

UP IN FLAMES

How biomass burning wrecks Europe's forests

Case study report





Opposition to Bioenergy in Poloniny, Slovakia

photo: WOLF Forest Protection Movement

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Case study report

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INTRODUCTION

Europe's once peaceful forests are being invaded. In the name of green energy. To meet European Union policies for reducing greenhouse gas emissions and promoting renewable sources of electricity and heating, governments are providing huge subsidies for the expansion of biomass burning in large power plants across the continent.

That usually means burning wood, which is a much denser source of energy than crop residues, organic waste or other plant crops, as well as being easier to transport in large volumes. So the subsidies are driving a boom in industrial forestry.

Europe's forests have for centuries been cut for household fuel, and more recently for community burners supplying heat to villages and even small towns. But what is under way now is very different. Energy facilities burning biomass require millions of cubic metres of timber a year. So, in place of the occasional wood-chopper or chainsaw, mechanised logging operators are driving new roads deep into mountain ranges and clear-felling whole forests.

Wood is sometimes supplied as logs, and sometimes as wood chips, but increasingly it is being transported in the form of pellets, which have been heated to remove moisture and compressed. This doubles the energy content of each tonne of shipment and makes long-distance shipment cheaper. In this form, wood is becoming a commodity that is increasingly being traded internationally.

According to EU data, almost half of harvested wood biomass in its member countries is now used for generating electricity and heating. It is the most important single renewable energy source, and



Clear-cut forest in North Carolina, US

photo: Dogwood Alliance

supplies about five per cent of total EU energy needs – a percentage that is likely to double by 2020.¹ That would make demand for biomass burning equal to the entire current wood harvest. Since other uses will not cease, the EU will need a great deal more timber than it can source domestically.²

The EU's drive to burn biomass presumes that the fuel is a renewable source of energy, with the timber sustainably produced and all cut trees being replaced to absorb the carbon lost. Yet, remarkably, there are no EU-wide rules to ensure that this occurs. Some countries, such as the Netherlands, have introduced their own rules.³ But others with big biomass-burning industries, such as Slovakia and Romania, which both rely on biomass for some 70 per cent of their renewable energy, have not. So the benefits of biomass burning for carbon emissions may be bogus, while its consequences for forest ecology are becoming all too evident.

The threat to the continent's forests is big and immediate. Expanding demand and generous subsidies are attracting investors to buy forests and fund logging companies. One Luxembourg-based investment fund specialising in buying up Europe's forests estimates that if the EU 2020 renewable energy targets are to be met, Europe will need between seven and 16 million hectares of energy crops. As a result, it says, "easily accessible biomass resources will soon be exhausted."⁴

One of the most threatened forest regions is the Carpathian mountain range, which stretches from Poland and Slovakia, through Hungary and Ukraine to Romania. The Carpathians contain Europe's largest surviving area of old-growth forests, protected for centuries by traditional low-intensity management methods. These forests are exceptionally rich in biodiversity and home to half of the continent's brown bears, wolves and lynx outside Russia.

But the threat is not just to Europe's forests. Foreign forests are also being targeted to power Europe. The Swedish state utility Vattenfall has sourced wood chips from old Liberian rubber trees.⁵ It had planned to ship up to 2 million cubic metres of wood chips a year to its European power stations, until the project collapsed in 2012 amid anger that Liberia was lighting Europe while having little electricity for its own citizens. But the drive for imports grows. In 2016, Britain's Drax power station will import up to seven million cubic metres of wood pellets, made from the forests of south-eastern states of the USA, Canada and Brazil. Meanwhile companies in Russia are shipping pellets through the Baltic to European power stations.

The EU-backed boom in biomass burning has alarming parallels with the similar boom in biofuels a decade ago. The green prospectus, as this report will show, is equally flawed. But European legislators are slow to realise the dangers. In early 2015, the European Parliament voted to cap use of and subsidies for biofuels, but it backed continued expansion of biomass for energy.

The refusal to recognise the environmental threats posed by the biomass boom also mirrors the recently exposed scandal of vehicle manufacturers cheating emissions tests. In both cases, the urgent policy priority to deliver cuts in greenhouse gas emissions has left regulators apparently blind to the fraudulence of how it was being achieved. Another "green fuel" is turning into a green nightmare.


1 EU Forest Strategy, COM (2013) 659 final.

2 Commission SWD (2014) 259' State of play on the sustainability of biomass for electricity, heating and cooling'.

3 Fern (2015), Forest Watch Issue 204 'The Dutch show the way: Debate on biomass becomes a burning matter'. <http://www.fern.org/node/5901>

4 Forest Value Investment Management S. A. Online article, business operations on biomass. http://www.fvim.lu/?page_id=201

5 Centre for Research on Multinational Corporations, SOMO (2011). Report 'Burning Rubber – Buchanan Renewables' Impact on Sustainable Development in Liberia'. <http://www.somo.nl/news-en/controversy-at-biomass-producing-company-in-liberia>



"...the benefits of biomass burning for carbon emissions may be bogus, while its consequences for forest ecology are becoming all too evident. The threat to the continent's forests is big and immediate."

CASE STUDY ONE

SLOVAKIA

He said he was a forest ranger. But he leaped out of an unmarked car and showed no ID before shouting at us and waving a heavy stick menacingly in our faces. The three of us, enjoying the afternoon sun on a short stroll through the woods, were trespassing in the Poloniny national park, he said – a criminal activity. He harangued us for 15 minutes as we retraced our steps back to the main road. In Slovakia, the heavy machinery of logging companies is allowed inside its national parks – their work was all around us. But walkers often are not.

Slovakia is a sparsely populated country with almost half its land still forested. Wood is widely used for heating and construction: the famous wooden churches in the east of the country are UNESCO-listed. If anywhere in Europe can cope with more wood cutting to generate energy, then it would be here. But the signs of stress on the forests are everywhere.

In the Carpathian Mountains of eastern Slovakia, clear-cutting of beech forests is being driven by demand for biomass to generate electricity. Poloniny National Park,

on the border with Ukraine and Poland, has the highest concentration of old-growth forests in the country. But logging is legal here and in Slovakia's other national parks, provided it is licensed. All along the route into the park, EU funds are being used to widen the roads and improve access for heavy vehicles.

A grassroots NGO called WOLF, which campaigns to protect Slovakia's forests and their large populations of wolves, bears, bison and lynx, calculates using government statistics that ten



Power plant in Bardejov, Slovakia

photo: Fred Pearce



Wood chips supplying the Bardejov power plant

photo: WOLF

million cubic metres of wood are logged each year from the country's forests, while it estimates the sustainable yield at only around six million cubic metres. With around 3.5 million cubic metres being burned for energy and heating, this sector represents almost the entire overharvest.

Campaigners such as WOLF say they have no objection to community-based biomass burning schemes, such as a project around the village of Banska Bystrica in central Slovakia, which has replaced imported coal with local wood chips.⁶ The assault on the country's forests, they say, is driven not by such local activities but by huge subsidies paid by the government to a new generation of large biomass-burning power plants.

There are now around a dozen biomass power and heating stations scattered across Slovakia. The largest, consuming 160,000 cubic metres of wood a year, is a former coal-burning plant at Vojany in the east of the country. There will be more. The government aims to meet 14 per cent of its electricity



Peter Sabo from the organisation WOLF

photo: Fred Pearce

needs from biomass by 2020, and to increase burning to 4.7 million cubic metres a year. This will seriously accelerate the rate of forest loss.⁷

The power stations are only supposed to burn chips made from low-grade timber not suitable for other industrial purposes. But the reality is different. Slovakia only produces around two million cubic metres of this low-grade wood every year, says Peter Sabo, a campaigner for WOLF. Most of that is used for domestic heating. So power stations instead burn higher-grade timber, paid for by government subsidies.

"The company has been convicted and fined for this, but the fines are low and they just carry on."

An hour's drive from Poloniny, on the edge of the beautiful medieval town of Bardejov, an Austrian-owned power station has, since 2010, been burning 100,000 cubic metres of wood each year to generate electricity and supply heat to the town. On the day I visited, the timber yard was full of large logs with diameters of up to one metre (see picture), some being chipped and placed in a large pile within metres of the plant. It was hard to believe these had no other potential industrial uses.

Sabo said: "The company has been convicted and fined for this, but the fines are low and they just carry on." The company, Bioenergy Bardejov, denied that it owned the logs in the courtyard. Stanislav Legat, a manager, said "We only use chips... that is not our yard."

WOLF has made a detailed study of eastern Slovakia. It has found that consumption of timber for biomass burning is now over 1 million cubic metres – twice the available supply of low-grade timber.⁸ "Behind these numbers lie destroyed natural ecosystems, places where wolves, bears, deer and others had their quiet places without human intervention," says Sabo. "In Slovakia, wood burning for energy is not a renewable resource."

6 CEE Bankwatch Network. Stories of local economies 'Plugging the leaks. Slovak villages replace imported coal with locally sourced wood chips to heat their buildings'. www.localeconomies.eu/plugging-the-leaks/

7 WOLF Forest Protection Movement, Slovakia. Report 'Use of wooden biomass for energy purposes in Slovakia'. http://biomasaker.wolf.sk/files/BIOMASAKER_sumar_EN.pdf

8 WOLF Forest Protection (2013). Analysis of the biomass sector in eastern Slovakia 'Spracovanie biomasy v regióne východného Slovenska vo vzťahu k zachovaniu prírodných lesov' (in Slovak). http://www.wolf.sk/files/Analiza%20biomasa_0.pdf

CASE STUDY TWO

ROMANIA

Romania's forests are being over-exploited to supply demand for biomass both within the country and across Europe. While the logging business remains dominated by the state company Romsilva, its markets are increasingly international, with Austrian companies in particular driving an orgy of forest destruction. Three-quarters of the 300,000 tonnes of wood pellets manufactured annually in Romania are exported.⁹ And there is growing concern that a combination of government subsidies and foreign markets is feeding the growth of a timber mafia in the country. Biomass burning has become a cause of corruption and conflict in Romania.

Around 20 million cubic metres of wood are harvested⁹ annually in Romania, mostly in mountain regions such as the Carpathians. Greenpeace estimates that more than a 250,000 hectares of forest has been lost or severely degraded since timber markets were liberalised 12 years ago, with old-growth forests widely targeted. At least a quarter of the harvest, five million cubic metres, is burned as biomass fuel within the country. This figure is expected to rise to 7.5 million cubic metres by 2020, as the government attempts to achieve its aim of obtaining a quarter of its energy from renewables.¹⁰

But exports are a growing part of the market and foreign companies now dominate the industry. The largest Austrian company, Holzindustrie Schweighofer, which processes an estimate 40 per cent of the country's softwood production for biomass pellets and other uses, has been honoured as "investor of the year" in Romania. Owned by the Schweighofers, one of Austria's richest families, it claims to process some 2.4 million cubic metres of Romanian timber annually.¹¹ An estimated 60 per cent of its exports go for biomass burning in power plants in Austria and Germany.

Other foreign companies have recently begun buying forests directly. The Luxembourg-based Forest Value Investment

"We have established a clear link between illegal logging in Romania and the EU wood pellet market."

Management, says it bought the "exceptionally dense" 4,000-hectare beech stands of the Petris forest in 2013 to supply "potential biomass energy users".¹²

There is a strong stench of corruption in the Romanian forestry industry that some analysts say has been triggered by the arrival of foreign companies and the subsidies that encourage them. Early in 2015, the state corruption agency began investigations into Romsilva officials, including its director, Adam Craciunescu.¹³

"We have established a clear link between illegal logging in Romania and the EU wood pellet market," says Susanne Breikopf of the Environmental Investigation Agency in Washington DC, which has tracked timber from the forests of Romania's Carpathian Mountains to its chipping and pellet mills and on to power stations boilers in Austria and Germany. EIA charges Schweighofer with processing "large amounts of illegal wood" and being "the single biggest driver of illegal logging in the country over the past decade". Its named

9 Borz et al. (2013). Report 'Regional Profile of the Biomass Sector in Romania'. FOROPA Biomass to the Masses http://www.foropa.eu/files/country_reports/country%20report%20romania.pdf

10 Borz et al. (2013). http://www.foropa.eu/files/country_reports/country%20report%20romania.pdf

11 Holzindustrie Schweighofer (2014). Press release 'Holzindustrie Schweighofer – Austrian investor of the year in Romania'. https://www.schweighofer.at/fileadmin/files/all_en/Press/Holzindustrie_Schweighofer_Investor_of_the_year_in_Romania.pdf

12 Forest Value Investment Management S.A. (2011) Press release 'Forest and biomass acquires the Petris forest in Romania – first step in production of sustainable biomass'. www.beetlecapitalpartners.com/index.php/download_file/25/122

13 BBC News (2015). Online article 'Romania acts to save forests from logging spree'. <http://www.bbc.co.uk/news/world-europe-32792314>



Plant in Sebes, Romania

photo: Bernard Boisson

customers include Austrian biomass companies Genol and Drauholz.¹⁴

In 2012, Greenpeace reported widespread illegal logging, with dozens of cases reported to the authorities every day.¹⁵ A local NGO, Agent Green, has estimated that 366,000 hectares of Romanian forest has been illegally felled since 1990.

The RISE project, a group of journalists investigating corruption in Romania, has in the past year questioned the legality of Schweighofer's supplies.¹⁶ It uncovered reports by inspectors at the country's Ministry of Environment that timber at the company's mills did not always have proper documentation, and often exceeded the volumes claimed. One report into the Sebes mill in Transylvania found that "the entries of timber and the final stocks have been distorted, generating a fictitious origin."¹⁷

The EIA published a video showing Schweighofer employees apparently agreeing to buy illegal timber from investigators posing as foreign investors.¹⁸ The company has denied

being complicit in any illegality.¹⁹ The company says it "makes all possible efforts... to help end the illegal logging phenomenon", including reporting suspect deliveries and terminating contracts with companies that do not meet its standards. "We accept only deliveries that have all the data required by the law." It says the statements in the EIA video "were taken out of context."²⁰

Meanwhile, local timber companies, including furniture makers, have gone bankrupt and blamed the emergence of foreign firms for their demise. They say the companies use government subsidies for green energy to out-compete them for high-value wood.

Public anger over the state of Romania's forests is growing. There were major protests in spring 2015 against illegal deforestation, logging in national parks and the activities of Austrian timber companies in particular. The government has responded by introducing a new forest code. But Schweighofer has found itself pilloried for lobbying publicly against provisions in the code that would limit one company to a market share of 30 per cent.²¹

14 Environmental Investigation Agency (2015). Report 'Stealing the last forest: Austria's largest timber company, land rights, and corruption in Romania'. <http://eia-global.org/campaigns/forests-campaign/stealing-the-last-forest/>

15 Greenpeace (2012). Online article 'Illegal logging cases in Romanian forests'. http://www.greenpeace.org/romania/Global/romania/paduri/Publicatii/Illegal%20logging%20reports%20Romania%202012_AR.pdf

16 RISE Project (2015). Online article 'Schweighofer at the center of the illegal deforestation scandal in Romania'. <http://www.risproject.ro>

17 RISE Project (2015). Online article 'Control la Schweighofer: trafic de lemn și fraude cu certificate verzi' (Romanian) <http://www.risproject.ro/control-la-schweighofer-traffic-de-lemn-si-fraude-cu-certificate-verzi/>

18 Environmental Investigation Agency (2015). Online article 'Austrian company exposed offering bonuses for illegal Romanian timber'. <http://eia-global.org/news-media/austrian-company-exposed>

19 Global Timber Forum (2015). Online article 'Schweighofer rejects all accusations regarding use of illegal timber'. <http://gtf-info.com/news/market-legality-requirements/1939-schweighofer-rejects-all-accusations-regarding-use-of-illegal-timber>

20 https://www.schweighofer.at/fileadmin/files/all_en/Press/Statement_-_HS_clarifications_towards_EIA_report_EN.pdf; https://www.schweighofer.at/fileadmin/files/all_en/Press/HS_statement_-_EIA_report_Oct_21_EN.pdf

21 Holzindustrie Schweighofer (2015). Letter to Romanian Government, available at Schweighofer's homepage. <https://www.schweighofer.at/fileadmin/files/all/startseite/doc00461720150512160743.pdf>

CASE STUDY THREE

GARDANNE, FRANCE

Gardanne, near Marseilles in southern France, is a small town with a large power station. The Centrale Thermique de Provence has the tallest chimney in France. At 300 metres high, it is only just shorter than the Eiffel Tower and dominates the town. From early 2016, the former coal-burning station will start burning wood chips.



Demonstration in Gardanne, southern France photo: Collectif SOS Forêt du Sud

E.ON, the German utility that owns the plant, claims the conversion will bring clean power to almost half a million households and reduce CO₂ emissions by 600,000 tonnes a year, while ensuring the survival of the plant and its jobs for another 20 years. The plant would otherwise have had to close to meet EU air-quality regulations. The Sarkozy administration, which gave the plan its approval back in 2011, hoped to bolster the economy of a region suffering from the loss of one of France's last deep coal mines.

But there is a problem for E.ON: where will it get the wood?

The original plan was to source all the 850,000 tonnes of biomass needed annually from within 400 kilometres of the plant, at least from 2025, with some imports till then. Environmentalists and forest communities are up in arms. "Our rural, mountainous and forested region is being prioritized for supplying the timber," says Nicholas Bell of SOS Forêt du Sud. With 80 per cent of the biomass expected to come from trees cut for the purpose, he forecasts "carnage in the Cevennes", the much-loved and biodiverse forested mountains nearest to the plant, with its famous sweet

chestnuts especially at risk. The government has agreed that French electricity consumers should subsidise the biomass plant to the tune of 70 million euros for each of the next 20 years – a total of 1.4 billion euros. This subsidy comes from a levy on electricity bills intended to underwrite supplies to remote rural areas as well as to support renewables. Till now, the only biomass projects funded by the levy have been small community schemes. Gardanne is by far the biggest project under the scheme. The deal threatens to set a precedent for a string of similar mega-projects that could threaten France's forests, and those of neighbouring European countries.

"This project will turn our local wood sector upside down."

There is support for the Gardanne scheme among the region's political elite, including Gardanne's communist mayor and the locally powerful CGT trades union. But there is widespread grassroots opposition among villagers in the areas likely to see logging to feed the plant. Local mayors in

the Cevennes were not consulted. In late 2014, many of them supported a petition asking Ségolène Royal, the minister for ecology, sustainable development and energy in the current Hollande administration, to halt the project. Through the summer of 2015, local protests grew.

Jean-Louis Joseph, mayor of La Bastidonne and president of the Luberon regional park, said: "This project will turn our local wood sector upside down. We're not against bioenergy: in Luberon, we have 55 public bioenergy boilers, what we're worried about is the sheer size of this project. This power station seems to pose an enormous risk to our forests, for our biodiversity. I think we'll lose more jobs than we'll gain".

"There is a timber war going on in our region."

"There is a timber war going on in our region, with too many competing demands for its timber", says Bell. Smaller biomass

plants in nearby Pierrelatte and Brignoles already burn wood from its forests. And a big paper mill, at nearby Tarascon, consumes more than a million cubic metres of timber a year. Leaders of the paper industry have called for restrictions on biomass burning to protect their wood supplies.

The Gardanne scheme is turning into a political millstone for the government, which is stuck with a 20-year contract signed by its predecessor that would trigger hefty compensation claims if it were abandoned. Faced with growing dissent, ministers have pushed E.On to source three-quarters of the plant's biomass from abroad initially, but with the imports declining to zero within ten years. It remains unclear where these imported wood chips will come from. But the Baltic states, Romania and Ukraine have all been proposed.

So any benefit for the Cevennes from such as change of tack could be bad news elsewhere in Europe or even beyond...

Inova biomass plant in Brignoles, France

photo: Collectif SOS Forêt du Sud



CASE STUDY FOUR

DRAX, UK

Drax is one of Europe's largest power stations. Its 12 giant cooling towers dominate the landscape of the Trent Valley in eastern England. It generates up to 4,000 megawatts of electricity – meeting a tenth of the UK's demand – and is one of the world's biggest emitters of greenhouse gases, sending more than 23 million tonnes of CO₂ up its chimneys each year.

But since mid-2015, half of Drax's fuel has come from biomass – mostly wood pellets. Next year, a fourth of its six generators will convert to burning biomass. By then, it will be burning seven million tonnes of pellets a year, requiring a volume of wood equivalent to the size of the Albert Hall in London every 1.5 days. It is the biggest biomass-burning power plant in the world.

None of the wood feeding Drax's boilers comes from British forests. Most is imported from the south-eastern states of the US. Last year, the Drax company opened two new mills in Louisiana and Mississippi to convert pine logs into pellets for shipping to the UK. It is also importing hardwood pellets from other companies in North Carolina and Virginia, and will soon be burning more from another purpose-built facility in the southern Brazilian state of Rio Grande do Sul.

Drax is by far the biggest purchaser of pellets in the southern states, and in 2014 was responsible for around 60 per cent of all US wood pellet exports. Almost entirely because of Drax, Britain has become the largest importer of wood pellets in the world.

The precise consequences of this conversion from coal to wood for Drax's carbon emissions are hotly debated. The power station itself emits as much CO₂ as before, since wood, like coal, is made of carbon. But the company argues that the emissions from burning wood pellets will be reabsorbed as trees planted in the harvested forests start to grow. It does not do the planting itself, but says that its suppliers will have an interest in maintaining a profitable business.

The company calculates that the energy used to process and transport the pellets is only a fifth as great as emissions from coal burning, so it boasts that the switch to biomass has cut its net emissions by 80 per cent. On that basis, the UK government is providing subsidies to recognise the company's contribution to fighting climate change.

There are two potential problems with this. For one thing, even with prompt planting, the new trees will take between 35 and 100 years to soak up as much CO₂ as is emitted by burning the harvested trees. So, with more CO₂ in the air, there will be extra global warming during that time.^{22,23}

"The wood pellet industry is a growing threat to North Carolina's valuable wetlands, forests and the life those ecosystems support."

But even in the long run, some scientists say that net emissions could end up higher than they were before. A study in 2014 by scientists at the Department of Energy and Climate Change reckoned that, under a worst-case scenario in which the logged forest land was converted to agriculture rather than being replanted with trees, burning biomass at Drax could end up emitting two or three times more CO₂ than sticking with coal.²⁴

But Drax denies this is what is happening in the US. "Far from reducing these forests, we will be contributing to their revival," its vice-president for sustainability, Richard Peberdy, told me on a tour of forest stands in Mississippi. Far from denuding the forests, Drax's demand for timber will encourage land owners to plant more trees than before.

22 Natural Resource Defence Council (NRDC) (2015). Issues brief 'Think wood pellets are green? Think again'. <http://www.nrdc.org/land/files/bioenergy-modelling-1B.pdf>

23 Searchinger (2012). Report 'Sound principles and an important inconsistency in the 2020 UK Bioenergy Strategy', Princeton University. http://www.rspb.org.uk/Images/Searchinger_comments_on_bioenergy_strategy_SEPT_2012_tcm9-329780.pdf

24 Stephenson and MacKay (2014). Report 'Scenarios for assessing the greenhouse gas impacts and energy input requirements of using the north American woody biomass for electric generation in the UK'. Department of Energy and Climate Change, UK. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/349024/BEAC_Report_290814.pdf



Enviva's facility in Ahoskie, North Carolina, which supplies the Drax plant

photo: Dogwood Alliance

We shall see. Meanwhile one thing is clear: the impacts of biomass harvesting on this scale will be dramatic for the ecology of the forests concerned, even if they are replanted.

Drax describes its feedstock as “low-grade wood such as forest thinnings, tree tops and branches”. But on the evidence of my visit, most of the pine plantation “thinnings” that supply Drax’s own pellet mills are substantial tree trunks, six metres or more long and cut from forest stands after ten or more years of growth. (see picture)



photo: Dogwood Alliance

Drax insists that these thinnings are the incidental by-products of a forestry industry still primarily geared to producing high-value timber for furniture and construction. “As the lowest value product, we don’t influence harvesting cycles,” says Peberdy. But managers at Plum Creek, Drax’s biggest supplier and the US’s biggest forest owner, told me that by intensifying their forestry methods, they have increased the productivity of their southern pine forests by

50 per cent in the past 15 years. And they agreed that the market provided by Drax was accelerating this intensified forestry regime. Already, across the Deep South, genetically diverse pine forests that once regenerated naturally are being replaced with monocultures of genetically identical planted yellow pine.

Of equal concern for ecologists is the impact of Drax’s demand for timber on US hardwood forests, particularly in bottomlands and wetlands. Another major US forestry company, Enviva, harvests these oak and sweetgum forests in Virginia and North Carolina. It plans to supply more than a million tonnes of pellets to Drax in the next three years.

“The wood pellet industry is a growing threat to North Carolina’s valuable wetlands, forests and the life those ecosystems support,” says Derb Carter at the Southern Environmental Law Centre in Chapel Hill, North Carolina, which has campaigned against the industry. Scot Quaranda of another local NGO, the Dogwood Alliance, has tracked hardwoods clear-cut from the Urahaw swamp in North Carolina to a mill at Ahoskie, North Carolina, owned by Enviva and supplying Drax.²⁵

Drax is required under British sustainability regulations to ensure no loss of forests or biodiversity from its operations. But, says Quaranda, “these kinds of operations do not care about biodiversity, ecosystem services or natural forests; they only care about fibre production.”

25 Dogwood Alliance (2015). Online article ‘Uncovering the truth: investigating the destruction of precious wetland forests’. <http://www.dogwoodalliance.org/tag/urahaw-swamp/>



NO
PEDESTRIAN
TRAFFIC
ALLOWED

One of the US wood pellet mills that supplies Drax

photo: Fred Pearce

CONCLUSION

Europe, as the world's largest and fastest-growing market for wood pellets, is transforming the timber trade and forestry methods far beyond its borders. Foresters in other countries, noting how subsidies are raising prices for timber, are keen to join the party. The latest is Russia, which exported nearly a million tonnes of pellets to Europe in 2014 – equivalent to some two million cubic metres of timber – mainly to Denmark and Sweden.²⁶

Here, close to the border with Finland, the Vyborgskaya Forest Corporation has the world's biggest pellet plant. It has the capacity to produce a million tonnes of pellets a year, though it has yet to reach that level of output. Its recent customers have included Danish energy giant Dong Energy and Germany's RWE, operating in the Netherlands. The company's reputed owner, former Russian senator Alexander Sabadash, was jailed for six years in 2015 for embezzlement through a VAT scam involving sister company Vyborg Cellulose.²⁷

Europe's biomass strategy looks increasingly unsustainable – ecologically, legally and logistically. If the EU is determined to burn biomass to reach its renewable energy targets, then three outcomes are possible. Europe could give up on using its timber for anything other than energy – no more construction wood; no more wood furniture; no more paper. It could satisfy its appetite for timber by ramping up imports from the rest of the world, Drax-style. Or it could keep on the current path of massively increasing the assault on its own forests.

This would change Europe's forests. Already, in Slovakia, communities are being denied the right to enter their own forests except along designated paths – prohibited from picking fruit or mushrooms, viewing wildlife or simply enjoying the forests for themselves. The loggers are the only people with rights to enter the forests. Others, as I discovered on my visit, face threats, violence and intimidation. Forest communities will be able to see (and hear) the clear-felling of ever more patches of forests from afar. As the forests disappear, wildlife – which has made good progress recolonising forests as hunting has diminished in many areas – will once again be in retreat. Is this the future Europe wants for its forests?

Europe can make good use of its forests: for tourism, as carbon stores and ecological regulators, as havens for wildlife and as simple places of retreat. It can harvest them with care, particularly away from areas of old growth or with high biodiversity. But sustainable use is not compatible with the demands now being placed on the continent's last wild places by the onward march of biomass burning.

The simple truth is that – whatever language is used in Brussels to describe its new love of biomass – everyone in the forests knows that burning trees to generate energy is not renewable, not sustainable, not carbon-neutral and not green.

26 Biomass Magazine (2015). Online article 'Report predicts increase in Russian wood pellet production'. <http://biomassmagazine.com/articles/12283/report-predicts-increase-in-russian-wood-pellet-production>

27 Russian Legal Information Agency (2015). Online article 'Ex-Russian senator's 6-year sentence for attempted embezzlement upheld'. http://www.rapsinews.com/judicial_news/20150720/274208494.html

“Whatever language is used in Brussels to describe its new love of biomass – everyone in the forests knows that burning trees to generate energy is not renewable, not sustainable, not carbon-neutral and not green.”



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