Supply Base Report: DSHwood A/S

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Completed in accordance with the Supply Base Report Template Version 1.3

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

Document history

Version 1.0: published 26 March 2015

Version 1.1 published 22 February 2016

Version 1.2 published 23 June 2016

Version 1.3 published 14 January 2019; re-published 3 April 2020

Contents

1 Overview

Producer name: DSHwood A/S

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Date report finalised: 10/09/2021

Close of last CB audit: 28/08/2020

Name of CB: Preferred by Nature

Translations from English: Yes

SBP Standard(s) used: [e.g. Standard 1 version 1.0, Standard 2 version 1.1]

Weblink to Standard(s) used: https://sbp-cert.org/documents/standards-documents/standards

SBP Endorsed Regional Risk Assessment: https://sbp-cert.org/docs/SBP-endorsed-RRA-for-Denmark-RRA_Jun%2017.pdf

Weblink to SBE on Company website: [e.g. www.bp.com]

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

DSHwood defines it's Supply Base as all of Denmark and exclusively FSC and / or PEFC certified forest in Germany and Sweden.

2.1.1 The Danich Forest area

DSHwood consider all of Denmark as it´s Supply Base. DSHwood have app. 150 suppliers which deliver feedstock which either FSC/PEFC certified, which DSHwood mitigate via its SBE or which is controlled feedstock. Denmark has been in DSHwoods Supply Base from its initial SBP certification in 2017.

According to Danmarks Statistik (Forest statistics 2017) the Danish forest area measures 625.603 ha, equivalent to 14,6% of the country's total area. Approximately 75% of forest land is owned by private, and the last 25% owned by public organizations.

Danmark

	Ha	***%***
Total	625.603	100
Private, person	351.019	56
Private, company	79.968	13
Fund or Foundation	29.766	5
State Forest	117.194	19
Other state Forest	8.322	1
Other public	26.671	4
Uknown	12.663	2

Table 1. Distribution of forest area by ownership type (Nord-Larsen et al. 2018)

The total growing stock in the Danish forest is 132 million m^3 equivalent to 211 m^3/ha. The largest share of the total growing stock is hardwood (58%), while softwood is 42%. From 2000 until today, have the total growing stock in the Danish forests increases significantly. The reasons are both the growing forest area and also a greater growing stock per hectare.

Net growth in the period 2013-2017 was approximately 1,6 million m^3 / year. In the same period felling and death by natural causes amounted to 4.8 million m^3 / year. The total average annual increase has been 6,3 million m^3 / year (Nord-Larsen et al. 2018).

Supply Base

The terrestrial environment of Denmark is divided between two EU biogeographical regions by means of a north-south divide through the middle of the Jutland Peninsula: 1) the Atlantic region, covering the western part of Jutland and the Continental region, and 2) the Continental region covering the eastern part of Jutland and Denmark's islands. These regions are used by the Danish Nature Agency under the Ministry of the Environment and Food to the EU Commission to report on the status and management results of Natura 2000 conservation areas.

In the early 1800's, the forest cover in Denmark is estimated to have been as low as 3-4% of the total land area. Deforestation was caused by logging for timber and firewood and for animal grazing areas. Denmark's first forest legislation came into force in 1805. Its main objective and as wells as following Danish forest acts, have been to maintain the forest covered area and to protect the existing forest from overexploitation,

premature felling and grazing by farm animals. In the mid nineteenth century, intensive forest management became widespread and large afforestation projects were carried out. Today approximately 14% (615,000 hectares) of Denmark's land area is covered by various types of forest.

According to the Danish Nation Forest Inventory, conducted by the Danish Nature Agency, 41% of Denmark's forest area is dominated by deciduous trees, 39% by coniferous tree species, 11% by a mixed coniferous and deciduous tree species, 5% are Christmas tree plantation (located within all the above forest types) and 4% of the area is unstocked, e.g., log loading and landing yards, fire prevention areas etc. Furthermore, 67% of the Danish forest area is covered with even-aged planted stands with 9% being even-aged stands from natural regeneration and 6% of the forest area is uneven-aged natural forest. The latter represent pockets forests that would be closest to what is considered of natural forest stands having retained or regained natural forest characteristics; which can be found in forests both under private and public ownership and they are predominantly located in the Continental region (east Jutland and the isles). The location of these natural forest stands are generally well-known, but some may still be unidentified.

Of Denmark's 615,000 hectares of forest, 440,000 hectares are managed as forest reserves (called 'fredskov' in Danish) governed under the Danish Forest Act. The Forest Act permits forest management activities within these areas; however, Article 8 (see Category 1 for more details) requires the managed area shall maintain continuous forest cover, that a maximum of 10% of the forest area can be used for short rotation Christmas trees or greenery production (e.g., cuttings typically from *Abies procera*), and another maximum of 10% of the area can be used for coppicing or for animal forest grazing. The Forest Act also protects streams and wetlands in forests that are not covered by the Nature Protection Act nor under the Ministry of Environment or local authorities. It stipulates that lakes, bogs, heaths, species-rich grasslands, coastal grasslands and swamps located in "fredskov" forest reserve may not be planted or cultivated, drained or in other way changed. It is also important to note the Forest Act does not include many measures relating to forest techniques, e.g. harvesting, planting or thinning (also see Category 1).

There are 79,000 hectares of forests designated as Natura 2000 areas (13% of the Danish forest area) which have some overlap with the 74,900 hectares' forests and other natural areas designated under the EU Habitat Directive, 51,500 hectares under the EU Birds Directive and 13,900 hectares as Ramsar sites. A harvest permit must be obtained from the Danish Nature Agency to conduct any timber harvesting activities within Natura 2000 forests; permits are given with the proviso that the natural condition of the forest will not deteriorate and issuing permits is more an exception than common practice.

In relation to FSC HCV category 3, it is worth noting that although the Forest Act §25 sets provisions for registering *'especially valuable forests*' i.e., valuable in terms of their biodiversity and conservation value, and accompanying appropriate conservation management activities for these areas, these areas have not yet been registered by the Danish Nature Agency. Danish forests biodiversity and conservation values have been surveyed by Department of Geosciences and Natural Resource Management at Copenhagen University through a sampling methodological approach. Therefore, not all forest management areas have been systematically surveyed, particularly small privately forests area.

Forest ownership in Denmark are divided by private forests owners, (70%), State and Municipal owners (24%), trust funds or foundations (4%) and unknown owners (2%).

Biodiversity in Danish forests

Due to its historical context, most Danish forests have been exposed to some level of forest management activities, varying from low impact to very intensive forestry. Today the majority of Denmark's forests are semi-natural ecosystems of composing of either native or exotic tree species, interspersed with a few small pockets of (recovered or remnant) natural forest-like stands. Although the forests area has increased over the last two centuries from 3-4% to more than 14%, the nature value of the pre-1800 forest stands have decreased significantly. This is due to intensive forest management practices aiming to manage even-aged, single-tree species stands. Examples of some the detrimental effects of intensive forest management practices include depleting or draining natural hydrology levels, extensive soil cultivation, eutrophication,

removal of mature and over-mature trees and deadwood, semi or natural forest stand replacement with exotic species, coppicing and animal grazing.

Since the mid-1990s, forestry practices in Denmark, especially in State and Municipality owned forest, have shifted from traditional, production oriented forest management towards management regimes with a wider set of goals for conservation, biodiversity, recreation and addressing other social needs such as preserving cultural heritage sites.

Danish forest has been surveyed by Department of Geosciences and Natural Resource Management at Copenhagen University by means of a sample methodology and their biodiversity and conservation values have been documented under the Danish National Forest Inventory (NFI) hosted by the Danish Nature Agency.

Denmark ratified the Convention on Biological Diversity in 1994. Today more than 11% of Denmark's terrestrial lands are protected, one third of which are classified as IUCN Categories I and II; of which a large number are protected under the Nature Protection Act and the Natura 2000 EU Directive. These areas have been designated specifically to protect species, landscapes, cultural heritage and/or for scientific research and/or education purposes. For conservation areas, i.e., forest management activities are only allowed in accordance with the specific protection for the individual areas, cover approximately 5% of the country's terrestrial land. Approximately, over 6,300 species in 8 major species groups in Denmark have been assessed according to IUCN Red List criteria, and just over 1,500 or 24% of these have been red-listed. Forests constitute 52% of the habitat affiliations for red-listed species. Furthermore, areas enjoying protection under the Forest Act, Natura 2000 and/or the Nature Protection Act are also mapped and available online via the Danish Nature Agency's digital nature map. Biodiversity data is updated regularly by the Danish Nature Agency and, as mentioned above, it will be completing the registry of "especially valuable forest" over 2016 - 2019. There is one forest area in North Zealand which is listed as UNESCO world heritage due to its historical significance as royal 'Parforce' (a type of hunting system) hunting grounds landscape as, the site demonstrates the application of Baroque landscaping principles to forested areas.

DSH (The Biomass producer) has adopted the description above from the Region Risk Assessment for Denmark.

DSHwood's wood chip resource:
DSHwood is dealing with all kinds of raw wood, wood chips and sawn wood from the Danish forests. Through our own purchasing and sales organization, we strive to buy wood directly from the supplier and sell directly to the end user. DSHwood is a pure trading company and does not own the own industry or forests.

DSH is sourcing our raw material from our supply base which is Denmark. The feedstock is supplied as wood chips produced in the forest of origin. DSH is purchasing the wood chip form Danish contractors. The contractor is performing the harvesting and chipping operations. DSHwood is supplying the produced wood chips directly from the forest via truck to the customers (heat /power plants/district heating plants)

The distribution of the volumes sold in 2019:

	% Share
Energy	57,35%
Hardwood	10,15%
Softwood	26,96%
Pulpwood	5,54%

The wood that is used for chips, is the utilization of low-quality wood cannot be used for high quality products such as timber, pulpwood.

The resource of Danish woodchip has an origin from forests across the country. Suppliers are a wide section of the Danish forest owners. The chips are typically purchased as follows:

- The forest owner, who is PEFC / FSC certified
- The forest owner who has been responsible for harvesting, driving to road and possibly chipping himself
- For a forest contractor who bought the wood standing and have completed reprocessing himself.

The certified wood will come from the forest owner who is PEFC / FSC certified and from the forest contractor who is approved Biomass Producer. In 2019 7,3% of our purchased chip wood from PEFC/FSC Certified forest.

Forrest management practices are based on the Danish specific forestry laws, forestry guidelines, and forest management planning practices. Even-aged forestry is the dominant method. The forest rotation period is 60-100 years, containing mostly tending of the young seedling stands, two thinning's, a final harvesting and regeneration of a mature stand. Planting or natural seeding can be used in regeneration. Recently, un-even-aged forestry has become more popular and applied to the extent possible.

Overview of the proportions of SBP feedstock for chip wood in 2019

Controlled Feedstock	100 %
SBP-compliant Primary Feedstock	>99%
SBP-compliant Secondary Feedstock	None
SBP-compliant Tertiary Feedstock	None
SBP non-compliant Feedstock	<1%

2.1.2 The German Forest area

DSHwood consider all of Germany as it´s Supply Base. DSHwood have 1-5 suppliers which deliver material which is either FSC 100% or 100% PEFC certified. Germany has been included in DSHwood Supply Base by 2020.

Accordig to the National Forest Inventory (2012) the forest in Germany covers 11.4 million hectares equivalent to 32 % of the total landarea of the country. The forest distribution in Germany is quite diverse. The percentage of land covered with forest are low on North German plains due to agricultural activity, and the Southern low mountain ranges are particularly rich in forests. The percentage of deciduous trees is steadily increasing (Period 2002-2012). Four species dominate in the forests of Germany:

- Spruce, covering approx. 2.8 mill ha's (25 % of the forest area). Decreased with 8%.
- Pine covers approx. 2.4 mill ha's (22 % of the forest area). Decreased with 3 %.
- Beech covers approx. 1.7 mill ha's (15 % of the forest area). Increased with 6 %.
- Oak covers approx. 1.1 mill ha's (10 % of the forest area). Increased with 7 %.

Almost all forests in Germany are influenced by humans ("semi-natural"). But structural diversity and naturalness have increased through active forest management. Almost natural or semi-natural tree species composition covers 36% of the forest area (51% in the young forest stands, i.e. trees up to four metres high). Introduced tree species cover 5 % of the forest area. The most common introduced species are Douglas fir (2 %), Japanese larch (0.8 %) and red oak (0.5 %)

Overall mixed stands cover 78% of the forest area and multiple-storied forest stands cover 68% of the forest area. Furthermore natural rejuvenation is used on 85% of the forest area.

Both total standing timber volume and the total forest cover is increasing in Germany. Annual increment in German forests is in average 11.2 m3 per ha and year. In total 121.6 mill m3 per year. Annual harvest represents 62.5 % of annual increment corresponding to an average of 7 m3 per ha and year. In total 76 mill m3 raw timber per year.

Ownership

The Federal Republic of Germany is a federal state. Responsibility for the forests thus mainly lies with the Länder. While the Federal Government merely sets the forest policy framework, the Länder are responsible for the formulation and implementation of forest policy targets. Private persons, corporate entities (mostly municipalities) and the state, i.e. mainly the Länder, own woodlands. Private forest entities own an average forest area size of 5 ha's, that are frequently spread over several smaller areas.

The forest entities with less than 20 ha's of forests represent half of the privately-owned forest area. The largest entities in terms of woodland cover are owned by the state. A state forest entity manages typically between 8.000 and 15.000 ha's and often also performs forest management tasks for private and communal forests. The Federal Government (State forest – National Property) currently owns around 400.000 ha's, which accounts for approximately 3.5 % of the forest area. These are predominantly forests used for military purposes. State forests of the Länder own approximately 29 % of the German forests. Many forest owners in Germany own small and fragmented forests that are hard to manage. Approximately 430.000 forest owners are organized in 3.600 forestry associations to better deal with the specific disadvantages of the fragmented property structures.

Management practices

National forest policy
Germany's Forest policies define the framework and rules related to management of forests and timber utilisation. The main forestry regulations at Federal level can be found in the Federal Forest Act. One of the Federal Government's political guidelines is the Forest Strategy 2020. Its aim is to develop an adapted, lasting balance between increasing timber demands on one hand and sustainability on the other hand. The implementation of the Forest Strategy 2020 focus on the following thematic areas:

- Climate change mitigation and climate adaption
- Promotional programmes for small and micro private forest owners to ensure operational objectives within the framework of existing legal forest regulations.
- Promotion of timber as technically and ecologically excellent renewable resource

Another focus area in the German National Forest Policy is to improve forest biological diversity through the following approaches:

- Integrated forest management
- Intensifying the dialogue between forest owners, forestry and nature conservation
- Taking the dynamics of forest ecosystems and unique local features into account
- Balancing the interests of the general public and forest owners
- Creating incentives for nature conservation
- Linking biotope to allow animal and plant species to move from one region to another
- Strengthening environmental protection to counter global and large-area environmental changes
- Implementing biodiversity objectives in federal forest areas

The core disciplines of German silviculture are

- Maintaining forest area
- Increasing the stability, productivity and diversity of the forests
- Adaption to climate change
- Preserving forest genetic resources
- Strictly limited use of chemical plant protection.

Protection of soil and water resources is another important focus area of the German National Forest Policy. Research and education are also emphasised, and the Federal government promotes research through a wide range of funding programmes targeted at national and international level.

Socio economic setting

Germany is a densely populated country. Over 80 mill people live on 35.7 mill ha's. For centuries people have inhabited and cultivated Germany intensively. 13 % of the national area is used for settlements and transportation. 52 % of the area is used for agriculture, making it the largest land use form in Germany followed by forests or forestry with 32 %. In recent decades, there has been an increasing competition between different types of land use, like production of timber for consumption and nature conservation and recreation.

In communal forests 96 % of all income is generated by sale of timber. In private forests this figure is as high as 98 %. The socially desired protective and recreational functions of forests in Germany are financed almost entirely from this income. In the state forest of the Länder the additional costs and diminished proceeds are largely compensated by subsidies from the state budgets (up to 150 EUR/ha's). In the case of private and municipal forest holdings public support has so far been comparatively low in this area (4 EUR and 9 EUR respectively).

Economy of the forest sector

In the period 2008-2014, German forestry was a profitable economic sector. The companies in the domestic timber industry are highly concentrated in rural regions and at the same time highly integrated in the global economy.

- In 2012, net business profits exceeded 1 billion EUR/year
- The German national cluster of forestry and timber generated sales of 178 billion EUR and a gross added value of 55 billion EUR in 2014
- EU countries are the primary trade partners accounting for approx. 80 % of total trade.
- Germany is the third largest exporter (by value) of timber and timber-based products worldwide
- In Germany, a total of approx. 132 mill m3 timber are consumed per year. 58 % of this originates from raw forest timber
- Per capita consumption of timber is approx. 1.4 m3 annually.
- Two thirds of timber harvested in Germany are used for construction, timber-based materials and paper. One third are used for energy production.
- 1.1 mill people are employed in the German forest and timber industry (3.4 % of total) in some 25,000 companies.

Conservation CITES or IUCN species

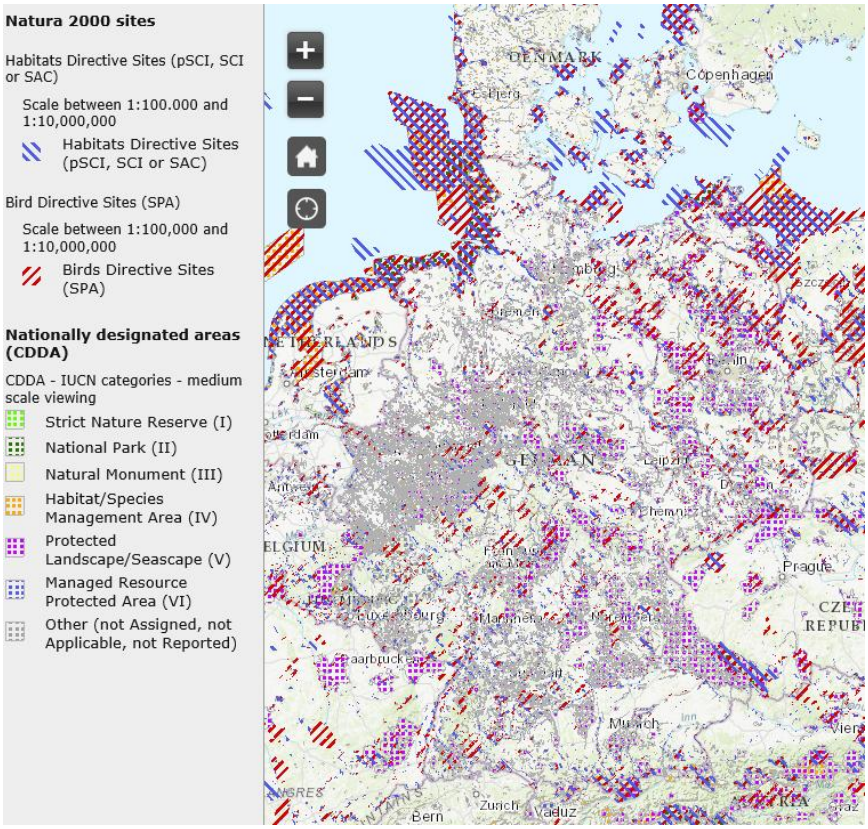
CITES habitat species are present in Germany but do not include species traded by DSHwood.

Germany has a number of IUCN categories, covering the following categories:

- *Strict nature reserves*
- *National Parks*
- *Habitat / species management areas*

- *Protected landscapes*

Large areas are also designated as Natura 2000 protected Habitat Directive Sites or Bird Directive sites.



Natura 2000

The ecological value of forest in Germany has improved significantly in recent decades. The Red List of endangered biotope types of Germany shows that development has stabilised in many forest biotopes. However, Germany's Red Lists for the forests still show species of animals, fungi and plants that are considered endangered and threatened with extinction. These include many species that are dependent on old forest stands, undisturbed forest development and deadwood components.

The last monitoring of the NATURA 2000 network (period 2007-2012) shoved that 79 % of forest habitat types have a "favourable" conservation status, 12 % were rated "unfavourable-insufficient" and 9% "unfavourable-poor".

Forest use in areas that are protected by the German Federal Nature Conservation Act is generally limited to the extent necessary to achieve the respective protection objectives. [1]

- *NATURA 2000 protected areas in forests: 2.7 mill has or 24% of the forest area*
- *Forest protected areas with specific use restrictions: 1.9% of the forest area*

Species traded by DSHwood in Germany

Species traded	*Latin*	Danish	Cites Status[2]	IUCN[3]

[1] https://www.eea.europa.eu/data-and-maps/explore-interactive-maps/european-protected-areas-1
https://www.umweltbundesamt.de/daten/land-forstwirtschaft/forstwirtschaft#textpart-1

[2] http://checklist.cites.org/#/en

[3] https://www.iucnredlist.org/search

Silver Fir	*Abies alba*	Ædelgran	Not on the list	Least concern (LC)
Grand Fir	*Abies grandis*	Kæmpegran	Not on the list	Least concern (LC)
Caucasian Fir	*Abies nordmanniana*	Nordmannsgran	Not on the list	Least concern (LC)
Noble Fir	*Abies procera*	Nobilis	Not on the list	Least concern (LC)
Norway Maple	*Acer platanoides*	Spidsløn	Not on the list	Least concern (LC)
Maple	*Acer pseudoplatanus*	Ahorn	Not on the list	Least concern (LC)
Common Alder	*Alnus glutinosa*	Rødel	Not on the list	Least concern (LC)
Grey alder	*Alnus incana*	Grå-el	Not on the list	Least concern (LC)
Silver Birch	*Betula pendula*	Vortebirk	Not on the list	Least concern (LC)
Downy Birch	*Betula pubescens*	Dunbirk	Not on the list	Least concern (LC)
Common Hornbeam	*Carpinus betulus*	Avnbøg	Not on the list	Least concern (LC)
Mediterranean Cypress	*Cupressus sempervirens*	Almindelig cypres	Not on the list	Least concern (LC)
European Beech	*Fagus sylvatica*	Bøg	Not on the list	Least concern (LC)
Common Ash	*Fraxinus excelsior*	Ask	Not on the list	Near Threantened (NT) Common Ash is classified as Least Concern in Germany
European Larch	*Larix decidua*	Europæisk lærk	Not on the list	Least concern (LC)
-	*Larix eurolepis*	Hybridlærk	Not on the list	Not on the list
Japanese Larch	*Larix kaempferi*	Japansk lærk	Not on the list	Least concern (LC)
Norway Spruce	*Picea abies*	Rødgran	Not on the list	Least concern (LC)
White Spruce	*Picea glauca*	Hvidgran	Not on the list	Least concern (LC)
Serbian Spruce	*Picea omorika*	Søjlegran	Not on the list	Endangered (EN)
Sitka Spruce	*Picea sitchensis*	Sitkagran	Not on the list	Least concern (LC)
Lodgepole Pine	*Pinus contorta*	Klitfyr	Not on the list	Least concern (LC)
Austrian Pine	*Pinus nigra*	Østrigsk bjergfyr	Not on the list	Least concern (LC)
Ponderosa Pine	*Pinus ponderosa*	Gul fyr	Not on the list	Least concern (LC)
Eastern White Pine	*Pinus strobus*	Weymouth fyr	Not on the list	Least concern (LC)
Scots Pine	*Pinus Sylvestris*	Skovfyr	Not on the list	Least concern (LC)
Eurasian Aspen	*Populus tremula*	Bævreasp	Not on the list	Least concern (LC)
Gray poplar	*Populus x canescens*	Gråpoppel	Not on the list	-
Sweet Cherry	*Prunus avium*	Kirsebær	Not on the list	Least concern (LC)
Douglas-fir	*Pseudotsuga menziesii*	Grøn douglasgran	Not on the list	Least concern (LC)
Sessile Oak	*Quercus petraea*	Vintereg	Not on the list	Least concern (LC)
European Oak	*Quercus robur*	Stilkeg	Not on the list	Least concern (LC)
Northern Red Oak	*Quercus rubra*	Rødeg	Not on the list	Least concern (LC)
Willow	*Salix spp*	Pileslægten	Not on the list	Least concern (LC)
Northern White Cedar	*Thuja occidentalis*	Almindelig thuja	Not on the list	Least concern (LC)
Western Red-cedar	*Thuja plicata*	Kæmpethuja	Not on the list	Least concern (LC)
Western Hemlock	*Tsuga heterophylla*	Vestamerikansk hemlock	Not on the list	Least concern (LC)

IUCN, Critically endangered, forests in Germany, include:

Name (English/German)	Latin	Cites Status[4]
Green Ash	*Fraxinus pennsylvanica*	Not on the list
Fruchtbares Schlafmoos	*Hypnum fertile*	Not on the list
Bavarian Pine Vole	*Microtus bavaricus*	Not on the list
Mehlbeere sp.	*Sorbus algoviensis*	Not on the list
Eichstätter Mehlbeere	*Sorbus eustettensis*	Not on the list
Gaucklers Mehlbeere	*Sorbus gauckleri*	Not on the list
Harz Mehlbeere	*Sorbus harziana*	Not on the list
Würzbuerger Mehlbeere	*Sorbus herbipolitana*	Not on the list
Mehlbeere sp.	*Sorbus lonetalensis*	Not on the list
Meierotts Mehlbeere	*Sorbus meierottii*	Not on the list
Mergenthalers Mehlbeere	*Sorbus mergenthaleriana*	Not on the list
Langblättrige Mehlbeere	*Sorbus perlonga*	Not on the list
Gössweinsteiner Mehlbeere	*Sorbus pulchra*	Not on the list
Schnizleins Mehlbeere	*Sorbus schnizleiniana*	Not on the list
Schuwerk Mehlbeere	*Sorbus schuwerkiorum*	Not on the list
Schwarz Mehlbeere	*Sorbus schwarziana*	Not on the list
Seybold Mehlbere	*Sorbus seyboldiana*	Not on the list

IUCN, Endangered, forests in Germany, include:

Name (English/German)	Latin	Cites Status[5]
Insecta sp.	*Ampedus quadrisignatus*	Not on the list
Insecta sp.	*Buprestis splendens*	Not on the list
Insecta sp.	Corticeus bicolorides	Not on the list
Insecta sp.	*Corticeus versipellis*	Not on the list
Bryopsida sp.	*Distichophyllum carinatum*	Not on the list
Liliopsida sp.	*Epiactis greuteri*	Not on the list
Insecta sp.	*Lasiglossum breviventre*	Not on the list
Insecta sp.	Limoniscus violaceus	Not on the list
European rabbit	*Oryctolagus cuniculus*	Not on the list
Insecta sp.	*Ropalopus ungaricus*	Not on the list
Ade-Mehlbere	*Sorbus Adeana*	Not on the list
Kordigast Mehlbeere	*Sorbus cordigastensis*	Not on the list
Dörrs Mehlbeere	*Sorbus doerriana*	Not on the list
Ries Mehlbeere	*Sorbus fischeri*	Not on the list
Thüngersheimer Mehlbeere	*Sorbus haesitans*	Not on the list

[4] http://checklist.cites.org/#/en

[5] http://checklist.cites.org/#/en

Mehlbeere sp.	*Sorbus hoppeana*	Not on the list
Mehlbeere sp.	*Sorbus pseudothuringiaca*	Not on the list
Mädchen Mehlbeere	*Sorbus puellarum*	Not on the list
Regensburger Mehlbere	*Sorbus ratisbonensis*	Not on the list
Moss	*Ulota macrospora*	Not on the list

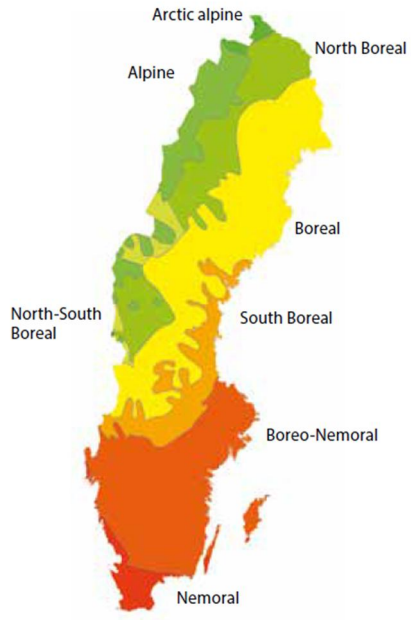
2.1.3 The Swedich Forest area

In Sweden DSHwood have 1-5 suppliers and all volumes are FSC and PEFC certified.

Forest cover
Most of Sweden is covered by boreal forest which in its natural state contains a patchwork of habitats shaped by various disturbance regimes, notably fires, storms and flooding. Owing to the large North-South extent of the country, there is a considerably variation in climate and soil conditions, and both conditions favour tree growth in the South. Sweden´s forests are among the most northerly in the world. The warming effect of the Gulf Stream permits forest growth at the latitudes that are characterized by treeless tundra in other parts of the world. Most of the country is covered by coniferous forests, but there is a small zone of mainly deciduous forests in the south.

According to the latest forest inventory "Riksskogstakseringen" from 2021 the total area of Sweden is 40.7 mill ha's (100%). Of these 27.9 mill ha's (69 %) are forest area and 23.5 mill ha's are defined as productive forests[6]. See the figures below for i) the different boreal regions of Sweden and ii) the land area used by the traditional land use classes.

The predominant tree species by growing stock in Sweden are: Norway spruce 39.7 %, Scots pine, 39.3 %, Birch 12.9 %, Aspen 1.8 %, Alder 1.7 %, lodgepole pine 1.3 %, oak 1.3 %, other 2.0 %[7]

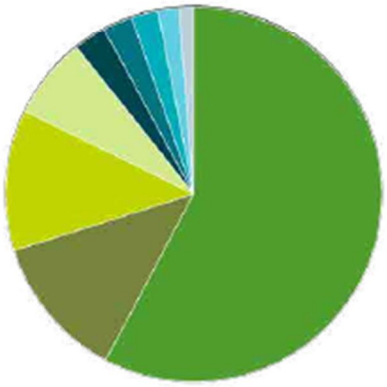


Sweden's forests are among the most northerly in the world. The warming effect of the Gulf Stream permits forest growth at latitudes that are characterized by treeless tundra in other parts of the world.

https://www.skogsstyrelsen.se/globalassets/in-english/forests-and-forestry-in-sweden_2015.pdf

[6] Petersson, H. (2021): "Skogsdata 2021", SLU Institutionen for skoglig resurshushallning, Umeå, Sweden.
[7] Petersson, H. (2021): "Skogsdata 2021", SLU Institutionen for skoglig resurshushallning, Umeå, Sweden.

Figur 1.3 **Landarealen fördelad på traditionella ägoslag, 2016–2020.**
Fotografer: Anton Larsson, Hilda Mikaelsson och Ola Borin, alla SLU.
Land area by traditional land use class 2016–2020.
Images: Anton Larsson, Hilda Mikaelsson och Ola Borin, all SLU.



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Ownership

In Sweden there are at least 3 layers of tenure regimes influencing forest use and forestry: Private land tenure, rights to use the land held by the Sami people in the northern parts of Sweden and the right of public access. While the private ownership of forest is based on possession rights, the two other forms relate to user rights.

Private ownership has been important, first and foremost as a basis for sustainable land use and long-term planning and investments in the regeneration of forests. About half of all forest land in Sweden is owned by private enterprises. There are some 200,000 families with forest areas bigger than 5 ha's and most farms are passed on from one generation to the next. The average holding is 50 ha's. Some 100,000 family forest entities are members of a forest cooperative. All the cooperatives together form a National Federation of Family Forest Owners, who seeks to influence national and international forest policies.

A small number of large private sector industrial forest enterprises own approx. 25 % of all forest land in Sweden. Only a few Swedish companies have forest holdings combined with industrial capacity. Industrial enterprises tend to buy wood on stumpage basis from private forest owners.

There are 23 pulp and paper enterprises with 50 production facilities in total and 60 sawmill enterprises with around 115 mills in Sweden. Sawmills, which for the most part are owned by private sector enterprises, do not normally have forest on their own.

Most of the state forest belongs to the state-owned company Sveaskog, which accounts for 14 % of all forest land. Sveaskog is Sweden's largest single forest owner and supply logs, pulp wood and biofuel for 130 large industrial customers.

Management Practices

National Forest Policy

The main intention of the Swedish National Forest Policy is to ensure sustainable forest management and it focuses on three major objectives, one for production, one for environmental concerns and one for social concerns.

Sweden believes that active, sustainable forestry can play an important role and contribute to mitigation of climate change through replacing fossil fuels and fossil intensive materials and through increasing the long-term storage of carbon in forest land, while relevant national environmental quality objectives must be met. Sufficient availability of sustainable biomass from the Swedish forest alongside continued profitability and willingness to invest in the entire forest value chain will be ensured through sustainable forest management and forest growth and within the framework of the Swedish environmental quality objectives. Therefore, Sweden will not take any measures to reduce harvesting levels even if Sweden, due to sharply increased fellings, would risk reporting emissions from managed forest land.

Instead, possible reported emissions will be offset by the uptake of carbon dioxide that can be expected to occur in other land categories. If fellings increase to a level where further measures are required, emissions will be fully compensated for by other flexibilities in the regulation. Measures for increased growth can also increase the maximum harvesting levels. Sweden would like to underline that an ever increasing standing volume in the production forest land is not reconcilable with long term sustainable forest policy since mortality from natural disturbances will increase and lead to comprehensive biomass losses[8].

The legal demands on forestry are mainly set by the Forestry Act and the Environmental Code.

The forest sector is considered a commercial sector which should be economically self-sustained and not subsidized. There are, however some state subsidies to enhance the forest sector's environmental value.

The National Forest Policy is influenced by several international regulations and agreements:

- EU Timber Regulation
- The Habitat Directive
- The Water Framework Directive
- Convention on Biological Diversity (CBD)
- UN Framework Convention on Climate Change (UNFCCC)
- United Nations Forum on Forests (UNFF)

Forest management

High and long-term sustainable production of forest raw material combined with social and environmental considerations are the primary goal for most forest owners.

[8] https://www.government.se/4a9f07/contentassets/730d6345a5d745b1bc5f084e2f00fff7/revised-national-forestry-accounting-plan-for-sweden

Swedish forest management is highly influenced by marked-driven processes of forest-certification following the schemes of FSC and PEFC.

Scots pine (Pinus sylvestris) and Norway spruce (Picea abies) are the dominant tree species in all Sweden. Lodgepole pine (Pinus contorta) and the deciduous species Birch (Betula pendula), Aspen (Populus tremula) and Alder (Alnus glutinosa) are used to some extent in northern Sweden.

European larch (Larix decidua), Douglas fir (Pseudotsuga menziesii) and Sitka spruce (Picea sitchensis) and oak (Quercus robur) and Beech (Fagus sylvatica) is used in the south. The main part of the deciduous forest cover is naturally regenerated.

Forest management planning is extensively used by forest managers in everyday forestry as a tool for production planning and for implementing conservation measures.

The most used regeneration method is planting. Almost 400 mill seedlings are planted each year and soil preparation is often a prerequisite for successful regeneration. The planting operation is mostly carried out manually, but research on mechanized tree planting is ongoing. The seedlings have traditionally been treated with pesticides to protect against pests, but nowadays more environment friendly mechanical protection is used to a greater extent.

More than half of the annual industrial supply originates from private forest entities. More than 70 % of the yearly wood volume procured in Sweden originates from final felling, with the rest coming from thinning operations.

Harvest operations are usually planned with consideration to natural and cultural features. The harvesting is almost totally mechanized and is carried out with single grip harvesters that measures both length and diameter and thus optimizing the wood revenue

More than 90 % of the forest operations, -planting, cleaning, logging and transportation, are carried out by contractors.

Bioenergy from boreal forests – Swedish approach to sustainable use[9]

In 2019 The International Renewable Energy Agency (IRENA) published the report “Bioenergy from boreal forest: Swedish approach to sustainable wood use”. The report provides relevant background information when considering the existing and future use of biomass in Sweden.

The report concludes the following for the potential on bioenergy from slash and stumps:
• Slash – tops, branches, bushes and small trees – can be collected, but a certain amount needs to be left at the site, typically around 20% to 25%. To avoid soil damage, slash can be used to reinforce tracks for machinery.
• At a national level, a harvesting rate of 50% of all slash is probably a practical maximum, when considering both economic and ecological restrictions.
• Stumps can be harvested on at least 20% of the final felling area with limited negative effects on biodiversity.

In the report it is argued that on the grand scale the increased collection of slash and stumps can increase the collection of logging residue nearly five-fold, from 10 TWh to 50 TWh. If it was possible to collect 70% of slash and 30% of stumps sustainably, comprising roughly half of all logging residues, the collection of logging residues could increase to 71 TWh.

[9] IRENA (2019), *Bioenergy from boreal forests: Swedish approach to sustainable wood use,* International Renewable Energy Agency, Abu Dhabi.

Socio-Economic setting
Sweden is a country dominated by forests and it has a rather low population density with only 25[10] inhabitants per square kilometer. The country covers 450 thousand km2 and stretches 1574 km North to South. Sweden is the third largest country in EU by area and has a population of 10.2 mill inhabitants.

The country holds almost 1 % of the world's commercial forests, but provides 10 % of the sawn timber, pulp and paper that is traded on the global market.
Facts and figure by the Swedish forest industry[11]:

Economic significance

World's 3rd largest exporter of pulp, paper and sawn timber

- Export value, 2018: SEK 145 billion
- 80% of the products are exported
- A little over SEK 15,4 billion was invested in 2018

Production volumes, 2018

- 11.9 million tonnes of pulp (of which 4.3 million tonnes market pulp)
- 10.1 million tonnes of paper
- 18.3 million cubic metres of sawn timber

Employment

- 70,000 employees in forestry
- A further 50,000 one-man businesses active in forestry

Conservation CITES or IUCN species
The primary focus for conservation of Swedish forests is to protect high conservation value forests and include sufficient biodiversity measures in all forests.

Of Sweden's 28 mill ha's of forest land, approx. two mill ha´s 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 or nature and/or for cultural conservation.

Unproductive forest land which accounts for some 4 mill ha's are protected through the Forestry Act. On the remaining land the forests are managed with equal respect to biomass production and environmental and social goals.

Forest exempted from forestry, year 2011

Protection type	Million hectares	Percentage of total forest area
Formally protected	2.0	7.0 %
Forest land voluntarily set aside for conservation purposes	1.1*	3.9 %
Unproductive forest land, i.e. low productive forest land which is protected according to the Forestry Act	4.0	14.1 %
Total	7.1	25 %

*) The figure refers to productive forest land below the boundary of sub-montane forest. A recent study indicates that the figure is underestimated.

Source: Statistical Yearbook of Forestry. Swedish Forest Agency.

https://www.skogsstyrelsen.se/globalassets/in-english/forests-and-forestry-in-sweden_2015.pdf

[10] https://www.worldometers.info/world-population/sweden-population/
[11] https://www.forestindustries.se/forest-industry/facts-and-figures/

Species	CITES status	IUCN classification
Oak (*Quercus robur, Quercus petraea*)	Not on the list	Least concern (LC)
Oak (*Quercus rubra*)	Not on the list	Least concern (LC)
Birch (*Betula spp*)	Not on the list	Least concern (LC)
Beech (*Fagus silvatica*)	Not on the list	Least concern (LC)
Common Ash (*Fraxinus excelsior*)	Not on the list	Near threatened (NT) Reason: The Ash dieback is an infectious disease that has caused severe dieback of Common Ash throughout much of its range
Alder (*Alnus glutinosa, Alnus incana*)	Not on the list	Least concern (LC)
Pine (*Pinus Silvestris*)	Not on the list	Least concern (LC)
Spruce (*Picea abies, Picea sitchensis*)	Not on the list	Least concern (LC)
Maple (*Acer spp.*)	Not on the list	Least concern (LC)
Larch (*Larix decidua, Larix eurolepis*)	Not on the list	Stable
Poplar (*Populus trichocarpa, Populus tremula*)	Not on the list	Least concern (LC)
Oregon pine (*Pseudotsuga menziesii;*)	Not on the list	Least concern (LC)
Linden (*Tilia spp.;*)	Not on the list	Least concern (LC)

DSHwood is aware of the threats towards common ash (Fraxinus excelsior)

Other CITES / IUCN registrations	Ratification 1974 https://cites.org/eng/cms/index.php/component/cp/country/SE Other CITES species are present but do not include softwood or deciduous trees which are threatened. https://checklist.cites.org/	Horse Chestnut (*Aesculus hippocastanum) – vulnerable* https://www.iucnredlist.org/species/202914/122961065#conservation-actions Full list: https://www.iucnredlist.org/search?landRegions=SE&searchType=species

Sweden has a number of IUCN categories mapped and registered:

- Strict nature reserves
- National parks
- Habitat / species management areas
- Protected landscapes
- Habitat Directive sites and Bird Directive sites

2.2 Actions taken to promote certification amongst feedstock supplier

In Germany and Sweden DSHwood has mainly one supplier (Schleswig-Holsteinische Landesforsten (AöR)) who is both FSC and PEFC certified.

In Denmark DSHwood is purchasing wood chip and energy wood from suppliers who are certified by FSC and / or PEFC schemes to support responsible forestry. DSH invite all our supplier to be certified to secure their future sales, as the industry requires more and more certification. The industry agreement between Dansk Fjernvarme and Dansk Energi is also pushing the suppliers to move toward certification, because the Agreement will secure sustainable biomass, and will increase up to 2019, in which 90% must be documented sustainable. Additional with the purchased certified amount, will we prefer to buy chips with other documentation from Selected contractors who are approved as Godkendt biomasse producer.

2.3 Final harvest sampling programme

DSH only use a limited amount of clear cutting. i.e. logging of larger contiguous areas. Instead the forest is managed according to nature principles.

ab

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

N/A

2.5 Quantification of the Supply Base

DSHwood defines it's Supply Base as all of Denmark and exclusively FSC and / or PEFC certified forest in Germany and Sweden. Data below regarding Denmark is collected from the National Forest Inventory (2018). Data regarding Germany and Sweden is collected from National Forest Inventory. (2012).

Supply Base – Denmark

Supply Base

a. Total Supply Base area (ha): 625.603 ha
b. Tenure by type (ha): 460.753 ha Privately owned/ 152187 ha Public/ 0 ha Community concession/ 11997 ha unknown
c. Forest by type (ha): 0 ha Boreal/ 625.603 ha Temperate/ 0 ha Tropical
d. Forest by management type (ha): 412.898 ha Plantation/ 112.608 ha Managed Natural/ 31.280 ha Natural
e. Certified forest by scheme (ha): 213.976 ha of FSC or 289.292 ha PEFC-certified forest. (http://www.trae.dk/leksikon/certificering-af-skovdrift-systemerne/) Please note that many forests hold both FSC and PEFC PEFC certificates.

Feedstock

f. Total volume of Feedstock: 0 -200.000 m^3
g. Volume of primary feedstock: 0 -200.000 m^3
h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes

- 40 % forest holdings certified to an SBP-approved Forest Management Schemes
- 60 % forest holdings not certified to an SBP-approved Forest Management Schemes

i. List all species in primary feedstock, including scientific name

Softwood			
Abies Alba	Larix spp	Pinus Contorta	Pinus spp
Abies Grandis	Picea Abies	Pinus Nigra	Pseudotsuga Menziesli
Abies Normaniana	Picea Glauca	Pinus Ponderosa	Thuja Plicata
Abies Procera	Picea Sitchensis	Pinus Strobus	Tsuga Heterophylla (Raf.) Sarg
Abies spp.	Picea spp	Pinus Sylvestris	

Hardwood			
Acer Platanoldes	Betula Pubescens	Populus Tremuloides	Quercus Rubra
Acer Pseudoptatanus	Carpinus Betuius L	Populus spp	Quercus spp
Alnus Glutinosa	Fagus Sylvatica	Prunus Avium	Salix spp
Alnus Incana	Fraxinus Excelsior	Quercus Petraea	Sorbus spp
Betula Pendula	Populus Tremula	Quercus Robur	

j. Volume of primary feedstock from primary forest 0%
k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
   - 0 %Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
   - 0 % Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme
l. Volume of secondary feedstock: None.
m. Volume of tertiary feedstock: None.

Supply Base – Germany

Supply Base

n. Total Supply Base area (ha): The area covered by forests in Germany is about 11.4 million hectares. Approximately 8.000.000 ha are certified under PECF and/or FSC.
o. Tenure by type (ha): 5.586.000 Privately owned/ 4.788.000 ha Public/ 0 ha Community concession/ 1.026.000 ha unknown
p. Forest by type (ha): 0 ha Boreal/ 11.400.000 ha Temperate/ 0 ha Tropical
q. Forest by management type (ha): 5.283.000 ha Plantation/ 5.793.000 ha Managed Natural/ 324.000 ha Natural
r. Certified forest by scheme (ha): 7.3 million ha PEFC and/or 1.1 million hectares FSC.

Feedstock

s. Total volume of Feedstock: 0 -100.000 m^3
t. Volume of primary feedstock: 0 -100.000 m^3
u. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes
   - 100 % forest holdings certified to an SBP-approved Forest Management Schemes
   - 0 % forest holdings not certified to an SBP-approved Forest Management Schemes
v. List all species in primary feedstock, including scientific name

Softwood			
Abies Alba	Larix spp	Pinus Contorta	Pinus spp
Abies Grandis	Picea Abies	Pinus Nigra	Pseudotsuga Menziesli
Abies Normaniana	Picea Glauca	Pinus Ponderosa	Thuja Plicata
Abies Procera	Picea Sitchensis	Pinus Strobus	Tsuga Heterophylla (Raf.) Sarg
Abies spp.	Picea spp	Pinus Sylvestris	

Hardwood			
Acer Platanoldes	Betula Pubescens	Populus Tremuloides	Quercus Rubra
Acer Pseudoptatanus	Carpinus Betuius L	Populus spp	Quercus spp
Alnus Glutinosa	Fagus Sylvatica	Prunus Avium	Salix spp
Alnus Incana	Fraxinus Excelsior	Quercus Petraea	Sorbus spp
Betula Pendula	Populus Tremula	Quercus Robur	

w. Volume of primary feedstock from primary forest 0%
x. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
    - 0 %Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
    - 0 % Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme
y. Volume of secondary feedstock: None.
z. Volume of tertiary feedstock: None.

Supply Base – Sweden

Supply Base

aa. Total Supply Base area (ha): The area covered by forests in Sweden is about 27,9 million hectares. Of these 23.5 mill ha's are defined as productive forests.

bb. Tenure by type (ha): 21.000.000 ha Privately owned/ 7.000.000 ha Public/ 0 ha Community concession/ 0 ha unknown

cc. Forest by type (ha): 27.900.000 ha Boreal/ 0 ha Temperate/ 0 ha Tropical

dd. Forest by management type (ha): 23.500.000 ha Plantation/ 0 ha Managed Natural/ 4.400.000 ha Natural

ee. Certified forest by scheme (ha): 6,8 million ha PEFC and 9,8 million hectares FSC.

Feedstock

ff. Total volume of Feedstock: 0 -100.000 m^3

gg. Volume of primary feedstock: 0 -100.000 m^3

hh. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes

- 100 % forest holdings certified to an SBP-approved Forest Management Schemes
- 0 % forest holdings not certified to an SBP-approved Forest Management Schemes

ii. List all species in primary feedstock, including scientific name

Softwood			
Abies Alba	Larix spp	Pinus Contorta	Pinus spp
Abies Grandis	Picea Abies	Pinus Nigra	Pseudotsuga Menziesli
Abies Normaniana	Picea Glauca	Pinus Ponderosa	Thuja Plicata
Abies Procera	Picea Sitchensis	Pinus Strobus	Tsuga Heterophylla (Raf.) Sarg
Abies spp.	Picea spp	Pinus Sylvestris	

Hardwood			
Acer Platanoldes	Betula Pubescens	Populus Tremuloides	Quercus Rubra
Acer Pseudoptatanus	Carpinus Betuius L	Populus spp	Quercus spp
Alnus Glutinosa	Fagus Sylvatica	Prunus Avium	Salix spp
Alnus Incana	Fraxinus Excelsior	Quercus Petraea	Sorbus spp
Betula Pendula	Populus Tremula	Quercus Robur	

jj. Volume of primary feedstock from primary forest 0%

kk. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:

- 0 %Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
- 0 % Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme

ll. Volume of secondary feedstock: None.

mm. Volume of tertiary feedstock: None.

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
X	☐

Due to the fact that biomass from Germany and Sweden exclusively will be sourced from PEFC or/and FSC certified forests, there will be no SBE for Germany in accordance with SBP standard 2 section 8. 2

In regards to biomass from Denmark a supply Base Evaluation is required because a significant proportion of the wood used as chip wood is not certified. This evaluation will determine the legality and sustainability of the wood chip traded by DSHwood.

4 Supply Base Evaluation

4.1 Scope

The scope of this evaluation is based on SPB standards 1, 2, 4 and 5. DSH purchases almost all its feedstock in Denmark. The majority of supply is traded with contractors and originate from private land. The contractors are buying the feedstock as standing volume, or in stacks in the forest of origin. The contractor is chipping in the forest and the chipped wood is transported directly to the heating Plant. This means that DSH has a short supply chain and that the traceability is easy to get.

Almost all off the supply comes from private forest owners. Some of the forest owners are larger holdings which are certified but there are many smaller forest owners that are not.

To ensure that our supply chain complies with the SBP Standard 1 we have focused on, how we ensure that our contractors/suppliers and our purchasers are ensuring the areas we are trading our chip wood from.

Material originating from the Danish part of DSHwoods Supply Base (where SBE is performed), is sourced, assessed and mitigated through three supply chain programs:

1) Suppliers/contractors with third party evaluation as PEFC, FSC, SBP Certified Supplier, “Godkendt Biomasseproducent”/Approved Biomass Producer or Alternative documentation sustainable biomass[12]
2) The Supplier/contractor has completed “DSHwoods SBP Evalution Program”
3) The Supplier/ contractors has not completed “DSHwood SBP Evaluation Program

The feedstock is divided into the following categories:

1. Primary feedstock from FSC or PEFC certified forests

2. Primary feedstock from forests with a green management plan

3. Primary feedstock from even-aged stands of coniferous trees

4. Primary feedstock from thinnings of first generation forest estates

5. Primary feedstock from unevenaged forest stands or stands of broadleaved trees

6. Primary feedstock from windbreaks, non-forest areas such as city and park areas, nature projects

4.2 Justification

DSHwood is trading chip wood from private forest owners, contractors and state forests in all of Denmark which is the supply area for chip wood. DSHwood has used the SBP-endorsed Regional Risk Assessment for Denmark which cover all Denmark (our Primary Feedstock). Only a minor part of private Danish forest are certified to an SBP approved forest management scheme.

The intent of the present supply base evaluation is to decide the level of risk in DSHwoods trading compared to SBP standard 1.

[12] https://www.nepcon.org/da/library/standard/krav-til-alternativ-dokumentation-sbp

4.3 Results of Risk Assessment

DSH has used the SBP-endorsed Regional Risk Assessment for Denmark which covers all Denmark (our Primary Feedstock). This Risk Assessment has been in consultation with Danish stakeholders and has been approved. The RRA for Denmark has been prepared with a number of Danish organizations supporting the process economically. DSH has contributed to this and has used the RRA as the basis for our RA.

The SBP risk assessment Denmark concluded that most aspects are classified as “Low Risk” in the feedstock area.

Indicator 2.1.1, 2.1.2, 2.2.3 and 2.2.4 are classified as “Specified Risk”

The “Specified Risk” regard “source type” Feedstock from uneven-aged stands or stands of broadleaf species”

The goal of our mitigation measures is to ensure that any HCV and key biotopes in the area within the Supply Base is identified and sufficiently mapped before sourcing of feedstock for biomass production begins, so that the information about any HCVs and key biotopes can be securely passed on to staff carrying out the felling and chipping operation.

One aspect is regarding “feedstock originating from forest estates with a Green Management plan” where we have to be aware that there is no requirement that the HCVs and key biotopes are monitored and protected from forest management.

Based on the National Risk Assessment, DSH conclude that the supply base can be divided into the following sub-scopes:

1. Primary feedstock from FSC or PEFC certified forests - **always low risk**

2. Primary feedstock from forests with a green management plan - **specified risk**

3. Primary Feedstock from thinning in even-aged stands of conifer- **always low risk**

4. Primary feedstock from thinnings of first generation forest estates - **always low risk**

5. Primary Feedstock from uneven-aged stands or stands of broadleaf species - **specified risk**

6. Primary feedstock from windbreaks, non-forest areas such as city and park areas, nature projects - **always low risk**

4.4 Results of Supplier Verification Programme

All indicators in the RRA for Denmark has been settled as “specified risk” and “low risk”. Therefore, and according to SBP standard 2 section 9.2, no Supplier Verification Programme has been developed.

4.5 Conclusion

There is “low risk” to all indicators of the SBP standard 1 apart from four: 2.1.1, 2.1.2, 2.2.3 and 2.2.4. based on the SBP-endorsed Regional Risk Assessment for Denmark. In this document, there is an identification of the four indicators with specified risk and clear risk mitigation measures to get these four specified risk indicators down to low risk. By using our checklist (Appendix 1).

DSH will get the overview to control and monitor the forest operations and meet SPB requirements together with our new procedure and DSHwood SBP Evaluation Program. The most important element in our supply chain is to follow the checklist (Appendix 1) together with the screening. That will ensure that all consideration points are checked. Also, we can control and trust that the collaborators we have been working with for many years all following the same guidelines, which are to ensure that all specified feedstock are in full compliance with SBP Standards.

DSHwood consider that there is a risk related to the “supply chain” distance to the forest supplier, typically DSHwood has tier 2 suppliers and does not manage forests itself. Therefore DSHwood collaborate with 10-15 different contractors/supplier whom DSHwood has been trading with for many years and have insight into the ressources which the suppliers have in terms of forest professional knowhow.

5 Supply Base Evaluation Process

DSHwood have used the SBP-endorsed Regional Risk Assessment for Denmark which is covering all Denmark (our Primary Feedstock). This risk assessment is a result of an open stakeholder process and was conducted by NEPCon.

DSHwoods process for the Supply Base Evaluation was performed “in house”. The personnel chosen to work within the evaluation team was already working with the standard within DSH’s CoC, PEFC and FSC certification. Evidence collected and work performed to achieve and maintain existing certification programs was used in the SBE. Further DSHwood has been assisted by en external party, B4Trees ApS which has prior experience in working with SBP, FSC, PEFC.

DSH employees know the operational procedures in DSH best and what/how to improve them. The team includes employees with education within Forest & landscape engineer, Master of Forestry and Logistics – and are a perfect picture of the real processes where the team already is working together. For the personnel who have an education within Forest & landscape engineer and Master of Forestry have the skills to evaluate the area and do the mapping – the skills necessary to assess a forest operation within our supply base. The personnel working in Logistics know the procedure in the office, and can collect, file and store the documentation, so that the documentation can be found at any time.

The DSH team has been looking at our processes, adjusted the processes so they comply with SBP standard and are beginning to implement the new processes. The team has made the processes as simple as possible so that they are available to all our collaborators, easy to use and evident guidelines. The team have made the processes that way to make sure that we minimize mistakes and make sure that the guidelines for SBP is followed.

DSH is using suppliers/contractors who are registered in the Danish company registry. DSH is using (and has for many years been using) the same 10-15 contractors. This means that our cooperation is based on trust and valuable experience through time. DSH know that the contractors we are using, have educated and experienced forest workers and that the forest workers are covered by a collective agreement which secure the work environment. DSH will invite all selected suppliers to be in our “DSHwood SBP Evalutaion Program” because it will minimize the risk in our supply chain as they will be trained and controlled to follow the guidelines for SBP regulations.

Monitoring

Both the functionality of the mitigation measures as well as projects will be monitored on a pending and annual basis via the internal monitoring program.

Mitigation measures will be checked on a pending basis. Especially, DSHwood will follow the developments in the RRA for Denmark and the procedures developed for “Alternativ Dokumentation”/”Godkendt Biomasseproducent” in order assure that its suppliers fully mitigate the specified risks identified.
.

SBP Feedstock monitoring
Suppliers and deliveries are monitored on the following basis:

- All suppliers (though not SBP approved forest management suppliers) are monitored

- For every supplier the square root of the number of project supplied by the supplier is targeted
- A progressing sampling procedure is installed in case of discripancies found during monitoring
- Combination of desk and field monitoring is performed

DSH will update the supply base evaluation if changes occur.

6 Stakeholder Consultation

An email consultation was sent to a total of 22 Danish stakeholder organisations on 30 March 2017. The group of stakeholders was based on the list normally used at FSC and PEFC FM consultations plus additional stakeholders identified from the energy sector.

Organisation	Kontaktperson	Email
BAT Kartellet	Sidse Buch Gunde Odgaard	sidse.buch@batkartellet.dk gunde.odgaard@batkartellet.dk
Danmarks Naturfredningsforening	Nora Skjernaa Hansen	nsh@dn.dk
Dansk Energi	Kristine van het Erve Grunnet	keg@danskenergi.dk
Dansk Fjernvarme	Kate Wieck-Hansen	kwh@danskfjernvarme.dk
Dansk Skovforening	Marie-Louise Bretner	mlb@skovforeningen.dk
De Danske Skovdyrkerforeninger	Svend Christensen Michael Gehlert	sjc@skovdyrkerne.dk mgh@skovdyrkerne.dk
DM&E (Dansk Skoventreprenørforening	Claus Danefeldt Clemmensen	cdc@dmoge.dk
Energistyrelsen	Lars Martin Jensen	lmj@ens.dk
Friluftsrådet	Thorbjørn Eriksen	toe@friluftsraadet.dk
FSC Danmark	Sofie Tind Nielsen	sofie@fsc.dk
PEFC Danmark	Morten Thorøe	mt@pefc.dk
HedeDanmark	Steen Riber	Svr@hededanmark.dk
Københavns Universitet	Vivian Kvist Johansen	vkj@ign.ku.dk
Miljøstyrelsen		mst@mst.dk svana@svana.dk niboe@nst.dk
PEFC Danmark	Morten Thorøe	mt@pefc.dk
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Verdens Skove	Jakob Ryding	jr@verdensskove.org
WWF,Verdensnaturfonden	Bo Normander	b.normander@wwf.dk
Danmarks Ornitologiske Forening	Henrik Wejdling	henrik@wejdling.dk
Dansk Industri	Mikkel Mørch	mimo@di.dk
DONG Energy	Peter K. Kristensen	pekkr@dongenergy.dk
Træforeningen	Jakob Klaumann	jakob@dktimber.dk

6.1 Response to stakeholder comments

DSH recieved no comments from stakeholders and therefore had no comments to take into consideration in the SBE process.

7 Overview of Initial Assessment of Risk

DSHwood has used the SBP-endorsed Regional Risk Assessment for Denmark which covers all Denmark (our Primary Feedstock) The risk assessment for DSH determined that many of the indicators are Low Risk. Only indicator Based on the information available during the risk assessment process, the level of risk for each of the criteria was chosen. Below is the summary of the indicator for which specified risk was identified.

Table 1. Overview of results from the risk assessment of all Indicators (prior to SVP)

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
1.1.1		X	
1.1.2		X	
1.1.3		X	
1.2.1		X	
1.3.1		X	
1.4.1		X	
1.5.1		X	
1.6.1		X	
2.1.1	X		
2.1.2	X		
2.1.3		X	
2.2.1		X	
2.2.2		X	
2.2.3	X		
2.2.4	X		
2.2.5		X	
2.2.6		X	
2.2.7		X	
2.2.8		X	
2.2.9		X	
2.3.1		X	
2.3.2		X	
2.3.3		X	

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
2.4.1		X	
2.4.2		X	
2.4.3		X	
2.5.1		X	
2.5.2		X	
2.6.1		X	
2.7.1		X	
2.7.2		X	
2.7.3		X	
2.7.4		X	
2.7.5		X	
2.8.1		X	
2.9.1		X	
2.9.2		X	
2.10.1		X	

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

All indicators in the RRA for Denmark has been settled as “specified risk” and “low risk”. Therefore, and according to SBP standard 2 section 9.2, no Supplier Verification Programme has been developed.

8.2 Site visits

No unspecified indicators were identified in the RRA for Denmark

8.3 Conclusions from the Supplier Verification Programme

No unspecified indicators were identified in the RRA for Denmark

9 Mitigation Measures

9.1 Mitigation measures

Introductory remarks:
Material originating from the Danish part of DSHwoods Supply Base (where SBE is performed), is sourced, assessed and mitigated through three supply chain programs:

1) Suppliers/contractors with third party evaluation as PEFC, FSC, SBP Certified Supplier, “Godkendt Biomasseproducent”/Approved Biomass Producer or Alternative documentation sustainable biomass[13]
2) The Supplier/contractor has completed “DSHwoods SBP Evalution Program”
3) The Supplier/ contractors has not completed “DSHwood SBP Evaluation Program”

DSHwood mitigation measures are based on evaluation of the sub-scopes with mitigation measures for the specified risks identified in the RRA for Denmark[14]

Supplies from Supply Chain Program 1, 2 and 3 (excempt supplies from SBP approved forest management schemes) will be monitored strictly by DSHwood internal monitoring program.

Risk assessment
In all new biomass projects the areas on which biomass is harvested will be screened according to the following indicators: 2.1.1, 2.1.2, 2.2.3 and 2.2.4 where a specified risk has been identified. The risk assessment is based on available map material and databases as well as a review of the area before startup. A map and checklist is prepared for each job to ensure that the machine operator is aware of protected or preserved nature/culture.

The risk assessment is divided into six categories:

1. Primary feedstock from FSC or PEFC certified forests - **always low risk**

2. Primary feedstock from forests with a green management plan - **specified risk**

3. Primary Feedstock from thinning in even-aged stands of conifer- **always low risk**

4. Primary feedstock from thinnings of first generation forest estates - **always low risk**

5. Primary Feedstock from uneven-aged stands or stands of broadleaf species - **specified risk**

6. Primary feedstock from windbreaks, non-forest areas such as city and park areas, nature projects - **always low risk**

The risk assessment is carried out by the supplier according to which supply chain program he/she is in. If a specified risk is identified then an assessment performed by a forester/biologist/graduate in forestry will be conducted. The forester/biologist/graduate shall be familiar with identifying key biotopes according to the key biotope type catalogue or similar.

[13] https://www.nepcon.org/da/library/standard/krav-til-alternativ-dokumentation-sbp
[14] https://sbp-cert.org/documents/standards-documents/risk-assessments/denmark/

DSHwoods Supply Chain Programs

DSHwood assess and mitigate the risk on feedstock from its suppliers with the following supply chain programs:

1. **Suppliers/contractors with third party evaluation as PEFC, FSC, SBP Certified Supplier, "Godkendt Biomasseproducent" Approved Biomass Producer or Alternative documentation sustainable biomass**, Feedstock originating from FSC, PEFC or SBP certified forests within the Supply Base is identified and sufficiently mapped before sourcing of feedstock for biomass production begins. Feedstock handled by an Approved Biomass Producer or a supplier with Alternative documentation will have adjusted their working procedure, educated the contractor, forest workers, chipper and harvester according to the guidelines for SBP regulations. This means that the forest workers are aware of information about area(mapping), source type, species, chipper, where and when the chips are delivered. Risk assessment and Risk minimization are informed, controlled and stored, and therefor we will make sampling per square root of the number of projects within DSHwood, in the current year, that the supplier/contractor/DSHwood budgets with.

2. **The Supplier/contractor has completed "DSHwoods SBP Evaluation Program",** if our suppliers/contractors have completed DSHwoods SBP Evaluation Program, then the suppliers will have adjusted their working procedure, educated the contractors, forest workers, chipper and harvester according to the guidelines for SBP regulations. That means that the forest workers are aware of Information about area(mapping), source type, species, chipper, where and when the chips are delivered, Risk assessment and Risk minimization are informed, controlled and stored. To make sure that HCVs, key biotopes and habitats are identified and mapped the supplier/contractor have followed the SBP guidelines and made a checklist to make sure that the right procedure are followed and HCVs, key biotopes and habitats are protected. Therefore will we make sampling per square root of the number of projects within DSHwood, in the current year, that the supplier/contractor/DSHwood budgets with. DSH is collaborating with 10-15 different contractors/supplier who are all registered in the Danish company registry. The suppliers are collaborators that DSH has been trading with for many years and therefore feel we can rely on. In collaboration with our suppliers DSH will fill out the checklist (Appendix 1) on all new areas we inspect. With the checklist and further guidelines, we ensure that the standards in SPB is followed.

3. **The Supplier/ contractors has not completed "DSHwoods SBP Evaluation Program",** DSH cannot be sure that HCVs, key biotopes and habitats have been identified and mapped. The forests with a green management plan, HCVs, key biotopes and habitats have been identified and mapped, but since there is no requirement for independent evaluation of adherence to limitations in the green management plan, the plan including the maps must be consulted and planned activities must be compared to HCV, key Biotopes and habitats identified the green management plan. For forests without at least a green management plan, HCVs, key Biotopes and habitats in the area where feedstock for biomass production is sourced must first be identified and mapped, and sufficient maps and instruction prepared – for personnel in charge of the felling or other activities – to ensure that HCVs, key Biotopes and habitats will not be threatened by forest management activities. To make sure that HCVs, key biotopes and habitats are identified and mapped DSHwood send a forest professional to screen the area and fillout the checklist, to make sure that the right procedure are followed and HCVs, key biotopes and habitats are protected.

Suppliers trained in “DSHwoods SBP Evaluation Program” has initially been through a half day introduction training of suppliers from the western part of Denmark and a half day introduction training of suppliers from the eastern part of Denmark. Afterwards existing and new suppliers undergo annual training in order to assure administrative as well as field implementation. Suppliers not following DSHwood guidelines correctly will be assessed and assisted thoroughly with an ultimate risk of being expelled from DSHwood SBP Evaluation Program.

Risk Mitigation procedures

DSH use the checklist in appendix 1 to get an overview of the risk of the working area

If any consideration points are found in the work area, DSH will take the necessary mitigations measures to ensure that any high conservation value is identified, protected and addressed.

2.1.1. DSH has implemented appropriate control systems and procedures for verifying that forest and other areas with high conservation value in the Supply Base are identified and mapped.

2.1.2. DSH has implemented appropriate control systems and procedures to identify and address potential treats to forests and other areas with high conservation values from forest management activities.

2.2.3. DSH has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state.

2.2.4. DSH has implemented appropriate control systems and procedures to ensure that biodiversity is protected.

The four specified risk indicators are all related to appropriate control systems and procedures to identify and address potential threats and avoid damage to nature values during forest operations.

DSH intend to ensure that biodiversity is sufficiently protected. The supplier/contractor must leave biologically valuable dead and decaying and deadwood on the forest floor. To ensure that biologically valuable dead and decaying and deadwood is not removed or chipped DSH will inform and control our suppliers/contractors with guidance and supervision of forest workers/contractors. DSH only intends to use wood suitable for wood chips production, and therefore leave biologically valuable dead and decaying and deadwood in the forest.

The risk mitigation measures covering all four indicators are described in the following procedure:

1. The purchaser is asking questions according to the “checklist for sustainable chip wood”. This checklist is divided into 3 parts:
   1.1. Traceability, as Owner and address, tree species, and who is the harvesting contractor, chipper and haulier
   1.2. General, were sourcing type is defined
   1.3. Consideration, in the work area as HCV, §3 areas, protected areas and special considerations – please see Appendix 1
2. The purchaser is controlling/reviewing the area by using the online HNV forest map (which is available at https://miljoegis3.mim.dk/spatialmap?profile=privatskovtilskud) prior to a field survey of HCVs for a calculated indication of the potential for HCVs, and this is used in deciding the scale and intensity of the field survey

and mapping activities. To ensure that any HCV in the area within the Supply Base is identified and sufficiently mapped before sourcing begins of feedstock for biomass production, so that the information about any HCVs can be securely passed on to staff carrying out the felling and chipping operation.

2.1. Physical control of the area, using skilled professional and trained forest personnel to carry out the survey. He will identify and map key biotopes based on his knowledge/skills, using the HCV forest map. Or, if there already is a useful mapping of the key biotopes in the area, he will, examine, control and add.

2.2. The purchaser is deciding if the chip wood can be purchased as SBP

2.3. Information, Once the maps resulting from the identification and mapping of 'forests containing particular natural values' as per the Danish Forest Act (Article 25) is available, we give the information to the contractor who use the information as the indication of the presence of HCVs. (Checklist, map)

DSH will complete this procedure and DSH will control that everybody who is working in our supply chain ensure and follow the guidelines for SBP regulations. DSH intend to use suppliers who are Certified or in our "DSHwood SBP Evaluation Program"

DSH will collect the SBP documentation and mapping on each area and file the documentation in cases belonging to the individual heating plant on monthly basis. Only Suppliers/contractors with third party evaluation will store the SBP documentation and mapping themselves. This documentation will be available to stakeholders at any time.

It happens that DSH comes to an area where the logs/timber is already picked up and the wood is already chipped. Here it is not possible for DSH to be ahead to secure the area. Our forest personnel can only register if the guidelines in the SBP standards has been followed in the area. This point is particularly important, because chip wood often is the residual product after the harvest of logs/ timber. That is why we invite our contractors and suppliers to be a part of "DSHwoods SBP Evaluation Program"

Contractors and suppliers who are a part of "DSHwoods SBP Evaluation Program" will all be trained to follow SBP guidelines by using the checklist and overviewing the area by using:
https://miljoegis3.mim.dk/spatialmap?profile=privatskovtilskud

The contractors and suppliers will make the screening and fill in the checklist themselves. Only when there are areas with HCV over 7, will DSH's forest personnel take over and make the control, Risk assessment and Risk minimization ourselves.

Examples of screening:
From potential feedstock sites information is collected by using the checklist (see appendix 1). The sites are controlled/reviewed by using the online HNV forest map (which is available at https://miljoegis3.mim.dk/spatialmap?profile=privatskovtilskud) prior to a field survey of HCVs for a calculated indication of the potential for HCVs, and this is used in deciding the scale and intensity of the field survey and mapping activities.
Example 1. The area is defined as forest, but the area is not certified nor has a Green Management Plan. Project is "Thinning in uniform forest and there are no consideration points in the work area". The inspected area contains even-aged beech. At first, they will sell the round wood and afterwards chip the remaining wood. There are no observations related to harvesting.

Example 2. The area is defined as forest, but the area is not certified nor has a Green Management Plan. There is Ancient monuments and dikes in the area. Project is "Thinning of all 170 ha forest". The forest consists primarily of diversified aging hardwood. The forest has never been driven conventionally so it is very

varied. There is an ancient monument in the south-western part of the forest that is physically marked to avoid damaging it during work. The work has been going on for almost a year because the soil at the site requires dry weather to carry the heavy Forest machinery.

Conclusion, the area is rated to Specified Risk according to DSHwoods SBP evaluation Program, because of the Ancient monument and uneven-aged stands of broadleaf species. So DSH will make a very thorough survey of the area to make sure that any key biotopes and HCV are identified and mapped. DSH has also marked the Ancient monument. Information and instructions are given to the personnel in charge of the felling or other forest activities

Example 3. The area is defined as forest, but the area is not certified nor has a Green Management Plan. Project: “Thinning in uniform forest and there are no consideration points in the work area”. Clearfelling of three smaller plots totaling 4 ha of spruce which has disintegrated. At first, they will harvest the round wood and afterwards chip the remaining wood. There are no observations related to harvesting.

DSH has qualified employees and collaborators who have been working in the forest industry for many years. DSH’s Forest workers, purchasers, collaborators have the education/skills so that they know the forest “best practice” and how to operate in the forest to comply with the sustainable management of forests.

DSH use simple processes, screenings and checkmark charts. The simple processes are made to make sure that everyone has access and that it is possible for everyone to follow. The checkmark charts together with the screening will ensure that all phases in the procedures are followed according to the SBP Standard 2 and 4 guidelines.

Using the checklist/screening gives DSH purchasers an overview of where the risk is and where to instigate mitigation measures. By using this procedure it is possible for DSH to act and assure control of flow from the beginning of the supply chain.

DSH will control and train the suppliers and make sampling per square root of the number of projects within DSHwood, in the current year, that the supplier/contractor/DSHwood budgets with.

9.2 Monitoring and outcomes

Both the functionality of the mitigation measures as well as projects will be monitored on a pending and annual basis via the internal monitoring program.

Mitigation Measures
Mitigation measures will be checked on a pending basis. Especially, DSHwood will follow the developments in the RRA for Denmark and the procedures developed for “Alternativ Dokumentation”/”Godkendt Biomasseproducent” in order assure that its suppliers fully mitigate the specified risks identified.
.

SBP Feedstock monitoring
Suppliers and deliveries are monitored on the following basis:

- All suppliers (though not SBP approved forest management suppliers) are monitored
- For every supplier the square root of the number of project supplied by the supplier is targeted
- A progressing sampling procedure is installed in case of discripancies found during monitoring
- Combination of desk and field monitoring is performed

10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in Annex 1.

11 Review of Report

11.1 Peer review

No peer review has taken place.

11.2 Public or additional reviews

The SBR has been in stakeholder consultation on 30 March 2017, has been updated annually and published on DSHwoods website since then.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	***Jeppe Kristoffersen*** ***Anders Bjørnkjær-Nielsen***	***Administrative employee*** ***Certifcations***	***10.09.2021***
	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:	***Erik T. Kjær***	***Biomass Manager***	***10.09.2021***
	Name	**Title**	**Date**
Report approved by:	***Jesper Vestergaard Henriksen***	***CFO***	***10.09.2021***
	Name	**Title**	**Date**
Report approved by:	***[name]***	***[title]***	***[date]***
	Name	**Title**	**Date**

13 Updates

DSH will update the SBR at least once a year.

If DSH discover any significant changes in the supply base or SBR DSH will make the necessary changes and inform SBP.

DSH will sent the SBR to SBP for approval. DSH will upload an updated SBR in Danish and English on our homepage at least 90 days after approval.

Note: Updates should be provided in the form of additional pages, either published separately or added to the original public summary report.

13.1 Significant changes in the Supply Base

June 2019: No changes in Supply Base

June 2020: Supply Base Germany included by January/February 2020, solely for deliveries of FSC 100% or 100% PEFC certified material

September 2021: Supply Base Sweden included, solely for deliveries of FSC 100% or 100% PEFC certified material

13.2 Effectiveness of previous mitigation measures

June 2019: No changes with reference to previous evaluations

June 2020: No changes with reference to previous evaluations

13.3 New risk ratings and mitigation measures

June 2019: No changes with reference to previous evaluations

June 2020: No changes with reference to previous evaluations

13.4 Actual figures for feedstock over the previous 12 months

nn. *Total volume of Feedstock: 200.000-400.000 ton

oo. *Volume of primary feedstock: 0-200.000 ton

pp. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes

- 5 % forest holdings certified to an SBP-approved Forest Management Schemes
- 95 % forest holdings not certified to an SBP-approved Forest Management Schemes

qq. List all species in primary feedstock, including scientific name

Softwood			
Abies Alba	Larix spp	Pinus Contorta	Pinus spp
Abies Grandis	Picea Abies	Pinus Nigra	Pseudotsuga Menziesli
Abies Normaniana	Picea Glauca	Pinus Ponderosa	Thuja Plicata
Abies Procera	Picea Sitchensis	Pinus Strobus	Tsuga Heterophylla (Raf.) Sarg
Abies spp.	Picea spp	Pinus Sulvestris	

Hardwood			
Acer Platanoldes	Betula Pubescens	Populus Tremuloides	Quercus Rubra
Acer Pseudoptatanus	Carpinus Betuius L	Populus spp	Quercus spp
Alnus Glutinosa	Fagus Sylvatica	Prunus Avium	Salix spp
Alnus Incana	Fraxinus Excelsior	Quercus Petraea	Sorbus spp
Betula Pendula	Populus Tremula	Quercus Robur	

rr. Volume of primary feedstock from primary forest: 0 m^3

ss. List percentage of primary feedstock from primary forest (i), by the following categories. Subdivide by SBP-approved Forest Management Schemes
- 0 % Primary feedstock from primary forest certified to an SBP-approved Forest Management Schemes
- 0 % Primary feedstock from primary forest not certified to an SBP-approved Forest Management Schemes

tt. Volume of secondary feedstock: None

uu. Volume of tertiary feedstock: None

** Disclosure of the exact figures would reveal commercially sensitive information that could be used by competitors to gain competitive advantage. Volumes are sensitive as they may give competitors and idea about capacity, resources and market share.*

13.5 Projected figures for feedstock over the next 12 months

*Using the categories in Section 2.5 'Quantification of the Supply Base' (above), give an updated projection for the coming 12 month period. Volume may be shown in a banding between XXX,000 to YYY,000 tonnes or m^3 if a compelling justification is provided**

vv. *Total volume of Feedstock: 0-200.000 ton

ww. *Volume of primary feedstock: 0-200.000 ton

xx. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes
- 40 % forest holdings certified to an SBP-approved Forest Management Schemes
- 60 % forest holdings not certified to an SBP-approved Forest Management Schemes

yy. List all species in primary feedstock, including scientific name

Softwood			
Abies Alba	Larix spp	Pinus Contorta	Pinus spp
Abies Grandis	Picea Abies	Pinus Nigra	Pseudotsuga Menziesli
Abies Normaniana	Picea Glauca	Pinus Ponderosa	Thuja Plicata

Abies Procera	Picea Sitchensis	Pinus Strobus	Tsuga Heterophylla (Raf.) Sarg
Abies spp.	Picea spp	Pinus Sulvestris	

Hardwood			
Acer Platanoldes	Betula Pubescens	Populus Tremuloides	Quercus Rubra
Acer Pseudoptatanus	Carpinus Betuius L	Populus spp	Quercus spp
Alnus Glutinosa	Fagus Sylvatica	Prunus Avium	Salix spp
Alnus Incana	Fraxinus Excelsior	Quercus Petraea	Sorbus spp
Betula Pendula	Populus Tremula	Quercus Robur	

zz. Volume of primary feedstock from primary forest: 0 m^3

aaa. List percentage of primary feedstock from primary forest (i), by the following categories. Subdivide by SBP-approved Forest Management Schemes

- 0 % Primary feedstock from primary forest certified to an SBP-approved Forest Management
- 0 % Primary feedstock from primary forest not certified to an SBP-approved Forest Management

bbb. Volume of secondary feedstock: None

ccc.Volume of tertiary feedstock: None

** Disclosure of the exact figures would reveal commercially sensitive information that could be used by competitors to gain competitive advantage. Volumes are sensitive as they may give competitors and idea about capacity, resources and market share.*

14 Appendix 1

Checklist for sustainable chip wood

Referense no.	
Date	
Owner	
Address	
Postal code/city	
Telephone / mobile	
Responsible person for screening	
Tree species	
Cutter	
Chipper	

Generel

The forest is certificed PEFC/FSC/SBP ?		Yes		No
If NO fill out the following fields:				
The area is forest or registered as forest		Yes		No
The area is **not** defined as forest, but e.g. as windbreaks ?		Yes		No
The area is **not** defined as forest, but e.g. as areas protected by the nature conservation		Yes		No
The area is **not** defined as forest, but e.g. as city, road or park area ?		Yes		No
The forest has a Green Management Plan ?		Yes		No
The activity is thinning in uniform coniferous forest or first time thinning in afforestated a		Yes		No
The activity is Conversion of forest ?		Yes		No

Consideration points checked in the work area

HCV value over 7, orientation SBP **		Yes		No
§ 3 areas		Yes		No
Ancient monuments and dikes		Yes		No
Protected areas		Yes		No
Nature 2000 area ?				
Special considerations obtained from the owner, incl. Forest law agreements*		Yes		No

Instructions and remarks for the assignment
Instruction:
Remark:
Offer:
Order:
Send order:

Observations related to harvesting

* http://mst.dk/erhverv/skovbrug/lovgivning/vejledning-om-skovloven/
** http://miljoegis.mim.dk/spatialmap?profile=privatskovtilskud

15 Ammendments to SBR

Section 4.4 DSH is using 10-15 different contractors/supplier who are all registered in the Danish company registry. The suppliers are collaborators that DSH have been trading with for many years and can rely on. DSH will in collaboration with our suppliers make the checklist (Appendix 1) on all new areas we inspect. With the checklist and further guidelines we ensure that the standards in SPB is followed.

We exclude suppliers sourcing chip wood with the following claims (FM and CoC) from our supplier verification programme: PEFC 0<100 % certified, FSC 0<100 %, FSC mix credit and SBP-compliant.

Suppliers in our supplier verification programme are grouped into 3 groups: 1. suppliers evaluated against "Kravspecifikation for alternative documentation for bæredygtig biomasse" by a relevant CB; 2. Suppliers in DSHwood supplier programme and 3. Suppliers characterized by contacting DSHwood for a spot trade and therefore having received no training or guidance. DSHwood monitor and control the 3 groups in our supplier verification programme.

Our Supplier Verification Programme has been implemented with a half day introduction training of suppliers from the western part of Denmark and a half day introduction training of suppliers from the eastern part of Denmark. Afterwards all suppliers undergo bilateral training in order to assure administrative as well as field implementation.

Suppliers not following our guidelines correctly will be assessed and assisted thoroughly with a ultimate risk of being expelled from our supplier program.

Section 8.1 DSH will invite all our contractors to be in our "DSHwood Supplier Program" because it will minimize the risk in our supply chain as they will be trained and controlled to follow the guidelines for SBP regulations.

We will evaluate our suppliers/contractors with the following risk levels

- **Suppliers/contractors with third party evaluation as PEFC, FSC, SBP Certified Supplier, "Godkendt Biomasseproducent" Approved Biomass Producer or Alternative documentation sustainable biomass**, Feedstock originating from FSC, PEFC or SBP certified forests within the Supply Base is identified and sufficiently mapped before sourcing begins of feedstock for biomass production. Feedstock handled by an Approved Biomass Producer or a supplier with Alternative documentation will have adjusted their working procedure, educated the contractor, forest workers, chipper and harvester according to the guidelines for SBP regulations. That means that the forest workers are aware about Information about area(mapping), source type, species, chipper, where and when the chips are delivered, Risk assessment and Risk minimization are informed, controlled and stored, and therefor will we make sampling per square root of the number of projects within DSHwood, in the current year, that the supplier/contractor/DSHwood budgets with.

The Supplier/contractor has completed "DSHwoods supplier Program", if our suppliers/contractors have completed DSHwoods supplier program will the suppliers have adjusted their working procedure, educated the contractor, forest workers, chipper and harvester according to the guidelines for SBP regulations. That means that the forest workers are aware about Information about area(mapping), source type, species, chipper, where and when the chips are delivered, Risk assessment and Risk minimization are informed, controlled and stored. To make sure that HCVs, key biotopes and habitats are identified and mapped have the supplier/contractor followed the SBP guidelines and made a checklist to make sure that the right procedure are followed and HCVs, key biotopes and habitats are protected. Therefor will we make sampling per square root of the number of projects within DSHwood, in the current year, that the supplier/contractor/DSHwood budgets with.

The Supplier/ contractors has not completed "DSHwood supplier Program", DSH cannot be sure that HCVs, key biotopes and habitats have been identified and mapped. The forests with a green management plan, HCVs, key biotopes and habitats have been identified and mapped, but since there is no requirement for independent evaluation of adherence to limitations in the green management plan, the plan including the maps must be consulted and planned activities must be compared to HCV, key Biotopes and habitats identified the green management plan. For forests without at least a green management plan, HCVs, key Biotopes and habitats in the area where feedstock for biomass production is sourced must first be identified and mapped, and sufficient maps and instruction prepared – for personnel in charge of the felling or other activities – to ensure that HCVs, key Biotopes and habitats will not be threatened by forest management activities.

To make sure that HCVs, key biotopes and habitats are identified and mapped will we sent a forest professional to screen the area and make the checklist, to make sure that the right procedure are followed and HCVs, key biotopes and habitats are protected.

DSH will update all relevant information (personal master/data card) on the Suppliers who are participating DSH Supplier Verification Program once a year.

Section 9.1 DSH intend to use suppliers who are Certified or in our "DSHwood Supplier Program"

DSH will collect the SBP documentation and mapping on each area and file the documentation in cases belonging to the individual heating plant on monthly basis. Only Suppliers/contractors with third party evaluation will store the SBP documentation and mapping themselves. This documentation will be available to stakeholders at any time.

It appears that DSH comes to an area where the logs/timber is already picked up and the wood is already chipped. Here is it not possible for DSH to be ahead to secure the area. Our forest personnel can only register if the guidelines in the SBP standards has been followed in the area. This point is particularly important, because chip wood often is the residual product after the harvesting of logs/ timber. That is why we invite our contractors and suppliers to be a part of "DSHwoods Supplier Program"

Contractors and suppliers who are a part of "DSHwoods Supplier Program" will all be trained to follow SBP guidelines by using the checklist and overviewing the area by using
http://miljoegis.mim.dk/spatialmap?profile=privatskovtilskud .

The contractors and suppliers will make the screening and fill in the checklist themselves. Only when there are areas with HCV over 7, will DSH's forest personnel take over and make the control, Risk assessment and Risk minimization ourselves.

DSH will control and train the suppliers and make sampling per square root of the number of projects within DSHwood, in the current year, that the supplier/contractor/DSHwood budgets with.

Section 13. DSH will update the SBR at least once a year.

If DSH discover any significant changes in the supply base or SBR will DSH make the necessary changes and inform SBP.

DSH will sent the SBR to SBP for approval. DSH will upload an updated SBR in Danish and English on our homepage at least 90 days after approval.

SBR UPDATE 04.09.2018

DSHwood has evaluated its SBP evaluation Program and the associated risk mitigation measures for our Danish Supply Base in July 2018 with the following conclusions and changes:

Conclusions:

i. The SBP evaluation Program has been effective, and, with certain challenges, entrepreneurs have adopted the risk minimization measures. The main challenge has been timely preparation of screenings. We will continue to evaluate our categorization of contractors in the SBP evaluation Program.

ii. We have assessed our risk minimization measures for their effectiveness, amongst others through internal control of 34 cases and ongoing contact with our suppliers. Our assessment is that our risk minimization efforts are effective, it has however been problematic to monitor on deadwood, monitoring has therefore happened in connection with field visits.

Changes

In DSHwood's Supplier Program we include entrepreneurs and forest owners who can deliver sustainable biomass. In the program, entrepreneurs and forest owners are not third party evaluated according to “the requirements specification for alternative documentation for sustainable biomass”, but, through the program it is ensured that "the requirement specification for alternative documentation for sustainable biomass” is met.

DSHwood expects low risk for our contractors’ actions on all low risk areas, cf. SBP's national risk assessment for Denmark

Risk mitigation measures regarding "Specified risk", cf. SBP risk assessment for Denmark, are ensured by:

i. Entrepreneurs or forest owners supplying SBP compliant feedstock document whether SBP procedures are met or not and,

ii. Entrepreneurs or forest owners have project managers who are adequately trained in SBP procedures.

DSHwood will randomly check projects and training documentation to a level of low risk of non-compliance with SBP procedures. Sample rate: square root of the number of projects and minimum one yearly review of educational material.

DSHwood assists its suppliers with SBP professional material

SBR update June 2019

DSHwood has evaluated and updated the SBR – the evaluation has not led to significant changes.

SBR update January/February, 2020

DSHwood has updated its supply base report according to supply base evaluation template, version 1.3.

In addition, the scope of DSHwood's supply base has been extended to include FSC and / or PEFC certified forests in Germany. According to SBP Standard 2, Section 8. 2, this has not led to the preparation of a supply base evaluation for Germany.

SBR update June 2020

Annual management review has not led to changes in the scope and supply bases for DSHwood. The Supply base report has been updated to the new template with the new SBP logo.

The description of a Supplier Verification Programe has been cancelled according to a clarification of SBP standard 2 section 9.2 , instead the control measures are described under chapter 9 mitigation measures.