



10 YEARS

in the **LEUSER**
ecosystem

**A Rainforest Frontier Driving a New Era
of Landscape Conservation**



**RAINFOREST
ACTION NETWORK**

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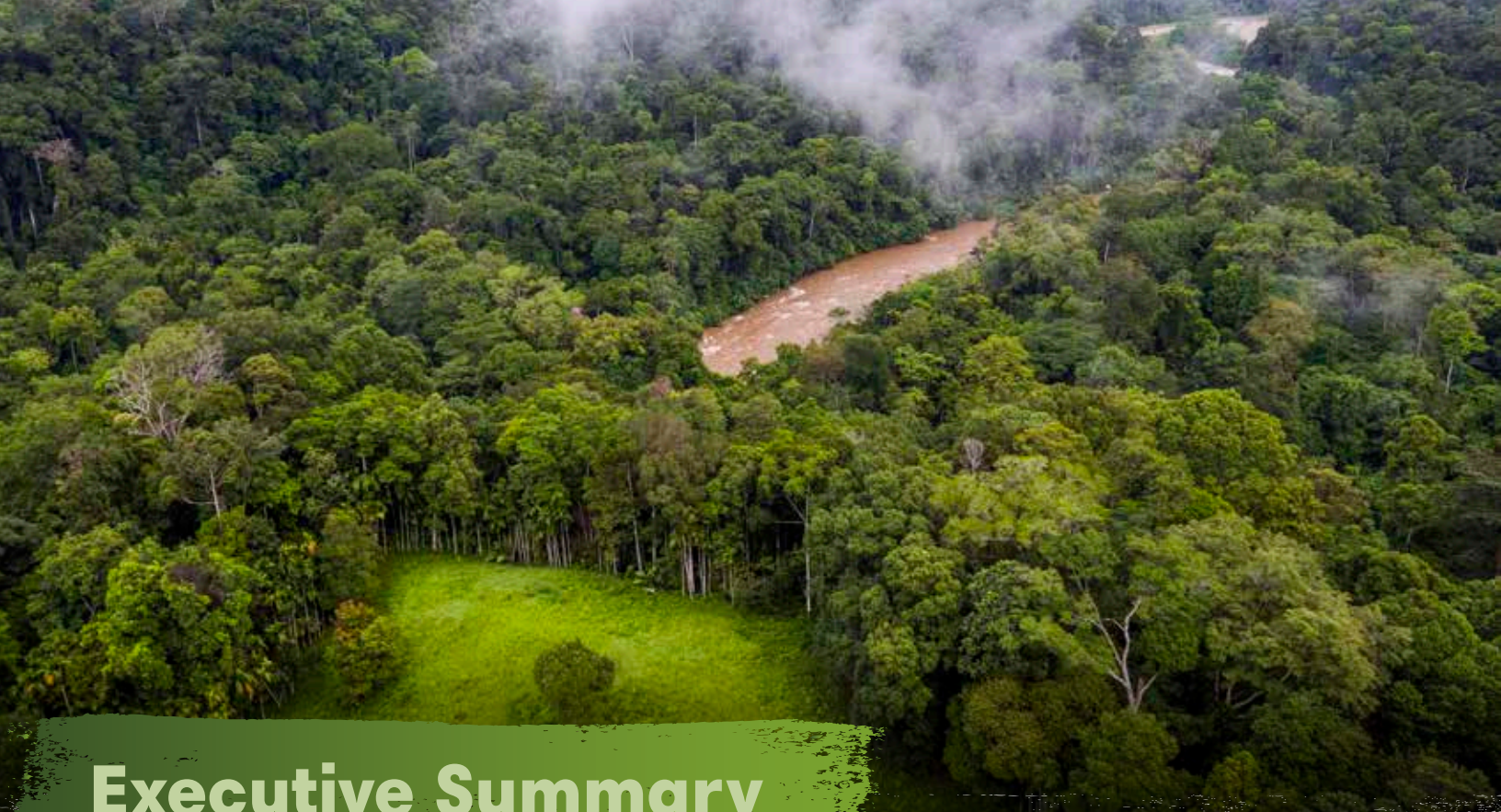
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Sumatran tiger. **PHOTO:** Paul Hilton
COVER PHOTO: Nanang Sujana





Executive Summary

Indonesia’s Leuser Ecosystem, a globally significant rainforest spanning over 6.5 million acres in Sumatra, Indonesia, is the last place on Earth where critically endangered wildlife species like Sumatran orangutans, tigers, elephants, and rhinos coexist in the wild. Beyond its extraordinary biodiversity, the Leuser provides essential resources for millions of people and serves as a vital carbon sink. The forests and mountains of the Leuser region encompass customary lands of spiritual significance for many communities, including the Gayo, Alas, Kluet, Aneuk Jamee, and Karo peoples. Yet, despite its irreplaceable value, the ecosystem faces relentless destruction mainly driven by industrial palm oil expansion.

Rainforest Action Network (RAN) has fought to protect the Leuser Ecosystem from deforestation for over a decade. In 2012, RAN responded to an urgent plea from Indonesian allies as fires, deliberately set to clear land for oil palm plantations, ravaged the lush, orangutan-filled rainforests of the Tripa peat swamp. This marked the beginning of a sustained campaign targeting the corporate actors responsible for the destruction. Palm oil expansion has driven illegal land clearing, habitat destruction, and human rights violations. RAN conducted field investigations,

satellite monitoring, and supply chain tracing to expose these connections, ultimately proving that major global brands, agribusiness traders, and banks were complicit in deforestation.

RAN mobilized public pressure on corporations like Nestlé, PepsiCo, Unilever, and Mars to eliminate deforestation-linked ‘Conflict Palm Oil.’ Thousands of consumers participated in actions ranging from online advocacy to direct protests at corporate headquarters and shareholder meetings. High-profile media coverage helped propel the Leuser crisis into the global spotlight. As a result of these efforts and international exposure of the palm oil-driven deforestation crisis, over 200 major brands, traders, and banks adopted No Deforestation, No Peatlands, and No Exploitation (NDPE) policies, committing to clean up their supply chains. However, policy enforcement remains weak, and palm oil-linked deforestation persists.

Despite ongoing threats, there have been significant victories. Since 2014, deforestation rates in the Leuser Ecosystem have declined, due in part to corporate

PHOTOS: Paul Hilton

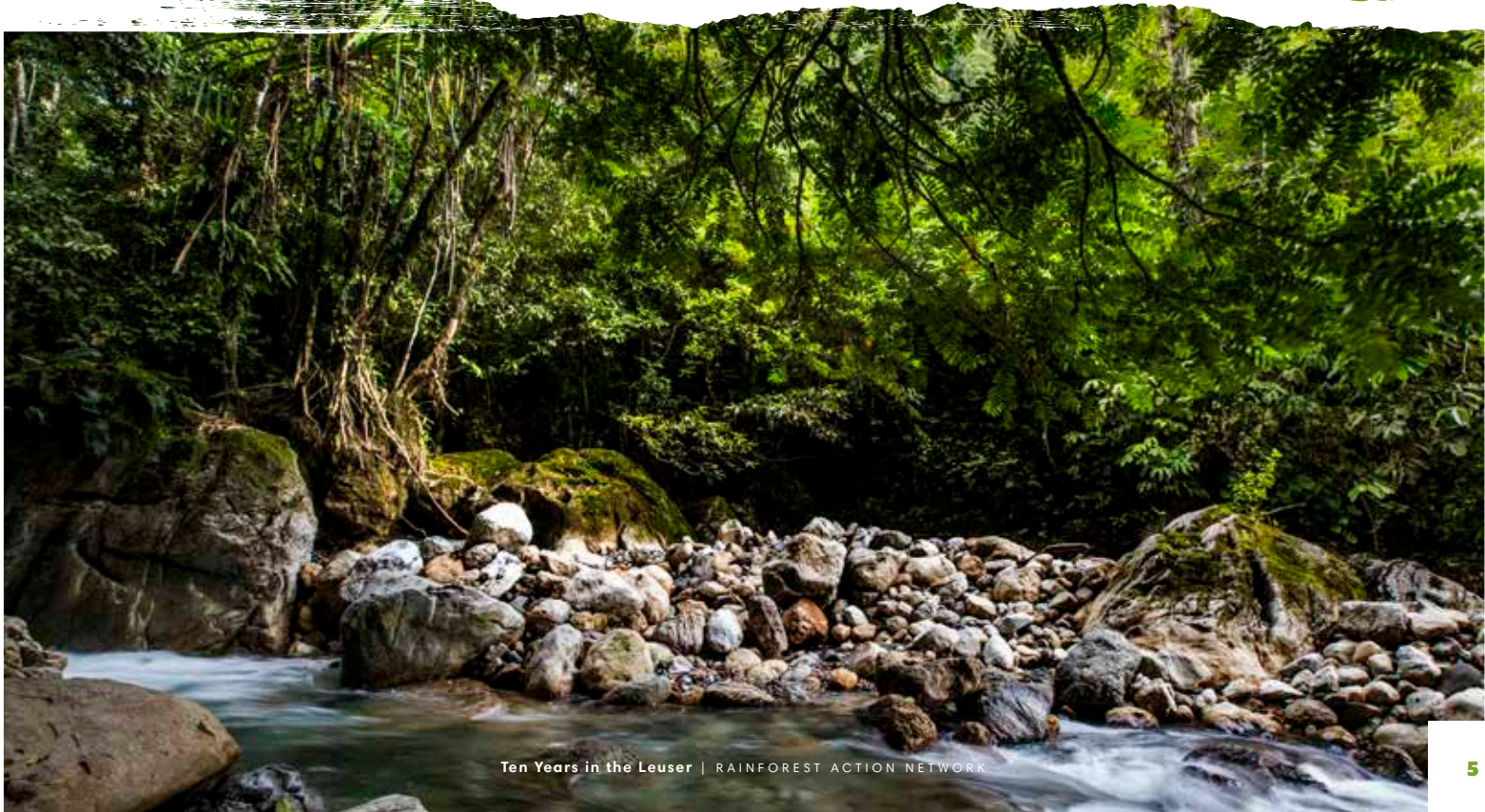
pressure on palm oil suppliers in the region, government moratoriums, and multistakeholder conservation and community livelihood programs. In Aceh Tamiang, a jurisdictional initiative launched in 2019 has restored thousands of hectares of forest and reduced illegal land clearing. Other districts are following suit, showing that large-scale solutions can work when companies, governments, civil society, communities, and smallholder farmers collaborate.

Yet, the fight to protect the Leuser Ecosystem is far from over. Many corporate commitments remain unfulfilled, and loopholes in enforcement allow deforestation to continue. Brands’ supply chains remain at risk of being tainted with illegal palm oil. Banks and investors continue to finance companies engaged in destructive palm oil production or trade. Consumer pressure remains critical to ensuring corporations follow through on their promises

to end their role in driving destruction for palm oil. New models of collaboration are needed to implement these commitments at scale, support governments as they strengthen policies that recognize Indigenous land rights and customary forests, and enforce environmental laws in protected areas that remain under attack from illegal palm oil development.

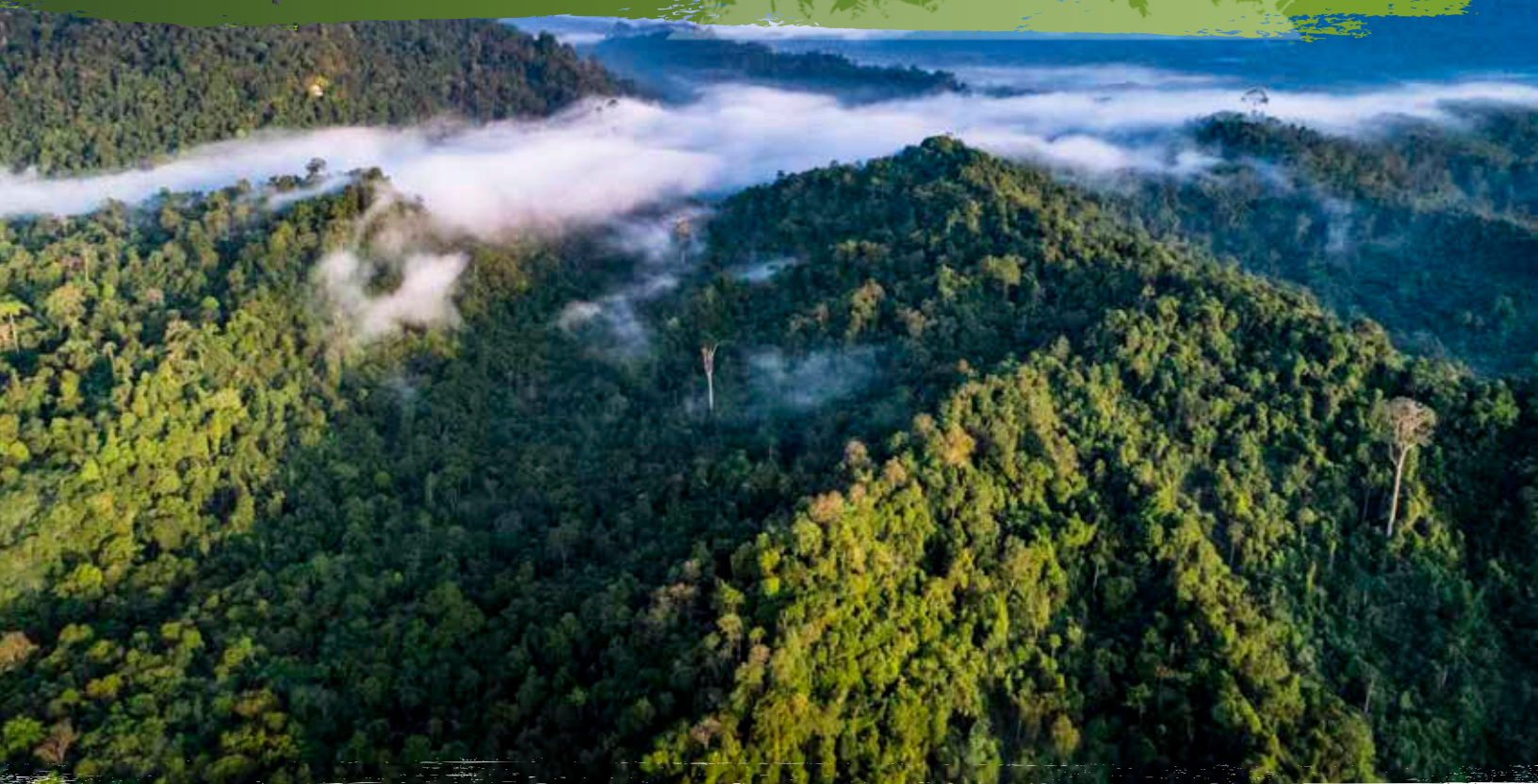
The Leuser Ecosystem stands at a crossroads — either it becomes a success story for conservation and community land rights that provides a scalable model for application in other regions, or it is lost, piece by piece, another casualty of unchecked corporate greed. Only through continued vigilance, private and public policy reform, and credible corporate accountability systems can we ensure this irreplaceable rainforest remains intact for future generations under the stewardship of community custodians who have protected their lands for millennia.

What has already been lost is incalculable, but here, in this special place, remains a rare opportunity to **stop the cycle of destruction and protect a globally valuable treasure before it’s too late.**



The Leuser Ecosystem:

A Global Conservation Priority



Can you picture a rhinoceros in the rainforest? Add a herd of elephants, families of orangutans swinging through the treetops, and tigers prowling the understory, and there is only one place in the world you could be. Indonesia's Leuser Ecosystem is one of Earth's most ancient forest ecosystems, a lush jungle containing some of the world's richest levels of biological diversity.

Located on the island of Sumatra, Indonesia, the Leuser stretches over 2.6 million hectares (6.5 million acres), including dense lowland and mountainous rainforests and over 186,155 hectares (460,000 acres) of swampy, carbon-rich peatlands. Scientists and conservationists consider the Leuser Ecosystem to be among the most important forests left in Southeast Asia, making the region a global conservation priority.¹ Quite literally, losing the Leuser Ecosystem would mean losing many iconic wildlife species forever.

With more than a century of proud conservation history by the Acehnese people responsible for its continued existence,² the province of Aceh, where large parts of the Leuser reside, is, against all odds, a sparkling jewel of intact tropical forest standing in stark contrast to the devastated landscape that surrounds it. Today, the livelihoods of millions of people living in Aceh³ and the neighbouring province of North Sumatra rely heavily on clean water, forest resources, and other environmental services provided by the Leuser Ecosystem.

Most of Sumatra — once known as Indonesia's "Emerald Island" — and sadly, much of the rest of lowland rainforests across Indonesia, too, have been exploited and denuded by wave after wave of scorched earth, industrial, colonial extraction, and modern-day corrupt corporate greed. What has already been lost is incalculable, but here, in this special place, remains a rare opportunity to stop the cycle of destruction and protect a globally valuable treasure before it's too late.

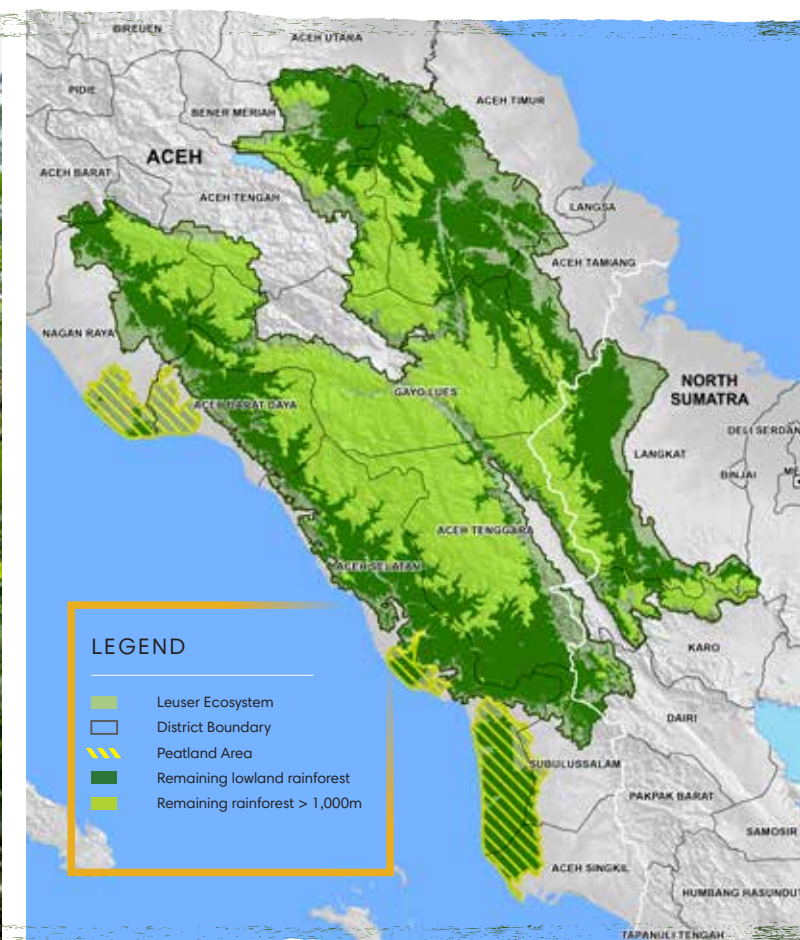
By 2007, RAN had identified Indonesia as a global hotspot for deforestation and human rights violations driven by corporate demand for cheap commodities, especially palm oil and pulp and paper. The focus of RAN's forest conservation work shifted to the region to expose and pressure major corporate sectors to stop the destruction. Then, in early 2012, RAN received an urgent call from allies in Indonesia: a human-caused inferno was quickly incinerating a globally important rainforest ecosystem called the Tripa peat swamp within the Leuser Ecosystem, and the situation demanded immediate international attention.

We quickly learned that the unnatural and illegal fires were started intentionally to clear the land⁴ for industrial palm oil development. We also learned that dozens of critically endangered Sumatran orangutans were being killed directly by the flames, and dozens more were losing their habitat forever. Further, the deep peat of this ecosystem

was releasing catastrophic quantities of carbon pollution into the atmosphere, and the smoke was sickening thousands of people across the region.

Thus began a decade-plus, multifaceted, all-out effort when RAN entered the campaign to put the Leuser Ecosystem on the map of the global imagination and to leverage consumer action to pressure multinational food and consumer goods giants, as well as financial institutions, to end their role in driving deforestation for palm oil. Achieving systemic change in the status quo of a complex, multi-billion-dollar supply chain like palm oil requires pressure from many sides to change the practices of interconnected actors worldwide. So, after tracing the oil up the chain, we designed a people-powered pressure campaign that would start at the top and push new practices down through the actors involved, all the way back to the ground where the bulldozers were tearing through the forest.

PHOTOS: Nanang Sujana; Paul Hilton



The Urgent Crisis of Conflict Palm Oil



Palm oil touches our lives every time we visit the supermarket. Palm oil and its derivatives are ubiquitous, found in roughly half of all packaged goods, and used in a wide array of processed foods, as well as personal care and home cleaning products, including ice cream, cookies, crackers, chocolate products, cereals, breakfast bars, cake mixes, doughnuts, potato chips, instant noodles, frozen sweets and meals, baby formula, margarine, and dry and canned soups, as well as shampoos, soaps detergent, and even toothpaste and cosmetics.

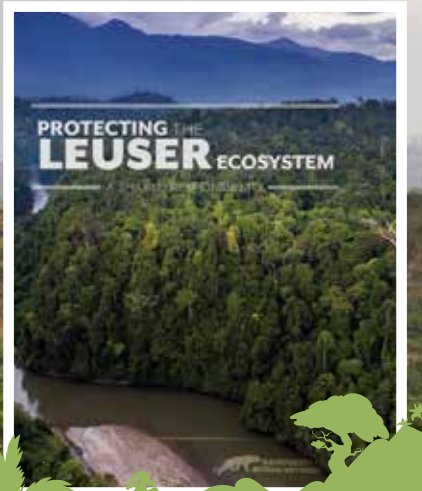
In recent decades, the dramatic and growing demand for this vegetable oil has pushed sprawling palm oil plantations deep into some of the world's most valuable rainforests. Roughly 85% of global palm oil production occurs in Indonesia and Malaysia.⁵ Palm oil production is now one of the leading causes of rainforest destruction around the globe and is also responsible for widespread human rights violations, as corporations often forcefully remove Indigenous Peoples and rural communities from their

lands.⁶ Tragically, child labor and modern-day slavery are all too common on palm oil plantations in Indonesia and Malaysia.⁷ However, palm oil is not only a problem at the plantation level. The clearing of rainforests and carbon-rich peatlands for new plantations is releasing globally impactful quantities of carbon pollution, making palm oil production a major driver of human-induced climate change.⁸

RAN released our first major report about palm oil-driven destruction in the Leuser Ecosystem in November 2014, titled *The Last Place on Earth — Exposing the Threats to the Leuser Ecosystem: A global biodiversity hotspot deserving protection*.⁹ RAN's investigators found that palm oil grown at the expense of lowland rainforests and carbon-rich peat forests inside the Leuser Ecosystem entered global supply chains and made its way into products lining grocery store shelves worldwide. This report connected the dots, named the companies responsible for destroying the Leuser Ecosystem, and identified emerging threats to the ongoing protection of this priceless ecosystem.



THE LAST PLACE ON EARTH



Early in RAN's campaign, we recognized the importance of emphasizing that palm oil in and of itself is not fundamentally the problem.¹⁰ Large areas of degraded lands are available for development, and tremendous opportunities exist to increase efficiency and production volumes on already established plantations or smallholder farms managed by local communities. The crisis stemmed directly from the global demand for artificially cheap palm oil and reckless, often illegal, burning and clearing of irreplaceable primary and secondary rainforests and peatlands to establish industrial-scale monocrop plantations by palm oil companies.



PHOTOS: Nanang Sujana; Paul Hilton

To clarify that RAN’s campaign was against rainforest destruction and human rights abuses, and not against palm oil as a commodity, RAN coined the term ‘Conflict Palm Oil.’¹¹ Conflict Palm Oil is oil connected to illegal clearing, habitat destruction, land grabbing, community conflicts, and labor violations. In contrast, genuinely responsible palm oil has fully traceable origins and is verified by third parties to be free of rights abuses, deforestation, and peatland draining.

RAN’s campaign has focused on pressuring the big global brands driving skyrocketing international demand for

palm oil, which has become the world’s most widely used vegetable oil. From the start, our demands have been for these influential companies to issue public policy commitments to cut Conflict Palm Oil from their products, which includes an insistence that their suppliers meet the complete requirements of genuinely responsible palm oil.¹²

It was clear that existing palm oil certification standards and so-called ‘sustainable palm oil’ policy commitments from companies were flatly failing to stop the forests from falling.¹³ It was also clear that winning site fights for individual forest areas was impractical over the long term

and that uncoordinated pledges from individual companies were insufficient to address the scale of the problem. RAN knew the only thing that could save the Leuser was systemic change across the sprawling, multibillion-dollar, international palm oil sector.

So, RAN worked alongside many allies to establish a new benchmark standard for responsible palm oil sourcing.¹⁴ Dubbed “NDPE” (No Deforestation, No Peatlands, No Exploitation), this new standard emphasized the importance of protecting human rights and including climate impacts, as well as ending deforestation and new

development on carbon-rich peatlands.¹⁵ After many years of campaigning, investor advocacy, and consumer outcry, hundreds of companies, from producers to traders to major brands and banks, have now publicly adopted NDPE policies. **The make-or-break factor for Leuser’s forests has come down to how thoroughly and consistently companies implement and invest in monitoring and enforcing these NDPE policies where it matters most — on the frontlines of palm oil expansion.**

Palm oil is a juggernaut of an industry, including thousands of ground-level producers, with rows of monocrop plantations spread over vast, remote areas. Producers truck their perishable fresh fruit bunches to nearby brokers, then to regional mills and refineries, and on to a relatively small handful of major corporate traders, before being sold and shipped via massive ocean-going tankers to ports around the world. From there, thousands of food and consumer goods companies chemically transform the oil into dozens of fractionations, going by dozens of different ingredient names which are ultimately incorporated into tens of thousands of packaged products. Added to this mix is a global web of large banks providing critical finance to actors across the supply chain.

Smallholders: family farmers who grow and harvest palm oil on their lands, which are less than 6 hectares/15 acres.

Palm oil producers: companies that produce palm oil inside government-allocated concessions.

Processors/Traders: including mills and refineries, these are companies that process and/or ship palm oil products from the place of production in Indonesia to the place of consumption in global supply chains.

Brands: well-known companies that use palm oil products to manufacture consumer goods.

Banks: financial institutions that provide financial services to palm oil companies, traders, and brands.

The clearing of rainforests and carbon-rich peatlands for new plantations is releasing **globally impactful quantities of carbon pollution**, making Conflict Palm Oil a **major driver of human induced climate change**.

PHOTO: Nanang Sujana

The Global Palm Oil Supply Chain:

From the Leuser to Grocery Store Shelves



TRADERS



BRANDS



BANKS



Ten Years of Investigating Deforestation, Exposing Scandals, Connecting Dots, and Naming Names



After identifying the imminent threats facing the Leuser Ecosystem, RAN set out to elevate this internationally important landscape alongside more famous natural treasures like the Amazon and the Great Barrier Reef. We published deeply researched reports documenting the extraordinary ecological, social, and climate values of the region.¹⁶ We hired world-renowned wildlife and landscape photographers to collect National Geographic-worthy imagery of the forest's extraordinary biodiversity and land forms. We collaborated with celebrated artists to create compelling, image-driven campaigns highlighting the high stakes in the Leuser Ecosystem. We contracted tech firms to procure unprecedented, high-resolution satellite imagery to detect and document deforestation in remote areas in real time.¹⁷ We conducted deep investigations into remote, hard-to-access areas on the frontiers of palm oil plantation expansion in the Leuser Ecosystem, exposing fresh scandals

of illegal palm oil development. We used GPS, drone technology, and international shipping data to follow palm oil through its supply chain and connect the dots from points of destruction all the way to familiar, brand-name products that global consumers recognize by sight.

At the beginning, we had to explain to reporters and supporters alike, from the bottom up, what palm oil even was and why it was a problem. But as we reached wider and wider audiences we were able to begin to tell deeper and more nuanced stories that pushed the plight of the Leuser Ecosystem further into the mainstream, where it became harder and harder for companies implicated in the destruction to ignore or greenwash their way out of meaningfully engaging with us on the issue.

PHOTO: Paul Hilton

To distribute and house all of this desktop research, satellite imagery and findings from our field and supply chain investigations, we established a watchdog web platform called Leuser Watch.¹⁸ We published regular updates exposing the complicity of major brands, traders, and banks in the destruction we were documenting. We exposed the palm oil plantation companies driving bulldozers into the forest frontlines in the Leuser Ecosystem, or failing to resolve long-standing conflicts with local communities fighting for their lands and livelihoods. Then, using all of this evidence, we cultivated relationships with key investigative journalists, influencers, and media outlets to tell these stories to the world. We have worked closely with reporters on dozens of earned media stories that have appeared in Reuters, CNN, The Guardian, National Geographic, Vice, Tempo, Mongabay, and many others.

Perhaps most famously, the story of palm oil destruction in the Leuser Ecosystem was featured prominently in Leonardo DiCaprio's climate change film *Before the Flood*, which became one of the most widely viewed documentaries in history. DiCaprio and other world-famous figures have since visited the region, helping to secure crucial conservation funding and using their voices and platforms to expand awareness of the incredible importance of this endangered landscape. While the Leuser may never be a household name, RAN and our many allies have been successful in rapidly raising the profile of this ecologically critical region to a scale that has forced scrutiny of business-as-usual corporate practices in the area and helped usher in a new era of accountability, transparency, and investment in the long term health of the region.



HIGH RESOLUTION IMAGERY showing the forest cover in June 2016. This imagery was used to determine the extent of deforestation after the palm oil sector cut-off dates of December 2015.

Imagery provided by Triple satellites @21 AT (June 2016). Imagery is available on Nusantara Atlas which is powered by [TheTree Map](#).



HIGH-RESOLUTION IMAGERY showing illegal deforestation and palm oil plantations inside the Rawa Singkil Wildlife Reserve in the Leuser Ecosystem.

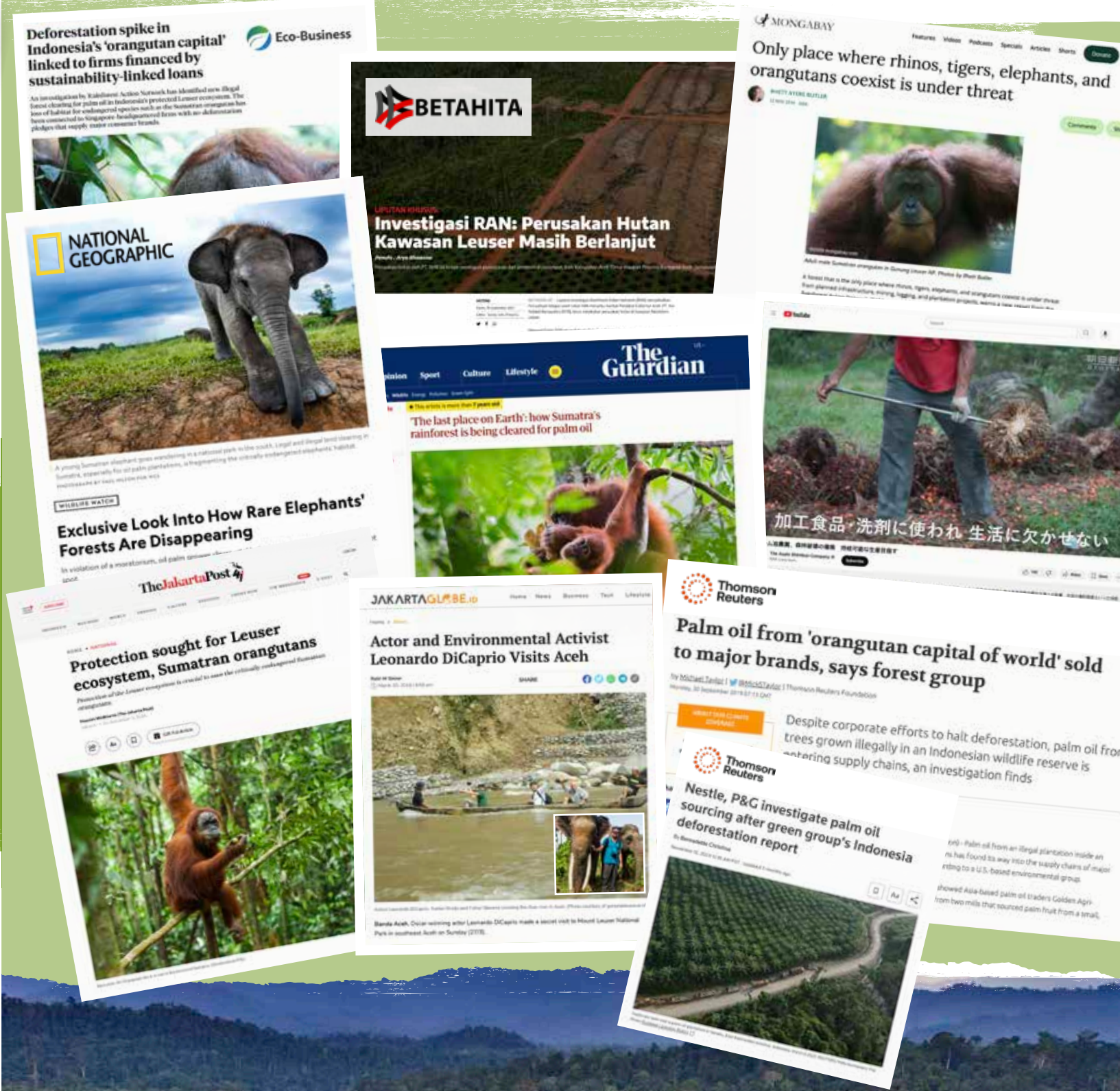
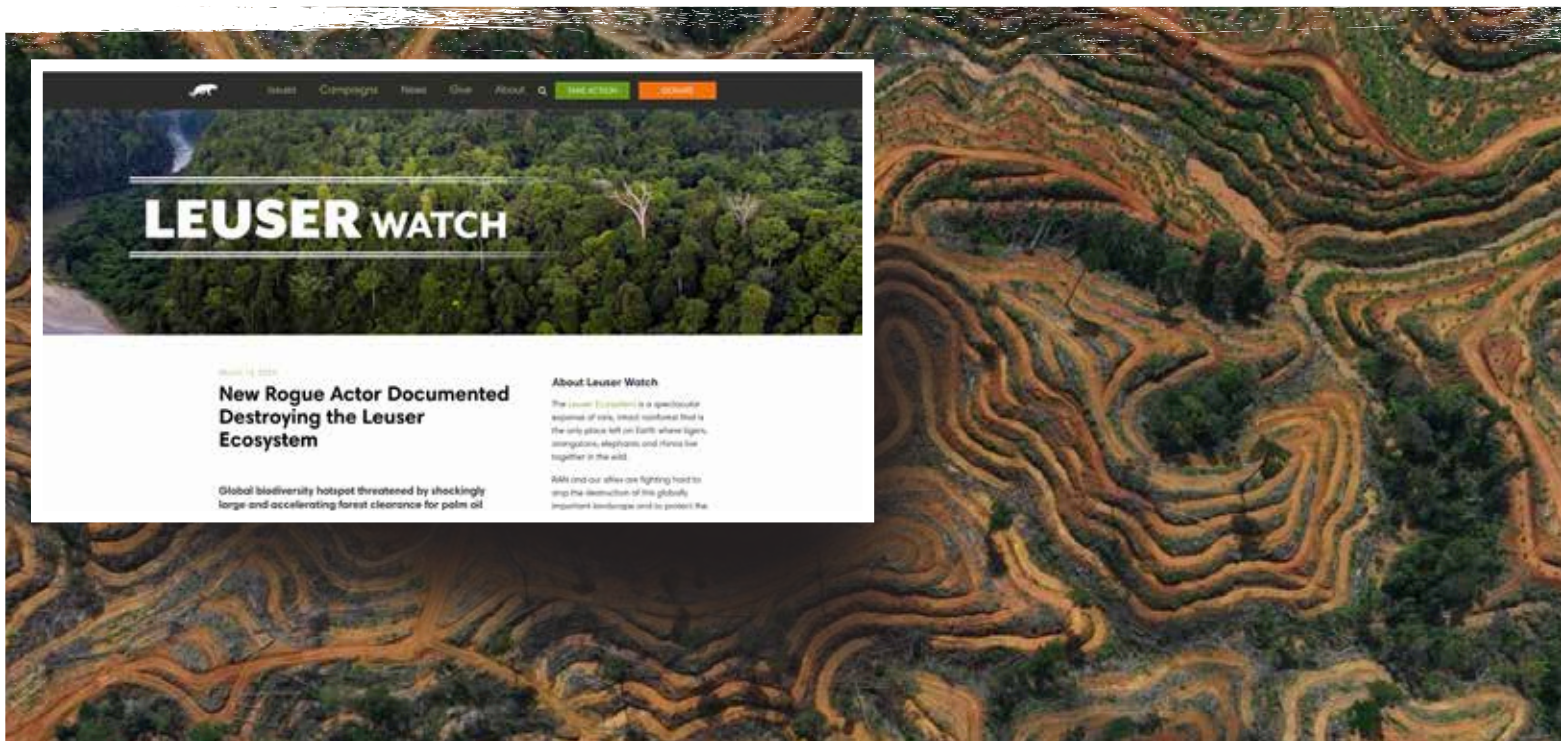
Imagery provided by @Airbus DS (July 2024) using Pléiades Neo satellites. Imagery is available on Nusantara Atlas which is powered by [TheTree Map](#).



Top officials in Indonesia declared a moratorium on new oil palm and mining concessions in the Leuser Ecosystem. April 20, 2016. PHOTO: Indonesia's Ministry of State Secretariat



While the Leuser may never be a household name, RAN and our many allies have been successful in rapidly raising the profile of this **ecologically critical region...** and helped usher in a new era of **accountability, transparency and investment in the long term health of the region.**



Ten Years of Grassroots Actions and Corporate Negotiations



RAN's initial desktop research into the drivers of destruction quickly eating away at the edges of the Leuser Ecosystem revealed that illegally produced palm oil and rapid, new palm oil plantation development were connected directly to the demand for cheap palm oil by many of the world's largest food and consumer goods brands. In 2013, RAN launched the "Snack Food 20" campaign targeting corporate giants PepsiCo, Unilever, Nestlé, Mondeléz, Mars, Nissin Foods, General Mills, The Kellogg's Company, and The Hershey Company.

With the "Snack Food 20" corporate actors identified, RAN reached out to the companies to present our evidence, alert them to the issues in their supply chains, and call on them to stop sourcing Conflict Palm Oil produced at the expense of the Leuser Ecosystem's threatened rainforests

and peatlands. Thousands of people joined our call by signing petitions, sharing videos, calling out brands on social media, and taking action by placing warning stickers on products containing tainted palm oil on grocery store shelves in their communities. We used this public pressure to get the world's biggest brands to the negotiation table, where we agreed on concrete actions they could take individually and collectively to address their role in driving Conflict Palm Oil expansion into the Leuser Ecosystem.

Faced with corporate decision-makers' inaction, we soon doubled down on companies lagging behind their peers. PepsiCo was a major laggard,¹⁹ so we deployed increasingly hard-hitting public campaign tactics to leverage people power and consumer outcry to pressure PepsiCo to come to the negotiating table.



PHOTOS: Nanang Sujana; Rashid Zakat; Chelsea Matthews



PHOTOS: Ayse Gürsöz; Rae Breaux, Brandi Mays
ARTWORK: Asher Jay; Innosanto Nagara / Design Action Collective; Free Range Studios

In 2016, RAN activists made headlines by deploying a 100-foot banner off of PepsiCo's iconic East River waterfront billboard facing the Manhattan skyline.²⁰ RAN facilitated Indonesian activists representing communities impacted by palm oil development to gain access to PepsiCo's annual shareholder meetings to tell their stories directly to the company's CEO and Board of Directors. After years of office disruptions, executive bird-dogging, billboard ads, and raising grievances directly to their sustainability teams, PepsiCo agreed to sit down with RAN²¹ and our allies at OPPUK and ILRF. Then, after further months of negotiations, PepsiCo announced a leading policy²² and committed to actions to address the impact of its palm oil supply chain in Indonesia. One of the commitments made was for PepsiCo to play a leading role in efforts aimed at securing long-term protection of threatened forests in the Leuser Ecosystem.²³

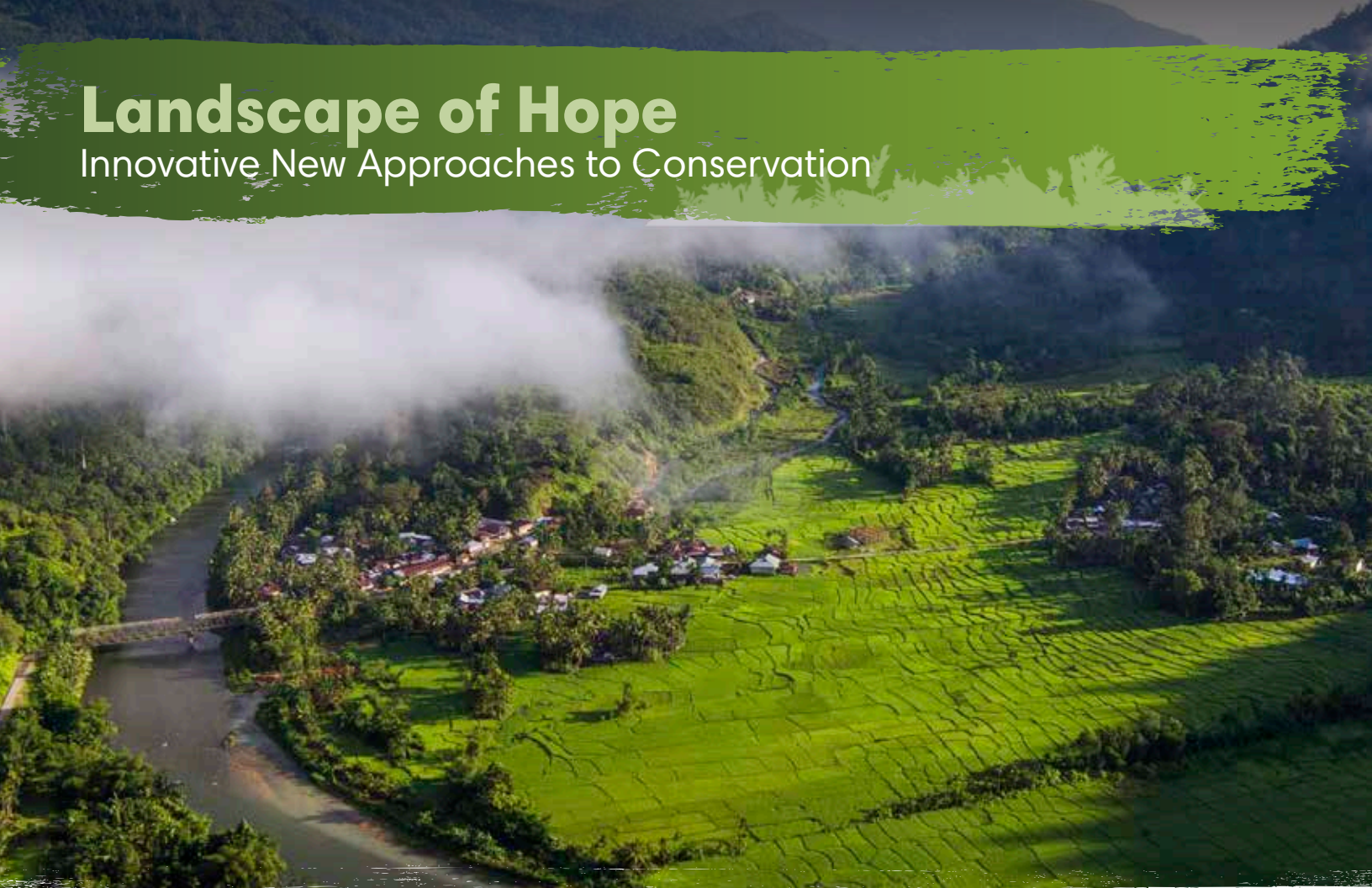
While PepsiCo was the first company to invest in establishing multistakeholder landscape programs in the Leuser Ecosystem, the company is not alone. Unilever was also an early leader²⁴ and other brands such as Colgate-Palmolive, General Mills, Mars, Mondeléz, Nestlé, Procter & Gamble, and The Hershey Company have followed suit with support for initiatives in Aceh and North Sumatra, the two provinces where the Leuser Ecosystem is located.

In addition to connecting brands to bad actors in their supply chains, we also followed the money in the other direction to reveal the major banks responsible for financing the companies causing the destruction. Banks financing traders demonstrably exposed to actors responsible for deforestation in the Leuser Ecosystem include Japanese megabank MUFG, Rabobank, UBS, HSBC, ING, Singapore's DBS, UOB, OCBC, BNP Paribas, and Malaysian banks Maybank and CIMB.²⁵



Landscape of Hope

Innovative New Approaches to Conservation

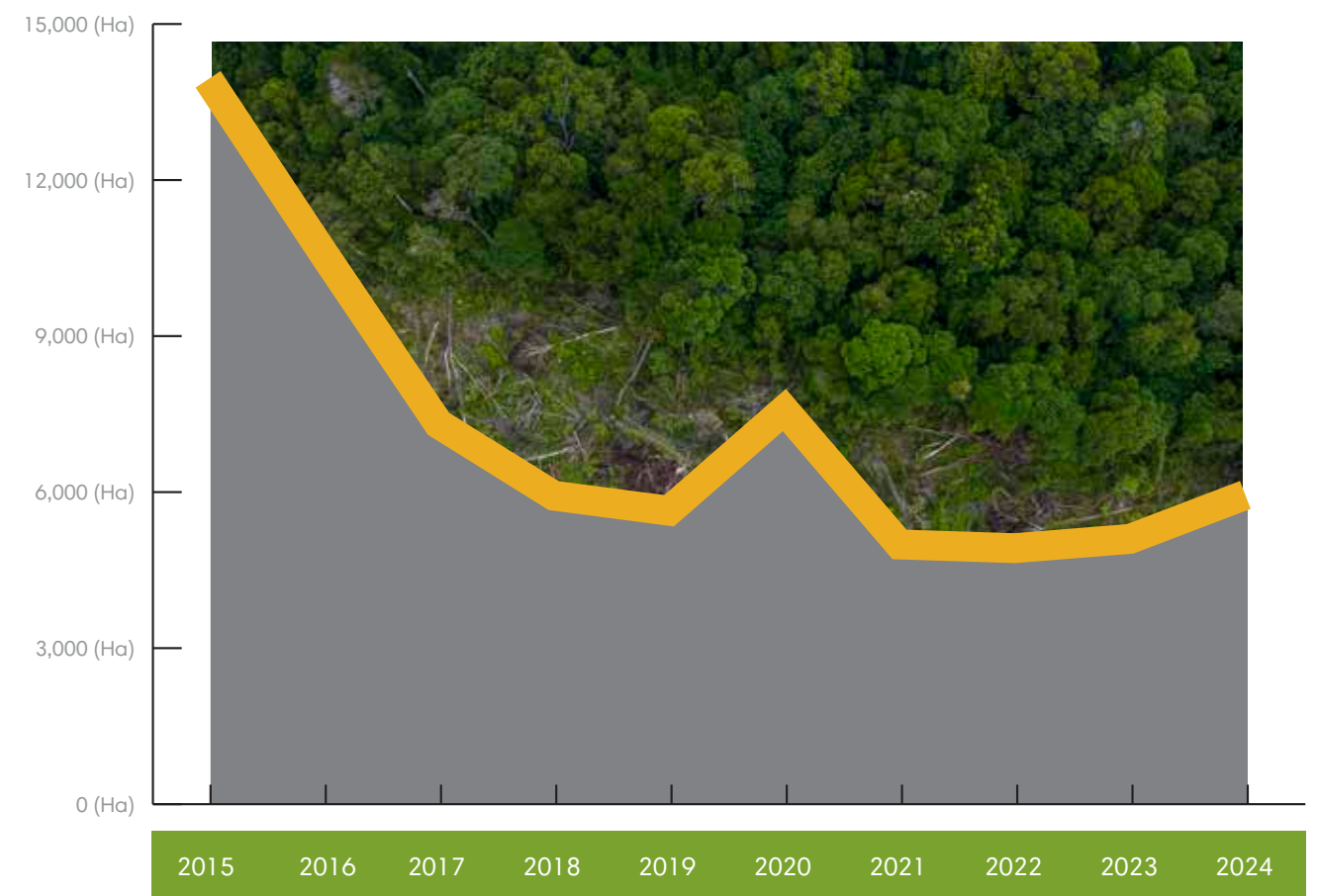


Since 2014, RAN has been pivotal in transforming conservation efforts across the Leuser Ecosystem — one of the world's most biologically diverse and threatened tropical rainforest landscapes. What began with a campaign to expose corporate links to deforestation has evolved into a model of landscape-level conservation grounded in accountability, collaboration, and long-term impact. By leveraging investigative reporting and supply chain transparency, RAN helped establish No Deforestation, No Peatland and No Exploitation (NDPE) policies as an industry standard. The adoption of NDPE policies contributed to a significant reduction in deforestation across the Leuser landscape, bolstered by palm oil moratoriums, strengthened enforcement, and government restrictions on new permits. Critical lowland rainforests that once faced imminent threat have been preserved, with companies once driving destruction now investing in solutions.

What has emerged is a new test for the idea of landscape conservation — one that goes beyond corporate commitments on physical supply chains to embrace jurisdictional and multi-stakeholder programs that bring governments, smallholders, and civil society to the table. In districts like Aceh Tamiang, collaborative forest monitoring systems, forest restoration, and community land rights and livelihood initiatives are not only slowing deforestation but setting new precedents for forest governance in Indonesia. We've learned that real change requires transparency, traceability, and transformation — not just of supply chains but of the systems that govern them. The Leuser Ecosystem has become both a proving ground and a beacon for rights-based, scalable solutions to global deforestation. The road ahead is clear: amplify collaboration, deepen accountability, be sure that paper promises are matched with meaningful long-term investments, and ensure communities are at the heart of rainforest protection.

PHOTOS: Paul Hilton

Deforestation within the Leuser Ecosystem (2014-2025)



* The graph above is showing the amount of deforestation within the Leuser Ecosystem in the province of Aceh, which is approximately 85% of the area of the Leuser Ecosystem. **SOURCE:** Landsat, Sentinel and Planetscope

The Leuser Ecosystem has become both a proving ground and a beacon for **rights-based, scalable solutions to global deforestation.**



Reduction in Deforestation in the Leuser Ecosystem

There has been an overall reduction of deforestation within the Leuser Ecosystem since 2014, when RAN established its monitoring program in the landscape. This reduction is, in part, due to numerous palm oil companies enacting moratoriums on forest clearance within their palm oil concessions after being exposed by RAN for violating the No Deforestation, No Peatland and No Exploitation (NDPE) policies of major brands, traders, and banks. The producers have adopted these policies to maintain access for the palm oil they produce to major traders and global brands.

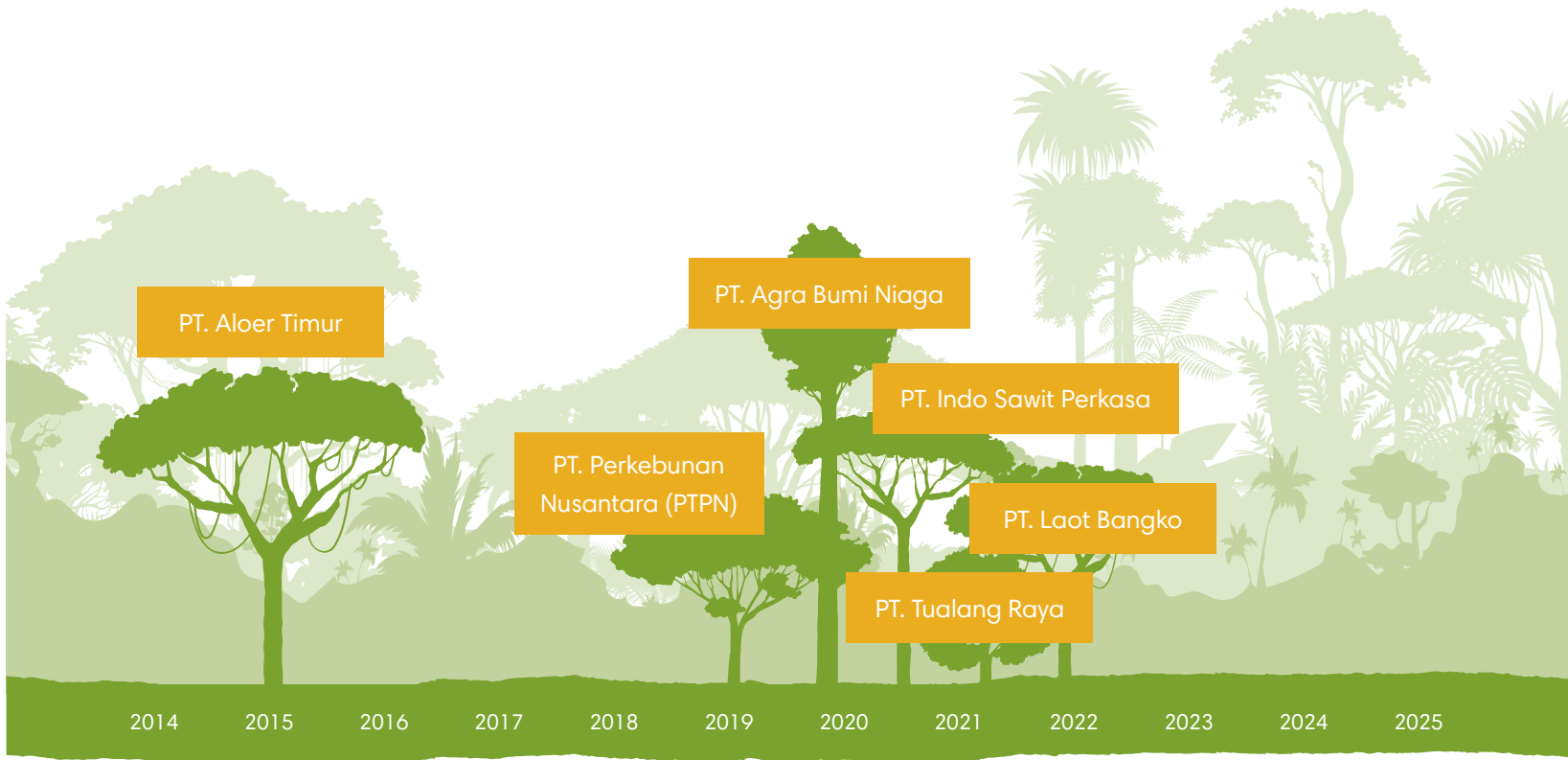
Other factors that have contributed to the reduction of deforestation include: a moratorium on the issuance of new palm oil permits that was enacted by the Indonesian and Aceh governments in 2016,²⁶ field level interventions by government and civil society organizations, such as increased forest patrolling and law enforcement, and early successes in the implementation of multistakeholder programs including those that have delivered alternative livelihoods for local communities.

Rise of No Deforestation, No Peatland, and No Exploitation (NDPE) Policies

Since 2015, a number of the most notorious palm oil producers in Aceh have adopted No Deforestation, No Peatland and No Exploitation (NDPE) policies after being exposed on Leuserwatch.org — RAN’s dedicated watchdog platform — for ongoing deforestation or destruction of peatlands within their concessions. These commitments protected critical lowland rainforests from conversion to palm oil plantations in the Leuser Ecosystem. The adoption of NDPE policies by these companies, and a significant number of palm oil mills, exposed for accepting deforestation-tainted or illegally produced palm oil, built the momentum needed to establish NDPE practices as the new norm amongst palm oil companies inside and surrounding the Leuser Ecosystem.

PHOTOS: Paul Hilton

Timeline of Adoption of NDPE Policies by Palm Oil Producers In Aceh



Investments in Landscapes - Leuser Ecosystem Developments as a Scalable Model

Perhaps the most hopeful trend is that many companies exposed for driving deforestation in the Leuser Ecosystem have taken a proactive approach to stopping Conflict Palm Oil from entering their supply chains by investing in multistakeholder initiatives that aim to protect the Leuser Ecosystem and reform the palm oil industry in Aceh and North Sumatra. Several of these programs involve thousands of smallholder farmers and the protection and restoration of lowland rainforests in the Leuser Ecosystem, threatened by palm oil expansion. This approach is notable as it represents a shift from only focusing on enforcing company NDPE policies in physical supply chains towards a broader strategy of collaborating to improve the practices of Aceh’s entire palm oil sector. This approach recognizes that collaborative action is needed to accelerate an end to deforestation for palm oil in Indonesia in a way that ensures the inclusion of smallholder farmers and government decision makers.

Unilever,²⁷ PepsiCo,²⁸ and Musim Mas Group²⁹ — one of Indonesia’s largest palm oil producers and traders — were early leaders in establishing jurisdictional programs alongside governments, civil society organizations, and smallholder farmer groups in the two provinces. Colgate-Palmolive,³⁰ General Mills,³¹ Mars,³² Mondeléz,³³ Nestlé,³⁴ Procter and Gamble,³⁵ and The Hershey Company³⁶ have also contributed to projects in the region via their involvement in the Coalition for Sustainable Livelihoods, RIMBA-Collective, or contracts with project partners such as international NGOs. Musim Mas stands out as the trader that has made the most significant contributions. It has worked alongside a number of its clients to secure US\$1.7 million in funds for projects in Aceh since 2014 and recently announced a commitment to provide a further \$300,000 for government-led landscape programs in Aceh.³⁷ Palm oil trader Apical — of the Royal Golden Eagle Group — has supported the establishment of a program in the district of Aceh Singkil in south Aceh.³⁸ Other palm oil traders, Golden Agri Resources (GAR),³⁹ Wilmar,⁴⁰ and AAK⁴¹ have contributed to projects implemented by their suppliers⁴² or NGO partners and/or hosted trainings for suppliers.⁴³

As shown in the timeline on page 30, the first multistakeholder jurisdictional program was established in Aceh Tamiang in 2019, a key sub-district of Aceh where the Eastern lowland rainforests of the Leuser Ecosystem are located.⁴⁴ Deforestation has fallen to unprecedentedly low levels since a system of collaborative forest monitoring and field response was established covering an area of 48,000 hectares (118,610 acres) of forests in 2021. Since 2017, over 5,100 hectares (12,602 acres) of land have been restored in the district. At least 929 hectares (2295 acres) of these areas have been restored via collaborative efforts in this one landscape program. Roughly 25,000 hectares (61,776 acres) of forests surrounding these restoration areas have also benefited from increased protection. 55,000 hectares (136,000 acres) of forests have been designated as “No-Go Areas” for palm oil development following a large-scale assessment that identified areas with High Conservation Values⁴⁵ and High Carbon Stock forests⁴⁶ — areas that must be protected from deforestation.



PHOTOS: Paul Hilton

Given the importance of smallholder farmers in the palm oil sector in the district, programs have also focused on supporting family farmers in gaining legal titles to their lands and certification under Indonesian and global palm oil certification programs. Collective efforts are also underway to establish improved mechanisms to resolve long-standing conflicts between local communities and palm oil companies. While these efforts are still in early stages, they are critical to delivering an end to the violation of the rights of customary and local communities and to finding new ways to center communities in the long-term protection and management of their forests.⁴⁷

The success of the landscape coalition in Aceh Tamiang has inspired fresh partnerships in other forest-risk districts that have been the frontlines of deforestation for palm oil in the Leuser Ecosystem, such as Aceh Timur and Aceh Singkil, and more recently at a province-wide level in Aceh. These programs hold promise as they enable No Deforestation, No Peatland and No Exploitation (NDPE) practices to be implemented across entire jurisdictions, not just by individual producers selling commodities into global supply chains. The program in Aceh Timur can potentially protect over 250,000 hectares (618,000 acres) of threatened forests

with High Conservation Values, including a critical habitat corridor for a herd of over 200 Critically Endangered Sumatran elephants.

Given the central role of governments in the approaches, jurisdictional programs hold the key to improving forest governance systems and securing legal recognition of the rights of Indigenous communities to protect and manage their customary forests. With the new traceability and responsible sourcing requirements required by the European Union Deforestation Regulations (EUDR) on importing businesses, there is increasing interest from big brands to see if landscape and jurisdictional initiatives can support the transformation of traceability systems and address human rights and controversies stemming from conflicts between companies and communities.

While these programs are encouraging, it must also be understood that jurisdictional approaches are not a silver bullet. Brands need to enforce their NDPE policies throughout their supply chains — and across the operations of their suppliers and business partners — in addition to scaling up investments in rights-based landscape programs.

Since 2017, over **5,100 hectares (12,602 acres)** of land has been restored to forests in the district of Aceh Tamiang, in part, due to collaborative efforts in Aceh’s first multi-stakeholder landscape program.



PHOTOS: Forum Konservasi Leuser (FKL)



Timeline of the establishment of multistakeholder initiatives in Aceh and the Leuser Ecosystem



PHOTOS: Paul Hilton

2019

- Landscape program established by district government in Aceh Tamiang
- Signing of Protection, Production and Inclusion (PPI) Compact and establishment of secretariat in Aceh Tamiang⁴⁸

2020

- PepsiCo announces commitment to working together to preserve the Leuser Ecosystem and support for program in Aceh Tamiang⁴⁹
- Unilever and IDH announce investments of over 1.5 million euros to support the program in Aceh Tamiang⁵⁰
- Aceh Government legalization of Aceh Green Growth Plan (Rencana Pertumbuhan Hijau Provinsi Aceh 2020-2050)⁵¹

2021

- Establishment of Deforestation Monitoring System and Field Verification Team in Aceh Tamiang

2022

- Establishment of an Acceleration Team of Sustainable Palm Oil Production in Aceh
- 372 farmers were RSPO certified
- 391 hectares of lands restored in Aceh Tamiang
- Large-scale High Conservation Value (HCV) and High Carbon Stock (HCS) Assessment Completed for Aceh Tamiang and Aceh Timur⁵²

2023

- Establishment of landscape program in Aceh Timur⁵³
- Signing of PPI Compact and establishment of Aceh Timur PPI Compact Secretariat
- 2,200 farmers were RSPO certified and ISPO certified⁵⁴
- Aceh Government legalization of Aceh Province Sustainable Palm Oil Roadmap⁵⁵ that commits to protect 250,000 hectares of forests.
- Piloting Deforestation Monitoring System for 6 priority villages covering 13,000 hectares in Aceh Singkil

2024

- Establishment of Programme Management Unit (PMU) in Aceh Province⁵⁶
- Establishment of landscape program in Aceh Singkil, signing of Landscape vision.⁵⁷
- Unilever and IDH announce ongoing collaboration for Eastern Leuser Ecosystem⁵⁸
- Establishment of Deforestation Monitoring System and Field Verification Team in Aceh Timur

2025

- Over 5100 hectares of lands restored in Aceh Tamiang
- Operationalization of PMU and Deforestation Monitoring and Grievance System in Aceh
- NDPE training in Aceh Timur
- PepsiCo issues commitment for ongoing support of programs in Aceh⁵⁹



The Leuser Ecosystem:

A Proving Ground for Transforming the Palm Oil Sector

The Leuser Ecosystem has been a testing ground for trialling innovative approaches that could be scaled up to realize responsible palm oil supply chains.

alongside traditional methods⁶¹ such as sourcing palm oil from certified suppliers via identity preserved or segregated supply chain systems. For example, Nestlé has improved its traceability in the region from 47% traceability to plantation during its first traceability exercise based on 2015 volumes to 91% traceability to plantation for all volumes in 2025. Mars claims to have achieved approximately 95% traceability to the plantation level in the region.

Since 2020, Nestlé,⁶² Unilever,⁶³ Colgate Palmolive,⁶⁴ and The Hershey Company⁶⁵ also undertook forest footprint⁶⁶ exercises to identify the potential impact their supply chains could have on the lowland rainforests in the Leuser Ecosystem. The rise of forest footprint assessments is important because when brands investigate and understand their physical supply chains — in addition to the forests at risk in the regions they source from — they can more effectively implement their sourcing policies and play a more significant role in efforts to stop palm oil expansion at the expense of rainforests or the rights of Indigenous communities and workers. Other brands like Colgate Palmolive, Kao, Mondeléz, Nissin Foods, PepsiCo, and Procter & Gamble still have a long way to go to achieve traceable supply chains and understand their physical supply chain and footprint in the Leuser Ecosystem.

A major lesson from ten years of implementing NDPE policies in the Leuser Ecosystem is that brands that are committed to addressing their role in driving deforestation into globally important forest landscapes must gain visibility and a deep understanding of their supply chains. Innovation is key to ensuring the inclusion of smallholders in supply chains and achieving traceability to the farm level.

Over the past decade, international market campaigns have established No Deforestation, No Peatland, and No Exploitation (NDPE) policies as the norm in the palm oil sector, and measurable progress is now advancing in implementing these policies in Indonesia. RAN set out to evaluate the progress made by a collective of the world's biggest brands and palm oil traders to implement their NDPE policies in the Leuser Ecosystem during this period. In early 2025, we sent surveys to brands and traders that requested information about the status of NDPE policy implementation in the Leuser Ecosystem and their involvement in landscape conservation programs in the region. We received responses from all the brands we contacted, and most traders, except Golden Agri Resources. The good news is that major palm oil buyers have achieved significant progress through individual actions and collective efforts of brands, palm oil traders,

local governments, civil society organizations, smallholder farmers, and local communities. The following section explores several innovative approaches that could be scaled up to transform the palm oil sector and realize responsible palm oil supply chains across Indonesia.

Mapping supply chains to the landscape and farm level

In 2014, RAN set out to test the implementation of No Deforestation, No Peatland, and No Exploitation (NDPE) policies in the Leuser Ecosystem. A key first step in this effort was to pressure major brands to map their supply chains to the farm level so they understood how their sourcing practices impacted lowland rainforests and peatlands threatened by palm oil expansion in the Leuser Ecosystem. To this day, not a single brand understands where all of the

palm oil it sources was produced. Still, some have made significant progress, including within this globally important landscape in Indonesia.

Over the past decade, several brands have developed detailed understandings of palm oil suppliers located within or around the Leuser Ecosystem. This includes mapping beyond their direct suppliers to understand the refineries and mills located in Indonesia that source palm oil from the Leuser Ecosystem, and most importantly, the plantations and smallholder farms that are supplying palm oil fruits to these facilities. Nestlé, Unilever, Ferrero, and Mars have made the most progress on achieving traceability to the farm level. These brands have utilized innovative new technologies for mapping supply chains,⁶⁰ and have invested in jurisdictional and landscape-level programs that accelerate traceability for smallholder farmers,

PHOTO: Nanang Sujana

Monitoring forests to stop deforestation in its tracks

A majority of brands are now using forest monitoring systems to identify deforestation across palm oil supply chains, and innovative, collaborative approaches to respond to deforestation have been piloted across the province of Aceh, home to the Leuser Ecosystem.

The use of forest monitoring systems to identify and respond to deforestation within palm oil supply chains has been established as a new norm amongst global brands since 2018, when Nestlé began using Starling, a satellite-based monitoring service, to monitor 100% of its global palm oil supply chains.⁶⁷ Since then, there have been rapid advances in the availability of high-resolution satellite imagery of tropical forest regions where palm oil is grown, meaning brands with 'No Deforestation' commitments can monitor and halt deforestation in the areas from which they source. Nestlé and Unilever are pioneers amongst consumer goods manufacturing companies and have invested substantially in using forest monitoring systems to ensure suppliers comply with their policies. Both companies continue to publicly demonstrate the scope and effectiveness of their forest monitoring systems, while other brands rely on second-party monitoring providers and fail to report on their monitoring efforts adequately.⁶⁸

Several brands have invested in forest monitoring for the Leuser Ecosystem as a priority landscape. Unilever conducts landscape-wide monitoring efforts using satellite and radar technology with partners such as EarthQualizer, Google Cloud, Descartes Lab, Global Forest Watch (GLAD and RADD alerts), Satelligence, and NGIS. Robust monitoring systems are needed to deliver early warning signs of deforestation, and to work effectively, they must be supported by traceability data, especially for where the risk is greatest in the 'first mile' from where raw materials are grown to where they are first processed. Unilever is working with these technology firms and innovative start-ups to build new approaches to deforestation monitoring and traceability through actively using or developing capabilities with satellite data, geolocation, blockchain, and artificial intelligence to get full visibility of its supply chain in Aceh and North Sumatra.

Mars has a program in place with a second party that monitors deforestation and clearance of peatlands within the Leuser Ecosystem biweekly to detect future threats to the area. Other brands like Colgate Palmolive, Ferrero, Kao, Mondeléz, Nestlé and Nissin Foods state their monitoring systems cover their global palm oil supply chain, but have not put in place regular reporting on the Leuser Ecosystem as a high-priority landscape for monitoring.

If successfully implemented for years to come, this collaborative approach to forest monitoring and response in Aceh could be a model for the palm oil sector and governments across Indonesia and other sourcing regions.

Over the past decade, there have been rapid advances in satellite-based monitoring tools used by brands and their suppliers — global palm oil traders — but only recently have private sector companies, civil society organizations, and governments begun working collaboratively to respond to deforestation caused by palm oil expansion. Some of the earliest trials for innovative collaborative forest monitoring approaches have been undertaken in the Leuser Ecosystem in the district of Aceh Tamiang.

PepsiCo, Nestlé, Unilever, Mondeléz, and several palm oil traders invested in a radar-based forest monitoring system, called RADD, to detect tropical deforestation in Indonesia and Malaysia several weeks earlier than optical-based systems.⁶⁹ The project resulted in creating a publicly available, radar-based forest monitoring system, which, through radar waves, could penetrate cloud cover and gather forest change information without being affected by clouds or sunlight. RADD offers higher resolution visibility, meaning it can detect the loss of even a few trees.

Unilever⁷⁰ and PepsiCo⁷¹ provided funding so the RADD system could be made available to government officials and enforcement agencies to monitor and respond to deforestation in Aceh Tamiang from 2021.⁷² A team led by the government's forest management unit received and reviewed the deforestation alerts and worked alongside Tim Pemantauan Deforestasi Daerah (TPDD), Forum Konservasi Leuser (FKL), and local CSOs to verify findings with high-resolution photographs and on-the-ground investigations. The findings on deforestation cases were reported to the district's multistakeholder forum, the Centre for Excellence (PUPL), the Forest Management Unit, and the district government. The results from this collaborative monitoring pilot were positive, with a steep decline in deforestation observed in the district between 2021 and 2024. Given the success of this initiative, the government of Aceh, private sector actors, and civil society organizations are working to establish a collaborative monitoring and response system for the entire province. If successfully implemented for years to come, this collaborative approach to forest monitoring and response in Aceh could be a model for the palm oil sector and governments across Indonesia and other sourcing regions.

The earliest trials for innovative collaborative forest monitoring approaches have been undertaken in the Leuser Ecosystem — in the district of Aceh Tamiang



PHOTO: Pléiades Neo ©Airbus DS (July 2024)



Adoption of NDPE Policies by Palm Oil Companies Inside or Surrounding the Leuser Ecosystem

1. PT. Aceh Trumon Anugerah Kita (ATAK)
2. PT. Agra Bumi Niaga
3. PT. Agro Sinergi Nusantara
4. PT. Aloer Timur (via Mopoli Raya)
5. PT. Anugrah Fajar Rezeki
6. PT. Asdal Prima Lestari
7. PT. Bangun Sempurna Lestari
8. PT. Beurata Subur Persada
9. PT. Bumi Daya Abadi
10. PT. Bumi Daya Agrotamas
11. PT. Bumi Sama Ganda
12. PT. Delima Makmur
13. PT. Ensem Sawita
14. PT. Global Sawit Semesta
15. PT. Indo Sawit Perkasa
16. PT. Laot Bangko
17. PT. Nafasindo
18. PT. Pati Sari
19. PT. Perkebunan Nusantara I (PTPN I)
20. PT. Riztiya Karya Mandiri
21. PT. Runding Putra Persada
22. PT. Samudera Sawit Nabati
23. PT. Syaukath Sejahtera
24. PT. Tualang Raya
25. PT. Watu Gede Utama

Transforming suppliers and holding bad actors accountable

A key litmus test in monitoring the implementation of NDPE policy commitments by major brands, traders and banks is determining the effectiveness of each company in holding bad actors to account in their palm oil supply chains, or financial services portfolio. Over the last decade, RAN published 88 Leuser Watch cases with 18 reports that exposed palm oil suppliers for deforestation, expansion into carbon-rich peatlands, violation of the rights of customary communities to say no to palm oil development on their territories, or the sourcing of illegally produced palm oil inside protected areas in the Leuser Ecosystem. RAN has documented 25 non-compliant mills and 34 rogue producers in the Leuser Ecosystem. A number of best practices have emerged from the responses enacted by brands and traders to these scandals.

One such practice is the publication of grievance trackers that enable brands and traders to transparently report on their actions to hold bad actors to account within the Leuser Ecosystem. Consumers can review the grievance trackers of Colgate Palmolive,⁷³ General Mills,⁷⁴ Kellanova,⁷⁵ Nissin Foods,⁷⁶ Procter & Gamble,⁷⁷ The Hershey Company,⁷⁸

and Unilever⁷⁹ and judge for themselves if the companies they let into their homes are doing enough to address their role in the destruction of Leuser's unique rainforests and the "Orangutan Capital of the World". Unilever has gone further and disclosed a detailed list of suppliers suspended for verified deforestation.⁸⁰ Colgate Palmolive,⁸¹ General Mills,⁸² Nissin Foods,⁸³ Procter & Gamble,⁸⁴ and The Hershey Company⁸⁵ refer to some suspensions via their grievance trackers, and Nestlé⁸⁶ has a list on its website.

Apical of the Royal Golden Eagle Group, Golden Agri-Resources of Sinar Mas Group, Musim Mas, Wilmar, and Permata Group — traders exposed to sourcing from the Leuser Ecosystem directly from their refineries located in Indonesia — have public grievance trackers.⁸⁷ Several well-known global traders that source from the region indirectly, such as AAK,⁸⁸ Cargill,⁸⁹ ADM Archer Daniels Midland,⁹⁰ and Fuji Oils⁹¹ have grievance trackers. However, a number of their peers that source from the Leuser Ecosystem, like The Three, Friesland Campina, Olenex, AWL Agri Business Limited (formerly Adani Wilmar), and Vandermoortele, lack public grievance trackers.

PHOTOS: Paul Hilton

Palm oil is a globally traded commodity produced and processed by thousands of suppliers in complex supply chains. As a result, major brands and traders that source palm oil are consistently exposed to variations in their indirect suppliers, especially companies that control palm oil processing mills or plantations and farms in tropical regions where palm oil is grown. This means that achieving a responsible supply chain requires consistent enforcement of procurement policies, robust supplier engagement, due diligence and monitoring systems, and a consistent response to cases where suppliers have violated requirements.

Another innovation arising from this need for consistent supplier engagement has been a collaboration between traders to educate suppliers in Aceh and North Sumatra on the importance of the Leuser Ecosystem and to increase their capacity to comply with NDPE practices. These training sessions and workshops are built on individual training sessions held by Musim Mas and its supplier, PT. Pati Sari, in 2014,⁹² and Golden Agri Resources (GAR)⁹³ and Wilmar⁹⁴ since 2017. Musim Mas's five-year landscape strategy for Aceh⁹⁵ and Wilmar's Leuser Supplier Reporting Tool (LSRT) Initiative were both launched in 2020. In 2020, GAR and Musim Mas also collaborated on Focus Group Discussions⁹⁶

to ensure suppliers understood the boundaries of the protected Rawa Singkil Wildlife Reserve after RAN exposed their sourcing of illegal palm oil from the reserve.⁹⁷ Further workshops were held with suppliers and authorities tasked with managing the protected area between 2020 and 2024 following further scandals.⁹⁸ Traders have also collaborated on joint field verification missions to investigate and validate the allegations in RAN's publications, with the most recent example in 2024 when RAN once again proved that supply chains were tainted with illegal palm oil.⁹⁹

Unlike the brands and traders, banks often cite client confidentiality when refusing to disclose their clients, or maintain public grievance trackers. A majority of the banks that have adopted NDPE policies need to improve the enforcement of these policies by establishing effective monitoring, due diligence and grievance systems to identify and respond to non-compliance by their current clients. There is also room for further adoption and strengthening of NDPE policies by banks investing in forest-risk commodities. This includes addressing loopholes in the scope of some of the existing NDPE policies, which apply to clients engaged in the production of commodities, but not clients that play critical roles in the processing and trade of commodities like palm oil.



Looking Forward

After more than a decade of relentless campaigning, investigation, and collaboration, the Leuser Ecosystem stands stronger today than when Rainforest Action Network (RAN) first answered a call for help in 2012. Thanks to the tireless work of local communities, frontline allies, and the power of collective global action, deforestation rates have declined, major corporations have adopted No Deforestation, No Peatlands, No Exploitation (NDPE) policies, and groundbreaking jurisdictional conservation programs are now taking root across key forest-risk regions in Aceh and North Sumatra. These hard-won victories prove that people-powered movements can reshape global supply chains, hold some of the world's most powerful companies accountable, and protect vital ecosystems from destruction.

The progress made in the Leuser Ecosystem is a model of what's possible, but it is far from the end of the story. The forces driving deforestation, land grabbing, and human rights abuses have not disappeared. Loopholes

in corporate policies, weak enforcement, and continued financial backing from major banks pose a real threat to the future of the Leuser. At the same time, Indonesia's other critical forest landscapes — from Kalimantan to Papua — face similar pressures. The stakes are global: the future of tropical forests, frontline communities, and our planet's climate stability hangs in the balance.

What we've learned in the Leuser will help shape the next era of RAN's work. We know that meaningful change requires not just policy commitments, but deep visibility into supply chains, robust forest monitoring systems, and active collaboration with communities and local organizations. We've seen that when companies invest in multistakeholder, rights-based landscape programs, real results follow. And we've learned that pressure from the ground up — through media, activism, and grassroots organizing — is what keeps corporate promises alive and honest.

PHOTO: Paul Hilton

The progress made in the Leuser Ecosystem is a model of what's possible, but it is far from the end of the story.

RAN will bring these lessons into new forest frontlines across Indonesia and beyond, where we'll continue to challenge the expansion of industrial agriculture into irreplaceable ecosystems. We'll push companies to go further than words on paper and prove their impact through transparency and results. We'll support local communities as they defend their lands and work to ensure they are at the decision-making table. We'll advocate for stronger policies, just transitions, and corporate accountability that centers people's rights and the planet's protection.

We need renewed support to meet this next chapter with the strength it requires. This work is only possible because

of the people who power it — individuals who speak out, donate, organize, and share our vision of a world where forests are protected, communities are respected, and corporations are held accountable. The Leuser campaign has shown what's possible when we act together, with a clear vision and sustained determination. As we take the fight to new frontiers, we call on our supporters, partners, and allies to stand with us once again.

There is still much to do. But today, we celebrate the progress made. We look ahead with hope. And we recommit to the fight for forests, people, and climate — everywhere it's needed most.

Special thanks

Reflecting on the successes and milestones of RAN's efforts to preserve the Leuser Ecosystem over the past decade, it is crucial to acknowledge the larger historical context that includes the long-term stewardship of this extraordinary landscape by the traditional communities who have long called the Leuser region home. These traditional peoples have been the custodians and defenders of this land for millennia. They will continue to be the rightful decision-makers for the fate of these forests for generations to come.

We recognize that RAN's work bringing the plight of the Leuser into the international sphere is based squarely on the tireless efforts of deeply committed local CSOs and community leaders in Aceh and North Sumatra who are the backbone of all work to protect and restore the Leuser Ecosystem and support communities that are fighting to have their rights respected by palm oil companies and governments.

We also recognize the contributions made by the Government of Indonesia, provincial Government of Aceh, district Governments in Aceh Tamiang, Aceh Timur,

and Aceh Singkil, and government authorities to protect, manage and restore the Gunung Leuser National Park and Rawa Singkil Wildlife Reserve, government moratoria on deforestation for palm oil, and leadership in the creation of multistakeholder initiatives that aim to protect the Leuser Ecosystem.

RAN is deeply grateful to the brilliant work of award-winning photographers Nanang Sujana and Paul Hilton. They have spent thousands of sweaty hours in remote jungle locations to capture the essence of beauty and tragedy unfolding across the region. Their compelling work inspires and captivates global audiences with visceral, behind-the-scenes images and video footage that allow insights otherwise inaccessible to most.

We also give special thanks to the thousands of RAN supporters and grassroots activists who have joined us in taking action over the years to advance this campaign and who have supported us in making our work possible by holding corporations accountable.

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