

Supply Base Report: Blue Point Pellets Denmark ApS

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Completed in accordance with the Supply Base Report Template Version 1.2

*For further information on the SBP Framework and to view the full set of documentation see
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Document history

Version 1.0: published 26 March 2015

Version 1.1 published 22 February 2016

Version 1.2 published 23 June 2016

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1 Overview:

Producer name: Blue Point Pellets ApS

Producer location: Køge, Roskilde, Denmark

Geographic position: 55° 27' 0" North, 12° 11' 0" East

Primary contact: Manager John Allen

Company website: <http://bluepointpellets.com>

Date report finalised: 11/Aug/2016

Close of last CB audit: 24/May/2016, Køge, NEPCon

Name of CB: NEPCon

Translations from English: Not appropriate

SBP Standard(s) used:

Standard 2 version 1.0

Standard 4 version 1.0

Standard 5 version 1.0 & Instruction Note 5a

Weblink to Standard(s) used: <http://www.sustainablebiomasspartnership.org/documents>

SBP Endorsed Regional Risk Assessment: Not applicable

Weblink to SBE on Company website: <http://bluepointpellets.com/about/>

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
X	☐	☐	☐	☐

2 Description of the Supply Base

2.1 General description

Blue Point Pellets is wood pellet producer located in eastern Denmark, on the harbour of Køge. The plant started production in 2015 and produces 6mm and 8mm wood pellets to industrial and residential markets of 100,000mt for European clients.

Blue Point Pellets sources raw materials for pellet production from a limited number of suppliers that include traders and integrated companies with their own forest holdings, sawmills and secondary products. The suppliers deliver to port though Blue Point Pellets can manage shipping with their own agents. The countries of origin for the Blue Point Pellets Supply Base are:

- Norway
- Sweden
- Finland
- Estonia
- Denmark
- Russian sawmill
- Potential future areas:
 - I. Latvia
 - II. Lithuania
 - III. Poland
 - IV. Belarus

Blue Point Pellets acts as the “trader” and not the “operator” according the EU Timber Regulation 995/2010 and is not the “consignee” or “first placer” on the market for non-EU materials sourced from Norway or Russia. Blue Point Pellets does draw upon external expertise, where required, for compliance with EU Timber Regulation.

Blue Point Pellets receives sawmill residues and chips from primary processors from FSC or PEFC certified Chain of Custody companies as SBP controlled or SBP compliant biomass. This Supply Base Report includes primary feedstock from Denmark for future planned purposes.

As a large proportion of feedstock is supplied from FSC or PEFC-certified chain-of-custody suppliers as SBP-compliant secondary or SBP-controlled feedstock, the Supply Base addresses all potential inputs into the primary processor that are identified and recorded by Blue Point Pellets.

The feedstock are summarised in Table 1. The proportions of feedstock are estimated and vary between production batches to reach optimum pellet quality.

Table 1: General Current Feedstock Inputs Summary

Feedstock Product Group	Country of Origin and within Supply Base Report	Estimated Proportion	Representative Softwood / Hardwood (deciduous) Mix	Potential species mix & applicable %
SBP-compliant secondary feedstock from primary processor	Norway	10–20%	>75% softwood ¹	Norway Spruce (47%), Scots Pine (33%), Birch (18%), 2% other deciduous
SBP-compliant chipped primary feedstock	Norway	10–20%	>75% softwood	Norway Spruce (47%), Scots Pine (33%), Birch (18%), 2% other deciduous
SBP-compliant secondary feedstock from primary processor	Sweden	10–20%	>75% softwood	Spruce (41%), Pine 4(0%), Birch (8%), other deciduous trees (6%)
SBP-compliant tertiary feedstock	Finland	10–20%	>75% softwood	Scots Pine (50%), Norway Spruce (30%), Birch and other deciduous trees (up to 20%)
SBP-compliant secondary feedstock from primary processor	Russia	12-19%	>60% softwood	Russia 43% Spruce (43%), Birch (20%), Pine (30%), Aspen (5%) and other (2%)
SBP-compliant primary feedstock	Estonia, Denmark,	20–40%	50% softwood	Estonia: Scots pine (33.1% of the total area of stands), Birch (31.3%), Spruce (16.2%) and Grey Alder stands (9.1%) Denmark: Conifer (50%), Beech (46.4%) and primary feedstock may contain

¹ 1% of commercial harvest was broadleaf (see link below)

				these proportions
SBP-controlled biomass primary feedstock (FSC Controlled Wood)	Estonia	20–40%	As above	

Norway

Overview

Residues from sawmills are sourced by Blue Point Pellets from primary processors in Norway. The Supply Base includes all sawmill residues to primary processors in Norway and a supplier of chipped primary feedstock. All feedstock from Norway is SBP compliant biomass. Over 90% of productive forest lands in Norway are PEFC certified and many forests have both FSC and PEFC certification.

Statistics for non-domestic wood biomass used in energy or the Government or academia in Norway does not report heat generation. Nor is an accurate value for the scale of biomass in relation to other industries available.

Pulpwood is regarded as low-quality energywood that is not sawlogs. Pulpwood in Norway is for the well-established paper industry but also used as a biomass fuel. A supplier to Blue Point Pellets processes primary wood, stemwood, into chips. Residues of sawlogs from sawmills are sourced by Blue Point Pellets.

Removals of pulpwood account for nearly 40%² of the total commercial harvest in Norway. Sawmills consume more than 52% of roundwood logs harvested in Norway³.

Domestic biomass use for household heating is a substantially greater proportion of wood use than pulpwood⁴. The conclusion can be made that non-domestic biomass is not a significant proportion of wood use in Norway. Sawmills are reported to receive more than 50% of commercial removals⁵. Overall, this indicates biomass is a minor proportion of the wood industry in Norway at present.

Forest Cover, Land Use, Economics and Forest Based Policy

Approximately 37% of the surface area of Norway is covered by forest. Twenty-five percent of Norwegian land area is productive forest. Latest available figures (2011) state that growing stock of timber as 878 million cubic metres. The annual increment was almost 25 million cubic metres. In 2011, forest owners cut 8.5 million cubic metres of industrial roundwood for sale, 2.5 million cubic metres for household logs⁶. The total forested area amounts to 12 million hectares, including 7.4 million hectares of productive forest⁷. An estimated 15% of the productive forest land has been designated as non-economic due to difficult terrain and long-distance transport. This means economical forestry may be operated in 75% of the forested area. The most important species are Norway spruce (47%), Scots pine (33%) and Birch (18%). Standing volume of forest is approximately 600 million cubic metres, compared with 300 million when the first national forest

² <https://www.ssb.no/en/jord-skog-jakt-og-fiskeri/statistikker/skogav/aar-endelige/2015-12-21>

³ <http://www.nordictimber.org/forest-industry-in-norway>

⁴ 1.2 million tonnes of fuel wood was burned: <https://www.ssb.no/en/energi-og-industri/statistikker/energibalanse/aar-forelopige/2016-05-20> (Nearly 4 million tonnes of commercial removals, household wood almost 1 million tonnes is 1/4 commercial removal volumes)

⁵ <https://www.ssb.no/en/jord-skog-jakt-og-fiskeri/statistikker/skogav/aar-endelige/2015-12-21?fane=tabell&sort=nummer&tabell=250460>

⁶ <https://www.ssb.no/en/jord-skog-jakt-og-fiskeri/artikler-og-publikasjoner/landbruket-i-norge-2011>

⁷ <http://www.pefc.org/component/pefcnationalmembers/?view=pefcnationalmembers&Itemid=48/16-Norway>

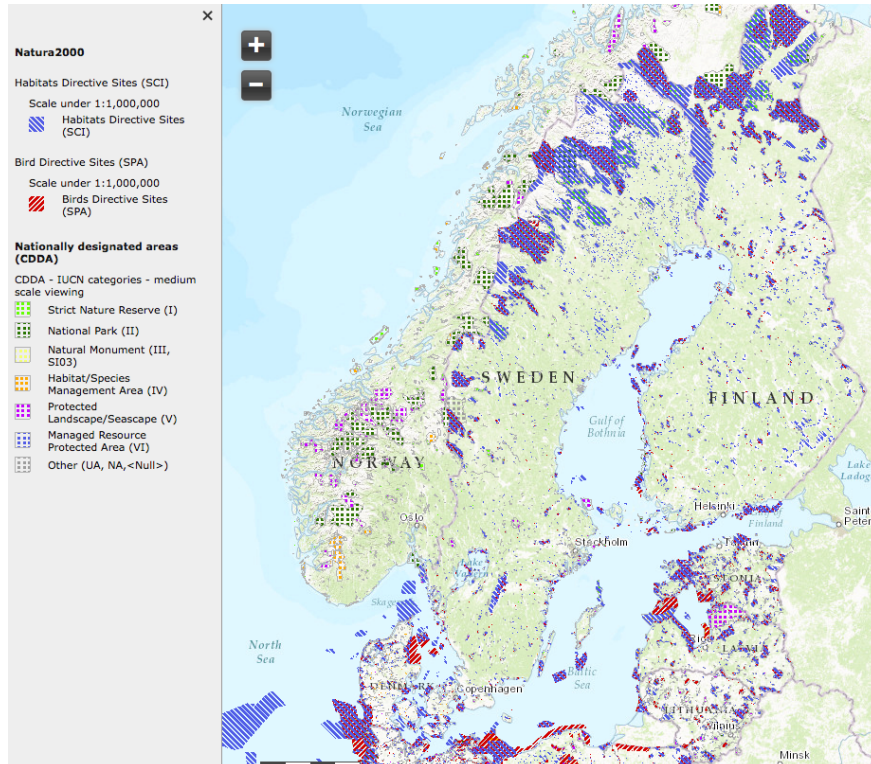
survey was carried out in 1919. The tremendous increase is a result of a forest policy with the main objective of restoring the forest resources. Each year the standing forest volume increases by approximately 20 million cubic metres through tree growth. The total annual harvest is less than 50% of this growth, which again means that the forest volume increases every year. The variety of small-scale forestry creates good conditions for environmental biodiversity. Felling areas are 1.4 hectares on average, with long-rotation between harvesting⁸.

In Norway, the vast majority of forests are conifer-dominant and owned by private individuals/families where the forest has been handed down over generations. Norwegian forest resource policies are based on principles of maintaining the long-term stability and resilience of the resource base. The goal of Norwegian forest management policies is to meet social, economic, ecological and cultural needs for present and future generations. Norway has ratified the Rio Convention on Biological Diversity 1992 and sustainable management of Europe's forests. The principles expressed in these documents are also incorporated into Norwegian forest policy.

Protected Areas

CITES⁹ species are present in Norway but do not include threatened softwood or deciduous (broadleaf species) trees. Norway has a significant number of IUCN Categories. Protected Areas Categories and locations are indicated in the European Environment Agency Map:

Figure 1. Protected Sites, Natura 2000 Map for Norway, Sweden, Finland and Estonia



⁸ Soil Association FSC FM Reports

⁹ <https://cites.org/eng/cms/index.php/component/cp/country/NO>

Figure 2. Protect WDPA (World Database of Protected Areas Map of N Europe including Norway)



Lands protected under The Forestry Act 2005¹⁰

- Areas of special environmental or recreational value – areas in which forest operation are subject to severe restrictions. Applied to approximately 170,000 ha.
- Protection forest – forestland that must be treated with special care due to their location or characteristics. Applied to approximately 20% of Norway's forestland¹¹.

Statistics on protected areas under Norway's The Nature Conservation Act 1970:¹²

National parks: 29. Total area: 27,756,000 ha.

Landscape protection areas: 174. Total area: 15,093,000 ha.

Nature reserves: 1,790. Total area: 4,193,000 ha.

Nature monuments: 103. Total area: 2,000 ha.

Other protection areas: 118. Total area: 126,000 ha.

Total: 47,170,000 ha ~ 10.5% protected under the Nature Conservation Act.

¹⁰ <http://www.lexadin.nl/wlg/legis/nofr/eur/lxwenoo.htm>

¹¹ <http://www.pefc.org/component/pefcnationalmembers/?view=pefcnationalmembers&Itemid=48/16-Norway>

¹² Soil Association FSC FM Reports

Norway has formally adopted a Red List classification of species in accordance with criteria from the International Union for Conservation of Nature (IUCN)¹³. A large proportion of the Red List species found in forests are associated with rich broad-leaved forest, however this makes up only 1% of Norway's productive forest land.¹⁴ Feedstock are from conifer-dominated habitats, thus the risk of feedstock affecting Red List species is inherently low and Norway's adoption of protected areas classifications provides further protection.

Reported threats to any Red List species are not from forestry or farming practices. Land Use Change (LUC) provides the greatest threat¹⁵, an example being construction activities.¹⁶ Norway is party to several international agreements that deal with the protection of threatened species and cover forestry and land management practices. The most important of these are the Convention on Biological Diversity, the Bern Convention, the CITES Convention and the Ramsar Convention.

Sweden

Overview

Residues from sawmills are sourced by Blue Point Pellets and the Supply Base includes all sawmill residues from primary processors and suppliers of chipped primary feedstock that are SBP compliant biomass or SBP controlled biomass from Sweden as the place of harvesting. More than 60% of forests area in Sweden is either FSC or PEFC certified.

The commercial biomass market is not distinguished from domestic fuelwood in the reporting of national statistics in Sweden. Fuelwood represented 6.2 million cubic metres in 2013 and woodchips from sawn timber and processing of pulpwood, 9.2 million cubic metres. This represented a small proportion of the sawn timber industry (>50 million cubic metres) and pulp and paper industry (> 90 million cubic metres).

Similarly to Norway, Sweden has a well-established paper industry with more than 50 large pulp and paper manufacturers, and sawmills make up a notable part the wood industry with more than 140 sawmills and 10,000 cubic metres of sawn timber produced¹⁷. This makes sawmill residues or sawdust a prolific biomass feedstock and makes Sweden the third-largest exporter of wood products in the world by volume. Biomass for non-domestic use is a minor proportion of the national industry.

Forest Cover, Land Use, Economics and Forest-Based Policy

Approximately 57% of the surface area in Sweden is covered by productive forest. Unproductive forest land accounts for 12%. Forests represent nearly 70% of the land area of Sweden as represented in Figure 3.

¹³ <http://www.biodiversity.no/Pages/135380>

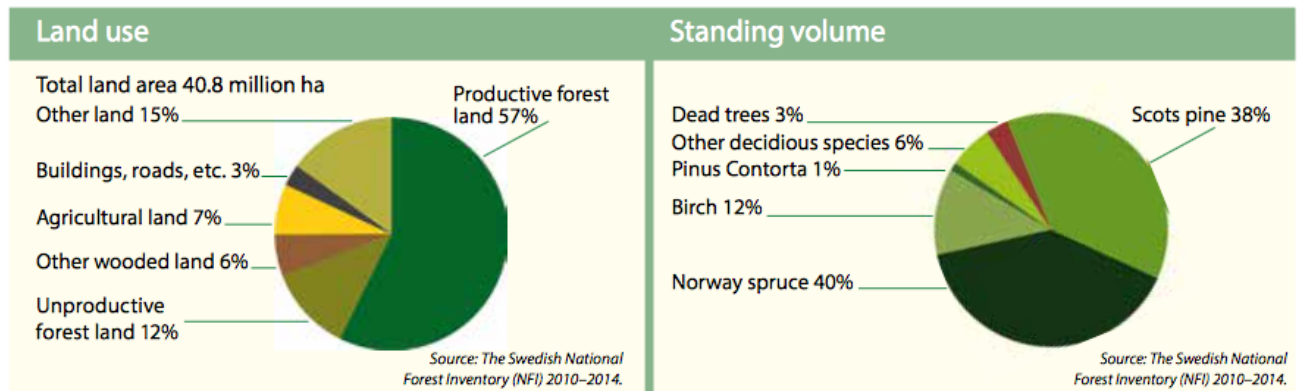
¹⁴ <http://www.biodiversity.no/Pages/135380>

¹⁵ <http://www.environment.no/topics/biodiversity/species-in-norway/threatened-species/>

¹⁶ <http://www.biodiversity.no/Pages/135380>

¹⁷ http://www.swedishwood.com/about_wood/wood_industry

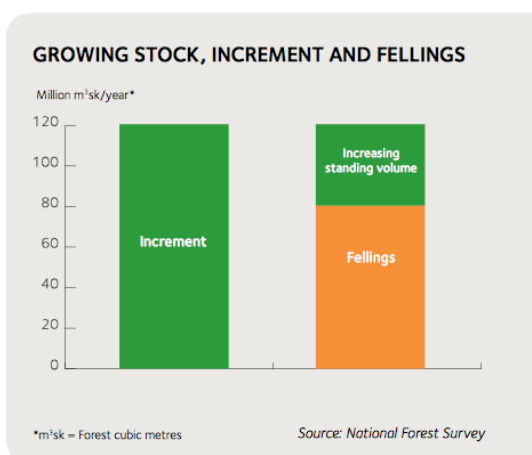
Figure 3: Land Use and Standing Volume



As in Norway, the majority of forests are conifer-dominant and much ownership is by private individuals/families where the forest has been handed down over generations. Approximately 200,000 such individuals owning small areas typically of 5 hectares own 50% of Sweden's forest land. Large forest companies own 25% of the country's forests and the remaining 25% is owned by the state and other public organizations. The state-owned company Sveaskog, accounts for 14 per cent of all forest lands in Sweden, making it the largest state stakeholder.

Latest available figures (2010) state that the growing stock of timber was 3,000 million cubic metres. Spruce/whitewood (*Picea abies*), also called Norwegian spruce accounts for 41%, 40% is pine (*Pinus sylvestris*), 8% is birch (*Fagus sylvatica*) and 6% other deciduous trees¹⁸. The annual increment is around 40 million cubic metres. Figure 4. Represents the difference between annual increment and fellings.

Figure 4. Annual Increment and Fellings.



¹⁸ http://abtimmer.se/wp-content/uploads/2014/05/swedish_forestry.pdf

Forest owners cut approximately 80 million cubic metres industrial roundwood for sale and the trend of increasing standing volumes shows a predicted 100% growth in 100 years since 1930.

The increase is a result of the National Forest Policy and principles including modern sustainable forest management, restoring forest resources and respecting biological diversity. Like Norway, the total annual harvest is less than 50% of this growth. The variety of small-scale forestry operations with long-rotation between harvesting provides conditions for maintaining biodiversity.

In 1993 Sweden changed its forest policy to integrate ecological considerations with modern forestry practices. The policy focuses on two major objectives, one around production and one around environmental concerns. The overarching intention of forest policy is, in line with international agreements, to ensure sustainable forest management. In 2014 the government decided to establish a National Forest Programme in order to meet the increasing demands for public participation in forest policy development, and to increase the efficiency of implementing forest-related policies and international commitments.

More than 70% of the yearly wood volume procured originates from final felling, with the rest coming from thinning operations. Besides wood, forest biomass for energy purposes is produced, mainly originating from tops and branches opposed to stemwood or roundwood as denoted in Figure 5.

Figure 5. Final Felling in Sweden.

Forestry Data	
Final felling at the end of the rotation period (ha/yr)	190,000
Thinning (ha/yr)	380,000
Scarification (ha/yr)	170,000
Regeneration (ha/yr)	185,000
Forest tree seedlings produced (no/yr)	380,000,000
Cleaning (ha/yr)	270,000
Average 2009–2013	
Source: Statistical Yearbook of Forestry 2014. Swedish Forest Agency.	

Protected Areas (see Figure 1 and 2 page 6.)

Of Sweden's 28 million hectares of forest land about two million hectares are protected for conservation purposes, mostly in national parks and nature reserves. In these areas, timber extraction is not allowed unless it is to specifically improve the value of the land for nature and/or for the purposes of cultural conservation. In addition, unproductive forest land which accounts for some four million hectares are protected by the Forestry Act since the 1970s. On the remaining forest land there is active forest management with equal importance attached to biomass production and environmental goals.

CITES¹⁹ species are present in Sweden but do not include threatened softwood or deciduous (broadleaf species) trees. Sweden has a high proportion of IUCN Categories. Protected Areas Categories and locations are indicated in the European Environment Agency Map (Figure 1, page 6).

Lands protected²⁰ under The Environmental Code 1998²¹

Protected habitats account for 7,092 areas (24,187 total hectares and 24,075 land area hectares), which represents 0.1% of protected areas in Sweden, out of a total of 10.9%, which includes Natura 2000 areas.

Sweden has more than 4,500 Natura 2000 areas, covering a total area of 6.7 million hectares. The protection often overlaps a number of protected areas already under Swedish legislation.

Of all the protected areas, more than 60% are habitat protection areas in forest land. Nature reserves follow, at 35%. Nature reserves dominate in terms of area, accounting for 84% of protected areas. National parks comprise 14% of protected areas, even though they are few in number. Habitat protection areas in forest land comprise only 0.5% of protected areas.

IUCN and Red List

Sweden has formally adopted a Red List classification of species in accordance with criteria from the International Union for Conservation of Nature (IUCN)²². A large proportion of the Red List species found in forests are associated with rich broadleaf forest, however this makes up less than a small proportion of Sweden's productive forest land. Biomass feedstock are from conifer-dominated habitats, thus the risk of feedstock affecting Red List species is inherently low and Sweden's adoption of protected areas classifications provides further protection.

The Red List Summary published by Sweden states that biodiversity loss has neither increased nor decreased though logging and overgrowth of habitats such as meadows, pasture forests and wetlands is recognised to be a threat. Land Use Change (LUC) provides the greatest threat.

Finland

Overview

Residues from sawmills are sourced by Blue Point Pellets and the Supply Base includes all sawmill residues from primary processors that are SBP compliant biomass or SBP controlled biomass. Approximately 90% of Finnish production forests are certified under the Finnish PEFC system. The Finnish system was endorsed for membership of PEFC in the year 2000. Many forest management companies have FSC and PEFC certification.

Finland is the most forested country in Europe with more than 23 million hectares. Statistics Finland²³

¹⁹ <https://cites.org/eng/cms/index.php/component/cp/country/NO>

²⁰ http://www.scb.se/en_/Finding-statistics/Statistics-by-subject-area/Environment/Land-use/Protected-nature/Aktuell-Pong/24548/Behallare-for-Press/374336/

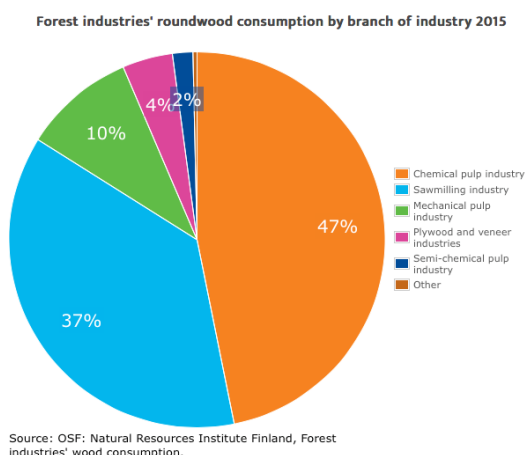
²¹ <http://www.government.se/legal-documents/2000/08/ds-200061/>

²² <http://www.artdatabanken.se/en/the-red-list/>

²³ <http://stat.luke.fi/en/releasecalendar>

indicated that in 2015, the forest industries' roundwood consumption totalled 64.7 million cubic metres. The largest sectors of roundwood consumption being chemical and pulp (47%) and the sawmill industry the second-largest consumer (37%). The biomass industry as a recipient of roundwood is negligible as Figure 6.

Figure 6. Forest Industries Roundwood Consumption 2015.



The main use of biomass from Finland is chips as sawmill residues. More than half of the energywood purchased as raw material for forest chips was pruned stemwood and logging residues accounted for one third of all energywood sales. This overwhelmingly indicates that biomass from Finland is wood industry residues, logging residues, forest residues and low-grade energywood and not stemwood. Forest industry companies produce their own energy using bark, sawdust and chips, logging residues from thinning's and regeneration fellings. A target has been set to increase the use of forest chips to 13.5 million cubic metres by the year 2020.

Forest Cover, Land Use, Economics and Forest Based Policy

Many Finns have long relied on forests and associated natural resources available to them for their livelihoods. Forest management in Finland is mainly based on the use of native tree species and forests are generally managed quite intensively with practices based on regular thinning's and clear-fellings. As part of forest management, the majority (some 10 million hectares) of Finland's mires have been drained.

Of the total forestry land in Finland, 84% is available for wood supply, i.e. felling is permitted in these areas. The total growing stock volume in Finland has increased since the 1970s, amounting to 2,206 million cubic metres (over bark). Half of the growing stock volume consists of Scots pine (50%), 30% Norwegian Spruce and 20% broadleaves (mainly Birch). The proportion of Pine has gradually increased and that of spruce has decreased. The proportion of growing stock on mires is 23%, and its importance is increasing. Of the growing stock volume, 92% is in forests available for wood supply. The annual increment of the growing stock in Finland is over 100 million cubic metres, of which 97 million cubic metres are in forests available for

wood supply. Removal has continuously remained lower than the volume increment of the growing stock. The difference between increment and removals is largest in Pine.

The number of tree species in Finnish forests is small. The majority of forests in Finland are predominantly coniferous, with broadleaves growing in mixed stands. There are only four coniferous species native to Finland, and fewer than 30 deciduous trees and shrubs.

As in other countries in Western Europe, private individuals and families mainly own forests in Finland. The holdings are quite small. The number of farms with more than two hectares of forest is 345,000. The average size of holdings is 30 ha. There are more forest owners than there are holdings, because spouses often have joint ownership of the holding. The number of people owning forest is estimated to be about 735,000. Of the total forestry land in Finland, 52% is under private family ownership; the state owns 35% and forest industry companies own 8%. The remaining 5% represents forests under municipal, parish, shared or joint ownership. State-owned forests are mainly situated in Northern Finland, and the state also owns most of the nature conservation and wilderness areas. Private forest owners have 64% of the total growing stock volume and 70% of the growing stock in forests available for wood supply.

Protected Areas (see Figure 1 and 2 page 6)

Strictly protected areas cover 5.2% of forest land in Finland (2008). In addition, 0.4% of forest land is protected as areas where restricted forest management is possible. Of the total land area (including low-productive and non-productive lands), 13.7% is strictly protected. Most of the forest conservation areas have been established in Northern Finland, where the State owns a lot of forests, whereas there are clearly fewer conservation areas in Southern Finland, where private ownership dominates. The main flaw in the forest conservation area network is the low rate of conservation in the northern boreal, southern boreal and middle boreal forest vegetation zones, where approximately just 2% of forest land is strictly protected. Nature conservation in Finland is based on statutory conservation programmes specific to habitat types.

Natura 2000 includes 1,860 protected sites in Finland, totalling 4.9 million hectares (of which 3.6 mill. ha is land). According to recommendations, old broad-leaved trees are left standing in the forest in fellings, and decaying trees or other trees that have special biological value are also preserved. About one half of the approximately 43,000 species known in Finland live in forests. Research into forest species, and the interaction between forest management and forest species has increased since the 1990s. The occurrence of threatened species is now monitored regularly. According to a recent survey, there are 1,505 threatened species in Finland, of which 37% are forest species that favour especially herb-rich forests or old-growth forests. The majority of threatened forest species are invertebrates and fungi.

An assessment of threatened habitat types in Finland was first published in 2008. It assessed the status of 400 habitat types and human influence on them. Two-thirds of the 76 habitat types in forests were found to be under threat.

National parks and nature reserves are the backbone of the conservation programmes. These have been complemented with special conservation programmes for mires, herb-rich forests, old-growth forests, wetlands, shoreline areas and esker formations. The smallest sites are protected under separate conservation decisions. The preservation of wilderness areas in Lapland is secured by the Wilderness

Act²⁴.

IUCN and Red List

Finland has formally adopted a Red List classification of species in accordance with criteria from the International Union for Conservation of Nature (IUCN)²⁵. 592 Protected Areas have an IUCN Category.²⁶

A large proportion of the Red List species are found in old-growth forests. Therefore, the risk of feedstock affecting Red List species is inherently low provided logging does not take place in old-growth forests.

Finland, as part of the EU, is party to several international agreements that deal with the protection of threatened species and cover forestry and land management practices. The most important of these are the Convention on Biological Diversity, the Bern Convention, the CITES Convention and the Ramsar Convention.

Estonia

Overview

Primary feedstock that is SBP – compliant is sourced from Estonia by Blue Point Pellets.

Forests cover nearly a half (48.7%) of the Estonian land territory. The general characteristics of forests have remained stable for the last ten years. In 2013, the total forest land was 2.3 million hectares and the total growing stock was 478 million cubic metres. The most common stands were pine (33.1% of the total area of stands); birch (31.3%), spruce (16.2%) and grey alder stands (9.1%).

According to the UN FAO Global Forest Resources Assessment (FRA), Estonia ranks fifth in Europe based on forest coverage after Finland, Sweden, Slovenia and Latvia. Forests provide 35,000 jobs in the forestry sector and many jobs also indirectly (in transport, tourism, sports and other sectors).

Forest Cover, Land Use, Economics and Forest-Based Policy

The Estonian Forestry Development Program until 2020 is the framework document for the development of forestry in the current decade. The principal goals are to safeguard the productivity and viability of forests and ensure the varied and effective use of forests.

Estonia has an annual increment of 5.7m³ per ha a year including broadleaf. There is no difference in the annual increment of state forests to private forests recently^{27 28} reforestation and keeps at least 10% of the

²⁴ Source includes SA-FM/COC Report

²⁵ <http://www.environment.fi/redlist>

²⁶ <http://www.protectedplanet.net/country/FI>

²⁷ http://ec.europa.eu/agriculture/external-studies/2010/supply-wood/estonia_en.pdf

²⁸ <https://knoema.com/GFRADB2015TEF/global-forest-resources-database-2015?tsId=1073520>

forest land under strict protection and to enhance the variety of protected forests.

Biomass for conversion to heat or electricity is not reported as a national statistic. The predominant users of harvested wood in Estonia are sawmills and pulp mills. Companies; Stora Enso (mother company in Sweden), Metsaliitto Eesti (mother company in Finland), Lemeks (Estonian owners) and Holmen Mets (mother company in Sweden) buy nearly 80% of total harvest. Harvesting is carried out with the objective to supply wood for their mills in Estonia and pulp for their pulp mills in Finland and Sweden.

In order to assess the sustainability of forestry, the felling volume is compared against the annual increment. If the felling volume exceeds the increment over a longer period, it is a threat to biodiversity and the sustainability of raw material supply in the forestry sector. On the other hand, a low share of the felling volume in the increment indicates the inefficient use of forest resources. Please see information regarding final fellings in Estonia as supplied to Blue Point Pellets for the primary wood sources in section 2.3.

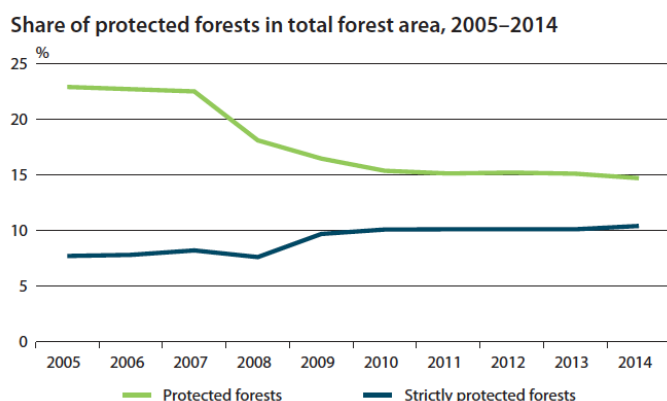
In 2000–2007, the felling volume decreased by about 60% until it reached 5.3 million cubic metres. The felling volume started to increase gradually in 2008 when a total of 5.9 million m³ of forest was felled. In 2010, the felling volume was as high as 8.5 million m³, after which it has decreased again – 7.4 million m³ of forest was felled in 2012. The share of felling in the increment was 44% in 2007, but rose to 60% in 2012. At the same time, the felling estimates made by the Estonian Environment Agency based on felling documentation do not indicate a fall in felling volumes in 2012 – according to the estimates; 9.2 million m³ of forest was felled in 2012 and 9.4 million m³ in 2013. The relatively large share of mature stands in Estonian forests would allow higher felling volumes.

The “Estonian Forestry Development Program until 2010” specified 13.1 million m³ as the optimum forest harvesting level, while the optimum sustainable harvesting level for this decade is 12–15 million m³ per year. Reforestation also has an important part in the establishment of a new forest generation. The total area of reforestation in state forests and private forests (the planned volume based on forest notifications) in 2013 was 10,635 hectares, including planting on 9,779 hectares and sowing on 856 hectares. Works to contribute to natural forest regeneration were carried out on 2,137 hectares. The area of maintenance of young stands has increased as well: the total area of cleaning in state and private forests was 22,251 hectares in 2009, but already 33,146 hectares in 2013.

Protected Areas (see Figure 1. page 6.)

In order to preserve naturally diverse landscapes and habitats, 22% of Estonia’s territory (incl. territorial sea) is under protection. The share of strictly protected forests in the total area of forests was 10% already in 2010, but further efforts are required to ensure that a variety of forests are represented among the strictly protected areas. This is represented in Figure 7.

Figure 7. Share of Protected Forests.



As at 31 December 2014, Estonia has 5 national parks, 148 nature conservation areas, 152 landscape conservation areas, 96 areas protected under old protection regulations, 538 parks and forest stands, 343 special conservation areas, 1,357 species protection sites, 20 natural objects protected at the local government level and 1,228 separate protected natural objects.

Total Natura 2000 areas are 11,320 km² in Estonia. 66 Special Protection Areas (SPA) under the Birds Directive (2009/147EC), totalling 12,590 km². Habitats Directive (92/43/EC) proposed and Sites of Community Importance total 11,320 km², both areas include private forest and state forest (866km² and 3,539 Km² respectively). Under Natura 2000 and Estonia's Nature Conservation Act 2013²⁹ Estonia has 5 national parks, 148 nature conservation areas, 152 landscape conservation areas, 96 areas protected under old protection regulations, 538 parks and forest stands, 343 special conservation areas, 1,357 species protection sites, 20 natural objects protected at the local government level and 1,228 separate protected natural objects.

Final Fellings in Estonia

There are no national statistics nor information on final fellings in Estonia. However, clear cutting is reported in Estimation of Estonian Wood Resources (2009 Baltic Forestry, 15 (1) 77-85; clear cutting (CC) that are final fellings are estimated below.

²⁹ <https://www.riigiteataja.ee/en/eli/508112013010/consolide>

Table 5. Long-term average annual yield of forests regarding restrictions, Mm³ (TH – thinning, CC – clear cut)

Tree species	Felling system	Merchant-able wood	Fire-wood	Total	Harvest-ing residues	Stumps
Conife-rous	TH	1.463	0.011	1.474	0.318	0.480
	CC	3.090	0.180	3.271	0.393	
Deci-duous	TH	1.085	0.302	1.387	0.495	0.298
	CC	1.805	0.470	2.274	0.298	
Total		7.443	0.963	8.406	1.504	0.778

IUCN and Red List

Estonia has formally adopted a Red List classification of species in accordance with criteria from the International Union for Conservation of Nature (IUCN)³⁰. In addition, 568 protected plant, animal, fungal, and lichen species have been included in the National Red List of Threatened Species. 2,228 Protected Areas have an IUCN Category. IUCN has defined a series of six protected area management categories, based on primary management objectives³¹.

Forests as a habitat, has a high proportion of respective numbers of endangered species. Forest activities are regarded as a threat to endangered species³².

Denmark

Overview

Primary feedstock sourced from a SBP certified supplier is sourced by Blue Point Pellets.

Danish forests comprise state-owned forests, managed by the Nature Agency's local units, as well as many privately owned forests and woodlands³³.

There are officially 608,078 ha of forest in Denmark, corresponding to 14.1% of the land area. The total area of Denmark is 4,239,400 ha. The total forest land is 534,500 ha with 200,000 ha owned by the state. Forests are unevenly spread, with much forest along the high ridge of Jutland, in northern Zealand and on Bornholm. There is a lot of smaller forestland near large towns and cities.

Norway spruce grow on 19% of the forest land and it is the most common tree species in Denmark and overall, conifers are the most common trees comprising over 50% in some areas.

Conifers have been very successful in Denmark because they are hardy and thrive on heath and dune areas, and because they grow quickly and therefore they have been more profitable for forest owners than deciduous trees. This is one reason why there are most conifers in Jutland. Conifers take up 50% of the total

³⁰ <http://www.nationalredlist.org/red-data-book-of-estonia/>

³¹ <http://www.protectedplanet.net/country/EE>

³² https://cmsdata.iucn.org/downloads/estonia_s_biodiversity_at_risk_fact_sheet_may_2013.pdf

³³ <http://eng.naturstyrelsen.dk/nature-protection/forestry/>

forest land, while deciduous trees account for 46.4%, beech (*Fagus sylvatica*) constituting a large proportion of deciduous in Denmark. (The remaining area is bare or a specific tree species has not been identified on the area.

Most species of deciduous tree, such as oak and beech, are indigenous to Denmark, while conifers have been imported over the past 200-300 years. For example, the most common tree species in Denmark is the Norway spruce, imported from other European countries like Sweden and Germany, while other species such as Sitka spruce and Douglas fir have been imported from North America.

Forest Cover, Land Use, Economics and Forest-Based Policy

Denmark also has a high percentage of forest land (around 65%) that is owned by private persons. The private persons and citizens who own forest land in Denmark are often farmers, who also happen to be forest owners. In instances such as theirs, it is likely that the family has owned the forest land for generations.

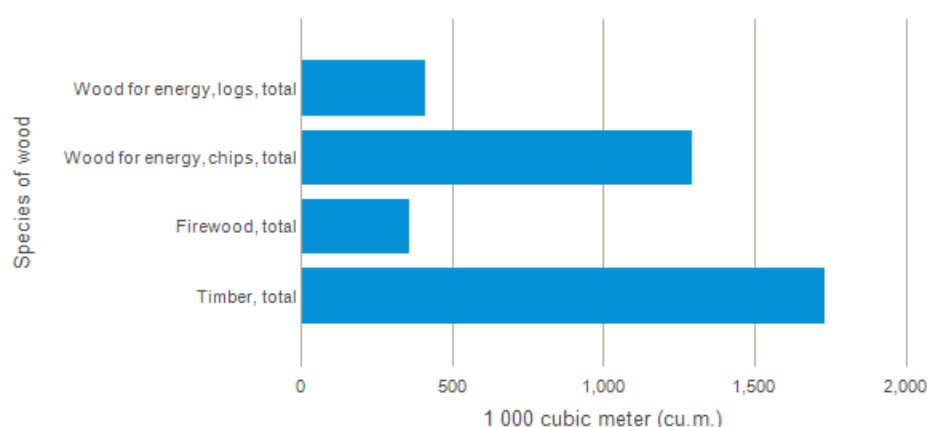
Danish family forestry has been under considerable pressure in recent years, with the economic sustainability of forestry being brought into question and concerns within the biomass industry which has lead to the Danish Industry Energy Agreement – a voluntary agreement for generation stations to adhere to that are > 20MWe.

Commercial harvesting (not final fellings) and wood biomass use indicates a significant proportion and there is not a sawmill or pulp-based forestry sector in Denmark, see Figure 6 below. However, Denmark uses far more wood than it produces. Each year around 4.3 million m³ are felled, but despite this the amount of timber in Danish forests is growing by an annual net 2.4 million m³.

Figure 8. Final Felling in Denmark

Felling in forest and plantation in Denmark

Region: All Denmark | Time: 2014



Wood for energy chips total for all of Denmark according to national statistics was 1,295,000 m³ in 2014 and 412,000 m³ for logs for energy use out of a total 1,732,000 m³ harvested in 2014³⁴.

Denmark uses far more wood than it produces. Each year around 4.3 million m³ are felled, but despite this

³⁴ <http://www.statbank.dk/10477>

the amount of timber in Danish forests is growing by an annual net 2.4 million m³.

Protected Areas (see Figure 1. page 6).

Denmark has a national plan for species management, nature protection and enhancement of biodiversity.

International nature protection in Denmark includes 252 Natura 2000 areas, 261 Sites of Community Importance and 113 Special Protection Areas covering 8,3 %. Also, 27 wetland areas have been designated as Ramsar sites. Overall this represents 18% of land area that is protected in Denmark³⁵. 1,714 have an IUCN Category. A total of 252 Natura 2000 sites have been designated in Denmark.

Russia (primary processor supplying SBP compliant and SBP controlled feedstock)

Overview

SBP-compliant secondary feedstock from primary processor in Kaliningrad is sourced by Blue Point Pellets.

Rotation periods in the Russian forestry are long, and half of the forests are mature or over-mature by their development class.

In Russia, forests are classified into three groups according to their designated function: production, protective and reserve forests. In Northwest Russia, almost 70% of the forests are mainly targeted for wood production, and 30% are classified as protective forests with some restrictions to use. The predominant forest-based industry is wood processing and the manufacturing of wood products, chips and residues is a significant proportion of that. Secondly the paper and pulp industry forms the next biggest industry using wood³⁶. The inference is, at present, conversion of fuel-grade wood, or energywood, is not a significant proportion harvesting and industry.

The main tree species in Northwest Russia and Kaliningrad are 43% Spruce, Birch 20%, Pine 30%, Aspen 5% and other 2%³⁷.

Forest Cover, Land Use, Economics and Forest Based Policy

Scientifically grounded Annual Allowable Cut (AAC) defines reasonable volumes of final fellings in mature and over mature stands. At present, AAC in Russia is over 500 million m³, including 300 mill. m³ of the coniferous species. Despite the fact that there is a pattern of increasing harvesting volumes, only 20% of AAC has been actually harvested³⁸

The annual increment is not reported as figure of Kaliningrad or other regions as a national statistic but only as The Russia Federation – approximately 1m³ /ha.

³⁵ <http://www.protectedplanet.net>

³⁶ <http://exportera.eu/local-authorities/kaliningrad/business/the-reconstruction-of-athletics-sports-complex-kaukysos-str-2/the-reconstruction-of-athletics-sports-complex-kaukysos-str-2/>

³⁷ http://conifernet.org/wp-content/uploads/2014/12/CONIFER_forestry.pdf

³⁸ National Report of the Russian Federation for the 6th meeting of the UNECE/FAO Team of Specialists 2004

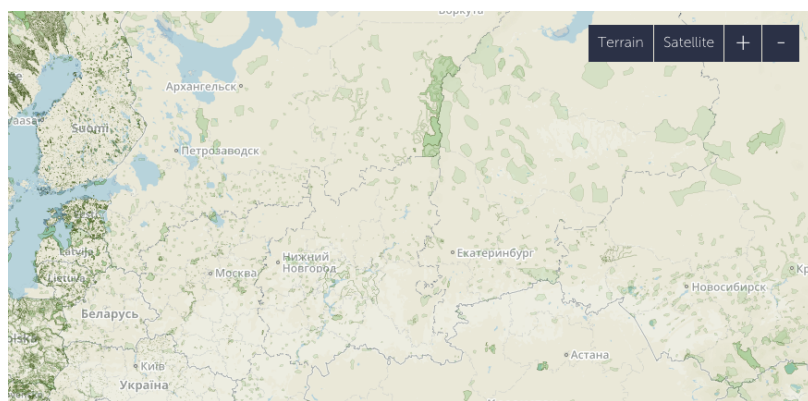
The main authority in the Russian forestry is the Ministry of Natural Resources and Ecology and its subordinate, the Federal Forestry Agency. The Federal Forestry Service controls 94% of the total of Russian Federation Forests and is representative figure for Kaliningrad and [to add]. Powers related to forest management, protection and use are delegated to the regions such including Kaliningrad while the authority of the federal bodies focus mainly on policymaking, governance of forest relations by laws and regulations, and on some specific issues, such as forest inventory.

The main authority in the Russian forestry is the Ministry of Natural Resources and Ecology and its subordinate, the Federal Forestry Agency. At the regional level the highest forest authority is a part of the regional administrative structure – a ministry, department, committee, etc. The elementary units of the forest administration at the local level are forest districts and forest parks. The regional forest authorities are responsible for allocation of forest use rights.

State forests can be obtained for wood harvesting, recreation or other use primarily through 10–49 years lease contracts that can be concluded as a result of public auction. Rights for short-term use are granted by a sale/purchase contract of forest stand. Forest users pay a lease charge or payment for sale/purchase contract for the state.

The major principles of forest management are defined in the Forest Code of the Russian Federation (1997), in the Constitution of the Russian Federation (1993), and in the number of other legal documents. In adopting the Forest Code of the Russian Federation in 1997 the responsibilities of the Russian Federation arising from its participation in the Convention on Biological Diversity were taken into account, for instance article 50 of the Forest Code of the Russian Federation provides that the principles of state management in the field of use, protection, safety of the forest fund and forests reproduction include sustainable development, as well as sound, continued and non-depleting use of the forest fund for the benefit of the Russian Federation and the entities of the Russian Federation. Other articles of the Forest Code of the Russian Federation contain norms that ensure sound, continued and non-depleting use of the forest fund, its protection from fires, illegal cuttings and other violations of the forest legislation, protection from pests and diseases, i.e. norms aimed at preserving the ecological capacity of forest ecosystems.

Protected Areas W & NW Russia



Russia as whole has 11,244 protected areas representing 11% of land area. 2,930 Protected Areas have an IUCN Category. IUCN has defined a series of six protected area management categories, based on primary management objectives.

This requires all feedstock at a minimum to FSC Mix Credit from a certified supplier as an SBP Approved Chain of Custody system in order to be included in the Supply Base Report and sourcing of Blue Point Pellets.

Classification of IUCN species

Russia developed a Red Data Book and IUCN classification. The legislative base for the RDBRF is provided by the Law of the Russian Federation “About protection of natural environment” of December 19, 1991, and by the Law of the Russian Federation “About animal world” of May 5, 1995. Nature protected areas in Russia are considered to be the key components in the process of biodiversity conservation. Forest land of nature reserves is growing, demonstrating a good and stable trend. They currently constitute 7% of the land area covered with forest vegetation. The following categories: forests of the special protective value, forests of nature reserves, and Group I forests, constitute 23% of the total forest land of Russia. The low level of fragmentation is characteristic for the most areas of coniferous and mixed forests as they are areas and relatively homogenous. This factor is regarded as favourable to contributing to the conservation of the various forest dependent species.

Latvia (primary processor potential to future supply of SBP compliant and SBP controlled feedstock)

Overview

The length of Latvia's state border is 1840 km in total. The length of the country's sea border is 490 km, while 1350 km of the state border extends in land. Latvia borders on four countries: to the north - with Estonia (343 km), to the east - with Russia (276 km), to the south-east - with Belarus (161 km) and to the south with Lithuania (576 km). Latvia has a territorial area of 64 600 km². See map in Figure 1. The nature conditions in Latvia are determined by its geographical position, the western part of the Eastern European plateau. An important nature diversity factor is the country location, which is a moderate climate zone of mixed forests. The country is located between the boreal forest zone and the temperate broadleaf forest zone, which is characterised by a rich biological diversity, in which the traits of both boreal forest and broadleaf forest nature zones can be observed.

The dominant tree species in Latvia are Pine (Scots pine), Birch (Silver birch, Downy birch) and Spruce (Norway spruce). Grey alder, Common aspen and Black alder also cover significant areas of the country. The remaining tree species found in Latvia grows in relatively small areas.

Forest Cover, Land Use, Economics and Forest Based Policy

Forests in Latvia occupy 3,020,575 ha or 50% of the total land area. Compared with other European countries, Latvia is among the most forest-rich countries (forests in Europe occupy 33% of the land area on average). The State owned forests in Latvia occupy 1,495,136 ha (49.5% of the total forest area) while private forest cover an area of 1,525,439 ha (50.5% of the total forest areas). State forests are managed by the State enterprise AS Latvijas Valsts Meži (LVM). According to the statistics, the total forest area in Latvia is increasing.

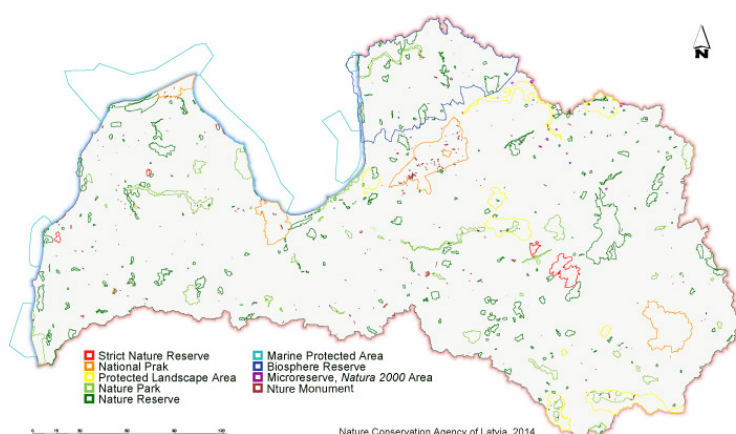
There are 144 thousand private forest owners (physical persons) who own 35% of the forest area. 14% forests are owned by legal entities, 49% in total. The rest is owned by the state (49%) and municipalities (2%)³⁹

The forest industry accounts for around 20% of the Latvian industry added value. The industry employs approximately 5% of the total labour force in the country. Around 70-80% of the products are exported, thus influencing the Latvian foreign trade balance in a positive way.

In Latvia all forests are managed sustainably. The Latvian forest policy identifies one general goal: the sustainable management of forests. The main criteria are as follows: prevention of reduction of forest area, protection and improvement of the productivity and value of forest; afforestation of non-agricultural and other lands. Besides, forests of Latvia comply with the sustainable forest management criteria set out in FRA 2010 guidelines. In Latvia all state forests are certified. In private forests the certification process still continues. All forests where forestry activities take place have a longterm forest inventory for short-term planning of economic activity. Laws and regulations strictly set out Forest management requirements. The supervision is carried out by State Forest service. Protected territories have secure boundaries and management requirements laid down by laws and regulations⁴⁰

State forests are FSC/PEFC certified. In addition to the state forest enterprise, 6 private forest managers are managing forests in accordance with the FSC standard requirements. The FSC certified area in the country amounts to a total of 1,743,157 ha, including 248,021 ha of private forest land. 210 FSC Chain of Custody certificates are in operation in the country. A total of 1,683,641 ha forests are PEFC certified. 29 companies are certified according to the PEFC Chain of Custody certification scheme. The figures above are correct as of April 2015.

Protected Areas



Altogether in Latvia there are 683 specially protected nature areas certified by law or regulations of the Cabinet of Ministers On Specially Protected Nature Territories. There is information given below about all specially protected nature areas that are found in the particular administrative territory:

³⁹ SBP-RRR-Latvia

⁴⁰ <http://www.fao.org/docrep/013/al548E/al548e.pdf>

4 Strict Nature Reserves: strict nature reserves are territories untouched by human activities or nearly natural, in which territories unhindered development of natural processes shall be ensured in order to protect and study rare or typical ecosystems and parts thereof. Strict nature reserves shall have zones in which all natural resources are completely excluded from economic and other activities. 1 Biosphere reserve are broad territory in which landscapes and ecosystems of international significance are located. The goal of establishing biosphere reserves is to ensure the preservation of natural diversity and to promote sustainable social and economic development of the territory. 9 Protected Landscape Areas are territories remarkable for original and diverse landscapes and special beauty. The goals of such territories are to protect and preserve the cultural environment and landscapes characteristic of Latvia in all their diversity, as well as to ensure the preservation of environment appropriate for recreation of society and for tourism, and use of environment friendly management methods. 261 Nature reserves are nature territories little transformed or transformed in varying degrees by human activities, which territories include habitats of specially protected wild plant and animal species, and specially protected biotopes. 4 National parks are broad areas which are characterised by outstanding nature formations of national significance, landscapes and cultural heritage landscapes untouched by human activities or nearly natural, a diversity of biotopes, abundance of cultural and historical monuments, and peculiarities of cultural environment.

IUCN species

352 Protected Areas have an IUCN Category. IUCN has defined a series of six protected area management categories, based on primary management objectives. Species that are considered threatened at the European level and occur in Latvia are found mostly in wetlands, forests and grasslands. Habitat loss, fragmentation and degradation are the most significant threats at the European level to species that occur in Latvia. For freshwater species, major threats include water pollution caused by agricultural and forestry effluents, natural systems modifications and agricultural expansion and intensification. Other major threats come from logging and wood harvesting and urban and touristic development.

All EU States

All EU countries and Norway included in the Supply Base Report has ratified the Convention of Biodiversity 1992 and is party to several international agreements that deal with the protection of threatened species and cover forestry and land management practices. The most important of these are the Convention on Biological Diversity, the Bern Convention, the CITES Convention and the Ramsar Convention.

All EU states have committed to halting biodiversity loss by 2020 but urgent action is needed to meet this target and better monitoring capacity is required to measure if the target is met.

Lithuania (primary processor potential future supply of SBP compliant and SBP controlled feedstock)

Overview

According to the data of the 1 January 2013, state forest enterprises managed 1 059,2 thousand hectares of

forests of state importance. The average area of the forests of state importance of a forest enterprise is 25,2 thousand ha. Forest enterprises are divided into 348 forest districts, the average area of the forests of state importance in a forest district totals 3043 ha.

Forest Cover, Land Use, Economics and Forest Based Policy

Lithuania is regarded has have well-protected and managed forests, potentially some of the best managed forests in Europe. In 2012, scientists from Yale University (USA) announced the annual Environmental Performance Index and Lithuania was recognised as the country that protects forests best in the world (according to the forest protection assessment).⁴¹

The Directorate General of State Forests under the Ministry of Environment performs functions of the institution implementing the rights and duties of the owner of 42 state forest enterprises. It co-ordinates and organises regeneration, maintenance, protection of state forests assigned to state forest enterprises and the exploitation of forest resources, establishes mandatory quotas for forest regeneration, protection and management to forest enterprises, organises a uniform state fire prevention and sanitary forest protection system.

During the recent decade forest coverage of the country increased from 30.9 per cent to 33.2 per cent, the volume of mature stands increased from 73,7 million to 94,6 million cubic metres. In the course of ten years the area of the state forests increased by as many as 63 thousand ha, or by 6 per cent, and the volume of stands increased by 25 million cubic metres. During the recent ten years the average volume of wood per hectare has increased by 13 cubic metres and at the present time amounts to 237 cubic metres per hectare, and the total accumulated volume of the stands in all forests has increased by 38 million cubic metres since 2001; the total annual growth in the volume of wood has increased from 16,1 million to 16,6 million cubic metres.

Forestry and business involved directly with forestry are significant contributor to the Lithuanian Economy. The ratio of all taxes to the income earned accounted for 42 % (the highest per cent in Europe).

Biofuels have been identified as source of great potential by LITBIOMA – the Lithuania Biomass Association. Targets have been proposed to increase the utilisation of biofuel from grey alder logging, young forest stands, plantation opportunities and potential stump wood. None of the targets have been agreed by national bodies in Lithuania.

Certification of the state forests in Lithuania is done according to the strictest certification in the world – the FSC (Forest Stewardship Council) certificate.

Protected Areas (Figure 2, page 6.)

Lithuania has its very own system of protected areas, and long-standing traditions of the protection of natural

⁴¹ http://www.gmu.lt/lithuanian_state_forests/

and cultural heritage. Protected areas are established not only for the protection of natural and cultural values, but also for their adaptation to allow public use and access, be it for educational, recreational or other purposes.

Lithuania has very old traditions to conserve sacred forests, trees, stones, springs, etc. But the system of Lithuania's protected areas has been developed for over three decades, and now 67 years have passed since the first protected area was established. Today, protected areas in Lithuania cover 15 % of the total area (excluding marine protected areas). Lithuania's complete system of protected areas consists of 5 strict reserves (two of which are cultural), around 400 reserves of different types (landscape, geomorphological, hydrographical, botanical, zoological, etc.), 5 national parks (one being historic), 30 regional parks (one also historic), 1 biosphere reserve, 30 biosphere polygons, 3 recuperative plots and many natural and cultural heritage objects.

Natura 2000 network covers about 13 % of the total country territory. Lithuania has four properties of outstanding universal value that have been inscribed on the UNESCO World Heritage List. For example Curonian Spit, which is an outstanding example of a landscape of sand dunes that is under constant threat from natural forces like wind and tide. In 2011, Žuvintas Biosphere Reserve became first Lithuanian area included in the UNESCO World Network of Biosphere Reserves. Seven larger scale protected areas are members within the Ramsar Convention on wetlands conservation.

The largest part of the nature conservation system includes national and regional parks. Those have been established in areas that are from a natural, cultural and recreational aspect vulnerable and especially valuable.

The State Service for Protected Areas – Valstybinė saugomų teritorijų tarnyba – under the Ministry of Environment is the main body implementing state policy on protected areas, including Natura 2000 areas, and directly responsible for the conservation of natural values, landscape and biological diversity, set-up and maintenance of visitor centers' and fulfilling educational activities. At present, all strict reserves, national and regional parks and biosphere reserve have been assigned with administrations, which activities are coordinated by the State Service for Protected Areas.

Classification of IUCN species

Lithuania hosts a large proportion of the species that are threatened at the European level, and has the important responsibility for protecting these species within its territory. Species in Lithuania require greater action to improve their status. While many species already receive some conservation attention, others do not. Species can be saved from extinction but this requires a combination of sound research and carefully coordinated efforts. Lithuania as an EU Member State has committed to halting biodiversity loss by 2020 but urgent action is needed to meet this target and better monitoring capacity is required to measure if the target is met.

Lithuania is host to an estimated 30,000 species of animals and plants. This number represents 19% of the total species described for Europe and could represent more than 2% of the species in the world. According

to the table below, approximately 13% of the species assessed by the European Red List of Species are present in Lithuania.

Despite national forests being FSC certified, habitat loss, fragmentation and degradation are the most significant threats at the European level to species that occur in Lithuania. For freshwater species, major threats include pollution due to agricultural and forestry effluents, abstraction of water from underground or from the streams. Other major threats come from logging and wood harvesting and residential and commercial development.

Poland (primary processor potential future supply of SBP compliant and SBP controlled feedstock)

Overview

Forests cover 8.6 million ha, almost 28% of Poland, and are dominated by coniferous stands of mainly Scots pine (*Pinus sylvestris*). The contribution of forestry to the Gross Domestic Product (GDP) is rather low (0.4%), but this does not include the value of the environmental and socio-economic contributions of forests. In 1993, the per capita forest area in Poland was 0.226 ha. The average standing timber volume is 172 cbm/ha.

Presently, only about 61% of the forest increment is harvested.

Forest Cover, Land Use, Economics and Forest Based Policy

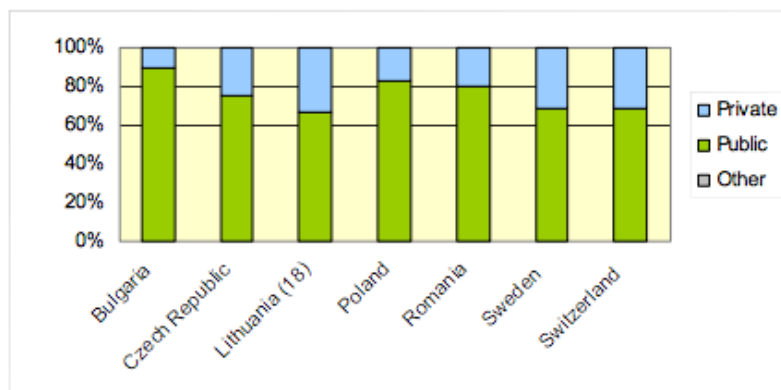
Public forests, comprising over 80% of the total, dominate the Polish landscape, which is relatively unusual in this part of Europe. With the change of the political system in 1989 came attempts to privatize public forests, but such initiatives were not accepted by society. Private forests, at slightly above 18% of the total, are highly fragmented – the average private forest area is just over one hectare – and not a significant factor in the Polish forest sector. Hence, not much research is available on private forests.

Changes in forest ownership in Poland were mainly due to afforestation, which increased the area of private forests. But no studies have been conducted on new or nontraditional forest owners.

Ownership of Forests in Poland: Figure

The State Forests, which manage over 77% of forests in Poland

Figure 2.1.5. Countries with predominance of public ownership of forest and other wooded land¹⁸ (percentage)



Since 1990 the amount of timber supplied to the market has more than doubled, to 36 million m³, with no detriment to the forests partly attributable to relatively strong legislation though this has been under criticism with plans to allow logging in primeval forest in Poland. With regards to forest legislation, The Forestry Act passed by the Parliament in 1991 provided recognition that the environmental and social role of forests is equally important as that of a provider of raw material for the industry. 1997 amendments to the Act further supported and elaborated on the Act's intent to protect the environment. The intent was expressed, among other things, in a description of the scope of forest management as being not only the forest stand but also the entire forest ecosystem. In addition, a section on environmental protection was added to the forest management plan.

Poland is not threatened by deforestation in the same way as in many other countries. Forests currently account for 29% of the total area (approx. 9 m hectares). An increase in the forested areas of the country has been planned. Afforestation works in Poland are the responsibility of the National Afforestation Programme, whose main aim, in conformity with the aims of the National Policy on Forests, is to increase the forested areas of Poland to 30 % by 2020 and 33 % by 2050⁴².

Protected Areas

In 1993, protected forests constituted 47% of the total state forest area. There were 20 national parks, 100 natural reserves, 100 landscape parks and 263 protected landscape areas forming an impressive network of protected forest areas

⁴² <http://iucn.org/about/union/secretariat/offices/europe/?12794>

Belarus (primary processor potential future supply of SBP compliant and SBP controlled feedstock)

Overview

During the last 60 years the percentage of forest land has almost doubled in Belarus and is increasing at the moment. Total area of the forest fund in Belarus is more than 9.4 million ha, percentage of forest land makes 39%. The stock of growing wood is estimated at 1.6 billion m³. Annual wood increment makes 31.4 million m³. The republic has 0.86 ha of forest covered land and 170 cubic meter of wood stock per inhabitant what is twice more than the average European rate.

Furthermore there is observed the steady enlargement of the areas with the maturing, mature and overmature forest stands. During the twenty-year period the area of mature forest stands increased more than twice.

As a result of the planned regulation of the wood cutting volumes firstly of the final felling the total stock of forest stands has increased by a factor 1.6, the stock of mature stands made 197 million m³. In 1989 the share of mature forests made only 2.3% nowadays it is already 11%.

Forest Cover, Land Use, Economics and Forest Based Policy

The forestry organizations of the Ministry of Forestry are actively engaged in the wood sawing. At present in the branch there function 71 saw-mills. 2012 they processed 1.79 million m³ of wood (122.5% comparing to 2011), produced 539.5 thousand m³ of sawn timber. The share of produced dried materials increased by 51.5%.

The products of the saw-mills are well sold in the home market and abroad. 24 projects to increase effectiveness of the woodworking shops were realized. Since 2007 the organizations of the Ministry of Forestry started producing of the different kinds of wood fuel. Altogether 2007-2011 there were created 41 facilities for production of the wood fuel chips with the total capacity 943 thousand m³ annually. By the end of 2015 70 such facilities will function in the branch. They could produce 1,5 million m³ of the wood fuel chips annually.

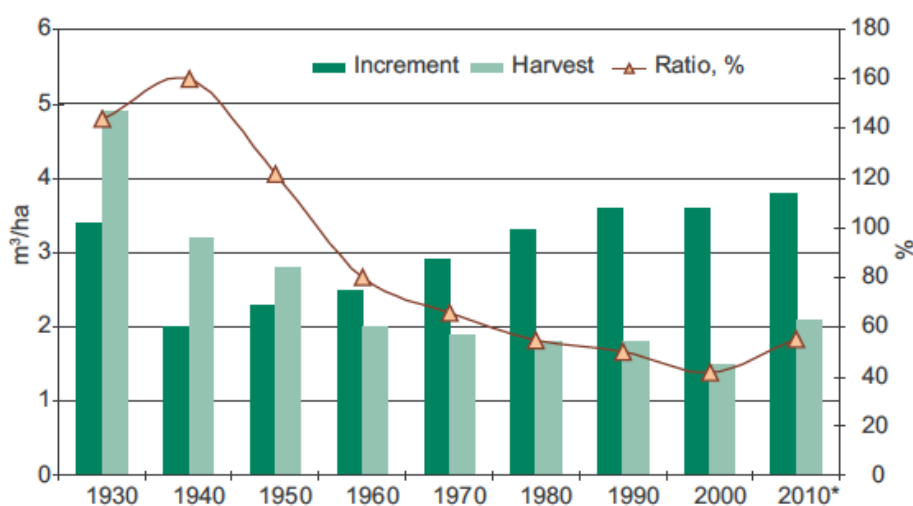
During 2012 forestry enterprises stored up 4,7 million m³ wood fuel (firewood and waste wood). At present the organizations of the Ministry of Forestry take part in realization of 6 innovation projects in the field of power engineering. Forestry institutions supply Pinsk and Pruzhany heat stations, BelGRES, Vileyka, Zhodino and Osipovich mini heat stations with wood fuel. in the forestry enterprises of the branch in 2012.

Production of wood chips has been developed in 27 forestry enterprises with a total capacity of 398 000 m³ per year. In Belarus, there is a new system of renewable energy based on energy wood was created including domestic machinery and equipment and the organization of production. Currently, attention is focused on reducing the production cost of energy wood and increasing its competitiveness relative to fossil fuels by developing the most effective systems of machines and optimizing the location of warehouses and logistic solutions for the fuel delivery.

The main source of energy wood in Belarus is wood from harvestings (85% of the total energy wood); the rest is from wood processing industry by-products. The output of energy wood from final fellings is 27–32%, from thinnings 53–55%, and from other fellings 58–60% (Belstat 2010, Forestry Programme 2006). Of the energy wood potential, 7.8 million m³ per year is stem wood and at least 0.5 million m³ per year is logging residues.

Final Felling in Belarus

The allowable cut for final fellings is about 8.9 million m³ per year this represents approximately 50% of the annual volume to be harvested is set on the basis of proposals by the Ministry of Forestry according to forest management plans. The current justified allowable harvesting volume in Belarus is about 16.3 million m³ per year of which 81–96% is utilized. Annual actual harvesting volume is approximately 14 million m³. The total annual harvest has been quite stable over the last years (Fig. 3.3).



Protected Areas

Terrestrial protected areas (9% of total land area) in Belarus. Total areas protected is 207,228 ha. The most important area is around the Polish / Belarus border forming a corridor around the Bialowieza National Park. This is a crucially important area and primary forest.

There are numerous large mammals on the IUCN Red List in Belarus including the wolf (*Canis lupus*).

General Point – Protected Species; EU States

All EU countries and Norway included in the Supply Base Report has ratified the Convention of Biodiversity 1992 and is party to several international agreements that deal with the protection of threatened species and cover forestry and land management practices. The most important of these are the Convention on Biological Diversity, the Bern Convention, the CITES Convention and the Ramsar Convention.

2.2 Actions taken to promote certification amongst feedstock supplier

All suppliers are now PEFC or FSC certified and managed in accordance with Blue Point Pellets FSC and PEFC chain of custody certification.

Blue Point Pellet has promoted certification amongst two suppliers and stated the requirement for FSC certified or FSC Controlled Wood as minimum. As a result, all current suppliers at the time of writing have certification.

2.3 Final harvest sampling programme

The suppliers of energywood from Estonia include feedstock from final fellings > 40 years old. No process for sampling is undertaken as national statistics are used as an indicator. Final fellings as an average are 20% of harvested wood volume⁴³. The age distribution of stands of forests in Estonia where they are > 40 years old is 67.1%. As a maximum average this represents 13.4% of the wood delivered from the supplier where wood is from final fellings that are > 40 years old.

2.4 Flow diagram of feedstock inputs showing feedstock type [optional]

Not required as at present there are limited suppliers and complexity of feedstock.

2.5 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (ha): Predominately conifer with 77 million ha of productive forest respectively (Norway 7.2m ha, Sweden 23.3m ha, Finland 20.3m ha, Estonia 2.2m ha, Denmark 0.48m ha, Kalliningrad 3.06 m ha and Lithuania 1.39 m ha, Belarus 8.01 m ha⁴⁴, Latvia 2.9m ha, Poland 8.6 m ha).
- b. Tenure by type (ha):
 - Private ownership
 - Norway 80% - 5.76 m ha
 - Finland 52% - 10.56 m ha
 - Sweden 30% - 6.00 m ha
 - Estonia 26% - 0.57 m ha
 - Denmark 65% - 0.31 m ha
 - Latvia 50% - 1.1 m ha
 - Lithuania 35% - 0.49 m ha
 - Poland 19% - 1.62 m ha
 - Belarus 0% & Kaliningrad 0% (management rights are held privately).
 - Public ownership
 - Norway 20% - 1.44 m ha
 - Sweden 70% - 17.3 m ha
 - Finland 48% - 9.74 m ha
 - Estonia 74% - 0.15 m ha
 - Denmark 35% - 0.17 m ha

⁴³ <http://www.fao.org/docrep/003/x8876e/x8876e10.htm>

⁴⁴ <http://www.fao.org/forestry/20279-0a62f0bab028fe4b16efaa7a664aad69.pdf>

- Latvia 50% - 1.1 m ha
- Lithuania 65% - 0.48 m ha
- Poland 81% - 6.97 m ha
- Belarus 8.01 m ha
- Kalliningrad 3.06 m ha
- c. Forest by type (ha): boreal and coniferous dominant culminated total in supply base (100%) 77 m ha.
- d. Forest by management type (ha):
Managed natural (100%) 77 m ha
- e. Certified forest by scheme (ha) as below:

FSC <https://ic.fsc.org/en/facts-figures>

Norway: 52 Chain of Custody certificates. 417,900 (ha) certified
Sweden: 331 Chain of Custody certificates. 12,216,619 (ha) certified
Finland: 109 Chain of Custody certificates. 1,233,604 (ha) certified
Estonia: 231 Chain of Custody certificates. 1,264,380 (ha) certified
Denmark: 258 Chain of Custody certificates. 212,161 (ha) certified
Lithuania: 257 Chain of Custody certificates. 1,083,534 (ha) certified
Belarus: 87 Chain of Custody certificates. 7,854,544 (ha) certified
Latvia: 281 Chain of Custody certificates. 1,699,406 (ha) certified
Poland: 1369 Chain of Custody certificates. 6,939,090 (ha) certified
Kalliningrad: No specific data.

PEFC <https://www.scribd.com/doc/147379606/PEFC-Global-Certificates>

Norway: 64 Chain of Custody certificates. 9,142,702 (ha) certified
Sweden: 212 Chain of Custody certificates. 11,354,853 (ha) certified
Finland: 214 Chain of Custody certificates. 17,582,892 (ha) certified
Estonia: 47 Chain of Custody certificates. 1,028,712 (ha) certified
Denmark: 87 Chain of Custody certificates. 257,391 (ha) certified
Lithuania: 8 Chain of Custody certificates. 0 (ha) certified
Belarus: 33 Chain of Custody certificates. 8,926,155 (ha) certified
Latvia: 42 Chain of Custody certificates. 1,683,604 (ha) certified
Poland: 164 Chain of Custody certificates. 7,277,704 (ha) certified
Kalliningrad: No specific data.

Feedstock

- f. Total volume feedstock volume is in band 1.
- g. 30% primary feedstock is in band 1.
- h. List percentage of primary feedstock
 - 20% from large forest holdings certified to an SBP-approved Forest Management Scheme
 - 10% from large forest holdings not certified to an SBP-approved Forest Management Scheme
- i. Conifers dominant⁴⁵ - Norwegian spruce and conifer: *Picea abies*, Pine *Pinus sylvestris*. Poplar *Populus spp*, *Populus tremula*. Limited fuel grade deciduous Alder *Alnus glutinosa*, Birch *Betula spp*,
- j. 0 Volume of primary feedstock from primary forest.
- k. 0% from primary feedstock from primary forest.

⁴⁵ <http://www.nibio.no/en/topics/national-forest-inventory>

- l. Band 1. Approximately 35% from secondary feedstock. Chips from processing roundwood into planks.
- m. Band 1. 35% tertiary feedstock. Sawdust from sawmilling of planks

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
☐	X

Not applicable as feedstock are from SBP Approved Chain of Custody Scheme and certified suppliers.

4 Supply Base Evaluation

Not applicable as feedstock are from SBP Approved Chain of Custody Scheme and certified suppliers

4.1 Scope

Not applicable

4.2 Justification

Not applicable

4.3 Results of Risk Assessment

Not applicable

4.4 Results of Supplier Verification Programme

Not applicable

4.5 Conclusion

Not applicable

5 Supply Base Evaluation Process

Not applicable as feedstock are from SBP Approved Chain of Custody Scheme and certified suppliers.

6 Stakeholder Consultation

As the feedstock is from SBP Approved Chain of Custody Schemes and suppliers and feedstock type is limited, no responses were made in regards of the SBP certification process stakeholder consultation, it was concluded that a stakeholder consultation is not necessary for this Supply Base Evaluation.

6.1 Response to stakeholder comments

Not applicable

7 Overview of Initial Assessment of Risk

Not applicable as feedstock are from SBP approved Chain of Custody Scheme

8 Supplier Verification Programme

Not applicable as feedstock are from SBP approved Chain of Custody Scheme.

8.1 Description of the Supplier Verification Programme

Not applicable

8.2 Site visits

Not applicable

8.3 Conclusions from the Supplier Verification Programme

Not applicable

9 Mitigation Measures

Not applicable as feedstock are from SBP approved Chain of Custody Scheme.

9.1 Mitigation measures

Not applicable

9.2 Monitoring and outcomes

Not applicable

10 Detailed Findings for Indicators

Not applicable as feedstock are from SBP approved Chain of Custody Scheme.

11 Review of Report

11.1 Peer review

Reviewed 19.09.2016 by Maciek Stefanski LLB European Legal Studies and independent industry professional (Guildford, United Kingdom). Former Head of Downstream for clean energy at Gazprom Marketing and Trading. Business development and acquisitions manager roles including supplier and fibre assessments in addition to fuel procurement for a major utility.

Maciek Stefanski accepts no responsibility or liability for the accuracy of the information included in the report.

11.2 Public or additional reviews

No public reviews.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Robin Askey</i>	<i>Director, EnviroSense</i>	<i>20.05. 2016</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	<i>John Allen</i>	<i>Manager</i>	<i>01.08.16</i>
	Name	Title	Date
Report approved by:		<i>[title]</i>	<i>[date]</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date

13 Updates

Not applicable.

13.1 Significant changes in the Supply Base

Not applicable.

13.2 Effectiveness of previous mitigation measures

Not applicable.

13.3 New risk ratings and mitigation measures

Not applicable.

13.4 Actual figures for feedstock over the previous 12 months

Not applicable

13.5 Projected figures for feedstock over the next 12 months

Not applicable.