracting maximum value from resources, as well as minimising waste and pollution through recovery, recycling and regeneration.

At APR, circular thinking requires us to look at the entire value chain of VSF, from cradle to grave. A major focus of our efforts has been developing closed-loop manufacturing systems. We aim to prevent pollution in our manufacturing process through chemical recovery and emission control, as well as reuse and recycle materials and energy to minimise waste.

In 2019, the majority of DWP we sourced was from renewable fibre plantations harvested in a five-year production cycle. We are committed to achieve a higher than 90% recovery rate of the chemicals used in the manufacturing of our VSF and to rely mainly on energy produced from renewable resources.



As we continuously work to improve every aspect of our process towards clean and closed-loop production, we are aligning our performance with the European Union Best Available Techniques (EU BAT). The EU BAT is recognised as the best global industry benchmark for VSF production and sets out consumption as well as emission limits. In December 2019, we published a roadmap that ensures our compliance to the guidelines set out in EU BAT. While our overall performance at the end of 2019 was commendable, we will implement improvement measures, particularly in relation to total sulphur to air emissions and hazardous waste production.

Looking more broadly at the textile and fashion industry, we are committed to working with partners to innovate and invest in circular solutions. These include recovering unused products or products at the end of life, and recycling textile waste back into the production process as an alternative feedstock.

“  
At APR, circular thinking requires us to look at the entire value chain of VSF, from cradle to grave.  
”

“  
We are committed to working with partners to innovate and invest in circular solutions.  
”

## Chemical Management and Recovery

Responsible chemical management and recovery is a top priority in our manufacturing process. It is a key aspect that influences several other areas of the business, such as the health, safety and wellbeing of our employees and surrounding communities, our environmental impact, resources and cost efficiencies.

Affirming our commitment to the highest standards of responsible chemical management, APR joined the ZDHC Foundation as a contributing member, answering the call of leading brands and retailers in the textile and fashion industries for an industry-wide commitment to zero discharge of hazardous chemicals. APR was a key contributor to the development of the MMCF industry-specific standard for responsible fibre production, wastewater and air emissions guidelines.



In the VSF production process, DWP is treated with caustic soda (NaOH) and dissolved with carbon disulphide (CS<sub>2</sub>) to form liquid viscose that will go through wet spinning in a chemical solution bath to yield staple fibre. During this process, CS<sub>2</sub> and hydrogen sulphide (H<sub>2</sub>S) gas is produced.

Based on EU BAT, closed-loop production requires:

- Condensing exhaust air from spinning to recover CS<sub>2</sub> and recycle it back into the process
- Recovering CS<sub>2</sub> from exhaust air streams through adsorption on activated carbon
- Applying desulphurisation to exhaust air to recycle H<sub>2</sub>S as sulphuric acid in wet sulphuric acid plants

CS<sub>2</sub> recovery is one of our key sustainability priorities, and we are committed to recover and reuse as much of the CS<sub>2</sub> in our production process as possible. To this end, we have invested in two state-of-the-art technologies on-site:

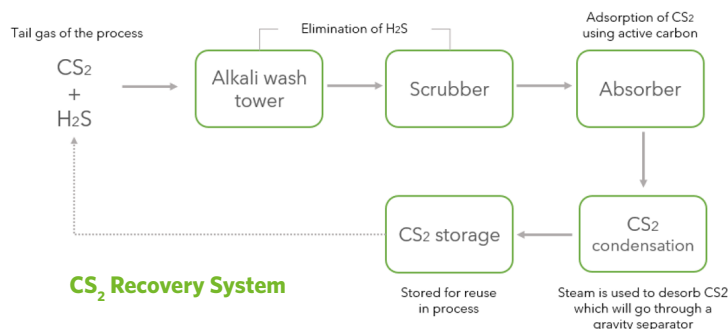
**1. Wet Sulphuric Acid (WSA) Plant or Wet Sulphuric Acid process:** this involves, amongst other things, the combustion of wet sulphur rich gas from the manufacturing process, which is later condensed to produce concentrated sulphuric acid.

**2. CS<sub>2</sub> Recovery System consisting of CS<sub>2</sub> Gas Condensation and a CS<sub>2</sub> Recovery Plant (CS<sub>2</sub>R):** this enables the capturing of both H<sub>2</sub>S and CS<sub>2</sub> gases produced during the manufacturing process through a condensation and absorber system where the gases are converted in a multi-step process from a gaseous state to liquid CS<sub>2</sub> for reuse.

These bring us a step closer to closing the loop on chemical recovery. The loss of sulphur to the environment is reduced and the resulting products can be reused within our own system.

In 2019, we achieved a **CS<sub>2</sub> recovery rate of 89.2%**, close to our target of more than 90% average recovery rate. In the first six months of 2020, our average CS<sub>2</sub> recovery rate was slightly lower at 87.7% as a result of absorber challenges which have since been resolved and we are on track to achieve our target of above 90%. We will be looking at ways to improve the recovery efficiency as part of our continuous improvement plan.

“  
Affirming our commitment to the highest standards of responsible chemical management, APR joined the ZDHC Foundation as a contributing member  
”



### CS<sub>2</sub> recovery rate (%)

The recovery of H<sub>2</sub>S is part of the CS<sub>2</sub> recovery process and not measured separately

2019 average	2020 Jan-Jun average
89.21	87.67

89.21%

CS<sub>2</sub> recovery rate was achieved in 2019

### Managing Sulphur and Other Air Emissions from Production Process

As part of our approach to closed-loop manufacturing, managing air emissions is important as it can affect the health of our employees and community, as well as the environment.

We have set our air emission targets beyond the compliance limits mandated by national government regulations. We not only benchmark ourselves against EU BAT requirements but also applicable occupational ambient guidelines by the World Health Organisation (WHO).

Our air emissions licence is issued by the Indonesian government and governs our emission of H<sub>2</sub>S and CS<sub>2</sub>. We monitor and report quarterly on our compliance as per the regulatory requirements. We have an online continuous atmospheric emissions monitoring system which continuously monitors emission of sulphur compounds to air.

At the end of 2019, APR management took the decision to further invest in CS<sub>2</sub> recovery systems to enhance performance. A new installation line is expected to be completed at the end of 2021. We are on track to fully comply with total sulphur to air emissions requirements of the EU Ecolabel standards before our committed timeline of 2021. We aim to be fully compliant with the levels as set out in EU BAT in 2023.

We have developed emission reduction actions using our 2019 performance as baseline for implementation in 2020. This includes improving CS<sub>2</sub> absorber efficiency and enhancing the exhaust scrubber.

30.98  
kg/T VSF

Total sulphur emission intensity in 2019

### Total sulphur emission intensity kg/T VSF

Includes CS<sub>2</sub>, H<sub>2</sub>S and NaHS

2019 average	2020 Jan-Jun average
30.98	30.73

## Managing our Carbon Footprint

VSF has an inherent advantage in supporting a low-carbon, sustainable future, as it is derived from a renewable sustainably managed resource – DWP. However, we recognise that VSF production is an energy-intensive process. An important part of our pathway towards being climate net-positive is to reduce emissions and increase energy efficiency within our production process.

### Towards Climate Resilience

Climate change is the biggest issue confronting us all today and one that APR is deeply concerned with. APR is working on a 2030 vision to enable us to set commitments to reduce our carbon emissions.

As part of APR's 2030 vision, our plans include but are not limited to:

- A 30% reduction in our mill net carbon emissions intensity
- Sourcing our mill energy needs from renewable and cleaner sources
- Reducing waste production and increasing the recovery and reuse of chemicals and textile waste, to reduce GHG emissions

“  
APR is working on a 2030 vision to enable us to set commitments to reduce our carbon emissions.  
”



**GHG Emissions**

We have embarked on a Life Cycle Assessment (LCA) in 2020. This will enable us to understand our most significant environmental impacts, including carbon footprint, and identify opportunities for reduction in our operations. Our business continuous improvement efforts harness the Kaizen process to critically analyse our operations and consider all aspects of operational efficiencies as inputs for our plans to reduce GHG emissions.

**Energy**

Our production facility is powered by energy from renewable resources such as palm empty fruit bunches, bark, pulp fibre, palm shell, as well as screen rejects and methanol from pulp production. Both our electrical and steam energy is produced by our sister company RPE co-located in the same complex, underscoring one of several advantages we have as an integrated facility. Our main electrical supply is from one of several multi-fuel boilers, and our steam comes from the pulp and paper chemical recovery boilers. Approximately 10% of our energy needs are derived from purchased coal combustion for electricity production.

APR has a robust energy monitoring and measuring system. We measure each department’s electrical and steam consumption, and dedicate an energy budget for each, reviewed annually with planned reduction, based on EU BAT guidelines.

We are developing energy reduction actions for implementation using 2019 performance as the baseline.

Energy intensity	2019 average	2020 Jan-Jun average
Total energy (GJ/tonne VSF)	26.54	25.06

**Freshwater and Wastewater Management**

Good water management is a key aspect of sustainable VSF production. We are committed to mitigating our impacts on water use by implementing water management plans, including monitoring our consumption, and wastewater quality and treatment.

**Water Consumption**

We purchase processed water from RPE which is permitted to extract and treat water for industrial use from the Kampar River. We have strict targets on water consumption based on EU BAT and a water reduction action plan for every production department. We look to recycle and reuse as much water as possible within our production process to reduce our dependency on purchased processed water. We aim to communicate a reduction target in water usage per product tonne during 2020.

Process Water Consumption (m <sup>3</sup> /T VSF)	2019 average	2020 Jan-Jun average
	49.97	42.74

**Wastewater Management**

Wastewater generated during the manufacturing process contains both organic and inorganic elements which, left untreated, could cause harm to the natural environment it is returned to. APR is therefore committed to preventing the discharge of untreated wastewater and has invested in the most effective wastewater treatment system at our mill to ensure zero discharge of hazardous substances.

**Kaizen** is a Japanese term meaning ‘change for the better’ or ‘continuous improvement’. It is a Japanese business philosophy regarding the processes that continuously improve operations and involve all employees. Kaizen sees improvement in productivity as a gradual and methodical process.

APR management works together with the business continuous improvement department to review incremental improvements in the manufacturing process at all levels of our operations.

90%

of all our energy is from renewable resources



49.97  
m<sup>3</sup>/T VSF

Process water consumption in 2019

All wastewater is collected and treated at our wastewater treatment facility. The facility undertakes primary and secondary treatment before the water is discharged into the Kampar River. Wastewater samples are collected within our facility at multiple strategic locations, including the final outlet twice daily for analysis. We also take samples in the Kampar River both upstream and downstream from our discharge point monthly to assess any direct impact on the river system.



“  
*APR has invested in the most effective wastewater treatment system to ensure zero discharge of hazardous substances.*  
 ”

Wastewater quality parameters are monitored not only for compliance with our wastewater licence issued by the Indonesian government but also with OEKO-TEX® STeP Annex 5, the ZDHC wastewater guidelines as well as EU BAT. From the end of 2020, this data will also be publicly available on the ZDHC Wastewater Gateway, a global web-based platform for sharing verified data on wastewater testing, making results more transparent and trustworthy.

Our wastewater quality targets are aligned to EU BAT standards, the strictest limits amongst the references mentioned above.

Quality parameters of discharged wastewater	2019 average	2020 Jan-Jun average
COD (Chemical Oxygen Demand) (g/T VSF)	2,690.53	2,857.98
BOD (Biochemical Oxygen Demand) (mg/L) <small>5 day concentration</small>	15.20	14.60
TSS (Total Suspended Solids) (mg/L)	36.39	25.60
Zinc (g/kg)	0.013	0.012
Sulphate (kg/T VSF ) <small>Monitoring for SO<sub>4</sub> only started in mid-2019</small>	165.87	186.09

## Waste Management

All industrial waste generated by APR is classified as hazardous waste according to national legislation and handled as per regulatory requirements. The reuse and recycling of hazardous waste in Indonesia is subject to limitations. As a result, most of the hazardous waste is landfilled, although some is sold to a registered waste handler for waste energy recovery and reuse.

All non-hazardous waste is separated into non-recyclable and recyclable waste at source before it is sent to a registered third-party waste handler. All recyclables are sorted and sold by the third party. All non-recyclable waste is incinerated by the same licensed facility.

Most of the waste types landfilled consist of effluent sludge and TOW waste generated as part of the process. The 3R principles of reduce, recycle and reuse is key to our waste management system. We actively seek feasible alternative waste utilisation options to drastically reduce our

3Rs

The principles of reduction, recycle and reuse is key to our waste management system.

landfill dependency. We will implement a robust waste reduction strategy to be compliant with EU BAT by 2023.

**Waste intensity (kg/T VSF)**

2019 average	2020 Jan-Jun average
95.99	85.23

In planning for a reduction of solid waste to landfill, we are investing in innovative solutions to increase the utilisation of textile waste in production and from the use of agriculture waste streams.

95,99  
kg/T VSF

Waste intensity 2019

**Sustainable Innovation**

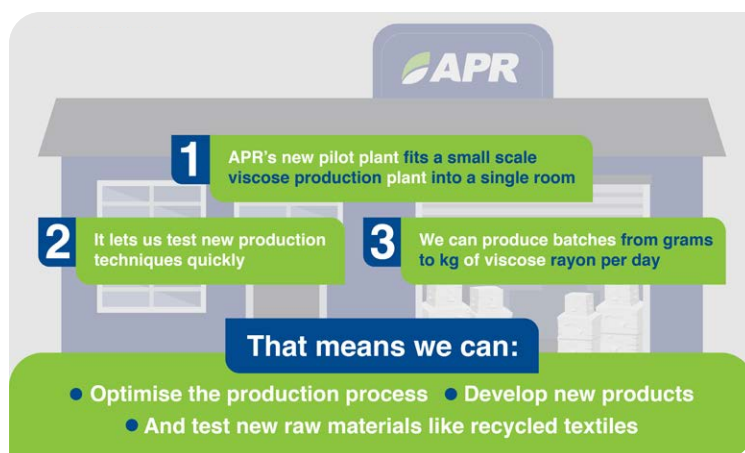


In October 2019, RGE Group committed a USD200 million investment over the next 10 years into next-generation textile fibre innovation split across three areas: 70% towards scaling up proven clean technology in fibre manufacturing, 20% towards bringing pilot-scale production to commercial scale, and 10% towards R&D in emerging frontier solutions. APR and APRIL are assembling a fully automated viscose pilot plant in Kerinci. The plant will closely simulate the entire viscose manufacturing production on a much smaller scale and is expected to be fully operational at the end of 2020.

US \$200m

investment announced by RGE Group over the next ten years into next-generation textile fibre innovation and technology.

The pilot plant will bring innovation a step closer to commercialisation, enabling APR to do daily testing and innovation in new product development to meet growing consumer demands. The main goals of our pilot plant are to optimise our APR process, develop new products from existing raw materials, and test out new sources of fibre from recycled textile and agricultural residuals.



“  
The pilot plant will bring innovation a step closer to commercialisation  
”

## Our Certifications

We have obtained many industry certifications within the twelve months of starting operations. We will build on our strong foundation and seek to attain higher levels of performance and obtain additional or advanced certifications to meet customer expectations.

**APR obtained STeP by OEKO-TEX® certification.** STeP by OEKO-TEX® is an independent certification system for brands, retailers and manufacturers from the textile and leather industry.



**APR now offers the MADE IN GREEN by OEKO-TEX® label** verifying that an article has been tested for harmful substances and certified to STANDARD 100 by OEKO-TEX®. It guarantees that the fibre has been manufactured using sustainable processes, under environmentally friendly and socially responsible working conditions.



**APR obtained the STANDARD 100 by OEKO-TEX® certification,** product class I, confirming our viscose is free from any harmful substances and is safe for contact for babies and small children, while complying with the requirements of Annexes XVII and XIV of the European Chemicals Regulation REACH.



**APR secured the U.S. Department of Agriculture (USDA) Certified Biobased Product label.** This certifies that the VSF produced by APR is made 100% from cellulose and is certified as 100% biobased.



**APR received:** ISO certifications for 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, OHSAS 18001:2007 Occupational Health & Safety Management System.



# Sustainable Pulp Sourcing



Wood Chips

**Achieving our goal of sustainable and responsibly produced viscose starts with ensuring that the raw materials we source are grown sustainably.**

At APR, we source 100% certified DWP, a key material used in viscose.

We are committed to the full transparency of our DWP supply chain, disclosing the sources of our DWP and tracking from seedling to viscose staple fibre (VSF). Every step from the nursery, fibre plantations, DWP mills to each batch of VSF bales is logged into our Follow Our Fibre platform.

# 100%

certified dissolving wood pulp resourced

## Overview of Our Supply Chain

DWP is the main raw material we procure. We source our DWP from four key suppliers, with 90% of our supply originating from Indonesia and 10% originating from Canada and the U.S. We also purchase chemicals and packaging materials used in our production process.

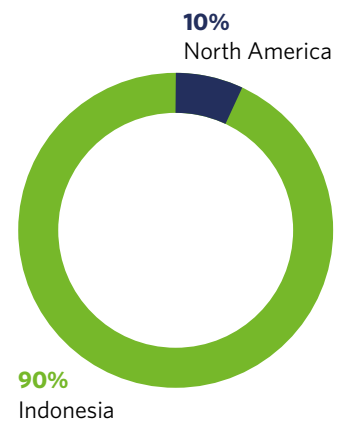
### Procurement Spend

Dissolving wood pulp	65%
Chemicals	33%
Packaging	2%

## APR Pulp Sourcing Policy

APR's DWP sourcing is guided by our Pulp Sourcing Policy, which complements our Sustainability Policy. The policies can be found on our website.

APR commits to sourcing from suppliers who have a demonstrated commitment to no deforestation and to the adoption of high conservation



value (HCV)/high carbon stock (HCS) practices which include recognition of Intact Forest Landscapes (IFL) and ancient and endangered forests.

## Our Key Commitments

### 100% certified dissolving pulp

All DWP sources are from certified areas, following internationally recognised certification standards.

All DWP sources are from areas managed in compliance with applicable laws and regulations and include third party legal verification.

### Sustainable forest management

All DWP sources are from plantation forests managed under global sustainable forest management standards, including the commitment to actively protect HCV or HCS forest areas.

Our suppliers commit to no new development on peatland.

Our suppliers actively protect and manage conservation and restoration areas in their areas of operations.

### Adoption of GHG emissions reductions targets

Implement programs to promote continuous improvement in the reduction of greenhouse gas emissions in DWP mills.

### Recognising the legal and traditional rights of indigenous communities and workers

Respect the rights of indigenous peoples and communities to give or withhold their Free, Prior and Informed Consent (FPIC) to operate on lands where they hold legal, communal or customary rights.

Respect workers' rights as defined through the International Labour Organisation's (ILO) Declaration on Fundamental Principles and Rights at work.

Implement an open, consultative and timely grievance and conflict resolution mechanism. Apply zero tolerance of the use of violence, intimidation, bribery and fraud.

Promote gender equality, diversity inclusion and employment access for women.

### Certified Dissolving Wood Pulp

APR sources all DWP from certified forest and fibre plantations, following internationally recognised certification standards such as Programme for the Endorsement of Forest Certification (PEFC™).

APR holds PEFC™ chain of custody (CoC) certification since October 2018. PEFC™ CoC certification provides independently verified assurance that the certified forest-based material contained in a product originates from certified sustainably managed forests and requires all companies along the supply chain to be CoC certified. The PEFC™ Standard lays out the requirements for chain of custody certification and conditions a company must meet to achieve certification, including minimum requirements on health, safety and labour issues.

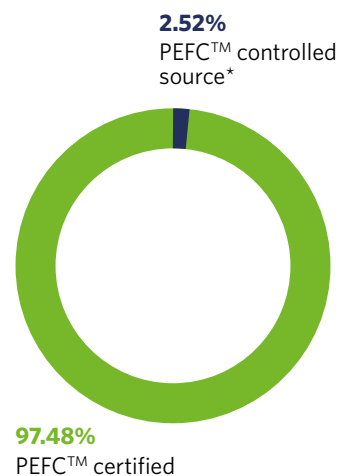
Read more about PEFC™ on their [website](#)

#### Global Forest Management Certification

PEFC™ or Programme for the Endorsement of Forest Certification is an internationally recognised system for the certification of sustainable forestry management and its supply chain. PEFC™ was formed in 1999, adapted to facilitate the certification of small forest areas in Europe and globally. PEFC™ endorses national forest certification systems that have been developed through multi-stakeholder processes and tailored to local priorities and conditions.

As of mid-2019, almost 319 million hectares (ha) of forest area is managed in compliance with PEFC™'s sustainability standards, out of a total 430 million ha of global certified forest areas.

### 100% certified DWP:



\*PEFC™ Certified refers to the forest-based material supplied by a holder of a PEFC™ recognised certificate; whereas PEFC™ controlled sources applies when the use of PEFC™ Certified claim is not allowed but undergoes PEFC™ Due Diligence System. These controlled sources originate from certified forest areas with evidence of recognised certificates.

Another global certification scheme is Forest Stewardship Council or FSC. Each standard has its strengths and works towards the same objectives – the certification of forests to credible, independently verified standards of responsible forest management. Specifically, FSC’s standards and criteria are determined by its membership, organised around environmental, social and economic chambers. In contrast, PEFC™ follows a “bottom-up” approach building on national standards and aligning them with globally recognised standards for sustainable forest management.

### Our Partnership with APRIL

APR and APRIL share integrated facilities in Pangkalan Kerinci.

APRIL is a leading producer of fibre, pulp and paper, with plantations and manufacturing operations. APRIL operates 448,639 ha of plantations maintained by PT Riau Andalan Pulp and Paper (PT RAPP) the operating arm of APRIL, as well as supply partners and community fiber plantations. APRIL’s plantations grow acacia and eucalyptus species. APRIL and its supply partners are responsible for approximately 75% of the mill fibre input, with the remaining coming from open market supply sources.

As of December 2019, APRIL and its supply partners protect and manage 365,733 ha of conservation and restoration forest. This means that APRIL has met 82% of its 1-for-1 commitment, where the company has pledged to conserve or protect one hectare for every hectare of plantation.

Further details on APRIL and their sustainability progress can be viewed in their latest report [here](#)

*1-for-1 goal:  
to conserve  
or protect one  
hectare for every  
hectare of fibre  
plantation*

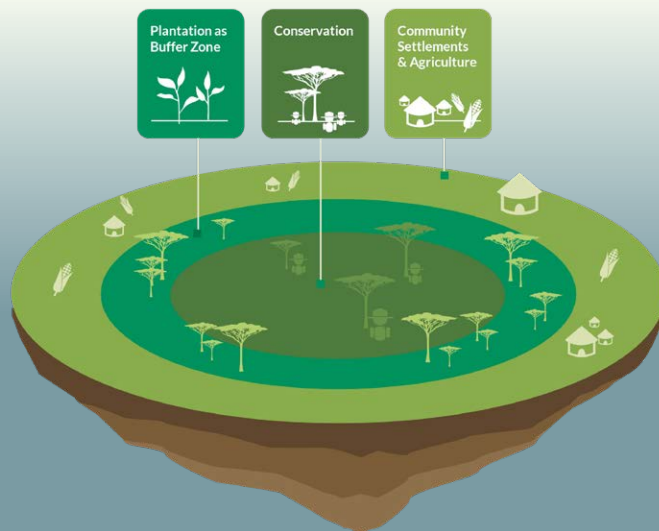
82%

of APRIL’s 1-for-1 commitment has been met

### Forest Conservation and Ecosystem Restoration

While APR does not manage any fibre plantations directly, we work with APRIL and provide in-kind and financial support to their forest conservation and ecosystem restoration work.

APRIL’s unique conservation builds on a ring-fibre plantation model, where HCV forest is protected from human encroachment by a fibre plantation buffer. Integrating a production-protection landscape model involves fibre plantations on the perimeter of the restoration areas that not only provide protection but actively fund ecosystem restoration, forest protection and operational capability.



APRIL's experience has demonstrated that the production-protection landscape model is a reliable, consistent and effective approach for conservation and restoration in Indonesia, given the extent of financial and technical resources required for long-term and active landscape management.

Since 2013, APRIL has managed **Restorasi Ekosistem Riau (RER)**, an ecosystem restoration program that protects, restores and conserves 150,693 ha of ecologically important peatland forest in Riau Province. It is one of the largest projects of its kind and is supported by a US\$100 million investment from APRIL over a 10-year period, announced in 2015.

Further details on RER's biodiversity rich ecosystem and all the conservation activities can be found in their 2019 progress report [here](#).

## Restorasi Ekosistem Riau

RER is an ecosystem restoration programme of peat forest, situated in two landscapes on Sumatra's eastern coastline.

797

species of plants and animals call this area home with 5 of the 6 Sumatran cat species, including the critically endangered Sumatran Tiger.

150,693

hectares of ecologically important peat forest

27,487

Seedlings from RER nurseries are ready to be planted in Restoration areas in 2020.

Zero

hotspots and fires for the 6th consecutive year - despite 2019 being the driest year since 2012.



## Supplier Management

Our commitment to sustainable and responsibly produced VSF requires that we hold our supply chain partners to the same sustainability principles that we practice. We communicate our Code of Procurement Ethics (COPE) to all our supply chain partners and require their written declaration to comply strictly with the Supplier COPE and our Sustainability Policy.

In addition to our PEFC™ CoC certification that serves as an assurance that our DWP is produced using sustainable sources, we have put in place a Due Diligence System initiated for all DWP suppliers before delivery to APR. It includes a risk assessment of the input materials based on a series of verification indicators comprising environmental and social criteria.

Where we identify any non-compliance to our Sustainability Policy, we work with suppliers on a clear, time-bound corrective action plan to remedy the issue and build capacity towards full compliance.

Internally, all our procurement employees are required to sign an Employee Code of Procurement Ethics. APR strives to ensure that all business transactions with our suppliers adhere to the principles of integrity, fair competition and open communication.

“Where we identify any non-compliance to our Sustainability Policy, we work with suppliers on a clear, time-bound corrective action plan to remedy the issue and build capacity towards full compliance”

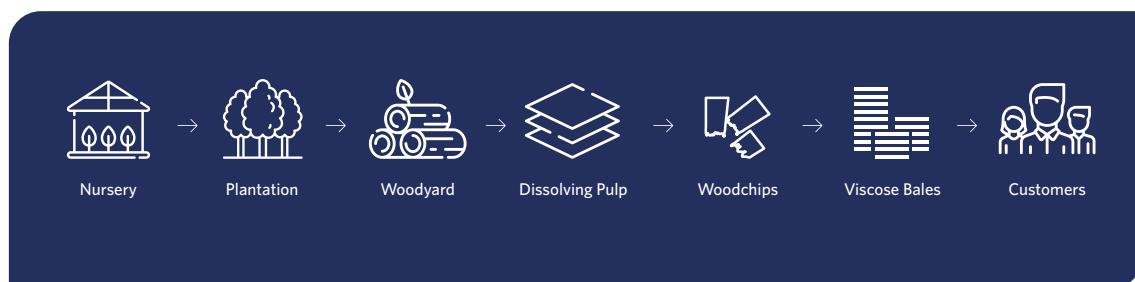
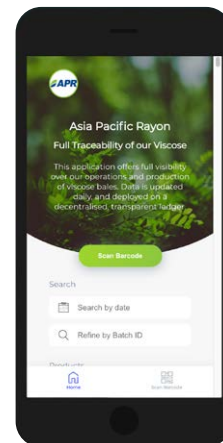
## Traceability

### Follow Our Fibre

Traceability is a collaborative effort that involves many layers in the entire supply chain. APR is committed to enabling full traceability throughout the VSF supply chain, with our Follow Our Fibre tracking platform, launched in April 2019, and using enterprise block-chain technology. Every tonne of VSF or finished product has traceable production history back to the fibre plantations.

### How Follow Our Fibre works:

Our VSF production is registered daily, and data is gathered at each stage of the value chain using integrated software tracking systems. The data is then uploaded to a block-chain ledger, making it easy to share and integrate into other external traceability platforms. Follow Our Fibre allows customers and stakeholders to scan a viscose product with a user-friendly app to access data that traces the product's journey from plant nursery to VSF manufacturing and on to seaports.

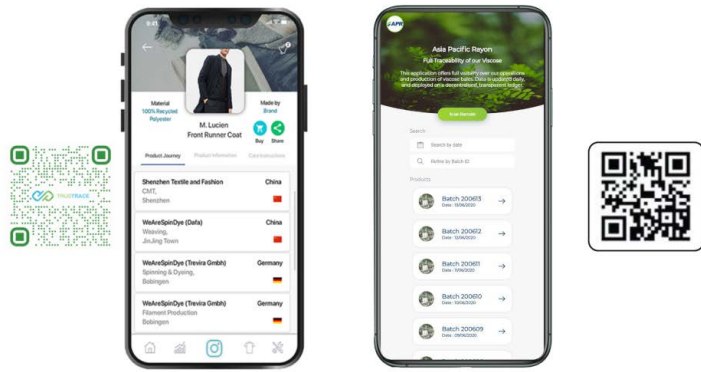


### Our Partnership with TrusTrace:

In October 2019, APR announced a collaboration with TrusTrace to integrate Follow Our Fibre with its T-Trace module. This will further enhance traceability from seedling nurseries and fibre plantations to high street store shelf, where garments are sold to consumers who can trace the fibre. The partnership with TrusTrace will connect APR's data upstream in the value chain, to product data from downstream textile value chain actors such as yarn and fabric customers and fashion brands.

100%

Our fibre has 100% Traceability to Plantation



“  
*The fashion industry and its suppliers are under increasing scrutiny from consumers who are demanding more transparency*  
 ”

Looking forward, we are interested to connect our data from Follow Our Fibre to other similar industry initiatives, as well as extend the benefits of our upstream traceability to the rest of the textile value chain.

The fashion industry and its suppliers are under increasing scrutiny from consumers who are demanding more transparency. It is only by connecting the different links in the supply chain and reporting on key sustainability metrics that transformation can happen.

# Our People, Our Communities



Students at the local elementary school

**We believe that wherever we operate, we have the responsibility to support and enhance the livelihoods of our people and our communities, with a focus on their health and wellbeing, education and employment opportunities.**

APR seeks to bring positive economic and social benefits to the many lives we touch through our operations. This is enshrined in our 5Cs company vision.

We have programmes in place that support the wellbeing of our employees and workers across our value chain beyond just job creation. Through our community development programmes, we also bring benefits to the communities surrounding our operations.

## Taking Care of Our People

At APR, it is our people who make our operations a success. Our mission is to create a working environment in which our people are valued and provided with the support and resources to perform at their best.

Our operations are located in Pangkalan Kerinci, Riau, where job creation is important. Together with APRIL, APR is a major employer in Riau Province and an important contributor to the social and economic development of the communities surrounding our operations.

The majority of our employees are from Sumatra; they make up 80% of our workforce. The remainder come from diverse backgrounds and cultures, with different nationalities working at APR in an environment of continuous learning. We consider this a competitive advantage. Exposure and knowledge exchange builds a supportive learning environment for our employees to grow professionally and personally.

As we operate in a remote location, we provide our employees and their families with quality housing, recreational facilities, medical care and insurance, and access to schools with national and international baccalaureate syllabus for their children.

# 80%

of employees are locally recruited within Sumatra Island,

## Life in Kerinci

APR is not only focused on growing the business but also on the wellbeing of its employees. At its operations complex in Pangkalan Kerinci, it provides facilities for employees to keep up with their hobbies and interact with one another.

Jerry Pascalis and George Setiawan are engineers from different departments and rarely see each other in the office. But they catch up often after work over a game of basketball which is their common passion. The basketball club at the Kerinci complex is a place where employees from different departments can gather to play. There are currently 20 active members representing APR in basketball competitions, complete with a team jersey provided by the company. In addition to the basketball court, employees also have access to other facilities like a running track, swimming pool, tennis courts and more.



Jerry and George playing basketball at the complex

### Number of APR employees by function and gender

	Mill Employees	Corporate office and Sales	Cross functional support
Male	541	12	41
Female	64	12	27
Total	605	24	68

All our employees are on full-time basis.

### Number and percentage of APR employees from locality

	Mill Employees	Corporate office and Sales	Cross functional support
From Sumatra Island	72%	27%	93%
Outside Sumatra Island	28%	73%	7%

### Number of APR mill employees (current and new) by age group

	Employees	New Hires
Under 30 years old	416	108
30 - 50 years old	148	15
Over 50 years old	41	2

## People Development

The success of our organisation is dependent on recruiting, retaining and developing a talented and highly motivated workforce.

We have a zero-tolerance for discrimination policy and are committed to ensuring an inclusive and fair working environment for our employees, where diversity is welcomed.

In developing every one of our employees, development goals and targets are set annually as part of their performance review with their manager. They undergo training and development programmes in line with future growth plans, developed based on a wide range of individual development measures.

At the end of 2019, we conducted an employee job satisfaction survey. The survey results suggested a need for further investment in people development and the provision of growth opportunities, especially for the younger workforce in the company.

Based on these findings, APR has developed systematic training programmes at the APRIL Learning Institute (ALI) that focus on developing technical and leadership skills for employees.

“ We have a zero-tolerance for discrimination policy and are committed to ensuring an inclusive and fair working environment for our employees, where diversity is welcomed ”



#### Basic Leadership Programme

A programme aimed at helping individuals realise their leadership potential and develop skills to lead a small team, influence and communicate effectively.



#### Human Capital Workshop

APR future leaders' workshop where they learned how to create a high-performing culture, increase motivation, and unleash the potential of each employee.

APR is committed to fostering a culture of diversity and inclusion, recognising that as a company, we need to bring more women into the organisation and into management positions. Over the year, we have sought ways to support the development of our female talent through learning and development programmes, mentoring and giving them a prominent platform to share their experiences.

A focus area when we first started was to help our employees accelerate their learning in order to prepare for the commencement of operations in 2019. We facilitated an exchange programme for our young employees to Sateri in China to gain hands-on experience and knowledge.

Dewi and Meilia were both on the exchange programme to Sateri in China. Dewi, a quality assurance leader and Meilia, a process engineer spent their time at Sateri building new skills and knowledge that they brought back to support APR's operations.

### Developing our Female Talent

#### Dewi, Quality Assurance/Quality Control Lab Shift Leader

*"The traditional way of thinking is that women can only be housewives, which is wrong. We know that when equipped with scientific knowledge, we can exceed expectations. Without scientific discovery, we wouldn't have known that paper, cloth and the clothes that we wear every day can be made from wood. I feel that science is very magical in that we can use it to help protect the environment, such as discovering how to change unused waste into high-value products. In my job specifically, science is used every day in analysing lab processes which then lead to better decisions to improve the quality of our products. At APR, I see no difference between female or male employees, as I see the leadership opportunities at this company are not just given only to men, but also to women. If you are considered worthy and high-achieving, then the opportunity is given to you regardless of your gender."*

#### Meilia, APR Process Engineer

*"The best part of working at APR is that I was able to train at Sateri. I was attached to one of Sateri's mills where I learned about the technology and process for manufacturing viscose. Being a part of APR means being part of our integrated company. From nursery to the final product, viscose fibre, and even the yarn, it is all here in Pangkalan Kerinci. You get to see and study all the technology and processes we have on offer from upstream to downstream."*



Dewi

## Embracing Diversity

**Susan Slabbert**, Operational Sustainability Specialist

*"I joined APR in April 2019 and moved from South Africa to Indonesia where I am currently based at the mill. From the start, I could see how employee and cultural diversity is celebrated and embraced in APR. I've felt extremely welcomed by everyone in Indonesia, my colleagues and in the community. I've learned about new product development, processes, challenges, people, languages, culture and food! My passion is to encourage sustainable manufacturing and to support supply chain improvements to reduce our impact on the environment and improve peoples' wellbeing. My motto is to respect and to be respected – if you respect Mother Earth, she will provide for you indefinitely. If you respect people and diversity, you will be emotionally fulfilled."*



## Occupational Health and Safety

Maintaining safe working environments is a priority for APR. It is critical for the wellbeing of our workers and the smooth running of our operations. A sound Occupational Health and Safety (OHS) policy will guide our operations, minimising health and safety risks.

APR takes a multi-pronged approach to Occupational Health and Safety (OHS). This includes establishing OHS best practices based on OHSAS 18001 and ensuring compliance with prevailing statutory obligations. We are committed to building a positive OHS culture through employee awareness, education and training, as well as encouraging OHS responsibility amongst our business partners, suppliers, and contractors.

In 2019, we had a lost time injury frequency rate (LTIFR) of 5.9 per million hours worked and zero fatalities. Performance in the first half of 2020 indicates a higher LTIFR which we are working to address in our operation.

All injury-related incidents are tracked in our system. The top three types of lost time injuries are:

- Hand and finger injury
- Exposure to chemicals
- Burns

One of our safety initiatives is the Contractor Safety Management System (CSMS) which acts as a tool to guide our employees to manage the OHS risks associated with contractor work activities effectively. We initiated several health and safety programmes including safety leadership, safety awareness, and technical training on specific work-related hazards like chemical handling. In the fourth quarter of 2019, we rolled out monthly safety newsletters, distributed to all mill employees to increase awareness of workplace safety.

5.9

The injury rate per million hours worked in 2019 (LTIFR)



## Community Development

Community engagement provides a foundation for our social license to operate. In 2019, we started a number of community outreach programmes.

### Education

APR started working with five local elementary schools, and at the beginning of 2020, we distributed 1,290 uniforms made with our viscose fibre to students.

### Women's empowerment

APR supported Rumah Batik Andalan, a social enterprise in Pangkalan Kerinci, empowering local women to design and make colourful batik inspired with regional motifs. We provided training on design and using natural dyes.

In 2019, we expanded our outreach to a second branch of Rumah Batik Andalan at Lalang Kabung Village, expanding the programme to 12 women. We are looking to expand the programme to reach more communities and women.

### Community health and wellbeing

#### Supporting maternal and child health

We supported 32 Posyandu centres - integrated health posts, in the communities. These centres, run by village health volunteers called cadres work with expectant mothers on basic maternal and child health services, which include medical check-ups, health and nutrition education to ensure babies receive proper nutrition. The posyandu centres assisted the distribution of nutritional supplements to those who visited the centres for consultation. Medical equipment such as weighing scales were provided and used to track the development and growth of babies, identifying those with developmental risks for medical attention and follow-up.

#### Ramadhan provision

Ramadhan is an important religious celebration in Indonesia. APR distributed 1,500 care packages consisting of daily necessities (5kg of rice, 2kg of cooking oil, 2 kg of sugar) which were sold to the public at reduced rates and the proceeds donated to local orphanages.

This is part of our support for the government's programme to reduce the financial burden on local communities ahead of the Idul Fitri festival.

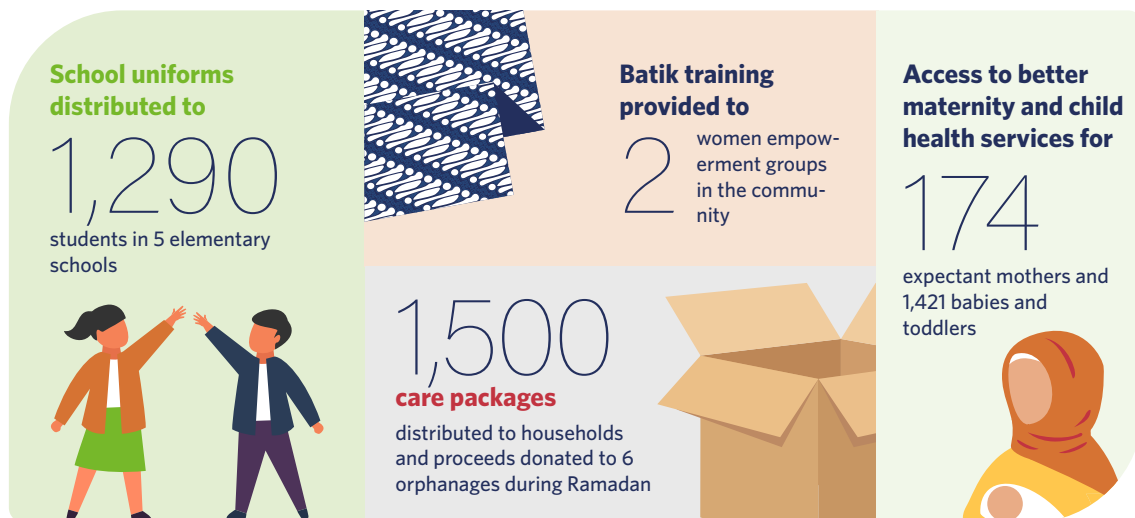


Retno, owner of Batik Tulis Tengah Sawah and participant of batik training programme



Supporting access to basic health services for mother and child in rural communities

### Our Community Impact in 2019



In 2019, we celebrated RGE Founder's Day with a two-day CSR event involving all employees, volunteering in various activities across three villages in Pangkalan Kerinci, together with members of the local communities. Activities include painting fences, planting fruit seeds and medicinal plants, outreach to the schools, and renovation works of mosques and public parks. The annual Founders' Day event enables employees to experience our 5Cs business philosophy in a personal way, particularly in relation to community and climate.



Employees helping to renovate a mosque during Founder's Day 2019

## Supporting the Local Fashion & Textile Industry

Production of viscose fibre is emerging as a driver of growth for Indonesia's local fashion industry, and a way to reduce reliance on imported textile products. We are committed to accelerating this positive trajectory.

We launched our "Everything Indonesia" campaign to revitalise Indonesia as a global centre for textile manufacturing, with viscose as a catalyst for home-grown fashion design and as the basis for sustainable fashion.

In supporting the growth of the local fashion industry, we sponsor key national and regional events to provide opportunities for Indonesian designers.

“  
*Production of viscose fibre is emerging as a driver of growth for Indonesia's local fashion industry*  
 ”



APR collaborated with eight prominent local fashion designers to stage an exclusive fashion show themed Future is Naturally Sustainable Fibre at the Muslim Fashion Festival 2019 organised by the Indonesian Fashion Chamber.



Eight aspiring Indonesian fashion designers partnered with APR to create designs using fabrics made from sustainably produced viscose, showcased at Indo Intertex exhibition 2019.



## Everything Indonesia is Key to the Growth of Indonesia's Fashion Industry



APR has become a leading supplier of high-quality viscose fibre, which is emerging as a driver of growth for Indonesia's fashion industry, as well as a way to reduce the archipelago's reliance on imported textile products. In our first year of operations, we exported more than half of our production output to 14 countries, with the balance supplied to the expanding local fashion industry.

While the fashion industry has always been important to Indonesia's economy, providing livelihoods for more than one million people, most of the nation's clothing materials have been imported. In 2018 alone, Indonesia imported 760,000 tonnes of cotton - that's almost 3kg for every Indonesian.

To contribute to reversing this trend, APR launched its 'Everything Indonesia' campaign to promote the sourcing and production of fashion from Indonesia. The aim is to support Indonesia's resurgence as a global centre for textile manufacturing, starting with viscose as a catalyst for home-grown fashion design and creativity.

As part of the campaign, we are collaborating with various Government agencies, associations, schools and industry partners to promote research and product development, as well as business development and marketing under the 'Everything Indonesia' campaign banner.

We believe that viscose can be an accelerator for the Indonesian fashion industry based on its sustainability credentials and its product qualities. Given the potential to transform the fashion industry, the campaign aims to promote and connect APR's viscose to all users - from fibre to fashion.

“  
*APR launched its 'Everything Indonesia' campaign to promote the sourcing and production of fashion from Indonesia.*  
”

## GRI Content Index

This report has been prepared with reference to the GRI Standards. The table below presents our GRI content index, which specifies each of the GRI Standards and disclosures referenced in the report, including where the information can be found.

GRI Standard	GRI Disclosure Number	GRI Disclosure Title	Page references
<b>General Disclosures</b>			
GRI 102: General Disclosures 2016	<b>Organisational Profile</b>		
	102-1	Name of the organisation	8
	102-2	Activities, brands, products, and services	8
	102-3	Location of headquarters	Singapore, Jakarta
	102-4	Location of operations	2, 8
	102-5	Ownership and legal form	8
	102-6	Markets served	9
	102-7	Scale of the organisation	9
	102-8	Information on employees and other workers	35
	102-9	Supply chain	12, 28
	102-10	Significant changes to the organisation and its supply chain	There were no significant changes to our organisation and supply chain in 2019 and H12020
	102-11	Precautionary Principle or approach	23
	102-12	External initiatives	12, 39
	102-13	Membership of associations	12
	<b>Strategy</b>		
	102-14	Statement from senior decision-maker	3
	<b>Ethics and Integrity</b>		
	102-16	Values, principles, standards, and norms of behaviour	10, 19
	102-17	Mechanisms for advice and concerns about ethics	19
	<b>Governance</b>		
	102-18	Governance structure	15
102-19	Delegating authority	15	
102-20	Executive-level responsibility for economic, environmental, and social topics	15	
102-21	Consulting stakeholders on economic, environmental, and social topics	17	
<b>Stakeholder Engagement</b>			
102-40	List of stakeholder groups engaged	17	

	102-42	Identifying and selecting stakeholders	17
	102-43	Approach to stakeholder engagement	17
<b>Reporting Practice</b>			
	102-45	Entities included in the consolidated financial statements	2
	102-46	Defining report content and topic Boundaries	2
	102-47	List of material topics	17
	102-48	Restatements of information	No information or data was reinstated.
	102-49	Changes in reporting	There were no changes in reporting
	102-50	Reporting period	2
	102-51	Date of most recent report	2
	102-52	Reporting cycle	2
	102-53	Contact point for questions regarding the report	2
	102-54	Claims of reporting in accordance with the GRI Standards	2
	102-55	GRI content index	41
	102-56	External assurance	2

## **MATERIAL ISSUES**

### **Environment**

#### **Climate Change and GHG emissions**

GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	23
	103-2	The management approach and its components	23
	103-3	Evaluation of the management approach	23
GRI 302: Energy 2016	302-3	Energy intensity	24

#### **Chemical Management, Use and Recovery, and Related Air Emissions**

GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	22
	103-2	The management approach and its components	22
	103-3	Evaluation of the management approach	22

#### **Freshwater and Wastewater Management**

GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	24
	103-2	The management approach and its components	24
	103-3	Evaluation of the management approach	24

GRI 303: Water and Effluents 2018	303-5	Water consumption	24
GRI 306: Effluents and Waste 2016	306-1	Water discharge by quality and destination	24
<b>Waste</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	25
	103-2	The management approach and its components	25
	103-3	Evaluation of the management approach	25
<b>Innovation</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	26
	103-2	The management approach and its components	26
	103-3	Evaluation of the management approach	26
<b>Sustainable Pulp Sourcing</b>			
<b>Sustainable Pulp Sourcing and Traceability</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28
	103-2	The management approach and its components	28
	103-3	Evaluation of the management approach	28
<b>Social Stewardship</b>			
<b>Occupational Health and Safety</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	37
	103-2	The management approach and its components	37
	103-3	Evaluation of the management approach	37
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	37
	403-5	Worker training on occupational health and safety	37
	403-9	Work-related injuries	37
<b>Employment, Labour Practices and People Development</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	35
	103-2	The management approach and its components	35
	103-3	Evaluation of the management approach	35

GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	37
	404-2	Programmes for upgrading employee skills and transition assistance programmes	35
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	35

#### **Community Development**

GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	38
	103-2	The management approach and its components	38
	103-3	Evaluation of the management approach	38

#### **Responsible Business**

##### **Business Ethics and Anti-Corruption**

GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	19
	103-2	The management approach and its components	19
	103-3	Evaluation of the management approach	19

## Glossary

**APR** - Asia Pacific Rayon

**APRIL** - Asia Pacific Resources International Limited

**Biobased** - products that are partially or completely made from renewable resources.

**Blockchain** - is a retrospective, decentralised digital ledger consisting of records, called blocks, that cannot be altered and are used to record transactions across many computers.

**BOD** - Biochemical oxygen demand, the oxygen used in meeting the metabolic needs of aerobic microorganisms in water rich in organic matter.

**CS<sub>2</sub>** - Carbon disulphide

**Carbon footprint** - the sum of greenhouse gas emissions and greenhouse gas removals of a product system or an organisation, expressed as a carbon dioxide equivalent.

**Cellulose** - a component of all plants, approximately 40% of wood and the raw material for dissolving wood pulp production.

**Chain of custody** - chronological paper trail documenting the flow of materials and raw materials through various stages of a process up to the final product.

**COD** - Chemical oxygen demand, an analytic measure of the amount of oxygen that can be consumed by reactions in a measured solution and supplementary method for assessing the amount of organics in waste water (besides BOD biological oxygen demand).

**COVID-19** - Coronavirus disease 2019

**DWP** - Dissolving wood pulp, highly purified chemical pulp derived from wood intended primarily for conversion into chemical derivatives of cellulose and used mainly in the manufacturing of viscose staple fibre.

**EU BAT** - European Union Best Available Techniques, means is the technology approved by legislators

or regulators for meeting input and output standards for a particular process.

**FSC** - The Forest Stewardship Council® is an international non-profit organisation for forest management.

**GHG** - greenhouse gas, gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) which contribute to global warming by absorbing infrared radiation, thereby heating the atmosphere.

**GRI** - Global Reporting Initiative

**HCV** - High conservation value areas, are natural habitats, which are of outstanding significance or critical importance due to their high biological, ecological, social or cultural values.

**HCS** - High carbon stock forest is forest that has been identified using the HCS toolkit approach. HCS forest is to be prioritised for protection.

**H<sub>2</sub>S** - Hydrogen sulphide

**ISO** - Developed by the International Standardisation Organisation (ISO), ISO 9000 is a series of standards focused on quality management systems, while the ISO 14001 series is focused on environmental performance and management and the ISO 45001 covers occupational health and safety management.

**LCA** - Life Cycle Assessment, is a systematic analysis of the environmental impacts of products throughout their life cycle from cradle to gate, or cradle to grave.

**MUFFEST** - Muslim Fashion Festival

**NaOH** - Sodium hydroxide or Caustic soda

**Peatland** - contains a heterogeneous mixture of more or less decomposed plant (humus) material that has accumulated in a water-saturated environment and in the absence of oxygen.

**PEFC™** The Program for the Endorsement of Forest Certification Schemes™, is an international non-profit organisation which promotes sustainable forest management through independent third party certification.

**RGE Group** - Royal Golden Eagle Group is a global integrated, resource-based industrial group, with businesses in paper, palm oil, viscose, construction and energy, property and asset management.

**Scope 1, 2 and 3 GHG emissions**

- The Greenhouse Gas Protocol defines Scope 1 (direct) and Scope 2 (indirect) emissions as follows:

- Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity, and
- Indirect GHG emissions are emissions from purchased electricity, steam, heat or cooling.

Scope 3 GHG emissions are all indirect upstream and downstream emissions (not included in scope 2) that occur in the value chain of the reporting company

**SDG's** - Sustainable Development Goals, developed by the United Nations are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice.

**SFMP 2.0** - APRIL Sustainable Forest Management Policy 2.0

**Solid waste** - Dry organic and inorganic waste materials.

**Tonne** - Term used in this report to denote a metric tonnes of 1,000 kg.

**VSF** - Viscose staple fibre, a natural fibre made from purified cellulose, primarily from DWP that can be twisted to form yarn.



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