

THRIVING LANDSCAPES

We champion conservation as part of our production-protection landscape management approach.



THRIVING LANDSCAPES

Contributing to SDGs:



We recognise our responsibility to protect forests, natural landscapes and biodiversity. We manage natural forests and peatlands adjacent to our fibre plantations using a landscape-level production-protection approach, providing long-term funding and technical and operational support for conservation and restoration efforts. We monitor the development of existing and emerging global initiatives and frameworks, learn from our peers, and translate science into best practices at our fibre operations.

Our Restorasi Ekosistem Riau (RER) area is situated in the heart of Sumatra’s largest peatland rainforest. RER celebrated its tenth anniversary in 2023 and has taken on new significance in light of Indonesia’s Forest and Other Land Use (FOLU) Net Sink 2030. Nature-based solutions (NbS) like RER are crucial to addressing climate change, protecting ecosystems, preventing biodiversity loss, and supporting livelihoods.

> See: RER Special Report 2023 (Restorasi Ekosistem Riau Report 2013-2023)

Progress as of December 2023						
Target		2021	2022	2023	2023 Progress notes	Strategy to drive performance
Invest in landscape conservation (USD/tonne)		1	1	1	● Due to an increase in the fibre delivered at the wood yard in 2022, there was a 1% increase in funds allocated from the previous year in 2023	<ul style="list-style-type: none"> Continue allocation of USD 1/tonne wood delivered
Zero net loss in conservation area (ha)	Conservation area loss (ha)	-195	-663	-370	● Loss of area due to encroachment and land claims	<ul style="list-style-type: none"> Conduct land cover change satellite monitoring Adhere to Conservation Forest Management Framework (CFMF) for conservation practices in concessions Adopt Conservation Management Plans for each concession estate Implement land conflict resolution mechanism
Positive biodiversity gain	Area of forest being restored to increase potential wildlife habitat (ha)	47	111	114.4	● Additional areas designated for restoration at PT. RAPP, RER, and supply partners’ concessions	<ul style="list-style-type: none"> Set credible biodiversity baselines for conservation areas within concessions Invest in technology to build capacity for wildlife monitoring
	Species of concern identified at RER conservation area(no.)	69	72	76		<ul style="list-style-type: none"> Conduct wildlife and species research Manage biodiversity data and launch biodiversity portal

Progress as of December 2023						
Target		2021	2022	2023	2023 Progress notes	Strategy to drive performance
Supporting wildlife protection	Number of initiatives established or supported to protect wildlife in Indonesia	-	Developed overarching Strategy to Prevent Illegal Wildlife Trade (IWT) for RER	1. SMART (Spatial Monitoring and Reporting Tool) patrol initiative 2. First bird-banding project focused on highly traded songbirds	● Formal adoption of illegal wildlife trade (IWT) strategy and introduction of SMART patrols at RER estates in partnership with Wildlife Conservation Society (WCS) New partnership to develop species-specific conservation management plans, focusing on tiger, pangolin, and elephant populations	<ul style="list-style-type: none"> Establish strategic partnerships for wildlife protection & illegal wildlife trade prevention Apply globally recognised tools and technology to support data collection and analysis Develop field operator and patrol personnel capacity
Advance tropical peatland science (cumulative)	Collaborations (no.)	18	141	179	● Advancing tropical peatland science and exceeding targets	<ul style="list-style-type: none"> Invest in greenhouse gas monitoring towers and equipment to measure land-use emissions Conduct long-term research on tropical peatlands, peatland hydrology, and subsidence Establish strategic partnerships with scientific communities, universities, and think tanks Obtain advisory assistance from IPEWG
	Conferences (no.)	10	44	54		
	Publications (no.)	3	7	9		
50% gain in fibre plantation productivity (t/ha/year)		21.4	21.8	22.4	● Mean Annual Increment (MAI) strategies yield consistent improvements in line with target of 30 t/ha/year in 2030 with the same land footprint. Slightly behind interim annual target in 2023.	<ul style="list-style-type: none"> Develop and incorporate genetic improvements and integrated pest and disease management Adopt site-specific management plans Contractor development and mechanisation Improve log quality and reduce fibre losses from plantation to mill

UPHOLDING COMMITMENTS TO NO DEFORESTATION

APRIL continues to uphold its no-deforestation commitment per the 3 June 2015 cut-off date in the Sustainable Forest Management Policy 2.0 (SFMP 2.0). This commitment is reinforced in our new [Wood and Fibre Sourcing Policy](#) launched in 2023, in alignment with the Accountability Framework initiative’s (AFi) definitions of deforestation and conversion.

SUSTAINABLE FOREST MANAGEMENT

[GRI 3-3]

APRIL recognises that our activities can impact the environment and surrounding communities. Our SFMP 2.0 commitments guide our sustainable plantation management and serve as the foundation of our new Wood and Fibre Sourcing Policy. Sustainable forest management practices include soil and site management, precision silviculture, water table management, fire management, and pest control backed by research and development.

PRODUCTION-PROTECTION MODEL FOR PLANTATION FORESTRY

APRIL's plantation forestry production-protection model is an integrated approach that balances economic, social, and environmental considerations. Under this model, plantation forests act as a buffer zone to safeguard against encroachment and illegal activities in dedicated conservation and restoration areas. After years of successful application, this remains a reliable and effective model for our Indonesian conservation and restoration efforts. Additionally, APRIL has pledged to spend USD 1 per tonne of plantation fibre delivered to the wood yard annually to support and sustainably fund these conservation and restoration areas.

PRINCIPLES OF OUR PRODUCTION-PROTECTION MODEL

 <p>Maintain ecosystem integrity Strengthen ecosystem integrity and enhance ecosystem services in degraded landscapes through well-designed plantation forests.</p>	 <p>Protect and enhance HCV areas Protect highly biodiverse areas, including riparian zones. Improve the natural habitats of rare, threatened and endangered species.</p>
 <p>Stakeholder involvement Build and maintain positive relationships while collaborating with stakeholders, including local communities.</p>	 <p>Economic growth and employment Create jobs and contribute to the national economy and the prosperity of local communities.</p>

> See also: Conservation and restoration (p.60)

LIVELIHOOD PLANTATIONS

APRIL runs a partnership scheme with local communities and regulatory guidance from the Ministry of Environment and Forestry. Areas within our licensed concessions are allocated to communities, who can cultivate timber and non-timber forest products and other crops that contribute to food security and community welfare. We have allocated 43,471 hectares as livelihood plantations based on the geographical location of villages and their specific needs, which are determined through community consultations. These areas are used for commercial Acacia and Eucalyptus plantations, with communities earning revenues for each harvest rotation, and rubber and oil palm plantations, allowing communities to market harvested crops.

MULTI-STAKEHOLDER DIALOGUE ON TREE PLANTATIONS IN INDONESIA: APRIL CO-HOSTS TPL INITIATIVE DISCUSSION

In June 2023, The Forests Dialogue (TFD) convened a multistakeholder dialogue under the Tree Plantations in the Landscape (TPL) initiative in Riau, Indonesia. The TPL initiative builds on the previous Intensively Managed Planted Forests (IMPF) dialogue held in 2007.



This TPL dialogue builds upon the previous Intensively Managed Planted Forests (IMPF) dialogue held in 2007, revisiting key environmental, social, and economic concerns alongside emerging challenges and opportunities.

The event brought together over 80 Indonesian and international experts, representatives from NGOs, research institutions, local indigenous communities (rights holders) in plenary and small working-group formats. It includes field visits to hear directly from local participants about social and environmental challenges and learn from practices on the ground. The dialogue was developed in collaboration with the TPL Initiative Advisory Group including Forest Peoples Program and dialogue co-hosts World Wildlife Fund-Indonesia, APRIL, RECOFTC, and Bahtera Alam.

with tree plantations. Responsible peatland management, sustainable production within jurisdictional approaches, nature-based climate solutions, landscape dynamics, social forestry, and land tenure and dispute resolution models were all part of the focused dialogue.

Field visits across the Kampar Peninsula provided participants with firsthand experience of forestry operations, including nursery management, tree planting and harvesting, high conservation value areas, and water management and greenhouse gas monitoring practices. Through interaction with local communities, participants gained a deeper understanding of landscape dynamics, the complexities of plantation management, and associated issues like biodiversity impacts and peatland management challenges.

Reflecting on the evolution of forestry operations, the landscape, and stakeholder relations since the 2007 IMPF dialogue, a significant topic emerged; the crucial role of peatlands in carbon storage, APRIL presented its latest research findings on peatlands, received valuable feedback on improving its practices, and engaged with participants regarding their concerns and interests.

This multi-stakeholder dialogue served as a valuable platform for fostering communication, understanding, and trust-building among stakeholders. Despite ongoing challenges, participants expressed optimism for positive change, highlighting a collective commitment to continued dialogue in the region.

Discussions centered on key learnings and topics related to the environmental, social, and economic costs, benefits, and potential solutions associated

- > For full summary, please visit [The Forest Dialogue](#)
- > See also: [Stakeholder engagement \(p.28\)](#)



SUSTAINABLE FOREST MANAGEMENT

[GRI 3-3]

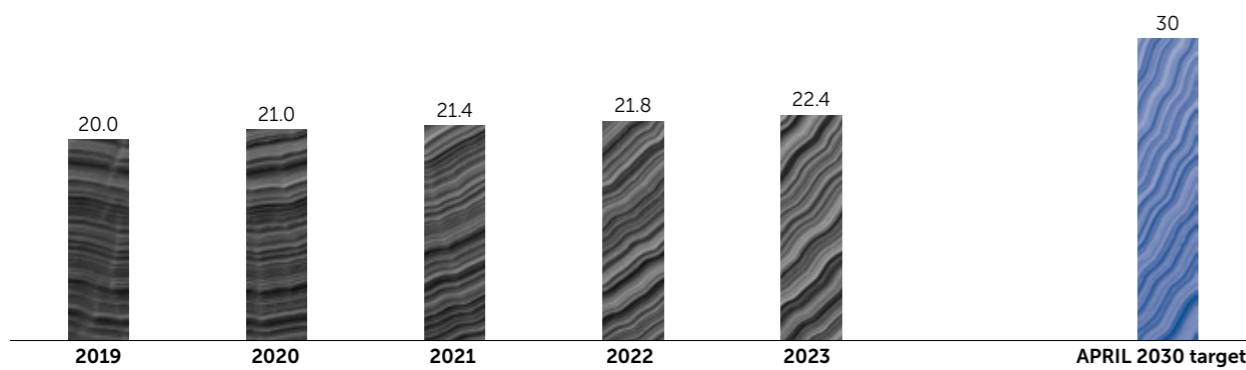
IMPROVING PLANTATION PRODUCTIVITY

Our growth strategy focuses on increasing productivity on existing land through genetic improvements, precision forestry, mechanisation, and science-based management best practices.

Our 270-person Fibre Research and Development (R&D) team drives innovation that increases fibre yields without expanding our plantation footprint. Consequently, our

fibre plantation productivity – measured in tonnes per hectare per year and expressed as a mean annual increment (MAI) – has risen by more than 10% since 2019 to 22.4 tonnes t/ha/year in December 2023, representing the average quantity of wood delivered to mill per hectare of planted area per year. Our MAI is calculated as our 3-year, area-weighted, rolling average growth. **APRIL aims to increase fibre plantation productivity to 30t/ha/year by 2030, a 50% increase against our 2019 baseline of 20 t/ha/year.**

FIBRE PLANTATION PRODUCTIVITY 2019–2023 (t/ha/yr)



The Fibre R&D team focuses on various strategies to increase fibre plantation productivity. These encompass:

Precision forestry

Precision Forestry uses advanced technologies to gather detailed information and create data-driven approaches to optimise forest management practices while reducing negative environmental impacts.

Silviculture

The silviculture approach applies industry best practices to soil, site, water table, planting, fertilisation, and weed management systems to improve productivity and forest quality.

Integrated pest and disease management

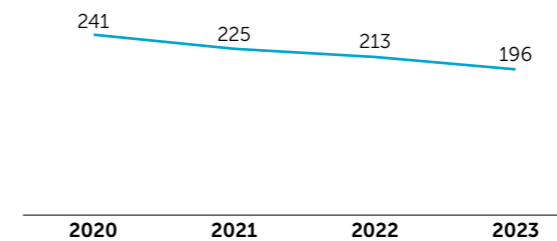
A comprehensive Integrated Pest Management (IPM) strategy prioritises efficient pesticide use and incorporates biological control agents. Research allowed us to use the least toxic pesticides (green-and-yellow toxicity labels) at our sites in 2023. Our goal is to stop using yellow-toxicity-label pesticides entirely and only use green-label products moving forward.

In 2023, we applied chemical controls using the following principles in line with our IPM strategy:

Systematic monitoring	Precision application	Technology integration
We monitor and qualify pest thresholds to determine where and when to apply controls, optimising effectiveness while minimising economic and ecological damage.	We apply chemicals only when and where necessary, for example, in emergencies or when biological controls are ineffective.	We leverage effective technologies to improve precision and efficiency, minimise the number of applications, and reduce the overall volume of chemicals used.

We apply these principles equally to pesticide, herbicide, and fertiliser use. In 2023, we successfully trialled a glyphosate substitute for weed control in the first 150 days of the eucalyptus plantation cycle. We also completed the construction of a 300 m² facility to mass-produce biological pest control agents to be used against insects that infest young eucalyptus plantations. Since 2020, we have continued to reduce the amount of inorganic fertiliser per hectare of plantation.

INORGANIC FERTILISER USAGE 2020–2023 (kg/ha)



Genetic improvement

APRIL's R&D team is breeding eucalyptus and acacia trees with desirable genetic traits, including taller growth, better wood properties, increased pest and disease resistance, and climate tolerance. These enhanced trees are grown at our Kerinci Tissue Culture (KTC) lab, producing 36 million eucalyptus and acacia plantlets annually.

THE WORLD'S FIRST CLONAL ACACIA PLANTATION

In 2023, APRIL established the world's first clonal acacia plantation, resulting from nearly two decades of dedicated R&D and a milestone in forestry. Traditionally, acacia plantations were established by cross-breeding plants with desirable genetic traits. Tissue culture allows superior individuals to be selectively multiplied – or cloned – and planted at scale, increasing productivity. Our 2024 objectives are optimising the production of acacia clonal material, increasing the area of land dedicated to acacia breeding, and propagating more clones in the field.

APRIL has a strict No GMO policy and does not use genetically modified organisms in our research programmes and initiatives or at research facilities under our direct and indirect control (see APRIL's GMO Policy on our [website](#)).

Genetically modified organisms (GMOs) and clonal tree breeding (through tissue culture) are two distinct approaches. GMOs are created by inserting DNA – including genes from unrelated species – at the molecular level using biotechnology tools. Clonal tree breeding propagates trees with desirable genetic traits using traditional forestry methods like cuttings and tissue culture.

APRIL'S DEDICATION TO R&D EXCELLENCE

Commentary by Alvaro Duran
Head of Research and Development
APRIL Group

R&D is pivotal to APRIL's success and achieving our strategic and operational goals. In 2023, we established a strategy to judiciously use chemicals at our operations and the world's first clonal acacia plantation, among other milestones. We also completed the initial phase of our digital transformation plan, building a robust data management system to further accelerate innovation. Our dedicated R&D team is instrumental in achieving these milestones. We offer our R&D employees professional development opportunities so they can thrive as their careers progress at APRIL. I am proud of our team of science-based decision-makers, many of whom hold advanced credentials, including Master's degrees and PhDs. We are specialists dedicated to pursuing scientific excellence to address day-to-day operational challenges.

About: Alvaro joined APRIL in May 2017 and currently leads APRIL's fibre R&D team, focusing on optimizing and enhancing fibre production to improve efficiency and sustainability.

SUSTAINABLE FOREST MANAGEMENT






[GRI 3-3]

MECHANISATION AND OPERATIONAL EFFICIENCY

The Group has mechanised wood harvesting at our plantations using the cut-to-length system. This method employs mechanised harvesters, forwarders, and sledges to enhance mechanical efficiency and operator safety, improve wood quality, and reduce waste. It also reduces operating costs and minimises environmental impact by spreading organic matter across fields, improving soil nutrition, and limiting erosion.

DIGITALISATION AND DATA MANAGEMENT

In 2023, APRIL completed the initial phase of a digital transformation plan. All field data is now systematically captured using digital tools, marking a pivotal transition in our data management and storage practices. The next phase is to embrace artificial intelligence (AI) to enhance data analysis and support research. Our 2023 progress and achievements include:

 <p>Inventoried entire eucalyptus harvesting area and 50% of acacia planting area pre-harvest using a combination of drone photography and Light Detection and Ranging (LiDAR)</p>	 <p>Generated LiDAR map for land preparation and harvesting, micro-planning, landscape level drainage planning, and flood risk identification</p>	 <p>Expanded LiDAR usage in R&D programmes, including identifying diseased trees (Ganoderma programme)</p>
 <p>Developed mobile application to improve operational management data collection and accuracy</p>	 <p>Completed first phase of Fibre Command Centre implementation to capture near real-time data to streamline and improve wood flow management from stump to wood yard chippers</p>	

FOREST CERTIFICATION

One of the Group's top priorities is going beyond legal compliance by maintaining our sustainable forest management certifications. We ensure our production and forest management meet the expectations of local and global markets and adhere to the highest environmental and human rights standards.

National certifications

Since 2012 and 2013, respectively, 100% of APRIL concessions have been certified against the Sustainable Production Forest Management (PHPL) and Sistem Verifikasi Legalitas Kayu (SVLK) standards. These mandatory Indonesian government schemes certify that Indonesian timber products are legally produced and respect applicable environmental and social criteria. All Indonesian wood exports must be certified against these standards.

International schemes

APRIL has been a member of the globally recognised Programme for the Endorsement of Forest Certification (PEFC) since 2016. As of December 2023, 93% of our plantations are certified against the PEFC Forest Management (PEFC-FM) standard. APRIL also expanded our PEFC-certified land bank to include RER, demonstrating our commitment to managing forests according to international standards. Our integrated mill carries the PEFC Chain of Custody certification, confirming that we source PEFC-certified products at the manufacturing level and can trace our PEFC supply back to its source.

Aligning with European deforestation regulation

Beginning June 2023, the European Union Deforestation Regulation (EUDR) has come into force, and applies to companies importing selected commodities into the European Union (EU), including derived products from pulp and paper.

The EUDR aims to minimise the risk of deforestation and forest degradation associated with products sold in, or exported from, the EU market, and companies will have until 1 January 2025 to comply. As part of our 2024 priorities, we will continue incorporate the EUDR due diligence requirements into our existing management processes in readiness to comply with the regulation.

A COMMITMENT TO REMEDY: APRIL THE FIRST COMPANY TO FORMALLY ADOPT NEW FSC REMEDY FRAMEWORK

On 15 March 2023, FSC published a new policy called the *Remedy Framework*. This policy creates a pathway for environmental restoration, rehabilitation, and social remediation for communities proportionate to the harm caused by organisations that have previously breached FSC requirements. The Framework came into effect on 1 July 2023.

In November 2023, APRIL signed a memorandum of understanding with the FSC, committing APRIL and the Corporate Group⁶ to enact a time-bound remediation plan in compliance with the terms and conditions of the Framework. The remedy process consists of the following phases: 1) identifying past environmental and social harms, 2) developing a remediation plan, and 3) implementing the plan.

As we embark on the remediation process, independent assessors have been contracted by the FSC to conduct social and environmental

baseline assessments. Based on the assessment findings and in dialogue with impacted rights holders and affected stakeholders, APRIL will develop a Remedy Plan to determine our actions to remedy past harms. This Plan will be reviewed and verified by an FSC-appointed third party and implemented by APRIL upon approval. Once APRIL has met the relevant threshold, subject to monitoring and an independent review, the FSC Board of Directors will decide whether to end APRIL's disassociation.

Because this is a new framework and the first remedy case, the FSC is still developing its implementation procedures and mechanisms. Nevertheless, APRIL is committed to ending our disassociation and has engaged with the FSC since 2016. The FSC will provide updates on the progress of our remedy process on its publicly accessible [FSC Connect site](#).

⁶ The list of organisations found within the scope of the Corporate Group for the purpose of the FSC Remedy Framework includes the following Business Groups and related entities: APRIL, Bracell, Sateri, Asia Pacific Rayon, Asia Symbol, Asian Agri, Apical Group, Pacific Energy, International Woodchip Corporation (IWC), Asia Honour Paper, and PT. Toba Pulp Lestari (TPL). It also includes new acquisitions by APRIL, related entities, and third-party suppliers. See FSC Policy for Association V3 and Corporate Group list for more information.

CONSERVATION AND RESTORATION

[GRI 3-3, 304-1, 304-2, 304-3, 304-4]

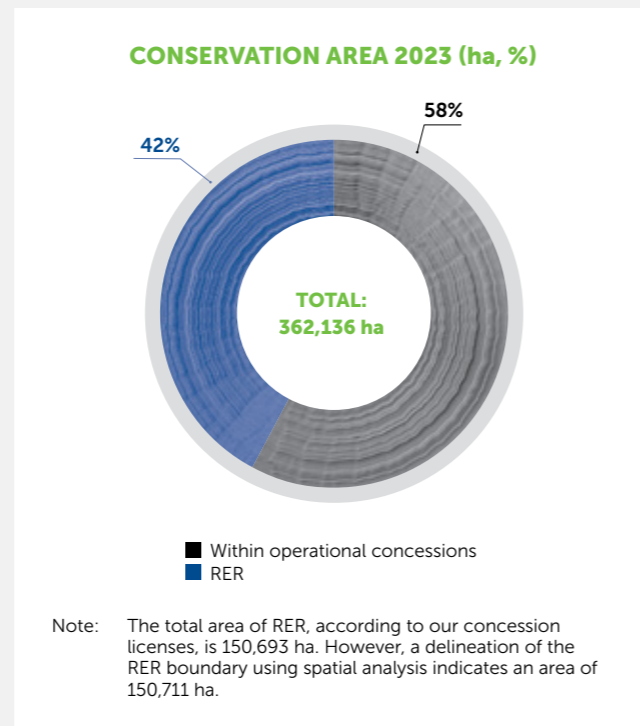
APRIL manages and minimises its impacts on biodiversity and ecosystems by designating conservation and restoration zones at our concessions. We manage our conservation areas using APRIL's Conservation Forest Management Framework (CFMF). This multi-pronged, multi-stakeholder approach conserves forests, peatlands, and other vital environmental and social assets through concrete actions in three key focus areas (KFAs):

 <p>KFA 1 Investments to protect and achieve measurable gains in existing forested areas and preserve ecosystem values</p>	 <p>KFA 2 Partnerships to protect Indonesian wildlife and advance tropical peatland science</p>	 <p>KFA 3 Landscape conservation planning tools and processes</p>
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MANAGING OUR CONSERVATION AREA

The Group strives to protect and conserve areas identified by peer-reviewed HCV-HCS assessments. We have designated 362,136 hectares (ha), or 34.7% of the total land bank which includes APRIL and long-term supply partners, as managed conservation areas – 58% of this area is within APRIL's operational concession area, and 42% is managed under our Restorasi Ekosistem Riau (RER) programme. Our ultimate goal is to ensure zero net loss of conserved forest areas.

APRIL prohibits hunting (unless explicit permission is obtained from the relevant regulatory bodies) and monitor illegal activity, including land cover change through satellite imaging, on-the-ground security patrols, clearly demarcating no-go areas, and continuously engaging with local communities on forest protection. We deploy an emergency response team (ERT) to fire, illegal encroachment, and natural disaster sites in concession areas. The team reports to relevant internal and external authorities as outlined in our standard operating procedure (SOP).



LAND COVER CHANGE MONITORING

All APRIL and supplier concessions are monitored to prevent deforestation. We employ satellite imagery and drones for aerial observations and on-the-ground verification teams to identify and record land cover change. APRIL's expert team of remote sensing analysts carries out surveys every 16 days to detect instances of land cover change, determine their causes, and take immediate action.

We issue reports to relevant suppliers when we identify land cover changes and require them to conduct immediate field verifications to assess actual conditions and develop a restoration action plan for the affected area. APRIL documents the remediation process, which is independently assured annually.



WILDLIFE MONITORING AND PROTECTION

Biodiversity is monitored in our conservation areas using remote camera traps to directly observe wildlife and establish biodiversity baselines. Our managers and researchers use this baseline data to analyse population trends and habitat use and recommend restoration and management measures. RER programmes monitor twice-annual raptor migrations, waterfowl populations, and Sumatran tiger and flat-headed cat activity. The APRIL Eco-Research Camp at the Kampar Peninsula serves as the RER programme's field office and base of operations, supporting RER wildlife monitoring and conservation activities.

In 2023, APRIL adopted a strategy to prevent illegal wildlife trade (IWT) in partnership with the Wildlife Conservation Society (WCS). In its first phase, a SMART (Spatial Monitoring and Reporting Tool) patrol was deployed to collect, compile and analyse field data to monitor and prevent IWT at our concessions. We took the following actions to roll out the new strategy:

1. SMART workshops: APRIL conducted three workshops in 2023 to train analysts and field operators on the SMART platform, improving our capacity to collect and analyse accurate and meaningful data;
2. SMART data protocols: APRIL developed a robust data framework under WCS supervision to optimise field data collection;
3. SMART report generation: APRIL adopted an automated reporting tool that streamlines the regular collection and analysis of SMART data;
4. Regular ranger patrols and control points: APRIL optimised resources and personnel, and no IWT cases were observed or reported at our estates in 2023.

CONSERVATION AND RESTORATION

[GRI 3-3, 304-1, 304-2, 304-3, 304-4]

APRIL and the RER programme deploy camera traps in peatland and plantation forests. In December 2023, APRIL deployed 150 camera traps at strategic locations across 173,000 hectares of our plantation concessions. The RER programme has deployed over 600 camera traps on the Kampar Peninsula and Padang Island in the last ten years, covering 234,000 hectares. More than 100 of these traps were deployed in 2023, with a particular focus on the RER's Padang Island concession.

An RER baseline study used camera traps to identify 22 wildlife species in a 20,599-hectare peat forest concession. Eight of these species were IUCN Red Listed, including the Sunda Pangolin (CR – Critically Endangered), Sunda Slow Loris (EN – Endangered) and Sambar deer (VU – Vulnerable). The RER programme has been monitoring the twice-annual migration of raptors along the East Asian Continental Flyway in Sumatra since 2016 and conducting an annual Asian Waterbird Census on the Kampar Peninsula since 2017.

The RER also monitors species of IUCN conservation concern, including the Sumatran tiger and flat-headed cat. In 2023, our researchers identified four additional vulnerable species within RER, of which two are new Odonata (dragonfly) species.

Table 4: Species of special concern identified in RER

Taxa	Critically endangered (CR)	Endangered (EN)	Vulnerable (VU)
Mammals	3	9	9
Amphibians and reptiles	3	3	3
Birds	2	6	18
Plants	3	1	5
Fish	2	2	3
Odonata	0	1	3
Total	13	22	41

> See *RER initiatives in 2023* (p.63) for more information on RER wildlife monitoring and protection initiatives.

PARTNERSHIP WITH PERKUMPULAN JEJARING HUTAN SATWA (PJHS – FOREST WILDLIFE SOCIETY)

We partnered with The Forest Wildlife Society (PJHS), an NGO dedicated to wildlife conservation and habitat protection, to formulate species-specific conservation management plans for the Kampar Peninsula, Pulau Padang, and the Tesso Nilo landscapes, focusing on the tiger, pangolin, and elephant populations, respectively. In 2023, PJHS developed conservation management plans to be incorporated into RER and APRIL's conservation initiatives.

LANDSCAPE RESTORATION

Restorasi Ekosistem Riau (RER)

APRIL Group has operated the Restorasi Ekosistem Riau (RER) programme since 2013. The company was issued a 60-year ecosystem restoration concession license by the Indonesian Ministry of Environment and Forestry to protect and restore peat swamp forests that have experienced forest degradation from peat drainage, timber harvesting and fire.

Peat swamps are delicate and unique ecosystems that have accumulated up to 16 metres of peat in the past 5,100 years. They are home to vegetation and wildlife adapted to their unique conditions, including seasonal flooding. RER employs a four-pronged approach to protect, assess, restore, and manage peat swamp forests, preventing new human-caused degradation, assessing biodiversity, actively restoring degraded areas through canal blocking and tree planting, and implementing programmes to manage human activities and improve the livelihoods of forest users and nearby communities. Its production-protection landscape approach enables RER to enter into partnerships and collaborate with various stakeholders to improve the long-term resilience and productivity of the landscape and local communities.

Over 40,000 people live in and around RER concessions. APRIL works with local communities, the Indonesian and state governments, and other concession holders to ensure that traditional activities like fishing and honey gathering are pursued sustainably. We employ local people, contract the services of small businesses, and promote ecosystem and biodiversity conservation.

APRIL published a Special Report on the 10th anniversary of RER in January 2024, providing a comprehensive overview of RER's positive impacts throughout its decade-long journey.

RER INITIATIVES IN 2023

Bird banding

We launched our first bird-banding training focused on some of the most heavily traded protected songbird species, certifying select RER members to safely tag birds. The project supports the Indonesian Bird Banding Scheme (IBBS) and tracks bird population trends, providing data and insights on population survivorship to determine ecosystem health and poaching pressure. Trainees tagged 223 wild birds representing 44 species in 2023.



Odonata surveys

From 2018 to 2023, we completed four Odonata surveys with The International Union for Conservation of Nature (IUCN) Odonata specialist Dr Rory Dow to establish baseline biodiversity data, critical freshwater ecosystem health indicators, and a Dragonfly Biodiversity Index (DBI) specific to the Kampar Peninsula. These surveys identified 100 Odonata species, including 49 that exhibited forest dependency. We collected and provisionally identified two new species, bringing the total of previously undocumented species in Riau/Sumatra to 39 (subject to confirming the two new species) and elevating the count of identified species in Riau from 88 in 2018 to 127 in 2023.



Increasing remote outposts

The size and location of the RER require us to establish outposts in remote locations that serve as quarters for RER rangers and routine patrols and as remote bases for scientists engaged in forest research. In 2023, we built a strategically positioned forest outpost approximately 7.3 kilometres from the nearest road along the boundary of RER and the Sangar River. The Sangar Post is the fourth such facility and is part of a network of outposts that spans the Kampar Peninsula. We are building a fifth outpost, Pos Makmur, slated for completion in 2024.



Partnership with a local village forest

We signed Memorandums of Understanding (MoUs) with the Hutan Desa Segamai village forest in 2023 under the Ministry of Environment and Forestry's Social Forestry Management Program.

Located on the eastern edge of RER's forest concession, Hutan Desa Segamai has faced challenges meeting legal requirements, developing a business plan and combatting illegal logging since 2017. APRIL is assisting the community with training on forest protection and wildlife identification, capacity building in forest management and non-timber forest product (NTFP) utilisation, and infrastructure support, including forest protection posts, watchtowers, and signage.

CONSERVATION AND RESTORATION

[GRI 3-3, 304-1, 304-2, 304-3, 304-4]

RER INITIATIVES IN 2023

SMART Patrol

In 2023, APRIL partnered with the Wildlife Conservation Society (WCS) to develop a SMART Patrol system – a tool that collects, stores, and analyses patrol data. Data collection will permit forest patrols to document their findings, including biodiversity indicators and trap and poacher activity. The application also tracks patrol movements, supporting ongoing protection and management improvements. Following a successful trial in 2023, we plan to expand the use of the SMART system to bolster our fight against the illegal wildlife trade.

Padang Island biodiversity baseline survey

In 2023, APRIL conducted the first Padang Island biodiversity baseline survey, deploying 58 camera traps over two months. The survey confirmed the presence of 22 species, including eight IUCN-listed and seven Indonesia-protected species, notably the critically endangered Sunda Pangolin. The findings of this survey provide critical insights about the RER and will lead to improved species and ecosystem management plans for the island, contributing significantly to conservation efforts and ecological sustainability.

Long-term camera trap project to understand biodiversity richness across various RER forest cover types

In 2023, we launched a two-year camera trap project to assess wildlife population trends in the diverse habitats of RER peat-swamp forests. Camera traps were installed to monitor wildlife in different forest cover types, including short-pole forests on peat domes, mixed peat swamp forests (MPSF), degraded MPSF, and highly degraded MPSF. The data will be combined with data from previous camera trap efforts dating back to 2015 to analyse biodiversity and wildlife populations across various forest cover types within the RER. This long-term project will conclude in 2026.



APRIL'S 1-FOR-1 COMMITMENT

APRIL launched the 1-for-1 commitment in 2015 to bolster landscape restoration efforts. For every hectare of commercial plantation forest, the Group will protect and manage a hectare of natural forest conservation area. Our long-term supply partners operating within our land bank also support the 1-for-1 commitment, which is now included in our Responsible Business KPIs to ensure we track and monitor progress accurately. **As of December 2023, we have met 80% of our pledge, protecting and managing 362,136 hectares of conservation area to offset 454,021 hectares of plantation area.**

BIODIVERSITY GAINS THROUGH RESTORATION ACTIVITIES

In 2023, APRIL and RER restored 114.4 hectares of land, engaging in active and enrichment planting, and assisted natural regeneration to increase biodiversity. Active

planting is planting natural seedlings from nurseries at restoration sites in addition to existing vegetation. Enrichment planting means planting woody species to accelerate canopy closure, increase floristic diversity, and introduce beneficial or rare tree species. Assisted natural regeneration accelerates natural tree growth, eliminating or reducing natural barriers, including shade and clearing vines to spur tree sapling growth in degraded forests and shrubs.

INVESTING IN LANDSCAPE CONSERVATION

In addition to on-the-ground programmes, APRIL will invest up to USD 100 million in landscape conservation by 2030. We set aside USD 1 for every tonne of industrial plantation fibre supplied to the mill. In 2023, we allocated an additional 1% to this fund, going from USD 11,787,484 to USD 11,964,363 to reflect the increase in fibre delivered at the wood yard in 2022.

CONSERVATION BEYOND APRIL OPERATIONAL BOUNDARIES

In 2023, we expanded our conservation efforts beyond our operations. We partnered with PT Restorasi Habitat Orangutan Indonesia (PT RHOI), an organisation established by the Borneo Orangutan Survival Foundation (BOSF), to establish an orangutan-habitat ecosystem restoration concession (ERC).

Located in the East Kutai and Kutai Kartanegara Regencies, East Kalimantan Province, the concession spans 86,593.65 hectares subject to a Government of Indonesia Environmental Services Forest Utilisation Business License (PBPH). Extending our conservation efforts beyond the RER and APRIL's operational boundaries expands APRIL's contribution to Indonesian biodiversity conservation initiatives.

PARTNERING WITH NGOS: AN IMPORTANT CONSERVATION STRATEGY

Commentary by Jamartin Sihite
Chief Executive Officer
Borneo Orangutan Survival Foundation (BOSF)

We actively seek partnerships with companies that have embraced conservation and want to become part of the solution. We envision more corporate entities will join us in a unified call for wildlife habitat conservation. To ensure the success of our joint initiatives, we encourage private companies to base their goals on long-term solutions instead of short-term gains.

APRIL's dedication to conservation is exemplified by the company's 1-for-1 commitment to conserve one hectare of forest for every hectare of plantation, an integral part of its business strategy. That's why our BOSF-PT RHOI collaboration extends beyond orangutan habitat conservation, encompassing a broader commitment to ecosystem preservation.

Historically, NGO partnerships with private corporations have faced resistance. The BOSF-PT RHOI initiative showcases how such partnerships can have a long-term positive impact on Indonesian conservation efforts. It is an example that other companies and NGOs can follow to work harmoniously and address environmental challenges in the country's natural landscapes.

About: Jamartin joined BOSF in 2009 and is currently its CEO. In 2009, BOSF established PT Restorasi Habitat Orangutan Indonesia (PT RHOI) to manage local forests and provide a habitat for orangutans. Jamartin oversees PT RHOI and BOSF operations, including partnerships and collaborative projects. APRIL Group subsidiary PT Riau Andalan Pulp and Paper (PT RAPP) partnered with PT RHOI to protect and manage its ecosystem restoration concession in East Kalimantan, a designated orangutan habitat.

CONSERVATION AND RESTORATION

[GRI 3-3, 304-1, 304-2, 304-3, 304-4]

SUPPORTING COMMUNITIES WITH EXPERTISE IN FOREST MANAGEMENT

The Indonesian Government's social forestry programme sets aside 12.7 million hectares of state forest for Indigenous and local community management. This programme formalises these communities' customary and tenure land rights, providing opportunities to improve local livelihoods through sustainable forest management. One of the first two village forest licenses granted by this programme is for lands located within the Kampar Peninsula.

APRIL's sustainability commitments promote local livelihoods through forest protection, reflecting the goals of the Indonesian social forestry programme. In 2019, we partnered with EcoNusantara to pilot multi-stakeholder collaborative projects in the Kampar Peninsula. EcoNusantara represents various NGOs, facilitating and coordinating collaboration between these organisations and APRIL. The primary objective of this partnership is to empower local communities that have received

government permits for social forestry, leading to community ownership of forest conservation initiatives to manage forests.

The project was delayed when COVID-19 restrictions paused field activities. It resumed in 2022 when EcoNusantara mapped 4,000 hectares of forests in Riau. The mapping exercise revealed a need for community-supported forest management to mitigate encroachment and deforestation risks, potentially with local NGO assistance. APRIL devised collaborative plans with these NGOs to mitigate logging risks in conservation areas and provide alternative income sources for community members outside forest zones. Community-level agreements are now in place, and the participating NGOs have commenced fieldwork to implement coordinated livelihood programmes and community training in forest management over the next two to three years.



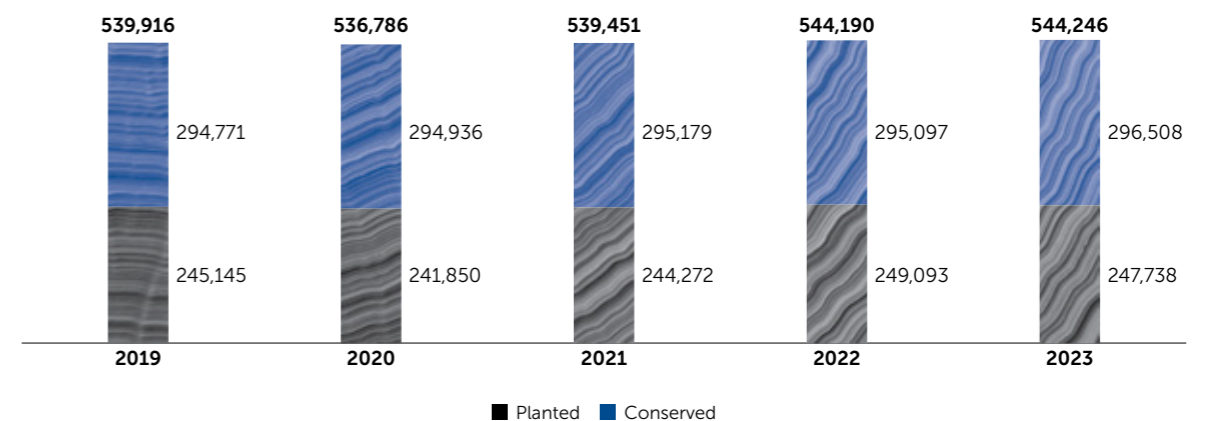
"Local NGOs are perfectly positioned to provide on-site support, and APRIL can help foster collaboration, leading to tangible impacts on the ground. Despite APRIL's ongoing forest protection advocacy, local NGOs in Riau still have concerns about the company's past use of natural wood. APRIL's operational proximity to surrounding communities and its dedication to improving local livelihoods through community investments make it the perfect strategic partner for this project. Our ultimate goal is to establish enough trust between APRIL and local NGOs so they can communicate and collaborate directly without an intermediary like EcoNusantara."

Zulfahmi, Chief Executive Officer|EcoNusantara
 About: EcoNusantara is an independent consulting agency that advises the wider public and clients on environmental and social responsibility. Zulfahmi has been active in various NGOs since 1997 and is currently the CEO of EcoNusantara.

PEATLAND CONSERVATION

APRIL remains committed to zero new development on peat. We manage 544,246 hectares of peatlands across our land bank, with 45% (247,738 hectares) on existing plantations and 55% (296,508 hectares) in conservation areas. As part of our Responsible Business KPIs, we track our peatland conservation progress by measuring the percentage of peatland within our conservation areas. As of December 2023, 82% of our conserved area is peatland. We aim to further enhance our conservation efforts and increase the protected peatland landscape in the coming years.

PLANTED VERSUS CONSERVED PEAT 2019 – 2023 (ha)



Note: The fluctuation in peat areas is not due to planting but their reclassification following annual on-site evaluations, including boundary adjustments resulting from higher-resolution imagery.

The 2023 KPMG Report on APRIL Group's Implementation of Sustainable Forest Management Policy 2.0 currently includes all plantable peat area, while the 2023 Sustainability Report reflects only the planted on peat area. In the coming year, APRIL will align the definitions used in both reports.

PEATLAND RESEARCH AND SCIENCE COLLABORATION

Advancing tropical peatland science is one of the APRIL2030 targets. We invest in research to improve our understanding of peatlands, contribute to global scientific efforts and best practices, and share our learnings on peatland management practices.

As of 2023, APRIL has:

- Collaborated with 179 scientists from local and international universities and research institutions
- Participated in 54 national and international conferences
- Published the following peer-reviewed scientific publications:

- > [Conservation slows down emission increase from a tropical peatland in Indonesia | Nature Geoscience](#)
- > [Impact of forest plantation on CH4 emissions from tropical peatland | Global Change Biology](#)
- > [Rates and spatial variability of peat subsidence in Acacia plantation and forest landscapes in Sumatra, Indonesia | Geoderma](#)
- > [Net greenhouse gas balance of fibre wood plantation on peat in Indonesia | Nature \[update on NUS CNCS project\]](#)

CONSERVATION AND RESTORATION

[GRI 3-3, 304-1, 304-2, 304-3, 304-4]

National seminar on responsible peat management

In September 2023, the Independent Peat Expert Working Group (IPEWG) co-organised a national peatland use and management seminar focusing on greenhouse gas emissions, subsidence, and peat fires. "Responsible Peatland Management: Presentation of the Latest Research Results" was hosted by the Indonesian Peat Community Association (HGI) and presided over by the Vice Minister of Environment and Forestry of Indonesia. It was attended by approximately 12 in-person and 370 online participants from universities, national and international research institutions, NGOs, and government agencies.

FIRE MANAGEMENT

Fires pose a grave threat to our operations, biodiversity conservation efforts, employee health and safety, and neighbouring communities. To mitigate the risk, we strictly enforce a No-Burn policy as part of our operational forestry practices, which also applies to our suppliers. Our

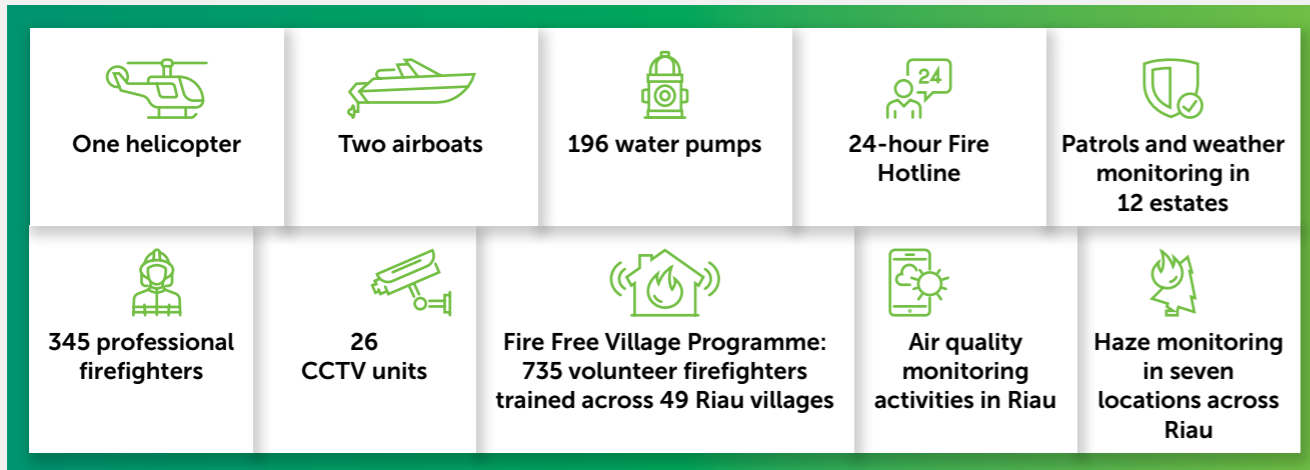
integrated forest fire management approach commits us to supporting government agencies and working with other concession holders and communities to mitigate fire risks, especially during the dry season.

Detecting fires is the foundation of APRIL's No-Burn policy. The Early-Stage Fire Warning Systems (EWS) are the cornerstone of our four-pronged fire management approach, which comprises fire prevention, preparedness, suppression, and recovery.

APRIL has made substantial investments in state-of-the-art fire detection and suppression technology, including satellite imaging and closed-circuit television (CCTV) towers at our forest plantations. As a pre-emptive measure, the programme monitors and manages fires up to three kilometres outside our concessions.

In 2023, APRIL reported no fires within and outside of our concessions.

APRIL's fire management resources and measures



FIRE FREE VILLAGE PROGRAMME

APRIL's Fire Free Village Program (FFVP) educates village populations and raises awareness about sustainable forestry management practices. As of June 2023, 42 villages across 900,000 hectares have completed the FFVP programme. Since its inception, fire incidents in these areas have fallen more than 90%, and burned areas have shrunk to 0.3% of previous levels. Engaging with communities is highly effective because most fires within village boundaries are set by community members. Member villages have embraced the FFVP, engaging in community outreach through the Village Crew Leaders programme, which recruits local community members as contractors and encourages former slash-and-burn farmers to become ambassadors for sustainable practices.

Table 5: Overview of FFVP progress 2019–2023

	2019	2020	2021	2022	2023
Villages engaged (no.)	35	38	39	39	42
Hectares under MOUs (ha)	753,604	771,855	803,684	803,684	902,872
Burned area recorded (ha)	392	22	532	49	290
Burned area recorded (% of total ha)	0.05	0.003	0.066	0.006	0.032
Villages graduated (no.)	26	35	38	38	39



Aerial view of Restorasi Ekosistem Riau (RER)

RESPONSIBLE SOURCING

[GRI 2-6, 3-3, 204-1, 308-1, 308-2, 414-1, 414-2]

WOOD SOURCING

In addition to wood harvested at APRIL's plantations, 9.5 million tonnes – or 61.2% – of the wood log and wood chips sourced by our mill comes from external suppliers. 38.5% comes from 32 long-term contracted supply partners managing plantations in our land bank, and 20.7% comes from 19 independent open-market suppliers from Sumatra, Kalimantan and Sabah in Malaysia as well as wood chips suppliers from Thailand and Vietnam. These independent suppliers are free to sell to any buyers. Of the total wood harvested, 302,535 tonnes – or 1.9% – originates from 16 community forest plantations in APRIL-managed or supply partner plantations belonging to our Livelihood Support Programme.

PULP SOURCING

APRIL Group purchased 45,398 tonnes of pulp from external sources in 2023 – approximately 1.12% of our total pulp supply – from PEFC or FSC-certified suppliers in Finland, Sweden, and New Zealand.

2023 WOOD AND FIBRE SOURCING POLICY

APRIL's SFMP 2.0 commitments address the industry's environmental and social risks and apply to all harvested wood we use, including third-party supply. In February 2023, we published a standalone [Wood and Fibre Sourcing Policy](#). It builds on the SFMP 2.0 framework and reiterates our existing commitments to sourcing wood, virgin fibre, pulp, and biomass from responsibly managed forests, be they our own or third-party fibre suppliers'.

The policy covers our environmental commitments and social-related focus areas per SFMP 2.0 provisions. It is aligned with the United Nations (UN) Global Compact, the UN Guiding Principles for Business and Human Rights (UNGPR), and the International Labour Organisation (ILO) fundamental conventions.

The policy restates commitments that extend to suppliers, who must commit to protecting forests from illegal activities and adhere to legal and customary land rights. We engage with suppliers to help them meet policy requirements by supporting their forest certification efforts, providing technical assistance for sustainable forest management, and constructively address and prevent non-compliance.

MAINTAINING TRACEABILITY

APRIL's fibre sourcing due diligence system evaluates and mitigates risks. It prevents material from unacceptable sources from entering our supply chain per our responsible sourcing commitments. We start by tracing all wood and fibre source to its forest management unit (FMU). Since 2015, 100% of wood and fibre sourced for our pulp, paper, and viscose mill is traceable to its country of harvest. All Indonesian based supplies which represent 99% of our total supply is fully traceable to the FMU level.

SUPPLIER MONITORING AND DUE DILIGENCE

APRIL's risk assessment process evaluates suppliers' deforestation, conversion, and human rights risks against SFMP 2.0 requirements. Suppliers must comply with our wood and fibre sourcing policy, which includes commitments to HCV assessments, protection and conservation of forested areas, responsible peatland management, and other obligations. They must provide relevant documentation about the legality of the plantation forests, traceability, and compliance with environmental and employment regulations. Prior to entering into a contracting agreement with APRIL, every new supplier must:

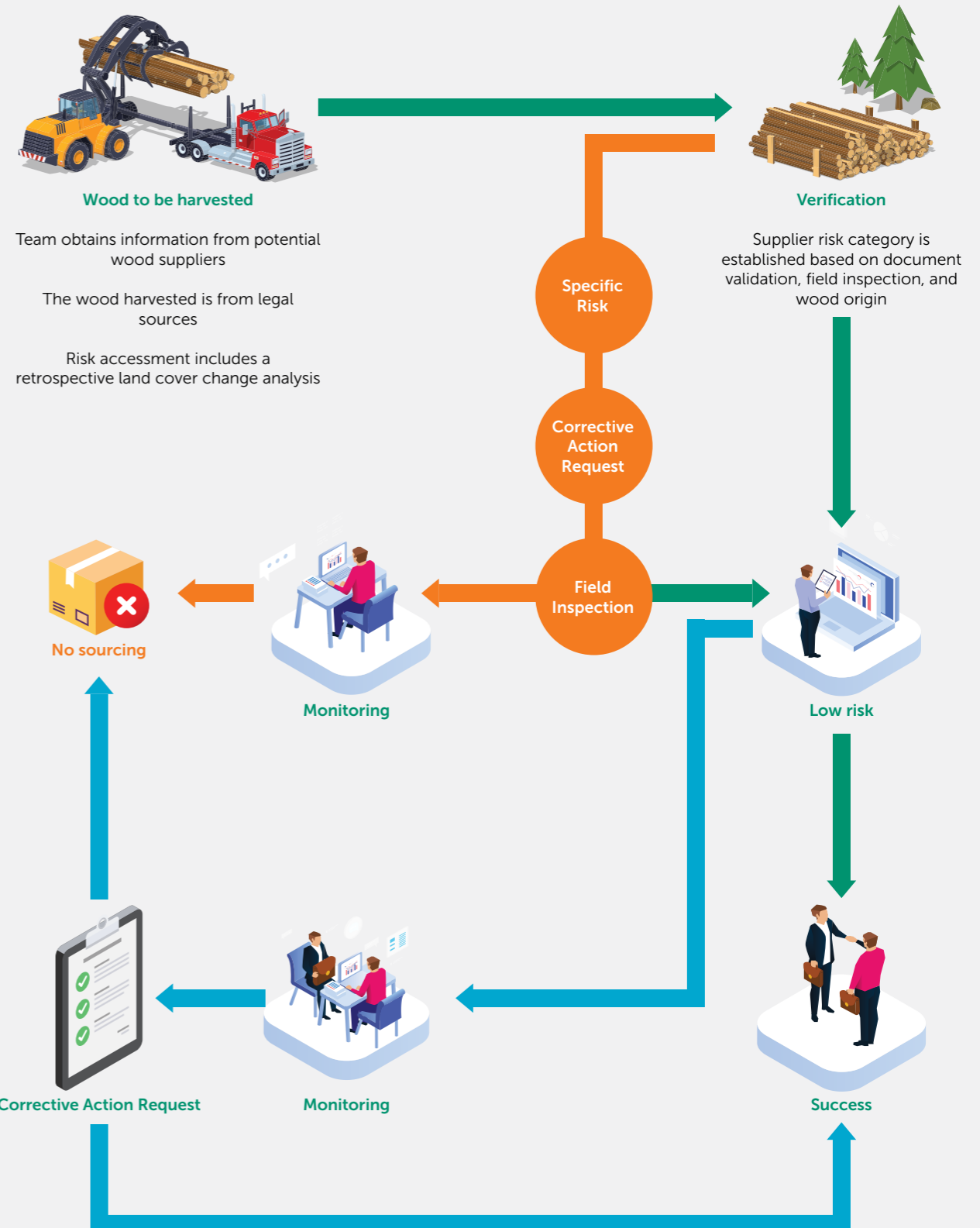
- Complete the SFMP 2.0 Compliance Self-Assessment Form
- Sign a commitment to comply with the APRIL SFMP 2.0 and the RGE Code of Procurement Ethics
- Provide documentation, including legal licenses and available certifications, digital data on land use and land cover in concession areas, HCV and HCS assessments completed after June 2015, and a publicly available No-Burn policy.

We conduct field inspections at supplier sites to ensure documentation is verified and up-to-date.

In 2023, 20 suppliers were assessed, including five new wood log and eight wood chips suppliers, for their environmental and social impacts through our due diligence system and wood legality assessments.

We maintain an up-to-date list of suppliers and maps of our concessions and make them publicly available on APRIL's [Sustainability Dashboard](#). APRIL's position on 'unacceptable' activities and our association and disassociation procedures for new and existing suppliers are also available on our dashboard per APRIL's [Policy for Association](#).

SUPPLIER ASSESSMENT APPROACH



7 This figure may differ from data available on the [APRIL Dashboard](#), as three 2023 open-market suppliers became supply partners in 2024.

RESPONSIBLE SOURCING

[GRI 2-6, 3-3, 204-1, 308-1, 308-2, 414-1, 414-2]

ENSURING NO DEFORESTATION IN OUR SUPPLY CHAIN

APRIL strives to exclude from its supply chain wood harvested in HCV forests and areas that have been destroyed or are at risk of being destroyed by suppliers' activities. We do not source wood harvested in areas converted from natural forest to plantation or non-forest use.

Supply partners are subject to HCV Assessments and have developed their own management and monitoring actions, which are detailed in the Conservation Forest Management Plan. This plan includes maps and a matrix of onsite actions implemented to protect forests and biodiversity from damage caused by illegal activities. APRIL and its suppliers conduct forest protection patrols, land-cover change analyses, and community outreach. We invite relevant stakeholders, including government authorities and local communities, to participate in these efforts. Our land-cover-change satellite monitoring system monitors suppliers for deforestation and ecosystem conversion to ensure no deforestation in our supply chain.

APRIL and its suppliers take remedial action when we detect forest disturbances. A third party independently assures long-term restoration plans and year-end restoration data annually.

> See: [land cover change monitoring \(p.61\)](#)

Response to EPN report: Pulping Borneo

In May 2023, the Environmental Paper Network (EPN) and other NGOs released a report alleging deforestation in APRIL's supply chain. However, this report references past claims of deforestation committed by two open-market suppliers, PT Fajar Surya Swadaya (FSS) and PT Adindo Hutani Lestari (AHL). APRIL thoroughly investigated these cases in 2018 and 2020, respectively, when concerns about PT FSS and PT AHL were first brought to our attention. An independent assessment of the claims did not identify the large-scale deforestation alleged during the period. However, it did reveal gaps in AHL's processes for avoiding the loss of minor amounts of secondary forest and small patches of natural forest during land recovery activities. These gaps were publicly reported and subsequently addressed by AHL.

Our SFMP 2.0 commitments have been in place since 2015 and apply to all our activities, including our 2024 expansion into paperboard production. We value critical feedback and constructive input from our stakeholders on implementing SFMP 2.0.

> See our [response to the Pulping Borneo report on APRIL Dialog](#)

Response to EPN report: Deforestation Anonymous

In March 2024, the Environmental Paper Network (EPN) and other NGOs jointly issued a report alleging APRIL as one of the companies sourcing from a supplier associated with deforestation and peatland conversion. However, subsequent investigations revealed that the assertions concerning corporate affiliations were unsubstantiated, as APRIL has no supplier relationship with PT Mayawana Persada.

> See our [response to the Deforestation Anonymous report on APRIL DIALOG](#)

A CERTIFIED SUPPLY CHAIN

Depending on its origin, APRIL's wood supply is certified with PEFC and government sustainable forest management standards (i.e. *Pengelolaan Hutan Produksi Lestari /PHPL* and *Sistem Verifikasi Legalitas Kayu /SVLK*) demonstrating our commitment to responsible sourcing.

As of 2023, 81.4% of wood log sourcing come from PEFC certified sources. The remaining meets PEFC controlled sources, ensuring there is no material from controversial sources.

SUPPLIER ENGAGEMENT

We engage with suppliers to ensure they understand our policy commitments, work closely with them to address policy breaches and help them meet the requirements of sustainable certification schemes. When breaches occur, we constructively engage with them to resolve and prevent further non-compliances by developing and agreeing on corrective action plans, listing the steps and establishing a timeline to remedy unacceptable activities. We track the implementation and results of these action plans using a robust and transparent monitoring mechanism.

Non-compliances and progress towards their resolution are logged in our Grievance Mechanism and reported to the Stakeholder Advisory Committee (SAC).

