Supply Base Report: Uddevalla Kraft AB

Main (Initial) Audit

www.sbp-cert.org

Completed in accordance with the Supply Base Report Template Version 1.4

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

Version 1.4 published 22 October 2020

Table of Contents

1 Overview

Producer name:	Uddevalla Kraft AB
Producer address:	Nistansvägen 2 451 55 Uddevalla , Sweden
SBP Certificate Code:	SBP-08-57
Geographic position:	Latitude: 58.37345800 Longitude: 11.98591200
Primary contact name:	Peter Fasth
Primary contact phone:	+46 70-298 23 48
Primary contact email:	Peter.Fasth@uddevallaenergi.se
Company website:	www.uddevallaenergi.se
Date report finalised:	2022-11-14
Close of last CB audit:	NA
Name of CB:	NEPCon OÜ
SBP Standard(s) used:	SBP Standard 2: Verification of SBP-compliant Feedstock; SBP Standard 4: Chain of Custody; SBP Standard 5: Collection and Communication of Data Instruction
Weblink to Standard(s) used:	https://sbp-cert.org/documents/standards-documents/standards

SBP Endorsed Regional Risk Assessment: No

Weblink to SBR on Company website: NA

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

2 Description of the Supply Base

2.1 General description

Feedstock types: ☐ Primary ☒ Secondary ☐ Tertiary

Includes Supply Base evaluation (SBE): ☐ Yes ☒ No

Feedstock origin (countries): Sweden and Norway

2.2 Description of countries included in the Supply Base

Country	Sweden
Area/Region	Norra Götaland, Svealand, Dalsland
Exclusions	no
Description of the country	

General description of the supply base for Uddevalla Kraft AB and Sweden as country of harvest

The wood that is taken out of the Swedish forest can be divided into three main flows: 47 percent goes to the sawmills, 45 percent goes to the pulp mills and 8 percent is used as firewood, poles and more. The wood comes with bark and branches and tops, GROT, are also taken from the forest in the form of forest fuel, which is used for energy production. As a result of the timber process, 31 percent is sawmill chips, so-called raw chips, when sawing the log into planks and boards. The raw chips go to the pulp industry.

Sweden has a net import of timber of approximately 8 mn m3f ub. Import to the pulp industry include some sawmill chips. In the next stage, the sawmills share their share of raw materials by wood chips becoming a raw material for the pulp industry and bark and shavings becoming fuel. A small part of the shavings is used by the wood board industry. Skogsindustrierna, https://www.svenskttra.se/trafakta/allmant-om-tra/fran-timmer-till-planka/

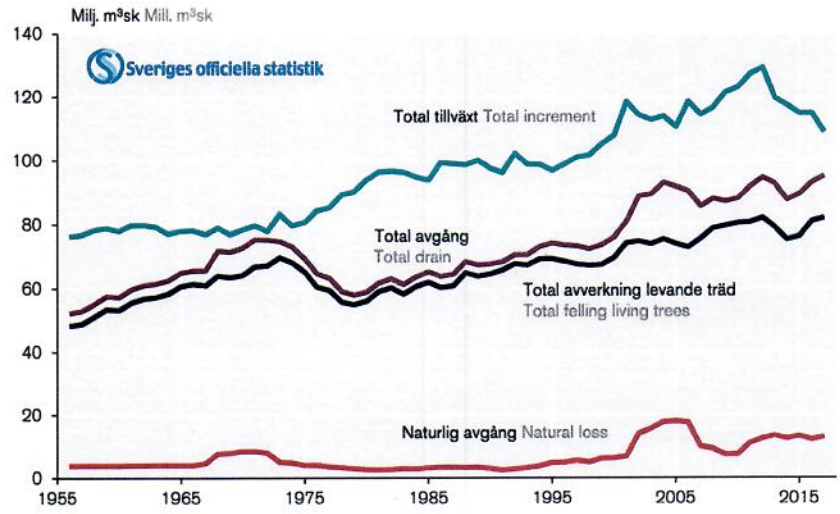
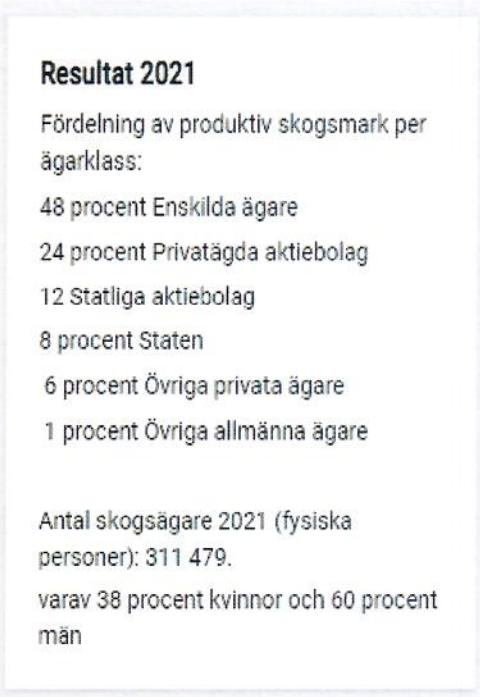


Table 1: Harvest and growth figures for Sweden, source:
https://www.slu.se/globalassets/ew/org/centrb/rt/dokument/skogsdata/senaste/fig112.png

The net felling, which is the felled volume of all tree trunks that are fully or partially used, amounted to 77.0 million cubic meters (m3fub) in 2021. Just over half of the net felling consisted of sawn timber from conifers, 41 percent of pulp wood, 7 percent of firewood and some percent of other wood. Just over 65 percent of the felled volume comes from final felling, 24 percent from thinning and the rest from other felling. Roughly 36 percent of the harvested volume comes from Götaland, about 30 percent from Svealand and roughly 33 percent from Norrland. Spruce makes up more than half of the felled volume, pine a third and hardwoods around a tenth.
https://www.skogsstyrelsen.se/nyhetslista/avverkningen-pa-rekordniva-2021/

Land use and ownership status

The largest part of the Swedish productive forest land is owned by private individuals. In Sweden the forest is own by several different parties, Privat owners (48%), Privately own companies (24%), Governmentally own companies (12%), Other Privat owners (6%), Government (8%), Other common owners (1%).



Result 2021

Distribution of productive forest land by owner class
48% individual owners
24% private limited companies
12% state-owned limited liability companies
8% government
6% other private forest owners
2% other private forest owners
Number of forest owners 2021 (natural persons) :311479 of which 38% women and 62% men

Table 2. Ownership Sweden, source: https://www.skogsstyrelsen.se/statistik/statistik-efter-amne/fastighets-och-agarstruktur-i-skogsbruk/

All forestry activity in Sweden is subject to the same legal requirements. Thus, the same legislation is applicable for forest land owned by state, local municipality, companies and private individuals. The Swedish Forestry Act aims at promoting high long term wood production as well as environmental protection during forestry activities. https://preferredbynature.org/sourcinghub/timber/timber-sweden

In Sweden the land use can be devided into four categories Forest land, Bare unproductive land, Other land and Other wooded land. The Forest land is the majority with 69%. The picture and figures are presented below. During 2020 15,5 milion hectars of productive wood was certified and 1,3 miljoner

hectar productive wood land that was volontary from the owners.
https://www.skogsstyrelsen.se/statistik/statistik-efter-amne/frivilliga-avsattningar-och-certifierad-areal/

Figur 1.1 **Landarealen fördelad på ägoslag enligt skogsvårdslagen. 2016–2020.**
Fotografer: Anton Larsson, Åke Bruhn och Ola Borin, alla SLU
Land area by land use class, according to the Swedish Forestry Act. 2016–2020.
Images: Anton Larsson, Åke Bruhn och Ola Borin, all SLU.

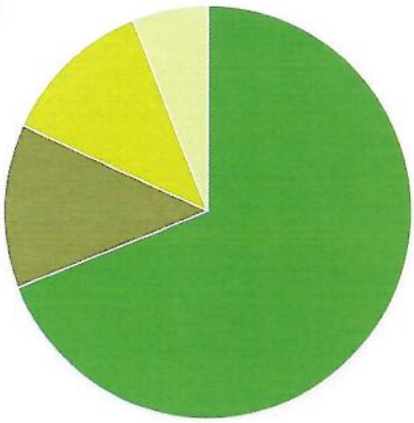


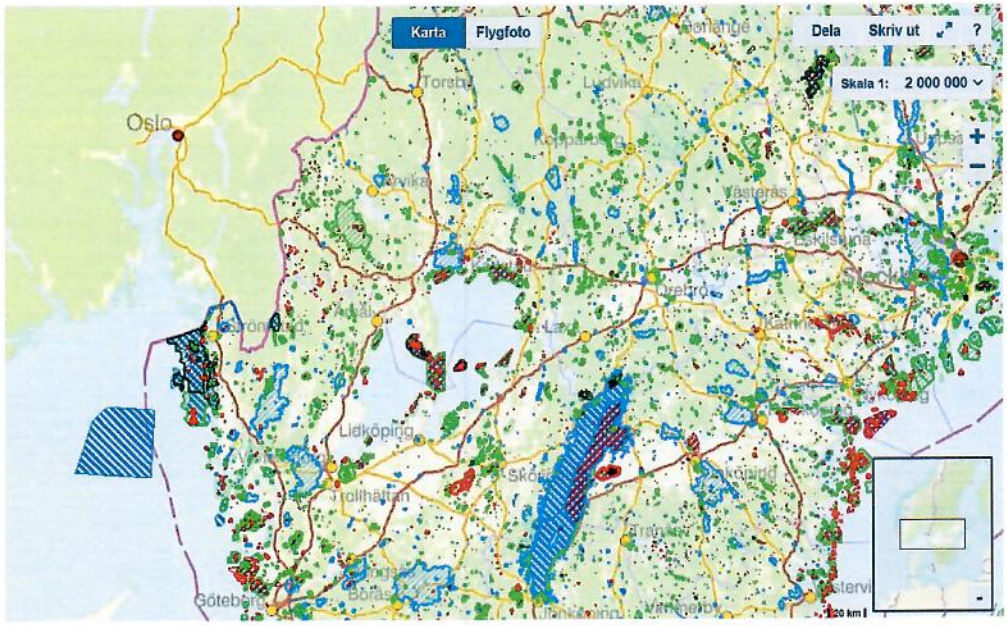
Table 3. Land area by land use class Sweden, source:
https://www.slu.se/globalassets/ew/org/centrb/rt/dokument/skogsdata/senaste/fig13.png

Forest composition

Nearly 70 percent of Sweden's area (land area) is covered by forest and the total area of forest land has been stable over a long period of time. As much as 83 percent of the Swedish forest land is covered by coniferous forest, mixed forest to 12 percent and pure deciduous forest to 5 percent. The timber volume consists of 40 percent spruce, followed by pine with 39 percent followed by birch with 13 percent and other deciduous tree species with 8 percent. https://www.svenskttra.se/trafakta/allmant-om-tra/tra-och-hallbarhet/den-hallbara-svenska-skogen/#

Of the total forest land area, 23.6 million hectares are counted as productive forest land. That is 58 percent of the land area. Of this, approximately 1.0 million hectares are found in national parks, nature reserves and nature conservation areas. (By productive forest land is meant land that is fertile enough to produce at least 1 m^3sk per hectare and year.) 119 milion m^3sk per year it the total growth on Swedish productive woodlands, not including the protected areas (Riksskogstaxeringen, year 2019). At the end of 2018, the formally protected forest land covered a total of 2.3 million hectares, which corresponds to 9 percent of Sweden's forest land. Of these, almost 1.4 million hectares were productive forest land, which corresponds to 6 percent of the country's entire productive forest land. 62 percent of the formally

protected forest land is in Sweden's mountainous region. https://www.skogssverige.se/skog/fakta-om-skog



Map 1: Officially protected areas, Naturreservat, Natura 2000 m fl (not WKH). source: https://skyddadnatur.naturvardsverket.se/

Roundwood production totalled 74.3 million m3 in 2015 and 119 milion m^3sk per year it the total growth as stated above. The forestry sector (including wood processing and pulp and paper) contributed US$ 13.0 billion to the economy in 2011, or nearly 3.0% of the GDP. https://preferredbynature.org/sourcinghub/timber/timber-sweden and https://www.skogssverige.se/skog/fakta-om-skog

Of the 18.4 million cubic meters of sawn wood products, which will be produced in Sweden in 2020, we consumed approximately 5.3 million cubic meters within the country. A little more than 75% of the production was exported in 2020, which is slightly more than the approximately 70% that are usually exported during a normal year. https://www.skogsindustrierna.se/om-skogsindustrin/branschstatistik/sagade-travaror-produktion-och-handel/

68.7% (28 million ha) of Sweden is covered by forests of which:

- About 9% is primary forest
- About 42% is naturally-regenerated forest
- About 49% is planted forest.

There are three timber source types found in Sweden. Productive forests - Timber from productive forest land, defined as land that can produce no less than 1 m3 stem wood including bark annually and that is not used for any other purpose such as agriculture, buildings or infrastructure. Mountainous forests Forest land of mountainous areas as delineated in the Swedish Forest Agency's regulation SKSFS 1991:3. Harvesting permit is required. Forest of 'noble' broad leaves Timber from stands of forest in which at least 70 % of the basal areal consist of broad leaved trees and at least 50 % consist of oak, beech, ash, lime, elm, cherry, maple and hornbeam. Harvesting permit is required. https://preferredbynature.org/sourcinghub/timber/timber-sweden

Adjacent lands

The biological diversity of the forest must be preserved. At the same time, other interests must be taken into account, such as the cultural environment and outdoor life. Consideration must be given, among other things, by leaving the protection zones with trees and shrubs that are needed against consideration-demanding biotopes, cultural environments, water, wetlands and bird nests. https://www.skogsstyrelsen.se/lag-och-tillsyn/skogsvardslagen/

Watercourses and lakes with surrounding forests, edge zones, should be considered as a unit. The variation in nature is great and one stream or lake and its surroundings are not the same as the other. The considerations that must be taken into account therefore need to vary depending on the different conditions that exist. Sometimes wide, completely untouched edge zones should be left. In other cases, trees should be felled in the edge zone, while on limited stretches it may be most expedient to fell all the way to the water to enable the development of a more functional edge zone in the new stand. https://www.skogsstyrelsen.se/globalassets/mer-om-skog/malbilder-for-god-miljohansyn/malbilder-kantzoner-mot-sjoar-och-vattendrag/hansyn-till-vatten-alla-faktablad-samlade-i-en-pdf.pdf

The forestry management practices

The Forest Conservation Act expresses what demands forest owner have. The law states that the forest is a renewable resource that must be managed so that it sustainably provides a good return. At the same time, the forest owners must take into account nature, the cultural environment, the reindeer herding and other interests. In addition to the Forest Management Act, the Swedish Forest Agency is also the supervisory authority for parts of the Environmental Code.

According to the forest owners must establish new forest after felling/final cutting, by using proven methods and tree species that are suitable for the site. The harvesting authorization system is managed on a system of mandatory Timber Harvesting Notifications to the Swedish Forest Agency. Felling of at least 0.5 hectares must be reported to the Swedish Forest Agency no later than six weeks in advance. The same applies to felling for purposes other than timber production. https://www.skogsstyrelsen.se/lag-och-tillsyn/skogsvardslagen/

All forestry activity in Sweden is subject to the same legal requirements. Thus, the same legislation is applicable for forest land owned by state, local municipality, companies and private individuals. The Swedish Forestry Act aims at promoting high long term wood production as well as environmental protection during forestry activities.

In the country there are areas of endangered high conservation value forests. Areas located outside of these high conservation forests are considered as low risk. In case there are industrial plantations in the country, these are not high conservation value forest areas and can be classified as low risk in relation to this category. In the supply base for Uddevalla Kraft AB these areas are not present, see map below. https://preferredbynature.org/sourcinghub/timber/timber-sweden

Map 2: Supply base for Uddevalla Kraft

Land in where reindeer husbandry may be conducted must take reindeer husbandry into account by adapting the size and location of the felling/cutting when needed. On the year-round land, you must give the Sami village concerned the opportunity to consult before final cutting for forest roads. But this does not apply to farm units of less than 500 hectares of productive forest land if the felling is less than 20 hectares. In forests close to the mountains, the corresponding felling area is 10 hectares. If a particularly important area for reindeer husbandry is affected, you should always give the Sami village the opportunity to consult, regardless of area. https://www.skogsstyrelsen.se/lag-och-tillsyn/skogsvardslagen/

To become PEFC and / or FSC certified, a green forestry plan is a requirement. A "Green forest management plan" also gives recommendations for the best practise of management at stand level as well as identification of areas which should be set aside for the purpose of nature conservation values (minimum 5 % of the productive area). All this is required for all suppliers and the origins that the forest purchases to Uddevalla Kraft AB come from as they are all certified according to FSC and / or PEFC. https://hushallningssallskapet.se/tjanster/skog/gron-skogsbruksplan/

For Uddevalla Kraft AB's supply base chain all the origin is all low risk as the organization has an implemented WKH (Woodland Key Habitat) policy and conducts natural value assessments prior to harvesting operations and holds a valid FSC or PEFC certificate. (Woodland key habitats are the sites in the forest, which provide for the existence of rare and endangered species having highly specific demands for the habitat.) The supplying organizations sources wood mainly from private forest owners or their own forest areas. No risk of non-eligible inputs, all transportation is handled by the organizations itself and the impartial third-party system VIOL (VIrke On Line) is applied. This gives full traceability. The areas within Uddevalla Kraft AB's supply base are outside mountain forest in the northeast areas and middle parts of Sweden. (Supplier interview and Supplier data linked to SBP)

Map 3: Woodland Key Habitat, Nyckelbiotoper (WKH) Västra Götaland, Dalsland and sydöstra Svealand, source: Skogsstyrelsen.

The risk assessments for Sweden according to the requirements in the FC Contoolled Wood standard states that Sweden is Low risk and the only two parts where there is a concern is the sami aspects and the areas and forests close to the mountains. file:///C:/Users/Sofia%C3%96berg/Downloads/FSC-CNRA-SE%20V1-0%20EN_2018-05-08%20(1).pdf Prefered by Nature (former NEPCon) also states in their evaluation that Sweden is a low risk for illegally harvested timber. If you are sourcing timber from Sweden you should still take care to ensure that risks are not present in your supply chains. And since the Supply Base for Uddevalla Kraft AB does not include these areas the risk should be considered low. https://preferredbynature.org/sourcinghub/timber/timber-sweden

Socioeconomic conditions

Sweden has an open economy and is dependent on being able to sell its goods on the international market. The country has rich natural resources such as timber, minerals and hydropower. The economy is very dependent on the export of these goods Timber, minerals and hydropower have been the most important factors in talking about Sweden as Scandinavia's foremost industrial country.

The country has a high standard of living and a good welfare system, with free education. The majority of the population in Sweden is older. Above all, men are getting older. Life expectancy is high, and birth rates have been low from time to time. Sweden has seen a steady increase in population in recent years. This is partly due to an increase in the number of foreign students, immigration of refugees and labor immigration from Europe. Sweden is number 6 out of 188 countries in terms of human development in the Human Development Index. Normally a child in Sweden is expected to go to school for 14 years. https://www.globalis.se/Laender/sverige

The socio-economic situation and development in Sweden's various municipalities play a major role in their conditions and opportunities to offer good service and welfare to their inhabitants. The socio-economic differences between the municipalities are large and these differences tend to increase in several respects. The municipalities that are affected by the forest areas that are relevant for felling are some that are heterogeneous in many socio-economic respects, with a high level of education, high incomes and low ill health rates. But in other municipalities that are affected, there is a lower level of education, a higher unemployment rate, a lower income level and an aging population structure. With in these cases relatively long commuting distances to larger labor markets, the jobs and opportunities that exist in the area are important for all socio-economic factors in these areas. (SEKOM 2017 Socioekonomisk analys av Sveriges kommuner, version 1.3 2019-09-10)

The number of employees in the forest industry is approximately 115,000 people in total and of the Swedish industry's employment, turnover and value added, the forest industry accounts for 10-12 percent. (https://www.skogssverige.se/skog/fakta-om-skog) In Sweden there was 16 357 årsverken year 2017 (a årsverke is the work a fulltime employee conducts during one year). https://www.skogsstyrelsen.se/statistik/statistik-efter-amne/sysselsattning-i-skogsbruket/

Sweden had a Corruption Perception Index (CPI) of 85, indicating that the country has low corruption levels and a high degree of legal compliance. Transparency International ranks Sweden as number 3/180 in the world. https://www.transparency.org/en/cpi/2020/index/swe and https://www.transparency.org/en/countries/sweden

SBP feedstock groups, species and suppliers

In Uddevalla Kraft's supply chain, the sawmills only use spruce and pine for the production of chips for Uddevalla Kraft, all the suppliers hold a valid FSC and / or PEFC certificate. The product used, sawdust, do not include any threatened species included in CITES or IUCN. The two species in the product is spruce (*Picea abies*) 65% and pine (*Pinus sylvestris*) 35%. At the moment the proportions of SBP-feedstock product groups Controlled Feedstock and SBP-compliant Secondary feedstock for this report period is 99% Controlled Feedstock and 1% SBP-compliant Secondary feedstock since the FSC certification was successfully completed during spring 2021 so the purchase of more FSC certified thus SBP-compliant Secondary feedstock had just started. Thus no SBP non compliant Feedstock is included in the product. The certified amount is gradually increasing. The purchase is from three suppliers, Vänerbränsle, VIDA, Derome and Levene Såg AB. (Supplier interview and Supplier data linked to SBP and https://info.fsc.org/certificate.php and https://pefc.se/soek-certifierade-foeretag)

Country	Norway
Area/Region	Innlandet, Viken, Aurskog, Hedmark
Exclusions	

Description of the country

General description of the supply base for Uddevalla Kraft AB and Norway as country of harvest

The oil industry has dominated Norwegian business and the traditional industries like marine, agricultural and fishing has declined. https://www.globalis.se/Laender/norge

All forestry activity in Norway is subject to the same legal requirements. Thus, the same legislation is applicable for forest land owned by state, local municipality, companies and private individuals. Landbruksdirektoratet, The Ministry of Agriculture and Food (LMD) has the main responsibility for food and agricultural policy. It includes land management, agriculture and forestry, animal husbandry, reindeer husbandry and the development of new industries based on agriculture. This authority and the legal requirements linked to forestry aims at promoting high long term wood production as well as environmental protection during forestry activities. https://www.landbruksdirektoratet.no/nb/

The Forestry Act was renewed in 2005, and forestry has relatively few regulations in Norway. Each municipality has authorities responsible for the management of forestry and forest owners. Harvesting is regulated by the Ministry of Agriculture and Food. The Norwegian forestry sector dealing with timber harvesting is completely dominated by about 10 companies. The companies are either local, commercial departments of a forest owner's organization, or they are commercial companies without memberships. https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

In Norway, virtually every cubic meter harvested is measured by a surveying association and it is government agencies that are responsible for reporting the statistics.
https://www.skogen.se/nyheter/har-ar-nordens-mest-slutna-virkesmarknad

The Norwegian government has set a high goal. 10 percent of the forest must be protected. At present, 3.2 per cent of the productive forest is protected and just over 4 per cent of the total forest area. In 2017, the government invested NOK 442 million in forest protection, which is the highest amount ever. Of the 114 areas of a total of 213 square kilometers of productive forest land that were protected in 2017, 91 have been protected on a voluntary basis by private forest owners.
https://www.landskogsbruk.se/skog/norge-slar-rekord-i-skyddad-skog/

Land use and ownership status

The majority of the productive forests are privately owned (77%) and the State only owns 7%. The rest are owned by companies, the church, forest-commons and municipalities. 3% of the productive forests are protected within nature reserves and national parks (2016).
https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

Forest composition

Mainland Norway (385,252 km2) stretches more then 1800 km from south to north, from 31°N in Vest-Agder to more than 71°N in Finnmark, and along the west-east gradient from c. 5°E in Hordaland to 31°E in Finnmark county. In the southernmost lowlands, the climate is typical temperate, while the far northeast parts of Finnmark lay in the arctic climate zone. The southwestern Norwegian coast may have annual rainfall like in tropical rain forests (>3.500 mm), while some eastern parts are similar to deserts (300 mm), considering the precipitation. Norway thus provides a huge diversity of land-forms, nature-types and biodiversity, and not at least different forest types covering approximately 40% of the land area (the rest is mostly mountains).

Norway spruce (Picea abies), Scots pine and downy birch (Betula pendula / Betula verrucose) are the most common tree species. Temperate broad-leaf forests, one of the most species rich habitats, are quite common in the lowlands, especially along the coasts of South Norway, although they cover less than 1% of the productive forests.

https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

In 2021, the total timber harvest ended at 11,57 million m^3, which is an increase of approximately 1 212 000 m^3 (11,7 percent) from 2020. In 2016, 2017, 2018, 2019 and 2020, a total of 10.43 million m^3, 10.43 million m^3, 10.62 million m^3, 10.95 million m^3, 11.18 m^3 and 10, 36 million m^3 of industrial timber were harvested, respectively.

År	Millioner m³
2021	11,57
2020	10,36
2019	11,18
2018	10,95
2017	10,62
2016	10,43
2015	10,2

Table 1. Timber harvest Norway, source: https://www.landbruksdirektoratet.no/nb/statistikk-og-utviklingstrekk/utviklingstrekk-i-skogbruket/tommeravvirkning-og-priser

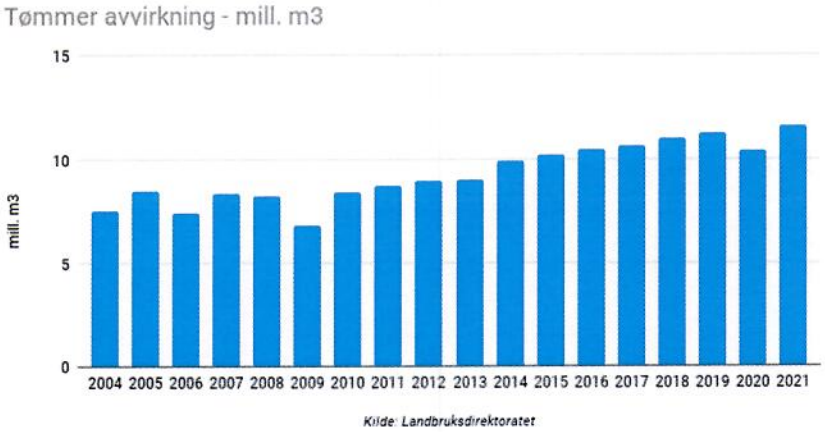


Table 2: Timber harvest in Norway source: https://www.ssb.no/jord-skog-jakt-og-fiskeri/skogbruk/statistikk/landsskogtakseringen, (Statistiska SentralByrån).

In 2021, 8453 million meters of spruce, 2 822 million meters of pine and 0.299 million meters of leaves were harvested. Spruce has accounted for about 2/3 of the total felling quantity for industrial purposes in the last ten years, while pine just under 1/3. Leaves have been between 1-2 percent of the felling quantity.

Tømmeravvirkning fordelt på treslag i millioner m³

År	Gran	Furu	Lauv
2021	8,45	2,82	0,30
2020	7,28	2,78	0,31
2019	8,07	2,81	0,30
2018	8,14	2,55	0,26
2017	7,80	2,57	0,25
2016	7,70	2,53	0,20
2015	7,58	2,46	0,17

Table 3. Timber harvest linked to species in Norway, source: https://www.landbruksdirektoratet.no/nb/statistikk-og-utviklingstrekk/utviklingstrekk-i-skogbruket/tommeravvirkning-og-priser

The general trend is that the volume of sawn timber is above pulpwood. In 2021 was sawn timber 58,7 %.

År	Sagtømmer	Massevirke	Sagtømmerandel
2021	6,76	4,78	58,69 %
2020	5,47	4,77	52,80 %
2019	6,03	5,15	53,90 %
2018	6,14	4,81	56,00 %
2017	5,89	4,73	55,50 %
2016	5,72	4,70	54,90 %
2015	5,70	4,50	55,90 %

Table 4. Timber harvest linked to type in Norway, source: https://www.landbruksdirektoratet.no/nb/statistikk-og-utviklingstrekk/utviklingstrekk-i-skogbruket/tommeravvirkning-og-priser

33.1% (12.1 million ha) of Norway is covered by forests of which:

- About 1% is primary forest
- About 86% is naturally-regenerated forest
- About 13% is planted forest.

There are 2 general timber source types found in Norway. Production forest - Timber from production forest. No permit is required. This can be both plantation and natural forest. Main source of timber. Forest under protection - Timber from areas under protection. Approval shall be requested and depending on type of protection and legal requirement for the specific area in question an approval shall be obtained. https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

Adjacent lands

All forestry activity in Norway is subject to the same legal requirements. Thus, the same legislation is applicable for forest land owned by state, local municipality, companies and private individuals. Landbruksdirektoratet, The Ministry of Agriculture and Food (LMD) has the main responsibility for food and agricultural policy. It includes land management, agriculture and forestry, animal husbandry, reindeer husbandry and the development of new industries based on agriculture. This authority and the legal requirements linked to forestry aims at promoting high long term wood production as well as environmental protection during forestry activities. https://www.landbruksdirektoratet.no/nb/

The Forestry Act was renewed in 2005, and forestry has relatively few regulations in Norway. Each municipality has authorities responsible for the management of forestry and forest owners. Harvesting is regulated by the Ministry of Agriculture and Food.
https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

The forestry management practices

Norwegian forests are mainly managed as "LNFR-areas" (abbreviation for "Landbruks-, Naturog Friluftsformål samt Reindrift" = areas for the purpose of agriculture, nature and outdoor activities, as well as for reindeer herding) according to each municipality's masterplan for area classification. In most of the forest areas, no permits are needed before logging. In the Protective Forests bordering the mountains, in selected areas along the coast, in the Marka forests bordering Oslo, and in northern Norway (Nordland, Troms and Finnmark), various notification forms or applications must be sent to, and approved by local forest authorities before logging can be conducted. Most of the logging, thinning and planting is conducted by professional companies hired by timber buyers.
https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

The Norwegian forestry sector dealing with timber harvesting is completely dominated by about 10 companies. The companies are either local, commercial departments of a forest owner's organization, or they are commercial companies without memberships. In the NRA, the companies are mentioned as "timber buyers". The timber buyers are also holding one PEFC certificate each which is group certificates for the forest owners trading with them.

The forest owner normally engages the timber buyer, and rarely the harvesting team. The forest owner can also do the harvesting him-/herself, but then in contractual agreement with the timber buyer who is engaged in planning according to the PEFC standard, and the resale. It is practically impossible for a harvesting team to sell timber without involving a timber buyer from the start. Timber buyers are also referred to as certificate holders (PEFC). FSC certificates are administrated in pools by the same timber buyers. Therefore, the FSC certified properties in Norway are also PEFC certified.
https://preferredbynature.org/sites/default/files/library/2017-11/NEPCon-TIMBER-Norway-Risk-Assessment-EN-V1.2.pdf

In Norway as in Sweden there are aspects which needs certain attention regarding the reindeer grazing land as a resource for the Sami population. The reindeer husbandry negotiations are annual negotiations between the state and the reindeer husbandry industry about a business agreement. There is an organization, the Norwegian Reindeer Husbandry Sami National Association, which is a negotiating party for the reindeer husbandry industry. The negotiations and conclusion of a reindeer husbandry agreement are regulated by the Main Agreement for reindeer husbandry.
https://www.landbruksdirektoratet.no/nb/reindrift/reindriftsforhandlingene

As a consequence of the ratification of ILO Convention No. 169 and Article 6 thereof, there have been formal procedures for consultation between state authorities in Norway and the Sami since 2005. The agreement covers everything that can directly affect Sami interests, all non-profit and material forms of Sami culture, including land use and disposal, mineral activities, wind and hydropower, sustainable development, nature conservation, traditional knowledge and biodiversity. Most forest companies have, through FSC certification of forestry (Forest Stewardship Council International), undertaken to negotiate with the Sami villages about all planned forest fellings in the reindeer husbandry area. (Förhållandet mellan samebyarnas och ... SOU 2001:101)

Map 1: Supply base for Uddevalla Kraft

For Uddevalla Kraft AB's supply base chain all the origin is all low risk as the organization has an implemented WKH (Woodland Key Habitat) policy and conducts natural value assessments prior to harvesting operations and holds a valid FSC or PEFC certificate. (Woodland key habitats are the sites in the forest, which provide for the existence of rare and endangered species having highly specific demands for the habitat.) The supplying organizations sources wood mainly from private forest owners or their own forest areas. No risk of non-eligible inputs, all transportation is handled by the organization itself and the impartial third-party system is applied both in Sweden and in Norway. This gives full traceability. Virtually every cubic meter harvested is measured by a surveying association and it is government agencies that are responsible for reporting the statistics. The areas are outside mountain forest in the northeast areas and middle parts of Norway and not in the mountain regions. (Supplier interview and Supplier data linked to SBP and https://www.skogen.se/nyheter/har-ar-nordens-mest-slutna-virkesmarknad)

The risk assessments for Norway according to the requirements in the FSC Contoolled Wood standard states that Sweden is Low risk, but there are some specified risks linked to the sami aspects and the areas and forests close to the mountains and cultural heritages as well as near threatened species. file:///C:/Users/Sofia%C3%96berg/Downloads/FSC_NRA-NO%20V1-0%20EN_2018-08-27.pdf Prefered by Nature (former NEPCon) also states in their evaluation that Sweden is a low risk for illegally harvested timber. If you are sourcing timber from Sweden you should still take care to ensure that risks are not present in your supply chains. And since the Supply Base for Uddevalla Kraft AB does not include these areas the risk should be considered low. https://preferredbynature.org/sourcinghub/timber/timber-norway

Socioeconomic conditions

Norway is a rich country with a high standard of living. The country has a stable welfare system and has large revenues from the oil industry. Before oil was discovered in the Norwegian Sea in the 1960s, Norway was a marine, agricultural and fishing nation, and the majority of the population worked in these

sectors. In recent decades, the oil industry has dominated Norwegian business and the traditional industry has declined.

The standard of living in Norway is among the highest in the world, with very high living costs and an extensive tax and fee system. The country has a well-developed welfare system, with free education, good health care and good social and security systems. Normally a child in Sweden is expected to go to school for 14 years. The country is number 1 out of 188 countries in terms of human development in the Human Development Index. Norway is among the foremost in the world when it comes to equality and human rights. There are over 60,000 Sami living in Norway. The Sami Parliament is located in Karasjok and was first opened in 1989. https://www.globalis.se/Laender/norge

Norway had a Corruption Perception Index (CPI) of 84, indicating that the country has low corruption levels and a high degree of legal compliance. Transparency International ranks Norway as number 8/180 in the world. https://www.transparency.org/en/cpi/2020/index/nor and https://www.transparency.org/en/countries/norway

SBP feedstock groups, species and suppliers

In Uddevalla Kraft's supply chain, the sawmills only use spruce and pine for the production of chips for Uddevalla Kraft, all the suppliers hold a valid FSC and / or PEFC certificate. The product used, sawdust, do not include any threatened species included in CITES or IUCN. The two species in the product is spruce (*Picea abies*) 65% and pine (*Pinus sylvestris*) 35%. At the moment the proportions of SBP-feedstock product groups Controlled Feedstock and SBP-compliant Secondary feedstock for this report period is 99% Controlled Feedstock and 1% SBP-compliant Secondary feedstock since the FSC certification was successfully completed during spring 2021 so the purchase of more FSC certified thus SBP-compliant Secondary feedstock had just started. Thus no SBP non compliant Feedstock is included in the product. The certified amount is gradually increasing. The purchase is from three suppliers, Vänerbränsle, VIDA, Derome and Levene Såg AB. (Supplier interview and Supplier data linked to SBP and https://info.fsc.org/certificate.php and https://pefc.se/soek-certifierade-foeretag)

2.3 Actions taken to promote certification amongst feedstock supplier

Uddevalla Kraft AB only purchases material from FSC certified suppliers and also defines these requirements in business agreements with all the suppliers.Further out in the Supply chain there are also PEFC certified suppliers.

2.4 Quantification of the Supply Base

The Supply Base area has been calculated from the total amount of area for logging in Sweden and Norway and linked to the total purchased amounts of sawdust. Calculations are described in document "Beräkning ha till SBR 2021" and information from suppliers are gathered in "Supplierdata SBP 2021 summary". Other sources for the calculations are included in the documents.

Supply Base

a. **Total Supply Base area (million ha)**: 9,93
b. **Tenure by type (million ha):**

- Privately owned: 9,93
- Public:
- Community concession:

c. Forest by type (million ha):

- Boreal: 0,00 (194 ha)
- Temperate:
- Tropical:

d. Forest by management type (million ha):

- Plantation:
- Managed natural: 9,93
- Natural:

e. Certified forest by scheme (million ha):

- FSC: 9,93
- PEFC: 9,93
- SFI:
- Other (specify):

Describe the harvesting type which best describes how your material is sourced:

☐ Clearcutting ☐ Thinning ☒ Mix of the above ☐ Other ☐ N/A

Explanation:

Clearcutting: 69% But all felling is according to local regulations for the forestry in Sweden and Norway and according to FSC and/or PEFC standards for Controlled Wood and/or Controlled Source Thinning: 31% (from information in the supply base survey"Supplierdata SBP 2021 summary"). Where the thinning is from thinning later in the cycle so the trees are at least 30 years in "Röjningsgallring"

Was the forest in the Supply Base managed for a purpose other than for energy markets?

☒ Yes – Majority ☐ Yes – Minority ☐ No ☐ N/A

Explanation:

Since the sawdust is 100% from sawmills the original roundwood is used to produce wood for wood products not to produce sawdust. Sawdust is a bi-product in the process. The sawmills get better payment for their woodproducts so they have an incitement to produce wood products not sawdust so the encourage all activities and processes that can make the production of the woodproducts like sawntimber bigger.

For the forests in the Supply Base, is there an intention to retain, restock or encourage natural regeneration within 5 years of felling?

☒ Yes – Majority ☐ Yes – Minority ☐ No ☐ N/A

Explanation:

All forests in the supply base are handled according to local regulations for the forestry in Sweden and Norway and according to FSC and/or PEFC standards for Controlled Wood and/or Controlled Source. The authorities and the certification schemes ensures that the areas are regenerated after harvest.

Was the feedstock used in the biomass removed from a forest as part of a pest/disease control measure or a salvage operation?

☐ Yes – Majority ☐ Yes – Minority ☒ No ☐ N/A

Explanation:

No part of the feedstock in the supply chain of the supply base is from this. All forests in the supply base are handled according to local regulations for the forestry in Sweden and Norway and according to FSC and/or PEFC standards for Controlled Wood and/or Controlled Source.

Feedstock

Reporting period from date: 01/08/2021

Reporting period to date:31/07/2022

a. Total volume of Feedstock:

☐ 0
☒ 1-200,000
☐ 200,000-400,000
☐ 400,000-600,000
☐ 600,000-800,000
☐ 800,000-1,000,000
☐ >1,000,000
Unit: ☒m3 ☐tonnes

b. Volume of primary feedstock

☒ 0
☐ 1-200,000
☐ 200,000-400,000
☐ 400,000-600,000
☐ 600,000-800,000
☐ 800,000-1,000,000
☐ >1,000,000
Unit: ☐m3 ☐tonnes

c. List percentage of primary feedstock, by the following categories.

- Certified to an SBP-approved Forest Management Scheme:
  ☐ 0%
  ☐ 1%-19%
  ☐ 20%-39%
  ☐ 40% -59%
  ☐ 60%-79%
  ☐ 80-99%
  ☒ 100%
- Not certified to an SBP-approved Forest Management Scheme:
  ☒ 0%
  ☐ 1%-19%

☐ 20%-39%

☐ 40% -59%

☐ 60%-79%

☐ 80-99%

☐ 100%

d. List of all the species in primary feedstock, including scientific name::

Common name	Scientific name
Spruce	Picea Abies
Pine	Pinus Silvestris

Note: add as many rows as needed

e. Is any of the feedstock used likely to have come from protected or threatened species?

☐ Yes ☒ No

Name of species: NA no feedstock from protected or threatened species only Sprouce and Pine.
Biomass proportion, by weight, that is likely to be composed of that species: NA

f. Hardwood (i.e. broadleaf trees): specify proportion of biomass from (%):0

g. Softwood (i.e. coniferous trees): specify proportion of biomass from (%):100

h. Proportion of biomass composed of or derived from saw logs (%): 0

i. Specify the local regulations or industry standards that define saw logs: NA

j. Roundwood from final fellings from forests with > 40 yr rotation times - Average % volume of fellings delivered to BP (%): 72%

k. Volume of primary feedstock from primary forest: 0

Unit: ☒m3 ☐tonnes

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

- ☐ N/A
- Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme:

  ☐ 0%

  ☐ 1%-19%

  ☐ 20%-39%

  ☐ 40% -59%

  ☐ 60%-79%

  ☐ 80-99%

  ☒ 100%

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

  ☒ 0%

  ☐ 1%-19%

  ☐ 20%-39%

☐ 40% -59%

☐ 60%-79%

☐ 80-99%

☐ 100%

m. Volume of secondary feedstock:

☐ 0

☒ 1-200,000

☐ 200,000-400,000

☐ 400,000-600,000

☐ 600,000-800,000

☐ 800,000-1,000,000

☐ >1,000,000

Unit: ☐m3 ☐tonnes

Physical form of the feedstock:

☐ Chips

☒ Sawdust

☐ Offcuts

☐ Clean chips or dust

☐ Treated chips or dust

☐ Other (specify):

n. Volume of tertiary feedstock:

☒ 0

☐ 1-200,000

☐ 200,000-400,000

☐ 400,000-600,000

☐ 600,000-800,000

☐ 800,000-1,000,000

☐ >1,000,000

Unit: ☐m3 ☐tonnes

Physical form of the feedstock:

☐ Shavings

☒ Sawdust (dry)

☐ Offcuts

☐ Other (specify):

Proportion of feedstock sourced per type of claim during the reporting period				
Feedstock type	**SBE %**	**FSC %**	**PEFC %**	**SFI %**
Primary	0	0	0	0
Secondary	0	100	0	0

Tertiary	0	0	0	0

Note: Sum of each row for feedstock types used has to be 100%

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
☐	X

Provide a concise summary of why a SBE was determined to be required or not require here.

All the purchased input (100%) have a FSC Certified or FSC Controlled Wood claim and all suppliers are checked for their FSC certificate to ensure that they can deliver the correct feedstock. In the agreements with these suppliers this is also stated. All this is included in the FSC certification system for Uddevalla Kraft AB. Hence there is no requirement to do an Supply Base Evaluation at this time. This will however be evaluated continuously and especially if the situation change.

4 Supply Base Evaluation

4.1 Scope

Feedstock types included in SBE: ☐ Primary ☐ Secondary ☐ Tertiary

SBP-endorsed Regional Risk Assessments used:

List of countries and regions included in the SBE:

Detailed description of specified risk indicators:

Country:
Indicator with specified risk in the risk assessment used:
Specific risk description:

Note: Copy this table for each specified risk and country separately.

4.2 Justification

Provide a justification for the approach used in the evaluation.

4.3 Results of risk assessment and Supplier Verification Programme

Give a brief summary of the results of the Risk Assessment and SVP.

4.4 Conclusion

Give a concise summary of the overall conclusions from the SBE as to whether the organisation meets SBP requirements. This summary should include a discussion of the main strengths and weaknesses of the supply base evaluation, and a statement about the confidence that the evaluators have that the Biomass Producer can ensure that all specified feedstock are in full compliance with SBP Standards.

5 Supply Base Evaluation process

Give a general description of the process for Supply Base Evaluation including any relevant consultations with stakeholders. Specify whether the SBE was performed 'in house' or whether an external party was contracted to perform the SBE. If the latter, give a full description of the competencies of the contracted party that includes a justification for the appointment of personnel to the evaluation team.

Although not required by SBP, it is likely that the verification system will also include a sampling plan for assessing forest operations within the Supply Base. If such a plan has been developed for monitoring suppliers, it should be described here.

6 Stakeholder consultation

Give a general description of the process of Stakeholder Consultation, including stakeholders contacted and method of communication.

6.1 Response to stakeholder comments

Provide a summary of all stakeholder comments received and how the comments were taken into consideration in the SBE process.

Stakeholder description:
Stakeholder comment:
Response to the stakeholder comment:

Note: Please copy this table for each individual comment received separately.

7 Mitigation measures

7.1 Mitigation measures

Describe any mitigation measures taken to address specified risks associated with Indicators. You may copy the tables entered to 4.1 above and add mitigation measure for each table below.

Country:
Indicator with specified risk in the risk assessment used:
Specific risk description:

Mitigation measure:

7.2 Monitoring and outcomes

Describe how the Indicators are being monitoring and what the outcomes are (if known) from that monitoring.

8 Detailed findings for indicators

Detailed findings for each Indicator are given in Annex 1 in case the Regional Risk Assessment (RRA) is not used.

Is RRA used?

☐ Yes ☐ No

9 Review of report

9.1 Peer review

A review of the SBR was conducted with Peter Andreasson, M.Sc in biology Sience and forester, forestry technician and lead auditor for FSC and PEFC for many years. He reviewed the report and it's appendixes linked to the calculations and the supplier data. Mr Peter Andreasson is an impartial and well educated person who also have worked with these questions during many years. After the review he sent his remarks to the client, who looked in to the remarks and adjusted the report accordingly.

9.2 Public or additional reviews

No other reviews have been conducted.

10 Approval of report

Approval of Supply Base Report by senior management			
Report Prepared by:	**Peter Fasth**	**Project Leader**	**14 Nov 2022**
	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:	**Björn Wolgast**	**CEO**	**14 Nov 2022**
	Name	**Title**	**Date**