

# UNWRAPPING A DISASTER

The human cost of overpackaging





A wall of cut trees, Finland.  
Source: Forest Defenders Alliance

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## Executive summary: an avalanche of waste paper

No-one actively seeks to be burdened by excess packaging. Throwing away or recycling mountains of outsized delivery boxes is frustrating. Discarding piles of dirty food containers is inconvenient. Deciphering the various recycling symbols printed on your drink cartons can be bewildering.

Packaging and packaging waste in the EU is rising [faster](#) than Gross Domestic Product (GDP).

In the EU we use and throw away increasing amounts of packaging relative to the products we buy. And the most widely used and fastest growing packaging material is paper and card.

The average EU citizen disposes more packaging waste today than ten years ago, with paper packaging accounting for a full extra 10 kilograms per person each year.<sup>1</sup>

### Three billion trees

Underpinning this explosion in waste is an overall rise in EU consumption way beyond what the planet can comfortably [sustain](#).

More specifically, the surge in paper packaging waste is being driven by the growth in online shopping, which accelerated during the COVID pandemic, and the shift away from disposable plastic food containers.

To meet this rising demand, old paper and pulp mills are expanding across Europe, and new ones are being built.

Roughly [three billion trees](#) are cut down annually around the world to meet the demand for paper packaging. The pulp and paper industry is one of the world's major polluters and heaviest users of fresh water. [It also consumes four per cent of the world's energy](#) and is chemically intensive, polluting rivers and harming ecosystems.

### Skeletal monocultures

The damage goes further.

The pulp and paper industry has profoundly shaped our perception of forests by influencing the way they are managed throughout the world – and helping spread industrial commercial monocultural plantations globally.

The guiding principle of monoculture plantations is economic efficiency: maximising yields of a single tree species to produce skeletal monocultures. It's a forestry model many national governments support.

This shift to managed, monocultures in the past half century or so has been so extensive that in many parts of the world peoples' memories of real forests barely exist.

This briefing charts how we reached this point - via the spread of a forestry model that can be traced back to Prussia and Saxony in the late 18th century.

It also offers snapshots of the human and environmental damage the pulp and paper industry is leaving in its wake: from devastating forest fires in Portugal to land conflicts in Chile, from Finland's collapsing carbon sink to Sweden's monoculture tree plantations, and the ravaging of Indonesia's carbon-rich peatlands.

<sup>1</sup> [Eurostat figures](#) report that in 2012 paper packaging waste production was 62.78kg/capita, while in 2020 the figure was 73.11kg/capita. This overall figure masks considerable variation across different EU countries.



## Beyond disposable packaging

Packaging waste in the EU is still on the rise – projected to rise another 19 per cent in the next seven years without intervention. This trend must be arrested.

In an effort to do so, in November 2022 the EU published a new [Packaging and Packaging Waste Regulation](#). It lays out a target to reduce overall packaging waste, and places limits to overpackaging, while providing consumers [with reusable packaging options](#) and clear labels to support correct recycling - all of which is welcome.

But the response from some in the packaging and goods industries has been to champion a wholesale move towards disposable paper packaging, as a way of minimising plastic packaging. This is a grave error.

As momentum grows for a world [beyond plastic](#), we must also move beyond seeing pulp and paper as a sustainable alternative – and loosen the pernicious stranglehold the sector holds over forests in Europe and beyond.

The answers are out there for anyone who cares to look. Reduce unnecessary packaging and invest in long-term, workable packaging reuse systems.

The revised Packaging and Packaging Waste Regulation could be a golden chance for the EU to play its part in making this happen, and embrace a truly circular economy. To do so, the Regulation needs to intensify its focus on *reducing* packaging waste production, and prioritise this over useful but ultimately insufficient targets around recycling rates and recycled content.

The pulp and paper industry is trying to [thwart such a move](#).

This report outlines facts and figures and offers case studies to show why the industry must not succeed in weakening this crucial Regulation. Paper packaging is not a sustainable alternative to plastic and reducing our packaging footprint is therefore an essential part of efforts to protect the forests, the people you will meet in the case studies, and the climate we all depend upon.



Removing dead trees after a devastating fire in the Coimbra district of central Portugal.

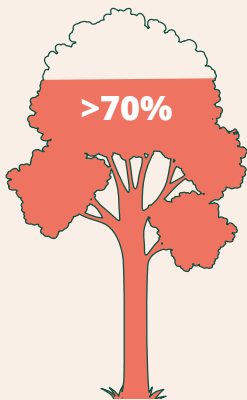
Source: Fernando Amaral.



## Box 1: Where does paper consumed by Europeans come from?



Most of the pulp and wood used to make paper in the EU was sourced from within the EU, with huge impacts on Europe's forests. However, European paper consumption also has an impact on forests outside the EU. Key countries that the EU imports from are Brazil, Uruguay, Chile and the United States. In 2020, it also imported huge amounts of wood for paper production from Russia and Belarus – seven million and 3.4 million tonnes respectively. With Russian, Belarussian and Ukrainian imports currently in limbo, 57 per cent of the imports (six per cent of the overall raw material need for Cepi's pulp and paper production) are prone to leaking into other countries and increasing domestic pressures to intensify logging.



The paper industry claims that wood used to make paper comes from waste and residues – but this is far from the truth.

**The vast majority- over 70 per cent - of the virgin wood used for pulp and paper production comes from round-wood. According to the industry, these are logs and branches. The rest comes from chips and residues from sawmills.**





In 2017 the pines and other trees that surrounded Fernando's village burned down. They were rapidly replaced with eucalyptus plantations which will make the problem worse.

Source: Fernando Amaral.





## PORTUGAL

Portugal is Europe's biggest eucalyptus pulp producer. People and nature are paying the price.

Fernando Amaral's life was upended on October 17, 2017.

That month, in the midst of a record-breaking drought, wildfires swept across rural Portugal for the second time in a few months, reaching his small village of Casal do Gago / Fonte Longa, in the Coimbra district of central Portugal.

"It was like being in the middle of a hurricane," Amaral recalls.

At first he tried to save the home he shared with his partner. But as the fire advanced, he struggled to breathe and ran away, ending up lying on the road in the village's main street. Amaral, a social anthropologist and documentarist, nevertheless managed to capture the devastation on [film](#), ending with the burnt out husk of his home, where his most treasured possessions were reduced to ashes: the irreplaceable photos, negatives, books and music he had accumulated over a lifetime.

Today, like many of his neighbours, Amaral remains traumatised: "Every time I hear a fire engine or an ambulance, I look around for fire."

Not only has the state largely abandoned the fires' victims, he says, but Casal do Gago / Fonte Longa, where he still lives with his partner and young child, remains surrounded by eucalyptus plantations: a key factor in helping the fire spread.

***"You can walk 100 kilometres and still see eucalyptus. We're suffering from a disease of monoculture. It's like living in a green desert"***

Fernando Amaral

2017 should have been a [moment of reckoning](#) for Portugal's mighty paper and pulp industry: the year it finally faced up to the enormous damage it was causing. In total, that year [fires](#) ripped through half a million hectares of land, killing [120 people](#).

The intensity and speed of the blazes was hastened by the single species eucalyptus plantations which sprawl across a quarter of Portugal's 'forested' land, making the country Europe's biggest eucalyptus pulp producer.



Eucalyptus grows fast, has a high yield, is easy to harvest and has favourable characteristics for pulp production, making it a cost-effective material.

It also burns like tinder: both the leaves and bark are flammable, due to the presence of [highly combustible eucalyptus oil](#), and the bark flies off when burned, [sparking new fires](#) up to [three kilometres away](#), creating secondary fire fronts.

Proportionate to its size, Portugal has the largest area of eucalyptus plantations of any country in the world: a trend which accelerated after Portuguese companies were forced to abandon their eucalyptus plantations in Angola and Mozambique in the 1970s, as those countries threw off Portugal's colonial yoke.

Most of the Portuguese pulp industry was nationalised in 1975, becoming Portucel, which marked a qualitative and quantitative change for the industry. Nineteen eighty-four gave rise

to the now giant Sorpocel cellulose firm, and by 2006, Portugal was the tenth largest pulp producer in the world.

### Industry 'greenwashing'

Yet even in the wake of 2017's terrible fires, the industry – whose exports account for [1.5 per cent](#) of Portugal's GDP – was not about to relinquish its economic and political power, whatever the human and environmental cost. The industry body [CELPA](#) quickly claimed that much of the criticism directed at eucalyptus plantations was based on "[myths](#)".

Yet, as Professor [João Paulo Fidalgo Carvalho](#), a renowned forestry expert who has worked on close-to-nature forestry projects across Europe, points out, the problems with eucalyptus plantations extend far beyond how incendiary they are.

As well as biodiversity loss, soil degradation and erosion, water depletion, and floods,



Fernando Amaral in the burned-out wreckage of his home, October 2017





Eucalyptus trees are planted like crops across thousands of acres in Portugal.

Source: Fernando Amaral.

***“The [eucalyptus plantations] are killing the area, but if we can have proper forests here, then we can attract tourists and have a local economy”***

Fernando Amaral

Carvalho highlights evidence showing that the plantations have destroyed stream species and river forest ecosystems, and effluents from [pulp factories](#) have [polluted](#) rivers.

Moreover, it is easy to dismiss the industry’s attempt at ‘greenwashing’ with claims that since eucalyptus is a fast-growing species it sequesters carbon.

“While it grows fast, it’s short rotation – plantations are harvested in 10-12 years – and therefore the sequestered carbon above and below ground is lost / removed,” explains Carvalho. What’s more, eucalyptus plantations rely on heavy soil mobilisation, which also lead to soil carbon losses, he says.

“Commonly, the paper industry here claims that they are producing high quality paper. But at what social and environmental costs? Despite other issues, paper could be manufactured by other means and sources,” Carvalho argues.

Efforts to tackle the damage caused by the paper industry have so far come to little.

In 2017, the Portuguese government introduced [Arborização e Rearborização](#) (RJAAR), a law which was meant to curb the expansion of eucalyptus plantations.

Yet the outsized political influence the paper and pulp sector continues to hold in Portugal, means that the law has proved little threat to the industry, who moved operations to the Galicia province of Spain.

But Fernando Amaral is among the increasing number of people trying to turn the tide. He is involved in a scheme planting local native trees in his area, with the mission of transforming it from “ground zero” in the aftermath of the fire, to a diverse landscape, rich in colours and nature.

**19%**

The amount that EU packaging waste will increase by 2030 without any action



## Box 2: Packaging Regulation: an overview



In November 2022, the European Commission published the Packaging and Packaging Waste Regulation, its proposal for revising EU packaging and waste rules.

There is much to celebrate in this proposal: it is the first time the EU has had a target for reducing overall packaging waste.

But if it is to arrest the paper industry's long-standing damage to forests and people, the Regulation needs to go much further.

In relation to paper, the Regulation has three major problems that could actually promote a shift towards more disposable paper packaging:

The focus is too much on improving waste disposal and recovery, which means **there will be an incentive towards increased use of paper and card**, as the (imperfect) recycling and incineration infrastructure for these materials is more established across the EU.

The overall packaging waste reduction target is tiny – so when considered alongside sister legislation like the [Directive on single-use plastics](#) that limits expansion of certain kinds of packaging materials, **paper/card is likely to see the smallest reduction**. The Packaging and Packaging Waste Regulation requirement for plastic packaging to contain a minimum recycled content amount could also push companies towards paper packaging, where there is no such requirement.

The bulk of recent expansion in disposable paper packaging use comes from e-commerce and fast food – both industries where consumers have very little control over the packaging, but are also left with the responsibility of dealing with it. Fixing these sectors requires systems change – reuse systems – **but the reuse targets for e-commerce and fast food containers are among the weakest of all** the reuse targets in the Regulation (10 per cent by 2030 for e-commerce and Hotel, Restaurant, Catering (HORECA) products, which is the joint lowest target except for wine bottles).

See [here for the NGO demands](#).



# FINLAND

As evidence accumulates of the damage caused by Finland's forest industry, public attitudes to it are changing. But will it be too late to reverse the harm?

The [news](#) that Finland's land use sector had become a net emitter of carbon dioxide reverberated through the country last year.

The [over-logging](#) driving it is also having a disastrous impact on nature. [Analysis shows](#) that 20,000 hectares of forest defined as the richest in terms of species was cleared or planned to be cleared in 2020 alone: the equivalent of around 30,000 football fields.

For the so-called 'forest nation' of Europe, whose forests are [integral](#) to the economy and culture, this was described as an "[outright](#)

[national emergency](#)", which imperilled its climate commitments and generated alarming [headlines](#).

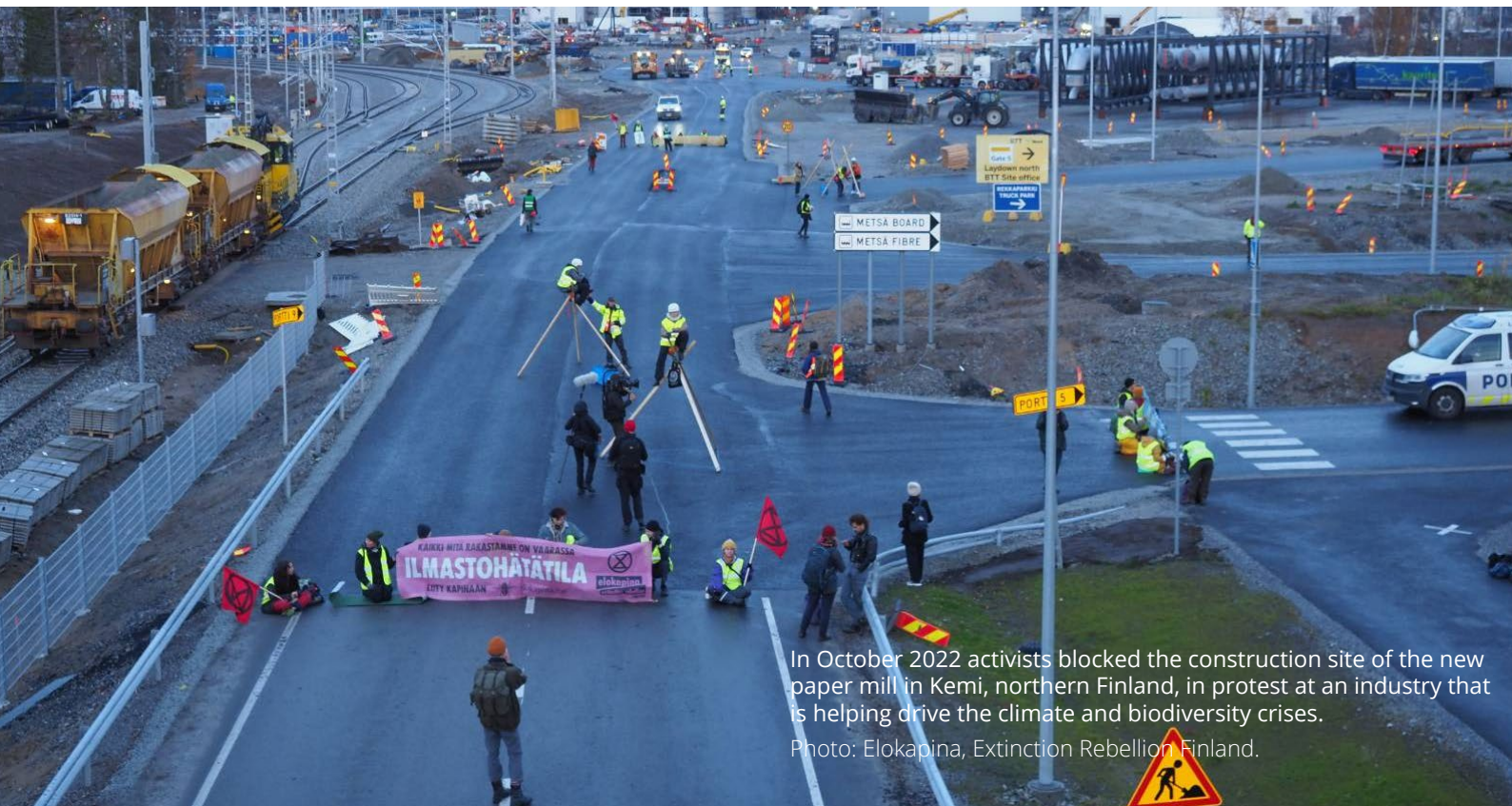
Yet, says [Sommer Ackerman](#), Project Coordinator at Luontoliitto (The Finnish Nature League), largely missing from the debate was the role played by the paper and pulp industry in creating this damage: "The conversations are always that Finland is overlogging, but they don't go into much detail about what for."

***"Finland portrays itself as a country of forests, but in reality it's a country of clearcuts, and degradation - carried out in the name of the pulp and paper industry and burning forests for energy"***



**Sommer Ackerman,**  
Project Coordinator at Luontoliitto  
(The Finnish Nature League)





In October 2022 activists blocked the construction site of the new paper mill in Kemi, northern Finland, in protest at an industry that is helping drive the climate and biodiversity crises.

Photo: Elokapiina, Extinction Rebellion Finland.

## Threatening old growth forests

The evidence though, is clear. According to the [latest](#) statistics from the Natural Resources Institute of Finland (Luke), in 2021 cardboard and paper were the forest industry's most significant exports, accounting for 47 per cent of the total value.

Meanwhile a Greenpeace Finland [analysis](#) of the Finnish forestry giant the Metsä Group's supply chains found they represented a threat to Finnish old growth forests. "Ultimately, wood from these forests... risks ending up as packaging in EU supermarket shelves or as parcels at the post office," Greenpeace's report said.

The Metsä Group, which [describes](#) itself as "the world's leading producer of pine-based pulp", is currently replacing its pulp mill in Kemi, in northern Finland with a new bioproduct mill. This, it [boasts](#), will be "the largest forest sector production facility in the northern hemisphere", and will be underpinned by the [largest investment](#) in the history of the forest industry.

Once the new mill is operational, Finland's annual logging volume will [reportedly](#) increase by as much as 4.5 million cubic metres, reducing the country's forest carbon sink by a further 6-7 million tons. Given that Finland's forests are already besieged, why is this going ahead?

## Deeply entrenched

The answer partly lies in the historic alignment between the forest industry and the state. As well as enforcing legislation, Finnish governments funded and steered forest management in the first half of the 20<sup>th</sup> century.

In the aftermath of World War II, the forest industry assumed greater importance than ever, as the main pillar on which the country's economy was rebuilt. The pulp and paper sector was at the heart of it. By the 1950s, in order to extract ever greater volumes of wood from Finland's forests, a major shift was underway in their management: with the system of clear cutting and replanting being legally enforced.

Forestry became more intensive and reliant on artificial regeneration, culminating in the



state-wide prohibition of selective cutting in 1950. The law promoted planting, soil preparation, use of fertilisers and herbicides, ditching and monocultural, even-aged stands.

[Juha Aromaa](#), Deputy Programme Manager at Greenpeace Nordic, points out that as late as the 1970s, forest owners were still being taken to court if they refused to clear cut and replant. At the same time as clear-cutting techniques were entrenched, and diverse forests replaced with monocultures, carbon-rich peatlands were being forested.

The legacy of this can be seen in Finland's wrecked forests, [destroyed wetlands](#) and collapsing carbon sink.

Yet as evidence continues to pile up showing the damage the forest industry has wrought, public attitudes are changing, and Aromaa sees signs of hope.

"The forest industry and their interest groups have had such a high status in Finnish society for so long, but they have lost their hegemony on the topic. Opinion polls are showing very high support for more [forest] protection, and this has become one of the hottest political issues in the country, especially as it is so connected with Finland's climate targets," says Aromaa.



the amount of wood harvested that goes directly to pulp and paper production

Clearcutting is a widely used system in intensive forest management across Finland.

Source: Kersti Lindstrom / Shutterstock.





### Box 3: How the pulp and paper industry changed the face of forest management



The image on the left shows a monoculture plantation whilst the right hand image shows a diverse forest with coniferous and deciduous trees and vegetation under the canopy.

Source: Nblx (left image) and Jamo Images (right image) / Shutterstock.

The history of papermaking in Europe stretches back to around 1150, but the pulp and paper industry as we know it began in the 19<sup>th</sup> century with two major developments: the growing demand for wood as a raw material and the advent of mechanisation.

The forest management principles deployed in Germany, Denmark, Sweden and Finland were based on the 18<sup>th</sup> century Prussian/Saxon forestry methods aimed at maximising the yield of a single species. This “scientific forestry” model was characterised by uniformity, neatness, minimal diversity and ease of quantification – foreshadowing all monocultural plantations worldwide.

Today Europe is the second biggest pulp and paper producer in the world, after North America, where production is declining. Imports of market pulp come from Brazil, Uruguay and Chile.

#### Government-sponsored industry

At the turn of the 20<sup>th</sup> century, tax incentive programmes attracted investments in plantations and pulp mills.<sup>2</sup> Governments sponsored research, and developed forestry programs in state universities, invested in mill development and, in some cases, created state-owned forests for industry use.<sup>3</sup> National research institutions developed trees genetically tailored to serve the large-scale pulp industry.<sup>4</sup> Once the research started to bear fruit and funding was made available, vast plantations of non-native, modified pine and, particularly, eucalyptus plantations were established, which form the material basis for today’s industry.<sup>5</sup>

2 Arttu Malkamäki and others, ‘A Systematic Review of the Socio-Economic Impacts of Large-Scale Tree Plantations, Worldwide’, *Global Environmental Change*, 53 (2018), pp90-103.

3 Klein and Luna.

4 Lima-Toivanen.

5 Klein and Luna.



### BOX 3: HOW THE PULP AND PAPER INDUSTRY CHANGED THE FACE OF FOREST MANAGEMENT

Consumers and retailers have pressured forestry companies to join certification schemes, such as the Forest Stewardship Council (FSC), designed to ensure forest-based products' environmental and social sustainability.

Numerous cases, however, demonstrate that certification is rarely a guarantee of sustainability. Most problematically, FSC promotes consumption by helping companies to market environmentally and socially harmful and economically unviable monocultures reliant on public subsidies.<sup>6</sup>

#### External markets

While the South American pulp and paper industry dates back to the mid-20<sup>th</sup> century,<sup>7</sup> it wasn't until much later that it transformed into the massive industry it is now.

Their expansion is directed at external markets,<sup>8</sup> especially the EU, which accounts for 40 per cent of these exports. China is the next largest recipient of South American pulp and paper<sup>9</sup> some of which is used to package the Chinese products that ultimately end up in the hands of European consumers.<sup>10</sup>

The liberalisation of South American economies has driven the industry's rapid growth, attracting producers from abroad and foreign investment from multinational companies.

#### Future outlook of the pulp and paper industry

The forest industry is now looking forward and evolving pulp mills into biorefineries.<sup>11</sup> Their hold on existing infrastructure gives them a competitive advantage in the race to meet market demands for biobased products such as plastics, chemicals and more.<sup>12</sup>

A truly green transition would see the industry diversifying towards high value, lower quantity forest products and away from low value, high quantity, short-lived products (such as paper and bioenergy). The direction of travel will depend on national and international policies, particularly regarding energy and climate.<sup>13</sup>

Meanwhile, plantations are expected to continue growing to meet demand. Land conversion in the global South is growing at such a pace that few state institutions are able to monitor and regulate them.<sup>14</sup>

6 Kill.

7 Maria Barbosa Lima-Toivanen, 'The South American Pulp and Paper Industry: The Cases Brazil, Chile, and Uruguay', in *The Evolution of Global Paper Industry 1800-2050: A Comparative Analysis*, by Jari Ojala, Mirva Peltoniemi, and Timo Särkkä (Dordrecht: Springer Netherlands, 2012).

8 Lima-Toivanen.

9 Manuel González-Gómez, 'Dynamics of Pulp Exports from South America to the European Union', *AUSTRIAN JOURNAL OF FOREST SCIENCE*, 136.4 (2019), 313–30.

10 Christopher Barr, Keith Barney, and Sarah Laird, 'Governance Failures and the Fragmentation of Tropical Forests', in *Global Forest Fragmentation*, 2014.

11 Sari Hämäläinen, Annukka Näyhä, and Hanna-Leena Pesonen, 'Forest Biorefineries – A Business Opportunity for the Finnish Forest Cluster', *Journal of Cleaner Production*, 19.16 (2011), 1884–91.

12 Hämäläinen, Näyhä, and Pesonen.

13 Elias Hurmekoski and others, 'Frontiers of the Forest-Based Bioeconomy – A European Delphi Study', *Forest Policy and Economics*, 102 (2019), 86–99.

14 Kröger, 'Political Economy of Global Tree Plantation Expansion'.



Headquartered in Santiago, Chile, Arauco is a global producer of forest products, including pulp and paper.

Source: Larry Lamb, Flickr/CC.

## CHILE

The history of the pulp and paper industry in Chile is steeped in social conflict, land grabs and human rights violations. These legacies are still playing out today.

The Indigenous Mapuche people in southern central Chile have paid a heavy price for the economic success of the country's pulp and paper industry – which along with Brazil and Uruguay, produces about a third of the world's pulp exports.

In their native Mapudungun language, Mapuche name means "[people of the land](#)". But over the last 50 years, the Mapuche have lost vast tracts of it, as it has been appropriated and converted into pine and eucalyptus monocultures to feed the pulp and paper industry.

"The violation of Indigenous Peoples' human rights has a long history in Chile," says Camila Romero, of [Colectivo VientoSur](#), an organisation which supports Indigenous Peoples in their territorial claims. "The communities are surrounded by plantations, huge territories that were taken illegally from them."

While this dispossession is rooted in colonialism, the Mapuche – who are Chile's largest Indigenous group with a population



**Camila Romero,**  
Colectivo VientoSur

of around [1.3](#) million people – can trace their current struggle against the pulp and paper industry back half century.

In 1973, Chile's democratically elected government was overthrown in a coup d'Etat which brought the military dictatorship of General Augusto Pinochet to power.

One consequence of the sweeping deregulation and privatisation that the Pinochet regime imposed, was that Indigenous Peoples' land was handed to pulp and paper companies without compensation or consultation.





## Forcible eviction

The biggest beneficiary was [Celulosa Arauco y Constitución](#) (Arauco), a company which emerged out of privatisations and merges that happened under the auspices of the violent military dictatorship. The military junta enabled the company to obtain more than a million hectares of land – much of it from Mapuche communities – which they then received large subsidies to convert into timber plantations. Arauco officials, with the support of the army, forcibly removed local communities from their land.

Since then, the state has continued to promote the planting of large areas of pine and eucalyptus through [Decree Law 701](#), which Pinochet [introduced](#), and the so-called ‘forest subsidies’.

The legacy of this continues in the [long-standing conflict](#) between the forest companies and the Mapuche, who want their ancestral lands back.

***“The violence that the Mapuche face by the pulp and paper companies is both physical and symbolic”***

Camila Romero

“The return of democracy in Chile did not remedy the damage wrought by the dictatorship,” notes the Environmental Paper Network (EPN), in a detailed [report](#) on the conflict published in 2022. “Natural forests have not been restored, nor have stolen lands been returned to their

traditional owners. On the contrary, large-scale plantations have continued to expand and put pressure on surrounding habitats... At the same time, when Indigenous communities tried to reclaim their traditional lands, they encountered violence and criminalisation.”

In May 2022, President Gabriel Boric [declared](#) the [latest](#) state of emergency, as the conflict in the southern areas intensified.

What’s more, the way that the conflict is covered in Chile, she adds, is infused with racism. “There is no mention of the Mapuche people’s political demands and struggle, the violence they face and the responsibility of the state for it.”

Losing their land is not the only harm that the Mapuche have endured as a result of the plantations, which expanded by a [factor of ten](#) in Chile’s southern central landscapes between 1975 and 2007.

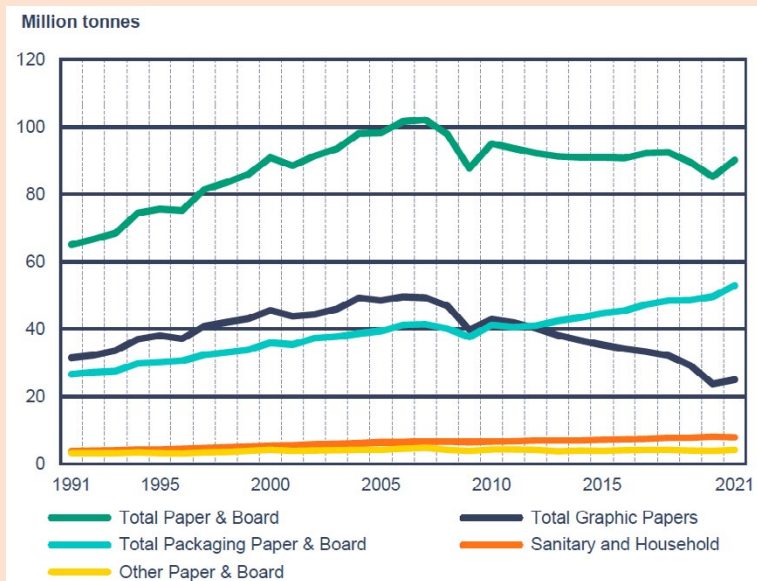
They have depleted water supplies, which – along with the climate crisis – have helped cause drought and drive forest fires.

The most recent of these, which started at the end of January, raged across the south of the country, destroying more than 430,000 hectares and leaving at least [24](#) people dead.

Experts, as well as local communities and environmental defenders, have long warned Arauco of the combustibility of pine and eucalyptus – and the range of ecological problems they cause. So, there was a bitter irony in the company’s claim that it had potentially lost [US\\$50 million](#) because of the fires’ damage to 47,000 hectares of its plantations.



## Box 4: Soaring demand for packaging in the EU is intensifying pressure on forests



Historical trends in the production of paper and board in CEPI countries, Cepi Preliminary Statistics 2021.

Because of digitalisation, graphic paper production dropped by 35.8 per cent between its peak in 2005 and 2018 in Europe.<sup>17</sup> This could have meant that a key pressure on forests faded. But reality turned out to be different. Between 1991 and 2018, European paper and board production rose by 42.1 per cent. This is because pulp used for packaging paper and board production exploded, nearly doubling (+82.5 per cent).

## Box 5: Mapping the expansion of paper mills

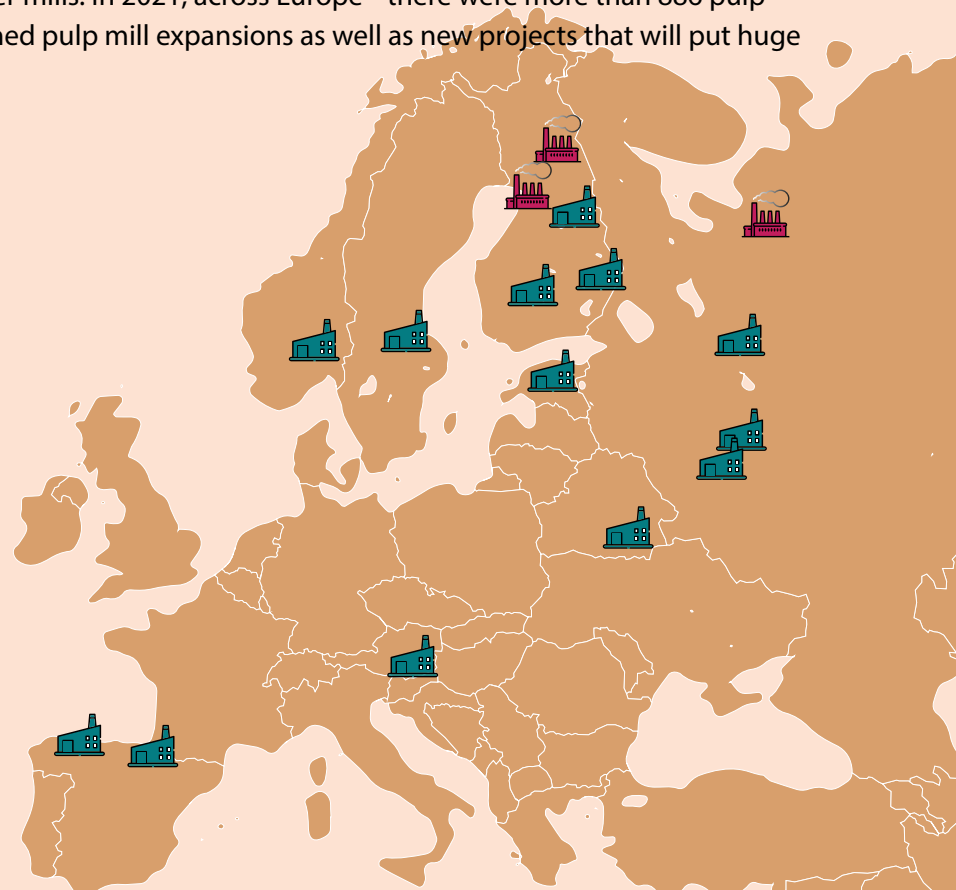
Europe is peppered with pulp and paper mills. In 2021, across Europe<sup>17</sup> there were more than 886 pulp and paper mills. There are several planned pulp mill expansions as well as new projects that will put huge pressure on the surrounding forests.



Major planned mills  
(400,000 tons/year or more)



Medium sized planned mills  
(100,000 to 400,000 tons/year)



<sup>17</sup> Europe here refers to countries that are members of CEPI which in 2021, were: Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom



## SWEDEN

The special status enjoyed by Sweden's pulp and paper industry has made it a market leader globally, but left a trail of destruction at home. No wonder the sector is lobbying furiously against any restraints.

If the name [Essity](#) doesn't ring any bells, it doesn't mean that you're not intimately acquainted with its products.

The company, whose headquarters are in Stockholm, is the world's [second largest](#) supplier of consumer tissue, and Europe's largest. As well as toilet paper, Essity produces household towels, wet wipes, facial tissues and napkins, among other things, under various well-known brand names.

In 2017, Essity attracted [widespread negative publicity](#) after Greenpeace [released](#) a report showing that the company was "directly linked to the ongoing destruction of the critical forest landscapes" in Sweden, which was "having significant negative impacts on more than 1,300 red-listed species".

The company responded by saying that it didn't agree with Greenpeace's conclusions, but that it would continue having a dialogue with them, as well as the Indigenous Sámi people, whose traditional lands and livelihoods were being harmed by clearcutting old growth boreal

forests for Essity's raw materials.

Yet in the five years since Greenpeace's report the destruction of Sweden's old growth forests at the hands of Sweden's pulp and paper industry has been as relentless as ever.

### No restraints

Sweden remains the world's [third largest](#) exporter of products such as short-lived tissue, pulp, timber and single-use paper; and it has [lobbied furiously](#) against any restraints on its activities, particularly in the EU corridors of power, where it has tried to [convince policy-makers](#) that its forestry model is sustainable; and that, in the face of all the evidence to the contrary, it protects the climate and biodiversity, while respecting Sámi rights.

Forest biologist Sebastian Kirppu has spent years meticulously documenting the destruction of endangered species in Sweden's forests at the hands of the country's forestry industry, which is dominated by pulp and paper.



A man with a goatee, wearing a green and blue jacket, a blue vest, a green and blue beanie, and blue pants, is sitting on a mossy log in a forest. He is looking towards the camera with a slight smile. The background is filled with tall, thin trees and a forest floor covered in rocks and low-lying vegetation.

***“We might be the best country in recycling plastic, cans and bottles, but when it comes to protecting Europe’s last remains of natural old growth forest ecosystems, we’re the worst.”***

**Sebastian Kirppu**  
Forest biologist



“The Swedish forest industry, forest owner associations and their forest companies tell politicians, the public and the rest of the world that the Swedish / Nordic forestry model is environmentally friendly and will save us from climate change,” he says. “This is the same level of fraud that the National Rifle Association (NRA) perpetuates in the USA, when it says more guns will keep people safe.”

A recent [Open Democracy](#) article offered a revealing glimpse into the scale and intensity of EU lobbying by the Nordic forest sector.

In 2021, for example, [Skogsindustrierna](#) the trade organisation for Sweden’s pulp, paper and woodworking industry, warned the EU Commissioner for international partnerships, Jutta Urpilainen, that too much forest protection could “fuel voices of protectionism, anti-EU cooperation and nationalism... In other words, the Commission is playing a political game with extremely high stakes.”

The Swedish forest sector, like Finland’s, has long benefited from significant political influence at home, which it has tried to replicate within the EU – with increasing success.

Swedish forestry’s sway over its country’s national politics is partly rooted in the formal and informal cartels, associations and lobby groups which have helped strengthen the industry. Close cooperation between industry organisations, sales cartels and purchasing organisations have also helped the sector overcome financial challenges.



The amount of paper consumed in the EU destined for packaging

**“Today, more money goes to tax rebates on electricity for climate-damaging companies, than into Sweden’s climate budget.”**

**Lina Burnelius**

International coordinator at Protect the Forest Sweden

### Special status

The special status that forestry holds in national life, is manifested in numerous ways.

Take for example, the huge energy tax rebates it’s given. About half of all energy consumed by Swedish industry is [used in paper and pulp mills](#), and the pulp and paper industry occupies the [top four spots](#) among Swedish companies receiving the most electricity tax rebates.

By way of comparison, says Lina Burnelius, International coordinator at Protect the Forest Sweden: “The electricity rebate the forest industries get for two to three years is [enough](#) to protect the entire internationally unique mountainous natural forest chain in northern Sweden.”

Moreover, she adds: “Today, [more money](#) goes to tax rebates on electricity for climate-damaging companies, than into Sweden’s climate budget. Additionally, the paper and pulp industry [does not pay carbon tax](#) and does not need to buy emission allowances for all the million tonnes of carbon dioxide it emits each year.”

The Swedish taxpayer is therefore propping up an industry that is [mis-shaping forest landscapes](#) by turning them into monoculture plantations, [reducing](#) Sweden’s carbon sink and threatening hundreds of forest species, including plants, animals, fungi and lichens.

“Nature has no rights at all in our country,” says Sebastian Kirppu. “We might be the best country in recycling plastic, cans and bottles, but when it comes to protecting Europe’s last remains of natural old growth forest ecosystems, we’re the worst.”



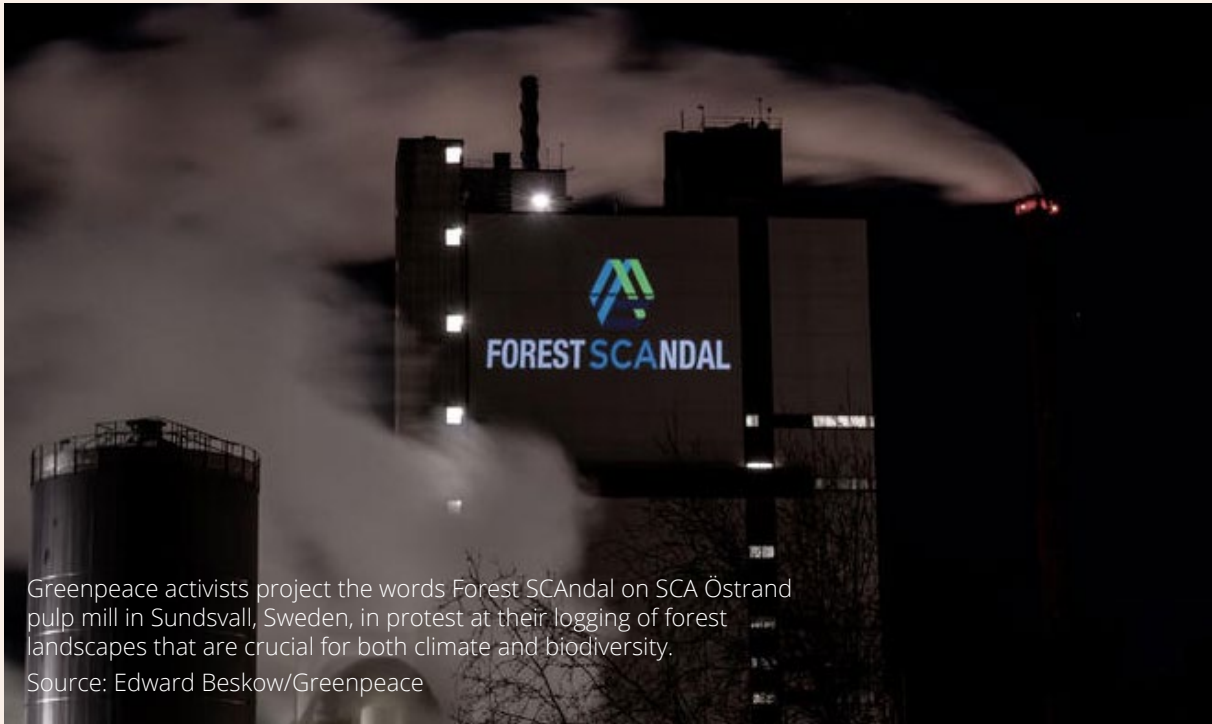


Östrand pulp mill in Timrå, Sweden, owned by SCA - Sweden's major pulp producer.

Source: Roland Magnusson, Shutterstock.



## Box 6: Industry myths and misinformation



The pulp and paper industry is desperate to ensure that the over-packaging era continues indefinitely. Consequently, a multitude of lobbyists (see image below for an incomplete picture of lobbying organisations active on this file) are drowning policymakers working on the Regulation in misinformation.

For example, this [study paid for by McDonalds](#) says that single-use packaging is virtually harmless and that re-usable systems are actually worse for the climate: not a surprising finding for a company whose business model is based on single-use packaging – even for those eating in.

Another study - this time paid for by the [European Paper Packaging Alliance](#) also argues that single-use paper packaging is better than re-use.





# INDONESIA

Stockpiles of rainforest logs at Asia Pulp and Paper's Indah Kiat Perawang pulp mill, Indonesia.  
Source: Greenpeace.

From its impact on people to the damage it inflicts on our climate and forests, Indonesia's pulp and paper sector has become synonymous with the industry's worst excesses.

Over the past two decades, the Indonesian pulp and paper industry has gained an unenviable reputation as a [notorious forest destroyer](#).

[Aidil Fitri](#) saw some of the damage the sector has inflicted first-hand growing up in a small village in South Sumatra in the 1990s. When timber (as well as palm oil) companies arrived in the area, the once healthy forests and pristine rivers surrounding his village were trashed.

Witnessing this led Fitri on a path to his current job: working for the [Hutan Kita Institute](#) (HaKI),

an organisation which protects forests, peatlands, and Indigenous and local peoples' rights.

For the past decade, Fitri has worked mostly in Sumatra with local communities, including Indigenous Peoples, to help protect their rights, which have been assailed by the pulp and paper industry.

Threatening the livelihoods of local communities is just one stain on the pulp and paper sector's ignominious record in Indonesia.

***“Communities have lost a lot of land. Plantation industries come to villages and take over the land and plant fast-growing species, like eucalyptus. And for the community, land is their life. Without it, it's hard for them to survive.”***



**Aidil Fitri**  
Hutan Kita Institute  
(HaKI)



## Leading emitter

It includes establishing extensive plantations on drained peatlands – a vast source of greenhouse gas (GHG) emissions. This practice has helped push Indonesia into being one of the planet’s leading GHG emitters, with degraded peatlands the source of more than 50 per cent of these emissions. GHG emissions from Indonesia’s pulp and paper sector from peat oxidation have been estimated to be higher than [Finland’s entire national emissions](#).

The pulp and paper sectors’ use of raw material from plantations on carbon-rich peatlands, has been a [major cause](#) of the series of catastrophic fires which have ripped across Indonesia in recent years. These fires have also been fuelled by longer and more frequent droughts because of global heating.

Research by Harvard and Colombia Universities found that the 2015 forest fires which [affected](#)

[the length and breadth](#) of Indonesia caused an estimated 91,600 premature deaths from smoke exposure, making it “[one of the deadliest environmental calamities of the modern era](#)”. (There were further deaths from the smoke in Malaysia and Singapore.)

As well as its impact on the climate and forests, and its role in deadly fires, the pulp and paper industry has also been implicated in [human rights abuses](#) and numerous [conflicts](#) with local communities.

## Intertwined global market

So where is Indonesian pulp and paper ending up?

In 2019, it contributed almost [16 per cent](#) of global wood pulp exports, with the Asia Pacific market of particular importance.

European [imports](#) of Indonesian paper and paperboard are negligible, yet the risk of



Forest fire in Indonesia  
Aulia Erlangga/CIFOR, Flickr/CC



Logs in transit to a pulp and paper company in Riau, Sumatra, Indonesia.

Source: Sofi Mardiah/CIFOR



Indonesian forest fibre finding its way on to the European market via bigger markets, such as China, India and Thailand, is high.

In Indonesia, the industry continues to grow [dramatically](#): Asia Pulp & Paper (APP) and Asia Pacific Resources International Limited ([APRIL](#)) Group, two of the world's largest pulp and paper producers, are expanding capacity at their pulp mills. The latter is also involved in building a new pulp mill in North Kalimantan, threatening a crucial biodiversity hotspot and large tropical forests.

Meanwhile, a recent joint investigation by the [International Consortium of Investigative Journalists](#) and others including Le Monde, revealed just how opaque and intertwined the global pulp and paper market can be: uncovering the hidden foothold that Indonesia's Asia Pulp & Paper (APP), one of the world's biggest paper producers, has in Europe.

APP and its suppliers have long been [linked](#) to forest and peat fires, deforestation and conflicts in their operation areas, and the investigation found that the Canadian company Paper Excellence - which has two pulp mills in France - is actually controlled by APP.


It is critical that the EU Packaging and Packaging Waste Regulation reduces overall demand for packaging to turn back the trend of increasing imports of fibre from tropical forested countries.



**180 kgs**

the amount of packaging waste each European generates in an average year





*"As momentum grows for a world beyond plastic, we must also move beyond seeing paper cups, plates boxes and packets and bags as a sustainable alternative – and loosen the pernicious stranglehold the sector holds over forests in Europe and beyond"*

Burned forest around an access road after wildfires in Murca, Portugal in 2022, when forest fires burned a record 700,000 hectares across the EU.

Source: Omar Marques/Anadolu Agency



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