CLIMATE POSITIVE

We implement science-based solutions to drastically reduce carbon emissions.

CLIMATE POSITIVE

Contributing to SDGs:

RESPONDING TO THE CLIMATE CRISIS

The climate crisis demands a collective response from governments, businesses, and individuals. APRIL is committed to contribute to the global effort to keep temperatures well below the critical 2°C threshold. We are also contributing to Indonesia's Forest and Other Land Use (FOLU) Net Sink 2030 targets, acknowledging the essential role of conserving nature in responding to climate change.

The Group has adopted a multi-pronged mitigation approach that includes forest restoration and conservation, and implementing sustainable forest management practices (i.e., nature-based solutions) while simultaneously pursuing decarbonisation measures across our mill operations. In 2023, we conducted a comprehensive climate scenario analysis guided by the Task Force on Climate-related Financial Disclosures (TCFD) framework. It established our climate-related risk and opportunities matrix and paved the way for developing an organisation-wide adaptation roadmap (see more in our TCFD index on page 46).

We continue to invest in research and technologies that can accurately measure and monitor greenhouse gas (GHG) fluxes across the diverse land-use types within our operations. This strategic approach has yielded significant science-based outcomes. Our studies have established emissions factors appropriate to the tropical ecosystem we operate in, thus improving national and global scientific knowledge. Internally, we strive to translate scientific findings into effective practices to manage conservation and plantation areas on peatland and reduce landscape-level GHG emissions.

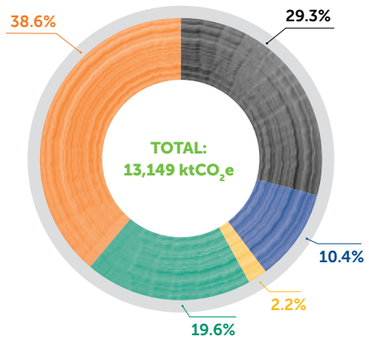
Target	Progress as of December 2023			2023 Progress notes	Strategy to drive performance
	2021	2022	2023		
Net zero emissions from land use ($MtCO_2eq$) * The values represent land use change (LUC), the main driver of emission reductions to date. Please see page 39 for a complete land sector emissions inventory.	4.28*	3.97*	3.85*	Land use change (LUC) emissions continue to decrease.	• Zero deforestation and conversion • Sustainable forest management • Responsible peatland management • Conservation and restoration • Investing in carbon project development
Reducing product emission intensity by 25% (CO_2eq/ Tonne)	0.50	0.48	0.49	Slight increase in 2023 because of the reduction in renewable energy proportion in the overall balance. Met interim annual target and remain on track. (20% reduction from 2019 baseline of 0.62 CO_2eq/Tonne)	• Implement energy efficiency measures • Invest in solar energy • Increase biomass-based renewable energy use and optimise power boilers
90% Renewable energy for our mill (%)	87.80	88.6	88.24	Slight reduction in 2023 due to increased pulp production. Met interim annual target and remain on track. (3% increase from 2019 baseline of 84.7%)	
50% Fibre operations energy from cleaner and renewable sources (%)	28	28	32.9	Performance mainly driven by shifting fuel consumption from B30 to B35 bio diesel blend for the plantation sector machinery and wood hauling trucks. (73% increase from 2019 baseline of 19%)	• Optimise fuel blend transition from B30 towards B50 for plantation sector and wood-hauling • Trial and phase-in electric vehicles (EVs) to replace diesel trucks • Roll out fibre estate solar energy project

Aerial view of Restorasi Ekosistem Riau (RER)

OUR CARBON FOOTPRINT

[GRI 3-3, 305-1, 305-2, 305-3, 305-4, 305-5, 305-7]

GHG EMISSIONS 2023 BY SCOPE



Scope 1
- Land use change emissions
- Land management (non-CO_2)
- Land sector mechanical sources
- Mill operations

Scope 2 - Negligible

Scope 3*

* Purchased goods and services; Land sector emission from Open Market Supplier (OMS); Capital goods; Fuel- and energy-related activities; Upstream transportation and distribution; Business travel; Employee commuting; Upstream leased assets; Downstream transportation and distribution; Processing of sold products; Use of sold products.

APRIL tracks and measures our carbon footprint to meet the Group's Climate Positive mitigation targets. In 2023, our GHG inventory was expanded to track our carbon footprint across the entire organisation, including land sector emissions.

MANAGING OUR GHG EMISSIONS

Until 2022, APRIL reported Scope 1 mill emissions but have consistently measured and reviewed the organisational GHG inventory in accordance with evolving guidance established by the GHG Protocol. In 2023, we report the full scope of our GHG footprint across the entire value chain.

The 2023 data reveal that Scope 1 emissions directly generated by the Group's mill and plantation operations comprise 61% of our overall emissions, with the land sector being the most significant contributor to GHG emissions. Scope 3 emissions from facilities and operations we do not own or control in our value chain generate the remaining 39% of our emissions.

APRIL's integrated mill operations and circular pulp production allow us to reduce our energy impact. We purchase energy from our sister company, Riau Prima Energy (RPE), which has on-site multi-fuel and chemical recovery boilers that supply a substantial proportion of our electricity. Producing electricity in-house eliminates our dependence on third-party energy suppliers, resulting in negligible Scope 2 emissions in our GHG inventory.

CALCULATING LAND USE EMISSIONS

APRIL, along with 140 industry peers, participated in the development of a new global standard for land-use emissions: the GHG Protocol Land Sector and Removals Guidance. A draft guidance was issued in 2022 and is expected to be finalised in 2025.

APRIL is calculating and reporting our land-use emissions using the relevant sections of the IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry (GPG-LULUCF) and the GHG Protocol Agricultural Guidance.

NEW LANDMARK STUDY ON THE EFFECTS OF LAND-USE CHANGE ON GHG FLUXES IN TROPICAL PEATLANDS IN SUMATRA

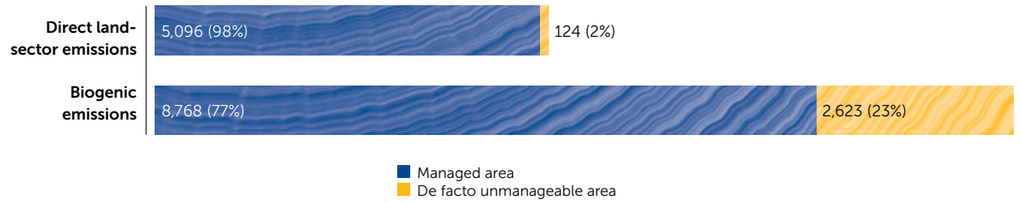
On 5 April 2023, Desmukh et. al, published the findings of a landmark five-year study in Nature, the world's leading multidisciplinary science journal. The research findings reveal that greenhouse gas emission measurements from Eddy Covariance are approximately two times lower than the Intergovernmental Panel on Climate Change (IPCC) Tier 1 Emission Factor, which was derived from previous soil-chamber and subsidence studies in similar ecosystems. This discrepancy underscores the importance of using caution when relying on estimates from these earlier methods. Applying the Tier 3 Emission Factor from this study considerably improves the accuracy of GHG emissions estimates from these globally important ecosystems, providing a robust estimate of the impact of land-use change on tropical peatlands. This improved accuracy is important for developing responsible peatland management practices aimed at reducing GHG emissions, which are important for meeting nationally determined contributions as outlined in the Paris Climate Agreement and for limiting global warming to 1.5°C above pre-industrial levels. The refined Emission Factor and its application have substantial implications for national and global greenhouse emission inventories, promoting more effective climate change mitigation strategies.

Table 2: APRIL Group GHG Inventory 2023

Scopes	Components	Emissions ($KtCO_2$-eq))
Scope 1	**Land Sector**	
	Land use change emissions (a+b)	3,849
	- Land use change emissions from managed area (a)	3,726
	- Land use change emissions from de facto unmanageable area (b)	124
	Land management (non-CO_2 emissions)	1,370
	Mechanical sources	289
	Non-Land	
	Mill facilities	2,571
	Total Scope 1	8,079
Scope 2	**Total Scope 2**	0
Scope 3*	**Total Scope 3**	5,070
	Total Scope 1, 2 and 3	**13,149**
Biogenic CO_2 emissions - Scope 1	Land management (CO_2 emissions) from APRIL's land bank - peat	10,727
	- Land management (CO_2 emissions) from managed area - peat	8,768
	- Land management (CO_2 emissions) from de facto unmanageable peat	1,959
	Land management (CO_2 emissions) from de facto unmanageable mineral	664
	Total Biogenic CO_2 Emissions Scope 1	**11,391**
Biogenic CO_2 emissions - Scope 3	**Total Biogenic CO_2 Emissions Scope 3**	**152**

* Purchased goods and services; Land sector emission from Open Market Supplier (OMS); Capital goods; Fuel- and energy- related activities; Upstream transportation and distribution; Business travel; Employee commuting; Upstream leased assets; Downstream transportation and distribution; Processing of sold products; Use of sold products.

EMISSIONS FOOTPRINT OF DE FACTO UNMANAGEABLE AREAS 2023 (kt CO_2e)



> See: Operations and production (p.12)
> See: Base data (p.120) for full breakdown of APRIL GHG Inventory

ACCOUNTING FOR UNMANAGEABLE AREAS WITHIN OUR CONCESSIONS

APRIL follows best practices to disclose GHG emissions within the operational boundaries of our concession licence, including "de facto unmanageable areas" that are not under the Group's direct or complete control. These areas include inoperable soils in rocky and flood-prone zones, boundary overlaps, land subject to encroachment and illegal conversion by other parties, and village settlements. Although we do not fully manage these areas, we have taken the necessary steps to account for their emissions.

In 2023, unmanageable areas represented 159,609 ha of our concessions, contributing around 124 $ktCO_2e$ or 2% towards our Scope 1 direct emissions, and 2,623 $ktCO_2e$ (29%) towards biogenic CO_2 emissions. We continue to seek clarity from the evolving GHG Protocol Land Sector and Removals Guidance and consult with stakeholders to measure emissions using appropriate accounting and reporting standards.

OUR CARBON FOOTPRINT

[GRI 3-3, 305-1, 305-2, 305-3, 305-4, 305-5, 305-7]

ADVANCING NATURE-BASED CLIMATE SOLUTIONS

Nature-based climate solutions include actions that protect healthy ecosystems, restore degraded land, and improve the management of working lands, helping to secure carbon and contribute to avoided emissions. These actions contribute to Indonesia's FOLU Net Sink 2030 targets and ultimately, Indonesia's 2060 net zero agenda.

APRIL's initiatives for nature-based climate solutions are guided by our Sustainable Forest Management Policy 2.0 (SFMP 2.0), and include:

CONTINUOUS COMMITMENT TO ZERO DEFORESTATION AND CONVERSION

> See: Upholding commitments to no deforestation (p.53)

IMPROVING SUSTAINABLE FORESTRY MANAGEMENT PRACTICES

> See: Sustainable forest management (p.54)

PROTECTING AND RESTORING NATURAL CARBON SINKS

> See: Conservation and restoration (p.60)

AVOIDED EMISSIONS FROM CONSERVATION AND RESTORATION ON PEATLAND

Avoided emissions refer to GHG emissions that are prevented from being released into the atmosphere due to the implementation of measures that reduce or eliminate the emissions.

While guidance on land sector emissions accounting and reporting evolves, APRIL posits that avoided emissions from conservation and restoration interventions within our operations should also be acknowledged for their climate benefits. This is consistent with the rising global understanding of the role of nature as a climate solution, including its ecosystem services and contribution towards climate resilience.

APRIL's 2023 peatland study concluded that conserving all remaining intact peat swamp forests in Indonesia (2.0 × 106 hectares (ha)) under Indonesia's nationally determined contribution and emissions reduction from restoring 4.2 × 10^6 ha by 2050 under Indonesia's Low Carbon scenario Compatible with the Paris Agreement target (LCCP) will avoid approximately 160,000 $ktCO_2e$ of GHG emissions yearly, or 40% of the total GHG emissions from peat decomposition in 2019.

Using the emissions factors derived from the study, **APRIL calculated we could avoid 11,147 $ktCO_2e$ of emissions by conserving and restoring peat swamp forests within our operations,** broken down as follows:

Table 3: Avoided emissions from conservation and restoration on peatland

Avoided emissions from peat conservation	3,745
Avoided emissions from peat restoration (RER-Kampar)	6,870
Avoided emissions from peat restoration (RER-Pulau Padang)	530
Total avoided emissions ($ktCO_2e$)	**11,145**

2 For more information, see the WBCSD Avoided Emissions Guidance.

NATURE-BASED CLIMATE SOLUTIONS RESEARCH PARTNERSHIP

In 2021, APRIL embarked on a three-year research project with the National University of Singapore Centre of Nature-based Climate Solutions (CNCS) to determine the potential impact of nature-based climate solutions through our Restorasi Ekosistem Riau (RER) project.

This research focused on developing and improving site-specific carbon estimation models, particularly for peat swamp forests at RER. The project involved collecting robust data on peat depth, aboveground biomass, groundwater levels, rainfall, net ecosystem carbon exchange, as well as satellite and Light Detection and Ranging (LiDAR) data to develop the most accurate method for modelling.

The insights gained from this study will not only strengthen our own initiatives, but also contribute to the overall credibility and integrity of similar nature-based climate solution projects across Indonesia.

EXPLORING CARBON PROJECTS

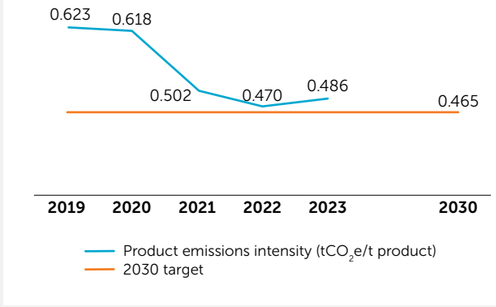
The Group is investing in the development of a carbon project at RER to explore the opportunity for potential carbon offset (or inset) in meeting our climate targets. In 2021, APRIL registered a RER carbon project with Verra, the world's leading greenhouse gas crediting programme. This project estimates the potential generation of 192 million tonnes (t) of carbon credits over the project's 56-year lifespan. APRIL will ensure full compliance with government regulations, as we strive to support and align with the government's FOLU Net Sink 2030 goals. APRIL remains committed to reinvesting any potential carbon revenue generated by RER back into forest conservation efforts.

PRODUCT EMISSION INTENSITY

We calculate our product emissions using the GHG Protocol alongside sector-specific tools developed by the National Council for Air and Stream Improvement and the International Council of Forest and Paper Associations. Our aim is to achieve a 25% reduction in product net emission intensity by 2030, using a 2019 baseline of 0.62 t CO_2e/t product[3].

PRODUCT EMISSIONS INTENSITY (tCO_2e/t product)

Mill scope 1 net emission only



In 2023, there was a slight decrease in the performance compared to 2022 as a direct result of increased pulp production and resulting non-renewable energy consumption. This production expansion is expected to have a continued impact on our target. However, we are exploring strategies to reduce product emissions intensity, such as non-capital-intensive projects and proven technologies to increase overall energy efficiency, optimising the renewable energy mix in our power boilers, and investing in solar energy.

> See: Energy management (p.42)

3 Product volumes in scope include pulp, paper, and viscose.

ENERGY MANAGEMENT

[GRI 3-3, 302-1, 302-2, 302-3, 302-4, 302-5]

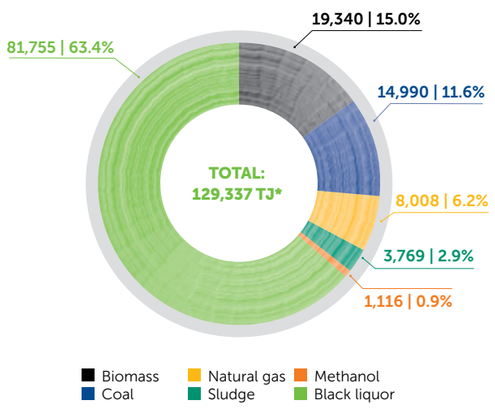
MILL ENERGY MANAGEMENT

As of December 2023, more than 88.24% of the energy consumed at our mill comes from renewable and cleaner sources. Renewable energy sources include biomass and by-products from our production facility such as black liquor, sludge and methanol. Our clean energy source comes from natural gas.

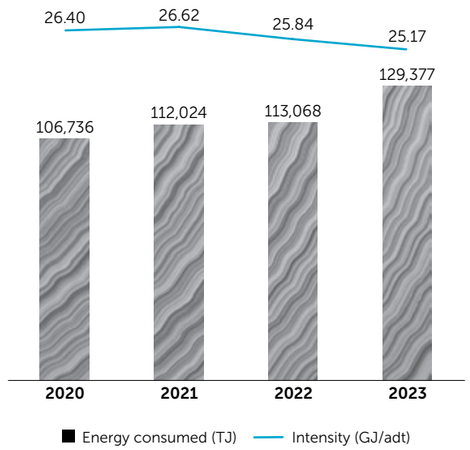
In 2023, we installed an additional 2.5 megawatts (MW) of solar panels at our mill, increasing solar power generation capacity to 13.5 MW in alignment with our revised goal of installing 50 MW of solar capacity at the mill by 2030.

Mill energy consumption for 2023 was 129,377 terajoules (TJ), 14% more than in 2022. However, the energy intensity decreased, due to improved energy efficiency, which allowed us to increase production while using less energy.

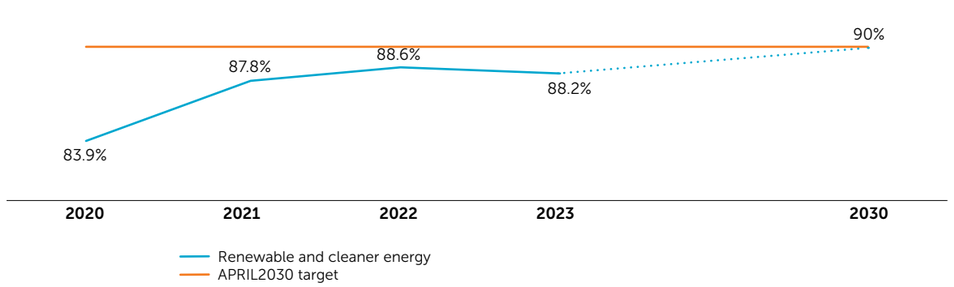
ENERGY CONSUMED BY MILL OPERATIONS BY SOURCE 2023 (TJ, %)



MILL ENERGY CONSUMPTION AND INTENSITY 2020–2023



PROPORTION OF RENEWABLE AND CLEANER ENERGY CONSUMED BY MILL OPERATIONS 2020–2023 (%)



* Inclusive of 398TJ (0.3%) of renewable energy (not shown in pie chart).

APRIL's energy management system and practices were certified against the ISO 50001 standard in 2020. The Group continues to invest in energy efficiency, process optimisation, and renewable energy, where possible, to achieve our energy targets, and have made the following improvements at our mill:

- Commissioned two methanol plants – one in 2020 and another in 2023 – to improve methanol recovery
- Launched a dual-purpose initiative in 2021 to remove and recover soda from brown fibre by improving its quality to be used as fuel
- Improved the capacity of one of our boilers in 2022 to refine an additional 500 tonnes of dry solids per day into black liquor
- Implemented other low-capital projects, including:
  - Replacing fluorescent lights with LEDs
  - Installing variable speed drives
  - Increasing the number of heat exchangers, and
  - Improving steam trap maintenance
- Implemented decarbonisation initiatives, including:
  - Phased installation of solar panels
  - Battery installation (BESS)

  Mill improvement initiatives to reduce steam consumption

ENERGY MANAGEMENT

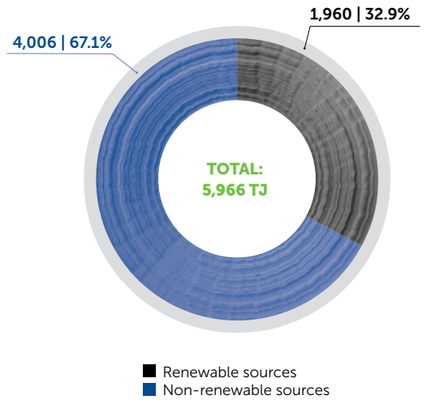
[GRI 3-3, 302-1, 302-2, 302-3, 302-4, 302-5]

FIBRE ENERGY MANAGEMENT

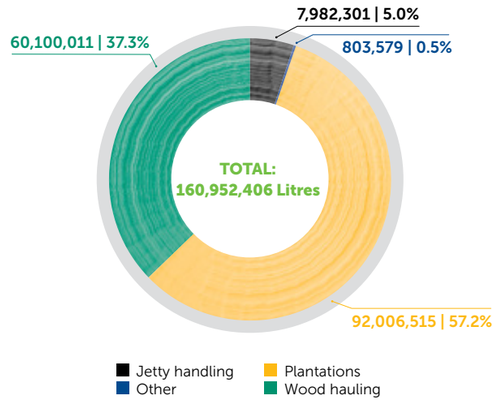
Our fibre operations consumed 5,966 TJ of energy in 2023. Our fibre plant is powered by various blends of bio-diesel fuels ranging from B30 to B45, with the non-renewable portion providing 67% of our energy needs and the renewable portion of biodiesel (FAME) providing the remaining 33%.

Roughly 57.2% of the diesel consumed at plantation level powers harvesting and mechanical site preparation equipment, water management systems, light vehicles, and diesel generators for offices, employee housing, and utilities. Another 37.3% is used to haul wood over land from estates to mill yard. The remaining 5.5% is used for shipping wood by water.

FIBRE OPERATIONS ENERGY CONSUMED BY SOURCE 2023 (TJ)

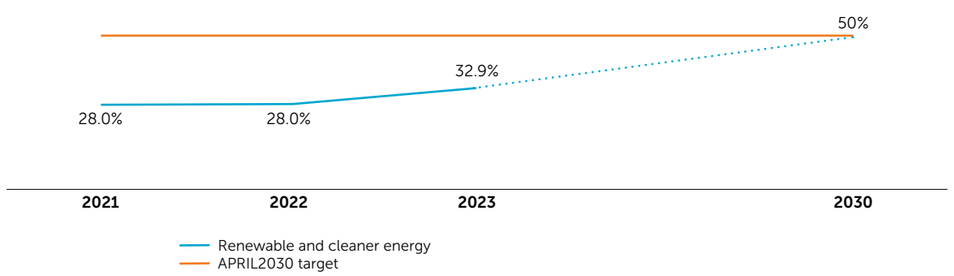


ENERGY CONSUMPTION BY FIBRE OPERATIONS BY ACTIVITY 2023 (Litres of diesel)



At our fibre operations, 32.9% of our energy comes from renewable and clean energy. We aim to increase it to 50% by 2030, against our 2019 baseline of 19%, and we launched several projects in 2023 to help us reach this goal.

PROPORTION OF RENEWABLE AND CLEANER ENERGY CONSUMED BY FIBRE OPERATIONS 2020–2023 (%)



Overview of initiatives at our fibre operations

INCREASING BIODIESEL BLEND (B35 AND ABOVE)

In 2023, we started rolling out a 35% biodiesel blend (B35) to replace B30 and lower biodiesel blends across our fibre operations in compliance with the Indonesian government's biodiesel mandate of February 2023.* We are replacing the fuel used for our offices, estate housing, wood-hauling fleet, and heavy machinery (including harvesting equipment).

We are also trialling higher biodiesel blends at our PT Prima Transportasi Service Indonesia (PT SI) logistics division, which exclusively uses biodiesel to fuel its fleet of approximately 1,000 APRIL-owned and managed log delivery trucks. We hope to roll out a 40% biodiesel blend in 2024 and increase that to 45% by 2026.

* Per Indonesia's National Biodiesel Mandate to blend diesel with biomass to produce palm-based Fatty Acid Methyl Ester (FAME).

TRANSITIONING TO ELECTRIC VEHICLES

We are transitioning from internal combustion engine (ICE) vehicles to electric vehicles at our operations, including electric buses and motorcycles for employees commuting to our mill. We are also trialling electric trucks to transport lighter fibre loads.

In 2023, we added five electric buses to our company fleet, bringing the total to 11, and converted seven motorcycles to electric power. We plan to add 18 more electric buses in 2024.

INVESTING IN SOLAR AT FIBRE ESTATES

We are replacing diesel generator sets at our estates with solar panels and hybrid generators in a phased rollout that commenced in 2023.

In 2023, we also approved capital expenditure (CAPEX) funding for a four-year solar energy rollout project for offices and housing at our fibre estates, commencing in 2024, further increasing our renewable energy capacity at these sites.

Thanks to falling solar technology prices, the payback period for this project has dropped from an initial 30 years in 2020 to five or six years today.

UNDERSTANDING OUR CLIMATE RISKS AND OPPORTUNITIES: TCFD

[GRI 201-2]

Indonesia, our base of operations, is exposed to multiple climate risks, including droughts and frequent floods, with significant compounding impacts. Despite mitigation efforts, we must prepare ourselves for the effects of including physical and transitional risks. Physical risks relate to impacts on people, assets and supply chains, while transitional risks arise from policy, market, and technological changes as the world transitions to a low-carbon economy.

APRIL employs the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations to disclose our governance, strategy, and risk management metrics and targets on climate change-related risks and opportunities, enabling transparency on our climate action.

We have undergone analyses to align with the TCFD recommendations in the following ways:

- 2022: conducted an internal gap analysis using the TCFD framework to map areas of improvement in governance, strategy, risk management, and our metrics and targets.
- 2023: conducted a climate scenario analysis to establish actual and potential climate impacts on our business strategy.

We used these studies to improve our risk management strategies and lay the foundation and strengthen business resilience.

> See: Risk Management (p.22)

In 2023, we enhanced our in-house weather monitoring capabilities by updating our field measurement equipment and hiring dedicated staff to analyse historical and current data. These improvements will enhance our ability to understand weather and climate hazards impacting our operations. We will continue quantifying our business's climate risk impacts and develop an organisation-wide adaptation roadmap addressing the most significant threats.

TCFD INDEX

The following table indexes APRIL's disclosures against the TCFD recommendations to guide, improve, and widen the scope of reporting climate-related financial information. 2023 is the first year we are using these recommendations to report on progress.

TCFD recommendations		Section referenced in our 2023 Sustainability Report
Governance	• Board oversight • Management role	• Governance at APRIL • Stakeholder engagement
Strategy	• Climate-related risks and opportunities over the short-, medium-, and long-terms • Impact on business, strategy, and financial planning • Resilience strategy and scenario analysis	• Our approach to sustainability • Materiality • Our carbon footprint • Understanding our climate risks and opportunities • Responsible sourcing
Risk management	• Process for identifying and assessing risks • Process for managing risks • Integration into overall existing risk management framework	• Risk management • Understanding our climate risks and opportunities • Responsible sourcing
Metrics and targets	• Metrics • Scope 1, 2 and 3 emissions and related risks • Targets	• Sustainability targets and progress • Climate positive • Our carbon footprint • Thriving landscapes • Base data

2023 CLIMATE SCENARIO ANALYSIS

Predicting the future of the climate is challenging because it must account for human activity and government policy choices. We use climate scenario analyses to illustrate plausible climate futures for APRIL Group and our supply chain. We chose six widely used global climate scenarios with 2030 and 2050 timeframes to assess the physical and transitional risks and opportunities we face in six key areas. The physical risk analyses covered the APRIL Group and supplier assets in nine Indonesian provinces in Sumatra and Kalimantan. These analyses identified the climate-change-related risks and opportunities that are material to our business, as outlined below.

Physical scenario analysis

The physical scenario analysis models average global temperature increases of 2°C (low-emission scenario) and 4°C (high-emission scenario). It employs the Intergovernmental Panel on Climate Change Assessment Reports (IPCC AR6 and IPCC AR5) Shared Socioeconomic Pathways (SSPs) and Representative Concentration Pathways (RCPs) to identify the risks and opportunities in both scenarios and calculate the financial impact of the mitigation measures that would most strongly affect our business operations. Because acute and chronic climate trends are interconnected, we projected and assessed the two most impactful climactic outcomes: wet and windy conditions and hot and dry conditions. The analysis included both the qualitative and the quantitative impacts of these projections on APRIL Group's workforce, operations, and supply chain.

Climate related risks: Physical risks

Risk	Risk Description
1. Plantation yield loss Timeframe: short-term	Increased severity and frequency of extreme weather events, including more frequent and intense rain events, sustained higher temperatures, and wind intensity associated with storms, could have impact on our plantation productivity, increase risk of fires, and require more adaptive management of plantation operations such as harvesting.
2. Increased flood risk Timeframe: short-term	Climate models also suggest increased total annual rainfall, rain intensity and rain frequency in Indonesia, raising risks of flooding at our operational areas.
3. Impact on worker health and productivity Timeframe: short-term	There is a need to mitigate risks of weather-related health and safety incidents, including heat stress, and associated risks of productivity losses.
4. Supply chain disruptions Timeframe: medium-term	The increased intensity of typhoons and storms at sea may impact logistics, including the transport of wood fibre and other raw materials, and the shipping of products to export markets.

Note: Timeframe refers to the initial occurrence or anticipated onset of risk or opportunity. Short-term refers to the next five years, medium-term is five to 15 years, and long term is 15-plus years.

UNDERSTANDING OUR CLIMATE RISKS AND OPPORTUNITIES: TCFD

[GRI 201-2]

Transition scenario analysis

The transition timeframe scenarios are 2030 (medium-term) and 2050 (long-term). The global temperature change scenarios use the Network for Greening the Financial System NGFS Net Zero 2050[4] and NGFS NDC[5] frameworks, respectively, modelling 1.5°C and 2.6°C global temperature increases by 2100. Transition themes assessed include policy and legal risks, technology, market, and reputation risks.

Climate related risks: Transition risks

Risk	Risk Description
1. Energy supply, carbon, and wood costs Timeframe: medium-term	Potential increases in operating costs could arise from increased carbon taxes, rising raw material costs, and increased demand for renewable energy and wood as a bio-based, renewable raw material.
2. Stricter land use and carbon regulations Timeframe: short-to-medium term	To meet its FOLU Net Sink 2030 targets in line with its NDCs, Indonesia is expected to implement more measures like sector emissions caps and stricter land-use regulations. Changes to taxation and carbon pricing and trading may impact operating costs.

Note: Timeframe refers to the initial occurrence or anticipated onset of risk or opportunity. The short term refers to the next five years, the medium term is five to 15 years, and the long term is 15 years or more.

Climate related opportunities

Opportunity	Opportunity Description
1. Changing customer / consumer preferences Timeframe: short - medium term	APRIL has the opportunity to secure market share from growing demand for sustainable bio-based products including future bio-based product innovations to meet evolving customer needs. This trend is expected to continue with the shift towards low carbon economy around the world.
2. Reduced operating costs through increased energy efficiency Timeframe: medium term	The majority of APRIL's energy mix comes from renewable and cleaner sources and energy process efficiencies has been a focus to date. Further cost saving can be realised by continuing to improve the efficiency of our power plants and manufacturing operations and by increasing biomass-based energy in our mills.
3. Nature-based solutions and carbon market opportunity Timeframe: medium term	APRIL is in a position to generate nature-based carbon credits both for national and global markets, subject to compliance with relevant national regulations. Revenues could further support funding for APRIL's conservation and restoration efforts and help meet mitigation targets.

Note: Timeframe refers to the initial occurrence or anticipated onset of risk or opportunity. The short term refers to the next five years, the medium term is five to 15 years, and the long term is 15 years or more.

4 Net Zero 2050 limits global warming to 1.5°C through stringent climate policies and innovation, achieving global net zero CO_2 emissions around 2050.

5 NGFS NDC—Nationally Determined Contributions (NDCs) include all pledged policies, even if they have not yet been implemented. This scenario assumes that the moderate and heterogeneous climate ambitions reflected in the conditional NDCs at the beginning of 2021 continue over the 21st century (low transition risk). Emissions decline but lead to 2.6°C warming, associated with moderate to severe physical risks. Transition risks are relatively low.