

February 2020

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MAGAZINE

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WELCOME TO THE FEBRUARY 2019 ISSUE

Last year's [report on progress](#) towards the New York Declaration on Forest's goal of ending deforestation by 2030 made for grim reading. Instead of progress, the global rate of gross tree cover loss has increased by 43% since the declaration by governments, NGOs and 60 major companies was signed in 2014, with an area of tree cover the size of the UK disappearing every year.

CO₂ emissions as a result of the loss amounted to 4.7 gigatons, more than all of the European Union's 2017 greenhouse gases emissions, with half coming from biodiversity-rich tropical primary forests. And as we went to press there was [alarming research](#) from Brazil that 20% of the Amazon basin is so degraded by agricultural

clearance and fire that it is releasing more CO₂ into the atmosphere than it absorbs.

In fact, the only country where forest loss slowed was in Indonesia, which saw a 30% decrease in 2017 and 2018 as a result of a government moratorium on the awarding of new concessions, along with wetter weather conditions reducing the incidence of fires. However, with Indonesia currently experiencing its worst fires since 2015, "it is clear that these conservation efforts need to be intensified and that additional measures are needed to combat deforestation in Indonesia," the report warned.

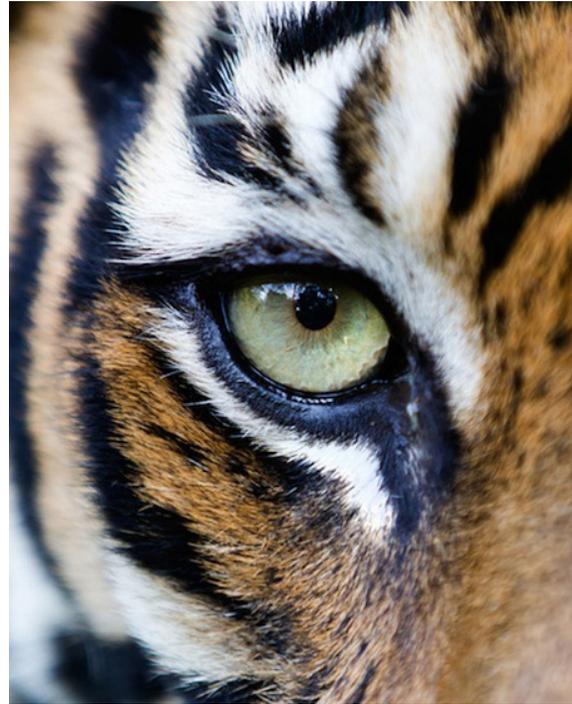
Consumer goods companies must be at the heart of remedial action, since more than half of deforestation is caused by the conversion of land for commodities such as soy, beef, palm oil and the timber and pulp and paper industries. The report found that while many companies have made commitments to eliminate deforestation embedded in their supply chains in the past 10 years, "implementation is slow and action remains limited in geographical scope and not fully >

integrated throughout supply chains and across sectors.” Not only has the number of companies making commitments stalled, among those with existing commitments, only 8% cover all their supply chains and operations.

In the February and March issues of Ethical Corporation we take a long, hard look at the progress companies are making to reduce their deforestation risk, focusing this month on palm oil and the pulp and paper industries, and in March on soy and beef, as well as the rising business agenda of protecting biodiversity, one of the biggest consequences of our rapidly disappearing forests.

In this issue we start with palm oil, that controversial commodity that is in half of all the items on supermarket shelves, and has been the biggest focus for brands’ zero-deforestation efforts.

In the face of consumer pressure, which triggered a boycott of palm oil by Iceland supermarket in the UK a year ago, big brands and the palm oil industry have doubled up efforts to convince consumers that palm oil, a highly efficient oil that uses 10 times less land than alternatives, can be grown without destroying the habitats of critically endangered species such as orangutan.



RAINFREST ACTION NETWORK

The last year has seen a burst of new initiatives, including beefed up certification by the Roundtable on Sustainable Palm Oil, and a muscular new approach by the Consumer Goods Forum to ending deforestation in all commodities.

I spoke to brands, NGOs and palm oil producers to find out what, if anything, has changed.

We then look at efforts to tackle the increasing encroachment on rainforests from smallholder farmers, who account for 40% of the total area cultivated by palm oil, though they supply less than 1% of RSPO-certified palm.

Mark Hillsdon and I report on how Unilever is leading efforts by brands to invest in projects to make entire districts deforestation-free in partnership with NGOs like IDH.

Another area of stepped up activity is in surveillance and monitoring, in the wake of a move by leading palm oil traders to publish a list of all the mills that supply them. We report on how brands including Mars, Nestlé and Unilever have invested in near-real time monitoring of >



PAUL HILTON/RAN

deforestation around the mills that supply them, and collaboration around new tools to increase transparency.

Meanwhile, Tom Johnson, editor of The Gecko Project, an investigative journalism organisation, warns that truly sustainable palm oil in Indonesia may be out of reach without confronting corruption, undue influence and abuse of power.

In our second briefing, on deforestation from the pulp and paper industry, the focus turns from the tropical forests of the south where palm is grown to the northern forests of North America and Europe.

Angeli Mehta reports on how clear-cut logging and unsustainable forestry management practices are increasing forestry risk from the use of virgin pulp, with brands being accused of flushing forests down the toilet. She speaks to Procter & Gamble and Kimberly-Clark, which were targeted by the National Resource Defense Council in a new toilet paper scorecard.

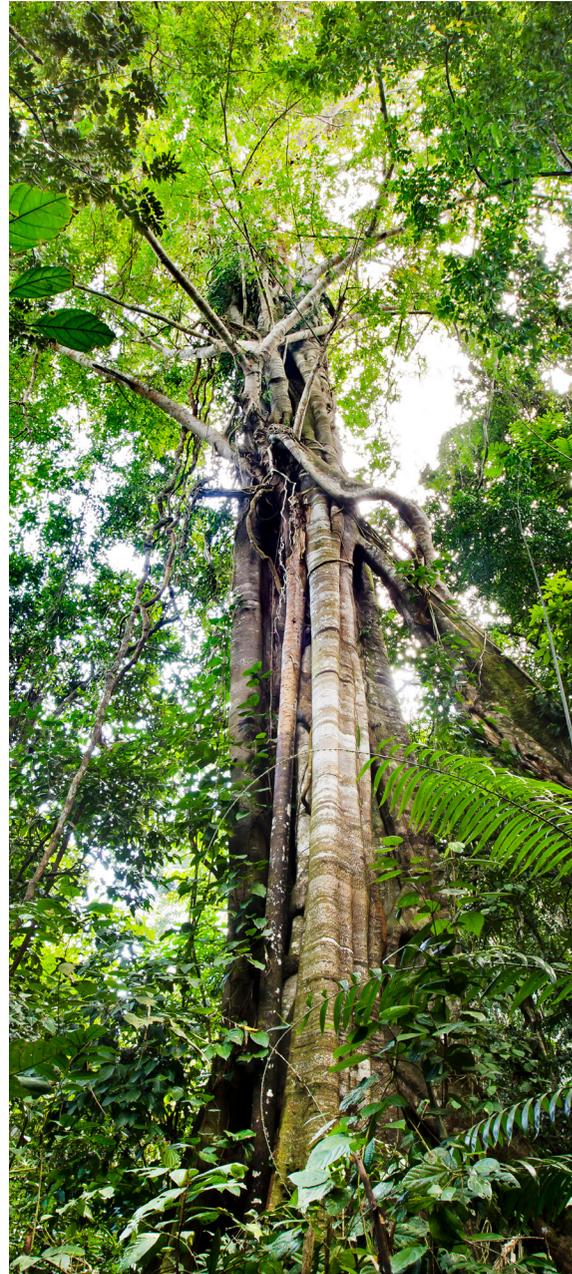
And she reports on the growing debate over the carbon-neutrality of forest biomass, with conservationists warning the European Union that it risks endangering the world's forests through its aggressive increase in renewables targets if it continues to allow the burning of wood biomass as a substitute for fossil fuels.

I hope you enjoy the issue. ■



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PAUL HILTON/RAN

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FEBRUARY / MARCH

Deforestation Risk

In a two-part assessment of deforestation risk in supply chains we will do deep dives into palm oil and forest and timber products in February and at soy and beef in March

APRIL

Smart and resilient cities and energy efficiency

How cities are adapting to climate change through the use of nature-based solutions, and cooling technologies. Our second briefing will focus on the global drive to double energy efficiency

MAY

Climate and good governance activism

We look at the impact of employee and student activism; also Climate Action 100+ and the divestment movement. A second briefing will examine the agenda for transparency on tax, lobbying activity and procurement

JUNE

Accelerating the circular economy

Full issue focus on circular economy, featuring new developments on plastic, including involvement of investors and rise of social plastic. We also delve into e-waste

JULY / AUGUST

Sustainable marketing and communications

For our combined summer issue we look at sustainable communications and marketing, the impact on consumers and how companies are simplifying the purpose message

SEPTEMBER

Sustainable seafood and healthy oceans

Ocean-based solutions, from offshore wind and tidal power to sustainable seafood and cleaner shipping, could provide 21% of the solutions to climate change. This briefing will explore the new front in the climate battle

OCTOBER

Are science-based targets up to scratch?

A critical look at SBT, including calls for human rights to be included, and the fashion industry's sectoral approach to SBTs. Our second briefing will look at moves to standardise ESG reporting

NOVEMBER

Water risk and biodiversity

We look at growing water risk as a result of climate change. Our second briefing will be on the business-led initiatives to protect biodiversity through more sustainable land use

DECEMBER

The transformation of energy

Technology-focused issue on the energy transition, particularly looking at energy storage technologies and hydrogen, electrification. Also, the rise of geothermal energy

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PALM OIL'S IDENTITY CRISIS

RITA ENES/SHUTTERSTOCK

In the face of consumer boycotts, big brands have doubled down on their efforts to end deforestation in their palm oil supply chains. Terry Slavin weighs up what has changed

 [VIEW ONLINE](#)



ROGUE COLLECTIVE/GREENPEACE

Big brands have found themselves in the eye of a consumer storm over their use of palm oil ever since UK retailer Iceland launched its boycott at the end of 2018, borrowing an emotive ad from a Greenpeace campaign featuring a homeless orangutan, which went viral.

More boycotts and “palm-oil free” branding spread as Instagram celebrities drew attention to what green activists had been highlighting for years: the destruction wrought by rapidly expanding global demand for the ubiquitous ingredient, found in half of all supermarket products, which has led to the precipitous decline of critical species in globally important biodiversity hotspots like Indonesia’s Leuser ecosystem.

Although booming demand from China, India and Indonesia itself for transport fuels is the main reason palm oil use is forecast to increase by up to sixfold by 2050, western brands with no-deforestation policies, including Unilever, Nestlé, Colgate-Palmolive and Mondelēz, have been in the firing line.

Activist NGOs like Greenpeace, Rainforest Action Network and Mighty Earth point to the abject failure of 400 consumer goods companies to live up to commitments, made in 2010, to be deforestation-free by 2020 as part of No Deforestation No Peat No Exploitation (NDPE) commitments, with the CDP reporting that just under 20% of companies with commitments to source certified palm oil or establish traceability are on track to meet their 2020 targets.

Ironically, the denouncement of the Roundtable on Sustainable Palm Oil certification scheme as a “con” by Iceland’s CEO came just after the RSPO brought in sweeping new principles and criteria, adopting a total ban on deforestation, and stronger >



provisions for protecting high carbon stock forests, peat soils and the human rights of plantation workers, something that investors and activists had been advocating for years.

NGOs also welcomed [the announcement](#) by Wilmar International, the NGO Aidenvironment, and Unilever and Mondelez at the end of 2018 saying they would adopt a policy of immediately suspending any suppliers linked to deforestation or peatland, followed with engagement to bring them back into compliance.

This was followed in 2019 by a muscular new approach by Consumer Goods Forum, a concerted push by brands and palm oil companies to increase traceability and monitoring, and the launch of the long-awaited Accountability Framework, a common rulebook to guide companies on fulfilling their deforestation pledges, agreed by a broad coalition of NGOs, from Greenpeace and Forest

A publicity stunt drew attention to threatened orangutans as Iceland launched its palm oil boycott in 2018.

Peoples Programme to Rainforest Alliance and The Nature Conservancy.

[Morgan Gillespy](#), director of forests at CDP, says the framework closes the “accountability loophole” that has stymied corporate action over the past decade.

Does this burst of activity add up to a course-correction that will help to turn the tide on deforestation caused by palm oil? Ethical Corporation spoke to brands, NGOs and palm oil producers to find out.

A [recent report from Global Canopy](#) found that the palm oil sector is far ahead of the soy industry in combatting deforestation risk. Of the 24 palm oil companies analysed, 14 scored above 60 (out of 100), compared with only one of the nine soy companies included in its analysis.

And scientific studies produced by IUCN concluded that boycotting palm oil would cause far more environmental devastation than sustainably produced palm, given that palm oil uses up to 10 times less land to produce the same amount of oil.

But it is clear from WWF’s latest [palm oil buyers scorecard](#), published last month, that RSPO has a huge mountain to climb to gain the confidence of brands and NGOs. Of 173 companies surveyed, >



Boycotting palm oil would cause greater environmental devastation given that alternatives use 10 times as much land to produce the same amount of oil



Unilever's decision to move to mass balance sourcing led it to 22nd place in WWF's palm oil buyers scorecard



NANANG SUJANA/IRAN

only 16.3% of palm oil sourced was RSPO segregated and fully traceable, with another 27.2% certified by RSPO under the mass balance system.

Under this controversial system, a RSPO certified mill can mix palm oil from certified plantations with that sourced from uncertified third parties, leaving brands open to risk that the palm oil in their products is not free of deforestation and human rights risk.

Indeed, the decision by Unilever, cited by NGOs for its [leadership on deforestation](#), to move to mass balance sourcing in order to pour finance into jurisdictional sourcing saw it demoted from being one of the leaders in 2016 to 22nd place in the recent WWF palm oil buyers scorecard – though it received an A in CDP's deforestation risk assessment.

Ignacio Gavilan, environmental sustainability director for the Consumer Goods Forum (CGF), told Ethical Corporation that the forum had made a mistake in 2010 of setting a zero-deforestation goal that was aspirational rather than binding on individual members, and [dependent on certification schemes like RSPO](#).

"Cleaning up individual supply chains won't drive what we need to achieve zero deforestation, even if all 400 companies succeeded," Gavilan said. "Certification created a segmented market, so there's still demand for commodities from converted land. It's not acceptable they have two

Palm oil demand is forecast to increase sixfold by 2050.

different supply chains: a clean one for us and corrupt one for others. We want and need a more transformative approach."

Under a new strategy announced last September, CGF is asking companies to commit to only source from suppliers that are supplying clean supplies to all their customers. They also pledge to extend sustainable palm oil projects to smallholder farmers, who supply less than 1% of RSPO-certified palm, though they account for 40% of the total area cultivated by palm oil. ([See Focus shifts to growing deforestation risk from smallholder farmers](#))

But he warned this will not come cheap; nor will it be easy. "The existing commodities system is a super-efficient way to move commodities around the world at a cheap price, but it was never set up to be transparent or traceable. It's like if you fill up your tank with gasoline you don't know if it comes from Venezuela, Alaska or Canada. Suddenly we are turning around and telling [palm oil] suppliers: we want to see the face of farmers."

Asked how many CEOs had signed up to the new strategy, Gavilan said there had been good traction, with 30-40 expressing an interest.

One is Mars, which last year announced a major new palm oil sourcing strategy that it claims will allow it to be deforestation-free by the end of this year.

Mars, which came in fourth among manufacturers on WWF's palm oil buyers scorecard (behind >

Ferrero, L'Oréal and Bahlsen of Germany) is moving from over 1,500 palm mills scattered across south east Asia to fewer than 100 by the end of 2020, with plans to reach under 20 mills by the end of 2022.

Barry Parkin, chief sustainability and procurement officer at Mars, told Ethical Corporation the new approach “means we can pick the very best suppliers, who are committed to solving this. We can put due diligence in place on the ground and by satellite. ... And we can be hands-on working on any [human rights] issues in palm mills and refineries.”

While buying certified palm is a first step, he said: “We think dramatic simplification is the only way we can guarantee that the palm oil we use is responsibly grown, doesn't drive deforestation and has no human rights issues in it.”

Another embracing the new CGF approach is Danone, which is one of the smaller consumers of palm oil, but has played an outsized role in driving higher sustainability standards as a member of the Palm Oil Innovation Group, which was set up by a coalition of NGOs (Greenpeace, WWF, Verité, and Rainforest Action Network), producers (Agropalma, Daabon and Musim Mas), and a handful of other brands (L'Oréal, Ferrero and Barry Callebaut) to demonstrate that it was possible to produce a verified supply of deforestation-free palm oil.

But while Danone sources 100% segregated palm oil for Europe, it is using mass balance palm oil in the US for its newly acquired plant-based food company WhiteWave, due to lack of facilities to store segregated palm, and as a result ranked 11 in the WWF scorecard.



PAUL HILTON/IRAN

Indonesia's Leuser ecosystem is a globally important biodiversity hotspot.

In an interview, Eric Soubeiran, Danone's global nature, human rights and water cycle director, said Danone was “actively working with our partners in North America to have reception areas so we are in the position to offer 100% segregated palm oil We need to co-build solutions with partners because we are too small to do it alone.”

Nestlé, which ranked six in the scorecard, is aiming to have 100% RSPO certified – and preferably segregated – palm oil, but its target date is 2023, and in 2018 only 64% of the palm oil the company purchased was RSPO certified, and 54% of it was traceable back to plantation.

Anna Turrell, head of sustainability at Nestlé UK, told Ethical Corporation that there needs to be more consumer demand for fully traceable palm oil, given that segregated palm oil is more expensive to produce and source than mass balance, yet both approaches allow end-user companies to claim sustainable palm oil credentials.

“We are a mass market FMCG company, with presence in nearly every country around the world. Until you reach a tipping point where the supply and demand even out, you are going to have this tension.”

Indeed, palm oil producers can only find buyers for a little over half the RSPO certified palm oil they produce, with the rest sold into the uncertified market, according to Anita Neville, who is head of communications and sustainability relations at Singapore-based Golden Agri-Resources, (GAR), major RSPO-certified supplier for >



Palm oil producers can only find buyers for a little over half the certified palm oil they produce and have to sell it into the uncertified market

There is a high risk of labour abuses in the palm oil industry.



PAUL HILTON/RAN

brands including Unilever, Mars, and Nestlé. “There have been no new grower members in the RSPO for six years,” she said in a recent podcast interview.

At RSPO’s annual meeting last November, she said, the CGF committed its members to increase their purchases of RSPO-certified oil by 15%, but in her meetings with buyers, none were talking about certification, “but about traceability and transparency, better sharing of concession maps and the role of technology” in reducing deforestation risk.

SATELLITE SURVEILLANCE

In an effort to counter the risks posed by using mass balance palm, brands like Unilever and Nestlé have invested in new satellite technologies and collaborative partnerships to monitor deforestation events in the 50km radius of the mills that supply them ([see Eyes in the skies: The push to beef up palm oil surveillance](#))

They have also committed to greater transparency by publishing lists of suppliers, including those dropped for non-compliance, on their websites.

In interviews with Ethical Corporation, experts from Mighty Earth and Rainforest Action Network, welcomed the new RSPO standard and moves to greater monitoring and supply-chain collaboration over 2019, but said head office commitments are not yet turning the tide on deforestation on the ground.

Gemma Tillack, forest policy director at Rainforest Action Network, said while a number of companies have designed strategies and systems to accelerate their understanding of what’s happening in their palm oil supply chains, those risks remain largely unaddressed.

“We are still seeing impact from expansion in tropical rainforests across the planet, including in Indonesia, and increasingly into new forest regions in Papua [New Guinea], in central West Africa and Latin America.” >



EMMANUEL BRAUN/SHUTTERSTOCK

Deforestation from palm oil is growing fast in Africa and parts of Latin America

Tillack said only companies, like Ferrero, that are sourcing 100% segregated palm oil can be free of deforestation and human rights risk, and outside of Europe, traders like Wilmar, GAR and Bunge are not investing in segregation at the refinery and holding tank level.

“That’s a huge barrier to sustainable palm oil and the reason Danone’s palm oil isn’t 100% responsibly sourced,” she said.

RAN began to map palm oil plantations in the Leuser ecosystem in Indonesia a year ago, using satellite images and interviews on the ground, and last year alleged that GAR and Indonesia’s Musim Mas Group had bought oil from two mills that sourced palm fruit from an illegal plantation in the protected Rawa Singkil Wildlife Reserve in the Leuser, dubbed the “orangutan capital of the world”.

GAR, which achieved an A- in CDP’s recent ranking of companies on deforestation risk, [said in a statement that its own investigations](#) showed that palm fruit from the two mills had not entered its supply chain.

In the podcast, Neville said GAR was about 70% of the way to achieving traceability to plantation, and was actively working to achieve 100% by the end of the year.

But she said palm oil is a “notoriously complex and convoluted supply chain made up of many, many actors.”

Instead of dropping suppliers, she said, the focus should be on incentivising and helping them to manage their land appropriately and to achieve better livelihoods. “None of the environmental and social issues are achievable if we don’t also have a good economic foundation for the various actors in the supply chain.”

Asked about Mars’ move to simplify its palm oil supply chain, Tillack praised work Mars and Unilever are doing with the NGO Aidenvironment to monitor that major suppliers are tackling deforestation risk at the group level, but said Mars was still associated with deforestation in the Leuser. And though it was avoiding some risks by sourcing mainly from RSPO-certified industrial plantations, she said such plantations recruit large volumes of international workers, and there is a high risk of indentured labour and other labour abuses, something documented by RAN and [Amnesty International](#).

While RSPO’s new standard includes strong measures to protect workers, including bans on withholding passports, child labour and payment of a living wage, Tillack said she has little confidence these will be enforced without reforms to RSPO’s auditing process, which allows companies to recruit their own auditors.

She said auditors had failed to identify [grave labour violations](#) at a subsidiary of palm oil giant >



ANTARA FOTO/JESSICA HELENA WUYSANG/REUTERS

A firefighter puts out a fire on peatland in Indonesia.

Indofood, which were only revealed in 2016 after complaints by RAN and other labour rights organisations led to independent investigations and the eventual suspension of the company from the RSPO. “The RSPO isn’t a reliable proxy for labour compliance,” said Tillack.

Phil Aikman, campaign director of US-based Mighty Earth, said the RSPO’s new standard is good on paper, particularly in its adoption of the high carbon stock approach to defining land use, and the Accountancy Framework has “useful aspects” in steering brands in how to implement their NDPE policies. “But the nitty gritty is in the detail of how you operationalise these things”.

Mighty Earth convenes the Sunderland Process,

an informal grouping that includes Unilever and producers and traders like GAR, Wilmar, Sime Darby, Bunge and Musim Mas, along with implementing NGOs Earthworm and Proforest. The group is using high-profile test cases to try to establish benchmarks on handling issues such as non-compliant suppliers, grievance mechanisms, peatland development remediation of deforested land and the contentious issue of re-engaging suppliers after they have been removed.

“We want to make sure that traders are doing a proper job and setting precedents that could be used by the rest of the industry to deliver the goods,” Aikman said. “It won’t happen without NGOs and implementing agencies like Proforest. We are not going to let the traders do it on their own. There needs to be policing.”

Mighty Earth has a rapid response monitoring system, which uses traders’ mill lists, supply chain information and satellite imagery to monitor 3,500 oil palm concessions in Indonesia and Malaysia.

While there are fewer cases of large-scale deforestation in Indonesia, Aikman said, “there is still a lot of deforestation taking place on a smaller scale. We are still finding cases every month ... and that is only in the concessions we have access to.”

The biggest challenge is to track deforestation from smallholder farmers, which are selling fresh >



NGOs worry about growing demand for palm oil with the Indonesian government increasing the percentage of palm oil in transport fuels



SUKREE SUKPLANG/REUTERS

fruit bunches to middlemen supplying the same RSPO certified mills that are producing mass-balance palm oil.

“I don’t think a lot of traders have systems in place to map and avoid that risk from smallholders. I know GAR has limitations on that, but they need to engage with smallholders early on.”

Aikman said one challenge is that players in the palm oil industry are less interested in the type of collaboration that resulted on the moratorium on soy exploitation in the Amazon. “It is hard to get the palm oil industry to agree on anything collectively It’s forced the likes of Mars to come up with their own strategy to manage the risk.”

While there’s been a decrease in deforestation in Indonesia for the past couple of years because of depressed prices, restrictions on permits to large companies, and NDPE policies set by the government, NGOs worry about the growing market for palm oil with no sustainability criteria, driven by booming demand from India and China, and the Indonesian government’s mandating higher percentages of palm oil in transport fuels. Tillack points out that in India alone, Wilmar is building four new palm oil refineries and another one on Java in response to the biofuel boom. Palm oil cultivation is also growing quickly in West Africa and parts of Latin America.

David Cleary, director of global agriculture at The Nature Conservancy, says while the tier of the palm oil market supplying the EU now meets a gold

standard, with occasional lapses, the uncertified second tier of the market is bigger, and growing at a frightening pace.

“Certification is never going to work for them, so you need ways to generate financial solutions for producers to move in a zero-deforestation direction,” he said. “These solutions don’t exist right now, but it is going to be critical over the next 10 years for these to be developed. We need to be able to get to systems-level change.”

Neville said the Iceland boycott had been damaging to companies producing sustainable palm oil, but she sees “green shoots of hope”, with social media conversations starting to be more positive about palm oil.

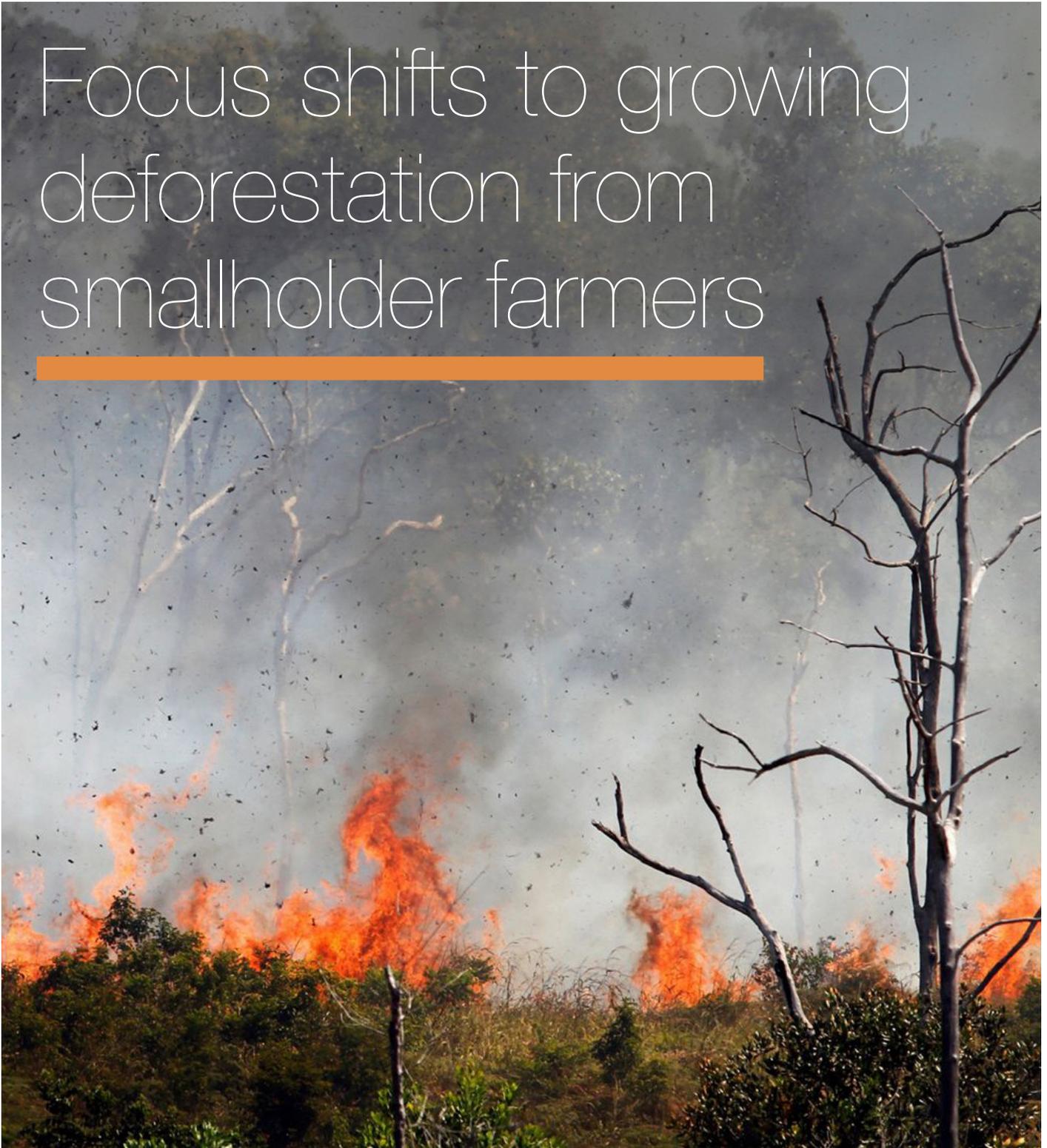
“The way I see it, palm oil sustainability is a work in progress. That work needs encouragement through positive purchasing power. There is no perfect solution here, just a commitment to everyday striving to do better and help more and more players in the industry take the right steps – especially smallholders and their families who are most disadvantaged by the blunt instruments that boycotts represent.” ■



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Focus shifts to growing deforestation from smallholder farmers

THE NATURE CONSERVANCY



Unilever is leading efforts to invest in projects to make entire districts deforestation-free in partnership with NGOs like IDH, write [Terry Slavin](#) and [Mark Hillsdon](#)

 [VIEW ONLINE](#)





“

It's abundantly clear that we cannot move the sector further without making smallholders an active part of the sustainability journey

There is a growing recognition that palm oil will never be free of deforestation without tackling the increasing encroachment on rainforests from smallholder farmers, who account for 40% of the total area cultivated by palm oil, though they supply less than 1% of RSPO-certified palm. In Indonesia, the threat is particularly urgent as the area cultivated with oil palm by smallholders is **expected** to grow to over 60% by 2030.

NGOs have rightly called attention to brands' connection to industrial plantations in the Rawa Singkil Wildlife Reserve in southern Aceh, the biodiversity-rich home of the world's densest population of orangutans, but **satellite tracking** by Earthworm Foundation's Starling programme found that most of the deforestation was caused by small-scale encroachment rather than industrial palm plantations.

And according to Global Forest Watch, more than 75% of fire alerts in the most recent growing season

in Indonesia were outside palm oil concessions.

“This is not multinational companies or traders that are cutting the trees,” one executive at a major brand said. “These are smallholder farmers who are facing revenue problems and quality of life and decrease of their yields” because of poor agricultural practices that deplete soil, and force them to make further incursions into forests.

Paula den Hartog who leads on palm oil for Rainforest Alliance, says: ‘It's abundantly clear that we cannot move the sector further without making smallholders an active part of the sustainability journey.’”

One of the big challenges is that independent farmers are vulnerable to exploitation. They don't have the support of a mill and can get extremely low prices for their produce, which has to be delivered within two days of harvesting or risk spoilage, she said. In Indonesia, there is also uncertainty of land tenure, so smallholders are reluctant to invest in land that could be taken from them.

RA has seen success over the past 15 years working with smallholder farmers to conserve forests in the Maya Biosphere Reserve in Guatemala, where the introduction of community based forestry and the sale of non-timber forest products has resulted in lower deforestation rates >

The area cultivated with oil palm by smallholders in Indonesia is set to grow to over 60% by 2030.

and incidences of fire than in areas of the reserve where forests are supposedly completely protected, such as Laguna del Tigre national park.

Den Hartog said Rainforest Alliance is looking to leverage lessons from that programme, which includes tools to increase communities' economic resilience and access to training and loans to palm oil smallholder farmers in Indonesia, testing it in areas where the organisation already has a presence.

RA is working on capacity building with farmers in West Kalimantan, which contains important tracts of forest, including vital orangutan corridors, and is working with the Sustainable Districts platform (Lingkar Temu Kabupaten Lestari), an initiative by district governments in Indonesia to develop participatory plans for sustainable forest and farmland management.

Some of the challenges could be helped through giving smallholders market linkages with major brands, though she said it was a work in progress and would not name any of the brands involved.

Rainforest Alliance already certifies just over 500,000 metric tons of palm oil from farmers in Papua New Guinea and Latin America under its Sustainable Agriculture Standard, and demand is increasing, with brands wanting to use RA's frog seal on their products to help communicate the value of sustainably produced palm to consumers, Den Hartog said.

In future, she said, Rainforest Alliance is looking to require companies wanting to use its seal to have dual certification against both the RSPO and RA standards.

"RSPO has a very good requirement at the company level to move their entire operations to sustainability, not just a certified unit on the ground. They really push in the right direction."

BRAND ENGAGEMENT

Brands including Barry Callebaut, Nestlé, Mondelēz, Mars, Danone, PepsiCo and Unilever have stepped up efforts to engage smallholders in sustainable practices the last couple of years, both



Orangutan populations are under threat from expanding palm oil cultivation in Aceh.

NORJANI/ANTARA FOTO/REUTERS

at project level and in private-public partnerships like the [Coalition for Sustainable Livelihoods](#), an initiative led by Conservation International to help smallholder farmers sustainably produce palm oil, cocoa and rubber in North Sumatra and Aceh's Leuser ecosystem, one of the most biodiverse locations on Earth, home to orangutans, elephants, tigers, rhinos and sun bears. Leuser is also a significant carbon sink, with large areas of peatland and 3m ha of forest cover.

One of the main drivers is Dutch NGO The Sustainable Trade Initiative (IDH), which has managed to get major palm oil buyers, manufacturers and traders in Aceh, including Wilmar, Golden Agri-Resources (GAR), and Musim Mas, to sign up to production, protection, inclusion (PPI) contracts to help boost economic development of independent smallholder farmers while preserving landscapes.

Last December, a PPI compact was launched in Aceh Tamiang district, which over the next three years aims to increase sustainable palm oil production by a third, while protecting forests. The compact, which also covers the issues of labour, land tenure and livelihoods, is being financially supported by Unilever, PepsiCo and Musim Mas, who between them are investing around £560,000.

In October last year, another compact was signed in Indonesia's West Kalimantan province, which aims to protect one million hectares of forest and restore a further 20,000 ha of forest and >



Rainforest Alliance is seeing greater demand from companies to use its seal for palm oil to counter the boycott movement



Jurisdictional sourcing compacts cover all commodities and may enable districts to apply for carbon market funding for protecting forests



RAINFOREST ALLIANCE

peatland. The compact has already brought in over €1m of investment from businesses such as palm oil producers Bumitama Gunajaya Agro.

Daan Wensing, sustainable landscapes director at IDH, says Aceh will be the first to pilot IDH’s verified sourcing area (VSA) programme. Rather than verifying each producer, mill and commodity individually, a VSA allows the sustainability of an entire jurisdiction to be authenticated, beginning with a municipality or district and moving on to cover a whole province or state.

This is in alignment with RSPO’s drive to certify entire jurisdictions, which would bring thousands of smallholder farmers into alignment with its standard, and ensure that the premium companies pay for certified palm that goes directly to the area and the farmers where the palm oil was produced.

And because the compacts cover all commodities in a region, which in Indonesia means cocoa, timber and rubber, it would enable districts to apply for carbon market funding for protecting forests under the emerging jurisdictional REDD+ standard. (See [How Shell’s offsetting move could help unlock flood of funding for forests](#))

“It’s a bit like how we started in Brazil, where we

had a compact and the first mover in was Carrefour on beef, but now we have cocoa and timber companies in too; over time we are able to bring in more investors.”

In Malaysia, where the state of Sabah is seeking to [get RSPO certification](#) and jurisdictional REDD+, IDH helped to broker a unique agreement between the Malaysian government and the Netherlands to cooperate around sustainable palm and to improve natural resource management and restoration, working with Unilever and the NGO Solidaridad.

And Unilever and Nestlé are also investing in another IDH programme in Nigeria to boost national production of sustainable palm in the face of rising palm-oil-related deforestation in West Africa. Both companies have substantial processing plants in the Nigeria, but have to import palm oil because of lack of local supply. The challenge is that smallholders produce more than 80% of the country’s palm on unmanaged “wild groves” where yields are minimal.

Along with investment in productivity of farmers, Wensing stressed the importance of comprehensive mapping and monitoring systems, including regular forest patrols. “[You need] >

Guatemalan farmers demonstrate community-based forestry to visiting Indonesians.



PAUL HILTON

a command and control system in place with government because incentives aren't enough, you need carrots and sticks."

But some NGOs are concerned that brands are pouring money into boutique jurisdictional projects, which they can boast about on their websites, at the cost of doing the harder work behind the scenes cleaning up their entire supply chains.

Gemma Tillack, forest policy director at Rainforest Action Network, points out that while Unilever was an early leader on pushing the Consumer Goods Forum to adopt No Deforestation, No Peat, No Exploitation (NDPE) policies, and continues to [show leadership in publishing mill lists](#) and surveillance and monitoring, it only came 22nd among manufacturers in the recent WWF palm oil suppliers scorecard because of its decision to move from sourcing segregated palm oil to cheaper mass balance. [\(See Palm oil's identity crisis\)](#)

"It shouldn't be doing one or the other. Brands need to be doing both" by buying segregated palm oil and investing in jurisdictional sourcing, she said.

She also questioned how many genuine smallholder farmers are being helped in Indonesia, where a lot of the expansion is by land speculators pretending to be smallholder farmers, with

Leuser's highly biodiverse ecosystem is home to orangutans, elephants and tigers.

the same families that own the major palm oil conglomerates the true beneficiaries, something that was exposed by the investigative Gecko Project

David Cleary, director of agriculture at The Nature Conservancy, agrees that jurisdictional sourcing is no silver bullet. "The problem with jurisdictional sourcing is that any significant supply chain touches dozens of jurisdictions and tens of thousands of producers. You can spend a lot of time and devote a lot of resources into a single jurisdiction, and maybe come up with enough incentives for farmers" in one location, he said, but those incentives need be applied across entire systems.

But Wensing believes jurisdictional solutions can attract the investment that will be needed to be rolled out at scale if stakeholders can demonstrate success in a handful of critically important landscapes like the Leuser.

"If you look at the palm oil debate it is a bit of a shouting match ... and that's not helpful, we really need to work on partnerships, understand the issues and invest in them," he says.

"If we focus a bit more, we team up more, then we can really put a model forward that others can scale and start running with this; that to me is what 2020 should be all about." ■



EYES IN THE SKIES

THE PUSH TO BEEF UP DEFORESTATION SURVEILLANCE

 VIEW ONLINE

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ne area of stepped up activity in the battle against palm oil deforestation is in surveillance and monitoring, in the wake of a move by palm oil traders [Wilmar](#), [IOI Loders Croklaan](#), [Musim Mas](#), [Golden Agri-Resources](#) and [Apical](#) to publish a list of all the mills that supply them.

In 2018, Nestlé became the first brand to deploy a satellite-based monitoring system, Earthworm Foundation's Starling service, to monitor 100% of the company's palm oil supply chain, both certified and non-certified, around the globe. The system, at 1.5m resolution, also uses radar to allow small changes in tree coverage to be clearly visible, even through cloud cover.

Mars and Unilever, meanwhile, are reported to be getting near-real time information about deforestation events around the mills that supply

them from Aidenvironment, which is using detailed satellite and radar imagery from [Sentinel](#), Landsat, SPOT, Ikonos and other sources. It is also using drones in the field to capture pictures and video, and doing field investigations on the ground.

While those systems are supplying alerts only to brands, in a bid to show public transparency, last October saw the launch of the Radar Alerts for Detecting Deforestation (RADD) system, a partnership between Nestlé, PepsiCo, Mondelez International and Unilever, traders Bunge, Cargill, and Wilmar, and palm oil producers Golden Agri-Resources, Musim Mas, and Sime Darby.

Developed by Wageningen University and Satelligence, and facilitated by World Resources Institute, the RADD system will be the first to make deforestation alerts publicly available on WRI's [Global Forest Watch](#), enabling companies, governments, and civil society organisations to monitor forests using the same information source and standards.

Malaysia's Sime Darby, the world's biggest producer of sustainable palm oil, is also keen to stress the open and collaborative nature of its [Crosscheck](#) online tool, launched last year, which >

allows anyone to trace the source of its palm oil supply to the mill level, which are supplied by thousands of plantations and hundreds of thousands of smallholders.

Developed with Conservation International and WRI, the tool features a risk map that shows a 50km radius around all the mills that supply Sime Darby’s refineries, highlighting areas of risk to forests, animal habitats and biodiversity, with links to satellite maps showing any evidence of deforestation on the ground.

Complaints can be lodged on the platform, and the follow up will also be transparent, the company said.

Haris Arshad, managing director of Sime Darby Oils, told Ethical Corporation that the company, which has had a no-deforestation policy in place since 2014, decided to create the tool because it owns only 65 of the 909 mills that feed into its refineries.

But it wants the entire palm oil industry to use the platform and add information about their mills, so the industry can work together to identify and act on deforestation and human rights risk.

“This is about showing provenance, ensuring that the things you think are happening on the ground are actually happening on the ground.”

“Many producers like us want to develop their own system, but in our view, that’s competing quite wastefully, because we are all trying to achieve the same thing, a clean palm oil supply chain.”

From January this year, it has strengthened its NDPE policies, and will suspend suppliers if they fail to come up with a time-bound plan to rectify or remediate, and refuse to submit to external auditing, the company said.

Phil Aikman, campaign director of US-based Mighty Earth, said while he was initially excited



RAINFORREST ACTION NETWORK

Nestlé deploys Earthworm Foundation’s Starling satellite system in a bid to monitor 100% of its palm oil supply chain.

by Crosscheck, on closer inspection he was less impressed. He describes Crosscheck as a good visualisation tool, but said it needs to go much further than risk-mapping. “All that Crosscheck does is provide traceability to the mill, not to the plantation.”

Mighty Earth has a [rapid response](#) monitoring system, which covers more than 3,500 oil palm concessions in Indonesia and Malaysia, and publishes a monthly league table of how 27 palm oil traders and producers respond to cases of deforestation and peat development it identifies. Aikman pointed out that Sime Darby is only middle of the pack, far behind leader GAR, which is the only company providing traceability to its plantations.

GAR was also the only producer to get an A from CDP on its efforts to address deforestation risk, while Sime Darby earned a C, and Musim Mas and Wilmar got Bs.

Aikman said most companies are only doing the bare minimum on transparency by publishing mill lists that are “from a year ago or even longer”.

While Nestlé wins praise for its monitoring efforts, and for publishing a list of suppliers, including those that it has dropped for non-compliance, Robin Averback, who leads on palm oil for Rainforest Action Network, says: “We’ve continued to see significant gaps in its performance, with no systematic approach to implementing and verifying.”

Similarly, she said, the RADD system is in its infancy, he said. “We don’t know how effective it will be.” ■



Most companies are only doing the bare minimum on transparency by publishing mill lists that are from a year ago or even longer





DARREN WHITESIDE/REUTERS

‘TO CURB DEFORESTATION ON THE LONG-TERM, BREAK THE LINK BETWEEN POLITICS AND PALM OIL’

Tom Johnson of The Gecko Project warns that truly sustainable palm oil in Indonesia may be out of reach without confronting corruption, undue influence and abuse of power

 [VIEW ONLINE](#)





Those politicians most closely responsible for regulating the palm oil industry have entered into corrupt relationships with it

In late 2007, two young businessmen met to finalise a deal in a high-rise office block in Jakarta. On the table was a shell company with a single asset: a permit to create an oil palm plantation in Borneo. The buyer was the scion of a wealthy family with a rapidly growing landbank of palm oil plantations; the vendor, Ahmad Ruswandi, the son of a politician.

Ruswandi's father, Darwan Ali, had been elected to govern a district called Seruyan, which gave him the rights to assign land for palm oil plantations. He had issued the permit to his son's shell company, generating an asset worth several hundred thousand dollars with the stroke of a pen. In the course of his time in office, he would issue permits to more than a dozen shell companies managed by a network

of relatives and cronies; they were then sold on to major palm oil firms.

Four days after the deal was struck, world leaders met on the island of Bali for the United Nations Climate Change Conference. High on their list of questions to tackle was how to [address deforestation](#) that, in Indonesia at least, was being driven by palm oil plantations.

This vignette opened a series of articles co-published by The Gecko Project and Mongabay over the past three years exploring the role of corruption and abuses of power in Indonesia's deforestation crisis. It encapsulated how, over the past two decades, two competing processes have played out in parallel.

On the one hand, a raft of increasingly ambitious policies has been announced by governments and the private sector aimed at curtailing deforestation driven by the palm oil industry; on the other, those politicians most closely responsible for regulating the industry have entered into corrupt relationships with it.

Many of the most promising multilateral, >

Corruption and abuses of power have played a major role in Indonesia's deforestation crisis.

government and private sector initiatives – from REDD+ to so-called “zero deforestation” policies from companies – have so far failed to engender meaningful, sustained change. On the basis of our investigation, we came to the view that the undue influence the industry exercised over local politics in Indonesia was an important reason for this.

Our investigation began with a simple question. Indonesia is a democracy, and since the mid-2000s district chiefs like Darwan Ali, known as *bupatis*, were chosen through local elections. Around the same time, they had assumed direct control over allocating land for palm oil companies. According to government estimates, the way in which they did that had given rise to hundreds of land conflicts between companies and villagers who felt their land had been stolen, or who were angry at undelivered promises of good jobs and smallholdings.

If these *bupatis* were chosen by and directly accountable to the electorate, why had they taken decisions that had provoked such widespread opposition from the same people?

To find out, we pored over government permit data and corporate ownership records. We interviewed *bupatis* and their fixers, middlemen who traded permits, district officials, local activists, academics and affected communities.

The clear picture that emerged was that *bupatis* across the country had cashed in on their control over land. Due to the quirks of Indonesia’s decentralisation of power, they wielded enormous authority, with very few checks and balances. In some cases, they exchanged permits for bribes. In others we documented in detail, they evaded anti-corruption laws more carefully by issuing permits to shell companies owned on paper by proxies.

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The picture that emerged was that *bupatis* across the country had cashed in on their control over land



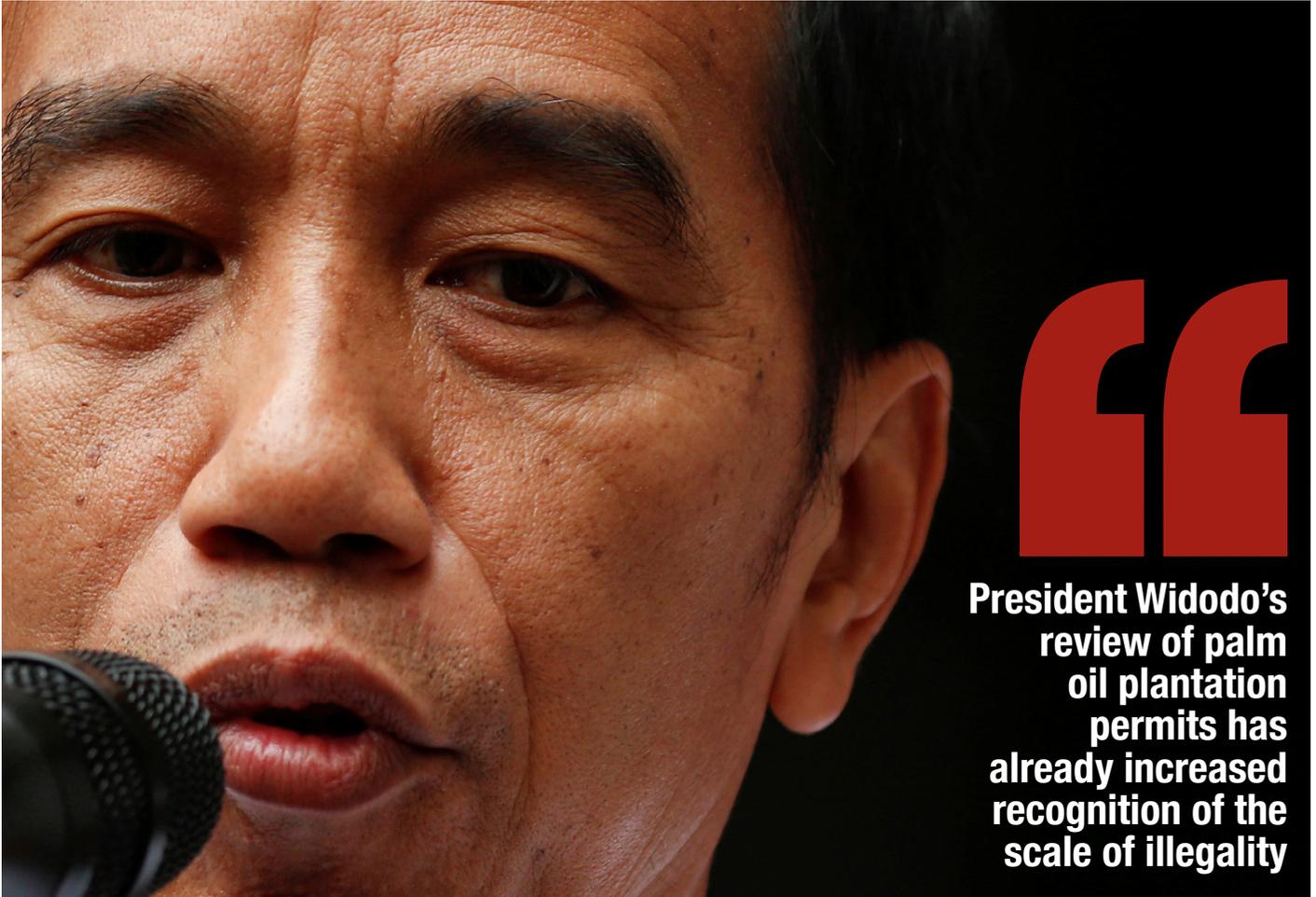
DARREN WHITESIDE/REUTERS

Indonesia’s anti-corruption agency, KPK, itself under threat, found links between land trading and election campaign financing.

We unearthed [concrete links](#) between trading in land and election campaign financing, findings that have been reinforced by academic studies and research by the Indonesian anti-corruption agency, the KPK. Elections for *bupati* positions can cost several million dollars, in mostly illicit spending, and they are routinely financed by “entrepreneurs” in exchange for permits, or a loose approach to regulation.

This system does not simply ensure that corrupt candidates win. In many jurisdictions, it can make it impossible for clean candidates to even get onto the ballot. This created a negative cycle, of corrupt land allocation and corrupt elections, and an increasing convergence of political and corporate interests.

The most obvious consequence of this system is an increased incentive to issue permits, and an associated increase in deforestation. But it also has long-term impacts on the way plantation firms are regulated. The authors of [Democracy for Sale](#), a book that documents the “netherworld of ... secretive deal making, trading of favours [and] corruption” in Indonesian elections, found that the financiers of elections more commonly want to be able to avoid the law, rather than to help craft it, as they might in some other jurisdictions. >



**President Widodo's
review of palm
oil plantation
permits has
already increased
recognition of the
scale of illegality**

Last year, a government audit [found](#) that more than 80% of oil palm plantations were in breach of regulations. This can have serious environmental and social consequences. Failing to carry out environmental impact assessments is a common offence. Companies are also failing to provide smallholdings, as required by law, driving land conflicts with communities disaffected by broken promises.

In Seruyan, water pollution linked to palm oil mills and a lack of smallholdings have provoked protests for more than a decade now, to limited effect. Last year, three executives from the major palm oil firm Sinar Mas were convicted of bribing politicians to suppress a public hearing that would have raised these issues in connection with their operations in Seruyan. They were jailed for one year and eight months.

In the past three years the rate of deforestation in Indonesia [has slowed](#), after reaching new highs in 2016. That reduction – and particularly the relative contribution of palm oil to it – has likely been influenced by several factors. Civil society and market pressure has been building for years,

the price of crude palm oil has been falling and President Joko Widodo has formalised a freeze on new permits.

There is some cause for optimism that the fall will continue. The freeze on permits comes, after all, from the highest level of government. President Widodo has also instructed his administration to carry out a review of all palm oil plantation permits in the country, that has already given rise to an increased recognition of the scale of illegality.

On the other hand, the government is pursuing a [domestic biofuel policy](#) that could inflate market demands without concern for sustainability. In January, it lifted the mandatory mix of palm oil in biodiesel from 20% to 30%. The parliament has also pushed a widespread programme of legislative changes that will erode the ability of communities and civil society organisations to campaign against destructive corporate practices, provoking huge student protests last year. The KPK, one of the world's most effective anti-corruption agencies, has been gutted in what [has been decried](#) as an assault on its independence.

Indonesian civil society organisations have >



RICKY OF THE WORLD/SHUTTERSTOCK



expressed fear that these measures will entrench the power of the nation's oligarchs, most of whom have interests in the plantation or natural resources sectors, and who could yet reverse what progress has been made.

Perhaps the most successful example we have of a nation in reducing its rate of deforestation is Brazil in the 2000s. Between 2005 and the end of the decade, deforestation dropped so dramatically it may have cut emissions by between 435 million and 870 million tons of CO₂ annually. [Analyses](#) of how it was achieved suggest that law enforcement, including anti-corruption measures, were essential. Events in Brazil in the past few years are equally illuminating. The dramatic return of deforestation

Land grabs have brought smallholder farmers into conflict with large palm oil firms. Inset: Students protesting in Jakarta last year against human rights violations, corruption and social measures.

was facilitated by the ruralista agribusiness lobby, after it established power throughout the country and launched an assault on legal protections for the Amazon and indigenous lands.

In Indonesia, just as in Brazil, conserving rainforests will almost certainly require market pressure. But even with that pressure, sustained change may be out of reach without confronting corruption, undue influence and abuses of power.

Increasing accountability and checks on power will not reduce deforestation in itself. But it would allow the emergence of a system in which laws, the environment and the views of marginalised communities can factor into decision making, not only the narrow interests of oligarchs and entrepreneurs willing to engage in corruption. ■



Tom Johnson is the founder and editor of The Gecko Project, an investigative reporting organisation focused on land use.

TIMBER PRODUCTS BRIEFING

31 NORTHERN EXPOSURE
Threat to boreal forests grows

38 PROCTER & GAMBLE
Slated for virgin pulp use

40 BIOMASS MORASS
Europe urged to stop burning trees



Brands accused of 'flushing forests down the toilet' as threat to northern forests grows

Angeli Mehta reports on how clear-cut logging and unsustainable forestry management practices are increasing forestry risk from use of virgin pulp

 [VIEW ONLINE](#)

ANN IN THE UK/SHUTTERSTOCK



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hile the focus of efforts to end deforestation has been on tropical rainforests, home to the majority of the world's biodiversity, ancient woodlands in the northern hemisphere are also critically important, storing the carbon equivalent of nearly twice the world's recoverable oil reserves in their soil.

A recent report by the Natural Resources Defense Council (NRDC) drew attention to the growing deforestation threat in Canada, which has the largest intact forests in the world, home to more than 600 indigenous communities and iconic species like the boreal caribou, Canada lynx, and American marten.

Between 1996 and 2015 more than 28 million acres of boreal forest were logged, an area roughly the size of Scotland, Ireland and Northern Ireland combined, 90% of it by clear-cutting, NRDC says.

This is supported by Canadian NGO Canopy, which says of the 413m tonnes of pulp for paper produced globally, 184 million come from virgin wood fibre, and half of that from ancient and endangered forests.

According to the World Resources Institute, less than 20% of the world's original forests remain in tracts large enough to sustain their full range of ecosystem services.

The NRDC says one of the biggest drivers in North American forests is the insatiable demand

Canada's forests are home to iconic species such as the Canada lynx and boreal caribou (below).



FELINEUS/SHUTTERSTOCK



MERCEA COSTINAI/SHUTTERSTOCK

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Of the 413m tonnes of pulp for paper produced globally, 184 million come from virgin wood fibre

for toilet paper, paper towels and facial tissue. The sector is the fastest growing in the paper industry, and increased 3.5% annually between 2010 and 2015, 30% faster than the growth of cardboard packaging.

Americans, who make up just 4% of the world's population, account for more than 20% of global tissue consumption, and appear to be markedly >



choosy about the softness of their toilet paper.

While recycled materials use half the water of virgin pulp, generate 40% less sulphur dioxide and have one third of the greenhouse gas emissions, many firms insist on sticking with virgin fibres for tissue products. This undermines the efforts being made to increase more recycled material in cardboard packaging, NRDC says.

Last October, NRDC [accused US consumer goods giants](#) Procter & Gamble, Kimberly-Clark and Georgia-Pacific of “flushing forests down the toilet” by not doing enough to move away from use of virgin pulp to recycled and alternative fibres. [\(See P&G slated for being slow to switch from virgin pulp\)](#)

Jennifer Skene, an environmental law fellow with NRDC, says conservationists’ efforts to preserve boreal forests are hindered by the fact that a lot of the damage isn’t even regarded as “deforestation”, which is defined as forest conversion for another purpose, like agriculture.

Agriculture is a key driver of deforestation in tropical countries, which lost almost 50 million acres between 2000 and 2012 due to illegal conversion, but is much less of a driver in the more

Canada’s intact forests, the largest in the world, are facing increasing deforestation.

sparsely populated northern hemisphere.

If a forest is clear-cut (which removes nearly all trees from an area), it’s counted as degradation, as there is an assumption that it will grow back or be replanted.

Indeed, the UN Food and Agriculture Organization’s (FAO) official definition of a forest includes forest plantations with as little as 10% tree cover.

This is also reflected in standards of the Forestry Stewardship Council, which allows clear-cutting of up to 90% in northern forests dominated by coniferous trees, such as in Sweden and Canada.

The FSC says this is similar to nature’s way of managing them since they are frequently destroyed by forest fires or severe storms.

But conservationists say this disregards the superior carbon sequestration value of standing forests, with Canopy suggesting that original forests are 40 times more effective at sequestering CO₂ per hectare than plantation forests.

“Monoculture plantations don’t have the same biodiversity value, and even where natural regrowth is allowed, regrowth is extremely slow,” Skene said. “[In boreal forests] soil carbon gets built up slowly, >

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Canada claims little deforestation despite the fact that the logging infrastructure leads to vast deforestation



BENJAMIN DAoust/SHUTTERSTOCK

because it’s really acidic and cold and vegetation decomposes slowly. It takes about 60 years for the carbon loss to get made up.”

Canada claims little deforestation despite the fact that logging infrastructure – the roads and landings for example – leads to vast deforestation. [The Wildlands League](#) estimates that in the province of Ontario alone, where 17% of Canada’s logging takes place, almost 22,000 hectares are lost each year, seven times the deforestation rate reported for the entire country.

The main culprit is full-tree harvesting, where an entire tree is dragged to the roadside, and desirable logs are stripped of branches. Unwanted species are left behind, and large volumes of waste accumulate, obstructing forest renewal.

The catastrophe of poor regeneration isn’t confined to the slow-growing forests of the north. Jos Barlow, professor of conservation science at Lancaster University, and his colleagues in Brazil have [recently demonstrated](#) that 60 years after clear-cutting, Amazon forests hold just 40% of the carbon stored compared with those in relatively undisturbed areas, while biodiversity is more than halved. “It’s nothing like a forest,” Barlow

Whole trees are cut and stripped of desirable branches, leaving waste and unwanted species behind.

observes. “Even with the best will in the world, the ‘sustainable’ management of natural forests is very inefficient and damaging.”

Even selective logging is hugely destructive, leaving tropical forests highly susceptible to drought and fire. [Research](#) using satellite imagery in the Amazon demonstrated that the probability that a selectively logged forest would subsequently be deforested was up to four times greater than for unlogged forests.

REDUCED IMPACT LOGGING

However, simple improvements in logging practices can reduce damage and avoid carbon emissions, >

according to The Nature Conservancy. Its scientists have demonstrated that a menu of practices it calls reduced impact logging for climate change mitigation (RIL-C) can cut emissions associated with logging by 44%. These include more careful inspection of trees to avoid wasting wood, taking more care in the direction of felling, and using smaller equipment, in turn requiring narrower logging roads.

Sophie Beckham, senior manager of natural capital stewardship at International Paper (IP), the world's largest pulp and paper company, said RIL-C "is not intended to reduce economic return but to conduct harvesting in a way that allows for economic return for fibre."

Her company has been supporting TNC to introduce RIL-C techniques in Indonesia and Gabon. These are forest landscapes that are "critical for the planet," she says.

"Implementing good management there would make a greater difference," particularly as Gabon is looking to protect forest cover for its nationally defined contribution under the Paris Agreement and to attract carbon finance under the REDD+ programme.

The equatorial country, the second most forested on the planet, signed a 10-year agreement in September with Norway, to incentivise its conservation efforts. Norway will pay Gabon \$150m to reduce greenhouse gas emissions from deforestation and degradation, based on verified results.

Satellite imagery, which is increasingly employed to reveal the diminishing forest landscape and spot illegal logging, will be used to verify conservation results in Norway's deal with Gabon.



INTERNATIONAL PAPER

Reduced impact logging techniques, such as careful inspection of trees, can cut emissions.

IP has no sourcing in Gabon, but is considering how to replicate the project in other priority locations, including the US.

Another IP project with WWF aims to set science-based targets for forests. This involves developing guidance for companies and governments on how to keep forests above the ecological tipping point where they no longer thrive. As part of this complex project WWF is also developing targets that combine objectives for both zero conversion of forest and degradation-neutrality.

"While this wouldn't identify what specific regional forests need, it would limit continued impacts from companies and other actors, and would incentivise regeneration/restoration in places that have experienced significant human impact," says WWF senior programme officer Akiva Fishman.

Meanwhile, the Forest Stewardship Council (FSC) has just launched an [online database](#) showing FSC-certified forests, although as yet some areas like the US are entirely missing.

This year a new FSC standard comes into force in Canada's boreal forests that should provide better protections for the caribou population. Skene is "cautiously optimistic" but wants to wait to see if its implementation will be as robust as the standard suggests on paper. >



Setting science-based targets involves developing guidance on how to keep forests above the ecological tipping point



SHEVEL ARTUR/SHUTTERSTOCK

In some parts of the Carpathians – a habitat for wolves and bears – reports suggest over seven acres are lost every hour

Forest certifications are meant to provide assurance that timber and fibre is sourced sustainably, but not enough forest is certified to meet the demands of the paper and pulp industry.

International Paper is working on getting more landowners to certify. Ironically, says Beckham, “our challenge is not in Poland, where all forests [it sources from] are certified – or in Brazil where plantations are certified, but more in the US. We’ve put tremendous effort into reaching out to smaller landowners. Many [of them] say ‘we’re already doing good management, so what’s the incentive?’”

The work on science-based targets will give the company a starting point.

But there are still the bad actors, she adds, whose activities “in very sensitive and threatened forests are compromising all the good things that are being done in other parts of the industry.”

Last year, IP rolled out a GIS (geographic information system) mapping tool across its US mills in what Beckham describes as “a tremendous learning process”.

All fibre-buyers have the app, ForestView™, which uses publicly available data and user input to identify tracts of land with conservation value. When buying a tract of timber, the fibre buyer uses the app to cross-reference the source location with the conservation values associated with species or landscape attributes, with a one-kilometre resolution.

If the app flags an issue, “procurement staff will have boots on the ground,” says Beckham. “That

contact provides an opportunity to recommend an increased buffer on a stream, or a different management or harvest approach because of the presence of a certain species.”

The plan is to roll it out globally, for non-certified sources. “But we could cross-walk it with land that is certified.”

EUROPEAN TIMBER

Surveillance activities are also being stepped up in Europe, where, despite national laws and EU habitat directives, the forests of the Carpathian mountains are being logged at an alarming rate, environmentalists say.

In Romania, home to much of Europe’s remaining old growth forest, a habitat for wolves, bears and lynx, some reports suggest over seven acres are lost every hour, while a satellite-mapping study estimated an 11% loss of forest cover in the central Carpathians between 2000 and 2017.

One of the drivers seems to have been Europe’s push for burning biomass for energy (see [P&G slated for reluctance to switch from virgin pulp](#)).

Vienna-headquartered HS Timber (formerly Holzindustrie Schweighofer), a wood-processing company, has invested in technology to trace its deliveries of Romanian timber.

The company was itself accused by the [Environmental Investigation Agency](#) in 2015 of accepting illegally logged wood. That led to FSC’s decision to disassociate itself from the group in 2017, and to set a series of conditions to be met >



If it cannot be verified, then we cannot take this material into production or we suspend the supplier



before the company’s status would be revisited.

Michael Proschek-Hauptmann, HS Timber’s chief compliance and sustainability officer, insists the allegations have never been proven.

The company, he says, is working hard to demonstrate it’s now going beyond the letter of the law: it avoids taking timber even from permissible zones around the country’s national park forests, themselves ostensibly off-limits to loggers.

Its pioneering tracing system, Timflow, uses pictures, GPS referencing, and a unique timestamp linked to Romania’s new state-run wood accounting system to provide monitoring of the trucks and transport route from loading to the sawmill.

The aim is to determine that “the material in the truck conforms with what we are purchasing,” says Proschek-Hauptmann.

Timflow doesn’t yet cover the inputs to third-party log yards, where materials are collected and delivered, but Proschek-Hauptmann argues that there is a stringent auditing system there.

It has also been piloting a mobile system to enable identification of each log, as well as researching technologies to give suppliers a version of Timflow for their own yards. “That helps them also. It increases the security of their products and gives them an opportunity to show they are transparent,” he adds.

In 2018, 25,000 deliveries were registered in Timflow. And from this 10% were flagged for further checks. “If it cannot be verified, then we cannot take this material into production or we

HS Timber’s pioneering system Timflow helps verify timber in the Carpathians has been responsibly sourced.

suspend the supplier.” The company uses the auditing system regardless of whether the wood is certified or not.

Timflow itself isn’t expensive, Proschek-Hauptmann remarks. “It’s the people and expertise behind it that is expensive.” A dedicated team of 10 forestry management specialists spend their time on supply chain control, going into forests and log yards.

Like other forest product companies, HS Timber is also investigating blockchain as a means to increase supply chain transparency.

But, insists Proschek-Hauptmann, preventing illegal logging comes back to government control: “Any illegal harvest starts in the forest. This is where you need to focus and where you need to put the pressure on.” ■



Angeli Mehta is a former BBC current affairs producer, with a research PhD. She now writes about science, and has a particular interest in the environment and sustainability. [@AngeliMehta](#).





ICATNEWS/SHUTTERSTOCK

P&G SLATED FOR RELUCTANCE TO SWITCH FROM VIRGIN PULP

Procter & Gamble products fare particularly badly on the National Resource Defense Council’s toilet paper sustainability scorecard, which looks at factors like the percentage of recycled content in a product, the toxicity of the bleaching process, and how much of its virgin forest fibre is sourced from Forest Stewardship Council (FSC)-certified forests.

P&G has a wood pulp procurement policy committing it to reducing reliance on virgin forest fibre, sustainable forest management practices, and avoiding purchasing wood sourced from high conservation value forests.

Nevertheless, about 35% of P&G’s pulp comes from Canadian forests, and NRDC said P&G continues to source from intact boreal forests for tissue products for the US market, such as Charmin, Bounty and Puffs.

In September, P&G announced a new commitment to ensure that 75% of its global fibre sourcing across all its family care brands are FSC-certified by 2025, and said it was working with its suppliers to make sure its Canadian fibre will meet new standards introduced by the FSC to protect populations of boreal caribou.

Jennifer Skene, an environmental law fellow with NRDC, said she was encouraged by the commitment to 75% FSC-certified wood, “but that includes all pulp sourcing so there’s a lot of wiggle room. And then it’s a throw-away product. It’s not enough to get FSC – they need to transition to recycled fibres.”

P&G declined an interview, but Tonia Elrod, director of family care sustainability, told Ethical Corporation in an email: “We have explored every possible use of recycled >

Kimberly-Clark has experimented with fibres made from wheat straw and bamboo. Inset: Seventh Generation toilet paper is produced from 100% recycled fibres.



content in our tissue and towel products, while also delivering the quality and performance people expect. [But] it results in a sub-standard product.”

She adds that in the company’s experience of running a recycled fibre tissue mill, “nearly half of recycled fibres end up as solid waste sludge during the production process and go directly to landfill instead.”

P&G says it has found more efficient uses of recycled fibre in cardboard and packaging, and has committed to using 100% recycled fibre in its packaging by 2025.

Elrod added that P&G would invest \$20m by 2025 towards accelerating its research on alternative non-wood fibres and FSC-certified fast-growing fibres. P&G, however, did not agree to requests from CDP to report on deforestation risk in its supply chain, unlike rival Kimberly-Clark, which scored an A- for paper and forestry.

Kimberly-Clark’s brands also fared better on the NRDC scorecard, where it got a D. The NGO said that while the company still relied almost exclusively on virgin fibre for its at-home tissue products, it had “taken meaningful steps to alleviate the pressure its products place on forests” by committing to at least halving the amount of fibre it sources from natural forest by 2025.

In 2018, almost 75% was virgin fibre, although all was certified to varying standards.

In an interview with Ethical Corporation,

Lisa Morden the company’s vice-president for sustainability, said: “We’ve looked at dozens of alternative fibre options and done some commercial experimentation, but the innovation challenge is a huge one.”

One toilet paper line uses 20% wheat straw sourced from local farmers in the US; and while it has tried bamboo in several products, costs were higher and it didn’t get traction with customers.

“Over time, that might change,” Morden suggests. “We’re really looking for alternative fibres that check boxes on cost, consumer demand and quality.”

Morden is supporting a campaign by international environmental group Canopy, which at Davos launched an action plan to remove 50% of the forest fibre from pulp manufacturing and replace it with alternative fibres such as agricultural residues and waste cotton textiles, which would enable 30% of the world’s forests to be conserved by 2030.

Skene said with demand for tissue expected to grow rapidly, especially amongst developing nations, big brands must follow the example of companies like Seventh Generation (now owned by Unilever), Green Forest and Whole Foods Market, which earned As in its scorecard for producing tissue and toilet rolls that use 100% recycled fibres, and don’t use chlorine in the bleaching process. ■

Angeli Mehta



ROKAS TENYS/SHUTTERSTOCK

Europe urged to plug 'biomass loophole' and stop burning trees for renewable energy

Conservationists warn the fate of the world's forests may be at stake if EU continues to regard biomass as carbon-neutral while ramping up its renewable energy targets. [Angeli Mehta](#) reports

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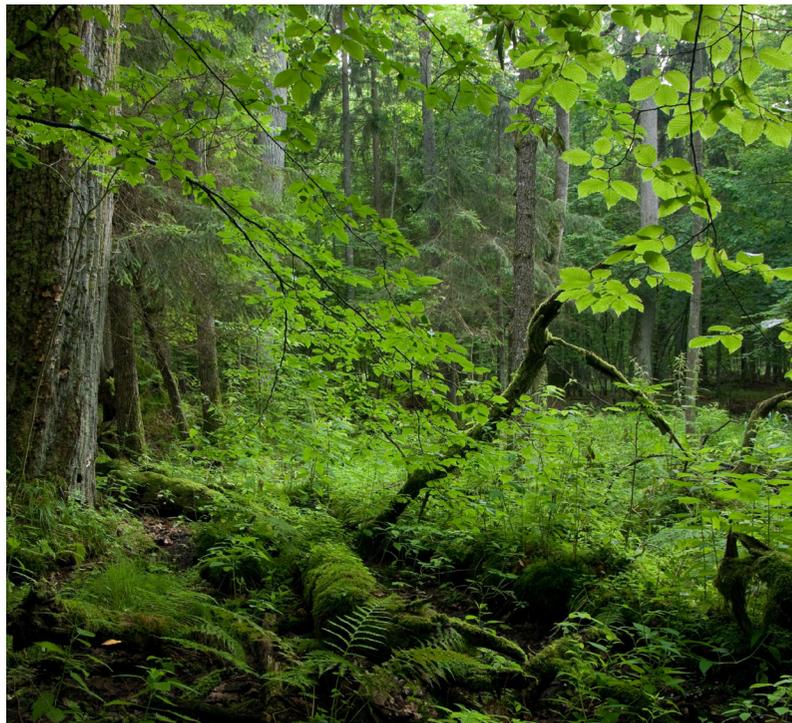
The European Commission last July set out a plan to step up action to protect and restore the world's forests, with a priority being to address deforestation in corporate supply chains.

But conservationists warn that the EU could be endangering the world's forests if it continues to allow the burning of wood biomass as a substitute for fossil fuels as it ramps up its renewable energy targets.

According to the UN, CO₂ is taken up by forest regrowth, so the process can be considered carbon-neutral. But scientists say that doesn't take account of how long it takes forests to regrow enough to absorb the CO₂ emitted by burning, especially as an unharvested forest would have carried on sequestering carbon.

There is also a "biomass loophole" in international greenhouse gas (GHG) accounting rules set out in the 2009 Kyoto Protocol – and designed to avoid double counting – that mean when a country imports biomass to be burnt it can be reported as zero emissions because the carbon was assumed to be released at harvest and recorded in the exporting country's land use/forestry accounting.

Ironically, if a country burns coal it counts in its emissions tally, but if it burns imported wood biomass it doesn't, even though wood is less energy-



ALEKSANDER BOLBOT/SHUTTERSTOCK

The 2009 Kyoto Protocol doesn't discriminate between old-growth forests and young plantations.

dense than coal and so emits more CO₂ per unit of energy produced.

"The concept of the carbon-neutrality of forest biomass may have had some validity in 2009, when the urgency of tackling global warming was less widely recognised," says Michael Norton, environment programme director at the [European Academies Science Advisory Council \(Easac\)](#). "But the focus today is on limiting global warming to 1.5 or 2C. This requires urgent actions, not waiting for new trees to grow while pumping additional carbon into the atmosphere by burning trees for energy."

Biomass accounted for 7.5% of final energy consumption in Europe in 2016, and 44% of renewable energy consumption. This is set to rise as [the revised directive \(RED II\)](#) has an overall target of 32% of the energy mix coming from renewable energy sources by 2030, up from 20% in its first incarnation.

In January 2018, [796 scientists](#) wrote to the European Parliament urging it to amend RED to restrict eligible forest biomass to appropriately defined residues and wastes, "because the fates of much of the world's forests and the climate are literally at stake."

One of its signatories was John Beddington, a former chief scientific adviser to the UK government.

The EU already imports biomass because its annual harvest of wood is not enough to meet >



The focus today is on limiting global warming to 1.5 or 2C. This requires urgent actions, not waiting for new trees to grow



COATESY/SHUTTERSTOCK

Scientists warn that expanded EU targets would lead to increased degradation of forests around the world

existing demand. The expanded targets would lead to increased degradation of forests around the world, the scientists warned.

Moreover, Europe would be creating a dangerous precedent. “Europe has been properly encouraging countries such as Indonesia and Brazil to protect their forests, but the message of this directive is “cut your forests so long as someone burns them for energy”.

To supply just another 3% of global energy with wood they said, would double the commercial cuttings of the world’s forests.

But this intervention, along with a series of scientific reports from Easac and others, cuts no ice: biomass is still considered in the same way as solar and wind energy by the EU.

Mary Booth, director of the US-based [Partnership for Policy Integrity](#) (PFPI), describes the policy as a “massive fraud being perpetrated on people and the planet”. She coordinated a lawsuit filed at the European Court of Justice last spring to challenge it.

POWER FROM PELLETS

The UK and Denmark have been particularly enthusiastic about using wood pellets to replace coal in power plants.

The Drax power station in north Yorkshire has upgraded four of its units to burn wood biomass, rather than coal, which it describes as Europe’s largest decarbonisation project.

It has an ambitious strategy to use carbon capture and storage technology, which it says would make its electricity production [carbon-negative](#) by 2030,

The Drax power station in Yorkshire is burning biomass instead of coal in four of its units.

and last month announced a new partnership with cleantech company Econic Technologies to explore the potential for using captured CO₂ in the production of plastic products.

In 2018 it used around 6.6 million tonnes of wood pellets to produce 12% of the UK’s electricity. Most of the fuel comes from North America: from its own plants, and from those of US firm Enviva.

Drax says the pellets are made from a mix of low-grade wood that would otherwise not find a market – tops, thinnings, sawmill and other residues – and that these represent just a fraction of the low-grade fibre and residues available. It assumes the residues would have been burnt or left to decompose on the forest floor, also releasing carbon, and argues the new market created by demand for biomass helps encourage forest owners to maintain their forests as forest.

Drax has set up an independent advisory board, chaired by Beddington, which has just concluded that its fuel sourcing meets standards set by the UK’s Forestry Commission. A spokesperson for Drax said: “These criteria are specifically designed to ensure good carbon outcomes, therefore negating the risk of carbon debt or payback periods that are out of step with the timescales we have to tackle climate change.”

The advisory board also recommended a review of existing evidence on sustainable biomass to “advance understanding among academics, policymakers and environmental groups”, and to identify where further work is needed.

Beddington said: “It’s a complex area to navigate” ➤

JUAN ENRIQUE DEL BARRIO/SHUTTERSTOCK



Biomass pellets are made from a mix of low-grade wood such as thinnings, sawmill residue and used pallets.



The biomass industry only exists because of subsidies, which is ironic when we're subsidising other countries to keep their trees

and if some common ground based on the scientific evidence can be agreed, it creates a framework to help ensure the right types of biomass are used which make the greatest contribution towards addressing the climate emergency.”

But substituting fossil fuels with biomass relies on subsidies. In 2018 Drax received **£789m from taxpayers.**

“You could take account of the public good of forests – and just subsidise that,” says Duncan Brack, associate fellow at Chatham House and co-author of a [series of reports](#) on the growth of wood for power and heat and its implications for the planet.

“The industry only exists because of subsidies, which is ironic when we're subsidising other countries to keep their trees.”

And while the pellet industry says responsible, active management of forests boosts carbon stock, research shows that intact forests store more carbon dioxide in both trees and soil, and older forests sequester more carbon than young ones, [carbon accumulation](#) increasing continuously with tree

size. It's been suggested that forests of between 70 to 125 years are going to sequester the most carbon in the near-term.

“You have to show that by managing it you are actually promoting growth and immediately replanting,” suggests Brack. “Cutting trees means you lose soil carbon, and with monoculture plantations there's more loss of carbon because you get constant churn.”

Morgan Gillespy is director of forests at CDP, which awarded Drax a B in its recent scorecard on deforestation risk. She said most forests in North America are “fairly sustainably managed”, but added: “We are seeing that the climate conversations are still siloed from the forests conversation.”

Despite lobbying by conservation groups to revise the definition of forests in the rulebook for implementing the 2015 Paris Climate Agreement, it was not part of the negotiations at COP25 in Madrid.

Nevertheless, at a press conference at COP25, EU executive vice-president [Frans Timmermans](#) suggested the EU view of biomass as carbon-neutral would have to be reviewed.

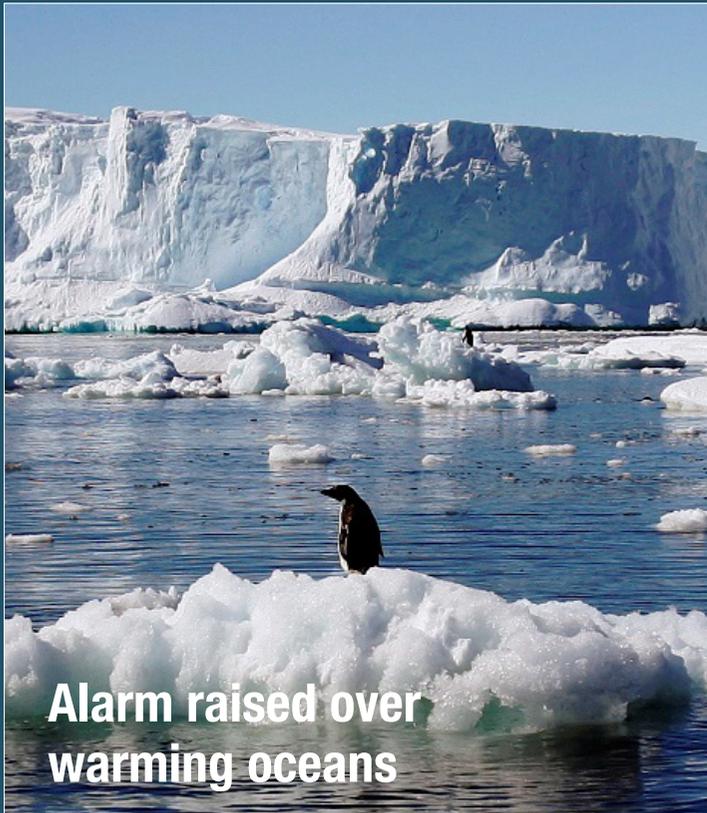
“The issue of biofuels needs to be looked at very carefully,” Timmermans said. “We have to make sure that what we do with biofuels is sustainable and does not do more harm than that it does good.” It's not clear, however, how soon that review might come. ■

Angeli Mehta



WHAT'S ON THE WEB

CSR CHEAT SHEET



Alarm raised over warming oceans

In his monthly roundup of sustainability news, Oliver Balch looks at the implications of rising ocean temperatures for climate change, the business sectors most at risk from nature loss, and why 2020 is a breakthrough year for sustainability.

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'Larry Fink, the FT and Prince Charles are right: it's time for a reset on capitalism'



Five sustainable business trends to watch for in a critical year

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