GREENPEACE

HOW EUROPE'S TISSUE GIANT IS

WIPING AWAY THE BOREAL


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SUMMARY REPORT
WIPING AWAY THE BOREAL

THE BATTLE TO COUNTER GLOBAL HABITAT LOSS

Human activities are currently driving the world's species to extinction at up to 1,000 times the natural rate.[1] To protect biodiversity and the functioning ecosystems that are vital to our wellbeing, we must reduce and ultimately halt our destruction and degradation of natural habitat.

A vital step towards this goal is the worldwide establishment of an effective network of protected areas, as mandated by the Aichi Biodiversity Targets agreed by the world's governments in 2010 under the UN Convention on Biological Diversity (CBD). Among other things, these targets require governments to contribute towards protecting at least 17% of the world's terrestrial areas, especially those important for biodiversity and ecosystem services, including forests, by means of 'ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures' (Aichi Target 11).[2]

THE GREAT NORTHERN FOREST – AN UNDER-PROTECTED WILDERNESS

The need for such protected areas is especially urgent in the Great Northern Forest that rings the boreal region and represents nearly one-third of Earth's remaining forest.[3] Though its biodiversity is threatened by massive habitat loss,[4] less than 3% of this boreal forest is formally protected.[5]

Since the 1950s, in Sweden's portion of the Great Northern Forest, large areas of old-growth forest have been clearcut and the wider forest landscape fragmented.[6] This has led to population declines in hundreds of forest species,[7] with logging currently believed to be having significant negative impacts on over 1,300 red-listed (i.e. threatened or near-threatened) plants, animals, fungi and lichens.[8]

A NEW STRATEGY – BUT SWEDEN'S LAST REMAINING CRITICAL FORESTS STILL UNDER THREAT

With over 60% of Sweden's remaining forest under 60 years old[9] and therefore not mature enough to be harvested,[10] there is intense timber industry pressure on the remaining areas of older forest. Only 4.7% of the country's productive forest land is formally protected[11] – and in the non-mountain portions of the boreal region the figure is a mere 2.5% (373,588 ha).[12]

Sweden's Environmental Protection Agency (EPA) has repeatedly acknowledged the inadequacy of the country's forest policy.[13] The EPA and Sweden's Forest Agency were recently mandated by the government to publish a new national strategy for the formal protection of forest (*Nationell strategi för formellt skydd av skog*),[14] which lists the boreal region as one of its key priorities[15] and declares that increasing the legal protection of productive forest land is its primary aim.[16] In pursuit of this objective, the EPA and the country's Forest Agency commissioned studies that have identified 366 High Value Forest Landscapes (HVFLs – 'Skogliga Värdetrakter'): critical forest areas with 'particularly high ecological preservation value'[17] and each covering at least 1,000 ha.[18] The intention behind these HVFLs is to address the serious fragmentation of the Swedish forest, in which most areas with high conservation values are small and widely scattered in a vast landscape of clearcuts and plantations, leaving populations of many species threatened by their isolation from other populations and other areas of suitable habitat.

The HVFLs so far identified total over 5.9 million ha of boreal forest within the productive forest zone,[19] most of it currently unprotected.[20]

Yet even as the process of identifying the HVFLs continues,[21] they continue to come under threat from logging and paper companies – just as in Russia, where Greenpeace recently exposed

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the battle between loggers and conservationists for the future of the Dvinsky Forest in Arkhangelsk Oblast, threatened by demand from global brands.[22] In Sweden as in Russia, one of the drivers of boreal forest destruction is the tissue giant Essity.

ESSITY – BACKGROUND, BRANDS AND GLOBAL REACH

Essity (formerly SCA Hygiene) was born of the 2017 demerger of the Swedish SCA Group into two separate publicly listed companies, SCA (forest products) and Essity (tissue and hygiene products).[23] It claims to be the world's second-largest consumer tissue producer[24] and by far the largest producer in Europe,[25] where its well-known brands include **Tempo**, **Zewa** and **Lotus** (Europe-wide); **Cushelle**, **Velvet** and **Plenty** (UK and Ireland); and **Edet** (Scandinavia and the Netherlands).[26] Additionally, it holds a large market share in South American countries including Colombia, Chile and Ecuador.[27] Essity is also the world's largest supplier of away-from-home or 'professional' tissue products under the global **Tork** brand,[28] and has a significant market share in 'personal care' products, including brands such as **TENA** (incontinence products), **Libero** (baby care products) and **Libresse** (feminine care products).[29]

Essity is also a major player in China through its controlling interest in the country's number one hygiene company, Vinda.[30] In 2016, SCA Hygiene (now Essity) signed an exclusive licensing agreement with Vinda allowing the latter to market a number of its brands in South-East Asia, Taiwan and South Korea.[31]

ESSITY'S SOURCE FOR VIRGIN FIBRE FROM SWEDEN'S GREAT NORTHERN FOREST

In 2016 Essity's predecessor SCA Hygiene (including Vinda) purchased nearly 5.3 million tonnes of fibre, of which 2.4 million tonnes was recycled fibre and nearly 2.9 million tonnes was virgin market pulp.[32]

As of 2016, the company was being supplied with virgin wood pulp by 54 mills, of which at least 14 were in the boreal region, most of them in Finland and Sweden.[33] Among the operators of these mills was SCA itself.

The SCA Group's Östrand mill in northern Sweden currently produces 430,000 tonnes of bleached softwood pulp a year.[34] At the time of the demerger around 35% of the mill's production was being sold to SCA Hygiene.[35] SCA is currently in the process of doubling the production capacity of the Östrand mill to 900,000 tonnes,[36] which will mean that it consumes up to 4.5 million m^3 of timber a year.[37] This will give the company the 'largest production line for bleached softwood kraft pulp in the world'.[38] SCA states that the main reason for the pulp mill expansion is the 'growing demand for virgin fibre' from tissue and packaging manufacturers,[39] which it attributes to the increasing cost of recycled fibre.[40]

SCA acknowledges that the mill expansion will increase the 'demand for pulpwood and sawmill chips in Northern Sweden for a considerable time to come'[41] and that the enlarged mill will source 'mainly from local forests and sawmills'.[42]

SCA currently sources over 2 million m^3 of pulp-logs a year from its own forests in northern Sweden, and a similar quantity of pulp-logs and chips from external suppliers. A further 2 million m^3 of chips and sawdust, presumably from its own sawmills (which are also supplied 50:50 from its own forests and external suppliers) may be used either in pulp production or as biofuel.[43]

The company's suppliers in Sweden[44] include Sveaskog, the state logging company, which controls 4 million ha of public forest land;[45] the Holmen Group, which controls around 1.3 million ha of private forest land;[46] and the Swedish Church, with over 530,000 ha.[47] SCA itself manages around 2 million ha of forest for timber production.[48]

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LOGGING CRITICAL FOREST LANDSCAPES IN THE SWEDISH BOREAL

With these sources of raw materials at the base of its supply chain, Essity is directly linked to the ongoing destruction of the critical forest landscapes that the Swedish Environmental Protection Agency has recently identified as important for protection. Between 2012 and 2017, SCA itself and all three of the external suppliers named logged over 23,000 ha of forest within HVFLs, with another 22,000 ha still threatened by logging under plans they submitted during the same period. Collectively, their landholdings encompass over 1.2 million ha of HVFL – around a fifth of the total HVFL area identified. Some 96% of the SCA forest land that lies within identified HVFLs lacks any level of formal protection.[49]

THREATENING AN ANCIENT WAY OF LIFE

In addition to the direct ecological impact, the forestry activities of SCA and others are also a threat to the Sami indigenous communities who inhabit the boreal region.

Reindeer herding, which is central to Sámi society and identity, requires access to large, connected areas of natural grazing.[50] Old-growth forests provide access to hanging lichen that makes them important winter grazing areas for reindeer. Hanging lichen is vital when snow and ice conditions make it impossible for the reindeer to eat ground lichen.[51] Clearcutting old-growth boreal forests on Sami traditional lands therefore destroys and fragments essential natural reindeer grazing, while disregarding the Sami's legal right to graze within the officially defined reindeer herding area.[52]

The plantation of non-native tree species exacerbates the problem. Both SCA and its supplier Holmen – like many other forestry companies – have been replanting clearcut natural forest with fast-growing lodgepole pine (*Pinus contorta*). Planting of this species alters the forest ecosystem, impeding the growth of the ground lichens on which reindeer depend for most of their winter grazing. Moreover, the dense stands of lodgepole pine are nearly impossible for the reindeer to pass through, and force reindeer owners to move the herds around them at a high economic cost.[53] Planting of lodgepole pine therefore jeopardises the Sami's livelihoods,[54] already threatened by clearcutting.[55]

SCA planted 300,000 ha of lodgepole pine on its lands in northern Sweden between 1973 and 2014.[56] As of February 2017, the species also accounted for 7% of the volume of standing trees within Holmen's forest holdings.[57]

As long ago as 2008 the national association of the Swedish Sámi, Sámiid Rikkasearvi (SSR), called for an end to the planting of exotic species including lodgepole pine in the legally defined reindeer husbandry area.[58] However, despite repeated requests and discussions since that date, SCA has still not agreed to stop converting forests in the area to lodgepole pine.[59] Indeed, it plans to increase its area of lodgepole pine plantation in northern Sweden over the period 2015–2035.[60]

In August 2017, SSR issued a press statement entitled 'Zero tolerance to lodgepole pine in reindeer husbandry areas' ('Nolltolerans mot Contorta i renskötselområdet'), demanding that the forestry industry 'stop planting lodgepole pine in the reindeer husbandry area and develop a plan for the disposal of existing stocks'.[61] Greenpeace has requested that SCA respond to SSR's demands, but the company has yet to do so.

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ESSITY'S ROGUE SUPPLIERS IN THE WIDER BOREAL REGION – AND BEYOND

But it is not just in Sweden that Essity's pulp suppliers are destroying critical forest landscapes and threatening indigenous livelihoods. In Finland, Essity buys market pulp from three mills owned by Stora Enso, Metsä Fibre and UPM.[62] All three companies are major customers of the state-owned logging company Metsähallitus,[63] while the first two are also known to source pulpwood chips from a sawmill[64] that Metsähallitus supplies with sawlogs.[65]

Nearly a quarter of Metsähallitus' annual log output comes from the Kainuu region of eastern Finland,[66] where the company has been systematically logging the region's last remaining fragments of old-growth forest outside protected areas, including habitats of IUCN red-listed species – activities exposed by Greenpeace in a 2013 report.[67] Despite this bad publicity, the company continues to destroy critical forest landscapes in the region: it currently plans to log[68] in several high conservation value (HCV) hotspots mapped by NGOs,[69] and intends to log forest areas on the remote islands on Lake Oulujärvi, which were previously protected as old-growth forests.[70] Greenpeace has photographic evidence that Stora Enso's Oulu mill, which is assumed to supply pulp to Essity, processes Metsähallitus pulpwood from Kainuu.[71]

In Russia, Essity's supplier Arkhangelsk Pulp & Paper (APPM) and its logging partner Titan continue to threaten the 835,000 ha Dvinsky Intact Forest Landscape (IFL), as highlighted by Greenpeace in its recent report *Eye on the taiga*.[72] The bulk of the IFL has been proposed as a protected area, but although Titan and APPM have announced an indefinite logging moratorium over large parts of the proposed area,[73] and more recently issued a statement of support for the protected area, they are nevertheless contesting the proposed boundaries.[74] In particular, Titan is insisting on logging one of the most ecologically valuable areas[75] which it had previously agreed not to log.[76] Greenpeace has negotiated unsuccessfully with APPM and Titan in an attempt to persuade them to accept a modified proposal, and with too little time left to establish the protected area before the December 2017 deadline, we have now withdrawn from negotiations. At Greenpeace's instigation, Essity has sought confirmation from APPM that Titan will not proceed with any logging or roadbuilding within the proposed protected area until a solution can be found, and we await APPM's response.

Meanwhile, thousands of miles from the boreal forests of northern Europe, Essity's Chinese subsidiary Vinda has been buying hardwood pulp from Asia Pacific Resources International Ltd (APRIL) in Indonesia.[77] This company has a long history of involvement in deforestation and peatland clearance in Sumatra and Kalimantan,[78] and has been the target of many NGO campaigns.[79]

INADEQUATE RESPONSIBLE SOURCING POLICIES

Essity has inherited from SCA a Global Supplier Standard[80] that at first glance appears to go some way to ensuring a supply chain free from environmental destruction and human rights violations. In particular it states that wood and wood-based materials will not be accepted if they come from areas where human rights or the traditional rights of Indigenous Peoples are being violated; from HCV forests; or from areas being transformed from natural forests into plantations.[81] Unfortunately, the means that Essity has chosen to police its supply chain by means of certifications whose requirements are in some cases weaker than its own standards, particularly where the protection

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of indigenous rights or the avoidance of wood from HCV forests are concerned. Essity's fibre sourcing sustainability target requires that 'all fresh wood fiber-based raw material in our products will be FSC® or PEFC certified, or fulfill the FSC's standard for controlled wood'.[82] However, of the three standards stipulated, only full FSC certification – if implemented correctly – provides adequate assurances that material derives from responsible forestry. The PEFC certification does not require companies to implement a precautionary approach to the conservation of environmental values, or to uphold the rights of Indigenous Peoples.[83] FSC Controlled Wood is uncertified material from sources assessed as presenting a low risk of controversial environmental and social impacts;[84] nevertheless there have been cases where it has come from areas where high conservation values are being threatened or indigenous rights violated.

An SCA Hygiene presentation from May 2017[85] shows that only 41% of the company's 2016 consumption of virgin pulp was FSC-certified, with 22% being PEFC-certified and the rest assumed to be mostly FSC Controlled Wood. Perhaps unsurprisingly, Essity's controversial boreal suppliers discussed above turn out to supply only FSC Controlled Wood or FSC Mix (a mixture of FSC-certified and Controlled Wood) virgin market pulp.[86] Essity's reliance on suppliers using these inadequate standards puts it at risk of fibre from environmentally destructive or socially damaging forestry entering its supply chain – as is happening in Sweden, Finland and Russia.

CONCLUSIONS

Essity is a world leader in the hygiene sector. But at the moment the company is failing to show leadership in the urgent fight to save the world's boreal forests from destruction. The pulp mills from which it buys raw materials are supplied by logging companies that between them have logged in critical forest landscapes that are either protected or earmarked for protection, destroying habitats of threatened species; have planted a notorious invasive species in cleared natural forest; and have imperilled the livelihoods of indigenous communities. In the face of official land-use policies and conservation processes, and despite widespread criticism and their own prior commitments, the logging companies are hell-bent on continuing these abuses.

It is only a matter of months since Essity's business was separated from the SCA Group and given a new consumer-friendly name. That name has yet to be widely linked in the public eye with the destruction of the Great Northern Forest. But if Essity wishes to avoid massive reputational damage, it must act now to clean up its boreal supply chain.

However, it is not only Essity that needs to change its ways. As the demands below indicate, it is high time for companies at all points on the fibre and timber supply chains, and most obviously the logging companies themselves, to commit to ensuring the future of the Great Northern Forest.

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GREENPEACE DEMANDS ON PROTECTING THE GREAT NORTHERN FOREST

Greenpeace calls upon companies to prioritise the protection of Intact Forest Landscapes (IFLs) and other remaining forests supporting High Conservation Value (HCV) across the Great Northern Forest – the boreal forest ecosystem:

LOGGING COMPANIES:

Greenpeace is calling on companies to stop the destruction of the Great Northern Forest – the boreal forest ecosystem. Companies need to stop expanding industrial operations into the last remaining forest areas critical for biodiversity and the climate. They also need to respect the rights of Indigenous Peoples and make publicly available maps of their logging operations.

CORPORATE CONSUMER COMPANIES:

Greenpeace is calling on companies to phase out suppliers involved in the destruction of the Great Northern Forest – the boreal forest ecosystem. Companies need to ensure their suppliers respect the rights of Indigenous Peoples, as well as make publicly available maps of their logging operations. They also need to ensure products sourced from the boreal are traceable at every step of their supply chain.

For more detailed demands see Section 5 of the main report.

GREENPEACE POSITION ON THE RIGHTS OF INDIGENOUS PEOPLES

Greenpeace supports the UN Declaration on the Rights of Indigenous Peoples (UNDRIP),[87] including the right of Indigenous Peoples to steward their traditional lands, rivers and marine areas, as well as to govern their communities. We also support the application of the UN principle of 'Free, Prior and Informed Consent' (FPIC) for decisions that will affect Indigenous communities, including decisions concerning any proposed project located on their traditional territories, especially in relation to the development and/or exploitation of timber, mineral, fish, water or other resources. Greenpeace moreover believes that Indigenous Peoples should not be forcibly removed from their traditional territories as a result of such development or other related activities.

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CHAPTER 1:
ESSITY, SCA GROUP AND THE BOREAL FOREST CRISIS

'Habitat loss, including degradation and fragmentation, is the most important cause of biodiversity loss globally... Reducing the rate of habitat loss, and eventually halting it, is essential to protect biodiversity and to maintain the ecosystem services vital to human wellbeing.' [1]

UN Convention on Biological Diversity guide to achieving the Aichi Biodiversity Targets.

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THE GREAT NORTHERN FOREST: STILL FACING DESTRUCTION DESPITE GLOBAL BIODIVERSITY TARGETS

Human activities are currently driving species to extinction at a rate estimated to be as much as 1,000 times the average natural rate over the past 65 million years.[2] Habitat loss, including degradation and fragmentation, is the most important cause of this crisis. We must reduce the rate of habitat loss, and eventually halt it, if we are to protect biodiversity and at the same time maintain the ecosystem services vital to human wellbeing.

As part of this response, it is crucial to have a functioning network of protected areas that can reduce the threats to biodiversity. Protected areas play an important role in biodiversity conservation, as well as in climate change adaptation and mitigation.[3]

In 2010, under the legally binding UN Convention on Biological Diversity (CBD), governments worldwide agreed a series of targets to halve biodiversity loss by 2020 – the Aichi Biodiversity Targets. Among other things, these targets require governments to contribute towards protecting at least 17% of the world's terrestrial areas important for biodiversity and ecosystem services, including forests, by means of 'ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures' (Aichi Target 11).[4]

In order to help achieve this target, governments are called upon to protect 'areas of particular importance for biodiversity and ecosystem services, such as areas high in species richness or threatened species, threatened biomes and habitats, [and] areas with particularly important habitats (key biodiversity areas, high conservation value areas, important plant areas [...] etc.)'.[5]

One area where there is a pressing need to establish such protected areas is the boreal forest landscape that rings the subarctic, also known as the Great Northern Forest, which represents nearly one-third of the forest left on Earth.[6] The biodiversity of this forest faces severe threats, most notably from habitat loss and a rapidly changing regional climate.[7] At present, however, less than 3% of the Great Northern Forest is formally protected, compared with 27% of the world's tropical forest and 11% of its temperate forest.[8]

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In March 2017, Greenpeace released a report – *Eye on the taiga*[9] – exposing how a wide range of western European, American and Australian companies, some of them household names or global brands, are driving the destruction of Intact Forest Landscapes (IFLs)[10] in the Russian boreal forest. The timber companies at the centre of an ongoing battle to protect a large part of the 835,000 ha Dvinsky Forest, in the Arkhangelsk Oblast of north-west Russia, are rapidly increasing their mill production capacities.

This new report turns the spotlight on Europe's largest tissue giant, Essity (formerly known as SCA Hygiene), and its role in driving boreal forest destruction in the far north of Sweden. Essity's pulp supplier in Sweden (and former sister company), SCA, is expanding its logging operations into critical forest landscapes in the boreal forest that have been identified for formal protection by the Swedish government's Environmental Protection Agency and Forest Agency. SCA is also in the process of doubling the production capacity of its Östrand pulp mill, which supplies Essity.

ESSITY, A NEW NAME FOR AN OLD COMPANY

Essity was born of the 2017 demerger of the Swedish SCA Group into two separate publicly listed companies, SCA (forest products) and Essity (tissue and hygiene products).[11] It claims to be the world's second-largest consumer tissue producer[12] and by far the largest producer in Europe, holding a market share twice that of its largest competitor,[13] Sofidel (Italy).[14] It is also number one in China, Russia and Colombia.[15]

Essity's consumer tissue brands include **Tempo**, **Zewa** and **Lotus**, which are the leading brands in large areas of Europe, as well as **Cushelle**, **Velvet** and **Plenty**, which are strong brands in the UK and Ireland, and **Edet**, which is prominent in Scandinavia and the Netherlands.[16] In South America, Essity markets products under the **Familia** and **Favorita** brands and holds a large market share in countries including Colombia, Chile and Ecuador.[17] Consumer tissue products sold under Essity's own brands account for about 64% of its sales in this sector, while the remaining 36% of sales are under retailers' brands (e.g. supermarket own brands).[18]

Essity is also the world's largest supplier of away-from-home (also known as 'professional') tissue products under the global **Tork** brand, a 'billion-dollar brand' with annual net sales exceeding €1.5 billion.[19]

Furthermore, Essity has a significant market share in so-called 'personal care' products: the company is the world leader in incontinence products through another billion-dollar brand, **TENA**.[20] It is also Europe's second-largest supplier of baby care products, with brands such as **Libero**, and its third-largest supplier of feminine care products, with brands such as **Libresse**.[21]

In 2016, what are now Essity's facilities (excluding in China) produced 3.2 million tonnes of tissue products and 642,000 tonnes of personal care products.[22]

Tissue sales – both consumer and away-from-home – accounted for just over two-thirds of the company's sales in 2016.[23] Personal care products accounted for the remaining third.[24]

In 2016, Europe accounted for nearly 60% of the company's global sales,[25] with Germany, France, the UK, Spain, the Netherlands, Italy, Sweden, Austria, Belgium, Finland, Switzerland and Denmark together accounting for nearly half of its €10.1 billion global sales,[26] as well as nearly half of its global tissue production capacity as of 2016.[27] (see Table 1.1).

Essity holds the number one position in China through its controlling interest in the hygiene company Vinda.[28] In 2016, SCA Hygiene (now Essity) signed an exclusive licensing agreement with

ESSITY'S OWN BRANDS

TABLE 1.1: SCA HYGIENE'S 2016 SALES IN TOP 12 EUROPEAN COUNTRIES, ALONG WITH TISSUE PRODUCTION CAPACITY INHERITED BY ESSITY

Country of sales	Total sales, 2016	Tissue production capacity (tonnes)	Key tissue brands
Germany	€990m	579,000	Tempo, Zewa, Tork
France	€900m	320,000	Tork, Zewa, Lotus, Okay
UK	€820m	280,000	Cushelle, Velvet, Plenty, Tempo, Tork
Spain	€550m	318,000	Tempo, Colhogar, Tork
Netherlands	€290m	60,000	Tempo, Plenty, Zewa, Tork
Italy	€290m	207,000	Tempo, Zewa, Tork
Sweden	€250m	100,000	Edet, Tork, Lotus
Austria	€150m	132,000	Plenty, Zewa, Tork, Cosy, Tempo, Feh
Belgium	€140m	75,000	Tempo, Edet, Zewa, Plenty, Okay, Tork
Finland	€140m	67,000	Edet, Lotus, Tork
Switzerland	€120m	-	Tempo, Tork, Plenty, Zewa
Denmark	€90m	-	Edet, Lotus, Tork
Total of above countries	€4.7 billion	2.13 million	
Global	€10.1 billion	4.3 million	

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Vinda allowing the latter to market a number of its brands, including **TENA**, **Tork**, **Tempo**, **Libero** and **Libresse**, in South-East Asia, Taiwan and South Korea.[29]

In 2016, 40% of Vinda's sales in China were through 'corporate clients' and 'key accounts (e.g. hypermarkets, supermarkets)'.[30] A 2013 presentation lists some of these companies as including Walmart, Carrefour, Tesco, Metro, McDonalds, KFC, Pizza Hut, Pepsi and Procter & Gamble.[31]

WHERE DOES ESSITY SOURCE ITS FIBRE?

According to Essity's website,[34] its tissue production in 2016 used 45% virgin fibres and 55% recycled fibres, while the production of its personal care products used 50% virgin fibre, 1% recycled fibre and 49% synthetic materials.

In 2016, according to a company presentation made in May 2017,[35] Essity's predecessor SCA Hygiene (including its Chinese subsidiary Vinda) purchased nearly 5.3 million tonnes of fibre, of which 2.4 million tonnes was recycled fibre and nearly 2.9 million tonnes was virgin market pulp.

FACILITIES EXCLUDING CHINA

Of the 2.14 million tonnes of virgin pulp used by SCA Hygiene's facilities outside China in 2016,[36] a large proportion was eucalyptus pulp (short hardwood fibres),[37] sourced from South America or southern Europe.[38] The remainder was largely bleached softwood pulp (long fibres)[39] sourced from producers in the northern hemisphere.[40]

A map in SCA's 2016 Sustainability Report showing the locations of the company's pulp suppliers indicates that at that time it had 54 individual pulp mills[41] across North America, South America, Europe and Russia. At least 14 of these mills are located in the boreal region, the majority of them in Finland and Sweden. The report also indicates that SCA Hygiene (now Essity) actually

sourced pulp from 31 companies that year,[42] of which ten accounted for 83% of all purchases.[43]

In 2016, the company's non-Chinese operations[44] also used 2.2 million tonnes of recycled fibre, of which almost all was used in tissue production.[45] According to that year's sustainability report, SCA Hygiene's North American operations used almost 100% recycled fibre, while the figure for Europe was much lower at 44%, with Latin America in between at 79%.[46] The company claimed that this large variation was due to 'consumer preferences' and 'fibre supply and demand' issues.[47]

OPERATIONS IN CHINA: VINDA

In 2016, Essity's subsidiary Vinda produced 950,000 tonnes of tissue products[48] and used 0.73 million tonnes of virgin pulp.[49] Vinda's 2016 annual report states that 'wood pulp used by the Group is mainly sourced from northern Europe, South and North America.'[50] It also buys hardwood pulp from Indonesia.[51] See Case Study on Vinda's pulp suppliers in Chapter 3.

SCA GROUP (SWEDEN): ONE OF ESSITY'S KEY BOREAL PULP SUPPLIERS

Essity is the largest purchaser of pulp from the SCA Group's Östrand mill in northern Sweden,[52] which currently produces 430,000 tonnes of bleached softwood pulp a year.[53] Around 35% (150,000 tonnes a year) of the mill's production is currently sold to Essity,[54] with a further 25% going to other tissue producers.[55]

SCA is currently in the process of doubling the production capacity of the Östrand mill to 900,000 tonnes,[56] which will mean that it consumes up to 4.5 million m^3 of timber each year.[57] Once construction is completed in early 2018, SCA will have the 'largest production line for bleached softwood kraft pulp in the world'.[58]

SCA's CEO recently told investors that the main reason for the pulp mill expansion is the 'growing demand for virgin fibre' pulp by tissue and packaging manufacturers.[59] The company claims that the global market for tissue is growing by 5–6% each year and that currently over one-quarter of the total production of bleached softwood pulp is used in tissue production.[60]

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Over one-quarter of the total global production of bleached softwood pulp is used in tissue production.

SCA maintains that one of the key reasons for this growing demand for virgin fibre is the increasing cost of recycled fibre,[61] which is currently the main raw material used in Essity's away-from-home tissue products (i.e Tork brands).[62] In the run-up to the separation of SCA's hygiene business as Essity, the company's CEO told investors that its hygiene division would no longer 'build a new tissue machine based just on recycled fibre. That will not be possible. So, I think we have a "golden egg" when it comes to [supplying] virgin fibre.'[63]

SCA acknowledges that the mill expansion will increase the 'demand for pulpwood and sawmill chips in northern Sweden **for a considerable time to come**'[64] (our emphasis) and that the enlarged mill will source 'mainly from local forests and sawmills'.[65] It is unclear whether this will increase the pressure to log more unprotected forest areas on SCA's own land and/or its suppliers' land.

SCA'S EXISTING FIBRE SOURCES

Just over three-quarters of the forest land owned by SCA (2.6 million hectares) is classified as 'productive forest land',[66] meaning that it is 'managed' for timber production. As of 2016, around 7% (~142,000 ha) of this land has been voluntarily 'set aside' from timber production.[67]

According to SCA's 2016 annual report, approximately half of the company's total wood consumption is sourced from its own forests in northern Sweden.[68] The remainder is 'almost entirely from other northern forests and only marginal volumes are from border trade with Norwegian and Finnish forest owners or from the Baltic States'.[69]

As of early 2017, SCA was said to source 8.3 million m^3 of logs and wood chips a year from the following sources:[70]

- 2 million m^3 of saw-logs from its own forests in Sweden
- 2 million m^3 of saw-logs from external suppliers
- 2.3 million m^3 of pulp-logs from its own forests in Sweden
- 2 million m^3 of pulp-logs and wood chips from external suppliers.

According to the same source, a further 2 million m^3 of wood chips and sawdust were being sourced each year,[71] presumably from the company's own sawmills in Sweden (in turn supplied from its own forests and external suppliers – see above). These wood chips and sawdust were used at SCA's kraftliner paper mills and biofuel facilities. Overall, at least half, and possibly as much as three-quarters of the wood raw materials sourced by SCA were being used in its pulp and paper production.

SCA's external suppliers in Sweden include Sveaskog, the Holmen Group and the Swedish Church (*Svenska kyrkan*), as well as private forest owners, timber traders[72] and sawmills.[73] Sveaskog is a state-owned logging company which is the largest forest owner in Sweden and currently controls 4 million ha of public forest land.[74] The Holmen Group controls around 1.3 million ha of private forest land in the country,[75] while the Swedish Church controls over 530,000 ha.[76] Hence, through SCA, Essity is linked to suppliers holding over 8.4 million ha of forest land in Sweden.

Sveaskog, whose forest land is mostly in the northern part of Sweden,[77] claims to have a close and long-term relationship with SCA.[78] Sveaskog's president has stated that the decision to double production at the Östrand plant means that its cooperation with SCA will be further deepened.[79] In 2016, Sveaskog delivered some 5.3 million m^3 of wood to pulp mills,[80] accounting for over half the total volume of wood it sold that year[81] (more than half of which came from its own forests[82]).

Chapters 2 and 3 show how a number of the 366 critical forest landscapes identified by the Swedish government continue to be logged, or are earmarked for logging, by SCA and its suppliers Sveaskog, the Holmen Group and the Swedish Church.

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SCA acknowledges that the mill expansion will increase the 'demand for pulpwood and sawmill chips in Northern Sweden for a considerable time to come'.


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'There is an urgent need to preserve existing boreal forests and restore degraded areas if we are to avoid losing this relatively intact biodiversity haven and major global carbon sink.'[1]

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CHAPTER 2: SWEDEN'S SHRINKING AND FRAGMENTED FOREST LANDSCAPES – WILL THE GOVERNMENT FINALLY PROTECT THEM?

THE TRAGEDY OF CLEARCUT LOGGING

Although around 68% (28 million ha) of Sweden's land area is classified by the government as 'forest land', over 80% of this (23 million ha)[2] is further classified as 'productive forest land' – i.e. areas with a timber growth rate of greater than 1 m^3/ha/year,[3] which are therefore deemed suitable for logging, unless for example they have been designated as protected areas.

Introduced in the 1950s,[4] the widespread practice of industrial clearcut logging has dramatically fragmented Sweden's forest landscapes, with large areas of old-growth forest being cleared and in most cases replaced by industrial timber plantations. However, since over 60% of all remaining forest in Sweden is less than 60 years old,[5] which is generally not mature enough to be harvested,[6] there is increased timber industry pressure on the remaining areas of older forest.

Nearly one-third of all Sweden's remaining forests are over 80 years old;[7] for the most part these are forests that have never been logged by clearcutting (including remaining areas of old-growth forest) and have therefore retained cover of older trees. Where they have not been designated as protected, such forests continue to be threatened by the country's forestry industry for clearcutting and conversion into yet more industrial timber plantations.

THE URGENT NEED TO PROTECT CRITICAL FOREST LANDSCAPES IN SWEDEN

'The restoration of degraded habitats represents an opportunity to both improve ecosystem resilience and to increase carbon sequestration...The global potential for forest landscape restoration alone is estimated to be on the order of 1 billion hectares, or about 25 per cent of the current global forest area. Therefore, there is a large potential for the increased use of restoration.'

CBD Aichi Target 15: Ecosystems restored and resilience enhanced.[8]

Across the boreal forest ecosystem, there is an urgent need to prioritise the protection of large intact areas of primary forest (known as Intact Forest Landscapes (IFLs))[9] and other critical forest landscapes with high conservation value.

IFLs are a key category of critical forest landscape, since for their size they contain a disproportionally large share of the Earth's forest carbon and biological diversity, and can continue to do so if they remain protected from fragmentation and exploitation.[10]

Protection of other critical forest landscapes – forests that are either undisturbed but not in an intact landscape, or that remain ecologically valuable despite already being impacted or disturbed by human activities – is also important, as such forests can still maintain high levels of biodiversity. Allowing forest landscapes to recover from past logging and disturbance, and protecting them from further fragmentation, will also improve their provision of ecosystem services, including an increase in their carbon sequestration capacity.[11]

In 2013, just over 1.1 million hectares of Sweden's original forests remained as IFLs.[12] However, in addition to these IFLs the country has many other critical forest landscapes with particularly high ecological value that urgently need better protection. The process of identifying such landscapes has been carried out by the Swedish Environmental Protection Agency, together with the formerly state-owned mapping agency Metria (see: 'How the Swedish government came up with new maps of critical forest landscapes in the boreal region').

To date, 366 'Skogliga Värdetrakter' (or High Value Forest Landscapes, HVFLs) have been identified in the boreal region of Sweden, using existing data on areas known to be of 'great importance to the protection of fauna and flora and/or for a priority forest type' (i.e. 'Skogliga Värdekärnor' or Forest Value Cores, FVCs)[13] and new mapping analysis to identify areas that have never been clearcut and are 'presumed to encompass valuable forests to a significant extent' (i.e. so-called continuity forests – 'kontinuitetsskog').

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1 Siberian jay *(Perisoreus infaustus)*
2 Great grey owl *(Strix nebulosa)*
3 Golden eagle *(Aquila chrysaetos)*
4 Grey wolf *(Canis lupus)*
5 Brown bear *(Ursus arctos)*
6 Lynx *(Lynx lynx)*

THE SWEDISH BOREAL FOREST – WHERE THE WILD THINGS ARE

The Swedish boreal forest is 'still relatively rich in species, considering its latitude'.[14] It provides important habitat for a number of large predatory mammal species such as brown bear (*Ursus arctos*),[15] wolverine (*Gulo gulo*),[16] lynx (*Lynx lynx*)[17] and grey wolf (*Canis lupus*).[18] It also hosts threatened species in Sweden including bats, e.g. Natterer's bat (*Myotis nattereri)*;[19] plants, e.g. calypso orchid (*Calypso bulbosa*),[20] drooping woodreed (*Cinna latifolia*)[21] and Selkirk's violet (*Viola selkirkii*);[22] lichens, e.g. old man's beard (*Dolichousnea longissima*)[23] and wolf lichen (*Letharia vulpina*);[24] and fungi, e.g. orange sponge polypore (*Pycnoporellus alboluteus*).[25] It is of critical importance for many important bird species including the Ural owl (*Strix uralensis*), Eurasian three-toed woodpecker (*Picoides tridactylus*) and greater spotted eagle (*Clanga clanga*).[26]

THE RED LIST OF SWEDISH SPECIES – A USEFUL BAROMETER OF FOREST HEALTH

'Logging of old forests, or previously extensively exploited forests, is one of the main reasons why forest-dependent species have become red-listed. To reverse these trends of declining populations, unprotected forest environments with red-listed species need to be preserved for the long term.'

Red List of Swedish Species (2015)[27]

Using the same criteria as the International Union for Conservation of Nature (IUCN) *Red List of Threatened Species*,[28] the *Red List of Swedish Species* published by the Swedish University of Agricultural Sciences (SLU) assesses the risk of individual species going extinct in Sweden.[29] It is therefore an important tool in developing forest conservation measures for the country.[30]

The 2011 *State of the Forest* report[31] by SLU concludes that ever since the first *Red List of Swedish Species* was published in the early 1990s, population sizes of about 450 forest-dependent red-listed species have been continuously decreasing and are significantly lower at the time of writing than they were 20 years previously. The report identifies the underlying reason for these declines, and for many forest species being red-listed in the first place, as being that since the mid-20th century the Swedish natural forest landscape has been largely transformed by the use of intensive clearcutting practices to increase wood production.[32] When forests that have never been clearcut logging (so-called 'continuity forests', including old-growth forests) many species struggle to survive in a degraded environment that does not have time to recover fully before the forest is logged again.[33] The report blames 'the transformation of continuity forests into production forests' for the ongoing decline in three-quarters of red-listed forest species.[34]

The latest *Red List of Swedish Species* (2015) indicates that there has been 'no major overall improvement to the situation facing Swedish biodiversity. Instead, the negative impact on Swedish species seems to have been relatively constant over the past 15 years.'[35] It lists 4,273 red-listed species, with nearly half of these (2,029 species) being classified within Sweden as either 'acutely threatened', 'strongly threatened' or 'vulnerable'[36] (terms used by the *Red List of Swedish Species* as equivalent to the IUCN Red List terms 'critically endangered', 'endangered' and 'vulnerable'[37]).

Around 42% (1,813 species) are regularly found in forests,[38] particularly in areas of continuity forest.[39] Over half (908) of these are classified as threatened:[40]

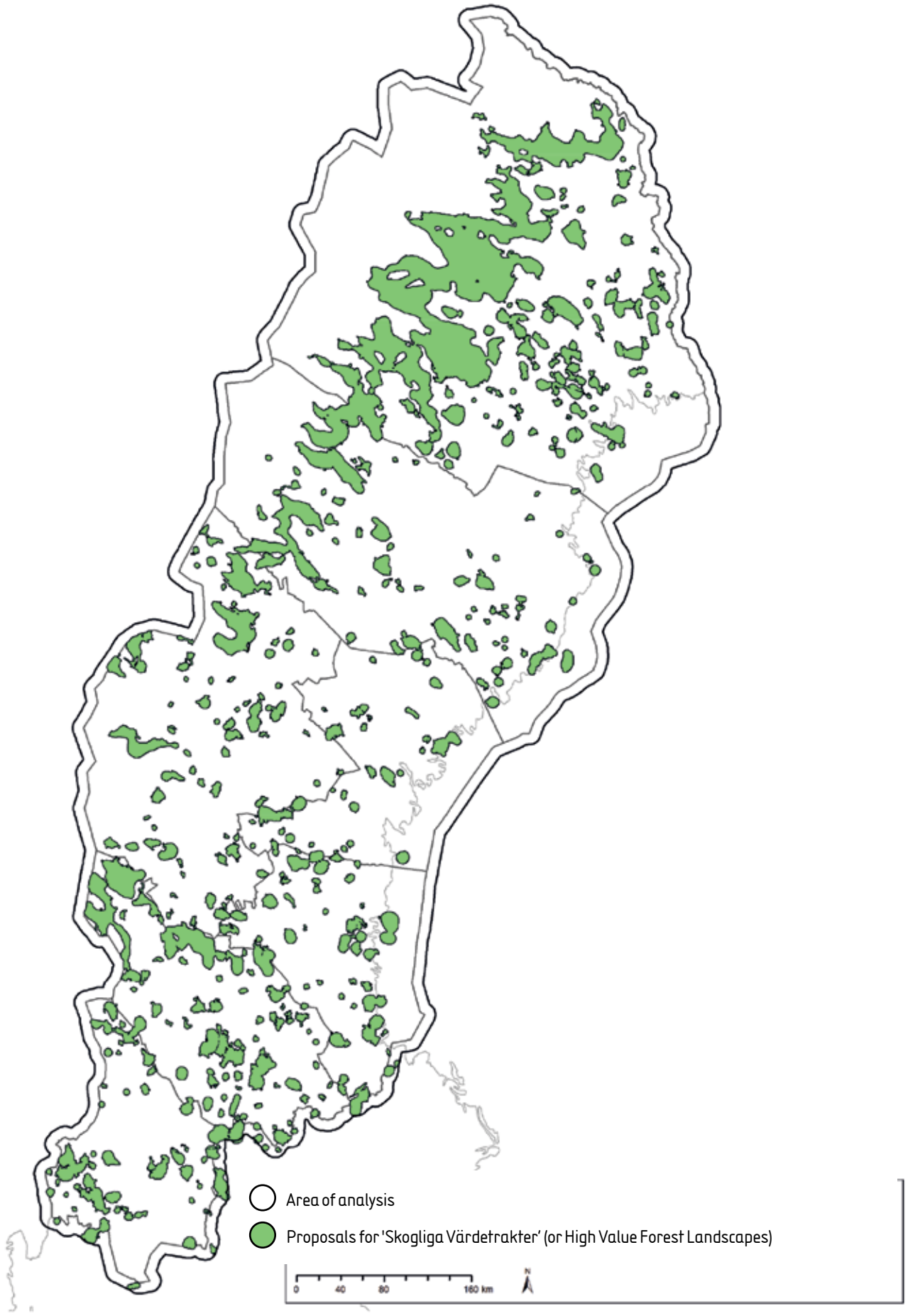
- 85 are 'acutely threatened', including five species of bat: Alcathoe bat (Myotis alcathoe), Bechstein's bat (Myotis bechsteinii), Leisler's bat (Nyctalus leisleri), common pipistrelle (Pipistrellus pipistrellus) and grey long-eared bat (Plecotus austriacus);[41]

- 254 are 'strongly threatened', including two species of bat: serotine bat (Eptesicus serotinus) and pond bat (Myotis dasycneme);[42]

- 569 are 'vulnerable', including the grey wolf (Canis lupus), wolverine (Gulo gulo), lynx (Lynx lynx) and two species of bat: barbastelle (Barbastella barbastellus) and Natterer's bat (Myotis nattereri).[43]

A report on the findings of the 2015 Red List of Swedish Speciesconcludes that logging is having significant negative impacts on more than 1,300 red-listed species,[44] including around 700 species of fungus and lichen.[45]

MAP SHOWING 366 IDENTIFIED BOREAL FOREST LANDSCAPES WITH PARTICULARLY HIGH ECOLOGICAL PRESERVATION VALUE



In the Swedish boreal zone outside the mountain region, a mere 2.5% of productive forest land is formally protected.

WILL THE SWEDISH GOVERNMENT 'WALK THE TALK' ON CRITICAL FOREST LANDSCAPES EARMARKED FOR PROTECTION?

The Swedish government's Fifth National Report to the CBD, submitted in 2014, states that, at that time, only **'2.1 million hectares [7.5%] of forest [were] formally protected'** and that **'77% of the protected forested area in the country [was] within the mountain region."**[46]

A 2017 report by the Swedish Environmental Protection Agency (EPA) and Forest Agency reveals that only 4.7% of the country's productive forest land is formally protected – and in the non-mountain portions of the boreal region outside the mountain zone the figure is a mere 2.5% (373,588 ha).[47]

The Fifth National Report to the CBD acknowledges that the country's 'remaining areas of forests with a long history of forest management without clear-felling are essential to the building of a green infrastructure"[48] (i.e. a planned network of natural and semi-natural areas[49]). It goes on to state that the government's environmental objective on sustainable forests is to ensure that the 'biodiversity of forests is preserved in all natural geographical regions and species have the opportunity to spread within their natural range as a part of a green infrastructure', that 'habitats and naturally occurring species associated with forest areas have a favourable conservation status and sufficient genetic variation within and between populations' and that 'threatened species have recovered and habitats have been restored in valuable forests'.[50]

However, a 2016 report on the government's environmental quality objectives and targets published by the EPA[51] concludes that 'current environmental initiatives are not sufficient to achieve society's agreed environmental objectives for forests. The quality and scope of measures to counter loss of habitat and fragmentation must increase. The conservation status of numerous forest types is inadequate, and many forest species are threatened.'[52] Furthermore, it finds that more forests with high biodiversity and conservation values are being logged than protected.[53]

In March 2017, the EPA and Forest Agency published their national strategy for the formal protection of forest (*Nationell strategi för formellt skyddad skog*)[54] which lists the boreal region as a key priority region.[55] **In view of the fact that only 2.5% of the productive forest land outside the mountain zone is formally protected**,[56] **the strategy concludes that the primary aim should be to increase the legal protection of productive forest land**.[57]

Both the EPA and the Forestry Agency have concluded that the long-term protection of various habitat types, functions and processes in the forest landscape require an overall landscape perspective to be taken. However, in the majority of forest landscapes, larger areas with enhanced nature protection objectives are currently lacking.[58]

To accompany the national strategy, the EPA and Forest Agency published a study[59] identifying 366 critical forest landscapes (i.e. 'forest landscapes with particularly high ecological preservation values').[60] These 'Skogliga Värdetrakter' (or High Value Forest Landscapes, HVFLs) cover over 5.9 million ha of boreal forest within the productive forest zone.[61] The EPA and Forest Agency have also published a series of studies and GIS maps concerning the forest values that have been identified within these HVFLs (see box: 'How the Swedish government came up with new maps of critical forest landscapes in the boreal region').

The national strategy concludes that prioritising the protection of HVFLs is a cost-effective way to focus effort on increasing the longer-term functionality of existing protected areas and improving the forest landscape as a whole. Equally, the HVFLs have been mapped out with the specific intention that they could themselves serve as relatively large ecologically important protected forest landscapes, encompassing areas important for habitats, functions and processes. In order to ensure that forests in Sweden's boreal region are adequately protected in the longer term, there is also an urgent need to make a strategic priority of protecting areas at risk of logging or other development, especially within the HVFLs.

The intention behind these HVFLs is to address the serious fragmentation of the Swedish forest, in which most areas with high conservation values are small and widely scattered in vast landscapes of clearcuts and plantations, leaving populations of many species threatened by their isolation from other populations and other areas of suitable habitat. However, it remains to be seen what firm action the Swedish government will take to ensure formal protection of these HVFLs.

In the meantime, Greenpeace has used these GIS maps and other publicly available data to conduct detailed analysis of forest areas owned by companies supplying the SCA Group's Östrand mill (see Case Study 1 in Chapter 3).

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HOW THE SWEDISH GOVERNMENT CAME UP WITH NEW MAPS OF CRITICAL FOREST LANDSCAPES IN THE BOREAL REGION

Under Chapter 7 of the Swedish Environmental Code (1999),[62] formally protected forest areas include, but are not limited to, National Parks, Nature Reserves and Habitat Protection Areas; Natura 2000 areas are also classified as formally protected areas.[63] They do not include areas that are voluntarily 'set aside' by companies or private landowners.

In 2010 the Swedish government entrusted the EPA with the task of preparing a feasibility study[64] that would support the formal protection of forests and develop the basis for creating a strategically planned network of natural and semi-natural areas. The aim was to ensure the long-term survival of species and the delivery of important ecosystem services in the light of possible future climate change.[65] The EPA, together with a range of relevant government agencies, concluded that the necessary methods and data were already available to perform a detailed landscape analysis of core and surrounding areas of importance for forest biodiversity, including their distribution and connectivity within a given forest landscape.[66]

Accordingly, in 2016, the EPA commissioned the company Metria AB – the formerly state-owned mapping and land registration authority – to conduct three separate studies using mapping analysis, in order to help identify critical forest landscapes that need additional protection.

ANALYSING KNOWN FOREST VALUE CORES ('SKOGLIGA VÄRDEKÄRNOR') IN THE BOREAL REGION

Metria began by conducting a landscape-level mapping analysis[67] of areas of continuous boreal forest already known to be of 'great importance to the protection of fauna and flora and/or for a priority forest type'[68] (according to criteria established by the EPA and Forest Agency).[69]

The EPA and Forest Agency refer to these areas as 'Skogliga Värdekärnor' (Forest Value Cores, FVCs) as they are 'core areas for animal and plant life together with biologically important structures, functions and processes'.[70] These areas, which range from a single hectare to (in a few cases) several hundred hectares, are of high significance for red-listed and indicators species, as well as other species in need of protection.[71] Woodland Key Habitats ('Nyckelbiotoper'), for example, are generally a subset of FVCs.[72]

The study[73] analysed the protected status of over 1.9 million ha[74] of known FVCs in the boreal region, in both productive and unproductive forest lands as well as within and outside the mountain zone.[75] It concluded that around 30% of this area was not formally protected.[76]

IDENTIFYING HIGH VALUE FOREST LANDSCAPES ('SKOGLIGA VÄRDETRAKTER')

Metria then conducted landscape mapping analysis in the boreal region aimed at providing 'support for formal protection of forests and strategic planning in green infrastructure'.[77]

The study identified an initial 366 'forest landscapes with particularly high ecological preservation values'.[78] These 'skogliga värdetrakter' (or High Value Forest Landscapes – HVFLs[79]) were identified according to the criteria that they must be over 1,000 ha in size and contain significantly higher densities of known FVCs than surrounding forest landscapes[80] (i.e. FVCs had to represent at least 5% of the total forest area of the landscape).[81] The HVFLs identified have a total area of 5,937,000 ha, which includes 1,220,000 ha of FVCs with formal protection and 375,000 ha without formal protection.[82]

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While the authors of the study indicate that the overall number of HVFLs would have been far fewer if the qualifying percentage of HVFL coverage were increased to 10%, 20% or 50% of the total forest area,[83] they emphasise that for the purposes of the EPA's objective of identifying critical forest landscapes the 5% threshold should be used.[84]

It is Greenpeace's understanding that Metria is continuing to identify additional HVFLs in the rest of Sweden and this work is expected to be completed in late 2017.[85]

MAPPING AREAS OF CONTINUITY FORESTS ('KONTINUITETSSKOG')

To complement its first two studies, Metria conducted another mapping study to identify areas of so-called 'continuity forest' ('kontinuitetsskog'), defined by the Forest Agency as 'forest with natural values characterised by a long continuous presence of certain forest biotopes and substrates [i.e. soils and underlying geology] in this particular forest or nearby'.[86] These are forests that have never been clearcut, even before the widespread introduction of this practice in the 1950s,[87] and which are 'presumed to encompass valuable forests to a significant extent'.[88] The evaluation assumes that continuity forests are expected to have a minimum age of 70 years or more to be correctly identified.[89]

The study[90] analysed 15 million ha of productive forest land within the boreal region but outside the mountain zone, by means of visual interpretation of historical (1970–2015) satellite land cover data, as well as light detection and ranging (LiDAR) elevation data.[91] It identified areas of continuity forest or potential continuity forest over 0.5 ha and more than 20 metres wide.[92]

The designation 'continuity forest or potential continuity forest' reflects the fact that visual interpretation of historical satellite data can lead to some areas of forest aged between 50 and 70 years[93] being mapped as forests aged over 70 years. On the basis of this assumption, Metria compared its draft maps with age classification inventories conducted by the counties in the boreal region (i.e. from the Swedish National Forest Inventory, 'Riksskogstaxering').[94] Nevertheless, the study assumes that the final total may still include some misidentified areas.

On the basis of this evaluation, Metria then calculated the probability of the resulting maps correctly identifying continuity forests in each county, as follows: Jämtland (88%), Västernorrland (73%), Dalarna (67%), Västerbotten (64%), Norrbotten (53%), Gävleborg (49%) and Värmland (41%).[95]

The forest lands owned by SCA, the subject of one of the case studies in the next chapter, are predominately in the counties of Jämtland, Västernorrland, Västerbotten and Norrbotten.[96]

In all, the study identified 4.6 million ha of continuity forest or potential continuity forest, with over 3.3 million ha of this total consisting of continuous areas larger than 10 ha.[97] Around half (2.4 million ha) of the total identified area overlaps with the 5.9 million ha of the 366 identified HVFLs (or from the opposite perspective, 40% of the identified area of HVFLs lies within areas of continuity forest or potential continuity forest).[98] However, a mere 200,000 ha of the identified continuity forest or potential continuity forest are formally protected.[99]

The study's maps of continuity forest or potential continuity forest can be used in landscape analyses to indicate high densities of valuable forest or to analyse connectivity between FVCs.[100] Accordingly, these maps have potential to help prioritise additional research on areas of boreal forest to be identified for formal protection.

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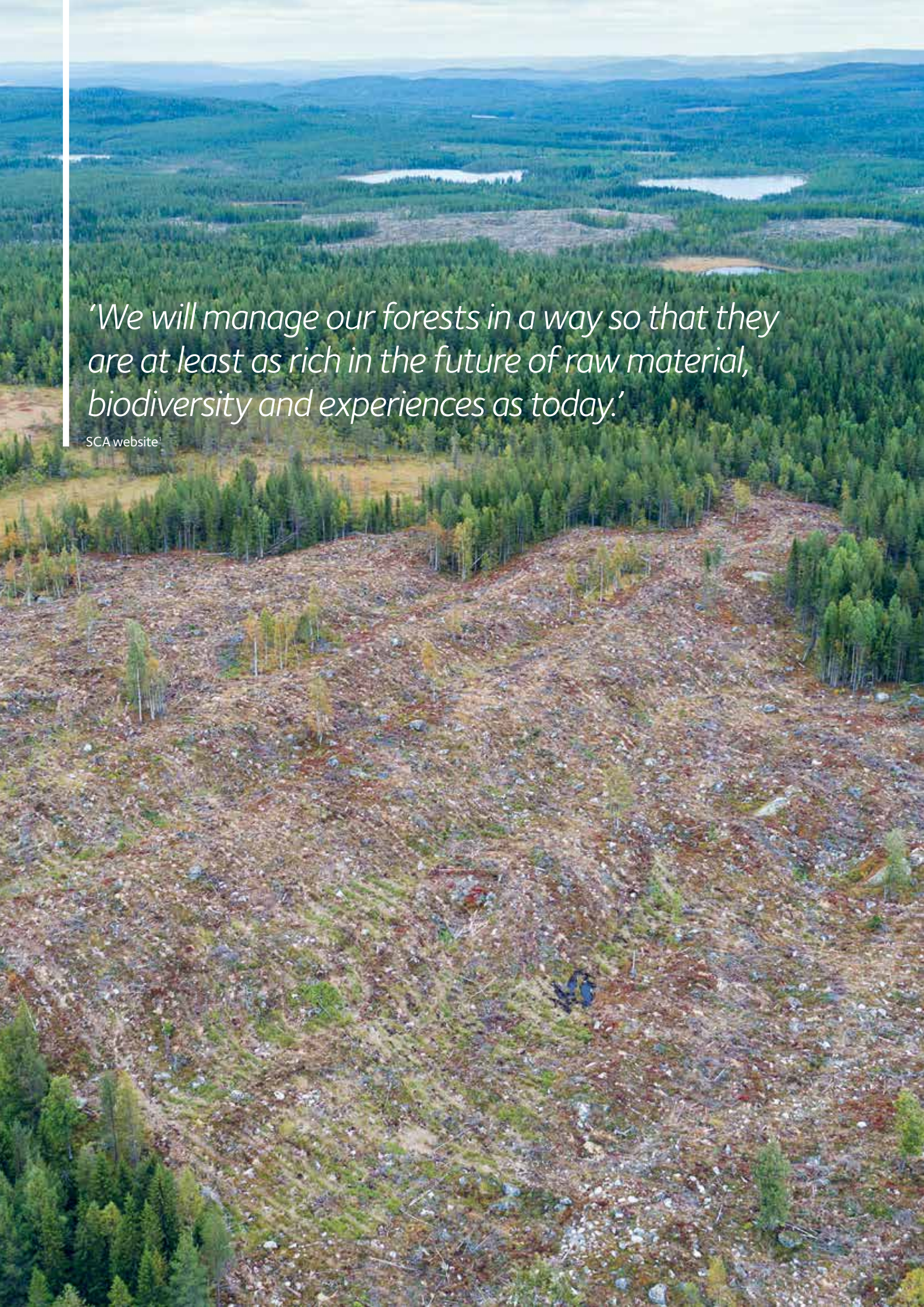
More forests with high biodiversity and conservation values are being logged than protected



'We will manage our forests in a way so that they are at least as rich in the future of raw material, biodiversity and experiences as today.'

SCA website[1]

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CHAPTER 3: ESSITY'S ACCOMPLICES IN CRIME

The previous chapter describes how Sweden's Environmental Protection Agency (EPA) and Forest Agency published mapping studies analysing the distribution and existing protection of core areas important for forest conservation (i.e. 'Skogliga Värdekärnor' or Forest Value Cores, FVCs) and identifying 366 critical forest landscapes ('Skogliga Värdetrakter' or High Value Forest Landscapes, HVFLs) that contain a high concentration of such FVCs, as part of a process which it is hoped will lead to the establishment of a network of formally protected forest landscapes in the boreal region.

This chapter presents case studies showing how a number of Essity's pulp suppliers in the boreal region (and beyond) continue to devastate or threaten critical forest landscapes, imperil biodiversity and ignore the rights of indigenous peoples:

- Case study 1 shows that the landholdings and forestry activities of SCA and its external suppliers overlap with and threaten Sweden's as yet unprotected FVCs and HVFLs.

- Case study 2 highlights how SCA's continued planting of non-native lodgepole pine is impacting the traditional livelihoods of Sámi reindeer herders in northern Sweden.

- Case study 3 shows how three of Essity's market pulp suppliers in Finland continue to source wood logged by the state-owned logging company Metsähallitus, which continues to log areas of Finnish boreal forest that have been mapped as being of high conservation value and hosting red-listed species.

- Case study 4 provides an update on the activities of one of Essity's pulp suppliers in Russia, Arkhangelsk Pulp & Paper Mill (APPM), which is at the centre of an ongoing conflict over a proposed protected area of Intact Forest landscape on which Greenpeace has already reported in Eye on the taiga.

- Case study 5 reveals how Essity's Chinese subsidiary, Vinda, is continuing to source pulp from APRIL – a company with a long history of involvement in deforestation and peatland clearance in Sumatra and Kalimantan, Indonesia.

CASE STUDY 1:
SCA'S (AND ITS SUPPLIERS') LOGGING IN HIGH VALUE FOREST LANDSCAPES

SCA and its suppliers continue to threaten unprotected forests with high conservation values across their vast forest land holdings in Sweden, both inside and outside the HVFLs identified by the Swedish EPA and Forest Agency.

In this case study we present the results of Greenpeace's detailed mapping analysis of the HVFLs identified within Swedish boreal forest land managed by either SCA's own forestry division (SCA Skog) or SCA's external wood suppliers: Sveaskog, the Holmen Group and the Swedish Church. This includes findings regarding the FVCs and areas of continuity forest and potential continuity forest identified within the HVFLs. The purpose of this exercise is to determine how much forest within HVFLs is under threat from ongoing and planned logging by SCA and its suppliers.

Some 96% of the SCA forest land that lies within identified HVFLs lacks any level of formal protection.

MAPPING DATA USED IN THE ANALYSIS FOR CASE STUDY 1

Greenpeace used a variety of publicly available sources of GIS and other data to conduct the mapping analysis summarised in this case study. These included:

1. Data on 'Skogliga Värdekärnor' (Forest Value Cores), 'Skogliga Värdetrakter' (High Value Forest Landscapes, HVFLs) and 'Kontinuitetsskog' (continuity forest or potential continuity forest) published by the Swedish EPA and Metria via the Environmental Data Portal (see Chapter 2 for an explanation of these various categories of forests).[2]

2. Data on formally protected areas published by the EPA via its Nature Protection Portal.[3] The same portal also includes maps showing the land ownership of the forestry companies named in this case study.

3. Data on forestry companies' land ownership and voluntary set-aside areas published by the Swedish forestry industry on its 'Protected Forests' website.[4]

4. Data on forestry companies' land ownership published by the EPA and Metria via their Environmental Data Portal.[5]

5. Data on company logging plans and logged areas published by the Swedish Forest Agency via its Forest Data Portal.[6]

6. Land cover map provided by SCA of 'Skogliga Värdetrakter' #205.[7]

Greenpeace formally requested up-to-date GIS shapefiles of their forest landholdings from both SCA Skog and Sveaskog in order to help it conduct this detailed analysis. Both companies denied this request as they were unwilling to release detailed information about their land ownership. Instead, Greenpeace used the best publicly available data from the above-mentioned sources.

SUMMARY FINDINGS FOR SCA-OWNED FOREST LAND

The primary mapping analysis data behind the summary figures below can be found in the tables included in the appendix.

HVFLS OVERLAPPING WITH SCA FOREST LAND

Out of the 366 individual HVFLs identified in the boreal region, nearly one-third (111) overlap to varying degrees with SCA's forest land – in some cases the HVFL lies entirely or mainly within SCA land, while in other cases only a small part of the HVFL is SCA land. These large and small areas of overlap together amount to around 10% (265,611 ha) of SCA's total forest landholding.

Some 96% of the SCA forest land that lies within identified HVFLs lacks any level of formal protection. However, around 11% (29,920 ha) of the overlap area lies within the company's voluntary set-aside areas. That leaves around 85% (224,679 ha) of the overlap area without either formal or voluntary protection and therefore under threat from logging.

Nearly 29% (76,665 ha) of the SCA forest land lying within HVFLs has been identified as either FVCs, continuity forest or potential continuity forest. Almost 96% of this area (73,500 ha) has been identified as continuity forest or potential continuity forest. Of this continuity forest area, 21% (~15,500 ha) overlaps with FVCs and the remaining 79% (~58,000 ha) is in areas surrounding the FVCs. This degree of overlap demonstrates the strong correlation between FVC and areas of continuity forest.

Between August 2012 and July 2017, SCA submitted logging plans covering a total of 12,160 ha of land within 85 of the 111 HVFLs identified as lying on or partly on its land. During the same period around 4,700 ha of this land, lying within 68 HVFLs, was logged, with the remaining 7,460 ha in 81 HVFLs still to be logged.

FVCS OUTSIDE HVFLS OVERLAPPING WITH SCA FOREST LAND

Outside the 111 HVFLs identified as overlapping with SCA's forest land, there are an additional 29,820 ha of FVCs that also overlap with SCA's forest land. Of this area, 81% (~24,000ha) overlaps with continuity forest or potential continuity forest.

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SUMMARY FINDINGS FOR FOREST LAND OWNED BY KNOWN SCA SUPPLIERS

HVFLS OVERLAPPING WITH KNOWN SCA SUPPLIERS' FOREST LAND

Out of the 366 individual HVFLs identified in the boreal region, nearly two-thirds (239) overlap to varying degrees with forest land owned by SCA's known suppliers – again, in some cases the HVFL lies entirely or mainly within the supplier's land, while in other cases only a small part of the HVFL is on the supplier's land. These large and small areas of overlap together amount to around 16% (949,900ha) of known SCA suppliers' total forest landholdings.

Some 97.5% of the known SCA suppliers' forest land that lies within identified HVFLs lacks any level of formal protection. However, around 14.4% (136,440 ha) of the overlap area lies within the suppliers' voluntary set-aside areas. That leaves around 83.2% (789,940 ha) of the overlap area without either formal or voluntary protection and therefore under threat from logging.

Nearly 34% (318,780 ha) of the known SCA suppliers' forest land lying within HVFLs has been identified as either FVCs, continuity forest or potential continuity forest. Around 88.5% of this area (~282,200 ha) has been identified as continuity forest or potential continuity forest. Of this continuity forest area, 44% (~124,300 ha) overlaps with FVCs and the remaining 56% (~157,800 ha) is in areas surrounding the FVCs. This degree of overlap again demonstrates the strong correlation between FVC and areas of continuity forest.

Between August 2012 and July 2017, known SCA suppliers submitted logging plans covering a total of 32,830 ha of land within 179 of the 239 HVFLs identified as lying on or partly on their land. During the same period around 18,370 ha of this land, lying within 152 HVFLs, was logged, with the remaining 14,460 ha in 164 HVFLs still to be logged.

FVCS OUTSIDE HVFLS OVERLAPPING WITH KNOWN SCA SUPPLIERS' FOREST LAND

Outside the 239 HVFLs identified as overlapping with known SCA suppliers' forest land, there are an additional 111,830 ha of FVCs that also overlap with known SCA suppliers' forest land. Of this area, 53% (~ 59,220 ha) overlaps with continuity forest or potential continuity forest.

INDIVIDUAL CASES OF HVFLS OVERLAPPING WITH FOREST LAND OWNED BY SCA OR ITS SUPPLIERS

This section presents the results of the mapping analysis of five out of the 111 HVFLs that overlap with forest land owned by SCA or its suppliers. These HVFLs are located in the counties of Jämtland, Västernorrland and Västerbotten.[1]

The following maps show that the identified continuity forests – within the overlap area between the five HVFLs and the land owned by SCA or its suppliers – overlap heavily with FVCs, both formally protected and unprotected. They also show the FVCs (or portions of FVCs) and areas of continuity forest or potential continuity forest that are not formally protected, and which of these areas are threatened by the submitted logging plans of SCA and/or its suppliers.

HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #205)

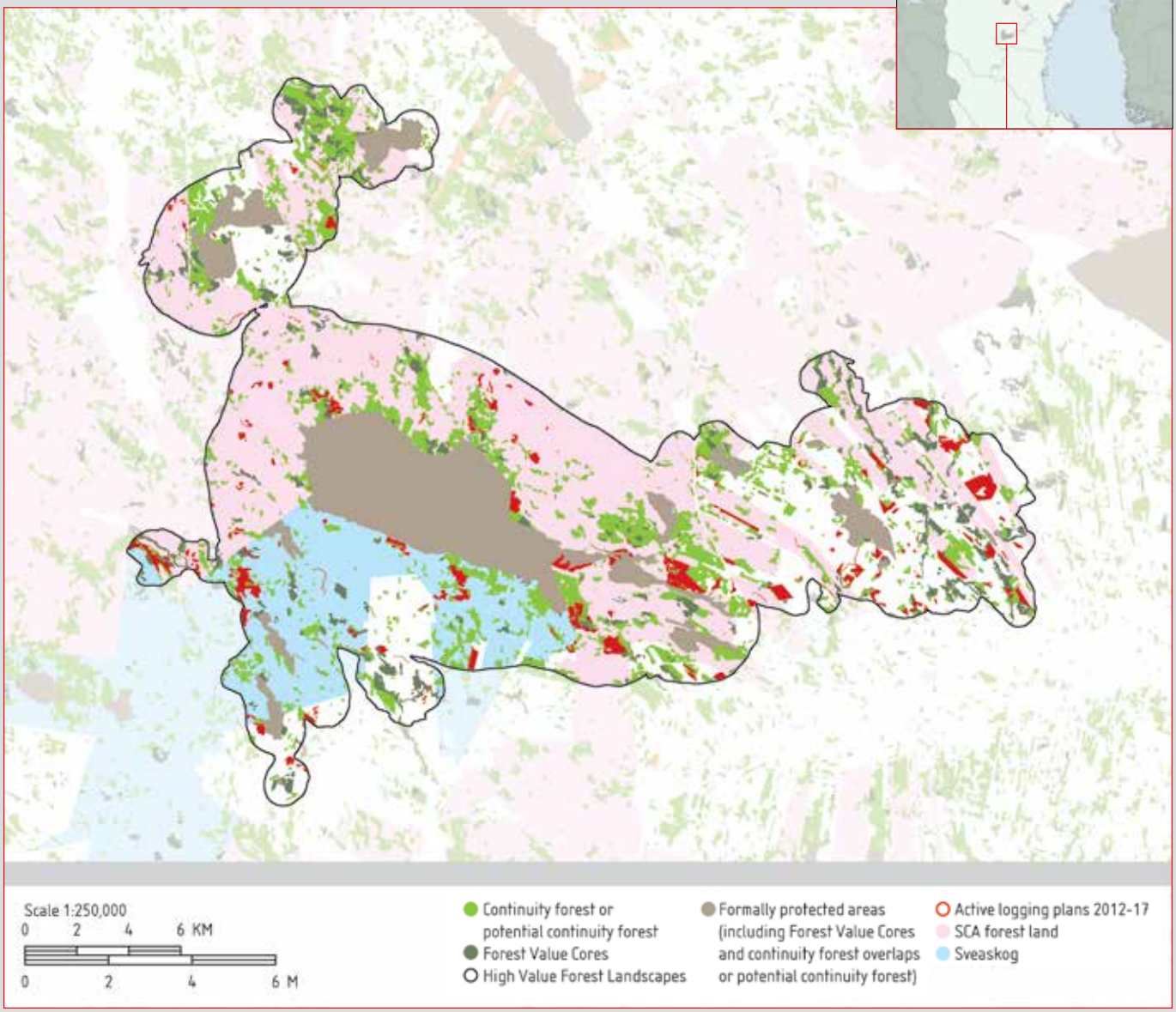
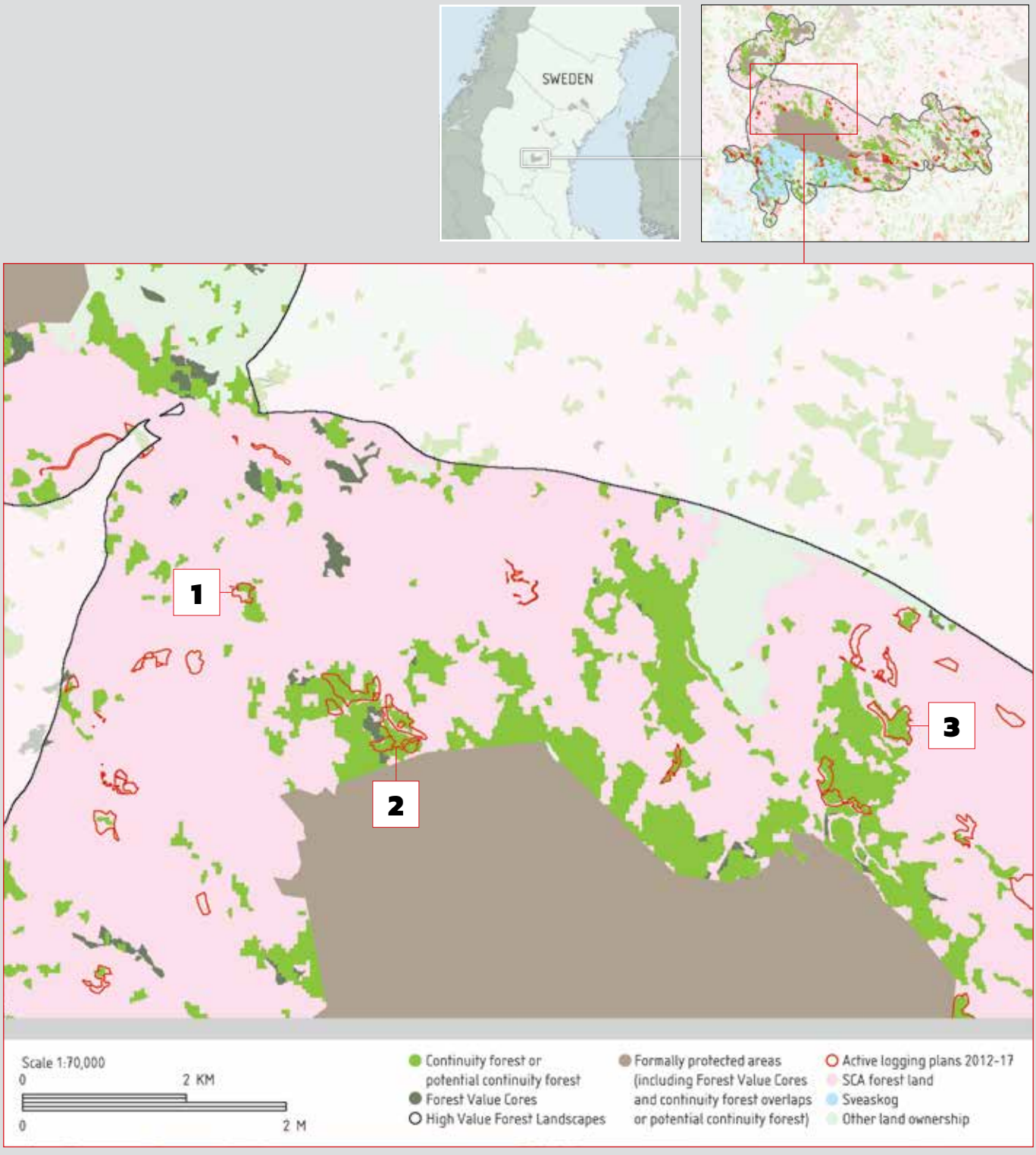


TABLE 3.1: HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #205)

	A	B	C	D	E	F	G
Supplier	Total HVFL area within supplier's forest land	Total area of FVCs within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land within an FVC	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land but not within an FVC	Total area of FVCs and continuity forest or potential continuity forest within the HVFLs area of supplier's forest land B+E	Percentage of HVFL area within supplier's forest land that is also within FVCs and/or continuity forest or potential continuity forest (F/A x 100)
	ha	ha	ha	ha	ha	ha	%
SCA	18,200	800	4,350	560	3,790	4,590	25
Sveaskog	5,690	230	1,030	130	900	1,130	20
All other land within HVFL	15,510	5,030	5,510	3,720	1,790	6,820	44
Total area of HVFL	39,400	6,060	10,890	4,410	6,480	12,540	32

ZOOM A


SWEDEN
1
2
3
Scale 1:70,000
0
2 KM
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2 M
Continuity forest or potential continuity forest
Forest Value Cores
High Value Forest Landscapes
Formally protected areas (including Forest Value Cores and continuity forest overlaps or potential continuity forest)
Active logging plans 2012-17
SCA forest land
Sveaskog
Other land ownership

1.
SCA LOGGING PLAN #A22476-2017

Images from field investigation conducted on 5 September 2017




2.
SCA LOGGING PLAN #A43906-2016

Images from field investigation conducted on 5 September 2017



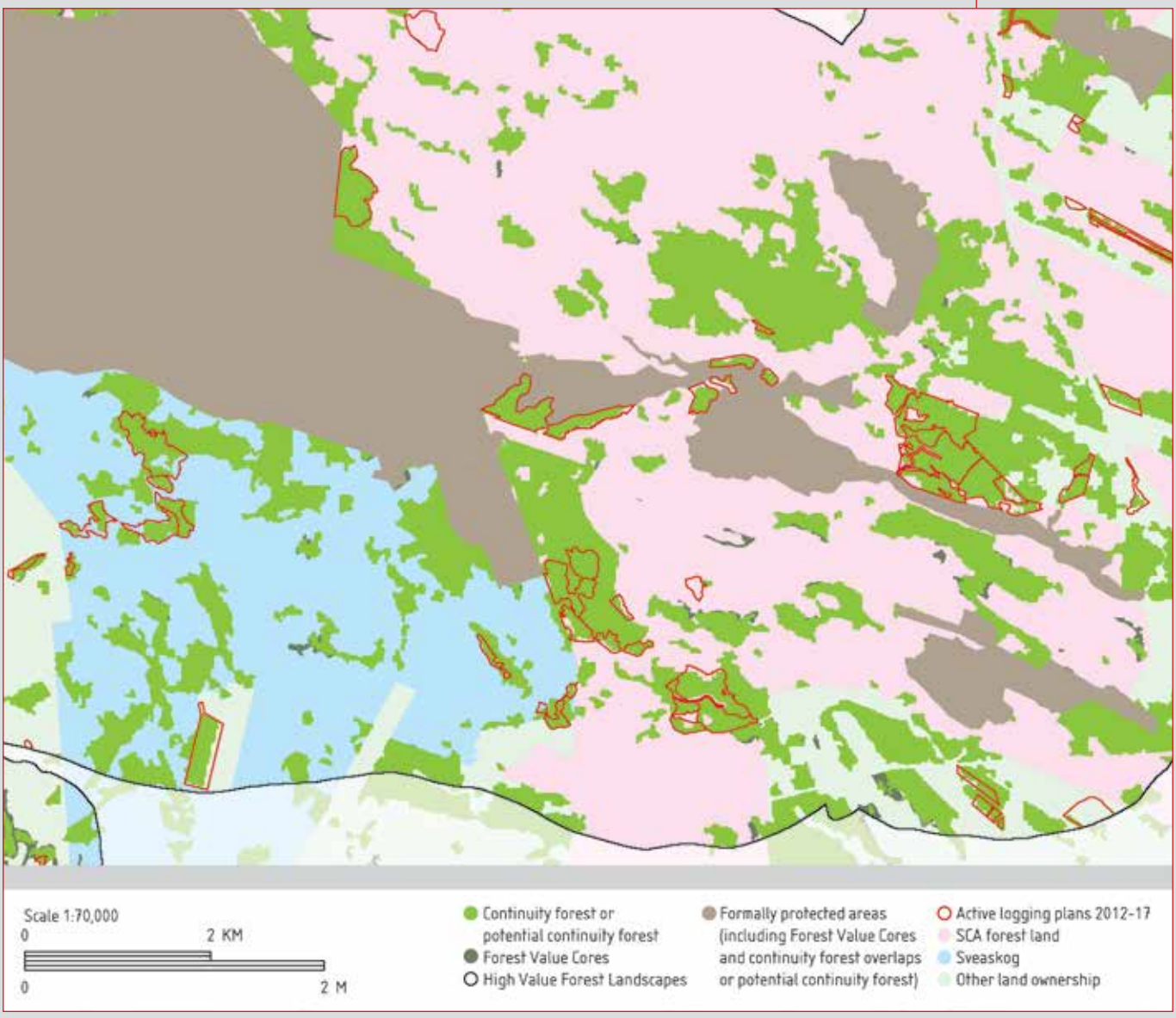
3.
SCA LOGGING PLAN #A26110-2017

Images from field investigation conducted on 5 September 2017




All images: © Greenpeace

ZOOM B


SWEDEN
Scale 1:70,000
0
2 KM
0
2 M
Continuity forest or potential continuity forest
Forest Value Cores
High Value Forest Landscapes
Formally protected areas (including Forest Value Cores and continuity forest overlaps or potential continuity forest)
Active logging plans 2012-17
SCA forest land
Sveaskog
Other land ownership

HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #173)

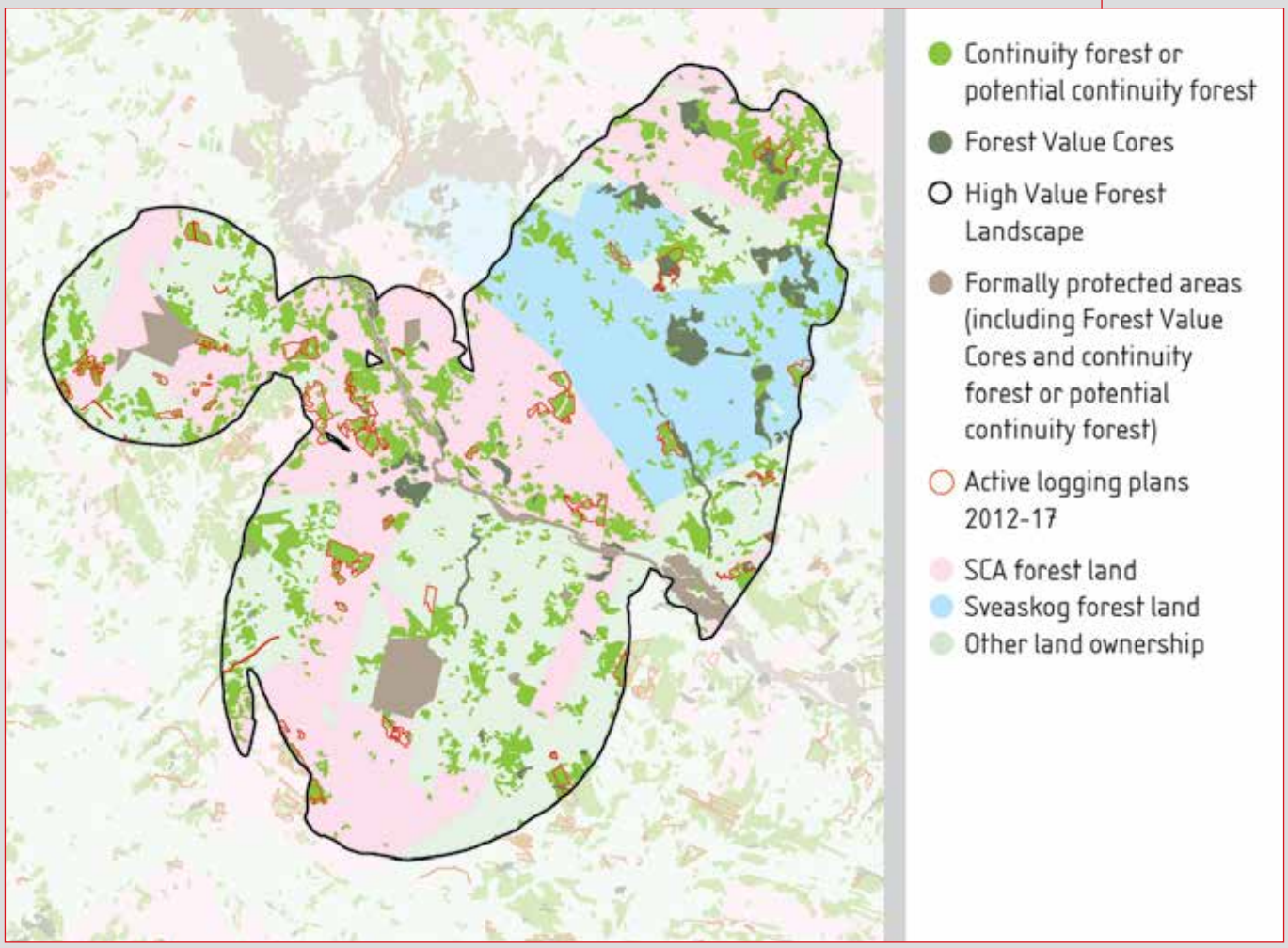


TABLE 3.2: HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #173)

	A	B	C	D	E	F	G
Supplier	Total HVFL area within supplier's forest land	Total area of FVCs within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land within an FVC	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land but not within an FVC	Total area of FVCs and continuity forest or potential continuity forest within the HVFLs area of supplier's forest land B+E	Percentage of HVFL area within supplier's forest land that is also within FVCs and/or continuity forest or potential continuity forest (F/A x 100)
	ha	ha	ha	ha	ha	ha	%
SCA	7,550	170	1,480	100	1,380	1,550	21
Sveaskog	3,310	220	460	140	320	540	16
All other land within HVFL	7,430	480	1,420	200	1,220	1,700	23
Total area of HVFL	18,290	870	3,360	440	2,920	3,790	21

HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #181)

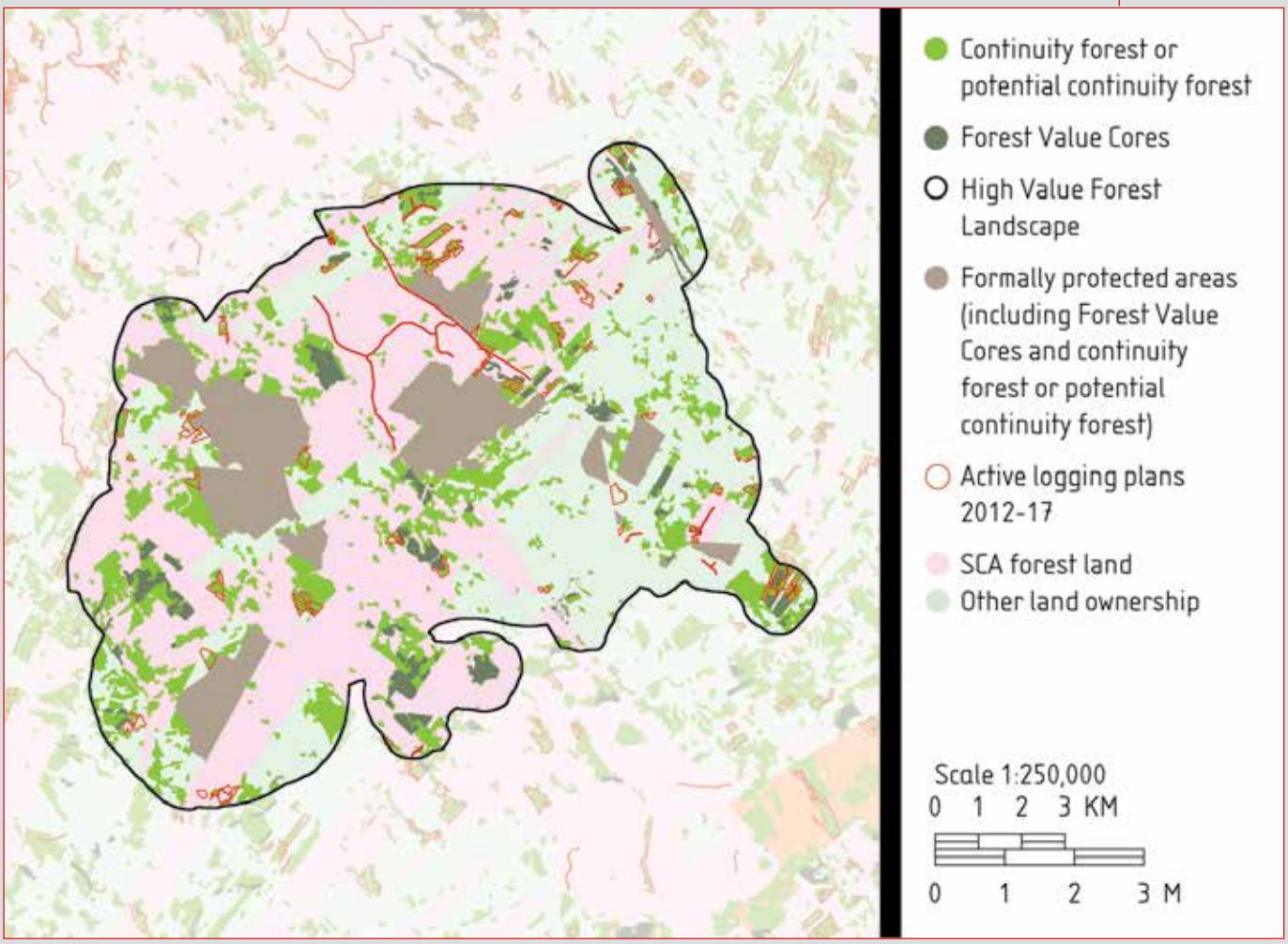


TABLE 3.3: HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #181)

	A	B	C	D	E	F	G
Supplier	Total HVFL area within supplier's forest land	Total area of FVCs within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land within an FVC	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land but not within an FVC	Total area of FVCs and continuity forest or potential continuity forest within the HVFLs area of supplier's forest land B+E	Percentage of HVFL area within supplier's forest land that is also within FVCs and/or continuity forest or potential continuity forest (F/A x 100)
	ha	ha	ha	ha	ha	ha	%
SCA	8,380	500	1,980	420	1,560	2,060	25
All other land within HVFL	8,100	1,380	2,090	980	1,110	2,490	31
Total area of HVFL	16,480	1,880	4,070	1,400	2,670	4,550	28

HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #141)

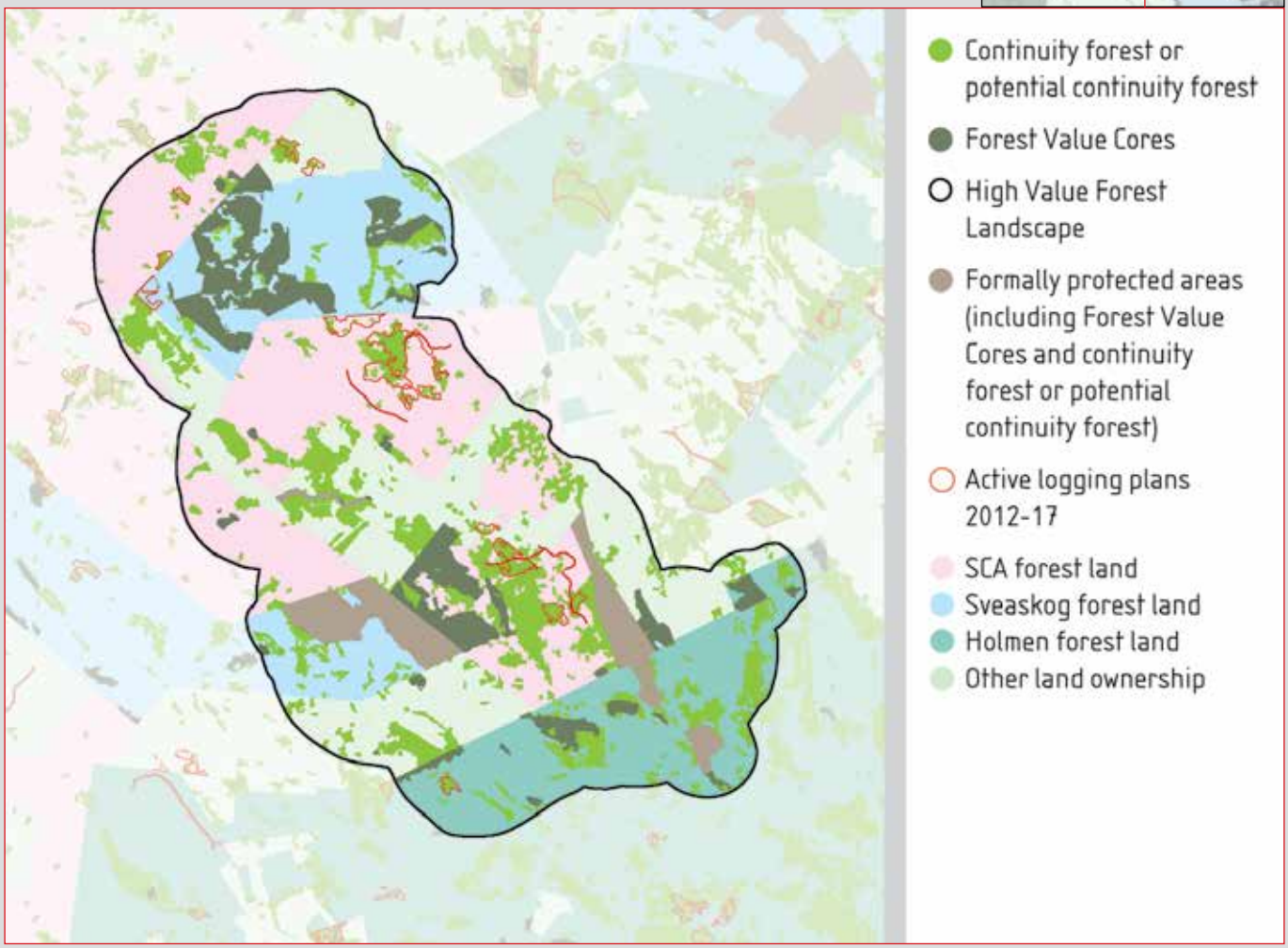


TABLE 3.4: HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #141)

	A	B	C	D	E	F	G
Supplier	Total HVFL area within supplier's forest land	Total area of FVCs within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land within an FVC	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land but not within an FVC	Total area of FVCs and continuity forest or potential continuity forest within the HVFLs area of supplier's forest land B+E	Percentage of HVFL area within supplier's forest land that is also within FVCs and/or continuity forest or potential continuity forest (F/A x 100)
	ha	ha	ha	ha	ha	ha	%
SCA	3,440	290	880	260	620	910	27
Sveaskog	1,970	630	670	520	150	780	40
Holmen	1,540	150	380	130	250	400	26
All other land within HVFL	2,450	50	500	40	460	510	21
Total area of HVFL	9,400	1,120	2,430	950	1,480	2,600	28

HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #139)

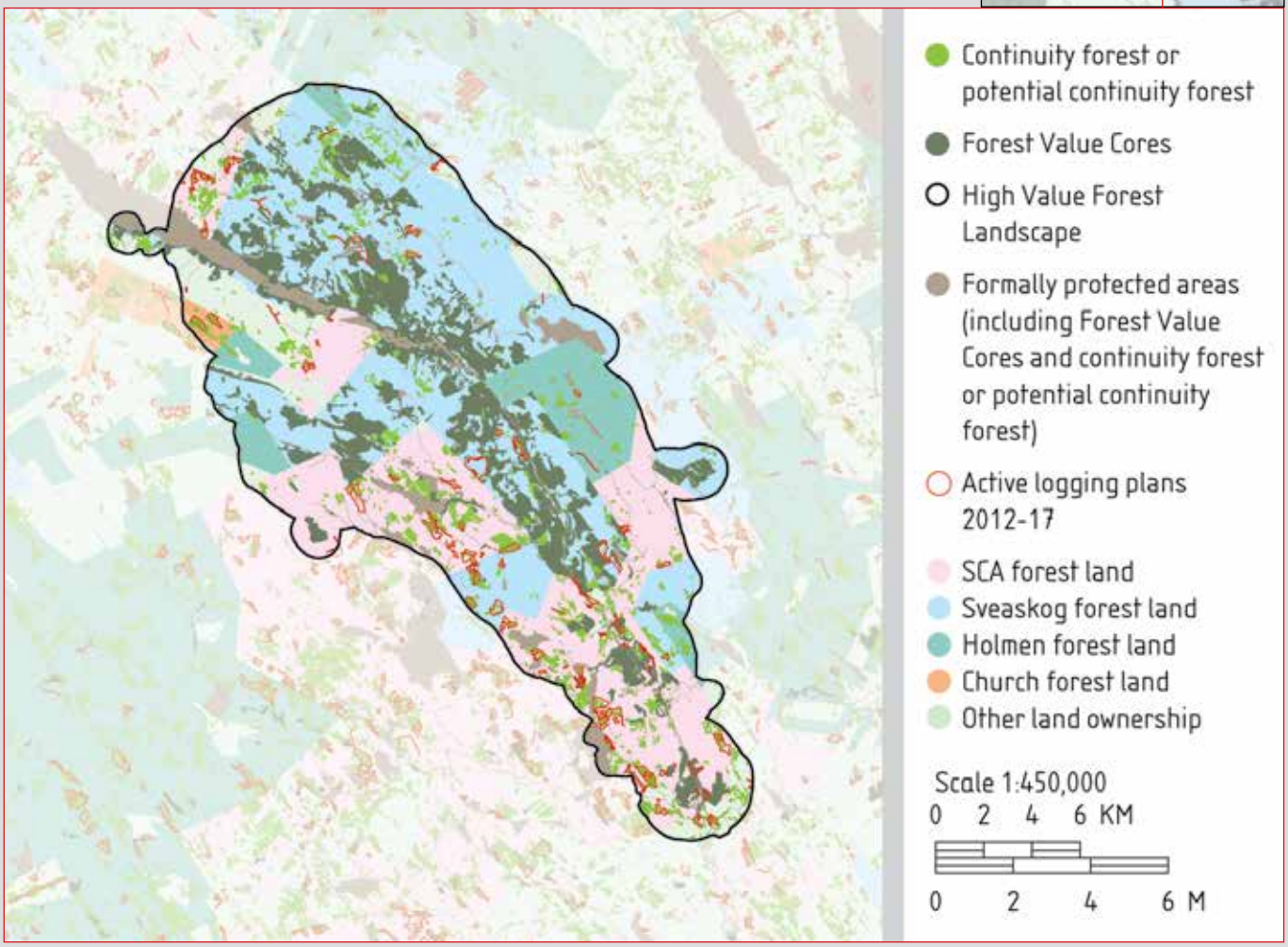


TABLE 3.5: HIGH VALUE FOREST LANDSCAPE WITHIN SCA SUPPLIERS' FOREST LAND (SKOGLIGA VÄRDETRAKT #139)

	A	B	C	D	E	F	G
Supplier	Total HVFL area within supplier's forest land	Total area of FVCs within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land within an FVC	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land but not within an FVC	Total area of FVCs and continuity forest or potential continuity forest within the HVFLs area of supplier's forest land B+E	Percentage of HVFL area within supplier's forest land that is also within FVCs and/or continuity forest or potential continuity forest (F/A x 100)
	ha	ha	ha	ha	ha	ha	%
SCA	10,900	630	1,530	310	1,220	1,850	17
Sveaskog	18,260	5,200	2,850	1,920	930	6,130	34
Holmen Group	3,010	10	170	10	160	170	6
Swedish Church	250	0	60	0	60	60	24
All other land within HVFL	4,390	240	550	130	420	660	15
Total area of HVFL	36,810	6,080	5,160	2,370	2,790	8,870	24

Dense plantations are almost impassable for both reindeer and humans, and herders are therefore often forced to move the reindeer around large areas of lodgepole pine plantation.

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© Christian Åslund/Greenpeace

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CASE STUDY 2:
DESTRUCTIVE FORESTRY IS AN EXISTENTIAL THREAT TO SÁMI INDIGENOUS COMMUNITIES

© Maria Boström / SSR

The Sámi are the indigenous people of Europe's far north, including northern Sweden. While the Swedish constitution recognises the right of the Sámi to maintain and develop their culture,[1] huge challenges remain to be solved before this right can be fully exercised.

The currently dominant model of forestry poses a fundamental threat to Sámi communities, and ultimately to the Sámi's whole culture and identity, because it undermines their right to land and their economic activities. The nature of this threat is twofold. Firstly, clearcutting old forests transforms the Sámi's traditional lands, destroying natural grazing areas essential for reindeer. Secondly, the plantation of invasive tree species exacerbates the problem by further limiting the areas where reindeer herding is possible.

Reindeer herding, which is dependent on natural grazing, is central to Sámi society and identity. The Sámi's traditional way of life is to a large extent defined by the need to follow the reindeer over long distances between summer grazing lands in the mountains and winter grazing lands in the forests,[2] in addition to other significant movements depending on the weather and access to food. Reindeer herding therefore requires large areas with natural grazing, which must be connected by unfragmented forest so that reindeer can move between them.[3] However, the ever-increasing impacts of clearcutting, road building by the logging industry and other economic land uses continue to degrade and fragment the forest.[4]

LOSING OLD-GROWTH FORESTS: LOSING GRAZING

Old-growth forests are essential for reindeer grazing, not least because they provide access to hanging lichen. Winter is a critical period, as the reindeer's access to food is often limited and the amount of food available will often have a decisive impact on the number of reindeer in a herd that can survive. Snow and ice conditions

SÁMI AREA WITHIN SWEDEN

© Sámi Parliament (sametinget.se)

SSR demand that the forestry industry stop planting lodgepole pine in the reindeer husbandry area and develop a plan for the disposal of existing stocks

sometimes make it impossible for the reindeer to reach lichen growing on the ground. The traditional way of coping with this is to move the reindeer to forests with large quantities of hanging lichen, which grows from trees and so remains accessible despite the snow and ice.[5] Large quantities of such lichen are mainly found in old-growth forests.

However, climate change is having an impact on the availability of winter food for reindeer. Rapid fluctuations of temperature have become more frequent over the last few years,[6] causing the snow to melt and refreeze repeatedly, which produces impenetrable layers of ice that make it impossible for the reindeer to find lichen to eat on the ground.

Finding forests with large quantities of hanging lichen has already become difficult because many of these forests have been logged. When forests with a lot of hanging lichens are clearcut, a resource that is essential for the survival of reindeer is instantly removed. As it takes a very long time for hanging lichens to recover to a large biomass, the impact of clearcutting is long-lasting. Nevertheless, the herds' dependency on forests with hanging lichen is increasing as periods of difficult winter grazing become longer and more recurrent.[7]

Because of the increasing difficulty of finding natural grazing during winter, Sámi are sometimes forced to give fodder to the reindeer as a last resort. However, feeding reindeer with fodder is associated with a number of diseases. When deprived of their natural food, reindeer can become very ill.[8] The role of old-growth forests as feeding grounds for reindeer can therefore not be replaced by artificial feeding methods.

Furthermore, old-growth forests have several other characteristics which make them important for the reindeer. For example, in certain areas the reindeer stay in the forest during summer and the old-growth forests provide cooler temperatures and protection from insects during hot summer days, something that neither clearcuts nor lodgepole pine plantations can provide.

PLANTING INVASIVE SPECIES: DISPLACING REINDEER AND PUTTING ECONOMIC STRAIN ON SÁMI COMMUNITIES

After clearcutting, it is common for forestry companies in Sweden to plant lodgepole pine (*Pinus contorta*), which is a non-native tree species. The planting of lodgepole pine increased heavily from the 1970s onwards, and the species is favoured by the industry because it grows faster than native species of spruce and pine.[9] However, while this species may have provided the forest industry with short-term economic benefits, it has had a disastrous effect on other parts of the economy.

The Swedish Sámi Association – Sámiid Riikkasearvi (SSR)[10] – puts the outcome bluntly: areas covered with lodgepole pine plantations become unusable for reindeer herding.[11]

One reason for this is that the species has larger needles that cast more shade on the ground, and when they fall to the ground they cover it in a thick carpet, slowing the growth of the lichens that reindeer feed on. Another reason is that the trees are planted very close to each other. These dense plantations are almost impassable for both reindeer and humans, and herders are therefore often forced to move the reindeer around large areas of lodgepole pine plantation. Not only can this result in herds getting split up, but it also generates a lot of extra work. The costs faced by reindeer herding districts and individual reindeer owners are also increased, as they often need to charter helicopters to herd reindeer around plantations.

LODGEPOLE PINE IN NUMBERS

Lodgepole pine is native to the north-west coast of North America.[12] However, in regions where it is not native, it often acts as a fast-growing invasive species, outcompeting native tree species.[13] A recent Swedish government submission to the CBD recognises that 'The spread of *Pinus contorta* into areas with high value for biodiversity and protected areas is a potential problem.'[14]

On the other side of the globe, in New Zealand, lodgepole pine has been banned from sale, propagation and distribution because it is considered an invasive species that threatens biodiversity.[15] In Sweden, however, it continues to be planted. In 2011 it was estimated that lodgepole pine covered 600,000 ha of Sweden north of the 60th parallel[16] – an area over one-and-a-half times larger than the area of productive forest formally protected in the Swedish boreal.[17]

One recent study, published in a journal of the Royal Swedish Academy of Sciences, estimates that as of around 2014 lodgepole pine had been planted on 400,000 ha of the reindeer herding area.[18] The study notes that the planting of lodgepole pine and the

subsequent use of chemical fertilisers contributes to the decline in the ground lichens on which reindeer feed during the winter months. The study concludes that 'analysis of 60 years of forest inventory data shows a major decline in the ground lichen resource in Sweden. Such changes can have profound effects on ecosystems and biodiversity in general, and in the case of Sweden, on reindeer husbandry in particular.' It observes that the implications of this decline for reindeer herding are that the reindeer 'use increasingly larger areas for winter grazing: thus subsequently their dependency on connected landscapes [increases]'.[19]

Many timber companies in Sweden plant lodgepole pine, among them several of Essity's biggest suppliers. SCA alone has planted 300,000 ha of lodgepole pine on its lands in northern Sweden between 1973 and 2014.[20] In more recent years SCA has been converting around 4,000 ha of forest per year into lodgepole pine plantations.[21] It has set internal targets to replant 20% of the native forest that it clearcuts each year with lodgepole pine.[22]

Holmen Group, another of Essity's suppliers, has also planted lodgepole pine in northern Sweden. As of February 2017, the species accounted for 7% of the volume of standing trees within its forest holdings.[23]

THE SÁMI'S STRUGGLE FOR THEIR RIGHT TO LAND

In Sweden, the Reindeer Husbandry Act[24] gives the Sámi exclusive rights to herd and graze their reindeer within the reindeer herding area, which comprises the majority of the land within the country's boreal and alpine biomes (see map on page 44).[25]

The Swedish Sámi Association (SSR)[26] is the national association of the Swedish Sámi and represents a total of 44 reindeer herding districts or '*sameby*'.[27] In 2008 SSR published a forest policy document[28] which recommended that, as part of building a relationship between reindeer herding and forestry, there should be no more planting of non-native tree species (e.g. lodgepole pine) in the reindeer husbandry area.

However, companies have continued to plant lodgepole pine. For example, SCA planning documents from 2014[29] reveal that the company plans to increase its area of lodgepole pine plantation in the northern provinces of Sweden over the period 2015–2035.

As part of its work leading up to this report, Greenpeace has been in ongoing engagement with SSR to understand the impacts of SCA's forestry operations on traditional Sámi reindeer herding.[30] According to SSR, since 2008, representatives of the reindeer herding districts have frequently requested at the consultation meetings ('*samråd*') hosted by SCA that the company stop planting lodgepole pine in forest areas important for reindeer herding. SSR has informed Greenpeace that it has attended some of these consultation meetings.[31] To date, SCA has not agreed to stop planting lodgepole pine in the reindeer husbandry area.[32]

Following a meeting between the co-chairs of the reindeer herding districts held in Stockholm on 25 August 2017, SSR issued a press statement entitled 'Zero tolerance to lodgepole pine in reindeer husbandry areas'. In it, the co-chairs demand that the forestry industry stop planting lodgepole pine in the reindeer husbandry area and develop a plan for the disposal of existing stocks. The statement goes on to say that 'we demand respect for our right to the land and our right to herd and graze reindeer here, and we do not accept lodgepole pine being planted on our land' (Greenpeace's translation).[33]

Greenpeace has since sent a copy of this statement to SCA's chief forester and has requested a response to SSR's demands.

WHILE SWEDEN REFUSES TO RESPECT SÁMI RIGHTS, COMPANIES MUST START DOING SO

Referring to the situation across Norway, Sweden and Finland, the United Nations special rapporteur on the rights of indigenous peoples reported in 2016 that the 'limited protection for the Sámi people of their right to their lands and resources and the lack of concrete action, including the adoption of specific legislation, is cause for concern and continues to be subject to criticism by the United Nations human rights treaty bodies'.[34]

Sweden has not ratified the International Labour Organization (ILO) Convention 169 on the rights of indigenous peoples,[35] despite the analysis of the country's Equality Ombudsman that 'in Sweden, insufficient steps have been taken to ensure Sámi participation as required by international conventions'.[36]

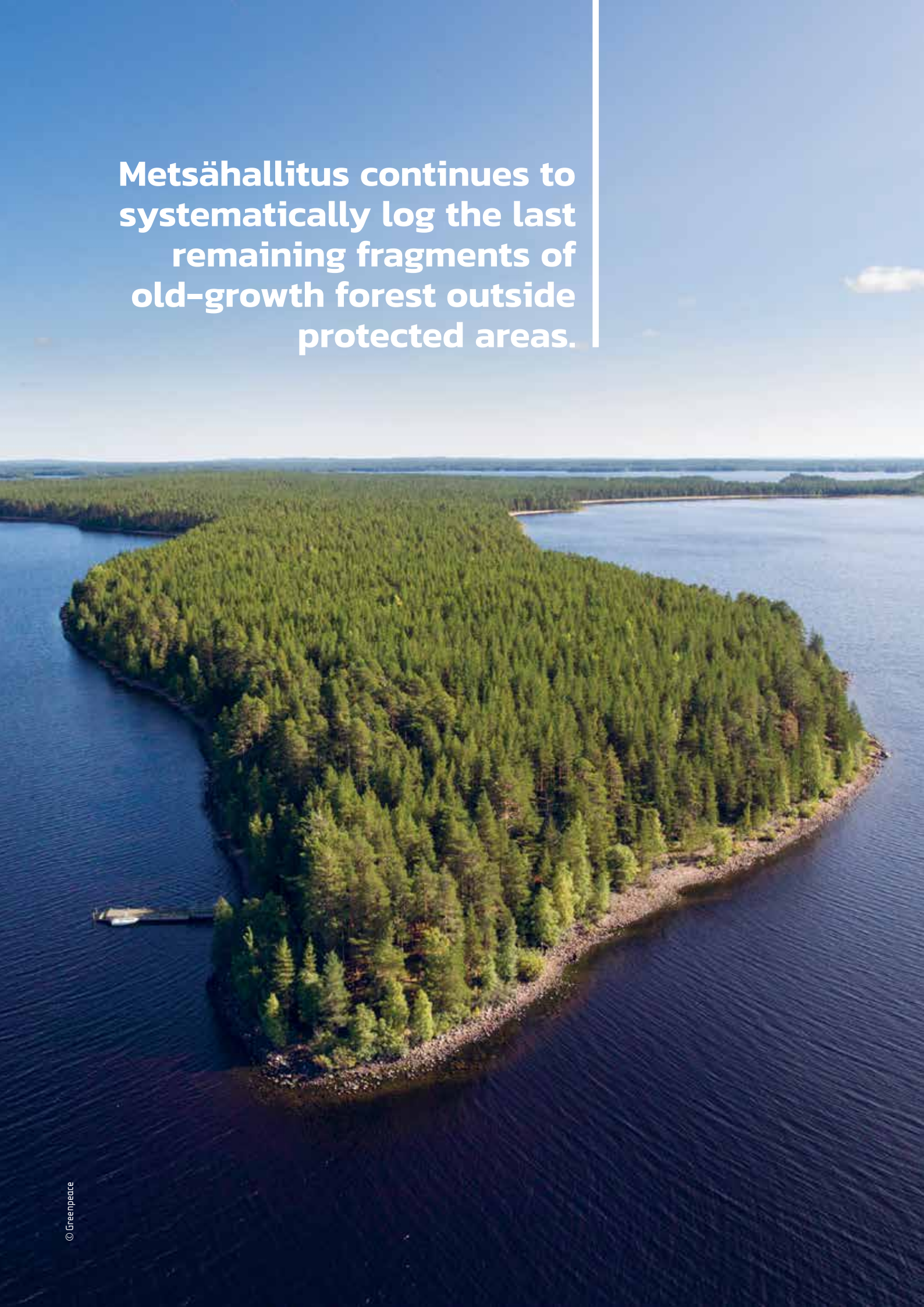
Due to the lack of a formal Swedish legislation to implement the principle of Free, Prior and Informed Consent (FPIC – see text box), 'self-determination of the Sámi people in Sweden regarding natural resources and lands, waters, air and earth therein continues to be illusive', according to the Sámi Parliament in Sweden.[37]

Greenpeace expects companies that trade in forest products from the boreal forest to protect the rights of indigenous peoples. We want Essity and other companies to apply the principle of FPIC and to uphold the demands of SSR.

GREENPEACE POSITION ON THE RIGHTS OF INDIGENOUS PEOPLES

Greenpeace supports the UN Declaration on the Rights of Indigenous Peoples (UNDRIP),[38] including the right of Indigenous Peoples to steward their traditional lands, rivers and marine areas, as well as to govern their communities. We also support the application of the UN principle of 'Free, Prior and Informed Consent' (FPIC) for decisions that will affect Indigenous communities, including decisions concerning any proposed project located on their traditional territories, especially in relation to the development and/or exploitation of timber, mineral, fish, water or other resources. Greenpeace moreover believes that Indigenous Peoples should not be forcibly removed from their traditional territories as a result of such development or other related activities.

Metsähallitus continues to systematically log the last remaining fragments of old-growth forest outside protected areas.



CASE STUDY 3:
ESSITY'S ACCOMPLICES IN CRIME IN FINLAND

© Greenpeace

The state-owned logging company Metsähallitus claims to be the single largest trader of logs in Finland, selling about 2.4 million m³ of sawlogs and 3.6 million m³ of pulpwood annually.[1] The majority of the pulpwood is sold under long-term contracts to Finnish pulp mills[2] including those owned by Stora Enso,[3] Metsä Fibre[4] and UPM.[5] Essity is sourcing market pulp from at least four mills owned by these Finnish forestry giants: **Oulu** and **Enocell (Stora Enso)**, **Kemi (Metsä Fibre)** and **Pietarsaari (UPM**).

Metsähallitus continues to systematically log the last remaining fragments of old-growth forest[6] outside protected areas, including habitats of IUCN red-listed species, in the Kainuu region of north-eastern Finland.

This case was first highlighted in a report by Greenpeace in 2013.[7] Since then, Greenpeace has continued to document and expose ongoing clearcutting of old-growth forest by Metsähallitus in the Kainuu region.

THE EVIDENCE

A map showing locations of Essity's pulp suppliers indicates that the company is supplied by two (unnamed) mills in northern Finland and one in north-central Finland. According to two separate maps available on the Finnish Forest Industry website, there are only four pulp mills in this region,[8] two of which are owned by **Stora Enso (Oulu** and **Kemi**), one by **Metsä Fibre (Kemi)** and another by **UPM (Pietarsaari**).[9]

According to the companies' websites, only three of these four mills produce market pulp: **Kemi (Metsä Fibre), Oulu (Stora Enso)** and **Pietarsaari (UPM).** All three mills sell their market pulp to companies including tissue manufacturers.[10] Greenpeace therefore concludes that these are the three mills in north-western Finland that supply Essity.

On 9 August 2017, Greenpeace wrote to Essity to ask them to confirm that the company buys market pulp from Kemi (Metsä

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Fibre), Oulu (Stora Enso) and Pietarsaari (UPM**)**.[11] Essity replied on 12 September 2017, stating that the company cannot disclose information about its suppliers due to legal reasons.[12]

Further, an email to Greenpeace from the customer services department for Essity's Lotus brand in Finland to Greenpeace confirms that **UPM's Pietarsaari** mill and **Stora Enso's Enocell** mill supply Essity with pulp.[13] The Enocell mill is located in eastern Finland.[14]

METSÄHALLITUS AND THE KAINUU REGION

Some of the biggest and longer-term customers of Metsähallitus are Stora Enso, Metsä Fibre and UPM. During the period 1997–2014, the value of trade between Metsähallitus and these three forestry companies exceeded €1 billion.[15] More recently, in 2015–2016, it is estimated that Stora Enso, Metsä Fibre and UPM collectively sourced at least 60% of the total volume of logs sold by Metsähallitus.[16]

Nearly 23% (~1.35 million m^3)[17] of the annual volume of logs sold by Metsähallitus originates from the Kainuu region of eastern Finland,[18] where the company accounts for over 40% of the timber logged.[19] According to the Natural Resources Institute Finland statistics database, about 2 million m^3 of pulpwood is logged annually in the Kainuu region.[20] According to a presentation by consultants EP Logistics Ltd,[21] this pulpwood is mostly transported to pulp mills in Oulu, Kemi, Pietarsaari and Uimaharju.[22] The only pulp mill in Oulu is owned by Stora Enso; in Kemi, there are two pulp mills, one owned by **Metsä Fibre** and one by Stora Enso; **in Pietarsaari, there is a pulp mill owned by UPM** and an integrated paper mill producing sack and kraft paper owned by Billerud Korsnäs; and the only pulp mill in Uimaharju is the **Enocell mill owned by Stora Enso**.[23] As already noted, four of these mills have been identified as probable suppliers of Essity.

There is clear evidence that Stora Enso's Oulu mill processes Metsähallitus pulpwood from Kainuu. Between 2001 and 2017, Greenpeace field researchers identified several instances of pulpwood logs at Metsähallitus logging sites in Kainuu being labelled with code specific to the mill.[24]

Confirmation of the UPM Pietarsaari mill's use of Kainuu wood is provided by a map in a 2015 UPM presentation[25] showing the wood sourcing area for the company's mills in Pietarsaari (one pulp and one sawmill): the area stretches from the Pohjanmaa region in the west of Finland to the Kainuu region. The pulp mill can either source logs directly from suppliers in Kainuu, or as pulp chips from the sawmill.

Metsähallitus also sells about 2.4 million m^3 of sawlogs annually,[26] some of which are sold to two sawmills in the Kainuu region, Kuhmo Oy and Pölkky Oy.[27] According to an article by Pölkky Oy, the company sells its pulpwood chip to pulp mills in northern Finland[28] – which must refer to mills that supply Essity, as these are the only three pulp mills in northern Finland: **Oulu (Stora Enso)** and **Kemi** (**Metsä Fibre** and Stora Enso). As already noted, two of these mills have been identified as probable suppliers of Essity.

METSÄHALLITUS – BACKTRACKING ON ITS OWN PROTECTION PLANS

In 2000, Metsähallitus published its *Guidelines for Landscape Ecological Plans*, which describes the 'Landscape Ecological Planning' model applied by the company in the period 1996–2000.[29] During this period, landscape ecological planning was carried out on some 6.4 million hectares of state-owned forest land in Finland.

The long-term objective of this planning was to 'assure the survival of the area's native species as viable populations. Among other things, this requires the conservation of existing valuable habitats and ensuring that new ones can evolve.'[30] This was to be achieved by establishing ecological 'connections not only between conservation areas, but also between valuable habitats or clusters of such habitats in managed forests. The purpose of [these] ecological links is to maintain or improve the conditions for the spread of species, mainly of those living in old-growth forests.'[31]

Many of the environmental impacts assessment statements included in the Landscape Ecological Plans for the Kainuu region produced in 1998–2001 state that as a result of inadequate protection, the logging and associated fragmentation of habitats

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of old-growth forest species were going to continue to lose their biodiversity and in many cases decrease in area until they were below critical thresholds that would no longer sustain threatened species in the longer term.[32]

Yet, far from taking action to halt this habitat loss, Metsähallitus is systematically fragmenting forest in the region by ongoing clearcutting and has repeatedly destroyed known habitats of IUCN red-listed species in Kainuu.[33] The company is currently planning to log[34] in several high conservation value hotspots mapped by NGOs.[35]

In 2015, Metsähallitus published its 2015–2020 Natural Resources Plan for the Kainuu region[36] which sets the company's target volume of timber to be cut during the five-year period. In its response to the plan (over which it has no authority),[37] the regional government's environmental authority (the Centre for Economic Development, Transport and the Environment of Kainuu) concluded that 'The regeneration area [i.e. the area to be clearcut] proposed for the planning period is about 24,000 hectares. This area [...] includes old-growth forests with significant biodiversity values, amongst them known habitats of Siberian flying squirrel (*Pteromys volans*), red-listed old-growth forest-dwelling species, and habitats of old-growth forest-dependent bird species listed in the EU Birds Directive.[38] Most of the sites include all these values. The forests are old, [some of them] even over 200 years old. [...] It is not possible to stop biodiversity decline if the massive logging of biodiversity-rich old-growth forests is continued.'[39]

As well as destroying the habitats of threatened species – so contributing to the very decline that the company's environmental impacts assessments included in the 1998–2001 Kainuu Landscape Ecological Plans identified – Metsähallitus has recently backtracked on existing commitments to protect forest areas included in the company's Landscape Ecological Plans, in Kainuu and surrounding areas.

The company is now planning to log forest areas on the remote islands on Lake Oulujärvi, which were protected as old-growth forests in its Landscape Ecological Plan for the municipality of Vaala[40] (which has been part of the Northern Ostrobothnia region since 2016[41]). These forests were designated by the company as voluntarily set-aside areas 'fully outside forest management', and were intended to 'complement the [formally] protected and nature sites area network'.[42] Now Metsähallitus has decided to cancel the protected status of these areas, and the first logging notifications have already been made.[43]

Most of the planned logging would also be against the policy set by the Finnish government in 1993 for the recreational forest of Oulujärvi. Article 2 of the State Council Act on establishing the Oulujärvi recreational area[44] states that the 'Aim of [forestry] activities is the improvement of the recreational environment and preservation of biological diversity'. However, Metsähallitus now intends to carry out logging operations that will fragment most of the forests on the islands.[45] This will clearly not improve them as a recreational environment, let alone conserve biodiversity.

IGNORING OFFICIAL LAND USE PLANS

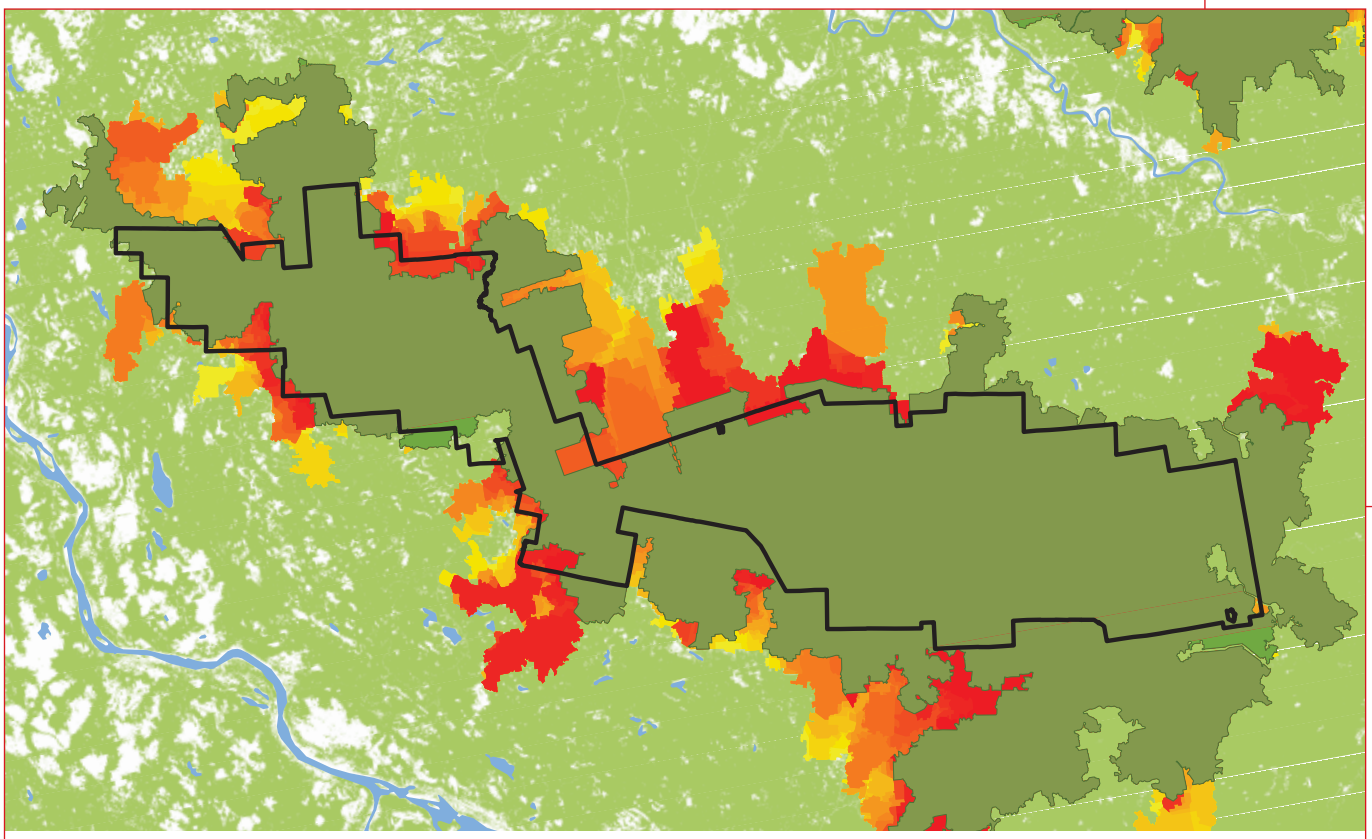
In addition to backtracking on its earlier commitments to protect areas of forest, Metsähallitus is also planning to flout the Regional Land Use Plan published by the Regional Council of Kainuu. Although the plan requires that 'special care must be paid to preservation of landscape and ecological values and development of recreational use',[46] Metsähallitus is planning to log forest islands on Lake Pesiö in Suomussalmi municipality that are designated by the Regional Council of Kainuu as recreational areas. In logging plans filed by the company in 2015, four islands on the lake are scheduled to be almost entirely logged, although according to a statement by the Regional Environmental Authority[47] this would contravene the conservation aims of the Regional Land Use Plan and largely destroy the islands' conservation values and landscape.

METSÄHALLITUS IS NO STRANGER TO GREENPEACE CAMPAIGNS

In Finnish Lapland, Greenpeace has worked for over a decade with Sámi reindeer herding cooperatives around Inari to help stop *Metsähallitus* from logging forests defined as high conservation value forests by both reindeer herders and Greenpeace in 2002.[48] The biggest buyer of wood from areas logged by *Metsähallitus* was Stora Enso and Greenpeace put pressure on the company to help find a longer lasting solution.[49]

As a result, negotiations between the Sámi reindeer herders and *Metsähallitus* led to an agreement to protect 80% of the forests defined as high conservation value forest by both reindeer herders and Greenpeace back in 2002. In total, around 80,000 hectares of forest has now been excluded from logging either permanently or for the next 20 years.[50] Greenpeace continue to work with the Sámi reindeer herding cooperatives around Inari to ensure their rights are respected in land use decisions outside the agreed exclusion/protected areas.

See also Case Study 2 relating to the impacts of forestry on Sámi reindeer herding in northern Sweden.



IFL 2016
Proposed Dvinsky Forest Reserve
Tree canopy cover >20%, 2000*
IFL loss 2000-2001
IFL loss 2001-2002
IFL loss 2002-2003
IFL loss 2003-2004
IFL loss 2004-2005
IFL loss 2005-2006
IFL loss 2006-2007
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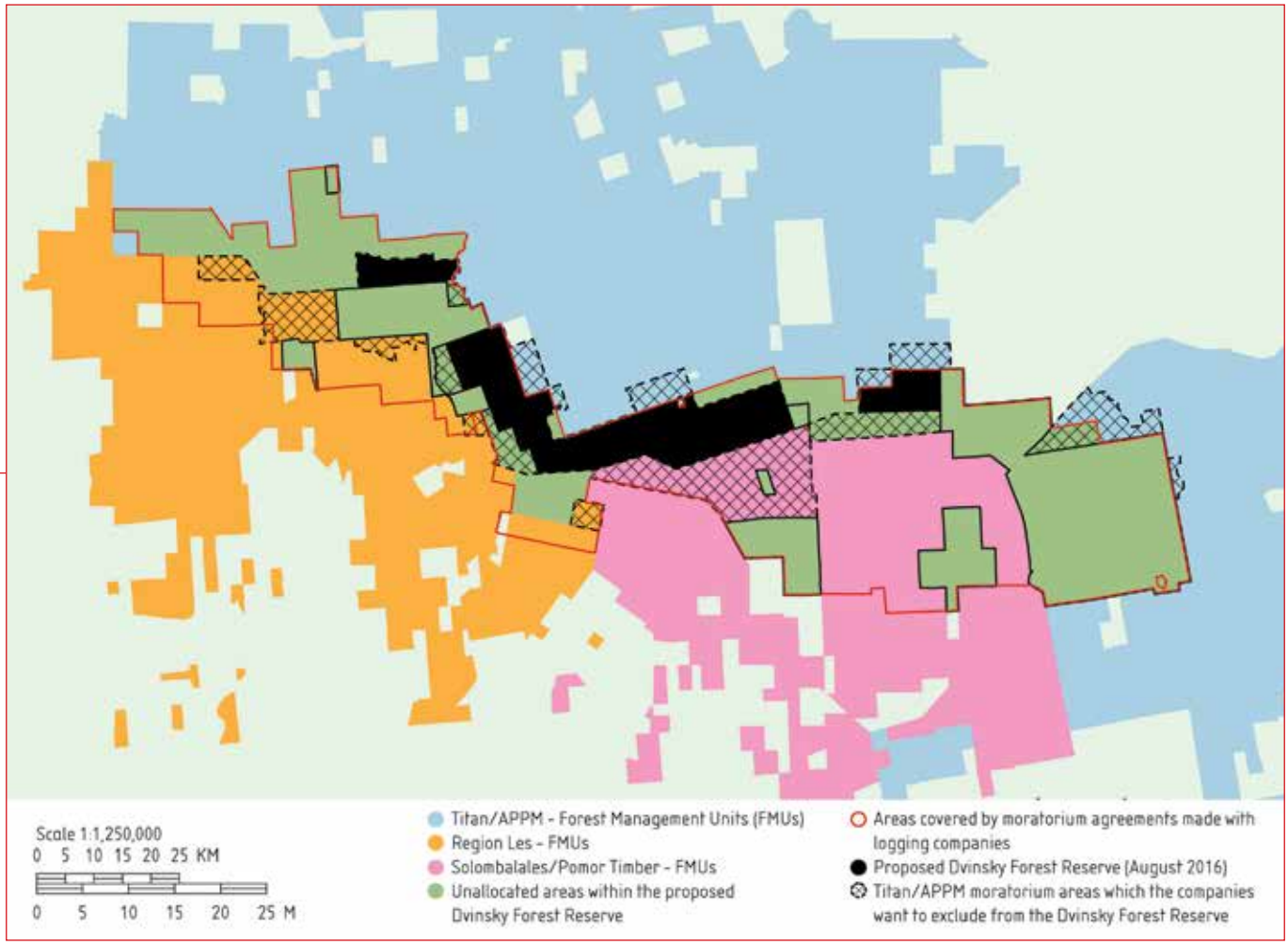
CASE STUDY 4 (ONGOING): THE CONTINUING BATTLE FOR THE DVINSKY FOREST



Essity's sourcing of market pulp from Arkhangelsk Pulp & Paper (APPM) in Russia was highlighted in the Greenpeace International report *Eye on the taiga: How industry's claimed 'sustainable forestry' in Russia is destroying the Great Northern Forest*.[1] Published in March 2017, this report exposed the role of APPM in driving the destruction of IFLs in the Arkhangelsk Oblast of north-west Russia. APPM is one of the companies at the centre of an ongoing battle to protect a large part of the 835,000 ha Dvinsky IFL. Nearly 60% (489,000 ha) of this IFL has been officially earmarked for protection.[2]

Greenpeace has been in ongoing discussions with Essity (or its predecessor SCA Hygiene) since the *Eye on the taiga* report was published. To date, Essity has largely been proactive in putting pressure on APPM to support the protection of the proposed reserve.

Nevertheless, as this case study shows, Essity's procurement policy (Global Supplier Standard) and its implementation are not fit for purpose. Despite the Dvinsky case being a long-standing conflict, and one which has been in the public domain,[3] the company failed to conduct its own pro-active due-diligence on APPM to prevent fibre from controversial sources (e.g. 'wood from high conservation value forests') from entering the company's supply chain. It was not until SCA Hygiene was named in a Greenpeace report that the company started to take proactive steps with APPM to address its involvement in IFL destruction (see also Chapter 4 for further analysis of Essity's Global Supplier Standard).

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APPM'S AND TITAN'S COMMON STRATEGY FOR EXPANSION

APPM has a long-term partnership with logging and timber company Titan, the sole supplier of raw wood materials to its pulp mill. APPM and Titan are currently in the process of increasing their production capacity. Their expansion plans would see the total wood supply to both APPM's pulp mill and Titan's sawmills increase from 4.5 million m^3/year in 2015 to 7.8 million m^3/year by 2025. This rapid expansion is doing almost nothing to encourage a much-needed shift by the timber sector away from dependency on clearcutting of IFLs and towards a future based on the long-term management of secondary forest.[4]

THE CONTINUING BATTLE FOR THE DVINSKY FOREST – AN IFL BIODIVERSITY HOTSPOT

While the proposed Dvinsky Forest Reserve is officially included in the latest Arkhangelsk Oblast Forest Plan,[5] revised in August 2016, conflicts remain over the proposed protected area and its boundaries.

In December 2016 Titan and APPM issued a joint public statement supporting the proposed reserve, although they argued that its originally proposed boundaries should be renegotiated.[6] This was despite the two companies previously establishing an indefinite logging moratorium over large parts of the originally proposed protected area, following agreements with WWF or Greenpeace,[7] with the specific intention that the area covered would ultimately be converted into the formal protected area.[8]

Following the release of the *Eye on the taiga* report, Greenpeace has been in negotiation with Titan and APPM to secure the final boundary for that portion of the proposed reserve that overlaps with Titan's landholdings. Greenpeace, together with WWF, has proposed various alternatives to the originally proposed boundary included in the Arkhangelsk Oblast Forest Plan.

In June 2017, Titan and APPM publicly declared that they would support the establishing of a protected area of 'at least 350,000 ha'.[9] However, in a letter sent to Greenpeace dated 9 August 2017, Titan insisted that if other forest leaseholders within the Dvinsky IFL reduce the size of their proposed contributions, then Titan's offer should be 'reduced accordingly'.[10]

Titan is also insisting that one of the most important and biologically valuable portions of the Dvinsky IFL should be excluded from the protected area. This area, which is in the southern part of the company's Ust-Pokshenga Forest Management Unit, is covered by a moratorium agreement which was signed between Titan, Greenpeace and WWF in February 2013.[11] Titan wants to log the majority of this moratorium area in exchange for including in the protected area the most eastern portions of IFL, which are currently outside the proposed boundary.[12] In Greenpeace's view, the reason why Titan is proposing this swap is that the areas concerned are more remote, less productive and much less economically valuable than the Ust-Pokshenga area.

As a result – and because there was no longer enough time to complete the process of formally agreeing the protected area so that it could take effect from the end of 2017 – in August 2017 Greenpeace withdrew from the negotiations. While Greenpeace remains committed to finding a long-term resolution to the conflict, it will not support an ongoing 'talk and log' process.

Given that the existing moratoria cannot now be converted into a formal protected area, on 16 August Greenpeace requested that Essity – and other customers of Titan and APPM – urgently seek written confirmations from Titan and APPM that the former will not proceed with any logging or roadbuilding within the defined boundaries of the proposed protected area, as included in the Arkhangelsk Oblast Forest Plan (revised August 2016). Essity has now confirmed to Greenpeace that it has written to APPM requesting this written confirmation. At the time of writing this report, APPM has not provided such assurances.

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CASE STUDY 5:
ESSITY OPERATIONS IN CHINA: STILL BUYING HIGH-RISK PULP FROM INDONESIA

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Essity is the number one tissue producer in China through its controlling interest[1] in the hygiene company Vinda.[2] However, despite this controlling interest, Essity has told Greenpeace that it does not have control over Vinda's procurement policy.[3]

Vinda's 2016 annual report states that 'wood pulp used by the Group is mainly sourced from northern Europe, South and North America.'[4] According to Chinese customs data for May–December 2016, Vinda and its subsidiaries imported over 336,000 tonnes of softwood and hardwood pulp during this period (equivalent to around 500,000 tonnes/year).[5] Softwood pulp was primarily imported from Canada (99,114 tonnes) followed by Finland (15,001 tonnes), with the rest from Sweden (1,008 tonnes).[6]

While Greenpeace has been unable to pinpoint Vinda's pulp suppliers in the boreal region, in the case of Indonesia we have identified specific suppliers from which the company has been importing. According to the Chinese customs data for May–December 2016, Vinda imported 49,388 tonnes of hardwood pulp from Indonesia during this period. This accounted for around 15% of Vinda's imports pulp during the same period.[7] Based on confidential data from January 2013 to August 2014, Greenpeace estimated that at that time Vinda was importing around 50,000 tonnes of hardwood pulp a year from Asia Pacific Resources International Ltd (APRIL) in Indonesia. During the same period it also imported hardwood pulp from PT Tanjungenim Lestari Pulp and Paper (PT TeL), owned by Marubeni (Japan).[8] Given that the only other pulp company in Indonesia, Asia Pulp & Paper (APP), does not sell market pulp,[9] is highly likely that Vinda continues to maintain its trading relationships with APRIL and/or PT TeL.

VINDA'S CORPORATE CLIENTS IN CHINA

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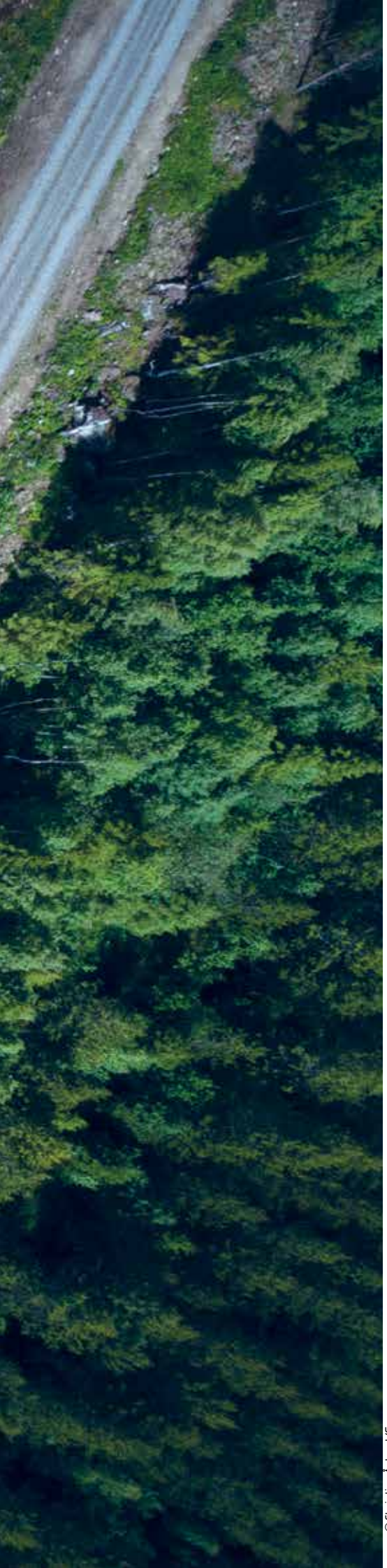
Greenpeace views APRIL as a high-risk company, with a long history of involvement in deforestation and peatland clearance in Sumatra and Kalimantan.

Greenpeace views APRIL as a high-risk company, with a long history of involvement in deforestation and peatland clearance in Sumatra and Kalimantan, Indonesia.[10] It has been the subject of many NGO campaigns, including by Greenpeace, WWF Indonesia, Friends of the Earth (Walhi, Indonesia) and Rainforest Action Network (RAN).[11]

In 2013, the APRIL unilaterally terminated its relationship with the FSC, following a complaint filed to the FSC by Greenpeace International, WWF Indonesia and RAN.[12] The complaint provided evidence that the APRIL Group was in violation of the FSC's Policy for Association, as a result of its continued involvement in deforestation, destruction of HCV forests, peatland degradation, and the suspected violation of traditional and human rights.[13]

Although APRIL has made significant forest conservation commitments in the Kampar Peninsula (an extensive carbon-rich peatland landscape in Sumatra),[14] as well as a broader commitment made in June 2015 to eliminate deforestation from its supply chain,[15] the company needs to take further action to protect forests and peatlands across its supply chain. It also needs to implement a credible programme to support landscape conservation across its supply chain, and provide evidence that it is working successfully to resolve social conflicts. Furthermore, it needs to do a lot more to convince stakeholders that its policies are being implemented.[16]

At the end of 2016, both Greenpeace and WWF resigned from APRIL's Stakeholder Advisory Committee due to the company's lack of credible implementation of its sustainability policies and its repeated misleading of stakeholders about a highly controversial case related to its peatland management on an island (Pulau Padang) in Sumatra.[17]



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CHAPTER 4:
WHY FOREST CERTIFICATION ALONE IS NOT ENOUGH TO SAVE THE BOREAL FOREST

ESSITY'S SOURCING POLICY

At the time of writing, the Global Supplier Standard[1] presented on Essity's website was still the same document as appears on its former parent SCA's website.[2] The standard requires that 'all wood and wood derived fibers originate from FSC or PEFC certified sources or at least fulfill the FSC Controlled Wood standard [see below].' In addition, 'suppliers shall have reliable systems and documented procedures in place that enable adequate control of their supply chain and traceability of the origin of the wood and wood-derived raw materials.'[3]

The Global Supplier Standard states that wood and wood-derived fibres (including pulp) from a number of controversial sources, including the following, are 'not accepted':[4]

- wood from areas where human rights or the traditional rights of indigenous peoples are being violated
- wood from high conservation value forests
- wood from areas being transformed from natural forests into plantations.

In addition to the Global Supplier Standard, Essity has a fibre sourcing sustainability target which promises that 'everyone who purchases products from Essity should feel secure about the origin of the raw material [...] For us, it is of the utmost importance to ensure that the wood raw material used in the company's operations is not sourced from controversial sources.'[5]

Like the Global Supplier Standard, Essity's fibre sourcing sustainability target seeks to ensure that 'all fresh wood fiber-based raw material in our products will be FSC® or PEFC certified, or fulfil the FSC's standard for controlled wood.'[6]

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GREENPEACE POSITION ON FOREST CERTIFICATION

THE FOREST STEWARDSHIP COUNCIL

The Forest Stewardship Council (FSC) was created in 1993 by a group of timber producers and traders, working alongside environmental and human rights organisations, to establish international criteria for responsibly managed forestry. Greenpeace believes that when implemented correctly, the FSC forest management certification system is the only credible global standard available.

However, the current FSC system relies heavily on the use, in the manufacture of FSC-labelled products, of uncertified material from sources assessed as presenting a low risk of controversial environmental and social impacts. This so-called 'Controlled Wood' category does not provide guarantees to consumers that the material is sourced from responsible forestry (according to FSC forest management standards), and there have been cases where wood has come from areas where high conservation values are being threatened or the rights of indigenous people are being violated. Greenpeace therefore supports the phasing out of FSC Controlled Wood.

PROGRAMME FOR ENDORSEMENT OF FOREST CERTIFICATION

The Programme for Endorsement of Forest Certification (PEFC) is the world's largest forest certification system, which acts as an umbrella organisation endorsing national certification schemes.[7] However, Greenpeace does not support PEFC-endorsed, and other industry-led certification schemes, as they fail to distinguish between responsible and irresponsible forestry management.[8] In particular, PEFC has weak requirements regarding the conversion of natural forests, does not require a precautionary approach to the conservation of environmental values and high conservation value areas, and does not require that the rights of indigenous peoples are upheld. Finally, it does not have a governance model that ensures that the views of social and environmental stakeholders are represented.

ESSITY'S SOURCING FROM FSC-CERTIFIED VERSUS NON-FSC-CERTIFIED OPERATIONS

An SCA presentation from May 2017[9] indicates that of the 2,868,599 tonnes of virgin pulp used by the company in 2016, 41% was from FSC-certified sources (roughly 1,200,000 tonnes) and 22% from PEFC-certified sources (630,000 tonnes), with the remaining 37% (1,100,000 tonnes) assumed to be almost entirely FSC Controlled Wood.

Thus, while Essity states that it prioritises 'FSC certification',[10] nearly 60% of its predecessor's total virgin pulp consumption in 2016 was sourced from non-FSC-certified forestry operations.

The company claims to prioritise FSC certification;[11] however, Essity consumer brands regularly include an FSC label stating that the product is 'FSC MIX' which, in Essity's case, relies on uncertified fiber.[12] This means that the product is made from a mixture of some or all of the following fibre sources:[13]

- virgin fibre from a forest that has been FSC-certified
- uncertified virgin fibre from other 'controlled sources' (FSC Controlled Wood)
- recycled fibre

Essity sources from suppliers in the boreal region that sell only FSC Mix or FSC Controlled Wood virgin market pulp.[14] Unfortunately, it is unsafe to assume that FSC Controlled Wood does not originate from the kinds of sources that Essity's Global Supplier Standard defines as unacceptable (see box).

WHY IS ESSITY'S SOURCING POLICY NOT ENOUGH TO HELP PROTECT THE BOREAL REGION?

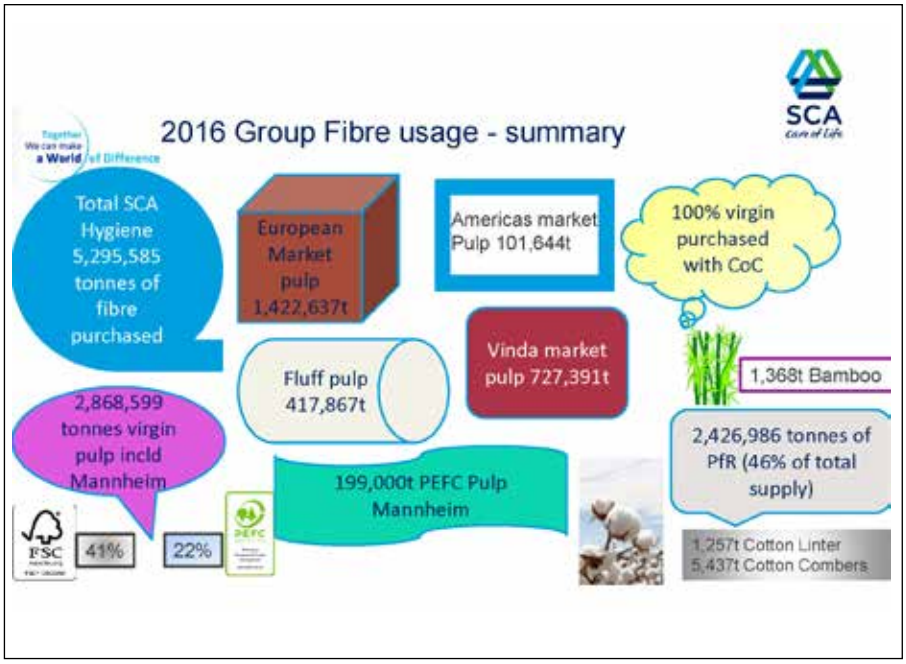
Essity's reliance on FSC Controlled Wood and PEFC-certified pulp means that it cannot ensure that fibre from controversial sources does not enter its supply chain.

Essity's strict 'no HCVF wood' policy (i.e 'no wood from high conservation value forests') goes beyond the requirements of the FSC Controlled Wood standard, which only requires the company to avoid using 'wood from forests in which high conservation values are threatened by management activities'[15] (i.e. where the logging threatens those conservation values, such as individual species).

The policy is also stricter than requirements for FSC certified forestry operations: FSC's Principle 9 requires that the 'Organization shall maintain and/or enhance the High Conservation Values in the Management Unit through applying the precautionary approach.' Therefore, Essity's policy should mean that the company: a) is requiring all its pulp suppliers to demonstrate that they have 'reliable systems and documented procedures in place' to avoid using any 'wood from high conservation value forests' and; b) has its own system in place to ensure that the pulp from its suppliers is not manufactured using wood from high conservation value forests.

As this report shows, Essity's suppliers continue to source from areas that are logged at the expense of endangered species, their natural forest habitat, or the traditional rights of the Sámi indigenous people.

Essity's key boreal pulp supplier SCA, as well as SCA's externally suppliers Sveaskog, Holmen Group and the Swedish Church, continue to log, or plan to log, in critical forest landscapes identified by the Swedish EPA and Forest Agency. In addition, SCA and Holmen continue to convert forest areas important for Sámi reindeer herders into lodgepole pine plantations.



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HOW IS ESSITY'S MAIN GLOBAL COMPETITOR CLEANING UP ITS BOREAL SUPPLY CHAIN?

Essity's main global competitor is Kimberly-Clark (K-C) which has some of the most recognised tissue brands in the world, including **Scott**, **Kleenex** and **Cottonelle**.[16] The company claims its brands hold number one or two positions in 80 countries.[17]

K-C was the focus of a five-year campaign by Greenpeace which aimed to persuade it to end its role in sourcing wood from unsustainable logging practices around the world, including the boreal forest.[18] In 2007, the company announced a revised 'Fiber Procurement Policy' that would include increasing the volume of FSC-certified and recycled material by around 70%.[19] It has since gone further, setting a 2025 goal that aims to further reduce its 'impact on forest through innovation and responsible sourcing'.[20] K-C is now a sustainability leader in its sector. Its policy states that it gives preferences to wood fibre certified under FSC standards.[21] K-C's Fiber Procurement Policy (revised in 2009)[22,23] states that the company will 'not knowingly use wood fiber sourced from Special Forest Areas', which as defined in the policy include, but are not limited to:

- '"High Conservation Value Forests" that have been identified and mapped as no harvest areas due to the outstanding or critical importance of such forests' biological, ecological, socio-economic, cultural, biodiversity and landscape value'

- '"Endangered Forests" that have been identified and mapped using recognized scientific methods as comprising native forests of high ecological value that require protection from intensive industrial use to maintain those values'.

K-C 's Fiber Procurement Policy[24] also states that: 'With respect to natural forest areas that have not yet been identified and mapped under any of the processes listed [in its policy], **Kimberly-Clark will support the protection of areas that have the potential to be designated as Endangered Forests or High Conservation Value Forests by working with its suppliers, governmental authorities and nongovernmental organizations to identify and map such areas before commercial logging operations are conducted**. In addition, Kimberly-Clark will require that its suppliers demonstrate that their management activities in such areas maintain or enhance the identified conservation values and that no harvest zones are strictly protected.'

Furthermore in June 2012, K-C issued a press release stating that it would reduce its 'Forest Fiber Footprint' by 2025 through cutting its use of wood fibre sourced from natural forests by at least 50% and using alternatives.[25] Taking 2011 as base year,[26] this goal would require K-C to reduce its use of natural forest wood pulp (mainly softwood pulp from the boreal region[27]) by around 378,000 tonnes by 2025:[28] this would amount to roughly 1.8 million m^3/year of wood sourced from the boreal region.[29] As of 2016, K-C had achieved a 26% reduction.[30] This additional policy requirement is above and beyond the company's commitment to not sourcing from Special Forest Areas, while prioritising FSC fibre.

By 2025, K-C will also require 90% of the fibre supply for its global tissue production to consist of 'Environmentally-Preferred Fiber' (EPF), which is defined as any of FSC fibre (certified and Controlled Wood), recycled fibre and 'sustainable alternative' fibre.[31]

In 2016, 89% of K-C's tissue fibre was EPF. Of this, the company sourced 49% from FSC plantations, 28% as recycled fibre (of which 43% was post-consumer recycled content) and 11% as FSC Controlled Wood.[32] Hence, only 23% of its fibre supply came from natural forests (i.e. from FSC Controlled Wood and other forest certification schemes).[33]

Due to the lack of publicly available Essity data, it is not possible to compare its level of sourcing from natural forests with that of K-C.

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GREENPE

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CHAPTER 5: CONCLUSIONS AND DEMANDS

CONCLUSIONS

Essity is a world leader in the consumer and away-from-home hygiene sector. But at the moment the company is failing to show leadership in the urgent fight to save the world's precious boreal forests from destruction. The pulp mills from which it buys the raw materials for its well-known consumer-brands are supplied by logging companies across the European north and beyond, with a troubling record of environmental and social harm.

These companies have between them logged in critical forest landscapes either earmarked for protection or already designated as protected areas, and in forest areas supporting HCVs and habitats of legally protected or IUCN red-listed species; planted invasive non-native species in cleared areas of natural forest; and imperilled the livelihoods of indigenous communities. All these activities are set to continue, in spite of a range of factors (some unique to one country or company, others more widespread) that might have been expected to curb them: official land use plans and policies; existing protected designations and ongoing designation processes; criticism from regional authorities; requests from indigenous communities; and prior commitments to preserve areas that are now slated for destruction.

It is only a matter of months since Essity's business was separated from the SCA Group and given a new consumer-friendly name. That name has yet to be widely linked in the public eye with the fragmentation of vital habitat or the jeopardising of centuries-old traditional ways of life. But if Essity wishes to avoid the reputational damage of being implicated the destruction of the Great Northern Forest, it must act now to clean up its boreal supply chain, acting in line with the demands below.

However, it is not only Essity that needs to change its ways. As the demands below indicate, it is high time for companies at all points on the fibre and timber supply chains, and most obviously the logging companies themselves, to begin to conduct their operations in a way that ensures the future of the Great Northern Forest.

GREENPEACE DEMANDS

STOP THE DESTRUCTION OF THE GREAT NORTHERN FOREST

Critical forest landscapes, including Intact Forest Landscapes (IFLs), across the boreal region continue to be fragmented, degraded and destroyed by industrial logging to feed the global market for timber and paper products.

Greenpeace calls upon logging companies, as well as corporate consumers, to prioritise the protection of critical forest landscapes supporting High Conservation Values (HCVs) across the Great Northern Forest.

As a first step to preventing further fragmentation, degradation or loss of forest habitat supporting HCVs, companies should immediately halt all industrial logging in critical forest landscapes that have been identified or mapped as urgently requiring conservation measures.

Further, Greenpeace demands that companies develop and implement comprehensive action plans to phase out wood and wood products whose harvesting leads to fragmentation, degradation and loss of critical forest landscapes supporting HCVs.

Where these forest landscapes constitute the traditional territories of indigenous peoples, companies need to respect their rights, as enshrined in the UN Declaration on the Rights of Indigenous Peoples[1] and the International Labour Organization Convention on Indigenous and Tribal Peoples (169),[2] including their right to the principle of Free, Prior and Informed Consent (FPIC).

The following demands do not apply to areas whose limited development is consistent with traditional indigenous knowledge and the requirements of science-based conservation, and where indigenous community land-use and conservation plans have been approved, following FPIC for the development obtained from the indigenous community.

DEMANDS TO LOGGING AND PRODUCER COMPANIES

1. STOP EXPANSION

Stop expansion into areas identified or mapped as IFLs.

2. HALT THE DESTRUCTION

2.1 Establish moratoria on any industrial developments in IFLs, or other remaining forest areas supporting HCVs, within critical forest landscapes requiring urgent conservation measures.

2.2 Implement a comprehensive, time-bound action plan to phase out the fragmentation, degradation and loss of IFLs or other forest areas supporting HCVs.

3. RESPECT THE RIGHTS OF INDIGENOUS PEOPLES

Implement the United Nations-ratified principle of Free, Prior and Informed Consent (FPIC) before any logging or development on land that indigenous peoples own and/or over which they have traditional rights, as well as a conflict mapping and resolution procedure.

4. PUBLIC TRANSPARENCY

As a minimum threshold, publish maps detailing the boundaries of their logging concessions, licences and logging plans.

DEMANDS TO TRADING AND CONSUMER GOODS COMPANIES

As a minimum, trading and consumer goods companies sourcing from the Great Northern Forest shall:

1. HALT THE DESTRUCTION

Phase out any supplier that cannot or will not meet the above commitments at a group-wide level.

2. RESPECT THE RIGHTS OF INDIGENOUS PEOPLES

Ensure that suppliers respect the rights of indigenous people.

3. PUBLIC TRANSPARENCY

As a minimum threshold, ensure that:

a) suppliers publish maps detailing the boundaries of their logging concessions, licences and logging plans;

b) products sourced from the boreal forest are traceable along every step of the supply chain.

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APPENDIX

Table A.1: High Value Forest Landscapes within SCA suppliers' forest land

HVFLs

	A	B	C	D
Supplier	Total area of forest land managed by the supplier[7]	Total number of HVFLs overlapping with supplier's forest land	Total HVFL area within supplier's forest land	Percentage of supplier's forest land that overlaps with HVFLs (C/A x 100)
	hectares		hectares	%
SCA Skog	2.6 million	111	265,610	10.2
Sveaskog	4.1 million	141	811,810	19.8
Holmen Group	1.3 million	61	108,590	8.4
Swedish Church	0.53 milion	99	29,500	5.7
SCA suppliers only	5.93 million	239	949,900	16
Total of all four suppliers	8.53 million	n/a	1,215,510	13.9

FVCs and areas of continuity forest land within HVFLs

	E	F	G	H	I
Supplier	Total area of FVCs within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land	Total area of continuity forest or potential continuity forest within the HVFL area of supplier's forest land but not within an FVC	Total area of FVCs and continuity forest or potential continuity forest within the HVFLs area of supplier's forest land (E + G)	Percentage of HVFL area within supplier's forest land that is also within FVCs and/or continuity forest or potential continuity forest (H/C x 100)
	hectares	hectares	hectares	hectares	%
SCA Skog	18,670	73,500	58,000	76,670	28.9
Sveaskog	152,450	250,880	133,040	285,490	35.2
Holmen Group	6,530	25,700	20,240	26,770	24.7
Swedish Church	1,930	5,600	4,590	6,520	22.1
SCA suppliers only	160,910	282,180	157,870	318,780	33.6
Total of all four suppliers	179,580	355,680	215,870	395,450	32.5

Table A.2: Extent of formal and voluntary protection of High Value Forest Landscapes within SCA suppliers' forest land

	A	B	C	D	F	G	H
Supplier	Total HVFL area within supplier's forest land	Total HVFL area with formal protection	Total HVFL area without any formal protection (A-B)	Percentage of HVFL area without any formal protection (C/A x 100)	Total HVFL area that is voluntarily set aside by supplier	Total HVFL area without any formal or voluntary protection measures (C-F)	Percentage of HVFL area without any formal or voluntary protection measures (G/A x 100)
	hectares	hectares	hectares	%	hectares	hectares	%
SCA Skog	265,610	11,000	254,610	95.9	29,920	224,700	84.6
Sveaskog	811,810	16,060	795,750	98,0	122,670	673,080	82,9
Holmen Group	108,590	2,300	106,290	97.9	11,300	94,990	87.5
Swedish Church	29,500	5,160	24,340	82.5	2,470	21,870	74.1
SCA external suppliers only	949,900	23,520	926,380	97.5	136,440	789,940	83.2
Total of all four suppliers	1,215,510	34,520	1,180,990	97.2	166,360	1,014,640	83.5

Table A.3: Active logging plans identified in High Value Forest Landscapes within SCA suppliers' forest land

	Plans submitted for logging within HVFLs 2012–2017		HVFLs impacted by logging 2012–2017		HVFLs still threatened by logging under plans submitted 2012–2017	
Supplier	Total area within HVFLs threatened by logging plans	Total number of HVFLs threatened by logging plans	Total area logged within HVFLs	Total number of HVFLs impacted by logging	Total area within HVFLs still threatened	Total number of HVFLs still threatened
	hectares		hectares		hectares	
SCA Skog	12,160	85	4,700	68	7,460	81
Sveaskog	24,080	118	13,440	104	10,640	114
Holmen Group	7,460	46	4,370	42	3,090	43
Swedish Church	1,290	51	560	38	730	38
SCA external suppliers only	32,830	179	18,370	152	14,460	164
Total of all four suppliers	44,990	n/a	23,080	n/a	21,920	n/a

Table A.4: Extent of formal and voluntary protection of Forest Value Cores within SCA suppliers' forest land

	A	B	C	D	E	F
Supplier	Total FVC area within supplier's forest land	Total FVC area with formal protection	Total FVC area without any formal protection	Percentage of FVC area without any formal protection (C/A x 100)	Total FVC area that is voluntarily set aside by supplier	Total FVC area without any formal or voluntary protection measures
	hectares	hectares	hectares	%	hectares	hectares
SCA Skog	48,490	7,640	40,850	84.2	26,480	14,370
Sveaskog	239,480	14,230	225,250	94.1	104,440	120,810
Holmen Group	19,800	1,950	17,850	90.2	2,710	15,140
Swedish Church	13,450	5,520	7,930	58.9	4,350	3,580
SCA external suppliers only	272,730	21,700	251,030	92.0	111,500	139,530
Total of all four suppliers	321,220	29,340	291,890	90.9	137,980	153,900

Table A.5: Active logging plans identified in Forest Value Cores within SCA suppliers' forest land

	Plans submitted for logging within FVCs 2012–2017	FVCs impacted by logging 2012–2017	FVCs still threatened by logging under plans submitted 2012–2017
Supplier	Total area within FVCs threatened by logging plans	Total area logged within FVCs	Total area within FVCs still threatened
	hectares	hectares	hectares
SCA Skog	820	180	630
Sveaskog	1260	440	820
Holmen Group	420	160	270
Swedish Church	180	60	110
SCA external suppliers only	1,860	660	1,200
Total of all four suppliers	2,680	840	1,830

ACRONYMS

CBD: Convention on Biological Diversity

FMU: Forest Management Unit

FPIC: Free, prior and informed consent

FSC: Forest Stewardship Council

FVC: Forest Value Core

HCV: High conservation value

HVFL: High Value Forest Landscape

IFL: Intact forest landscape

ILO: International Labour Organisation

IUCN: International Union for the Conservation of Nature

PEFC: Programme for the Endorsement of Forest Certification

SSR: Sámiid Rikkasearvi

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ENDNOTES

SUMMARY

1. Chivian/Bernstein (2008), p.5
2. CBD (2013), p.23
3. 30% according to Keenan et al. (2015), table 1
4. Aksenov et al. (2014), p.12
5. Morales-Hidalgo et al. (2015)
6. Ahlkrona et al. (2017), p.11
7. Larsson (2011), p.13
8. ArtDatabanken (2015), p.14
9. Sveaskog (2017a), p.33
10. For example, SCA Skog uses a rotation period of 80–120 years in its operations in the north of Sweden. Source: SGS (2014), p.14
11. Swedish Environmental Protection Agency/Swedish Forest Agency (2017c)
12. 191,442 ha of productive forest in northern boreal and 182,166 ha in the south boreal regions of Sweden are formally protected (i.e. a total of 373,588 ha of productive forest in the boreal region of Sweden is formally protected). The table also shows that there are 6,258,901ha of productive forest in northern boreal and 8,754,905ha in the south boreal regions of Sweden (i.e a total of 15,013,806 ha of protective forest in the boreal region of Sweden). Source: Swedish Environmental Protection Agency/Swedish Forest Agency (2017c), p.40/41 table 4.'Productive forest land' denotes areas with a timber growth rate of greater than 1 m3/ha/year, which are therefore deemed suitable for logging unless exempted, for example by being designated as protected areas. Source: SGS (2014), p.11; Sveaskog (2017c).
13. 'Current environmental initiatives are not sufficient to achieve society's agreed environmental objectives for forests. The quality and scope of measures to counter loss of habitat and fragmentation must increase. The conservation status of numerous forest types is inadequate, and many forest species are threatened.' Source: Swedish Environmental Protection Agency (2016), p.27
14. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a)
15. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.37
16. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.14
17. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.25
18. Bovin et al. (2017), p.42
19. Bovin et al. (2017), p.26
20. As of 2014, '2.1 million hectares of forest [were] formally protected' in the country as a whole. Source: Swedish Environmental Protection Agency (2014), p.26
21. It is Greenpeace's understanding that Metria is continuing to identify additional HVFLs in the rest of Sweden and this work is expected to be completed in late 2017. Source: Pers comms. Metria, July 2017.
22. Greenpeace International (2017)
23. Essity (2017b)
24. Essity (2017a), p.34
25. Essity (2017a), p.34
26. Essity (2017a), p.34
27. Essity (2017a), p.5
28. Essity (2017a), p.35
29. Essity (2017a), p.32
30. 'Most of the Group's subsidiaries are wholly owned, which means that SCA has control over the companies. SCA owns 54.6% of Vinda and 50% of Familia; SCA also has control of these companies, despite the fact that there are significant non-controlling interests in the companies.' Source: SCA (2017a), p.121
31. SCA Hygiene AB (2017), p.5
32. SCA (2017h)
33. 'For the first time, SCA has conducted a water risk assessment at all of its pulp suppliers. In total, 54 suppliers were evaluated, and most are located in low-risk areas or regions.' Source: SCA (2017g), p.33
34. SCA website 'Celeste'
35. 'Östrand pulp mill currently produces 425,000 tonnes of bleached kraft pulp. About half is used for SCA's own manufacturing of publication papers and hygiene products.' Source:SCA, website 'Östrand pulp mill'; A recent SCA report states: 'Approximately 15% of production at Östrand pulp mill is utilized within SCA forest products for the production of publication papers.' Source: SCA (2017b), p.22. Hence 35% of the Östrand pulp mill production of bleached kraft pulp is used for SCA (now Essity) hygiene products (i.e. ~150,000 tonnes).
36. SCA, website 'Östrand pulp mill'
37. SCA, website 'Project Helios'
38. SCA, website 'Project Helios'
39. SCA (2017e),Time: 17.10 – 17:18
40. SCA (2017c), Magnus Grot, CEO, SCA,Time: 9:15-9:28
41. SCA (2017a), p.65
42. SCA (2017f), Time: 10.41-10.58;SCA (2017e), Time: 17:58-18.19
43. SCA (2017b), p.17; SCA (2017a), p.3
44. Sveaskog, Holmen are mentioned as suppliers of SCA. Source: SCA (2017d), Time 6:25-6:30; Sveaskog and the Swedish church are mentioned as suppliers of SCA. Source: SCA (2017e)
45. Sveaskog (2017a), p.16
46. Holmen (2017), p.14
47. The Church of Sweden land holdings comprise a total area of 530,000 ha, of which 396,000 ha is productive forest land, spread across the country.' The 13 dioceses manage their own forests. The diocese of Gothenburg's holdings are not included in the map skyddadskog.se. Source: The Swedish Forest Industries Federation, website 'Protected Forests'. (click on the '?' button next to 'Land Owner' tab on the interactive map.
48. SCA (2017g), p.52
49. For full references, see Chapter 3, Case Study 1 of the main report
50. Borchert (2001)
51. SSR (2017b)
52. As set out in Sweden (1971), p.437
53. SSR (2017b)
54. SSR (2017b)
55. Berg et al. (2016)
56. SGS (2014), p.36
57. The standing timber volume of Holmen Group's forests totals 120 million m3 and comprises Scots pine (51%), lodgepole pine (7%), spruce (29%), and deciduous trees (13%). Source: Holmen, website 'Holmen forests in figures'
58. SSR (2009)
59. Pers.comm. with SSR representatives, 2017
60. SCA (2014) documents held by Greenpeace International
61. SSR (2017a)
62. For references, see Chapter 3, Case Study 3 of the main report
63. For references, see Chapter 3, Case Study 3 of the main report
64. According to Pölkky Ltd's forest chief, the wood chips its mill produces are sold to pulp mill operators in northern Finland – which must refer to mills that supply Essity, as these are the only three pulp mills in northern Finland: Oulu (Stora Enso) and Kemi (Stora Enso and Metsä Fibre). Source: Virranniemi (2016)
65. Virranniemi (ca. 2016)
66. ~1.35 million m3. Source: Metsähallitus Forestry, website 'Kainuun luonnonvarasuunnitelma'; In total, Metsähallitus sells around 6 million m3/year. Source: In total, Metsähallitus sells around 6 million m3/year Source: Metsähallitus Forestry, website 'Wood Sales and Deliveries'
67. Greenpeace International (2013a)
68. Logging plans filed by Metsähallitus to Finnish Forest Centre 2015–2017.
69. Birdlife Suomen et al., website 'Metsäkartta'
70. Impiö et al. (2001), pp.19, 29-31 and maps 2b and 3b
71. Between 2001 and 2017, Greenpeace field researchers identified several instances of pulpwood logs at Metsähallitus logging sites in Kainuu being labelled with code specific to the mill. An example photograph showing the Oulu mill code is at Source: Greenpeace Finland, flickr website 'Stora Enso osti liito-oravametsän puut'
72. Greenpeace International (2017)
73. APPM (2017c)
74. APPM (2016)
75. The area concerned is in the southern part of the company's Ust-Pokshenga Forest Management Unit. In return for logging this area, Titan proposes to include in the protected area the most easterly portions of IFL, which are currently outside the proposed boundary. These areas are more remote, less productive and less economically viable than the Ust-Pokshenga area. Source: Titan communications with Greenpeace, June-August 2017
76. Titan (2013)
77. On the basis of confidential data from January 2013 to August 2014, Greenpeace estimates that at that time Vinda was importing around 50,000 tonnes of hardwood pulp a year from APRIL.
78. Eg. See FSC complaint: WWF et al. (2013)
79. E.g Friends of the Earth et al (2012); RAN (2014); Greenpeace International (2014c)
80. Essity/SCA (2016)
81. Essity/SCA (2016), pp.29/30
82. Essity, website 'Fiber sourcing'
83. Climate for Ideas et al. (2011)
84. FSC, website 'History of Controlled Wood'
85. SCA (2017h)
86. Details of Essity boreal market pulp suppliers' FSC chain of custody certifications for sale of chemical pulp are given in the following sources: SCA Ostrand: https://info.fsc.org/details.php?id=a0240000005sTgtAAE&type=certificate ; Stora Enso Oulu: https://info.fsc.org/details.php?id=a0240000005sUPZAA2&type=certificate; UPM Pietarsaari: https://info.fsc.org/details.php?id=a0240000005sU60AAE&type=certificate; Metsä Fibre, Kemi: https://info.fsc.org/details.php?id=a0240000005sQoVAAU&type=certificate; APPM: https://info.fsc.org/details.php?id=a0240000005sR0cAAE&type=certificate.
87. United Nations (2008)

CHAPTER 1

1. CBD (2013), p.11
2. Chivian & Bernstein (2008), p.5
3. Aksenov et al. 2014, p.12
4. CBD (2013), p.23
5. CBD (2013), p.23
6. 30% according to Keenan et al. (2015), table 1
7. Aksenov et al. 2014, p.12
8. Morales-Hidalgo et al. (2015)
9. Greenpeace International (2017)
10. Intact Forest Landscapes (IFLs) are defined as unbroken expanses of natural habitat (both forested and non-forested) within the current forest zone, showing no signs of significant human activity and large enough that all native biodiversity, including viable populations of wide-ranging species, can be maintained – in practice the threshold is defined as 50,000 ha. They consist mainly of dense and open forest (covering 81% of their area on average) with the remainder being swamp, rocky terrain, grassland, rivers, lakes and so on. See: Greenpeace International (2014b)
11. Essity (2017b)
12. Essity (2017a), p.34
13. Essity (2017a), p.34
14. Sofidel (2017)
15. Essity (2017a), p.34
16. Essity (2017a), p.34
17. Essity (2017a), p.5
18. Essity (2017a), p.34
19. Essity (2017a), p.35
20. Essity (2017a), p.32
21. Essity (2017a), p.32
22. SCA (2017g), pp.58/59, 62
23. 'Consumer Tissue accounted for 41% of net sales, Professional Hygiene for 26% and Personal Care's product segments Incontinence Products, Baby Care and Feminine Care accounted for 17%, 9% and 7% respectively'. Source: Essity (2017a), p29
24. 'Consumer Tissue accounted for 41% of net sales, Professional Hygiene for 26% and Personal Care's product segments Incontinence Products, Baby Care and Feminine Care accounted for 17%, 9% and 7% respectively'. Source Essity (2017a), p29
25. Essity (2017a), p.29
26. Figures reported in SEK converted to €: 10 SEK = 1€. Source: SCA Hygiene AB (publ) (2017), p.48
27. Total tissue production capacity 4.354 million tonnes, excluding the Chesterfield Facility in UK, which was sold in 2017 SCA Hygiene AB (publ) (2017) p.90
28. 'Most of the Group's subsidiaries are wholly owned, which means that SCA has control over the companies. SCA owns 54.6% of Vinda and 50% of Familia; SCA also has control of these companies, despite the fact that there are significant non-controlling interests in the companies.'. Source: SCA (2017a), p.121
29. SCA Hygiene (2017), p.5
30. Vinda (2017b), p.12
31. Vinda (2013), p.14
32. Figures reported in SEK converted to €: 10 SEK = 1€. Source: SCA Hygiene AB (publ) (2017), p.48
33. Excluding Chesterfield (UK), as this facility was sold in 2017. SCA Hygiene AB (publ) (2017),p.90
34. Essity, website 'The Resource Management System RMS'.
35. SCA (2017h)
36. SCA (2017h)
37. SCA (2017c), Fredrik Rystedt, CFO, SCA. Time: 24.50-24.58
38. A map of the SCA Sustainability Report (2016) shows the locations of Essity's pulp suppliers, including those in South America and Southern Europe. Source: SCA (2017g), p.33
39. SCA (2017c), Fredrik Rystedt, CFO, SCA. Time: 24.50-24.58
40. A map of the SCA Sustainability Report (2016) shows the locations of Essity's pulp suppliers, including those in the northern hemisphere. Source: SCA (2017g), p.33
41. 'For the first time, SCA has conducted a water risk assessment at all of its pulp suppliers. In total, 54 suppliers were evaluated, and most are located in low-risk areas or regions.' Source: SCA (2017g), p.33
42. SCA (2017g), p.52
43. SCA (2017g), p.52
44. 'The environmental and social data reported pertains to the 2016 calendar year... The figures cover the SCA Group's wholly owned subsidiaries and subsidiaries in which SCA owns at least 50% of the company. If SCA's ownership of a company is 50% or more, the entire company is included. An exception is made in the case of the Chinese company Vinda, in which SCA owns 51.4% of the votes and which was consolidated as a subsidiary in 2014.'. Source: SCA (2017g), p.58
45. Source: SCA (2017g), p.58
46. Source: SCA (2017g), p.52
47. Source: SCA (2017g), p.52
48. SCA (2017a), p.143
49. SCA (2017h)
50. Vinda (2017a), p.35
51. Chinese customs data, May-December 2016.
52. SCA (2017b), p.21
53. SCA website 'Celeste'
54. 'Östrand pulp mill currently produces 425,000 tonnes of bleached kraft pulp. About half is used for SCA's own manufacturing of publication papers and hygiene products.' Source:SCA, website 'Östrand pulp mill'; A recent SCA report states: 'Approximately 15% of production at Östrand pulp mill is utilized within SCA forest products for the production of publication papers.' Source: SCA (2017b), p.22. Hence 35% of the Östrand pulp mill production of bleached kraft pulp is used for SCA (now Essity) hygiene products (i.e. ~150,000 tonnes).
55. SCA claims that 60% of the mill's production of softwood pulp is sold for tissue production. Source: SCA (2017f), Time: 9:18. Hence, if 35% goes to Essity, this implies that the remaining 25% is sold to external tissue manufacturers.
56. SCA, website 'Östrand pulp mill'
57. SCA, website 'Project Helios'
58. SCA, website 'Project Helios'
59. SCA (2017e), Time: 17.10 – 17:18.
60. SCA (2017f), Time: 8:58 – 9:08
61. SCA (2017c), Magnus Grot, CEO, SCA, Time: 9:15-9:28
62. SCA (2017c), Magnus Grot, CEO, SCA, Time: 9:10-9:15
63. SCA (2017e), Time: 04.45-05.10
64. SCA (2017a), p.65
65. SCA (2017f), Time: 10.41-10.58;AND: SCA (2017e), Time: 17:58-18.19
66. SCA (2017g), p.52
67. SCA (2017g), p.11
68. SCA (2017a), p.3
69. SCA (2017a), p.3
70. SCA (2017b), p.17
71. SCA (2017b), p.17
72. Sveaskog, Holmen, private forest owners, and timber traders are mentioned as suppliers of SCA. Source: SCA (2017d), Time 6:25-6:30; Sveaskog and the Swedish church are mentioned as suppliers of SCA. Source: SCA (2017e)
73. SCA (2017b), p.17
74. Sveaskog (2017a), p.16
75. Holmen (2017), p.14
76. 'The Church of Sweden land holdings comprise a total area of 530,000 ha, of which 396,000 ha is productive forest land, spread across the country.' The 13 dioceses manage their own forests. The diocese of Gothenburg's holdings are not included in the map skyddadskog.se. Source: The Swedish Forest Industries Federation, website 'Protected Forests'. (click on ? button next to 'Land Owner' tab on the interactive map.
77. Sveaskog (2017d)
78. Sveaskog (2015)
79. Sveaskog (2015)
80. Sveaskog (2017b), p.28
81. Sveaskog (2017b), p.28

CHAPTER 2

1. Bradshaw et al. (2009)
2. Swedish Environmental Protection Agency (2014)
3. E.g. SGS (2014), p.11; Sveaskog (2017c)
4. Ahlkrona et al. (2017), p.11
5. Sveaskog (2017a), p.33
6. For example, SCA Skog uses a rotation period of 80–120 years in its operations in the north of Sweden. Source: SGS (2014), p14
7. Sveaskog (2017a), p.33
8. CBD (2013), p.31
9. An Intact Forest Landscape is defined as a territory within today's global extent of forest cover which contains forest and non-forest ecosystems minimally influenced by human economic activity, with an area of at least 50,000 ha and a minimal width of 10 kilometres. Source: Greenpeace et al., website Intact Forest Landscapes
10. Greenpeace International (2011)
11. Greenpeace International (2011)
12. Greenpeace calculations based on Greenpeace et al., website Intact Forest Landscapes
13. Swedish Environmental Protection Agency/Swedish Forest Agency (2017b), p.3
14. European Commission (2009), p.8
15. European Commission (2009), p.8
16. European Commission (2009), p.11
17. European Commission (2009), p.8
18. Swedish University of Agricultural Sciences, website 'Artfakta: Canis lupus lupus'
19. Swedish University of Agricultural Sciences, website 'Artfakta: Myotis nattereri'
20. Swedish University of Agricultural Sciences, website 'Artfakta: Calypso bulbosa'
21. ArtDatabanken (2015), p.20
22. Swedish University of Agricultural Sciences, website 'Artfakta: Viola selkirkii'
23. Swedish University of Agricultural Sciences, website 'Artfakta: Usnea longissima'
24. Swedish University of Agricultural Sciences, website 'Artfakta: Letharia vulpina'
25. ArtDatabanken (2015)
26. European Commission (2009), p.3; Swedish University of Agricultural Sciences, website 'Artfakta: greater spotted eagle'
27. ArtDatabanken, website 'Rödlista 2015 - sammanfattning'
28. ArtDatabanken, website 'The Red List'
29. ArtDatabanken, website 'The Red List'
30. ArtDatabanken (2015), p.4
31. Larsson (2011), p.13
32. Larsson (2011), p.13
33. ArtDatabanken (2015), p.14
34. Larsson (2011), p.5
35. ArtDatabanken, website 'The 2015 Red List - Summary'
36. ArtDatabanken (2015), p. 4,14
37. E.g. ArtDatabanken, website 'Rödlistany'
38. ArtDatabanken (2015), p.14
39. ArtDatabanken (2015), p.14
40. Sandström et al. (2015), p.27
41. all species can be found in the lists at ArtDatabanken (2015)
42. all species can be found in the lists at ArtDatabanken (2015)
43. all species can be found in the lists at ArtDatabanken (2015)
44. ArtDatabanken (2015)
45. Sundberg et al. (2015), p.193
46. Swedish Environmental Protection Agency (2014), p.26
47. 191,442 ha of productive forest in northern boreal and 182,166 ha in the south boreal regions of Sweden are formally protected (i.e. a total of 373,588 ha of productive forest in the boreal region of Sweden is formally protected). The table also shows that there are 6,258,901ha of productive forest in northern boreal and 8,754,905ha in the south boreal regions of Sweden (i.e a total of 15,013,806 ha of protective forest in the boreal region of Sweden). Source: Swedish Environmental Protection Agency/Swedish Forest Agency (2017c), p.40/41 table 4
48. Swedish Environmental Protection Agency (2014), p.27
49. Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity. The Natura 2000 network constitutes the backbone of the EU green infrastructure. Source: European Commission, website Green Infrastructure
50. Swedish Environmental Protection Agency (2014), p.69
51. Swedish Environmental Protection Agency (2016)
52. Swedish Environmental Protection Agency (2016), p.27
53. Swedish Environmental Protection Agency (2016), p.20
54. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a)
55. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.37
56. Swedish Environmental Protection Agency/Swedish Forest Agency (2017c), p.41
57. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.14
58. Swedish Environmental Protection Agency/Swedish Forest Agency (2017c), p.65
59. Bovin et al. (2017), p.42
60. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.25
61. Bovin et al. (2017), p.26
62. Sweden - Ministry of the Environment and Energy (1999), Chapter 7
63. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.62/63
64. Bovin et al. (2017)
65. Swedish Environmental Protection Agency (2014), p.26
66. Swedish Environmental Protection Agency (2014), p.26
67. Metria used a Frequency Analysis of Protection Nature (FaSN)
68. Swedish Environmental Protection Agency/Swedish Forest Agency (2017b), p.3
69. 'Core Value Areas' are defined by the Swedish EPA and Forest Agency as 'Forests or forests based on stock structure or species conditions are considered to be of great importance to the protection of fauna and flora. Key biotopes and wildlife objects is usually included as a subset of the term core' Source: Swedish Environmental Protection Agency/Swedish Forest Agency (2017b), p.3
70. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.25
71. Bovin et al. (2017), p.8
72. Swedish Environmental Protection Agency/Swedish Forest Agency (2017b), p.3
73. Bovin et al. (2017)
74. Actual figure is 1,945,759 ha
75. Bovin et al. (2017), p.5
76. Bovin et al. (2017), Figure 5, p.19
77. Bovin et al. (2017), p.42
78. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.25
79. The literal translation of the term 'skogliga värdetrakt' is forest value region. However, for the purposes of better communications in this report, Greenpeace has called them High Value Forest Landscapes (HVFLs) due to high density of Forest Values Cores within 'skogliga värdetrakter'.
80. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.25
81. Bovin et al. (2017), p.42
82. Bovin et al. (2017), p.27
83. At 10% share of the Core Value Areas there would be 272 Value Area Clusters; at 20% there would be 135; and at 50% there would be only 60. Source: Bovin et al. (2017), p.42
84. Swedish Environmental Protection Agency/Swedish Forest Agency (2017a), p.42
85. Pers comms. Metria, July 2017
86. Ahlkrona et al. (2017), p.11
87. Ahlkrona et al. (2017), p.11
88. Ahlkrona et al. (2017), p.37
89. Ahlkrona et al. (2017), p.21
90. Ahlkrona et al. (2017), Table 1, p.6
91. Ahlkrona et al. (2017), p.15-16
92. Ahlkrona et al. (2017), p.6
93. Ahlkrona et al. (2017), p.7
94. Swedish University of Agricultural Sciences, website 'The Swedish National Forest Inventory'
95. Ahlkrona et al. (2017), p.37
96. Greenpeace mapping assessment of SCA land ownership data
97. Ahlkrona et al. (2017), p.6
98. Bovin et al. (2017), p.27
99. Ahlkrona et al. (2017), p.6
100. Ahlkrona et al. (2017), p.8

CHAPTER 3

Case Study 1

1. SCA, website 'Responsible Forestry'
2. Swedish Environmental Protection Agency, website Miljödataportalen http://mdp.vic-metria.nu/miljodataportalen/
3. Swedish Environmental Protection Agency, website Skyddad natur
4. The Swedish Forest Industries Federation, website 'Protected Forests'
5. Swedish Environmental Protection Agency, website Miljödataportalen
6. Swedish Forest Agency, website Skogsdataportalen
7. SCA's active logging plans shown on the maps for 'Skogliga Värdetrakter' #205, exclude areas of lodgepole pine plantations shown in the company's land cover map
8. As noted in Chapter 2, Metria concluded that the probability of its resulting maps correctly identifying continuity forests in these three counties was 88%, 73% and 64% respectively – the highest figures for any of the seven counties mapped, except for Dalarna (67%). Hence, the six cases chosen for this analysis were selected from counties with among the highest probabilities of correct continuity forest identification.
9. Figures of forest land ownership from Swedish Forest Agency, website Skogsdataportalen:
   Also see SCA: 'SCA is Europe's largest private forest owner with over 2.6 million hectares;
   Sveaskog: Sveaskog is Sweden's largest forest owner with 4.1 million hectares of land';
   Swedish Church: 'The Church of Sweden land holdings comprise a total area of 530,000 ha';
   Figure for Holmen Group ('Holmen's forests cover 1.3 million hectares' from: Holmen (2017), p.14

Case Study 2

1. The Instrument of Government ("Regeringsformen"), one of the four fundamental laws in the Swedish constitution. See: Sweden (1974), Chapter 1, paragraph 2; Sweden (2016), p.65
2. Except for 10 districts which stay all year round in the winter grazing lands in the forests.
3. Borchert (2001)
4. Berg et al. (2016)
5. SSR (2017b)
6. SVT (2017)
7. SVT (2017)
8. Gård & Djurhälsan (2015)
9. SCA, website 'SCA´s forest products operations'
10. SSR, website 'Om SSR'
11. SSR (2017b).
12. IUCN, website 'Pinus contorta'
13. E.g. 'Lodgepole pine is likely to invade all sites currently occupied by Scots pine. [...] In general, lodgepole pine is considered more competitive than Scots pine when the two species occur together'. Source: Engelmark et al. (2001), pp.5/6; see also: Valinger (ca. 2010)
14. Swedish Environmental Protection Agency (2014)
15. New Zealand Plant Conservation Network, website ' Pinus Contorta'
16. Engelmark (2011)
17. There are 15,013,806 ha of productive boreal forest in Sweden (outside the mountain region). Only 2.5% (373,588 ha) of this is under long-term protection. Source: Swedish Environmental Protection Agency/Swedish Forest Agency (2017c)
18. Sandström et al. (2016), p.426/427
19. Sandström et al (2016), p.426/427
20. SGS (2014), p.36
21. Between 2009 and 2012 SCA replanted 16,341 ha with lodgepole pine: 2009: 4,250 ha; 2010: 3,560 ha; 2011: 3,902 ha; 2012: 4,629 ha. Source: SGS (2014), p.36
22. SGS (2014), p.36
23. The standing timber volume of Holmen Group's forests totals 120 million m^3 and comprises Scots pine (51%), lodgepole pine (7%), spruce (29%), and deciduous trees (13%). Source: Holmen, website 'Holmen forests in figures'
24. Sweden (1971)
25. Sametinget, website 'Samebyar'
26. SSR is a democratic body established in the 1950s to 'safeguard and promote the economic, social, legal, administrative and cultural interests of the Swedish Sámi, with particular regard to the reindeer husbandry, its continuity and healthy development'. Source: SSR, website 'Om SSR'
27. The term 'sameby' refers to an assembly of Sámi organised as an association, who pursue reindeer herding within a defined territory, as well as to the geographical territory within which the members of the association are entitled to pursue reindeer herding. Source: Torp (2013), p.44
28. SSR (2009)
29. SCA (2014) documents held by Greenpeace International
30. Pers.comm. with SSR representatives, 2017
31. Pers.comm. with SSR representatives, 2017
32. Pers.comm. with SSR representatives, 2017
33. SSR (2017a)
34. United Nations (2016)
35. Sametinget, website 'The Right to Land and Water'
36. Diskrimineringsombudsmannen (2010)
37. Sametinget (2015)
38. United Nations (2008)

Case Study 3

1. Metsähallitus Forestry, website 'Wood Sales and Deliveries'
2. Metsähallitus Forestry, website 'Wood Sales and Deliveries'
3. In 2015, Stora Enso's wood sourcing company in Finland (Stora Enso Metsä) sourced 20.8 million m3 of wood, of which 76% was used in pulp and paper production. 7% (~1.45 million m3) of this wood is sourced from Metsähallitus. Source: Stora Enso (2016), pp. 7/8; see also: Castrén & Snellman Attorneys Ltd (2016) which states that 'In its follow-on damages claim filed in 2011, Metsähallitus alleged that the forestry companies [Stora Enso, UPM-Kymmene Oyj and Metsäliitto/Metsä Group] had purchased roundwood from Metsähallitus below market prices during and after the competition infringement found by the Market Court.'
4. Maaseudun tulevaisuus (2016); see also Castrén & Snellman Attorneys Ltd (2016): which states that 'In its follow-on damages claim filed in 2011, Metsähallitus alleged that the forestry companies [Stora Enso, UPM-Kymmene Oyj and Metsäliitto /Metsä Group] had purchased roundwood from Metsähallitus below market prices during and after the competition infringement found by the Market Court.'
5. UPM's website states that the company sources 'pulp wood mainly from domestic private forests and company-owned forests for our mills in Finland.' The assumes that the remainder is sourced from state-owned forests (i.e. Metsähallitus), as it is unlikely that the company sources from its competitors. Source:UPM, website 'Wood sourcing you can rely on'; see also Castrén & Snellman Attorneys Ltd (2016): which states that 'In its follow-on damages claim filed in 2011, Metsähallitus alleged that the forestry companies [Stora Enso, UPM-Kymmene Oyj and Metsäliitto] had purchased roundwood from Metsähallitus below market prices during and after the competition infringement found by the Market Court.'
6. CBD defines old growth forest as 'stands in primary or secondary forests that have developed the structures and species normally associated with old primary forest of that type have sufficiently accumulated to act as a forest ecosystem distinct from any younger age class.' Source: CBD, website 'Definitions'
7. Greenpeace International (2013)
8. Finnish Forest Industries (2017b)
9. Finnish Forest Industries (2017a); Further research conducted by Greenpeace International in 2017 also confirmed that Essity sources market pulp from Stora Enso, Metsä Fibre and UPM.
10. Metsä Fibre website states 'Grade specialisation: specialised in producing pulps best suited for tissue and speciality paper manufacturing'. Source: Metsä Fibre, website 'Kemi Pulp Mill'; Stora Enso website states: The main applications for these grades [Perform, Select, Supreme pulps] are found in the paper, board and tissue industry.' Supreme is produced at the Oulu mill. Source: Stora Enso, website 'Perform, Select and Supreme by Stora Enso'; UPM website states that its UPM Conifer, UPM Conifer TCF and UPM Conifer Thin (all produced in Pietarsaari) are for use in tissue production. Source: UPM, website 'Achieve excellent strength with northern softwood pulps'; UPM website states that its 'totally chlorine free birch pulp from our Pietarsaari mill' is especially for use in tissue. Source: UPM, website 'Enhance your performance with our hardwood pulps'
11. Email to Stewart Begg, Global Fibre Sourcing Sustainability Director, Essity. 9 August 2017.
12. Email from Stewart Begg, Global Fibre Sourcing Sustainability Director, Essity. 12 September 2017
13. Lotus customer services email to Greenpeace dated 10 July 2017
14. Stora Enso, website 'Enocell Mill'
15. Metsähallitus Forestry (2011)
16. a) In 2015, nearly 25% (~1.45 million m^3) of the total volume of logs sold by Metsähallitus (6 million m3) were traded to Stora Enso. In 2015, Stora Enso sourced 7% (~1.45 million m3) of the company's total consumption of wood (20.8 million m3) from Metsähallitus. Source: Stora Enso (2016), pp.7-8 and Metsähallitus Forestry, website 'Wood Sales and Deliveries';
    b) In 2016, over 13% (0.834 million m^3) of the total volume of logs sold by Metsähallitus (6 million m3) were traded to UPM. In 2016, 3% (0.834 million m3) of UPM's total consumption of wood (27.8 million m3) came from state-owned forests. Source: UPM (2017), p.60
    c) In 2016, over 25% (~1 million m^3) of the total volume of pulpwood logs sold by Metsähallitus (3.6 million m3) were traded to the Metsä Fibre Kemi mill. Source: Maaseudun tulevaisuus (2016) and Metsähallitus Forestry, website 'Wood Sales and Deliveries'
17. Metsähallitus Forestry, website 'Kainuun luonnonvarasuunnitelma'
18. In total, Metsähallitus sells around 6 million m3/year Source: Metsähallitus Forestry, website 'Wood Sales and Deliveries'
19. Metsäkeskus (2015), p.32; also the total volume of timber logged in Kainuu was 3.252 million m3, Source: Natural Resources Institute Finland (2017)
20. Natural Resources Institute Finland (2017)
21. EP Logistics, website 'EP-Logistics Ltd'
22. EP Logistics (2012), p.13
23. Finnish Forest Industries (2017b) and Finnish Forest

Industries (2017a)

24. Example photograph with the Oulu mil code. Source: Greenpeace Finland, flickr website 'Stora Enso osti liito-oravametsän puut'
25. UPM (2015)
26. Metsähallitus Forestry, website 'Wood Sales and Deliveries'
27. YLE, website 'Sahayritys ihmettelee: "Veronmaksajat kortistoon ja puunjalostusyritykset alueella historiaan"'
28. Virranniemi (2016)
29. Metsähallitus Forestry (2000), p.8
30. Metsähallitus Forestry (2000), p.8
31. Metsähallitus Forestry (2000), p.21
32. Metsähallitus Landscape Ecological Plans in Kainuu region 1998-2001, see for instance: Holappa et al. (1999b), p.34; Holappa et al. (1999a), p.43; Impiö et al. (2001), pp.29/30; Möttönen et al. (2000), p.43; Möttönen et al. (2000), p.43; Pääkkönen et al (2000), pp.34/35
33. Greenpeace International (2013)
34. Logging plans filed by Metsahallitus to Finnish Forest Centre 2015-2017. GIS files available via Metsäkeskus - Finnish Forest Center, www.metsakeskus.fi/node/321
35. Birdlife Suomen et al., website 'Metsäkartta'
36. Metsähallitus Forestry (2015)
37. The Centre for Economic Development, Transport and the Environment of Kainu (2015b)
38. European Commission, website 'The Birds Directive'
39. The Centre for Economic Development, Transport and the Environment of Kainu (2015b), pp.2/3
40. Impiö et al. (2001), pp.19, 29-31 and maps 2b and 3b
41. Wikipedia, website 'Vaala'
42. Impiö et al. (2001), pp.19, 29-31 and maps 2b and 3b
43. Logging plans in Kaarresalo island, filed to the forest authority on 14 June 2017 (doc held by Greenpeac); Meriruoko et al. (2017), pp 12, 75, 78
44. State Council decision on establishing the Oulujärvi recreational area, 30 December 1993. Source: Finnish Ministry of Justice, 1993
45. Logging plans in Kaarresalo island, filed to the forest authority on 14 June 2017 (doc held by Greenpeac); Meriruoko et al. (2017), pp 12, 75, 78
46. Kainuun liitto, website 'Kainuun maakuntakaava 2020', p.16
47. The Centre for Economic Development, Transport and the Environment of Kainuu (2015a)
48. E.g. Greenpeace International, website 'Finnish Forest Rescued!
49. E.g. Greenpeace International (2005)
50. E.g. Greenpeace International, website 'Finnish Forest Rescued!'

Case Study 4

1. Greenpeace International (2017)
2. See: Greenpeace International (2017)
3. E.g. Greenpeace International (2014a)
4. See: Greenpeace International (2017)
5. Arkhangelsk Oblast (2016)
6. APPM (2016)
7. APPM (2017c)
8. APPM confirms this on its website: 'However, in order to preserve intact forest landscapes in the interfluve of the rivers Severnaya Dvina and Pinega, Titan Group and environmental organisations concluded in 2013 open-ended moratorium agreements on conservation of High Conservation Value Forests. These agreements are publicly available on the Internet. Source: APPM (2017b)
9. APPM (2017a)
10. Letter from Titan to Greenpeace Russia, 9 August 2017
11. Titan (2013)
12. Titan communications with Greenpeace, June-August 2017

Case Study 5

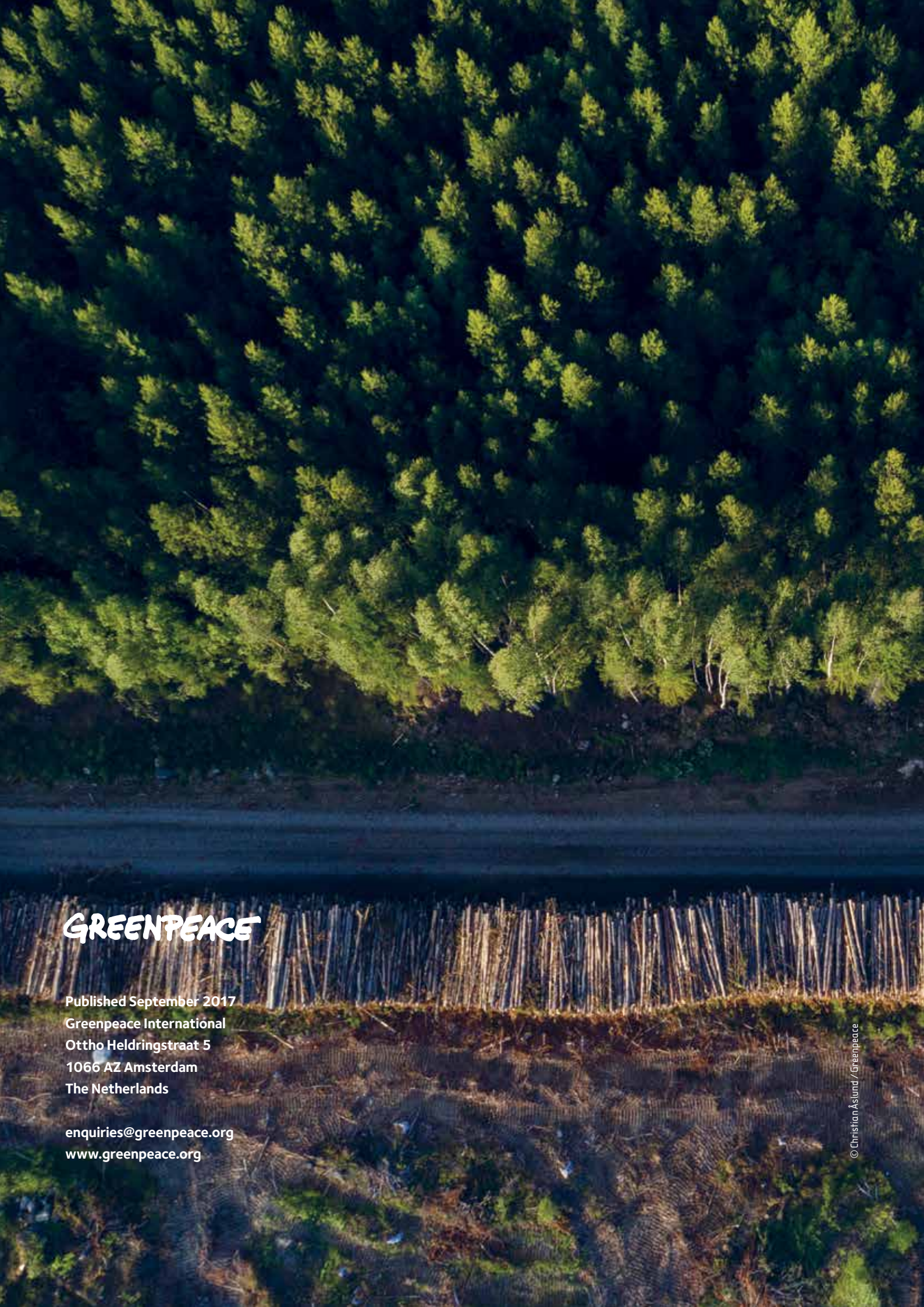
1. 'Most of the Group's subsidiaries are wholly owned, which means that SCA has control over the companies. SCA owns 54.6% of Vinda and 50% of Familia; SCA also has control of these companies, despite the fact that there are significant non-controlling interests in the companies.' Source: SCA (2017a), p.121
2. SCA (2017a), p.71
3. Greenpeace pers. comm. with Stewart Begg, Essity, 14 August 2017 and 12 September 2017. Essity has stated that the company only shares its 'Fibre sourcing Policy with [Vinda] and keep them informed on issues regarding fibre supply.'
4. Vinda (2017a), p.27
5. Chinese customs data, May-December 2016
6. Chinese customs data, May-December 2016
7. Chinese customs data, May-December 2016
8. Research held by Greenpeace International
9. APP, website 'Products'
10. Eg. See FSC complaint: WWF et al. (2013)
11. E.g Friends of the Earth et al (2012); RAN (2014); Greenpeace International (2014c)
12. Greenpeace International (2013b); see also: FSC, website 'Asia Pacific Resources International (APRIL): Status: Disassociated'
13. WWF et al. (2013)
14. WWF (2016)
15. APRIL (2015)
16. WWF (2016)
17. See: Greenpeace International (2016); WWF (2016)

CHAPTER 4

1. Essity/SCA (2016)
2. Essity/SCA (2016)
3. Essity/SCA (2016), pp.29-30
4. Essity/SCA (2016), pp.29-30
5. Essity, website 'Fiber sourcing'
6. Essity, website 'Fiber sourcing'
7. FSC, website 'History of Controlled Wood'
8. PEFC, website 'About PEFC'
9. Climate for Ideas et al. (2011)
10. SCA (2017h)
11. Essity, website 'Fiber sourcing'
12. Essity, website 'Fiber sourcing'
13. Essity sources from suppliers in the boreal region that sell only FSC Mix or FSC Controlled Wood virgin market pulp
14. FSC United Kingdom, website 'What do the FSC Labels Mean?'
15. Example Essity market pulp suppliers in the boreal region and their FSC chain of custody certification for selling chemical pulp, for example: SCA Ostrand: https://info.fsc.org/details.php?id=a0240000005sTgtAAE&type=certificate; Stora Enso Oulu: https://info.fsc.org/details.php?id=a0240000005sUPZAA2&type=certificate; UPM Pietarsaari: https://info.fsc.org/details.php?id=a0240000005sU60AAE&type=certificate; Metsä Fibre, Kemi: https://info.fsc.org/details.php?id=a0240000005sQoVAAU&type=certificate; APPM: https://info.fsc.org/details.php?id=a0240000005sR0cAAE&type=certificate
16. FSC (2017)
17. FSC, website 'THE 10 FSC PRINCIPLES'
18. Kimberly-Clark (2017a)
19. Kimberly-Clark, website 'overview'
20. E.g. Greenpeace US (2014)
21. E.g. Greenpeace US, website 'Kleercut: Kimberly-Clark Commits to End Deforestation'
22. Kimberly-Clark (2017b), p.9
23. Kimberly-Clark (2009), p.3
24. Kimberly-Clark (2009)
25. Kimberly-Clark (2009)
26. Kimberly-Clark (2009)
27. Kimberly-Clark (2012)
28. Kimberly-Clark (2012)
29. 'Natural forests are composed of native species that self-regenerate and contain key elements of native ecosystems such as wildlife and biological diversity. To us, this primarily includes boreal fibers known as Northern Bleached Softwood Kraft (NBSK)).' Source: Kimberly-Clark (2017b), p.9
30. Kimberly-Clark (2017b), p.12
31. This assumes a conversion rate of 5 m^3 to 1 tonnes of Air Dried Pulp
32. Kimberly-Clark (2017b), p.12
33. Kimberly-Clark states that it will 'commission a life-cycle assessment and conduct a multi-stakeholder consultative process before designating an alternative fiber as "sustainable." Source: Kimberly-Clark (2017a), p.7
34. Kimberly-Clark (2017b), p.12
35. 22% of K-C's virgin fibre is sourced from SFI-certified fibre (ie from USA), 5% from CSA-certified fibre (ie from Canada) and 2% from PEFC-certified fibre. Source: Kimberly-Clark (2017b), p.10

CHAPTER 5

1. United Nations (2008).
2. ILO (1989)



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