

Supply Base Report: HedeDanmark A/S

Scope Change Audit

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Completed in accordance with the Supply Base Report Template Version 1.5

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

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1 Overview

Producer name:	HedeDanmark A/S
Producer address:	Klostermarken 12, DK-8800 Viborg, Denmark
SBP Certificate Code:	SBP-05-03
Geographic position:	56.447600, 9.432400
Primary contact:	Ernst Eriksen, +45 23 63 85 46,ese@hededanmark.dk
Company website:	www.hededanmark.dk
Date report finalised:	14 Apr 2023
Close of last CB audit:	17 Mar 2023
Name of CB:	DNV Business Assurance Finland Oy Ab

SBP Standard(s) used: SBP Standard 1: Feedstock Compliance Standard, SBP Standard 2: Verification of SBP-compliant Feedstock, SBP Standard 4: Chain of Custody, SBP Standard 5: Collection and Communication of Data Instruction, Instruction Document 5E: Collection and Communication of Energy and Carbon Data 1.5

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

SBP Endorsed Regional Risk Assessment: Denmark, Estonia, Latvia

Weblink to SBR on Company website: https://issuu.com/hededanmark/docs/hd_-_supply_base_report

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

2 Description of the Supply Base

2.1 General description

Feedstock types: Primary, Secondary

Includes Supply Base evaluation (SBE): Yes

Includes REDII SBE: N/A

Feedstock origin (countries): Denmark, Estonia, Latvia, Germany, Norway, Lithuania, Sweden

2.2 Description of countries included in the Supply Base

Country: Denmark

Area/Region: Denmark

Exclusions: No

Forest areas in Denmark

The forest area is 633.353 hectares, in Denmark, which is equivalent to 14.7 percent of the entire country.

Broadleaves' and conifers' grouping and species

Broadleaves (44 percent) and conifers (36 percent) cover the largest part of the forest area and mixed stands (10 percent) and Christmas trees (5 percent) cover a smaller part. 4 percent of the total area are not covered for the time being, either due to harvesting of the former stand or due to the fact that the area is used for storage sites, firebreaks etc. The largest part of pure conifer is in Central Jutland (Region Midtjylland) (50 percent), while the largest part of pure broadleaved trees is in Zealand (the Region Sjælland) (67 percent) (*Skove og plantager, 2019*).

Solid Wood

The total amount of solid wood in the Danish forests amounts to 137 million m³/equivalent to 216 m³/hectares (*Skove og plantager, 2019*). The largest quantity of solid wood exists in the region of Central Jutland, while the amount of solid wood per hectare is largest in the eastern parts of the country. (*Skove og plantager, 2013*).

Growth and harvesting

The total growth in the Danish forests was in 2019 estimated to 8.7 million m^3 /year. In the latest statement (2019), the harvesting was estimated to 3.8 million m^3 – of which 46 percent were used for timber and 54 percent were used for energy purposes – divided between firewood and wood chips (*Skove og plantager, 2019*). The subject is elaborated below.

Ownership

Private hands, either private persons (56 percent) or companies (15 percent) own the largest part of the forest area. Foundations own 4 percent. In this way, private hands own 75 percent of the solid wood, while public owners possess 25 percent. The Crown forest owns the largest part (18 percent). The largest part of

the privately owned forest is in the Region Sjælland (Zealand) (91 percent) and the smallest in the Region Hovedstaden (capital city) (37 percent) (*Skove og plantager, 2019*).

The total number of forest properties in Denmark is estimated to 28,000. A large part of the total number of forests is between 2 and 20 hectares, while a large part of the total forest area consists of forests larger than 1,000 hectares.

The number of forests, forest areas and harvesting divided according to the size of the area (Skove og plantager, 2019)

Nature values, key biotopes and the IUCN Red list of threatened species in Denmark

Nature values in Denmark

Many nature areas have disappeared from the open land and through this also the habitats of many wild animals and plants. In order to curb this development, the Nature Protection Legislation § 3 and the Forest Act § 28 have protected certain habitats. It concerns approximately 10 percent of the total Danish area.

§ 3

Nature Protection Legislation § 3 concerns approximately 9.5 percent of the Danish area. We talk about meadows, pasture, salt meadows, moors, lakes and waterholes, marsh and ponds as well as watercourses. These habitats are protected all over Denmark. The HedeDanmark LandInfo GIS programme records and shows the habitats. When placing orders and project charts to the mas at HedeDanmark we use this programme. However, an area can be protected although it has not been recorded yet. It happens when an area grows or outgrows the protection.

The Nature Protection Legislation protects the habitats against changes of their original state. The owner has to apply for a dispensation from the municipality, if he wants to make changes in a protected area. The previous operation of the area can proceed. However, extensive changes as drainage, replenishment, clean-up operation, converting or planting of the area are not permitted. In addition, pesticides or fertilizers are not applicable, if it has not been used previously – in case of use – it is not allowed to increase the extent.

§ 28

Lakes, marshes, moors, salt meadows or salt moors, meadows and biological pastures, which belong to the forest reserve are not covered by The Nature Protection Legislation § 3, as they are smaller than the fixed sizes. These habitats cannot be cultivated, planted or changed in any way. These habitats are also protected all over Denmark. The HedeDanmark LandInfo GIS programme records and shows the habitats. When placing orders and project charts to the operators at HedeDanmark we use this programme.

The Red List of Threatened Species in Denmark

The Danish Red List is a register of Danish plant and animal species having been red listed according to the guidelines of the International Union for the Conservation of Nature, IUCN. To red list assess is assessing the risk of plants and animal species to become extinct. The Danish Red List includes all species evaluated. Through this, we obtain a total overview of the number and status of all evaluated species in Denmark for each group dealt with.

The extinction of species – plants and animals – or emerge is a link in the natural processes of the Earth. However, the past hundred years the increasing human activity has implied rise in the extinction of species.

IUCN has refined their system of assessment of threatened species' extinct. Like former system editions, the current builds on a series of categories reflecting the individual species' risk of extinction.

An updated IUCN-list:

IUCN Red List of Threatened Species

CITES Species: An updated list of CITES species can be found on the following link: National authorities | CITES

Objectives

The purpose of the red listing is to provide a basis usable for assessing the change in biodiversity in Denmark and to meet the international obligations under the Convention on Biological Diversity (CBD), which Denmark ratified in 1994. The CBD includes the following milestones:

- To raise awareness of species, disappeared or threatened
- To provide a basis for prioritization of natural surveillance in Denmark
- To create a platform for nature management and conservation tasks nationally and internationally
- To meet international obligations to the CBD through regular publication of red lists of naturally occurring, missing and endangered species in the Danish countryside

Practice in HedeDanmark

As described in 2.1.9 HedeDanmark's fundamental way of protecting the nature and cultural values is defined in Denmark's PEFC and FSC® forest standards. In consequence, we take into consideration the various species and their habitats – see the Habitatdirektivet, Fugledirektivet + Rødlistearter + § 3, and § 28.

General practice is to take into consideration the various natural and cultural values by educating our foresters and all our contractors and a specific matching of expectations regarding tasks performed in the GIS programme LandInfo. On a task description, it is possible to define technically how to perform the specific task. Subsequently, the programme offers a forest map marked with the natural and cultural values and a space for the description of the natural considerations. Please see an example of a task description in Annex 1.

Economy

When asking the private forest owners to assess the economic value of the forest to the property, 13 percent consider that the forest has a large positive impact, whereas 36 and 37 percent respectively assess that the forest has a small or no impact at all. 14 percent think that the forest has a negative economic impact on the property. The positive assessment of the forest's economic impact to the property rises increasingly with the size of the property. Thus, more than 66 percent of the owners having more than 100 hectares think that the forest is of big or small positive importance for the economy of the property (Skove og plantager 2013).

Forestry's share of GDP (Gross National Product) is not exact, since the forestry is calculated along with agriculture and represents a minimal part. It is estimated that around a quarter percent of the total GDP relates to the forestry industry.

The total employment in the wood sector represents 21,500 man-years within forestry, woodworking and furniture industry. The employment in the forestry sector has remained constant at approximately 4-5,000 employees in the last ten years. It is, however, in stark contrast to the fact that there has been a rather heavy decline in the employment within the two branches, woodworking and furniture, which typically purchase most of the wood from the forestry (Skove og plantager, 2012).

Practical work and administration

The owner or his family manages almost half the forests themselves. Not surprisingly, the share of forests managed by the owner falls with the increasing size of the property. Based on the total number of properties only 8 percent has its own professional administration, whereas around 30 percent use external help from HedeDanmark or a local forest grower association *(Skove og plantager, 2013)*.

Business process in HedeDanmark

The background for the work of HedeDanmark's Forest Division is nearly 150 years of experience in the care and development of the Danish forests and landscapes. HedeDanmark manages, develops, operates and maintains over 120,000 hectares of forest in Denmark and thereby the company is the largest of its kind in Denmark. In connection with the present task about the SBP certification, please read below how the company relates to and works with sustainable forest management with special focus on the protection of nature and cultural values.

The starting point of how HedeDanmark implements the protection of nature and cultural values are criteria defined in the Danish Forest Standards PEFC and FSC®. The consequence of this is the consideration to various species and their habitats. See Habitatdirektivet, Fugledirektivet + Rødlistearter + § 3, § 28. General practice is to take into consideration the various natural and cultural values by educating our foresters and all our contractors and a specific matching of expectations regarding tasks performed in the GIS programme LandInfo. On a task description, it is possible to define technically how to perform the specific task. Subsequently, the programme offers a forest map marked with natural and cultural values and a space for the description of the natural considerations. Please see an example of a task description in Annex 1 Denmark.

Carbon

Climate change can be dealt with by reducing emissions of i.a. carbon dioxide (CO2) into the atmosphere from burning fossil fuels and clearing of natural vegetation. The content of carbon dioxide in the atmosphere can also be reduced by the forest carbon sequestration. Forest trees sequester carbon in biomass by absorbing CO2 through photosynthesis. A certain part of the absorbed CO2 is included in the trees' biomass and stored. The total carbon stock in the forests' living solid wood (trunk, branches and roots) is approximately 38 million tonnes C, which corresponds to 62 tonnes C per hectare. Measured in CO2 the carbon stock in forests is equivalent to 140 million tonnes of CO2. The carbon stock on other wooded land is 0.1 million tonnes C (Skove og plantager, 2013). The topic is elaborated below.

Scale of harvesting

HedeDanmark provides management and services to private and public forest owners, farmers, etc., buy, and sell wood products, including wood chips throughout Denmark. The activities are evenly distributed across the country and HedeDanmark has operations in all parts of the country. The range outcome within industry/energy varies slightly with the market, but is typically about 50/50, equivalent to the national average. The main part of the wood chips is produced from wood from forests – a smaller portion comes from tree stands in the open countryside (windbreaks, landscaping, recreational stands, mm.).

Country:Estonia Area/Region: Estonia Exclusions: No Forest areas in Estonia Forests cover nearly a half (49.0%) of the Estonian land territory. The total forest area is 2.3 mio hectares. Estonia is in the fifth position in Europe based on forest coverage (share of forestland area in mainland territory) after Finland, Sweden, Slovenia and Latvia. (stat.ee)

Broadleaves' and conifers' grouping and species

Pine (35%), spruce (17%), birch species (30%), grey alder (8%) and aspen (5%) are the most important tree species of the Estonian forest. The stands of other tree species represent only a small part of forests.

Solid Wood

The total growing stock was 481 million cubic metres. Average stock is 204 m3 o.b. per hectare. In state forests it is 211 m3 o.b./ha and in private forests 200 m3 o.b. per hectare. (CEPF)

Growth and harvesting

The annual increment of Estonian forest is 11,919,000 cubic meters over bark, which is equal to 5.7 m3 per hectare. There is no significant difference of the state forest (5.6 m3/ha) or private forests (5.8m3/ha) annual increment per hectare. (CEPF)

9.8 million m³ of wood was felled in 2014 and 9.5 million m³ in 2015. Since the share of mature stands in Estonian forests is relatively large, the felling volumes could be even higher. The existing Estonian Forestry Development Programme 2011-2020 foresees annual felling volume to be 12.6 Mio m3 ob. Over the last years, only half of this volume is harvested. (CEPF)

Ownership

In Estonia, privately owned forest is split between two major categories: private juridical persons and private physical persons. Majority of the non-state owned wood is owned by private physical persons, who are considered in this study as fragmented forest owners. There are 48,935 private physical owners who own 514,967 ha of forest land (average 10.5 ha). State owned forest is managed by State Forest Management Centre that manages 825,534 ha. There are also 14 thousand private juridical persons, who own 184,171 ha forest land (average 13.1 ha). Private juridical person is a legal institution providing certain taxation benefits and is a more economical way to manage forests. (CEPF)

Nature values, key biotopes and the IUCN Red list of threatened species in Estonia

Estonian forests are important preservers of biodiversity. Forests serve as a habitat for around 20 000 different species. Over 30% of endangered and rare species habitats are forestry-related. 8.2% of the Estonian forest land is under strict protection, but there are estimates that this figure reaches around 10%. The process of forming Natura 2000 protection areas is technically over, but there are still deficiencies in preserving representative area of valuable forests in all site types. (elfond.ee)

Wildlife conservation has a significant impact to forest management in Estonia. Almost one third of the forest land is under some type of protection.

IUCN: Approximately 12% of the species assessed by the European Red List of Species are present in Estonia. For some of the taxonomic groups, the percentages of European species that occur in Estonia are particularly high; such as dragonflies, mammals, saproxylic beetles and butterflies. Of the 847 species assessed that occur in Estonia, the groups comprising the highest number of species are vascular plants, saproxylic beetles and butterflies. Of the total number of species assessed in the country 3% are considered threatened and at least 4% are Near Threatened at the European level. Many of these species are endemic to Europe and are found nowhere else in the world. Species that are considered threatened at the European level and occur in Estonia are found mostly in forest, wetlands and grasslands. These ecosystems require particular attention in order to ensure the habitats of these sensitive species remain. (cmsdata.iucn.org)

An updated list:

AU Ecoscience - Den danske Rødliste - Rødlistestatus

CITES Species: An updated list of CITES species can be found on the following link: https://cites.org/eng/cms/index.php/component/cp/country/EE

List of species:

Economy

Forests provide 35,000 jobs in the forestry sector and also many jobs indirectly (in transport, tourism, sports and other sectors) (eramets.ee)

Practical work and administration

The market has two main sellers – State Forest Management Centre (SFMC), private juridical persons and private physical persons. State Forest Management Centre has been the largest seller of material.

Country:Lithuania

Area/Region: Lithuania

Exclusions: No

Forest areas in Lithuania

Forested land covering 33,3% of the country with 2,17 million ha. The southeastern part of the country is most heavily forested, and here forests cover about 45% of the land. The total land area under the state Forest Enterprises is divided into forest and non-forest land. Forest land is divided into forested and non-forested land. (gmu.lt)

Lithuania is situated within the so-called mixed forest belt with a high percentage of broadleaves and mixed conifer-broadleaved stands. Most of the forests - especially spruce and birch - often grow in mixed stands. (gmu.lt)

Broadleaves' and conifers' grouping and species

Occupying 1,153,200 ha, coniferous stands prevail in Lithuania, covering 56.1% of the forest area. They are followed by softwood deciduous forests (818,500 ha, 39.8%). Hardwood deciduous forests occupy 83,800 ha (4.1%).

The total area of softwood deciduous forest land increased by 120,100 ha from year 2003 to 2013. The area of hardwood deciduous has decreased by 8,800 ha and coniferous forest by 6,800 ha from year 2013 to 2013.

Scots pine occupies the biggest share in Lithuanian forests - 722,200 ha. Compared to 2003, the area of pine expanded by 10,700 ha. Norway spruce covers 428,400 ha., with a reduction of 16,900 ha.

Birch covers the largest area among deciduous trees. Since 2003, it increased by 66,600 ha and reached 458,800 ha by the 1st January 2012. Areas of black alder increased by 22,500 ha, to 141,9 ha. The area of grey alder expanded by 6,500 ha i.e. less than the black alder, reaching 128,500 ha. The area of aspen stands expanded by 20,900 to 78,200 ha.

Oak forests increased from 35,700 ha. to 41,900 ha. The area of ash stands diminished by 30% to 35,700 ha. (gmu.lt)

(amvmt.lt)

Solid Wood

According to NFI data, since 2003 total growing stock volume increased from 453.4 million m³ to 501 million m³ in year 2013. Pine stands accumulated growing stock of 211 million m³. In a period of nine years they accumulated 30.6 million m³. The growing stock in spruce stands increased from 76 to 80 million m³. (gmu.lt)

The volume of birch stands increased by 6 million m³ year 2003 to 85 million m³ in year 2013. The stocks of black alder have risen by 8 million m³, reaching 46 million m³. 35 million m³ were accumulated in aspen stands and this volume is the same as eight years ago. The volume of grey alder stands remained at the same level (22 million m³). Oak forests accumulated growing stock of 11 million m³, ash 6 million m³. (gmu.lt)

Growth and harvesting

The average growing stock volume in all forests since 2003 increased by 14 m³/ha up to 240 m³/ha in year 2013. The growing stock volume of mature stands in III-IV forest groups has increased from 109.9 to 129,1 million m³. The gross annual increment increased from 16.0 to 17.2 million m³ corresponding to 8.2 m³/ha. The average growing stock volume per capita reached 157 m³. (gmu.lt)

The forest management in Lithuania has always been under strict professional control. Therefore annual felling has never exceeded the sustainable limits of the allowable annual cut. The annual felling in private owner forest is 3,5 million m³, and felling in state forest enterprises is 3,8 million m³. In total annual felling I Lithuania is 7,2 million m³. (cepf-eu.org)

Ownership

By 1st January 2012, around a half of all forest land in Lithuania was of State importance – 1076,500 ha. 810,300 ha of private forests were registered in the State Enterprise Centre of Registers. After intersection of layers of all forests and private holdings the estimated area of private forests was 844,500 ha. Forty two State forest enterprises and 1 national park, under subordination of the Ministry of Environment, managed 1,037,000 ha of forest land. The number of forest districts during the last year decreased from 355 to 354 reaching an average size of 3,000 ha.

By 1st January 2012, the number of private forest owners amounted to almost 248,000, a forest estate averaging 3.3 ha. (amvmt.lt)

Nature values, key biotopes projection and the IUCN Red list of threatened species in Lithuania

Forest land is divided into four protection classes: reserves (2%); ecological (5.8%): protected (14.9%); and commercial (77.3%). In reserves all types of cuttings are prohibited. In national parks, clear cuttings are prohibited while thinnings and sanitary cuttings are allowed. Clear cutting is permitted, however, with certain restrictions, in protected forests; and thinnings as well. In commercial forests, there are almost no restrictions as to harvesting methods. At the beginning of 2012, the Natura 2000 network covered 811,800 ha², or 12.4% of the country's territory. (amvmt.lt)

IUCN: Approximately 13% of the species assessed by the European Red List of Species are present in Lithuania. For some of the taxonomic groups, the percentages of European species that occur in Lithuania are particularly high; such as dragonflies, butterflies and mammals. Of the 779 species assessed that occur in Lithuania, the groups comprising the highest number of species are vascular plants, dragonflies, butterflies and saproxylic beetles. Of the total number of species assessed in the country 3% are considered threatened and at least 6% are Near Threatened at the European level. Many of these species are endemic to Europe and are found nowhere else in the world. Species that are considered threatened at the European level and occur in Lithuania are found mostly in wetlands, forests and grasslands. These

ecosystems require particular attention in order to ensure the habitats of these sensitive species remain. (cmsdata.iucn.org)

An updated IUCN-list:

IUCN Red List of Threatened Species

Economy

The annual production of main forest industry products increased during 2011. It produced 1.3 million m³ of sawn wood. Production of plywood increased to 25,000 m³; the amount of produced veneer sheets increased by one third to 90,000 m³, after shut down of insulating board plant the production of fibreboard decreased from 23.1 million m2 to 20.3 million m2. The particleboard production grew by 17 % to 647.000 m3. The amount of produced paper and paperboard increased by 38 % to 157,000 t.

The total exports from Lithuania increased by 29% in 2011 (there was a 33% decrease in 2010). Lithuania's main export markets were countries of the European Union, 61% of the total (61% in 2010).

The wood industry (including manufacture of furniture) exports were LTL 5,942 million in 2011, 21% higher than in the year before. Its share in the total export of Lithuania decreased from 9.1% to 8.5%. EU countries like Germany, Sweden, Denmark and UK remained the main foreign markets for wood industry products. (avmt.lt)

Practical work and administration

In the beginning of 2012, the distribution of forests by functional groups was as follows. Group I (strict nature reserves): 26,300 ha (1.2%); group II (ecosystem protection and recreational): 266,800 ha (12.3%); group III (protected): 331,200 ha (15.2%); and group IV (commercial): 1,548,600 ha (71.3%). (gmu.lt)

From Lithuania, HedeDanmark only buys FSC and/or PEFC certified wood chips or wood chips with the claim FSC Controlled Wood or the claim PEFC Controlled Sources (SBP-approved controlled feedstock system claim) delivered at a port in Denmark. The companies we purchase from are FSC and/or PEFC certified companies.

Thus, our Lithuanian suppliers produce the wood chips in accordance with the requirements of the PEFC and FSC certification schemes. The certification schemes ensures that the wood chips is sustainable produced, in accordance with domestic law and management practices and that the suppliers have to keep track of the tractability and origin (COC).

Country:Norway

Area/Region: Norway

Exclusions: No

Forest areas in Norway

Norway has approximately 14 million hectares forests or other wooded land, which is 43% of the Norwegian land area. The forests in Norway are managed as small-scale forestry. This is partly due to varying topography, different production conditions and the ownership structure.

15% of the productive forest has been estimated as non-economic operational areas due to difficult terrain and long distance transport, which means that economical forestry, may only be operated in about 50% of the forested area. (facesmap.boku.ac.at)

(Skogoglandskap.no)

Broadleaves' and conifers' grouping and species

Of the total forest area 58% is conifer dominated, the remaining 42% is deciduous dominated. The proportion of coniferous forest is somewhat higher for the productive forest areas (65%). There are considerably more coniferous forests than deciduous forests in Southern and Eastern Norway and Trøndelag, while the deciduous forests are prevalent in Northern Norway. In Western Norway, coniferous and deciduous forests are evenly distributed. The predominant tree species are spruce (*Picea abies*), pine (*Pinus sylvestris*) and downy birch (*Betula pubescens*), comprising over 90% of the standing volume (facesmap.boku.ac.at).

Solid Wood

In 2010, the standing volume was measured to 907 million m3 (under bark) and this is the highest volume measured since registrations started almost 100 years ago (op.cit page 48- 49). Spruce makes up the largest volume, then pine and next hardwood. This was the situation almost 100 years ago, and it remains the same now. (facesmap.boku.ac.at)

Growth and harvesting

The annual net growth for all forests in Norway during the period 2008-2012 was 24 million cubic meters. At the same time, the average harvesting rate was 11.1 million m3 per year. Since 1950, harvesting has been substantially lower than the yearly increment. This has resulted in a continuous increase in standing volume, and now the increase per year is 12.9 million m3. The increment peaked in 2001-2005, since then there has been a slight decline. The forest in Norway is becoming steadily older and the proportion of trees with a diameter over 30 centimetres has almost quadrupled since the 1920s. Approximately 16% of the productive forest area is over 120 years old, and about 24% is 81 to 120 years. (facesmap.boku.ac.at)

Ownership

Nature values, key biotopes and the IUCN Red list of threatened species in Norway

Approximately 6.4% of mainland Norway has protected area status. In addition, 15,000 square km of Spitsbergen is designated as conservation area - national parks, nature reserves or other kinds of protected area cover 10-12% of the area of the remote islands. (facesmap.boku.ac.at)

IUCN: The total number of species in Norway is estimated to be 45,000, of which approximately 33,000 are known and described. It exists information enough to estimate wether a species is threatened or not for only 10,000 species. Of these, 150 are threatened by extinction, 279 are deemed vulnerable, 800 are categorized as rare (the last number also includes species which are rare of natural causes, and not only because of human intervention). 359 are deemed species of special concern, 36 species are indeterminate, while 169 species are classified as insufficiently known. Species "Red lists" can be used to point out the habitats containing an especially rich variety of endangered species. Red list species have often proved to be the red warning lights of nature to tell us that a biotope is threatened or something else is wrong in nature. The red lists also give us a picture of the condition of our flora and fauna, and may contribute to the efforts of securing and improve the ecosystem for these species.

Updated list: IUCN Red List of Threatened Species

CITES:

Economy

In 2008 the turnover in the forest products industry (forestry, woodworking industry, pulp and paper industry) in Norway was 47.9 billion NOK (5.5 % of the total turnover in Norwegian industry). 4 100 persons

were employed in forestry, 16 047 in the wood working industry, and 5 234 in the pulp and paper industry in 2008.

Value added for the forest products industry increased from 2.718 billion NOK in 1970 to 17.695 billion NOK in 2007. (digi.treteknisk.no)

Practical work and administration

Forest management planning in Norway aims to survey the forest areas where active forestry (production for commercial use) is going to take place. In total during the period from 2001 to 2012, forest management plans was completed for 3.7 million hectares of productive forest area for a total of 61 000 properties. Forest management plans for additional 1.5 million hectares are in the making. The product the forest owners buy is a forest management plan with tables and maps that provide an overview of forest resources and environmental values. The forest management planning is supported by state subsidies for forest owners. Forest management planning is a largescale process and often involves larger regional areas and many actors (both public and private). A forest management plan project takes 2-4 years to complete, from planning and start-up until the final plan is delivered to the forest owners.

Forestry in Norway is often done as a cooperation between the forest owner and the forest owners association, which the owner is a member of and which has professional forest managers. Mostly, forest operations are performed by contractors.

From Norway, HedeDanmark only buys FSC and/or PEFC certified wood chips delivered at a port in Denmark. The companies we purchase from are all FSC and/or PEFC certified companies.

Thus, our Norwegian suppliers produce the wood chips in accordance with the requirements of the PEFC and FSC certification schemes. The certification schemes ensures that the wood chips is sustainable produced, in accordance with domestic law and management practices and that the suppliers have to keep track of the tractability and origin (COC).

Country:Germany

Area/Region: Germany

Exclusions: No

Forest areas in Germany

Germany ranks among the densely wooded countries in Europe. Around 11,4 million hectares corresponding to one third of the national territory are covered with forests. In regional terms, the proportion of woodland cover varies widely, ranging from 11 % in Schleswig-Holstein to over 42 % in Rhineland- Palatinate and Hesse, the most thickly wooded Länder (federal states). (forstwirtschaft-in-deutschland.de)

Broadleaves' and conifers' grouping and species

German forests are today composed of 60 % coniferous forests and around 40 % deciduous forests.

Approx. 73 % of German forests consist of mixed stands. Spruce accounts for the largest share among the tree species (28 %), followed by pine (23 %), beech trees (15 %) and oak trees (10 %). The tree species proportions vary and depend on the specific natural features and site conditions as well as on different historic developments. Large-scale forest zones can be found in Germany: pine trees abound in the north of Germany, deciduous trees prevail in the lower mountain ranges and coastal areas and southern Germany is rich in spruce trees. (forstwirtschaft-in-deutschland.de)

Solid Wood

The average stand on each hectare of forest is about 330 cubic meters of wood. Thus, the wood stock in Germany's forests is higher than ever before. It is more than 3.4 billion cubic meters of wood. Thus Germany has the leading position in Europe. (forstwirtschaft-in-deutschland.de)

Growth and harvesting

The timber growth is 11.2 m3 / ha per year or 121.6 million m3 per year.

56.1 million cubic meters of wood were harvested in Germany in 2011. 43% of the total felling took place in private forests, about one-third (34%) in the state forest. The proportion of the corporate forest was 21%, of the Federal Forest 2%. The private forests supplied about half of the softwood (48%), and 30% of the hardwood. In the country's forest (coniferous 37%, hardwood 33%) the proportions of all species groups were approximately equal. The corporate forest had 30% in hardwood, 13% in softwood (pine/larch) and 19% (spruce). (forstwirtschaft-in-deutschland.de)

Ownership

48% of the 11.4 million hectares of forest in Germany are private forests, 29% of forests are owned by Countries, and 19% owned by corporations and 4% owned by the state. There are strong regional differences. The Share of the private forest ranges from 24% in Hesse to 67% in North Rhine-Westphalia. Private forest often predominates in the sparsely populated rural areas. The State Forest-share is between 17% in North Rhine-Westphalia and 50% in Mecklenburg-Vorpommern. The largest part of today's state forests form formerly sovereign Forests and secularized monastery property. The Corporate forest has a share in Rhineland-Palatinate of 46%, in Brandenburg about 7%, in Lower Saxony and Saxony-Anhalt around 9%. In densely populated Metropolitan areas the proportion it often particularly high.

The private forest in Germany is predominantly small structured and fragmented. About half of the private forest area shareholdings with less than 20 hectares. Only 13% of private forest have a size of more than 1,000 hectares. The number of corporative and private forest owners in Germany is about 2 million (forstwirtschaft-in-deutschland.de).

Nature values, key biotopes and the IUCN Red list of threatened species in Germany

Forest management in Germany virtually dispenses with pesticides and fertilizers. According to studies, there are only minor differences regarding species diversity between ecologically compatible mixed forest management and unmanaged natural forests. Bigger game animals (roe deer, red deer, fallow deer and wild boar) still have secure habitats in spite of Germany being densely populated. In addition, forest ecosystems offer life opportunities for a large number of other animal species, notably also rare bird species, bats, amphibians and reptiles. Many insect species and soil organisms encounter living conditions there that have become rare outside of forests due to intensive human exploitation. Moreover, forests provide a large number of endangered plant species with a basis for their existence. This holds true especially for those species that require more nutrient-deficient sites that have not been impaired by mineral fertilisation. (forstwirtschaft-in-deutschland.de)

IUCN: Approximately 23% of the species assessed by the European Red List of Species are present in Germany. For some of the taxonomic groups, the percentages of European species that occur in Germany are particularly high; such as dragonflies, saproxylic beetles, butterflies and mammals. Of the 1,383 species assessed that occur in Germany, the groups comprising the highest number of species are vascular plants, saproxylic beetles and butterflies. Of the total number of species assessed in the country 6% are considered threatened and at least 8% are Near Threatened at the European level, and three species are already Extinct. Many of these species are endemic to Europe and are found nowhere else in the world. Species that are considered threatened at the European level and occur in Germany are found mostly in wetlands, forests and grasslands. These ecosystems require particular attention in order to ensure the habitats of these sensitive species remain. (cmsdata.iucn.org)

IUCN updated list: IUCN Red List of Threatened Species

CITES: An updated list of CITES species can be seen on the following link:https://cites.org/eng/cms/index.php/component/cp/country/DE

List of species:

Economy

The forest and timber industry, including processing and paper as well as printing and publishing, accounts for nearly 1,3 million jobs with an annual turnover of about 170 billion. The socio-economic importance of forestry and the wood-based industry in Germany has so far been seriously underrated. Small- and medium-sized forest-based enterprises play a major role in rural employment structures. (forstwirtschaft-in-deutschland.de)

Practical work and administration

The task of German silviculture consists in shaping forests in such a way that timber is being efficiently produced, that the biological productive base of forests is being maintained and improved and that the services rendered by forests remain usable by humans in a sustainable manner. The multitude of objectives of silvicultural management – depending on the respective site – has resulted in a multitude of silvicultural operations, that is in differentiated treatment and regeneration methods.

The following principles are generally pursued today:

- conserving and establishing structurally diverse and close-to-nature mixed forests,
- planting of site-adapted and stable tree species and provenances,
- utilisation of natural regeneration where soil and previous stand allow it,
- largely dispensing with clear-cuttings,
- multi-storied forest structure, if possible, to make maximum use of soil and air space,
- adapting the intensity of silvicultural treatment to individual stands,
- stand-conserving wood harvesting,
- aintaining soil fertility and increasing it, if possible,

- using foreign tree species only after having examined the beneficial effect of their use in ecological and economic terms.

The aim is to implement close-to-nature forest management throughout Germany. This objective has in Germany already generated an increasing proportion of structurally diverse mixed stands, long regeneration periods and natural rejuvenation methods. Forest management largely dispenses with clear-cuttings.

High forest management is the predominant silvi-cultural system in Germany. The stands are either naturally or artificially regenerated at the end of a long production period (80 to 300 years depending on the tree species). Plenter forests (variable/multi-aged forests) constitute a type of forest that is close to nature. Here, trees of different age classes stand side by side. Regeneration takes place here on a continuous basis, more or less. Selective cutting use or group-selection cutting are carried out in plenter forests. Natural regeneration can develop or already existing regeneration can be used in the spaces opened up by cutting. The "plenter idea" with forest management by individual trees (single-stem working) and multi-storied forest structure has had a stimulating effect on many other silvicultural methods over many decades.

Coppice forests and coppice-with-standards forests are rare today, but they are interesting in historical as well as in ecological terms. They are often based on a regeneration of stands at intervals of a few decades by means of coppice shoots and root suckers. As far as the appearance of stands is concerned, these coppice stands and coppice-with-standards stands clearly differ from high forests. This type of management was widespread in the Middle Ages in particular and served to cover the requirements of tanning wood and fuel wood. (forstwirtschaft-in-deutschland.de)

Country:Latvia

Area/Region: Latvia

Exclusions: No

Forest areas in Latvia

In Latvia, forests cover area of 3,056,578 ha. According to the data of the State Forest Service (concerning the surveyed area allocated to management activities regulated by the Forest Law), woodenness amounts to 51.8% (ratio of the 3,347,409 ha covered by forest to the entire territory of the country). The Latvian State owns 1,495,616 ha of forest (48.97% of the total forest area), while the other 1,560,961 ha (51.68 % of the total forest area) belong to other owners. Private forest owners in Latvia amount to approximately 144,000. The area covered by forest is increasing.

Broadleaves' and conifers' grouping and species

According to the National Forest Inventory (NFI) data from 2010, the larger share of Latvia's forest consists of deciduous trees. They also dominate in terms of the overall availability of timber – 335 million m³ of timber from deciduous and 296 million m³ of coniferous trees.

Solid Wood

Total growing stock of forests in Latvia is 189 m3 per hectare.

Growth and harvesting

The amount of forestland, moreover, is constantly expanding, both naturally and thanks to afforestation of infertile land and other land that is not used for agriculture. More important, however, is another indicator – the volume of timber in the forest is increasing three times more than the area of forestland. This proves that the forest area in Latvia is not expanding because of bushes that are not counted as part of the area of forest. On the contrary, forestry work in Latvia has been very targeted. The current annual increment of wood is estimated at 16.3 mill m3 per year.

An average of approximately 12 million m3 of round wood have been harvested each year in Latvia's forests during the past decade. That is less than the annual increment, and so forestry in Latvia can be described as sustainable. (Letvian forest sector in facts & figures 2015)

Ownership

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

Nature values, key biotopes projection and the IUCN Red list of threatened species in Latvia

Historically, extensive use of forests as a source of profit began later than in many other European countries, therefore a greater biological diversity has been preserved in Latvia.

For the sake of conservation of natural values, a total number of 674 protected areas have been established. Part of the areas have been included in the European network of protected areas Natura 2000. Most of the protected areas are state-owned. In order to protect highly endangered species and biotopes located without the designated protected areas, if a functional zone does not provide that, micro-reserves are established. According to data of the State Forest Service (2015), the total area of micro-reserves is 40,595 ha. Identification and protection planning of biologically valuable forest stands is carried out continuously. On the other hand, for preservation of biological diversity during forest management activities, general nature protection requirements binding to all forest managers have been developed. They stipulate that at felling selected old and large trees, dead wood, undergrowth trees and shrubs, land cover around micro-depressions are to be preserved, thus providing habitat for many organisms.

IUCN: Approximately 13% of the species assessed by the European Red List of Species are present in Latvia. For some of the taxonomic groups, the percentages of European species that occur in Latvia are particularly high; such as dragonflies, saproxylic beetles, mammals and butterflies. Of the 847 species assessed that occur in Latvia, the groups comprising the highest number of species are vascular plants, saproxylic beetles and butterflies. Of the total number of species assessed in the country 3% are considered threatened and at least 6% are Near Threatened at the European level. Many of these species are endemic to Europe and are found nowhere else in the world. Species that are considered threatened at the European level and occur in Latvia are found mostly in wetlands, forests and grasslands. These ecosystems require particular attention in order to ensure the habitats of these sensitive species remain. (cmsdata.iucn.org)

An updated IUCN-list:

http://www.iucnredlist.org/search/link/5aabbbb3-9fcd65ac

CITES Species: Latvia has been a signatory of the CITES Convention since 1997. CITES requirements are respected in forest management. An updated list of CITES species in Latvia, is on the following link: https://cites.org/eng/cms/index.php/component/cp/country/LV.

List of species:

Economy

The wood industry is an important branch of the processing sector and has long-standing traditions in Latvia. Since the restoration of Latvian independence, the forestry and wood industry has been a key sector of the Latvian economy. Forest sector is very prominent, being worth 5.2% of GDP and making serious contribution to the country economy (in 2014 various forest exports constituted 19% of total Latvian exports). Forest industry (forestry, timber processing and furniture industry) supports 53,000 jobs – a serious number in a country of population below 2,000,000.

One of the timber industry's long-term goals is to transform the traditional forest sector into a technologically advanced industry. Today the forestry industry can be proud of its innovative companies operating to the highest global standards, utilising production processes with modern, environmentally friendly technologies and implementing effective resource-management policies. This is strengthening Latvia's position as a manufacturer of processed, high value-added wood products in world markets. This development course gives a platform not only for businesses, but for the whole country's economic and social growth. (LIAA)

Practical work and administration

In Latvia, forestry is supervised by the Ministry of Agriculture, which in cooperation with stakeholders develops forest policy, development strategy of the field, as well as drafts of legislative acts concerning forest management, use of forest resources, nature protection and hunting (www.zm.gov.lv).

The implementation of the requirements of the national law and regulations issued by the Cabinet of Ministers notwithstanding the type of tenure is carried out by the State Forest Service under the Ministry of Agriculture (www.vmd.gov.lv).

Management of the state-owned forests is performed by the public limited company Latvijas Valsts Meži, established in 1999. The enterprise ensures implementation of the best interests of the state by preserving value of the forest and increasing the share of forest in the national economy (www.lvm.lv).

Country:Sweden

Area/Region: Sweden

Exclusions: No

Sweden

Sweden's land area is 40.8 million ha, of which 28.1 million ha is forest land (69%). 23.25 million ha are 'productive forest land'

Almost the whole country is within the boreal region (95%), a small part in the south is considered the temperate region (forest biome). Sweden's forests are dominated by Norway spruce and Scots pine.

Ownership

Considering the total forest area, 22.5 million hectares are private property, and 5.6 million hectares public property. According to official data of the Swedish Forestry Agency (2020), ownership of the productive forest was divided as follows:

- 48% by individual owners;
- 24% by private-owned limited liability companies;
- 21% by public owners;
- 6% by "other private owners";
- 1% by "other public owners".

In Sweden 313 084 'Individual persons' are forest owners. The 'right of public access' gives people the possibility to gather mushrooms, berries and flowers that are not protected in the forests.

The forest products industry is significant for the Swedish economy, and accounts for 9 to 12% of the Swedish industry's total employment. Sweden was the third largest exporter of sawn wood in the world, after Russia and Canada (FAO, 2018). According to the Swedish Forest Agency, 28 300 people worked in forestry (in 2020) and 48 700 people earned their income in the forestry sector (in 2019). Eurostat indicates 19 thousand people were working in the Swedish forestry and logging industry, and 13 thousand in the furniture industry in 2020. In 2020, there were 110 reported occupational injuries in the Swedish forestry sector.

The Timber Measurement Act, gives the seller and buyer of logs a tool to evaluate the price of the logs delivered to the industry. The law does not provide a basis for taxes and fees, however, does contribute to a credible and transparent market for logs.

Sweden ranks high on the Worldwide Governance Indicator (WGI) with excellent scores on 'rule of law' and 'control of corruption'. With a Corruption Perception Index (CPI) score of 83 points (in 2022), Sweden is in the top three of least corrupt countries in the world.

Growth and harvesting

Growth is greater than the amount felled, and has been for the entire 20th century onwards. Annual growth stands at around 120 million cubic metres growing stock, solid over bark (m3sk), and each year around 90 million m3sk of that growth is harvested.

Protected species and conservation areas

CITES, and the IUCN do not red list any tree species in Sweden; they do list plant and animal species in different classes of risk.

A complete list of all species that are protected throughout Sweden is available on the website of the Environmental Protection Agency. At present, there are about 300 species with the protected status throughout the country, and an additional fifty in one or more counties.

The Swedish Forestry Agency has laid down regulations on detailed requirements in order to protect species and the environment. However, such requirements may not lead to any significant economic loss for the landowner. The Swedish Forest Agency (SFA) uses satellite imagery; the imagery is essential to detecting illegal activities and to train forest owners in best management practices. This approach has proven to have a positive impact on forest productivity and on wild-life conservation.

Sweden is active on planning and implementing forest protection through the establishment of national parks, nature reserves, habitat protection, Natura 2000-areas and nature conservation agreements. Whereas national parks only may be established on state land, nature reserves, habitat protection, Natura 2000-areas or nature conservation agreements can be established on forest land that continues to be privately owned.

A natural conservation agreement is a civil contract between the state and a forest owner through which the latter undertakes to limit its forestry activities or make specific conservation measures. In 2020, the number of habitat protection and nature conservation agreements has risen to around 14 thousand and the total amount of compensation granted surpassed 300 million euro.

According to a regulation of the Swedish Forestry Agency, harm to sensitive biotopes due to forestry activities must be avoided, or limited. The Agency has specified biotope types that it considers sensitive. Harming such biotopes during forestry activities is, however, not subject to legal sanctions, if no prior injunction was issued by the Agency.

According to statistics from the Swedish Forest Agency of 2013, around 4 300 (7,3%) of the notified final fellings were inspected before timber harvesting commenced. The inspections check if specified environmental requirements are addressed; they do not assess legality of forest activity in general. The inspections resulted in 129 injunctions to limit the harvesting area or to take specific measures.

Economy

The forest industry accounts for 9 - 12% of the employment, exports, turnover and added value in Swedish industry. This is strongly export-oriented. Furthermore, as most of the raw materials are domestic and the import of forest industry products is relatively small, our forest industry makes a significant contribution to Sweden's balance of trade. Almost 90 percent of the pulp and paper production is exported. There are 115,000 employees in forest sector in Sweden.

Sweden is also one of the leading nations in forestry and forest industry research. Swedish companies are absolutely at the forefront of industrial wood construction and development of new wood and cellulose-based products, such as bioplastics, biocomposites, carbon fibre materials and textile fibres. Technological breakthrough possibilities are also considerable, in terms of the development of chemicals and refined fuels.

Every year, Sweden invests SEK 2 billion in forest research at universities, colleges and institutes, and forest industry companies annually invest SEK 2.3 billion in their own research.

Practical work and administration

The forest rotation period is usually 60-100 years, mostly with 2-3 intermediate thinnings. Planting and natural regeneration are both commonly used. GMO tree species are not used in forestry. In recent years, continuous cover forestry methods are also applied. Continuous cover forestry is based on a 15-20 years harvesting cycle using selective harvesting techniques or the felling of small sites of less than 0.5 ha.

In 2020, 18,3 million hectares was covered by a forest management plan. Around 664 thousand hectares were covered by non-clearcut harvesting systems (Swedish Forestry Agency). Regarding regeneration, in the last years, 85% was planted, 4% was seeded, and around 10% was covered by natural regeneration.

The total forest harvesting volume in Sweden is around 90 million m3 annually, which is below the annual increment of forests. Calculated as dry weight, the total volume is 2642 million tons. Up until the 1970's an increase in standing stock was realised by spruce, since then the volumes of spruce, pine and broadleaves have all increased. All forestry activities in Sweden are subject to the same legislation and requirements. The Swedish Forestry Act aims at promoting high long-term wood production as well as environmental protection during forestry activities. It contains:

- an obligation to regenerate forest on forest land;
- a ban to harvest trees under certain ages;
- limitations to the size of clear cuts and young forest within an estate; and
- requirements to prevent outbreaks of pests.

However, the law does not contain requirements on silviculture measures, such as pre-commercial or commercial thinnings.

Since 1993, the production and environmental function of forests are given equal importance in the opening paragraph of Sweden's Forestry Act.

The Swedish Forest Agency is responsible for enforcing requirements concerning environmental protection. Besides, the Forest Agency, the County Administrative Board, and the Municipality's environmental authorities supervise several forestry related activities. The Forest Agency processes approximately 60 thousand Timber Harvesting Notifications annually, which are inspected within a 6-week period allocated for this purpose. Harvesting permits are only required for specific forest lands, e.g. mountainous forests. However, final fellings on areas lager than 0.5 ha must be notified in advance to the Swedish Forest Agency.

The Swedish interpretation of 'illegal harvested timber' in the EU Timber Regulation, as given in the Law on Trade with Timber and Wood products (2014:1009), includes only activities not complying with legal requirements subject to direct sanctions, such as fines or imprisonment. To define which forestry actions are legal is complicated. Most of the detailed requirements regulated by authorities such as the Swedish Forest Agency and the Swedish Work Environment Authority are used as references to issue injunctions to forest owners or buyers. The injunctions normally have a preventive character. Actions deviating from some regulations are not always regarded as illegal. Transgressing requirements of the Forest Agency could

however be subject to injunctions on repairing measures, e.g. restoring disturbed waterways or clearing frequently used trails.

2.3 Actions taken to promote certification amongst feedstock supplier

Denmark

As a professional company in forest management and advice, it is a natural task for HedeDanmark to ensure that the forest owners, we work with, are fully informed about the market situation. In order to exist in the market, both HedeDanmark as well as the forest owners we work with must be ahead of the market development within PEFC, FSC®, SBP and EUTR. Therefore, we inform all our suppliers of the trends we see in the certification. HedeDanmark has offered PEFC and FSC® group certification to forest owners since 2008 and has probably the country's most effective IT management system to manage the schemes. This has contributed to the fact that HedeDanmark is clearly a leader in PEFC and FSC® group certification in Denmark and has assisted in the certification of over 35,000 hectares of forest. All foresters promote the forest certification in all properties where schemes make sense. This happens in the daily dialogue with forest owners and via HedeDanmark's so-called Forest Portal.

Despite the expecting growth of certificated properties, the experience from Denmark is that it is difficult to get especially the small forest estates certified.

In Denmark, SBP will have the ability to handle this challenge. HedeDanmark has planned to share our SBP experiences with our foreign suppliers.

Norway

FSC® certification and especially PEFC Certification in Norway is almost total and HedeDanmark does not do extra to promote certification in this country.

Estonia, Latvia, Lithuania, Germany and Sweden

HedeDanmarks activities importing certified wood chips to Denmark provides an increased focus on certification schemes in these countries and will stimulate the interest for forest certification.

2.4 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (million ha): 136,81
- b. Tenure by type (million ha):40.87 (Privately owned), 15.57 (Public), 1.20 (Community concession)
- c. Forest by type (million ha):33.23 (Boreal), 28.16 (Temperate)
- d. Forest by management type (million ha):61.39 (Managed natural)
- e. Certified forest by scheme (million ha):33.35 (PEFC), 25.69 (FSC)

Describe the harvesting type which best describes how your material is sourced: Mix of the above **Explanation:** Clean cuts it done with harvesting machines having an onehanded knob for conifer and a motor manual for broadleaved wood. It is important to all clean cuts that there is always prepared wood qualities for use in the processing timber industry and in most cases there will be prepared wood for energy purpose. Thinning operations in young conifers and broadleaves who ends up in biomass, is a prerequisite to end up with qualities of the wood, to use in the woodworking industries. The early thinning operation will

provide a continuous cash flow is to improve forest owner's economy, thus ensure a continuous long-term production of wood. That way the production of wood for energy can be an advantage for the timber industries.

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

Explanation: Branches, tops, and needles of conifers, named forest residues, are a main part of forest fuels, which have little competition from other interest. Normally, figures of growing stock and annual increment do not include this fraction. The residue fraction is relatively higher in conifers than in hardwood. As broad market changes occur or local contracts need to be met, trees are diverted to the appropriate product. Sales of wood chips are as important to the economics of the operation as are sales of the higher value logs. To give a true picture of the range outcome between industry and energy at final felling tasks you can examine the prices of the different assortments. Logs, pulpwood and wood for packing are better paid than energy purpose; therefore, it is always aimed to produce the better-paid assortments than energy-wood.

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

Explanation: Forest for production is expensive in Denmark and therefore everyone is interested in achieving high production on the area. Therefore, the area is usually replanted no later than 2 years after clearcut.

Was the feedstock used in the biomass removed from a forest as part of a pest/disease control measure or a salvage operation? No Explanation: N/A

What is the estimated amount of REDII-compliant sustainable feedstock that could be harvested annually in a Supply Base (estimated): N/A N/A Explanation:N/A

Feedstock

Reporting period from: 01 Jan 2022

Reporting period to: 31 Dec 2022

- a. Total volume of Feedstock: 200,000-400,000 tonnes
- b. Volume of primary feedstock: 200,000-400,000 tonnes
- c. List percentage of primary feedstock, by the following categories.
 - Certified to an SBP-approved Forest Management Scheme: 40% 59%
 - Not certified to an SBP-approved Forest Management Scheme: 40% 59%
- d. List of all the species in primary feedstock, including scientific name: Picea abies (Norway spruce); Picea sitchensis (Sitka Spruce); Pinus sylvestris (Forest pine); Abies alba (Silver fir); Larix eurolepis (Larch); Pseudotsuga menziesii (Douglas fir); Thuja plicata (Red Cedar); Cupressus sempervirens (Cypress); Betula pubescens (Downy birch); Quercus robur (Oak); Fagus sylvatica (Beech); Alnus glutinosa (European alder); Populus alba (Silver poplar); Tilia cordata (Small-leaved linden); Prunus avium (Bird cherry);
- e. Is any of the feedstock used likely to have come from protected or threatened species? No
 - Name of species: N/A
 - Biomass proportion, by weight, that is likely to be composed of that species (%): N/A
- f. Hardwood (i.e. broadleaf trees): specify proportion of biomass from (%): 67,50
- g. Softwood (i.e. coniferous trees): specify proportion of biomass from (%): 32,50

- h. Proportion of biomass composed of or derived from saw logs (%): 0,00
- 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 (%): 10,00
- k. Volume of primary feedstock from primary forest: 0 N/A
- I. List percentage of primary feedstock from primary forest, by the following categories. Subdivide by SBP-approved Forest Management Schemes:
 - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme: N/A
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: N/A
- m. Volume of secondary feedstock: 1-200,000 tonnes
 - Physical form of the feedstock: Chips
- n. Volume of tertiary feedstock: 0 N/A
 - Physical form of the feedstock: N/A
- o. Estimated amount of REDII-compliant sustainable feedstock that could be collected annually by the BP: N/AN/A

Proportion of feedstock sourced per type of claim during the reporting period							
Feedstock type	Sourced by using Supply Base Evaluation (SBE) %	FSC %	PEFC %	SFI %			
Secondary	0,00	0,00	0,00	0,00			
Tertiary	0,00	0,00	0,00	0,00			
Primary	59,47	1,41	39,12	0,00			
Other	0,00	0,00	0,00	0,00			

3 Requirement for a Supply Base Evaluation

Note: Annex 1 is generated by the system if the SBE is used without Region Risk Assessment(s). Annex 2 is generated if RED II SBE is in the scope.

Is Supply Base Evaluation (SBE) is completed? Yes

Denmark:

HedeDanmark implements operational tasks in forests that are not FSC®/PEFC certified. In order to produce SBP compliant wood chips from these forests the completion of the Supply Base Evaluation is necessary. The SBE has been developed, measures are being implemented and has been approved by SBP.

Estonia:

The Supply Base Evaluation is applicable for feedstock sourced in Estonia.

HedeDanmark implements operational tasks in forests that are not FSC®/PEFC certified. In order to produce SBP compliant wood chips from these forests the completion of the Supply Base Evaluation is necessary. The SBE is developed; mitigation measures are implemented and has been approved by SBP.

The companies we purchase from are FSC or PEFC certified companies.

Latvia:

The Supply Base Evaluation is applicable for feedstock sourced in Latvia.

HedeDanmark implements operational tasks in forests that are not FSC®/PEFC certified. In order to produce SBP compliant wood chips from these forests the completion of the Supply Base Evaluation is necessary. The SBE is developed; mitigation measures are implemented and has been approved by SBP.

The companies we purchase from are FSC or PEFC certified companies.

Germany

The Supply Base Evaluation is applicable for feedstock sourced in Germany.

HedeDanmark implements operational tasks in forests that are not FSC®/PEFC certified. In order to produce SBP compliant wood chips from these forests the completion of the Supply Base Evaluation is necessary.

Lithuania, Norway, Sweden:

No SBE has been prepared in Lithuania, Norway and Sweden because we buy PEFC and/or FSC certified material in these countries.

Is REDII SBE completed? N/A

N/A

4 Supply Base Evaluation

4.1 Scope

Feedstock types included in SBE: Primary

SBP-endorsed Regional Risk Assessments used: Denmark, Estonia, Latvia

List of countries and regions included in the SBE:

Country: Denmark

Indicator with specified risk in the risk assessment used:

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

Specific risk description:

It is concluded that there is a specific risk that at least locally important Key Biotopes in forests have not yet been identified and mapped, and may therefore be at risk from threats due to sourcing of biomass.

Country: Denmark

Indicator with specified risk in the risk assessment used:

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

Specific risk description:

The following source types are defined and their risk levels assessed: Feedstock originating from forest estates with a Green Management plan: It is a requirement for receiving subsidies for developing a Green Management plan that HCV areas in the forest are identified and mapped. However, there is no strict requirement that the HCVs are monitored and protected from forest management, and therefore risk is evaluated as SPECIFIED. Feedstock from uneven--aged stands or stands of broadleaf species: Due to no legal requirement for identification and mapping of Key biotopes, it is assessed that for all other forest sources of biomass feedstock, the risk of HCVs being present, but not identified or mapped is SPECIFIED

Country: Denmark

Indicator with specified risk in the risk assessment used:

2.2.3 The BP has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).

Specific risk description:

Based on the existing protection through the Forest Act and designation of Natura 2000 areas and individual protected areas, it is concluded that larger scale key ecosystems and habitats are sufficiently protected, and that sourcing of feedstock for biomass does not pose a threat towards these areas. As mentioned in the findings for criteria 2.1.1 it is likely that a large number of smaller areas or biotopes of local or regional importance to biodiversity or as species habitats, in a Danish context called Key

Biotopes ("nøglebiotoper"), which are not systematically identified and mapped. Based on a precautionary approach the risk assessment conclude that for these areas the risk is specified based on the same findings as for Indicators 2.1.1 and 2.1.2.

Country: Denmark

Indicator with specified risk in the risk assessment used:

2.2.4 The BP has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).

Specific risk description:

This Indicator is seen as being partially covered by Indicators 2.1.1 and 2.1.2, for which low risk must be demonstrated or reached through mitigating measures. The risk for this Indicator is also assessed as Specified. Required risk mitigation measures are the same as outlined for Indicators 2.1.1 and 2.1.2.

Country: Estonia

Indicator with specified risk in the risk assessment used:

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

Specific risk description:

According to the Estonian legislation protection of Woodland Key Habitat (WKH) is optional for private forest owners. Private forest owners can sign a contract with the state and protect WKH. In which case the state pays compensation to the owner. If a private forest owner does not want to protect WKH then the owner is allowed to cut it. It is possible to determine the location of WKH from the Public Forest Registry and where felling permits are issued it is possible to see if the material is cut from WKH. In cases where fellings are carried out without a felling permit (small scale sanitary cutting is allowed without a felling permit) then an on--site visit is only way to see if the WKH is untouched or not. In state forest, FSC or PEFC--certified private forest, and in private forests where a WKH contract has been signed, WKH are protected. In accordance with the information above, the risk level for this indicator in uncertified private forest and FSC or PEFC--certified private forest.

Country: Latvia

Indicator with specified risk in the risk assessment used:

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

Specific risk description:

Information on location and geographical distribution of nature conservation areas, rare, threatened and endangered species and habitats can be considered sufficient and there are no major gaps in the knowledge on important nature conservation areas. Most important forest areas with a high concentration of nature conservation values have been identified and designated as protected areas at national and/or EU level (Natura 2000 sites). Forests in Latvia have not been examined fully for high conservation values (HCV), even though the major areas with a high concentration of high conservation values have been identified and are covered by the network of protected nature areas with different protection regimes. Active survey and identification of Woodland key habitats and EU protected habitats has taken place in state

managed forests, but there is not enough information on the location of high conservation value forest) in non--certified forests.

Country: Latvia

Indicator with specified risk in the risk assessment used:

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

Specific risk description:

The specified risk designation is largely based on the facts that there is information on isolated cases of destruction/damaging of objects of cultural heritage in private forests that do not have official protection status;; the general opinion of stakeholders regarding a lack of awareness by private forest owners of the cultural heritage values in their forests;; frequent negligence of harvesting companies with regard to preserving objects of cultural heritage;; unwillingness of private forest owners to communicate/notify authorities about objects of cultural heritage in their forests due to a fear of restrictions on tree harvesting.

Country: Latvia

Indicator with specified risk in the risk assessment used:

2.8.1 The BP has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).

Specific risk description:

Low risk can be considered for:

• companies working as subcontractors for certified forest managers and who are routinely checked for OH&S issues or are implementing quality management systems in relation to OH&S issues (OHSAS 18001 for example);

• harvesting works which are carried out exclusively with forest machinery (harvesters).

"Specified risk" is considered for: Harvesting works which are carried out by manual harvesting means (chainsaws) in non-- certified forests. Special focus shall be paid to self--employed persons and workers of microenterprises.

Country: Germany

Indicator with specified risk in the risk assessment used:

N/A

Specific risk description:

There is no endorsed RRA available for Germany. HedeDanmark has completed a RA for SB Germany. The RA is widely based on a already acknowledged RA for SB Germany, published on SBPs homepage. From this RA we have worked through the indicators and evidence – assessed and secured that the interaction with and support from HedeDanmarks own work routines in the daily business, included in our COC and FSC controlled wood procedures, are sufficient and in place. HedeDanmark act in the same supply base and market as in the already acknowledged RA and the companies are operating in a similar way. Risk is concluded to be low for all indicators. The RA is based on the Annex 1 template.

4.2 Justification

Denmark

A large part of HedeDanmark's input material from the Danish part of SB comes from privately owned areas that are not PEFC/FSC® certified. These forests are located all over Denmark and the Regional Risk Assessment (RRA) comprises all of Denmark. Specified risk is stated in the indicators 2.1.1, 2.1.2, 2.2.3, 2.2.4.

Estonia

A part of HedeDanmark's input material from the Estonian part of SB comes from areas that are not PEFC/FSC® certified. These forests are located all over Estonia and the Regional Risk Assessment (RRA) comprises all of Estonia. Specified risk is stated in the indicator 2.1.2.

Latvia

A part of HedeDanmark's input material from the Latvian part of SB comes from areas that are not PEFC/FSC® certified. These forests are located all over Latvia and the Regional Risk Assessment (RRA) comprises all of Latvia. Specified risk is stated in the indicator 2.1.1, 2.1.2, 2.8.1.

Germany

A part of HedeDanmark's input material from the German part of SB comes from areas that are not PEFC/FSC® certified. These forests are located all over Germany and the Risk Assessment (RA) comprises all of Germany. Low risk is concluded in all indicators.

4.3 Results of risk assessment and Supplier Verification Programme

A SVP (Supplier Verification Programme) is developed, following up on all tasks implemented and potential deviations.

The SVP program is adjusted to the assessed risk associated to the supply chain in question, meaning that main attenion is pointet towards supplychains where HedeDanmark is not in charge of all operations inside it.

A SVP program has been made, being indidivualy designed towards HedeDanmarks cooperation with suppliers in each country.

Denmark:

A large part of HedeDanmark's input material from the Danish part of SB comes from privately owned areas that are not PEFC/FSC® certified. These forests are located all over Denmark and the Regional Risk Assessment (RRA) comprises all of Denmark. Specified risk is stated in the indicators 2.1.1, 2.1.2, 2.2.3, 2.2.4.

The SVP: Suppliers are separated into 3 categories:

- Harvest location managed by HedeDanmark- desk control
- Supplier, close partner desk control + field control

- Supplier, loosely connected partner – extended desk control + extended field control.

Estonia:

A part of HedeDanmark's input material from the Estonian part of SB comes from areas that are not PEFC/FSC® certified. These forests are located all over Estonia and the Regional Risk Assessment (RRA) comprises all of Estonia. Specified risk is stated in the indicator 2.1.2.

The SVP:

- Supplier reports for each shipment desk control
- For each supplier annually field control.

Latvia:

A part of HedeDanmark's input material from the Latvian part of SB comes from areas that are not PEFC/FSC® certified. These forests are located all over Latvia and the Regional Risk Assessment (RRA) comprises all of Latvia. Specified risk is stated in the indicator 2.1.1, 2.1.2, 2.8.1.

The SVP:

- Supplier reports for each shipment desk control
- For each supplier annually field control.

Germany:

A part of HedeDanmark's input material from the German part of SB comes from areas that are not PEFC/FSC® certified. These forests are located all over Germany and the Risk Assessment (RA) comprises all of Germany.

Low risk is concluded in all indicators:

- Buying standing trees or along forest roadside No further action
- Delivered at terminal, close partner annually control at suppliers office.
- Delivered at terminal, loosely connected partner annually control at suppliers office + field control.

Beside the specific verification of suppliers and feedstock, the gathered experience throughout this program contributes to HedeDanmarks improvement and eventual adjustments of procedures for suppliers, eg. developing an IT platform where suppliers can screen and registrate their material, improvement of the education programs and efficient communication, etc.

4.4 Conclusion

The sourcing is done from 4 countries with each an individual risk profile. The material sourced from areas that are not forest management certified, is handled through the SBE process.

HedeDanmark has established an individual SVP program that adapts to the specific conditions in each country. The program is focused putting most effort towards suppliers assessed with higest risk level -in practice meaning focus on the less affiliated suppliers.

5 Supply Base Evaluation process

HedeDanmark has itself drafted a SBE (Supply Base Evaluation) covering Danish, Estonian, Latvia and Germany Supply Bases.

The evaluation is carried out primarily by 3 employees - one from production team and 2 from the management team.

For Denmark, the first SBE was drafted in 2016 and reviewed in 2021, based on the SBP endorsed RRA for Denmark.

For Estonia and Latvia, the SBE was drafted in 2017 and reviewed 2022, based on the SBP endorsed RRAs for Latvia and Estonia.

For Germany, the SBE is prepared in 2023, based on the company' own risk assessment for Germany, which has taken its starting point in another German risk assessment approved by the CB.

Stakeholder in each SB has been contacted by draft and review. Feedbacks from four stakeholders were received. None of the feedbacks were relevant to the further work process with SBE. Our experience is that stakeholder engagement in SBP regard is lacking interest. We find it difficult how we can support this in a positive direction.

HedeDanmarks departments in Estonia, Latvia, Germany and Denmark have worked together understanding SBP into the relevant context in question.

6 Stakeholder consultation

Denmark

All interested parties have received RRA and HedeDanmark's risk decreasing measures. This material was submitted on Sunday the 4 July 2021.

Organisation	Type of interested party	Contact Person	Email
3F - SID (Specialarbejderforbundet)	Social interests, the workers union	Jesper Lund Larsen	jesper.lund.larsen@3f.dk
92 Gruppen	Coordination NGO of the Danish environmental NGOs	Troels Dam Christensen	tdc@92grp.dk
BAT-Kartellet	Social interests, the workers union	Camilla Vakgaard; Sidse Buch	camilla.vakgaard@batkartellet.dk ; sidse.buch@batkartellet.dk
Concito	The Green think tank of Denmark	Christian Peder Ibsen	ci@concito.dk
Danmarks Naturfredningsforening	Environmental NGO	Nora Skjernaa Hansen	nsh@dn.dk
Danmarks Jægerforbund	Danish Hunters organisation	Carsten Lund Larsen	kll@jaegerne.dk; post@jaegerne.dk
Dansk ornitologisk forening, DOF	Environmental NGO	Knud Flensted	mail@dofoj.dk; dof@dof.dk
Dansk Energi	Economic interests. Buyer of wood chips to energy production	Kristine van het Erve Grunnet	keg@danskenergi.dk; info@danskenergi.dk
Dansk Fjernvarme	Economic interests. Buyer of wood chips to energy production	Kate Wieck- Hansen	kwh@danskfjernvarme.dk; mail@danskfjernvarme.dk
Dansk Skovforening	Branch organisation for private forest owners	Marie-Louise Bretner	mlb@skovforeningen.dk
De Danske Skovdyrkerforeninger	Branch organisation for private forest owners	Svend Christensen;	sjc@skovdyrkerne.dk; mgh@skovdyrkerne.dk

Michael Gehlert

Det økologiske råd	Council for organic farming/land use	Christian Ege	christian@ecocouncil.dk
DM&E (Dansk Maskinfører og Entreprenører)	Branch organisation for forest operators/contractors.	Claus Danefeldt Clemmensen	cdc@dmoge.dk
Energistyrelsen	Danish energy agency	Lars Martin Jensen	lmj@ens.dk
Friluftsrådet	Social and recreational/outdoor NGO	Thorbjørn Eriksen	toe@friluftsraadet.dk
FSC Danmark	FSC Denmark (FSC representation in Denmark)	Sofie Tind Nielsen	sofie@fsc.dk
HedeDanmark	The BP represented in the draft RA working group	Steen Riber	Svr@hededanmark.dk
Københavns Universitet	University	Vivian Kvist Johansen	vkj@ign.ku.dk
Naturstyrelsen	Danish Forest and Nature Authorities	Mads Jensen	maj@nst.dk
NOAH	Environmental NGO (Danish Friends of the Earth partner)		noah@noah.dk
PEFC Danmark	PEFC Denmark (PEFC representation in DK)	Morten Thorøe	mt@pefc.dk
Vedvarende Energi	Organisation for sustainable energy		olesen@ve.dk
Verdens Skove	Environmental NGO	Jakob Ryding	jr@verdensskove.org
WWF (Verdensnaturfonden)	Environmental NGO	Bo Normander	b.normander@wwf.dk

Estonia:

All interested parties have received RRA and HedeDanmark's risk decreasing measures. This material was submitted on Sunday the 4 July 2021.

Organisation	Type of interested party	Contact Person	Email
Estonian Biomass Association (EBA)	non profit organisation		eby@eby.ee
Baltic Biomass Network (BBN)	Spatial planning level with local authorities	Peeter Muiste	peeter.muiste@emu.ee
Estonian Renewable Energy Association	Estonian Renewable Energy Association		koda@taastuvenergeetika.ee
Estonian Council of Environmental NGOs	Non-governmental environmental organisations	Kai Klein	info@eko.org.ee
Estonian Fund for Nature	Voluntary civic association in cooperation		elf@elfond.ee
SEI Tallin	Stockholm Environment Institute Tallinn, key national expert on environment and energy		info@seit.ee
Estonian Green Movement / Friends of the Earth (ERL)	Non-profit environmental organisation.		info@roheline.ee
The Estonian Private Forest Union (EPFU)	Umbrella organisation for the local organisations of private forest owners.		erametsaliit@erametsaliit.ee
The Foundation Private Forest Centre (PFC)	Private Forest Centre		eramets@eramets.ee
Estonian University of Life Sciences (EMÜ)	University in Estonia	Hardi Tullus	hardi.tullus@emu.ee
Estonian Forest and Wood Industries Association (EMPL)	Non-profit organisation gathering timber and forest-industry related organisations.		info@empl.ee
Graanul Invest AS	Biomass Producer	Margit Parmas	margit.parmas@graanulinvest.co m
Purutuli OÜ	Biomass producer		brikett@purutuli.ee
United Loggers OÜ	Biomass Producer	Peeter Volke	peeter.volke@united-loggers.ee

FSC Estonia	FSC national representative in Estonia	Indrek Talpse p	i.talpsep@ee.fsc.org
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Latvia:

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All interested parties have received RRA and HedeDanmark's risk decreasing measures. This material was submitted on Sunday the 4 July 2021.

Organisation	Type of interested party	Contac t Person	Email
Latvian Biomass Association, LATbio	Association. Promoting biofuels, including the use of wood energy sector; promoting biofuel production;	Didzis Palejs	didzis.palejs@latbio.lv
Latvian Association of Bioenergy	Non-profit seeking organisation. Promotes the use of renewable resources for energy production		didzis.palejs@latbio.lv
Latvian Confederation of Renewable Energy (LAEF)	Formed by leading associations of the renewable energy sector	Jānis Irbe	irbejanis@gmail.com
The Latvian Fund for Nature	Non-governmental organisation for the conservation of nature		ldf@ldf.lv
State Forest Enterprise AS Latvijas Valsts Meži	Under the Ministry of Agriculture		lvm@lvm.lv
WWF Latvia	Non-governmental environmental organisations		info@pdf.lv
Agriculture University of Latvia (Faculty of Forestry)	State institution of higher education and research in Latvia		mfdek@llu.lv
Latvian State Forest Research Institute "Silava"	Latvian Forest Research Centre		inst@silava.lv
Associations of Forest Owners	Represent the interests of private forest owners		info@mezaipasnieki.lv

Germany:

All interested parties have received a copy of HedeDanmark's risk assessment. This material was sent by email on 06.01.2023.

	Organisation	Type of interested party	Contact Person	Email
1	Bundesministerium für Ernährung und Landwirtschaft	Lawgiving institution		poststelle@bmel.bund.de
2	Schutzgemeinschaft Deutscher Wald, Bundesverband e. V.	Nature conservation NGO		info@sdw.de
3	Arbeitsgemeinschaft Deutscher Waldbesitzerverbände e.V., AGDW – Die Waldeigentümer	Branch organisation for forest owners in Germany NGO	Andreas Bitter	info@waldeigentuemer.de
4	Waldbesitzerverband Niedersachsen e.V.	Branch organisation for forest owners in Niedersachsen NGO	Philip Frhr. von Oldershausen, Präsident (Einzelmitglieder)	kontakt@waldbesitzerverband- niedersachsen.de
5	Waldbesitzerverband für Mecklenburg- Vorpommern e.V.	Branch organisation for forest owners in Mecklenburg Vorpommern NGO	Albrecht Stahl	info@waldbesitzer-mv.de
6	Ministerium für Landwirtschaft, ländliche Räume, Europa und	Lawgiving institution	Jürgen Blucha	juergen.blucha@mllev.landsh.de

	Verbraucherschutz des Landes Schleswig- Holstein			
7	Schleswig- Holsteinische Landesforsten AöR	Anstalt des öffentliche Recht s (AöR) public law institute		poststelle@forst-sh.de
8	Niedersächsische Landesforsten	Anstalt des öffentliche Recht s (AöR) public law institute		poststelle@nlf.niedersachsen.de
9	Sparte Bundesforst der Bundesanstalt für Immobilienaufgaben	Anstalt des öffentliche Recht s (AöR) public law institute		info@bundesimmobilien.de
1 0	Deutscher Forstwirtschaftsrat e. V.	Umbrella organisation of forestry- political Intrestgroup in forestry	Georg Schirmbeck	info@dfwr.de
1 1	Landesbetrieb Forst Brandenburg	Anstalt des öffentliche Recht s (AöR) public law institute		betriebsleitung@lfb.brandenburg.d e
1 2	DFUV I Netzwerk der Forstunternehmen & Forsttechnik e.V.	NGO- Interestgroup and professional assosiation of forestry companies	Dr. Maurice Strunk , Marlen Brinkord	info@dfuv.eu
1 3	Arbeitsgemeinschaft forstwirtschaftlicher Lohnunternehmer Niedersachsen e. V.	NGO- Interestgroup and professional assosiation of forestry companies	Markus Fischer	info@afl-nds.de
1 4	Bundesverband Freiberuflicher Forstsachverständiger e.V.	NGO- Interestgroup of self employed foresters	Michael Storandt	kontakt@freiefoerster.de

1 5	DHWR Deutscher Holzwirtschaftsrat e.V.	Umbrella organisation of the German wood industry		mail@dhwr.de
1 6	Deutscher Energieholz- und Pellet-Verband e.V. (DEPV)	NGO- Interestgroup for Pellets and Woodenergy in Germany		info@depv.de
1 7	Bundesverband Bioenergie e.V. (BBE)	Umbrella organisation for Bioenergy Germany		info@bioenergie.de
1 8	WWF Deutschland	Nature conservation NGO		info@wwf.de
1 9	Naturschutzbund Deutschland e.V.	Nature conservation NGO	Leif Miller, Jörg- Andreas Krüger	NABU@NABU.de
2 0	Bund für Umwelt und Naturschutz Deutschland e.V. (BUND)	Nature conservation NGO	Olaf Bandt	olaf.bandt@bund.net
2 1	Institut für Forstnutzung und Forsttechnik - TU Dresden	University	Jörn Erler, Markus Rüggeberg	erler@forst.tu-dresden.de ; markus.rueggeberg@tu- dresden.de
2 2	Georg-August- Universität Göttingen, Abteilung Forstökonomie und Forsteinrichtung	University	Bernhard Möhring	forecon@uni-goettingen.de
2 3	HNE Eberswalde, Fachbereich für Wald und Umwelt	University	Jens Schröder	jens.schroeder@hnee.de
2 4	TU München, Fachgebiet für Waldinventur und nachhaltige Nutzung	University	Thomas Knoke	ifm@ls.tum.de

2 5	Nordwestdeutsche Forstliche Versuchsanstalt	joint research organisation for the states of Hesse, Lower Saxony, Saxony- Anhalt and Schleswig- Holstein		zentrale@nw-fva.de
2 6	Forstliche Versuchs- und Forschungsanstalt Baden-Württemberg	Research institute by the state B-W which is looked over by the Ministry- Anstalt des öffentliche Recht s (AöR) public law institute	Ulrich Schraml	Ulrich.Schraml@Forst.bwl.de
2 7	Fachagentur Nachwachsende Rohstoffe e. V. (FNR)	Agency for renewable resources	Andreas Schütte	info@fnr.de
2 8	Johann Heinrich von Thünen-Institut	Federal research institute under the auspices of the German Ministry of Food, Agriculture and Consumer Protection (BMELV)	Matthias Dieter	matthias.dieter@thuenen.de
2 9	Deutscher Jagdverband e.V. (DJV)	German Hunters organisation	Astrid Sutor	a.sutor@jagdverband.de
3 0	Pollmeier	Industry sawmill		info@pollmeier.com
3 1	Holz Ruser	Industry sawmill	Henning Ruser, Arne Ruser, Sönke Ruser	info@holzruser.de

6.1 Response to stakeholder comments

Description: Jesper Lund-Larsen, 3F den grønne gruppe.

- **Comment:** 3F has received this request from stakeholders for SBP with supplementary SBE. After looking through SBP with special focus on SBE, I find that there may well be a little more focus on the social leg when incorporating the concept of sustainability. For us as a trade union, the three legs, nature / environment, economy and social are equally important in the concept of sustainability. But this can not be seen in the attached description. We must therefore call for the social aspect to become more prominent in SBP and SBE, especially when looking at the use of external machine operators, etc. We hope that Hededanmark in the future will put more focus on the social aspect of the concept of sustainability.
- **Response:** This is low risk in RRA. Despite this, HedeDanmark has systems that handle the social aspect among employees and subcontractors.
- Description: Laura Uibopuu, Coordinator of the Estonian Chamber of Environmental Associations
- **Comment:** We find it necessary to postpone the consultations untli updating the RRA of SBP is complete, as the updating process is following similar timeframe as do the consultations. It is not possible to get an adequate evaluation based on current RRA. Kind regards, Laura Uibopuu
- Response: None
- **Description:** Oldenburg, Christof
- **Comment:** Hello Mr Andersen, Thank you very much for your information. It is not entirely clear to me why you are contacting the Niedersächsischen Staatsforst. If I understand correctly, your system refers to a sort of certification? The state forests are already certified according to the standards of PEFC Germany. In addition, no biomass from the Niedersächischen Staatsforst is currently being sold to Denmark. Such transactions were only made between 2019 and 2021 due to the calamity situation in southern Lower Saxony. If you have any questions, please call me (mobile).
- **Response:** Dear Mr. Dr. Oldenburg, Thank you very much for your reply. That is correct, it is a certification system for sustainable woodchips from environments in Germany that have not previously been subject to any certification system. The SBP (process certification) compares 38 different criteria and concludes that Germany has a low risk according to the certification standards. We can understand that our email causes confusion. We want to and are required to inform the possible stakeholders in this process, due to the SBE Certification guide line
- **Description:** Thomas Bockmann
- **Comment:** Dear Mr. Andersen, Thank you for your enquiry, the occasion is not clear to me. Why should the NW-FVA evaluate the origins of your wood? Who is the applicant for this evaluation or statement? We only do commissioned work in exceptional cases. I would be very grateful if you could bring light into the darkness. Best regards,
- **Response:** Dear Mr. Böckmann, We can understand that our email causes confusion. We want to and are required to inform the possible stakeholders in this process, due to the SBE Certification guide line

7 Mitigation measures

7.1 Mitigation measures

Country:	Denmark
Specified risk indicator:	2.1.1 The BP has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation value in the Supply Base are identified and mapped.
Specific risk description:	It is concluded that there is a specific risk that at least locally important Key Biotopes in forests have not yet been identified and mapped, and may therefore be at risk from threats due to sourcing of biomass.
Mitigation measure:	For tasks implemented and handled by the foresters of HedeDanmark the following will apply:
	In connection with the planning of the operational task in the forest by the forester, the treatment area will be mapped in HedeDanmark's GIS system. If the forest is not certified or key biotope registrations have not been made, the forester is responsible for a screening of the area. The screening will be made by means of various maps within the GIS system (HNV map, § 3 registrations, Natura 2000, preservations etc.), the forester being familiar with the local conditions and the forest owner's knowledge of sensitive natural areas in the forest. Based on the screening the possibility of unregistered HCV areas in the forest is assessed. If possible, the forester or the operator will make a registration in the field. The key biotope registration is mapped in a GIS programme. This mapping will be found on work order maps sent to the operator in connection with the operational work.
	Besides work order maps the forester will draft a work description that will comprise operating technical information, and specific nature and cultural considerations must be taken.
	Maps and work descriptions will be available for the operators by means of an app. The app will make it possible to gather all relevant documents and make a follow-up of each individual task. By means of the app control will be made to learn if the operator has taken the necessary considerations to the HCV areas in the forest and has followed the work order maps where sensitive natural areas are marked. In case of any risk of the HCV area being affected in connection with the implementation of the operational task this can be reported back by means of this app.
	In cases of deviations, the forester will together with the operator carry out survey and evaluation in the forest to ensure that the offence will not take place again and that the damage is repaired if necessary.
	Tasks where HedeDanmark treats wood chips from external suppliers:

	In cases dealing with wood chips from external suppliers HedeDanmark will demand that the supplier can document the sustainability of the wood chips according to the SBP Standards. It is necessary that the supplier documents and makes available the following material for HedeDanmark: -That the wood is legally felled. - Detailed maps of the area or growth where the wood chips are felled. -The location of the storage sites. -That a screening of the treatment area prior to the start of the work is made. -Potential registration of the HCV area on the work order map. - That control by the operations manager or independent third party in connection with an audit can be conducted. -That the operator is able to identify the HCV areas in the forest. If the above-mentioned points cannot be complied with without remarks,
	the wood chips cannot be treated as being SBP-compliant and with it – sustainable.
Country:	Denmark
Specified risk indicator:	2.1.2 The BP has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.
Specific risk description:	The following source types are defined and their risk levels assessed: Feedstock originating from forest estates with a Green Management plan: It is a requirement for receiving subsidies for developing a Green Management plan that HCV areas in the forest are identified and mapped. However, there is no strict requirement that the HCVs are monitored and protected from forest management, and therefore risk is evaluated as SPECIFIED. Feedstock from unevenaged stands or stands of broadleaf species: Due to no legal requirement for identification and mapping of Key biotopes, it is assessed that for all other forest sources of biomass feedstock, the risk of HCVs being present, but not identified or mapped is SPECIFIED
Mitigation measure:	<u>For tasks implemented and handled by the foresters of HedeDanmark</u> <u>the following will apply:</u>
	In connection with the planning of the operational task in the forest by the forester, the treatment area will be mapped in HedeDanmark's GIS system. If the forest is not certified or key biotope registrations have not been made, the forester is responsible for a screening of the area. The screening will be made by means of various maps within the GIS system (HNV map, § 3 registrations, Natura 2000, preservations etc.), the forester being familiar with the local conditions and the forest owner's knowledge of sensitive natural areas in the forest. Based on the screening the possibility of unregistered HCV areas in the forest is assessed. If possible, the

forester or the operator will make a registration in the field. The key biotope registration is mapped in a GIS programme. This mapping will be found on work order maps sent to the operator in connection with the operational work.

Besides work order maps the forester will draft a work description that will comprise operating technical information, and specific nature and cultural considerations must be taken.

Maps and work descriptions will be available for the operators by means of an app. The app will make it possible to gather all relevant documents and make a follow-up of each individual task. By means of the app control will be made to learn if the operator has taken the necessary considerations to the HCV areas in the forest and has followed the work order maps where sensitive natural areas are marked. In case of any risk of the HCV area being affected in connection with the implementation of the operational task this can be reported back by means of this app.

In cases of deviations, the forester will together with the operator carry out survey and evaluation in the forest to ensure that the offence will not take place again and that the damage is repaired if necessary.

Tasks where HedeDanmark treats wood chips from external suppliers:

In cases dealing with wood chips from external suppliers HedeDanmark will demand that the supplier can document the sustainability of the wood chips according to the SBP Standards. It is necessary that the supplier documents and makes available the following material for HedeDanmark:

- That the wood is legally felled.

- Detailed maps of the area or growth where the wood chips are felled.

- The location of the storage sites.

- That a screening of the treatment area prior to the start of the work is made.

- Potential registration of the HCV area on the work order map.

- That control by the operations manager or independent third party in connection with an audit can be conducted.

- That the operator is able to identify the HCV areas in the forest.

If the above-mentioned points cannot be complied with without remarks, the wood chips cannot be treated as being SBP-compliant and with it – sustainable.

Country: Denmark

Specified risk indicator: 2.2.3 The BP has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).

Specific risk description: Based on the existing protection through the Forest Act and designation of Natura 2000 areas and individual protected areas, it is concluded that larger scale key ecosystems and habitats are sufficiently protected, and that sourcing of feedstock for biomass does not pose a threat towards these areas. As mentioned in the findings for criteria 2.1.1 it is likely that a large number of smaller areas or biotopes of local or regional importance to biodiversity or as species habitats, in a Danish context called Key Biotopes ("nøglebiotoper"), which are not systematically identified and mapped. Based on a precautionary approach the risk assessment conclude that for these areas the risk is specified based on the same findings as for Indicators 2.1.1 and 2.1.2.

Mitigation measure: For tasks implemented and handled by the foresters of HedeDanmark the following will apply:

In connection with the planning of the operational task in the forest by the forester, the treatment area will be mapped in HedeDanmark's GIS system. If the forest is not certified or key biotope registrations have not been made, the forester is responsible for a screening of the area. The screening will be made by means of various maps within the GIS system (HNV map, § 3 registrations, Natura 2000, preservations etc.), the forester being familiar with the local conditions and the forest owner's knowledge of sensitive natural areas in the forest. Based on the screening the possibility of unregistered HCV areas in the forest is assessed. If possible, the forester or the operator will make a registration in the field. The key biotope registration is mapped in a GIS programme. This mapping will be found on work order maps sent to the operator in connection with the operational work.

Besides work order maps the forester will draft a work description that will comprise operating technical information, and specific nature and cultural considerations must be taken.

Maps and work descriptions will be available for the operators by means of an app. The app will make it possible to gather all relevant documents and make a follow-up of each individual task. By means of the app control will be made to learn if the operator has taken the necessary considerations to the HCV areas in the forest and has followed the work order maps where sensitive natural areas are marked. In case of any risk of the HCV area being affected in connection with the implementation of the operational task this can be reported back by means of this app.

In cases of deviations, the forester will together with the operator carry out survey and evaluation in the forest to ensure that the offence will not take place again and that the damage is repaired if necessary.

Tasks where HedeDanmark treats wood chips from external suppliers:

In cases dealing with wood chips from external suppliers HedeDanmark will demand that the supplier can document the sustainability of the wood chips according to the SBP Standards. It is necessary that the supplier documents and makes available the following material for HedeDanmark:

- That the wood is legally felled.

	- Detailed maps of the area or growth where the wood chips are felled.
	- The location of the storage sites.
	- That a screening of the treatment area prior to the start of the work is made.
	- Potential registration of the HCV area on the work order map.
	- That control by the operations manager or independent third party in connection with an audit can be conducted.
	- That the operator is able to identify the HCV areas in the forest.
	If the above-mentioned points cannot be complied with without remarks, the wood chips cannot be treated as being SBP-compliant and with it – sustainable.
Country:	Denmark
Specified risk indicator:	2.2.4 The BP has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).
Specific risk description:	This Indicator is seen as being partially covered by Indicators 2.1.1 and 2.1.2, for which low risk must be demonstrated or reached through mitigating measures. The risk for this Indicator is also assessed as Specified. Required risk mitigation measures are the same as outlined for Indicators 2.1.1 and 2.1.2.
Mitigation measure:	For tasks implemented and handled by the foresters of HedeDanmark the following will apply:
	In connection with the planning of the operational task in the forest by the forester, the treatment area will be mapped in HedeDanmark's GIS system. If the forest is not certified or key biotope registrations have not been made, the forester is responsible for a screening of the area. The screening will be made by means of various maps within the GIS system (HNV map, § 3 registrations, Natura 2000, preservations etc.), the forester being familiar with the local conditions and the forest owner's knowledge of sensitive natural areas in the forest. Based on the screening the possibility of unregistered HCV areas in the forest is assessed. If possible, the forester or the operator will make a registration in the field. The key biotope registration is mapped in a GIS programme. This mapping will be found on work order maps sent to the operator in connection with the operational work.
	Besides work order maps the forester will draft a work description that will comprise operating technical information, and specific nature and cultural considerations must be taken.
	Maps and work descriptions will be available for the operators by means of an app. The app will make it possible to gather all relevant documents and make a follow-up of each individual task. By means of the app control will be made to learn if the operator has taken the necessary considerations to the HCV areas in the forest and has followed the work order maps where sensitive natural areas are marked. In case of any risk of the HCV area

being affected in connection with the implementation of the operational task this can be reported back by means of this app.

In cases of deviations, the forester will together with the operator carry out survey and evaluation in the forest to ensure that the offence will not take place again and that the damage is repaired if necessary.

Tasks where HedeDanmark treats wood chips from external suppliers:

In cases dealing with wood chips from external suppliers HedeDanmark will demand that the supplier can document the sustainability of the wood chips according to the SBP Standards. It is necessary that the supplier documents and makes available the following material for HedeDanmark: - That the wood is legally felled. - Detailed maps of the area or growth where the wood chips are felled. - The location of the storage sites. - That a screening of the treatment area prior to the start of the work is made. - Potential registration of the HCV area on the work order map. That control by the operations manager or independent third party in connection with an audit can be conducted. - That the operator is able to identify the HCV areas in the forest. If the above-mentioned points cannot be complied with without remarks, the wood chips cannot be treated as being SBP-compliant and with it sustainable. Country: Estonia Specified risk indicator: 2.1.2 The BP has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities. Specific risk description: According to the Estonian legislation protection of Woodland Key Habitat (WKH) is optional for private forest owners. Private forest owners can sign a contract with the state and protect WKH. In which case the state pays compensation to the owner. If a private forest owner does not want to protect WKH then the owner is allowed to cut it. It is possible to determine the location of WKH from the Public Forest Registry and where felling permits are issued it is possible to see if the material is cut from WKH. In cases where fellings are carried out without a felling permit (small scale sanitary cutting is allowed without a felling permit) then an on--site visit is only way to see if the WKH is untouched or not. In state forest, FSC or PEFC--certified private forest, and in private forests where a WKH contract has been signed, WKH are protected. In accordance with the information above, the risk level for this indicator in uncertified private forest is

specified and low for state forest and FSC or PEFC--certified private forest.

Mitigation measure: Risk decreasing measures, Estonian SB

The supplier must get access to the WKH register (Woodland Key Habitat) https://register.metsad.ee/#/

The registered contains an overview of all registered WKH in Estonia, with the corresponding number (CAT number)

The supplier must do the following for the all material delivered to HedeDanmark

• With the company's COC system, the supplier has a complete overview of all the cadastral numbers (CAT number) where the company has purchased or produced chips.

Material from FSC/PEFC certified areas:

• All material sourced from a FSC/PEFC certified area, is registered in the supplier COC-system as FSC/PEFC certified material.

Material from non FSC/PEFC areas:

• The supplier checks whether there is a WKH registry on all the cadastral numbers where have been produced. It is done by searching the land cadastral number in the WKH registry.

- The supplier compiles a chart, including:
- o Cadastral Number.
- o Cadastral holding a WKH / Cadastral without a WKH.
- o Quantity delivered from the cadastral register number.
- o A sum of each category above.

Feedstock verification

• Material from cadastral numbers, holding a WKH, cannot be traded to HedeDanmark.

The following information is forwarded to HedeDanmark

• Material from non FSC/PEFC certified areas: The complete chart (as described above).

• Material sourced from FSC/PEFC areas: HedeDanmark must receive relevant certification documentation on the invoice.

Country:

Latvia

Specified risk indicator:	2.1.1 The BP has implemented appropriate control systems and procedures
	for verifying that forests and other areas with high conservation value in the
	Supply Base are identified and mapped.

Specific risk description: Information on location and geographical distribution of nature conservation areas, rare, threatened and endangered species and habitats can be considered sufficient and there are no major gaps in the knowledge on important nature conservation areas. Most important forest areas with a high concentration of nature conservation values have been identified and designated as protected areas at national and/or EU level (Natura 2000 sites). Forests in Latvia have not been examined fully for high conservation values (HCV), even though the major areas with a high concentration of high conservation values have been identified and are covered by the network of protected nature areas with different protection regimes. Active survey and identification of Woodland key habitats and EU protected habitats has taken place in state managed forests, but there is not enough information on the location of high conservation value forest) in non--certified forests.

Mitigation measure: <u>Material from FSC/PEFC certified areas:</u>

• All material sourced from a FSC/PEFC certified area, is registered in the supplier COC-system as FSC/PEFC certified material.

Material from non FSC/PEFC areas:

• The supplier overview must contain: Cadastral number (Zemes vienības kadastra numurs), Block number (Quartal number) and Compartment number (Nogabala numurs).

• The supplier checks all property numbers on the following website:

o http://latbio.lv/MBI/search_db - "Biotope Tool", to search for the presence of sensitive nature on the area.

• The website searches relevant registers to determine if there is sensitive nature on the area.

o Green if there is no sensitive nature on the area.

o Red if there is a chance of sensitive nature on the area.

• The supplier compiles a chart of all properties listing whether there are sensitive areas on the property. The summary must contain

o Cadastral number, Block number and Compartment number.

o originates from Compartments without sensitive nature "green" / originates from compartments with sensitive nature "Red"

o Quantity delivered from the compartments.

o A sum of each category above.

Feedstock verification

	 Material from compartments with sensitive nature "red" cannot be traded to HedeDanmark.
	The following information is forwarded to HedeDanmark
	 Material from non FSC/PEFC certified areas: The complete chart (as described above)
	 Material sourced from FSC/PEFC areas: HedeDanmark must receive relevant certification documentation on the invoice.
Country:	Latvia
Specified risk indicator:	2.1.2 The BP has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.
Specific risk description:	The specified risk designation is largely based on the facts that there is information on isolated cases of destruction/damaging of objects of cultural heritage in private forests that do not have official protection status;; the general opinion of stakeholders regarding a lack of awareness by private forest owners of the cultural heritage values in their forests;; frequent negligence of harvesting companies with regard to preserving objects of cultural heritage;; unwillingness of private forest owners to communicate/notify authorities about objects of cultural heritage in their forests due to a fear of restrictions on tree harvesting.
Mitigation measure:	Material from FSC/PEFC certified areas:
	 All material sourced from a FSC/PEFC certified area, is registered in the supplier COC-system as FSC/PEFC certified material.
	Material from non FSC/PEFC areas:
	 The supplier overview must contain: Cadastral number (Zemes vienības kadastra numurs), Block number (Quartal number) and Compartment number (Nogabala numurs).
	 The supplier checks all property numbers on the following website:
	o http://latbio.lv/MBI/search_db - "Biotope Tool", to search for the presence of sensitive nature on the area.
	 The website searches relevant registers to determine if there is sensitive nature on the area.
	o Green if there is no sensitive nature on the area.
	o Red if there is a chance of sensitive nature on the area.
	 The supplier compiles a chart of all properties listing whether there are sensitive areas on the property. The summary must contain
	o Cadastral number, Block number and Compartment number.

	o originates from Compartments without sensitive nature "green" / originates from compartments with sensitive nature "Red"
	o Quantity delivered from the compartments.
	o A sum of each category above.
	Feedstock verification
	 Material from compartments with sensitive nature "red" cannot be traded to HedeDanmark.
	The following information is forwarded to HedeDanmark
	 Material from non FSC/PEFC certified areas: The complete chart (as described above)
	 Material sourced from FSC/PEFC areas: HedeDanmark must receive relevant certification documentation on the invoice.
Country:	Latvia
Specified risk indicator:	2.8.1 The BP has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).
Specific risk description:	Low risk can be considered for:
	 companies working as subcontractors for certified forest managers and who are routinely checked for OH&S issues or are implementing quality management systems in relation to OH&S issues (OHSAS 18001 for example);
	 harvesting works which are carried out exclusively with forest machinery (harvesters).
	"Specified risk" is considered for: Harvesting works which are carried out by manual harvesting means (chainsaws) in non certified forests. Special focus shall be paid to selfemployed persons and workers of microenterprises.
Mitigation measure:	Ensure the working environment and safety of forest workers and engineers.
	The safety of forest workers is ensured by the suppliers having a complete overview of all employees in the company. It is required that forest workers must undergo legally required education and certificates.
	Suppliers are required to carry out self-checking annually to ensure that all employee listings are complete and all have the necessary training. In connection with the annual check, it is also ensured that everyone has the required safety equipment for working in the woods with chainsaws.

Helmet Visor Gloves Safety pants for chainsaw

Hededanmark's requirements for safety equipment are that anyone who uses chainsaw carries safety equipment as illustrated in the picture:

Country:	Germany
Specified risk indicator:	N/A
Specific risk description:	There is no endorsed RRA available for Germany. HedeDanmark has completed a RA for SB Germany. The RA is widely based on a already acknowledged RA for SB Germany, published on SBPs homepage. From this RA we have worked through the indicators and evidence – assessed and secured that the interaction with and support from HedeDanmarks own work routines in the daily business, included in our COC and FSC controlled wood procedures, are sufficient and in place. HedeDanmark act in the same supply base and market as in the already acknowledged RA and the companies are operating in a similar way. Risk is concluded to be low for all indicators. The RA is based on the Annex 1 template.
Mitigation measure:	No Mitigation measure is necessary

7.2 Monitoring and outcomes

Denmark:

Based on HedeDanmark's in-house SBP control it will be evaluated if changes of the in-house SBP procedures or education of salaried employees and in-house operators are necessary.

The field controls made in connection with the annual spot checks will result in an assessment of the procedures and if they are able to ensure low risk of all indicators. In connection with the field control, it must be assessed, if the procedures work in practice and can ensure that nature and cultural sites are protected in the forests. This results in an extra control of the forester's planning of the task and the operations manager's implementation of the procedures.

Estonia:

Last inspection visit, spring, 2022, at the supplier. During the inspection visit, the supplier's archive with documentation and understanding of HedeDanmark's procedure was reviewed and several production areas were examined in the field.

The conclusion was that the HedeDanmark procedure could bring all indicators to low risk.

Latvia:

Last inspection visit, dated February 20, 2018, at the supplier. During the inspection visit, the supplier's archive with documentation and understanding of Hededanmark's procedure was reviewed and several production areas were examined in the field.

The supplier has a good understanding of Hededanmark's procedure. However, in the field control of a task, it was found that a subcontractor did not carry the necessary security equipment.

HedeDanmark has therefore prepared its procedural document and added a picture of a forest worker who carries the necessary safety equipment. The image has been added to make it more tangible what HedeDanmark has requirements for security equipment. At the same time, it is easy for the supplier to use the image in his own control that the HedeDanmark procedure is being observed.

The conclusion was that HedeDanmark's procedure can bring all indicators to low risk, however, it is important to remain very aware that the supplier ensures that all forest workers use the correct safety equipment.

No volumes has so far been sourced through the SBE process.

Germany:

Low risk is conculded for all indications so no motigation measures are relevant.

A SVP program is established.

When main audit is concluded succesfully, the sourcing will start.

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? No

9 Review of report

9.1 Peer review

It is not considered relevant to carry out an external review. An in-house review of employees in HedeDanmark

9.2 Public or additional reviews

Public review was done in 2023 in the process of the SBE Germany

10 Approval of report

Approval of Supply Base Report by senior management					
Report Prepared	Frederik Nielsen	Product manager	14 Apr 2023		
by:	Name	Title	Date		
Report Prepared	Ernst Eriksen	Sales manager	14 Apr 2023		
by:	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:	Simon Thorfinn	Sales Manager	14 Apr 2023		
	by.	Name	Title	Date	

Annex 1: Detailed findings for Supply Base Evaluation indicators

	Indicator
1.1.1	The BP Supply Base is defined and mapped.
Finding	The supply base is defined as the political german boundaries. Maps are available in scale up to small forest roads, provided by appropriate computer programmes.
	On forest level maps are originated due several actions in combination with forest management planning like "Bundeswaldinventur" a national forest inventory or the "Forsteinrichtung" as an instrument for the mid- and long-term planning.
	As it plays an important role in forest management and will be regularly referred to later in this risk assessment, this indicator wil give a brief overview of the forest management planning in Germany.
	On state level §41a of the "Bundeswaldgesetz" determines the execution of a large scale forest inventory. This comprises all German forest areas. Surveyed categories are for example:
	- Forest area and changes since last inventory
	- Stock and changes since last inventory
	- Species distributions and changes
	- Growth rates, harvest volume, planted volumes
	- Forest structure and age distribution
	- Biotopes, protected areas, dead wood,
	-Owner structure
	- Forest situation and health
	- Carbon stock and changes
	This data is available to the public and is the basis for long term planning and political decisions. It also acts as basis for carbon-reporting in the scope of the Kyoto-Protocol.
	The results of the National Forest Inventory (Bundeswaldinventur) 2012 have demonstrated that the average timber stocks in German forests rose compared to earlier inventories, which is an indicator of sustainable forestry and proper planning.
	Also on state level and in cooperation with the federal states, as part of the environmental monitoring of forests, the "Bodenzustandserhebung" (BZE) is executed. The latest findings refer to 2016, where the acidification of the topsoil and loss of cations compared to the NFSI I has improved.

Among many other indicators, carbon stock and development, acidity, soil types, nutrient situation, nitrogen situation and elsewhere determined and measured. Therefore 1.900 sample holes where dug and more than 50.000 samples were taken

Also on state level the "Kohlenstoffinventur" is executed to cover the time between "Bundeswaldinventuren" and gain additional data also in the scope of the steady environmental monitoring and for reporting of national greenhouse gas balances.

The last Kohelnstoffinventur was executed in 2017. The focus was on bound carbon in the standing stock, in dead wood and in the floor layer.

Regarding stock information, the "Kohlenstoffinventur" is quite similar to the "Bundeswaldinventur" and helps to have an up to date overview of the inventory.

All data is publicly available and part of forest management planning information basis.

On federal state level a so called "Waldbiotopkartierung" (WBK) a mapping of all biotopes is mandatory and executed regularly. This data will also be used in the later mentioned "Forsteinrichtung". The WBK is part of the process of mapping forest functions and catalogues all biotopes inside and outside existing protected areas. Those maps and data are available from the forest authorities as an instrument for forest management planning. Contents of this WBK are for example:

- Local climate
- Soil situation
- Immissions of any kind
- Form of usage and the intensity
- Flora and Fauna inventory
- Special structural elements

On forest level, defined by federal state forest laws, the "Forsteinrichtung" is executed by forest owners. A strategic planning is made every ten years. Based on this, a detailed plan for the organization is prepared every year. Therein, harvesting measures and volumes are calculated based on a sustainable use. The planning is checked and monitored by the relevant authority (which is different in the federal states due to varying administrative structures). Also private forests of a minimum size are required to undertake planning activities (the particular size is stipulated by each federal state, with the minimum size of about 30 ha). For small private forests, this type of planning is recommended but not mandatory. Based on this planning, forest authorities have measures to control and monitor forest use. These authorities vary from federal state to federal state

The process of "Forsteinrichtung" leads to a data collection the so called "Forsteinrichtungswerk". This is the basis for the annual planning and the practical work in the forests. It consist essentially of following points and takes data and maps from inventories and elso mentioned above into consideration:

- Betriebsbuch: Description of forest, inventory, planning of measures, analysis tables - Flächenwerk: catalogue of forest boundarys, districts, subdistricts, departments

- Kartenwerk: maps of forests including infrastructure and above mentioned categories

On local level so called "Horstschutzzonen" (protection zones) are identified and mapped in maps included in the "Forsteinrichtung". These are protected zones around breeding trees of

	large birds. They are usually identified by foresters, but also by forest workers. The regular education includes identifying such trees. Those zones are protected by individual federal state law (e.g. 25 BbgNatSchG). Size and form of protection is individually regulated and includes measures like prohibition of forest works and hunting in a specified radius.
	The main goals of management planning are to plan and evaluate the sustainable use of forest resources, to control felling activities and to comply with sustainability.
	For private forests, different regulations do exist; which are described in the Federal Forest Acts, varying between the different federal states. When planning occurs in relation to public or private forests, reports have to be sent to the corresponding forest authorities for evaluation and control. Private organizations that are not obliged to do planning are subjected to a control mechanism by the tax assessment. The preparation of mid-term framework reports is done by officials or freelancing consultants.
	Municipal public forests in most federal states are managed and thus supervised by state authority foresters, so that control mechanisms exist. Private forest organizations, which are bound only to ten-year planning, are thus controlled by forest authorities every ten years and, if the forests are not sustainably managed, the organizations are sentenced. For small forests with no planning, statutory possibilities for punishment do exist, if laws are not adhered to. We are not aware of relevant cases in which sustainability was seriously compromised by small forest organizations. The legal background for monitoring and planning is clearly regulated and enforced. Due to the
	good governance and law enforcement indicators, it can be concluded that there are no enforcement deficits. Management plans are public available and it is common practise to use the data of the "Forsteinrichtung" to plan forest work by determining borders, protected areas, forest structure, water situation, soil situation etc.
	In private and state forests the forest planning ("Forsteinrichtung") is the basic description of the supply base. The timeframe is typically a planning period of 10 years. The preparation of mid-term framework reports is done by officials or freelancing consultants. The validation of those plans is done by the responsible forest authority (Forstbehörde) or by publicly appointed and sworn assessor. Germany is ranked 165 out of 178 countries on the Fragile States Index 2015. (nr 1 being the most fragile state). This ranks Germany in the category Sustainable with only Finland being inthe highest category very Sustainable. For this indicator the area under assessment is determined to be 'low risk'.
	Key personal demonstrate an understanding of the supply base
Means of	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
Verifica tion	Federal Forest Acts
uon	Results of Bundeswaldinventur ("national inventory 2012").
Eviden ce	https://bwi.info/start.aspx
Review	https://www.bundeswaldinventur.de/
ed	http://www.gesetze-im-internet.de/index.html
	https://www.thuenen.de/de/bodenzustandserhebung
	https://www.landesrecht-mv.de/bsmv/document/jlr-WaldGMV2011pP11

https://www.bundeswaldinventur.de/kohlenstoffinventur-2017/
https://www.bmel.de/SharedDocs/Downloads/DE/Broschueren/WaldboedenBodenzustandserh ebung.pdf?blob=publicationFile&v=4
https://www.thuenen.de/media/publikationen/thuenen- workingpaper/ThuenenWorkingPaper_69.pdf
https://www.bundeswaldinventur.de/fileadmin/SITE_MASTER/content/Downloads/CI2017/AFZ _14_19_Kohlenstoff_Artikel_8_Schmitz.pdf
https://www.thuenen.de/media/institute/wo/Waldmonitoring/bze/Thuenen_Report_43_Druck_2 016.11.08mitVerzeichnis.pdf
Low Risk
Not Applicable

	Indicator
1.1.2	Feedstock can be traced back to the defined Supply Base.
Finding	The biomass is purchased as standing trees, at forest roadside or delivered at terminal. When material is taken over as standing trees or at roadside, the origin will automatically be registered by our COC system. When material is taken over at terminal, well know suppliers will declare the origin. New suppliers must document the origin of each batch by handing over a map to HedeDanmark, showing the production area.
	Trading within Germany is regulated as described in the Handelsgesetzbuch or HGB (Commercial Code), which is also binding for forestry companies (HGB §§2, 3). Forestry companies must follow the trading laws described in the Commercial Code. A special case exists for companies that harvest timber in primary forests (HGB § 341), but this
	has no practical relevance in Germany.
	There are occasional reports on timber thefts.
	Central foreign-trade documents for the import of goods are the certificate of origin and the import permit. Reports are controlled by the Federal Customs Authority ("Bundeszollverwaltung").
	Traders need to follow the procedures. Otherwise they have to face penalties in form of fines or even trials.

	FSC Germany is not aware of any cases of corruption in relation to the granting or assignation of felling licenses or in other areas of law enforcement in relation to wood harvesting in Germany or in the trade of German wood.
	Therefore, the criterion is considered as 'low risk'.
	- Strong national legal framework
	- Handelsgesetzbuch (HGB) 1897 (BGBI. I S. 1474) - "German Commercial Code" 1.
Means of	Article 2
Verification	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence	http://www.gesetze-im-internet.de/index.html
Reviewed	https://connect.fsc.org/document-centre/documents/resource/201
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
1.1.3	The feedstock input profile is described and categorised by the mix of inputs.
Finding	The supply chains is generally short - With two or few parties involved. There is a general level of understanding and routine by market actors to define the products as roundwood, fuel wood, cutting residues, wood chips etc. when the product is handed over to the next link in the supply chain. Regarding the more specific feedstock types in the SBP framework, the market actors in general is less or not familiar with these.
Means of	- Contracts with suppliers, trade confimations, etc.
Verification	- Transport documents related to each load

	- Product Invoices from suppliers
Evidence Reviewed	Since HedeDanmark has been operation with German suppliers since 2016, reporting on relevant categories in the SAR Template, system an routines has been established in this regard. HedeDanmarks COC system. Customized sub system for recording feed stock types.
	Instructions for suppliers.
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
1.2.1	The BP has implemented appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base.
Finding	Tenure rights are determined through the German Constitution and the Bürgerliches Gesetzbuch ("Civil Code"). Ownership of estates is documented in the Land Charge Register ("Grundbuch"). The legal owner of an estate also owns the management rights of the estate, as long as no other laws are violated. Ownership of land is not legally valid, until the owner is registered in the Land Charge Register. Purchase of land requires a formal agreement by both parties. If there is no entry in the Land Charge Register or if the ownership of the land tenure is not yet registered in the Land Charge Register (e.g. in the event of new structuring and merging of plots), the organization has to prove with appropriate documentation, that it owns the forest and therefore has the right to manage it. To establish a more efficient management, some small private forest owners are incorporated in Forstbetriebsgemeinschaften ('forest enterprises associations'). Here, organizations keep the land ownership and the right to manage, but the management of several small forests is centralized. All owners have to agree to the management and harvesting plans of the association. When considering the different ownership relationships, the types of ownership have been designated as Habitats sites by varying parts: 5% state forest, 46% federal forest, 21% municipal, communal forest and 28% private forest (with different shares in the federal states. Therefore, this criteria is considered as 'low risk'.
Means of	-Strong national legal framework
Verification	-FSC National Risk Assessment

	-Grundbucheintrag (entry in the Land Book)
	-Pachtverträge ("Contracts of farm leasing")
	-Steuerbescheid ("tax assessment")
	-Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2. Januar 2002 (BGBI. I S. 42, 2909; 2003 I S. 738) "German Civil Code" - § 873 (1): Acquisition by agreement and registration
	-Grundbuchordnung in der Fassung der Bekanntmachung vom 26. Mai 1994 (BGBI.
	I S. 1114) GBO - "Landbook Rule".
	-Grundgesetz für die Bundesrepublik Deutschland vom 23. Mai 1949 (BGBI. I S.
	2438) "German Constitution" - Article 14
	-Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2. Januar 2002 (BGBI. I S. 42, 2909; 2003 I S. 738) - § 585 (Declaration and Definition of Farm Leasing)
	Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2. Januar 2002 (BGBI. I S. 42, 2909; 2003 I S. 738) - § 581: Vertragstypische Pflichten beim Pachtvertrag ("contracts and duties concerning farm leasing")
	http://www.gesetze-im-internet.de/index.html
	https://www.gesetze-im-internet.de/bgb/
Evidence Reviewed	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
1.3.1	The BP has implemented appropriate control systems and procedures to ensure that feedstock is legally harvested and supplied and is in compliance with EUTR legality requirements.
Finding	HedeDanmark has a Risk Assessment system in place to meet the requirements of FSC Controlled Wood within the defined supply base.

	The European Union directive No. 995/2010 (EUTR) was transposed into German Law through the Timber Trading Security Act (Holzhandels-Sicherungs-Gesetz or HolzSiG) in 2011, and was reviewed in 2013. WWF Germany rates Germany as "a consistently high performer since 2007" in implementation of the EUTR. The authority for enforcing the law is the Federal Office for Agriculture and Food (BLE). Legally required documents or records for legal harvesting in clarified ownership relations are the entry in the land book ("Grundbucheintrag"), contracts of farm leasing ("Pachtverträge") and tax assessments ("Steuerbescheide"). The harvest is documented previously by the strategic planning ("Forsteinrichtung") and documented in the midterm framework ("Forsteinrichtungswerk"), annual planning of forest organizations, annual business planning of organizations and in private forests by the planning reports, tax returns and notice of tax assessment. Every legal company has to be registered in the business register "Unternehmensregister"). Planning and sustainable management is described in the statute books: Mid-term management planning ("Forsteinrichtung") and annual planning ("Forstbetriebsgutachten") are required in most cases. When plans are submitted to and approved by forest departments, harvesting measures are assumed, based on this planning. There is no special approval for each harvesting activity, but there are prescribed laws and regulations providing a framework in which a forest owner can execute his activities. Central foreign-trade documents for the import of goods are the certificate of origin and the import permit. Reports are controlled by the Federal Customs Authority ("Bundeszollverwaltung"). Traders need to follow the procedures. Otherwise they have to face penalties in form of fines or even trials. Germany scores 78 points on the Corruption Perceptions Index 2013 on a scale from 0 (highly corrupt) to 100 (very clean). Germany ranks 12th out of 177 with rank nr.1 being the cleanest country. Risks can arise wh
Means of	Any possible change in EUTR Framework is overview by national AGDW Die Waldeigentürmer – we keep us updated by this source.
Verificat ion	Existing legislation
	Existing legislation
	Inhouse risk assessment according to EUTR requirements
	Overview of EUTR
	Corruption Perception Index of 80 (2018)
	Federal Customs Authority ("Bundeszollverwaltung")
	Results of Bundeswaldinventur ("national inventory 2012"). "Stock rose again"
	WWF report: Failing the Forests; Europe's illegal timber trade.
	1. Holzhandels-Sicherungs-Gesetz (HolzSiG) vom 11. Juli 2011 (BGBI. I S. 1345) -
	"Timbertrading security act"

Evidenc e Review ed	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076 https://environment.ec.europa.eu/topics/forests/deforestation/illegal-logging/timber- regulation_en#:~:text=The%20EU%20Timber%20Regulation%20(EUTR,harvested%20timber %20and%20timber%20products. https://www.transparency.org/en/countries/germany https://bwi.info/?lang=en https://www.zoll.de/DE/Unternehmen/Warenverkehr/Einfuhr-aus-einem-Nicht-EU- Staat/einfuhr-aus-einem-nicht-eu-staat_node.html https://www.zoll.de/DE/Fachthemen/Aussenwirtschaft-Bargeldverkehr/aussenwirtschaft- bargeldverkehr_node.html
Risk Rating	Low Risk
Comme nt or Mitigati on Measur e	Not Applicable

	Indicator
1.4.1	The BP has implemented appropriate control systems and procedures to verify that payments for harvest rights and timber, including duties, relevant royalties and taxes related to timber harvesting, are complete and up to date.
Finding	The forest legislation does not include the payment of royalties and harvesting fees. Tax related issues are controlled by finance authorities. Every company must state its financial turnover in a tax return and, in addition, must demonstrate certain accounting practices (§§140, 141 AO, respectively §6, 1 HGB for incorporated enterprises). Companies have two kinds of tax-paying systems: Imputed taxation and the Actual taxation. All documents are sent to the finance authorities for verification – also irrespective of size, turnover quantity and form of organization. All cash flows have to be documented to verify and to avoid illegal and black market profits. Not mentioning income is seen as tax evasion which attracts severel fines (§§369, 370 AO). Tax evasion also occurs in Germany, but legal requirements for documentation and control measures by finance authorities are very strict. Germany has value-added taxes (VAT), described in the Value Added Tax Act. All domestic deliveries and benefits for which a company is paid are affected by the VAT (§1 UStG). Companies can levy VAT

	with sales and have to discharge VAT when buying (§§ 13, 15 UStG). Germany has a Corruption Perceptions Index 2022 of 79, and is ranked worldwide as 9th in CPI ranking. Tax fraud investigation is carried out intensively in Germany by finance authorities. Therefore, the criterion is considered as 'low risk'.
Means of Verification	 -strong national legislation and adequate level of enforcement -Transparency International Corruption Perception Index -Inhouse procedures in accounting. -Bills, trading documents -Handelsgesetzbuch (HGB) 1897 (BGBI. I S. 1474) - "German Commercial Code" 1. Article 2 -Umsatzsteuergesetz (UStG) in der Fassung der Bekanntmachung vom 21. Februar 2005 (BGBI. I S. 386) - "Value Added Tax Act": 1. §1 Taxable sales FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence Reviewed	http://www.gesetze-im-internet.de/index.html https://www.transparency.org/en/countries/germany https://www.transparency.org/en/countries/germany_
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

		Indicator
	1.5. 1	The BP has implemented appropriate control systems and procedures to verify that feedstock is supplied in compliance with the requirements of CITES.
•	Findi ng	Germany is signatory to numerous international and European agreements and regulations on the protection of biodiversity, such as the Habitats Directive, the Convention on Biological Diversity and CITES.

	The CITES species are registered in the national inventory: https://checklist.cites.org/#/en/search/output_layout=alphabetical&level_of_listing=0&show_synon yms=0&show_author=0&show_english=1&show_spanish=1&show_french=1&scientific_name=& page=1&per_page=20cies Export: No woody species produced in Germany are included on the CITES lists and the risk is therefore considered Low. Import: Importing CITES species is only possible with permission (see also 1.19) and due to the good rank on the CPI the risk is 'low'.
	-Checklist of CITES Species in Germany
	-Transparency International Corruption Perception Index
	-Federal Agency for Nature Conservation ("Bundesamt für Naturschutz")
	-Import permit of wood from tree species in appendices A and B of the Council
	Means of Regulation (EC) No 338/97 of 9 December 1996 Document showing a notification of
	Verificationimport of wood from tree species in appendix C of the Council Regulation (EC) No
Mea ns of	338/97 of 9 December 1996
Verif icati on	-Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein
	- FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d-e10585a67076
	-Bundesartenschutzverordnung (BArtSchV) vom 16. Februar 2005 (BGBI. I S. 258, 896) – "Federal Species Protection Ordinance"
Evid ence	Checklist of CITES
Revi ewe d	https://checklist.cites.org/#/en/search/output_layout=alphabetical&level_of_listing=0&show_synon yms=0&show_author=0&show_english=1&show_spanish=1&show_french=1&scientific_name=& page=1&per_page=20
	http://www.gesetze-iminternet.de/bartschv_2005/index.htm https://eur- lex.europa.eu/homepage.html https://www.transparency.org/en/countries/germanyhttp://www.gesetze-
	iminternet.de/bartschv_2005/index.htmhttps://eur-
	lex.europa.eu/homepage.html%20%20%20https://www.transparency.org/en/countrie

	s/germany
	https://eur-lex.europa.eu/homepage.html
	https://www.transparency.org/en/countries/germany
Risk Rati	Low Risk
ng	
Com men	
t or	
Mitig	Not Applicable
ation Mea	
sure	

	Indicator
1.6.1	The BP has implemented appropriate control systems and procedures to ensure that feedstock is not sourced from areas where there are violations of traditional or civil rights.
Finding	In 2014 (latest available year) Germany scores 79.1 on the dimension Political Stability and Absence of Violence/Terrorism. The scores range from 0 (lowest) to 100 (highest rank) with higher values corresponding to better outcomes.
	"As far as FSC Germany is aware, Germany is not deemed to be a source of conflict wood (STD40 005; Anh. 2B; 2.2)."
	Civil rights are ensured by law in the German Civil Code (BGB). Civil- and human rights in Germany enjoy a high level of protection, both in theory and in practice, and are enshrined in the Grundgesetz. The country has ratified most international human rights treaties. Reports from independent organizations such as Amnesty International certify a
	high level of compliance with human rights. The 2008 Freedom in the World report by US-funded Freedom House gives Germany a score of "1" (the best possible) for both political rights and civil liberties. As a consequence of the Nazi Regime, the constitution now in place provides a strict separation of powers. Law enforcement is strictly in the
	hands of the federal states and the respective agencies and institutions.
	In general the level of law enforcement in Germany could be described as high. In comparison to many other states, police, courts and law enforcing infrastructure are quite well-funded.
	Applicable legislation for the area under assessment covers the key principles recognized in the ILO Fundamental Principles and Rights at work (which are recognized as: freedom of association and right to collective bargaining; elimination of forced and compulsory labour; eliminations of discrimination in respect of employment and

	occupation; and effective abolition of child labour), AND the FSC controlled wood risk
	assessment confirms enforcement of applicable legislation.
	Transparency International ranks Germany in 2022 on 9th place worldwide of the corruption perception index.
	There are no indigenous people and no traditional people in Germany. There is no evidence leading to a conclusion of presence of indigenous and/or traditional people in the area under assessment and other available evidence do not challenge 'low risk' designation.
	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Means of	-Worldwide Governance Indicators - the WGIs report
Verification	-ILO Declaration on Fundamental Principles and Rights at Work. Country reports.
	-Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2.
	Januar 2002 (BGBI. I S. 42, 2909; 2003 I S. 738) "German Civil Code"
	http://info.worldbank.org/governance/wgi/index.aspx#reports
Fridanaa	http://www.ilo.org/declaration/langen/index.html
Evidence Reviewed	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

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

	At federal state level, particularly high quality biotope structures located in forest areas are mapped. Profound data is collected within the scope of forest biotope mapping to enable an integral balancing of aspects of biotope and species protection as well as the diverse
	Integral balancing of aspects of biotope and species protection as well as the diverse planning goals in the field of forestry and out of this range and for the management planning of Natura 2000 sites on the other hand (FVA Baden- Württemberg 2005). The data is digitally accessible and allows determining which areas and area percentages are subject to certain laws or regulations, without additional on-site surveys. Forest management measures and tending strategies are recorded in national park plans and elsewhere (Nationalparkverwaltung Bayerischer Wald 2010). There is an ongoing monitoring of HCVs and mapping of new species and areas, as well as the identification of new HCVs. It is intended to implement conservation measures as well as measures forfurther improvement of the biological diversity of forests in Germany with the help of the National Biodiversity Strategy and the Forest Strategy 2020, i.e. to set aside up to 5% of the German forest area (BMEL 2017), what has not yet been reached.Germany
	possesses 8,676 nature protection areas (BfN, 2016; Adler, 2014). The combined area of nature protection areas in Germany is 1,378,410 ha. This corresponds to 3.9 % of the national territory. Reports and maps detailing the designated areas do exist on federal state level according to the various protection categories
	Monitoring of the whole German forest area is prescribed by law in the National Forest Act Article 41a. The monitoring must be repeated every ten years.
Finding	Each category has regulations in terms of timber harvesting activities, access rights andmanagement of endangered species and their habitats, partially statutory. The differenttypes/categories are classified by the Federal Nature Conservation Act (BNatSchG) Articles 20–36 (including Natura 2000 or N2000) and vary by size, protection purposeand by the restrictions on land use. Protected sites that are covered by European Law are sites that are under the regime of the Habitats Directive and Birds Directive. The combined area of nature protection areas in Germany is 1,378,410 ha. This corresponds to 3.9 % of the national territory. Reports and maps detailing the designated areas do exist on federal state level according to the various protection categories. For some strictly protected areas, harvesting, access and management are highly restricted (national parks, nature conservation areas, biosphere reserves). Whether managing and harvesting is allowed, is regulated by management plans based on the Federal Nature Conservation Act. According to the German Federal Agency for Nature Conservation (BfN) 1,8 Mio ha of the German forests have been designated as FFH-/Natura2000 sites in 2012. At federal state level, particularly high quality biotope structures located in forest areas are mapped. Profound data is collected within the scope of forest biotope mapping to enable an integral balancing of aspects of biotope and species protection as well as the diverse planning goals in the field of forestry and out of this range and for the management planning of Natura 2000 sites on the other hand (FVA Baden-Württemberg 2005). The data is digitally accessible and allows determining which areas and area percentages are subject to certain laws or regulations, without additional on-site surveys. Legally records are Forest function mappings (mapping of forest functions like water, soil, air). The status of protected sites is documented and monitored in the midterm planning ("Forsteinrichtung") and is therefore respected when plann
Means of	is determined to be 'low risk'.
	-Geographical maps showing conservation areas

Verificatio n	 -Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora - Article 2,6,12,17 -Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) - "Federal Nature Conservation Act" 1. Article §5 ("Agriculture, forestry and fisheries") -Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" - Article §41a ("Forest Monitoring") - FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence Reviewed	https://geodienste.bfn.de/schutzgebiete?lang=en https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043 https://www.bfn.de/sites/default/files/BfN/natura2000/Dokumente/bericht_lage_natur_2020. pdf https://www.gesetze-im-internet.de/bwaldg/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.1.2	The BP has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.
Finding	High conservation values (HCVs) refer to biological, ecological, social or cultural values of exceptional or key significance. There are six HCV categories that are taken into consideration. HVFs are forests that are of special importance due to the occurrence of rare species or unusually high occurrence of rare plant species. Similarly, the importance of a forest can be important for the local population of a forest because the forest provides them with food, water or income, or because it is a place of spiritual significance. There are six HCV categories that are taken into consideration. To date there is no official definition, interpretation or formal anchoring of the HCVRN's six categories of high conservation value forests (Brown et al. 2014) for Germany. An expert group developed

a definition during the process revising the German FSC Forest Standard taking into consideration the political, legal, social and ecological framework conditions in Germany. This permits an approximate assessment of the individual HCV categories. This conceptual diagram shows the relationship between the intensity of management required to protect or maintain conservation values. The P&C require all HCVs to be maintained, enhanced and/or restored. As the threat in creases to conservation values from management Findingactivities, the level of protection on these values must also increase. This level and type of protection can move from limiting human activities to excluding human activities in reserves. The outcome must always be the protection, maintenance and / or restoration of HCVs.

HCV 1 Species diversity. Concentration of biological diversity including endemic, rare and endangered species of significance on a global, regional or national level.

Risk: Habitat removal, Habitat fragmentation, Introduction of invasive species. Definition for Germany: Occurrence of strictly protected species.

These are stated in the "Rote Liste" provided by the Bundeministerium für Naturschutz. Red

Lists are lists of extinct, lost and endangered animal, plant and fungal species, plant communities, biotope types and biotope complexes.

They are scientific expert opinions in which the threat status for a specific reference area is presented. They assess the risk on the basis of the population size and population development Red Lists serve to inform the public about the endangered situation of species and biotopes are, as a permanently available expert opinion, argumentation aids for spatial and environmental planning show need for action in nature conservation increase the political significance of nature conservation are data source for legislative measures and international Red Lists serve to coordinate international nature conservation serve to review the degree of fulfilment of the National Biodiversity Strategy and

show further need for research Red Lists are usually compiled or published by the nature conservation authorities. In Germany, the Red Lists of the Federal Government and the Federal States are of particular importance.

Germany's Red List of endangered animals, plants and fungi covers the plant groups of terrestrial, limnic and marine habitats (with the exception of marine macroalgae, which were already published in Volume 2 under marine organisms). This concludes the risk analysis of the plants in this series.

According to a forest report (BMEL 2017) the Red List of endangered biotope types in Germany shows that the development of many forest biotopes has stabilized.

The most important legal basis for nature conservation in Germany is the Federal Nature Conservation Act (BNatSchG), which transposes European nature conservation directives, in particular the Flora-Fauna-Habitat Directive (RL 92/43/EEC) and the Birds Directive (RL 2009/147/EC), into national law. In contrast, European regulations such as the EC Species Protection Regulation (Regulation 338/97/EC) have a direct effect on citizens without requiring further implementation by the national legislator.

The Federal Nature Conservation Act was comprehensively amended with effect from 01.03.2010. In addition to provisions on species and area protection, it contains, among other things, regulations on landscape planning, compensation for interventions in nature and the landscape, biotope networks and interlinking, marine nature conservation, recreation in nature and the landscape and the participation of recognised nature conservation associations in certain decision-making procedures. It is supplemented by

regulations under the laws of the 16 federal states, although deviations may occur. In practice, it is therefore essential that the relevant state nature conservation legislation is also taken as a basis.

According to the division of competences in the Basic Law (GG), the enforcement of nature conservation law is, with few exceptions, the exclusive responsibility of the Länder.

According to Article 83 of the Basic Law, this applies even when federal laws such as the Federal Nature Conservation Act are enforced. This is based not least on practical considerations, as the Land authorities are best placed to assess the special circumstances on the ground. In contrast, the Federal Agency for Nature Conservation (BfN) itself can only enforce laws in a few exceptional cases and is not an authority superior to the Land authorities.

The contact persons for practical questions concerning the application of nature conservation law are therefore generally the lower nature conservation authorities (in the administrative districts or independent towns). In the case of questions of national importance or of principle, the highest nature conservation authorities of the Länder are also available for further inquiries.

Germany imposes strong penalties for the violation of the Animal Protection Act, especially with regard to endangered species. Such violations can be punished with imprisonment of up to 5 years. This is regulated in the catalogue of fines of the Federal Republic of Germany (see link below).

The German federal states take different approaches to the management of Natura 2000 sites. Some federal states are initially developing concepts for uniform procedures in drawing up management plans, while others are starting directly to draw up test or sample management plans for selected sites. In some cases, the initial recording of habitat types and species within the FFH areas is still in the foreground as a basis for management planning.

Despite considerable differences in the preparation and implementation of management plans in the various German federal states, the following generalizations can be made about management planning in Germany:

-Management planning is usually independent nature conservation planning.

-Habitat types (Annex I Habitats Directive) and species (Annex II Habitats Directive) and birds (Annex I Birds Directive) are the subject of management planning in all federal states.

-Annex IV species and migratory bird species have not yet been (sufficiently) taken into account in most federal states.

-In many federal states, area-wide planning takes place in Natura 2000 sites.

-Half of the federal states plan on a parcel-by-parcel basis.

A cost estimate is part of the management planning in about half of all federal states.

-Implementation is preferably carried out through contractual nature conservation, further through compensation measures, own funds, sponsoring or EU co-financing (financing).

-The regular participation of public bodies and the public is provided for in management

planning in almost all federal states. The type and extent of participation varies greatly and ranges from information events to round tables and planning advisory boards.

HCV 2 Landscape ecosystems and mosaics. Large landscape ecosystems and ecosystem mosaics of significance on a global, regional or national level and

which contain viable populations of the large majority of the naturally occurring species in their natural composition with respect to distribution and frequency. Risk: Fragmentation, including access (roading)

Definition for Germany: In Germany these are all forests subject to a protection status under German nature conservation law and that are of national

significance. These are designated national parks, biosphere reserves, SACS areas (Special Areas of Conservation, meaning areas protected under the

Habitat Directive and Birds Directive), SPAs (Special Protection Areas). (Note: excluded are natural monuments, protected landscape components, landscape protection areas)

Whereas the status reports, and the nature conservation assessment of the SAC status reports, paint a largely positive picture of the conservation status of forest habitat types in Germany, a mix of silvicultural concepts on the ground would appear to be of fundamental importance to the maintenance of conservation values in SACs and to counter fragmentation (cf. HCV 1). Apart from the issue of the primary conservation objective of these areas, the difficulties experienced in the implementation of these areas, and so their effectiveness, would appear to reside chiefly on an administrative level. The greatest adjustment and/or challenge in connection with the conservation of species and habitats would appear to concern stipulations of the habitats directive with respect to the designation. and management of SACs in private forest. Private forest accounts for a smaller proportion of the SACs, however, and so the impacts are limited to only a limited proportion of the overall area. Potential threats to SACs in private forest ownership can be specified, and may be minimized by means of investment, advisory services and efforts at promotion at national and European level. Fragmentation as a consequence of clear fell is legally regulated.

Reports such as the forest report published by BUND reveal local shortcomings. At the same time, however, positive examples of good cooperation between nature conservation interests and forestry enterprises are also described.

According to the national definition, however, this HCV category includes all forests in Germany with a designated protection status under nature conservation law and that are of national significance. These are national parks, biosphere reserves, SACs and SPAs.

According to the Federal Agency for Nature Conservation, these areas – distinguished by protected area category – are: 16 national parks (terrestrial area: 214,588 ha) 16 biosphere reserves (1,914,446 ha) 104 nature parks (9.8 million ha)

As there are no intact forest landscapes in Germany according to the definition provided by Global Forest Watch, the main thread to this HCV category is further fragmentation.

Possible threats related to fragmentation in forest habitats by forest management could be:

•clear-felling that need permission because of their extent

•construction of roads, forest roads

conversion

•large-scale planting of foreign species

deer overpopulation

The FSC National Risk Assessment specifically deals with this concernes in detail and concludes a low risk designations for Germany. The point "deer overpopulations" is also additionally discussed in indicator 2.3.1.

Important large-scale landscape ecosystems have been identified and placed under protection in the form, for example, of national parks. Management for forestry purposes is either prohibited or partially regulated. Although representatives of nature conservation interests may wish to see specific improvements in relation to the management of HCVs, essentially the risk based on the foreseeable threat of further fragmentation of the overall area of the landscape ecosystem and mosaics, especially the SACs, is considered low.

HCV 3 Ecosystems and habitats. Rare, threatened or endangered ecosystems, habitats and refuges.

Risk: Lack of effective protection of HCV3

Definition for Germany: In Germany these are nature protection areas, mapped SAC habitat types (with the exception of the beech habitat types 9110 and

9130), biotopes protected under the German federal nature conservation act (BNatSchG,

§30) and the state nature conservation laws, and the protection

forests designated under the state forest laws insofar as they serve the protection or the promotion of certain species, forest associations or forest biotopes.

Silvicultural use is permitted in Natura 2000 sites provided the silvicultural measures employed do not contribute to a deterioration of the conservation status of FFH -habitat types or of habitats home to species protected under the Habitats and Birds Directives.

An important basis for identifying landscapes in Germany worthy of protection is a Germanywide landscape classification, typification and evaluation.

Cultural landscapes can be understood as the result of the interactions between land nature and land use. Conceptually, the landscape differs from the natural area (in the sense of MEYNEN & SCHMITHÜSEN 1953-62) above all in that in the former, the actual use that takes place is included as a significant formative factor.

The criteria used for delimiting the landscapes are natural boundaries, current land use based on satellite image evaluations (CORINE Land Cover) and other landscape delimitations applicable to sub-areas. The landscape types are defined in such a way that the characteristic and landscape-forming elements easily recognizable in the terrain are in the foreground. Landscape qualities that are not obviously recognizable are not used for typification. A total of 858 individual landscapes, including 59 densely populated areas, can be delimited in this way in Germany. The individual landscapes are each assigned to one of 24 landscape types due to similar characteristics of certain features. In addition, each landscape is assigned to one of the three major regions "lowland/plain", "low mountain range" and "Alps and Alpine foreland" (GHARADJEDAGHI et al. 2004).

The assignment to the landscape types in 2004 was based on the land use data of the Corine Land Cover data with the reference year 2000 (figure above). In the meantime, satellite data on land use with the reference year 2006 (CLC 2006) are available (figure below).

In some landscapes (approx. 11%) the land uses have changed so significantly between these two reference years that a new classification of the landscape type has been made. Particularly striking is the decline in landscapes characterised by grassland in Schleswig-Holstein and west of Berlin.

Landscape type assignment 2011

A two-stage assessment procedure is used to identify landscapes of importance for nature conservation. Only data and information that is available for the whole of Germany in a comparable density of information and up-to-dateness is used for the assessment.

Each landscape is first assigned a "type value" on the basis of its affiliation to a landscape type. This basic value of each individual landscape is then further specified on the basis of the individual characteristics of the individual landscapes within the scope of a second evaluation step, the "object evaluation".

In 2006, the undissected nature of the landscape, the significance for biotope and species protection on the basis of the proportion of protected areas (national parks, nature reserves, Natura 2000 areas, core areas of biosphere reserves) and the proportion of historically old forest sites were included in the object valuation. Type and object value are then combined into an overall valuation in five value levels (see table).

The landscape valuation was updated in 2011. On the one hand, updated data on landscape fragmentation were used. On the other hand, the data available at that time on the proportions of protected areas (status 2010) were included in the assessment. In addition, the proportion of areas of national importance for the biotope network in the respective landscapes was integrated into the assessment. The areas of national importance for the biotope mapping of the federal states.

The result of this evaluation procedure in 2006 showed that 402 individual landscapes (approx. 49% of the federal territory) could be designated as worthy of protection. Of these, 91 landscapes (12.3% of the federal territory) were classified as "landscapes particularly worthy of protection", 90 landscapes (9.6% of the federal territory) as "landscapes worthy of protection" and 221 landscapes (26.8% of the federal territory) as "landscapes with deficits worthy of protection" (see figure).

When the landscape evaluation was updated in 2011, 89 landscapes were classified as "particularly worthy of protection" (approx. 12.3% of the federal land area), 99 landscapes as "worthy of protection" (10.8% of the federal land area) and 273 landscapes as "worthy of protection with deficits" (31.6% of the federal land area) (see figure below). As a result of the

new evaluation procedure, which takes into account not only the protected areas but also the other mapped valuable biotopes in each landscape, the area share of landscapes in the highest three evaluation levels has risen to just under 55 % of the federal land area.

Landscape assessment 2006 Landscape assessment 2011 There are claims that the requirements of Natura 2000 implementations in regards to the habitat directive are not met in concerns of the time schedule. This is also reason for infringement proceedings from the EU commission against Germany. Nevertheless HedeDanmark comes to the conclusion of a "low risk" designation for the risk of HCV 3 areas being threatened by non-identification and negative impacts by forest management activities. This assumption is mainly based on the FSC national risk assessment for Germany and its argumentation.

Where the SACs and SPAs are implemented in Germany, the protection and monitoring is on a high level with a high and trustworthy level of enforcement.

Silvicultural use is permitted in Natura 2000 sites, provided the silvicultural measures employed do not contribute to a deterioration of the conservation status of FFH -habitat types or of habitats home to species protected under the Habitats and Birds

Directives. Measures of forest restructuring and to increase the share of deciduous forests are taking place on the whole German forest area since several years and are a consequence of long term forest management planning towards more diverse and stable forests, which pay tribute to local and regional preconditions. It is assumed that the current efforts to observe the prohibition on deterioration and to implement management plans have a positive effect.

A slightly different risk with regard to private forest arises from existing deficits with respect to knowledge and information concerning natural, economic and legal impacts stemming from the designation of SACs. It may be assumed that this is slightly higher than in federally-owned forests, where the regulations are binding. The approach to address private forests owners includes other instruments such as contract nature protection. Many small private forest owners are supervised by the public forest authorities. The share of SACs in public forests is predominant, so regulations are binding on the bigger share of SACs.

The differences in implementation the Habitat Directive in public and private forests do not lead to a divergent risk determination for the different types of ownership.

Germany ranks on place 4 of the so-called Environmental Performance Indicators (EPI) for the aspect of biodiversity / habitats in 1st place as compared to international standards

HCV 4 Special ecosystem services. Fundamental, endangered ecosystem services including the protection of water catchment areas and protection against the erosion of endangered soils and slopes.

Definition for Germany: In Germany these are forests bearing a legally binding protection status and which fulfil the following functions (in accordance with

the federal forest act, §12): protection against damaging environmental influences sensu the German federal emissions protection act (Bundes-

Immissionsschutzgesetz, BImSchG) of 15 March 1974 (Bundesgesetzblatt I, p. 721),

erosion by water and wind, desiccation, damaging run-off of precipitation and avalanches.

In the case of fertilisation in forests, nutrients that are lacking are specifically added to the soil. This is intended to stimulate the nutrient cycle. Together with an adapted use, damaged soils are thus to be restored to a condition that enables ecologically sustainable wood use without further fertilisation. Soil acidification can also be counteracted by means of liming.

The pH value is increased, soil organisms become more active and the organic layer decomposes more quickly, mobilising nutrients. Plant ash has a similar effect to lime due to its high calcium and magnesium content. The different methods of soil improvement are controversially discussed. Improper and excessive use can have serious consequences. For example, some plants react very sensitively to direct contact with the substances applied.

Roots and soil organisms are also very susceptible to abrupt changes in pH. Naturally acidic or lean sites must also be taken into account. Here, measures for "soil improvement" would destroy the naturally occurring, rare plant communities.

Soil erosion can be reduced by permanent growth. The plants reduce the wind speed on the soil surface and strengthen the soil with their roots. In this way, a plant stocking can also reduce erosion on steep slopes. Furthermore, more water can be absorbed by the soil through rooting. This also reduces water-induced erosion.

In addition to preventing soil erosion and improving soil quality, it is also necessary for the ecosystem to give special protection to water bodies and alluvial areas. Here, too, Germany is constantly implementing measures to stabilise the ecosystem.

Watercourse and floodplain development serves to restore ecologically functional riverine landscapes. This makes an important contribution to sustainable flood protection, to the self-purification of water bodies, to the creation of attractive leisure and recreational areas and to the improvement of living conditions for plants and animals. Since the early 1980s, increased efforts have been made to restore water bodies and floodplains to a near-natural state. The possibilities for implementation are manifold and range from the dismantling of transverse structures, bank revetments and dikes, the reconnection of artificially cut-off oxbow lakes, the promotion of extensive forms of use, the re-establishment of floodplain forests to the renaturation of entire river landscapes.

Within the framework of federal funding programmes, the department "Inland Waters, Floodplain Ecosystems and Water Balance" is responsible for large-scale nature conservation projects as well as testing and development projects that serve to protect, develop and permanently safeguard running waters and floodplains.

Risk: Reduction of water quality/quantity – negative impact on humans health (e.g. poisoning water etc.)

HCV 5 Needs of the resident communities. Sites and resources satisfying the basic needs of resident communities and indigenous populations (for their basis

of existence, health, nutrition, water, etc.); identified with the participation of the local communities/indigenous population.

Risk: Compromising (impacting) fundamental needs of local communities by management

activities

Definition for Germany: Official recreation forest and forests with a level 1 recreation function according to the national map of forest function.

Recreational use frequently occurs in sensitive areas as these locations often possess an especially high nature experience value. Often these are large protected areas such as biosphere reserves, national parks and forests in metropolitan catchment areas. The latter is not a category of protection forests but represents a conglomerate of nature and landscape protection areas (e.g., SACs) and forest sites subject to normal forest use. The recreational use by local recreation seekers is of huge significance in densely populated areas. A fifth of the German forest area is situated in the catchment areas of metropolitan areas (Zundel & Völksen, 2002) Forest management of these forests is often perceived as a disturbance by the population. Most public forest owners take this into account.

HCV 6 Cultural values. Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance and/or or key cultural,

ecological, economic or religious significance for the traditional cultures of the resident communities or indigenous population; identified with the participation of the resident communities and indigenous population.

Risk: Destruction and/or disturbance of rights/values determining HCV6 presence

Definition for Germany: In Germany these include woodland cemeteries, relicts of historical forms of land use worthy of conservation (coppice and coppice with- standards forests, forest pasture) and monuments of built and archaeological heritage identified by regulatory agencies.

Mapping of forest functions for the individual forest areas, presents an overview and valuation basis concerning utility, protection and recreation functions. In addition to forest areas with particular importance for individual forest functions, the forest function map also includes topography and protected areas such as natural forest reserves, water protection areas, soil monuments or nature reserves. E.g. the Federal Forest Authority of Baden-Württemberg has extended the forest function mapping, soil and culture heritages need to be mapped as well. Forest management activities have to be adapted to avoid damages to those sites.

Designated cultural monuments in the forest are considered in the midterm planning (Forsteinrichtung) and respected accordingly during the execution of forest management activities.

Where new conservation values worthy of a heritage designation are discovered, the necessity for protection is assessed by the responsible authorities. Woodland cemeteries are a relatively new form of forest use and are only found at a small number of selected locations at present, currently around 400 woodland cemeteries do exist in Germany (Aeternitas 2017).

Direct threats or impairments to the recreational use of forests posed by forest management

activities may stem from, among other things, machine traffic and timber harvesting. These activities involve the installation of extraction trails, the use of heavy machinery and corresponding effects on the aesthetics of trails in the forest and on the appearance of the forest as a whole. The right to access may be restricted temporarily and locally for the purposes of harvesting and other operations.

Protection forests are covered by additional protection designations that apply tighter restrictions to forest management activities.

When planning harvesting measures or other forest management activities (e.g. road construction), attention to environmental values and protected sites is required. In mid-term management planning ("Forsteinrichtung", see above) protected sites and protective functions of forests are addressed.

Germany has numerous laws, regulations, ordinances and directives designed to regulate environmental values and requirements. Federal state Forestry Departments are duty-bound to enforce and supervise regulations or obligations equally in all forest types.

On sites visits by authorities for water protection and nature conservation are done on a regular basis. It is obligatory to notify/register water and soil damages, e.g. as mentioned in the Soil Protection Act, the Water Resources Act.

Forest management measures are subjected to the Federal Forest Act (BWaldG) (BMEL 2015) and the State Forest Acts (LWaldG), which fulfil the requirements of the BWaldG and require management and site planning. The occurrence of special conservation values is also considered, i.e. in forest management plans. §11 of the BWaldG requires on principle to consider the forest function "ecosystem" (BMEL 2015) in forest management activities.

In addition to the BNatschG, the Federal Environmental Ministry and the BfN as a subordinate authority the threats from forest managements are identified and forests effectively protected against.

The significance of § 39 BNatSchG is that since 1 March 2010, a uniform nationwide regulation will apply with regard to logging and cutting bans, and the laws of the respective country may extend these, but may under no circumstances restrict them.

This applies to especially for the protection period, which has so far been in the different national laws was regulated differently. In the future the period of protection shall in principle be the Period between 1 March and 30 September. Since 1 March 2010, the following rules

apply to this Protection period nationally uniform felling and felling Pruning bans for all trees that outside the forest or horticultural of the land used by the company.

The Federal Nature Conservation Act regulates now nationwide uniform in § 39 BNatSchG certain felling and cutting bans for closer designated trees and for hedges, live fences, bushes and other woodland in a basically fixed Period from 1 March to 30 September. The legally provided Exceptions are very far-reaching and have no significant Tightening of the felling and cutting bans compared with the previous arrangements guided. However, roadside trees, alleys...on roads and trees in the open countryside now specially protected. The following applies to them since 1 March 2010 the cutting bans and felling prohibitions of

§ 39 BNatSchG, so that during the protection period, the Caps for example on Street trees as an administrative offence fined up to \in 10 000 if they are not, for reasons the traffic safety from the nature conservation authority have been approved. All trees in gardens, i.e. house

	the temporary felling and Cutting prohibitions of § 39 BNatSchG. You can also between 1 March and 30. September without permission and be cut back if no Habitats of wildlife species and if there are no other nature conservation regulations (e.g.tree protection statutes). All hedges, live fences, bushes and other woody plants are subject to the felling and cutting bans of § 39 BNatSchG, even if they are, for example, in gardens and green spaces. Necessary measures for production of road safety are of the felling and cutting bans of § 39 BNatSchG, but can be due to other nature conservation prohibitions must be subject to approval. Tree and wood care measures according to the ZTV tree care and comply with the relevant regulations the exemption under § 39 NatSchG. These measures have been implemented at all trees and other woody plants during of the whole year, unless, that habitats of protected animal species are in it or other nature conservation law Prohibitions exist. Protected trees that pose a traffic hazard may only be used for concrete and imminent Danger even without the approval of the nature conservation authorities which are then must be informed immediately. At every felling and each felling application are the defects and diseases found on the tree, which requires felling and to provide reasons and sufficient information to document.
	Sites falling under HCV6 definition are even more than regular forest a site of interest by the public and therefore more often visited. As argued before, the public is a strong control mechanism. This applies for private forest as well as for public ownership. It could be assumed, that private forests could be evaluated with the same risk as public forests regarding HCV6 protection.
	HedeDanmark is strictly working according to the requirements of the FSC Controlled Wood Standard (FSC-STD-40-005). HedeDanmark is ongoing refreshing the staff in these regards and also annually carrying out an internal and external audit to control the handling of mentioned procedures. The FSC-CW Standard in combination with the national risk assessment FSC-NRA-DE V1- 1provided by the FSC as guidance, the HCV forests and areas are reliable to be identified.
	The FSC National Risk Assessment states for all HCV Categories in Germany a low risk for being threatened by forest management activities.
	HedeDanmark follows this evaluation. There are undisputedly improvements necessary to implement the designated protection status for some areas and Germany is behind that determined schedule. On the other hand there is significant progress and effort made in catching up to specified biodiversity aims, that Germany committed itself to with the Nagoya Protocol. The tendency towards more divers forests, more area under protection status, and environmental protection in general, is clearly to see in legislative and regulatory frameworks. With most of the areas under protection and/or of high conservation value located in forests with obligatory forest management and in combination with the mentioned high level of enforcement, the overall risk for this indicator and the area under assessment, is determined to be "low risk"
Means of	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
Verificatio n	1. Article §8 "Protection of forest functions upon plannings and measures by public projects"
	-Richtlinie zur Forsteinrichtung ("Guideline for Forest Planning")

and allotments, in green spaces, grass sports facilities and cemeteries do not have under

-Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) - "Federal
Nature Conservation Act" 1. Article §5 ("Agriculture, forestry and fisheries")
-Bundesministerium für Ernährung und Landwirtschaft (BMEL), "Bundeswaldinventur: Unser Wald - nutzen und bewahren."
http://www.gesetze-im-internet.de
https://www.gesetze-im-internet.de/bnatschg_2009/
https://www.bundeswaldinventur.de/.
https://www.bfn.de/0315_ffh_richtlinie.html
https://www.bussgeldkatalog.org/tierschutz-artenschutz/#artenschutz
https://www.bfn.de/bundesrecht
https://www.bfn.de/themen/biotop-und-landschaftsschutz/schutzwuerdige-landschaften.html
https://www.bfn.de/fileadmin/BfN/natura2000/Dokumente/Meldeueb_FFH_20171123_barrier efrei.pdf
http://www.ffh-gebiete.de/
https://geodienste.bfn.de/schutzgebiete?lang=de
http://intactforests.org/world.webmap.html
https://epi.yale.edu/epi-results/2020/country/deu
L avy Diale
Low Risk
Not Applicable

	Indicator
2.1.3	The BP has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.
Finding	Official national forest inventories ("Bundeswaldinventur") do exist in Germany, the last one was finished in 2012. The inventories are subject to binding regulations in the German Forest Act. Forest inventories form the basis of forest planning for each forest organization. Conversion of natural forests to plantations or non-forest use in the

area under assessment is less than 0.02% or 5000 hectares average net annual loss for the past 5 years.

According to the third Federal Forest Inventory ("3. Bundeswaldinventur") from 2012 the forest area only showed slight changes between 2002 and 2012. A forest loss of 58,000 hectares is compensated by 108,000 hectares of forest growth. In total, the forest area has increased by 0.4% or 50,000 hectares. The average annual gain of 5.000 hectares is far below the threshold of 5.000 hectares net annual loss ('low' risk). There is a Programme for long-term forest development called LÖWE Programm.

§ 2 of the National Forest Act excludes areas that are used for short rotation coppice or short rotation forestry, these areas are not defined as forests and are subjected to other legislation than forest legislation. Article 9 (1) of the National Forest Act states that conversion of forests to any other land use is allowed only with the permission of the corresponding federal state authority. If necessary, the Environmental Impact Assessment Act is applied to assess potential environmental impacts and develop mitigation or compensation measures, if a conversion of land use shall take place. By making the decision as to whether conversion will be permitted, the rights, duties and economic interests of the forest owner as well as public interests have to be evaluated. The request to permit conversion will be declined, if conservation of the forest is of public interest –particularly if the forest is considered highly significant due to characteristics of its ecosystem, its silvicultural production level or its use for public recreation.

In addition, due to the National Forest Act §9 (3), Federal states can determine whether an approval for another type of land use is necessary for a particular forest area e.g. for infrastructure. In this case permits are granted under the planning law and compensation (e.g. afforestation, compensation payments) must take place as required by legal regulations. This is regulated through the Building Code (BBauGB) §§1a, 35 and Federal Nature Conservation Act (BNatschG) §§14, 15. The procedure of intervention into nature is regulated in §17 (BNatschG) and in the Environmental Impact Assessment Act.

However, in any case of conversion in Germany, compensation measures have to be undertaken, it is legally binding to create such measures, several court decisions offer guidelines and describe requirements (e.g., afforestation, payment) for the extent (e.g., area size, at least the same area that has been converted) and quality this measures need to be implemented. The type (e.g., afforestation, payment) and quantity (e.g., area size) of the compensation varies by the federal states.

Penalties exist for conversions occurring without permission and are defined by the forest acts of the federal states (usually afforestation is required, or a heavy fine imposed). In protected areas as defined by the Federal Nature Conservation Act (§§ 23, 24, 25, 26, 27, 28, 29, 30, 31), by the National Forest Act (§§12, 13), by Federal Forest Acts or in Habitat Directive areas, stricter rules apply in relation to conversions and levels of compensation. Without an extraordinary reason, permissions are normally not granted for any conversion in these areas.

Due to the complex and non-uniform system in the federal states, enforcement and monitoring are executed by different authorities. Depending on administrative structures, these authorities can be lower forest authorities, higher forest authorities, municipal forest authorities, Federal Ministry of Food and Agriculture, Federal Agency for Nature Conservation, Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety.

In 2016 in Germany only 5.700 ha were stocked with short rotation plantation.

ledeDanmark is not using material from those areas. Those materials are also excluded the delivery contracts with the customers.
n Reference to indicator 1.1.2 the risk for material from plantations becoming part of the iomass is low as the origin and forest type are always known by HedeDanmark.
According to the "Bundeswaldgesetz" plantations are not defined as forest area. For this riteria, the area under assessment is considered as 'low risk'.
Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" . § 41: Inventory Forest acts of the federal states (1)
ragile States Index 2015
lational Forest Act (BWaldG) Articles 2 "Definition of forest" "Bundeswaldgesetz vom 2. /ai 1975 (BGBI. I S. 1037), das zuletzt durch Artikel 1 des Gesetzes vom 17.
anuar 2017 (BGBI. I S. 75) geändert worden ist"
ÖWE Programm (Programme for long-term forest development)
lational Forest Act (BWaldG) Articles 9 "Preservation of the forest", 41a "Forest
nventories", (12 "Protection Forest", 13 "Recreational Forest") "Bundeswaldgesetz vom
. Mai 1975 (BGBI. I S. 1037), das zuletzt durch Artikel 1 des Gesetzes vom 17. January
017 (BGBI. I S. 75) geändert worden ist"; last accessed on 1st of February 2017
Building Code (BBauGB) Articles §§ 1a "Supplementary Provisions for Nature
Protection", 35 "Construction on the outskirts"
ederal Nature Conservation Act (BNatschG) Articles §§14 "Interventions in nature
nd landscape", 15 "Obligations of the intervening party, inadmissibility of intervention;
uthorization to issue statutory ordinances", 17 "Procedures; authorization to issue
tatutory ordinances" (Protective sites §§ 23, 24, 25, 26, 27, 28, 29, 30, 31)
FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- . Date: 03 April 2018 (updated 31 July 2020)
ederal State Forest Acts:
Berlin: §§ 6 "Forest conversion", 8 "Environmental impact assessment"
aden-Württemberg: §§ 9 "Preservation of the Forest", 10 "Special cases of
onversion"
Bayern: §§ 9 "Preservation of the Forest", 39a "Environmental Impact Assessment"
Brandenburg: §8 "Conversion of forest to other land uses"
Bremen: §8 "Forest conversion"

	Hamburg: §4 "Forest conversion"
	Hessen: §12 "Forest preservation and Conversion"
	Mecklenburg-Vorpommern: §15 "Conversion of forest to other land uses", 15a
	"Special cases
	of forest conversion"
	Niedersachsen: §8 "Forest conversion"
	Nordrhein-Westfalen: §§39 "Conversion of forest", 42 "Procedure", 43 "Exceptions"
	Rheinland-Pfalz: §14 "Preservation and increase of forest area"
	Thüringen: § 10 "Change in Land use"
	Sachsen: § 8 "Forest preservation" 9 "Special cases of forest conversion"
	Sachsen-Anhalt: § 8 "Forest conversion to other land uses"
	Saarland: § 6 "Forestry frameworks", § 8 "Preservation of forest"
	Schleswig-Holstein: § 9 "Conversion of forest"
	https://fsifoundation.com/
Evidence	https://www.landesforsten.de/wir/loewe/
Reviewed	https://bwi.info/start.aspx
	http://www.gesetze-im-internet.de/uvpg/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable
Medoure	

	Indicator
2.10.1	Genetically modified trees are not used.
Finding	Laws and Acts in Germany strictly regulate the use of GMO species in Germany. GMO is currently an important topic in agriculture, so the regulation of transport, agricultural use or commercial use is mainly important for agriculture. All regulations are also binding for forest management activities. In German forestry GMOs have no importance at all. This is strictly regulated by (1) the mentioned laws and acts and (2) the long-term objectives in forestry, which makes the use of GMOs unsecure and uninteresting. There is no relevant sign of motivation for using GMOs by German forest owners. Interviewed experts stated that in

	order to receive possible gains from GMO trees, it would be required to do research on GMOs as well as well as to put them into tests in experiments under natural conditions on a large scale over several decades. It is also unclear what would be effects of climate change and how tree species would react to that. Against this background GMOs in forestry are irrelevant in Germany and in addition, the existing legislation calls for strict regulation and supervision. The strict legislation prohibiting and limiting the use of GMO in agriculture as well as in forestry also reflects the negative and sceptical attitude of the German population towards GMOs. The GMO lobby in Germany is negligible. There is no prohibition in Germany. The commercial use of GM trees is regulated by law and requires a permit, which is preceded by an inspection, including consideration of the reasons for the use of GM trees. Regulated in: Forstvermehrungsgutgesetz (FoVG) ("Act of Forestry Reproductive Material) §4,3 ("admission of original material"), Gentechnikgesetz (GenTG) ("Genetic Engineering Act") §§14-16 (release, bringing on the market, admissions) and European Law, here mainly EU-guideline 2001/18. No, no source of the unauthorized use of genetically modified trees was found in Germany, since laws, controls and measures are effectively enforced. There are some cases linked to agricultural activities but these are individual cases, as the legislation in Germany is strict and the social and political attitude towards genetic modified organisms is negative. commercial use of GMOs in forestry in Germany makes no sense. The costs are too high and the negative environmental impacts are unknown. The precautionary approach of the German Environmental legislation applies. Four trials for research purposes since 1991, which have been strictly monitored by research centres (prevention of reproduction by bud control, daily monitoring of area, duty of documentation) are known. There are licenses required for commercial use of genetically modifie
	Forstvermehrungsgutgesetz (FoVG) ("Act of Forestry Reproductive Material") §4,3 (admission of original material)
	Gentechnikgesetz (GenTG) ("Genetic Engineering Act") §§14-16 (release, bringing on the market, admissions)
	Further overview over German Acts, laws and decrees concerning genetic engineering
Means of Verificatio n	Overview over European Law
	Prohibition of GMO cultivation
	Genetic engineering in Germany
	Expert interviews in forest research centres and federal authorities (e.g. for consumer protection)
	Detailed report of last research project with GMO trees (17/04/2003)

	http://www.gesetze-iminternet.de/fovg/BJNR165800002.html
	https://www.bvl.bund.de/EN/Tasks/06_Genetic_engineering/genetic_engineering_node.html
Evidence Reviewed	FSC National Risk Assessment for Germany:// https://open.fsc.org/handle/resource/201 BVL - Genetic engineering (https://www.bvl.bund.de/EN/Tasks/06_Genetic_engineering/genetic_engineering_node.html de) BMEL - https://www.bmel.de/EN/Home/home_node.html - Die wichtigsten rechtlichen Regelungen im Pflanzenschutz https://www.foodwatch.org/de/informieren/gentechnik/%20mehr-zum-thema/gentechnik-in- deutschland/ http://gmoinfo.jrc.ec.europa.eu/gmp_report.aspx?CurNot=B/DE/02/145 (release of 72poplars in rural district Mansfelder Land, Saxonia-Anhalt, Germany)
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.1	The BP has implemented appropriate control systems and procedures to verify that feedstock is sourced from forests where there is appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.
Finding	Both public forests and private forests have to execute a strategic planning ("Forsteinrichtung"). Official national forest inventories ("Bundeswaldinventur") do exist in Germany, the last one was finished in 2012. The inventories are subject to binding regulations in the German Forest Act. Forest inventories form the basis of forest planning for each forest organization. The main goals of management planning are to plan and evaluate the sustainable use of forest resources, to control felling activities and to comply with sustainability. To take account of long-term developments in forestry, every ten to 20 years, public organizations establish a mid-term framework report ("Forsteinrichtung"), for which responsibility occurs at sovereign level. Furthermore, state forests organizations establish an annual forest plan including actual and predicted stock, harvesting measures, establishment measures, silvicultural and management measures, conservation, welfare etc. Public municipal forests of medium size (normally 50 or 100 ha or larger) are bound by law to execute annual planning. In addition to these statutes and requirements, some federal states have binding guidelines for silviculture, which define silvicultural best practices for public forests (also

recommended for private forests). For private forests, different regulations do exist; which are described in the Federal Forest Acts, varying between the different federal states. Basically private forestry organizations of mid-size (normally 100 ha) and upwards have to produce an annual plan and a mid-term framework report every ten years. Small private organizations under 100 ha have to prepare an annual report, which is not included in the annual planning, to provide evidence for its management ("Forstbetriebsgutachten"). Below 30 ha, organizations are exempt from planning works, but are bound to the German Forest Act and to supervision by authorities. For small private forests, this type of planning is recommended but not mandatory.

Based on this planning, forest authorities have measures to control and monitor forest use. As described above, these authorities vary from federal state to federal state. When planning occurs in relation to public or private forests, reports have to be sent to the corresponding forest authorities for evaluation and control. Private organizations that are not obliged to do planning are subjected to a control mechanism by the tax assessment.

For small forests with no planning, statutory possibilities for punishment do exist, if laws are not adhered to. The preparation of mid-term framework reports is done by officials or freelancing consultants. The results of the National Forest Inventory (Bundeswaldinventur) 2012 have demonstrated that the average timber stocks in German forests rose compared to earlier inventories, which is an indicator of sustainable forestry and proper planning. Risks can arise when small forest organizations - which are not bound to planning due to their size – manage their forest unsustainably OR – if they are bound only to ten-year planning – use the ten-year gap to harvest beyond the sustainability level. However, in any case, monitoring does exist: Municipal public forests in most federal states are managed and thus supervised by state authority foresters, so that control mechanisms exist. Private forest organizations, which are bound only to tenyear planning, are thus controlled every ten years and, if the forests are not sustainably managed, the organizations are sentenced. For small forests with no planning, statutory possibilities for punishment do exist, if laws are not adhered to. A control mechanism, not to be underestimated, is the public. Forest visitors are, according to an interview with staff from the lower environmental protection agency in lower saxony, the group that reports the most (suspected) violations of laws and regulations.

The absolute minority of small private forest owners is not engaged in any form of association when it comes to silvicultural land use with economic intentions. Numerous interviews with forest owners, foresters and forest working companies revealed and underlined this assumption. Only a properly managed forest is economically stable and sustainable. Costs for management, harvesting, wood marketing and so forth, are disproportionate for small, unassociated forests. Therefore the vast majority of above mentioned forest owners are associated in "Forstbetriebsgemeinschaften" (FBG), "Forstbetriebsverbänden" (FBV) or "Waldwirtschaftsgenossenschaften" (WWG). Those associations act as a single forest owner and is bound to legislation and forest management with regards to the accumulated forest area of all members, which is in terms of economics, large enough to be professionally managed. The remaining small private forests are often owned by farmers and people generating firewood for their own purposes. The chance of significant amounts of biomass from such origins to enter the

national or even international biomass market is negligible. Those owners normally would need to mandate a company to harvest, move and chip biomass and it could be assumed, that professional biomass companies are up to date with applicable legislation and regulations and advise the forest owner accordingly.

The legal background for monitoring and planning is clearly regulated and enforced. Due to the good governance and law enforcement indicators, it can be concluded that there are no enforcement deficits. Management plans are public available ("Forsteinrichtungswerk"; updated every 10-20 years).

Planning and sustainable management is described in the statute books: Mid-term management planning ("Forsteinrichtung") and annual planning ("Forstbetriebsgutachten") are required in most cases. When plans are submitted to and approved by forest departments, harvesting measures are assumed, based on this planning. Therefore, the owner of the area or the harvesting rights does not need to ask for permission to carry out harvesting activities.

The status of protected sites is documented and monitored in the midterm planning ("Forsteinrichtung") and is therefore respected when planning management

measures. Controls are carried out by forest control ("Forstaufsicht"), employees of the Nature Conservation Federal Agency or by the police.

In mid-term management planning ("Forsteinrichtung") protected sites and protective functions of forest are addressed.

Mapping of forest functions for the individual forest areas, presents an overview and valuation basis concerning utility, protection and recreation functions. Designated cultural monuments in the forest are considered in the midterm planning ("Forsteinrichtung") and respected accordingly during the execution of forest management activities. Woodland cemeteries have to be included as designated areas in the midterm planning ("Forsteinrichtung") and mapping.

In the Verwaltungsverfahrensgesetz (VwVfG) – the central Act that defines administrative procedures for federal authorities in Germany -, the 2016 approved new § 25 (3) is to introduce a general rule for an "early public participation" in large projects with a corresponding so called "obligation to act" of the administration. The broad and early participation of the public comprises the early notification of the general objectives of the project, the means of implementation and the likely impact.

Forests in Germany are designated with a legal protection status and fulfil the following functions (sensu Federal Law Gazette, §12): protection against damaging environmental impacts in the sense of the Federal Emissions Protection Act.

If necessary, the Environmental Impact Assessment Act is applied to assess potential environmental impacts and develop mitigation or compensation measures, if a conversion of land use shall take place.

The legislator demands that primarily avoidable impairments of nature and landscape should be avoided. Unavoidable adverse effects must be compensated by measures of nature conservation and landscape management (compensation and replacement measures) (Ausgleichs- und Ersatzmaßnahmen). If the impairments cannot be avoided or compensated for, the interests of nature conservation and landscape management must be weighed against other public concerns/interests and justifications must be

	provided (BfN 2002/2007). In particular, ecosystem functions should not be impaired and biodiversity should be preserved.
	Germany has numerous laws, regulations, ordinances and directives designed to regulate environmental values and requirements. Federal state Forestry Departments are duty-bound to enforce and supervise regulations or obligations equally in all forest types. There are no statistics available relating to regular on-site visits by relevant
	authorities focusing on environmental requirements; however on-site visits are a known measure of control and planning. The authors of the FSC National Risk Assessment for Germany come to the conclusion, that identified laws are upheld. Cases where law/regulations are violated are efficiently followed up via preventive actions taken by the authorities and/or by the relevant entities. For this indicator the area under assessment is determined to be 'low risk'. This conclusion is endorsed by the lack of relevant cases in which sustainability was seriously compromised by small forest organizations.
	-Richtlinie zur Forsteinrichtung ("Guideline for Forest Planning")
	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" 1. § 41: Inventory Forest acts of the federal states (1)
	-Additional frameworks and documents for inventory, survey and measuring
	-Verwaltungsverfahrensgesetz in der Fassung der Bekanntmachung vom 23. Januar
	2003 (BGBI. I S. 102), das zuletzt durch Artikel 20 des Gesetzes vom 18. Juli 2016
Means of	(BGBI. I S. 1679) geändert worden ist". Last accessed on 15.02.2017
Verification	-Environmental Impact Assessment Act (Gesetz über die
	Umweltverträglichkeitsprüfung (UVpG) in der Fassung vom 24. Februar 2010 (BGBI. I S.
	94))
	- FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	Verkauf von Holz aus dem https://www.wald-und-holz.nrw.de/ NRW Wald & Holz
Evidence	http://www.gesetze-im-internet.de/uvpg/
Reviewed	https://www.bmel-statistik.de/forst-holz/tabellen-zu-forst-und-holzwirtschaft/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.2	The BP has implemented appropriate control systems and procedures for verifying that feedstock is sourced from forests where management maintains or improves soil quality (CPET S5b)
Finding	Regulations of the silvicultural guidelines are based on the National Forest Act and the Federal Nature Conservation Act, which include the stipulations that forests have to be managed properly, advantageously and sustainably, retaining the function of the forest. Because of that the site-adapted selection of species a persistent soil fertility for long- term usability must be ensured, the natural features of the managed site (soil, water, flora, fauna) must not be impaired beyond the extent required to achieve a sustainable yield, fertilizers and pesticides must only be used in accordance with the provisions of the agricultural and forest legislation and in accordance with the German legislation fertilization in a conventional sense is excluded to a major extent for forest management. This applies to all federal states in Germany.
	More precise details for timber harvesting activities, technologies and forest management rules are incorporated in the silviculture guidelines, including minimum age, diameter, felling activities, skidding trails etc. In addition to forest laws various other relevant laws do exist that (e.g.) regulate protection of soils, water bodies and other environmental values. They need to be considered when working in forests (e.g. Bodenschutzgesetz: Soil Protection Act).
	Every federal state has the authority to monitor the implementation of the law by the forest supervision ("Forstaufsicht"). Since state forest organizations are supervised by the federal forest department, forest activities are monitored in both private forest and public forest. The forest supervision ("Forstaufsicht") is the implementing authority of the federal state, whereby the state secures legal implementation. Forest supervision overall is executed by officials of the corresponding low-level forest department with help of the police.
	Permanent soil monitoring On almost 800 permanent soil observation plots under arable land, grassland, forest and special use (e.g. settlements, viticulture), the soil in Germany is monitored on a long-term basis. The aim of the monitoring programme is to record the current condition of the soils, to monitor their changes over the long term and to map development trends. The federal states are responsible for long-term soil monitoring. The permanent soil monitoring data are collected and used in the federal states and by the Federal Environment Agency for a wide range of soil protection issues. The accuracy of the series of measurements will increase with each further investigation. The Federal Environment Agency collates the data in a specialist information system and has the possibility of carrying out cross-state evaluations.
	Long-term soil monitoring is a central instrument of environmental monitoring Source: S. Marahrens / Federal Environment Agency
	Soil condition survey in forests

BZE Forest and ICP Forest (Level I and II)

The BZE Forest and ICP Forest projects assess and monitor forest condition and the condition of forest soils. The data can be used, for example, to make statements on the carbon cycle, the nutrient and water balance and diffuse material loads in the soil. The Federal and State Working Group on Soil Condition Surveys (BZE) coordinates and regulates the establishment and operation of the monitoring sites, the minimum set of parameters and the investigation methods. The programme is the responsibility of the Federal Ministry of Food, Agriculture and Consumer Protection. The Thuenen Institute, Institute of Forest Ecology and Forest Inventories keeps the data in a central database and is responsible for the coordination and analysis of the data.

The result of the last BZE showed that actions taken regarding air emissions, soil protection and forest restructuring to more mixed forests in the past, were making impacts. The key results are:

-Soil acidity decreased

-Status of humus and bases saturation increased

-Carbon stock up to 30cm and also 90cm depth increased

-Heavy metals depositions and content in humus layer decreased

-Nutritional conditions of trees are predominantly good

-Sample points of critical loads of eutrophicating nitrogen decreasing

The litter layer of forest soils requires special sampling. Source: Federal Environment Agency

The Federal Nature Conservation Act ("Bundesnaturschutzgesetz") defines environmental requirements at a national level in Article 5 (Agriculture, forestry and fisheries). In addition to these Acts are various laws and regulations that define protection of environmental values (e.g. soils, water resources) and which have to be followed when working in forests. These are equally binding for all forest owners (e.g. Bundes-Bodenschutzgesetz (BBodSchG): Soil Protection Act; Düngemittelgesetz (DüV): Fertilizer legislation; Düngemittelverordnung (DüMV): Fertilizer ordinance; Wasserhaushaltsgesetz (WHG): Water Resources Act; Europäische – Wasserrahmenrichtlinie: European Water Framework Directive).

On sites visits by authorities for water protection and nature conservation are done on a regular basis. It is obligatory to notify/register water and soil damages, e.g. as mentioned in the Soil Protection Act, the Water Resources Act.

Mapping of forest functions for the individual forest areas, presents an overview and valuation basis concerning utility, protection and recreation functions. In addition to forest areas with particular importance for individual forest functions, the forest function map also includes topography and protected areas such as natural forest reserves, water protection areas, soil monuments or nature reserves. E.g. the Federal Forest Authority of Baden-Württemberg has extended the forest function mapping, soil and culture heritages need to be mapped as well. Forest management activities have to be adapted to avoid

	damages to those sites.
	Between 2006 and 2008, the government performed the second, nationwide "Bodenzustandserhebung" to determine the soil situation in german forests and to monitor impacts of forest management activities.
	There are several non-governmental organisations like the "Kuratorium für Waldarbeit und Forsttechnik e.V. (kwf)" that research harvesting activities and their impact on, among other terms, the soil quality and present technical and process orientated recommendations to protect the impacts on the soil.
	The following statistic shows the number of cases nationwide of violations against soil protection laws. It is to be mentioned, that there is no statistical data for specifically forests, so a legitimate assumption is, that most of the cases happened outside forest areas.
	For this indicator the area under assessment is determined to be 'low risk'.
Means of	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest
Verification	Act" 1. Article §8 "Protection of forest functions upon plannings and measures by public
	Means ofprojects"; Article §9 "Preservation of the Forests"; Article §11 "Management of forest
	-Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) -
	Verification"Federal Nature Conservation Act" 1. Article §5 "Agriculture, forestry and fisheries" Forest
	acts of the federal states (1)
	-Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) –
	"Soil Protection Act" 1. Article §17 ("Good agriculture practice")
	-Wasserhaushaltsgesetz(WHG) vom 31. Juli 2009 (BGBI. I S. 2585) - "Water Resources Act"
	-Düngeverordnung (DüV) in der Fassung der Bekanntmachung vom 27. Februar 2007 (BGBI. I S. 221) – "Fertilizer legislation"
	-Düngemittelverordnung (DüMV) vom 5. Dezember 2012 (BGBI. I S. 2482) - "Fertilizer ordinance"
	-German Federal Environmental Agency (Umweltbundesamt) (2012): Soil Condition in Germany
	-Waldbericht der Bundesregierung 2017
	-Umweltbundesamt - Umweltdelikte 2016: Auswertung von Statistiken
	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)

	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence Reviewed	BNatSchG.pdf (gesetze-im-internet.de http://www.gesetze-im- internet.de/bnatschg_2009/BNatSchG.pdf) http://www.gesetze-im-internet.de/bwaldg/ https://www.umweltbundesamt.de/sites/default/files/medien/publikation/long/4291.pdf Umweltdelikte 2019 (https://www.umweltbundesamt.de/) https://www.umweltbundesamt.de/themen/boden-landwirtschaft/boden-schuetzen/boden- beobachten-bewerten#umweltprobenbank-des-bundes http://www.icp-forests.org/Manual.htm
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.3	The BP has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).
Finding	Forest management measures are subjected to the Federal Forest Act (BWaldG) (BMEL 2015) and the State Forest Acts (LWaldG), which fulfil the requirements of the BWaldG and require management and site planning. The occurrence of special conservation values is also considered, i.e. in forest management plans. §11 of the BWaldG requires on principle to consider the forest function "ecosystem" (BMEL 2015) in forest management activities. Important large-scale landscape ecosystems have been identified and placed under protection in the form, for example, of national parks. Management for forestry purposes is either prohibited or partially regulated.
	Large landscape ecosystems and ecosystem mosaics are identified. The protection of forests as habitat types, landscape ecosystems and mosaics plays an important role. Clear cuttings, which could lead to fragmentation on the size of landscape ecosystems, are in any case subject to approval and may require compensation. Most important representative forest habitats and landscape ecosystems within forests are under protection and often set aside from forest management activities or managed with low intensity forest management. The European habitats directive was transposed in national law in 1998 (Sipped, 2007) and is anchored in §§32 to 38 of the federal nature

conservation act.

There are Natura 2000/habitat types of the Habitats directive and sites protected under the Federal Nature Conservation Act as landscape-level ecosystems and small habitats.

Sites subjected to the Habitats Directive, combined with Bird Protection Areas (EGV), from the Natura 2000 sites. They need to be managed either in compliance with the Habitats Directive or the Birds Directive, partially there are overlaps. According to Art. 6 para 1 of the Habitats Directive mandatory management plans need to be elaborated. Management plans have to maintain or restore a favourable conservation status. According to Art. 6 para 2 member states are in bond to avoid damaging activities that could significantly disturb these species or damage or deteriorate habitats or habitats of protected species.

In Germany there are nature protection areas, mapped SAC habitat types (with the exception of the beech habitat types 9110 and 9130), biotopes protected under the German federal nature conservation act (BNatSchG, §30) and the state nature conservation laws, and the protection forests designated under the state forest laws insofar as they serve the protection or the promotion of certain species, forest associations or forest biotopes.

The Red List, published by the "Bundesamt für Naturschutz", catalogizes plants, animals and fungi according to their recent endangerment level. It also provides a short- and long term tendency. As this list includes nearly 22.000 species overall, a link to the download section is provided in the evidence reviewed, instead a complete list.

The Red List is regularly revied and acts as a scientific basis for strategic and legislative decisions. According to interviewed staff from federal state forests, the Red List is an essential tool to be used when forest management planning is done in any form.

The following statistic provided by the Umweltbundesamt shows that there are only a few cases nationwide of violation of protected areas and most of the cases were solved by governmental authorities. Also the tendency is pointing downwards.

Concerning primary non-forest biomass, there is a variety of scenarios of biomass origin in the non- forest sector.

HedeDanmarks is working together with a small number of companies, that have specialized in maintenance of trees and bushes in the landscape, along infrastructure and in urban areas. Only companies with a flawless reputation and known experience if this field are includes as such.

For operation on public owned land, detailed tenders with exactly defined tasks are in place as background. Those tenders have been prepared from client side in accordance to applicable laws and in cooperation with responsible authorities. Regarding ecosystems and habitats, the "untere Naturschutzbehörde" has checked with own resources how the ecological situation of each individual site is and what measures are possible.

By operation on private land, the contracted company is responsible for knowing and complying with existing laws. Depending on federal state or even smaller administrative districts, the clients handling differs vastly. In Mecklenburg-Hither Pomerania it is

	common practise, that every measure is reconciled in advance with authorities and given definite instructions, often combined with site visits. Background checks for legal, sustainable and ecological matters have been done by authorities. Also site inspections after completion are common. In other federal states, the control mechanisms are not as tight, but nevertheless random visits are happening. According to interviewed companies, the public is the attentive control institution and has a quite good knowledge of laws and regulations concerning executed measures. Allegations from the public are prosecuted by local authorities like "untere Naturschutzbehörde" and act as a wide spread and continuous control instrument. As this indicator is in major parts redundant to indicators 2.1.1 and 2.1.2, this indicator for the area under assessment is determined to be 'low risk' as well.
	-Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats
Means of	and of wild fauna and flora - Article 2,6,12,17
Verification	-Directive 2009/147/EC of the European Parliament and of the Council of 30 November
	2009 on the conservation of wild birds
	Natura 2000 Gebiete https://www.bfn.de/natura-2000-gebiete
	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043
	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147
Evidence	https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2018-08-24_texte_66-2018_umweltdelikte-2016.pdf
Reviewed	Natura 2000 Gebiete Bhttps://www.bfn.de/natura-2000-gebieteFN
	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043
	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147
	https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2018-08-24_texte_66-2018_umweltdelikte-2016.pdf
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	The BP has implemented appropriate control systems and procedures to ensure that
2.2.4	biodiversity is protected (CPET S5b).
Finding	 biodiversity is protected (CPET S5b). In Germany, there are both nongovernmental (like the NABU or WWF) and governmental organizations around to ensure and protect the biodiversity. Nature conservation and species protection as well as biodiversity conservation are already incorporated in the German legislation both at federal and state level. The precautionary principle (risk prevention and resource provision) is the guideline of environmental policy and legislation in Germany (UBA website 2015). The precautionary principle and, if applicable, associated interventions and conversions in the landscape, also outside protected areas, are generally covered by the Intervention Compensation Scheme (Eingriffs- und Ausgleichs- Regelung) (§13, 15, 17 BNatschG) with the basic idea of a general prohibition of deterioration for the state of nature and landscape should be avoided. Unavoidable adverse effects must be compensated by measures of nature conservation and landscape management (compensation and replacement measures) (Ausgleichs- und Ersatzmaßnahmen). If the impairments cannot be avoided or compensated for, the interests of nature conservation and landscape management must be givelic dagainst other public concerns/interests and justifications must be provided (BN 2002/2007). In particular, ecosystem functions should not be impaired and biodiversity should be preserved. For example, the German Federal Nature Conservation Act (BNatSchG) regulates the general protection of nature and landscape, the protection of certain parts of nature and landscape an adapted forest management compatible and connected with nature conservation aspects is reflected. Each federal state has its own land conservation law, which is linked to the Federal Nature Conservation dart. 72 GG. In 2011 the European commission adopted the "Biodiversity Strategy for Biodiversity (NBS)) with 330 objectives and 430 measures to improve biodiversity on national and regional level. The strategy is implemented,
	apparent.

	On federal state level are additional programs and startegies implemented or planned. An overview is provided in the "Biologische Vielfalt in Deutschland – Rechenschaftsbericht 2017". In those are in addition to the national strategy and independently as well measures described to maintain and improve biodiversity.
	Forest management measures are subject to the Federal Forest Act (BWaldG) (BMEL 2015) and the State Forest Acts (LWaldG), which fulfill the requirements of the BWaldG and require management and site planning. The occurrence of special conservation values is also considered, i.e. in forest management plans. §11 of the BWaldG requires on principle to consider the forest function "ecosystem" (BMEL 2015) in forest management activities.
	In addition to monitoring individual species, habitats in Germany are also protected through Natura 2000 management plans. Natura 2000 intends to conserve biodiversity and combine it with the sustainable development of land and natural resources.
	The multifunctional approach to forest management tries to take biodiversity protection into account, among other things by Forest conversion of coniferous and deciduous wood or increasing portions of dead wood to protect biodiversity. As described in indicator 1.1.1, the Forsteinrichtung is providing inventories of several categories, Natural habitats, biotopes, Natura 2000 areas and a lot more are identified, described and mapped. One part is the Waldbiotopkartierung (WBK) as integral part of the mapping of forest functions
	(Waldfunktionskartierung). In the later planning process, care measures are defined and put into long-term and annual planning. One aspect among many is the inventory of carbon stocks in forests. Here is the standing biomass and the soil carbon to mention and binding regulations for the proportion of dead wood (Microhabitats) per ha. The specific handling is regulated on federal state level in individual laws and regulations.
	As there is no established procedure to measure biodiversity, one approach is to determine the forest development phases in seven categories and monitoring the biodiversity in each phase. With mapping as shown below and the data from monitoring, a biodiversity indication could be derived. This is established common practice in several federal states in Germany and executed within the scope of regular forest inventories.
	Germany ranks on place 6 of the so-called Environmental Performance Indicators (EPI) for the aspect of biodiversity / habitats in 1st place as compared to international standards.
	Germany has developed a national Biodiversity Strategy that integrates the targets and which have been integrated i.e. in the BNatschG and progress is documented.
	On non-governmental side there is significant scientific research going on focusing on biodiversity, not at least as this topic gains more and more attention in the public awareness.
	The risk designation is 'low risk'.
Means of	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
Verificatio n	-Bundesamt für Naturschutz, Gesetz über Naturschutz und Landschaftspflege:

	(Bundesnaturschutzgesetz – BNatSchG). 2009
	-Bundesamt für Naturschutz (German Federal Agency for Nature Conservation)
	-Umweltbundesamt (UBA)
	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" 1.
	Article 12 "Protection Forest" (last amended by article 1 on the 17.01.2017)
	-Landeswaldgesetz: (LWaldG). 2000
	-"Natura 2000 und Wälder: Teil I-III."
	-Küchler-Krischun J. Dr., Walter A.M., "Nationale Strategie zur biologischen Vielfalt."
	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	-Naturschutz-Offensive 2020
	Biologische Vielfalt in Deutschland – Rechenschaftsbericht 2017
	https://www.lwf.bayern.de/mam/cms04/biodiversitaet/dateien/a63_mikrohabitate_lwfaktuell_ 63-13.pdf
	https://www.bfn.de/fileadmin/MDB/documents/themen/monitoring/BNatSchG.PDF
	http://www.umweltbundesamt.de/themen/nachhaltigkeit- strategieninternationales/umweltrecht/umweltverfassungsrecht/vorsorgeprinzip
Evidence	https://www.gesetze-im-internet.de/
Reviewed	https://www.bfn.de/die-nationale-strategie-2007_
	https://www.bmuv.de/download/fachinformation-des-bfn-zur-naturschutz-offensive-2020- des-bundesumweltministeriums_
	https://www.bmuv.de/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.5	The BP has implemented appropriate control systems and procedures for verifying that the process of residue removal minimises harm to ecosystems.
Finding	The German Forest Act states that the intention of the Forest Act is to maintain and protect forests of Germany and increase the forest area. An additional intention is to promote the sustainable management of the forests, including an explicitly stated objective of maintaining and increasing the biological diversity of the forests.
	Residues are removed in connection with thinnings, selective logging and clear cuts, carried out as an integrated part of the logging operations in forests. It is common practice to remove residues after felling operations, either for the production of biomass feedstock or for firewood. Removal of residues occur in connection with removal of wood vegetation from protected open habitats like heaths and bogs where the aim is to regulate the wood vegetation in order to maintain the characteristic of thee open habitats. As these habitats are generally protected by law the removal of wooden vegetation shall be carried out without negative impact on the ecosystem and consequently it would be illegal if residues are removed in a way that causes harm to these ecosystem. As mentioned in 2.2.3 there are appropriate control systems and procedures to ensure that ecosystems are protected. Unavoidable interventions and removal of high conservation value forests or habitats require a prior environmental impact assessment or a separate authorization from superior forest authorities. Water and soil are protected. Because of that, the damage by processes of residue removal is excluded or of minimised harm to ecosystems. Sustainable conservation of soil fertility is predefined by (federal) law (e.g. §4 & §5 Landeswaldgesetz Rheinland Pfalz). §7 of the Federal Soil Protection Law obliges (forest) owner to protect soils against threads to soil quality. The demand for energy wood has also made weaker assortments and crown material
	profitable and led to increased use. In the environmental policy debate, too, the use of energy wood plays an increasingly important role in reducing CO2 emissions. Forestry products are a considerable carbon sink both in conventional use and in the form of energy wood, or at least have a positive effect on the CO2 balance by substituting fossil fuels. In the general euphoria, it is often overlooked that there are also restrictions on different legislative level (e.g. §7 Bodenschutzgesetz; §4 & §5 Landeswaldgesetz Rheinland Pfalz; other federal state legislation) on the use of energy wood, which result from the functioning of forest ecosystems and their nutrient balance. Also as significant parts of the german forests are PFC and/or FSC certified, the respective regulations apply for the use of biomass.
	In the long term and sustainably, forest ecosystems only function according to the principle of closed nutrient cycles, as a "closed loop economy" (Fig. 2, left). In the unaffected primeval forest all absorbed nutrients are sooner or later returned to the soil via litterfall and deadwood. The nutrient losses here are very low and are in balance with the additional supply from the weathering of minerals and the input with precipitation.
	The situation is different when humans intervene: When forests are heavily polluted by pollutant inputs, the originally closed material cycles break down and nutrient losses occur with the seepage water (Fig. 2, right). Pollutants are introduced, nutrients leave the forest soil in exchange with the leachate. The material balance is disturbed and the soil acidifies. A similar situation occurs when nutrients are removed from the forest together with the biomass during use. The orange arrow in figure 2 symbolizes this withdrawal. The material inputs from the atmosphere also contain nutrients which, together with the weathering of minerals in the soil, can at least partially compensate for the nutrient losses caused by

	leachate discharge and use withdrawal. However, through intensified biomass use, forests can quickly experience greater losses than are covered by the revenues. This situation must be avoided in order to maintain the fertility of the soil as working capital undiminished.
	In practice the forest owner, besides being bound by law, is interested to preserve soil quality as one cornerstone of sustainable forest management and therefore future yields and profits from growth of the forest. As the majority of nutrients are accumulated in needles and leaves, this prevents a significant loss of nutrients. If the nutrients supply is decreasing, expensive countermeasures have to be taken to restore the supply by fertilizing. This is widely known and respected by forest owners, so the preservation of soil fertility and quality is in their own interest. As a consequence the soil situation is considered in common practice by the forest owners to which extend biomass is removed. For instance in spuce or pine forests most of the harvest residues are left in the forests and when broadleaf trees are harvested, the biomass is significantly later than the harvest removed to retain the leaves in the forest. If the forest is certified, the respective regulations have to be met anyway.
	As mentioned in indicator 2.2.2, the BZE ranked the nutritional conditions of trees in general as good. This indicator helps monitoring the soil conditions and gives indications on the necessary remain of biomass in the forests.
	Since 2009 there is data from the second Bodenzustandserhebung (BZE 2), to categorize forest soils according to their nutrients supply. (see also 2.2.2) The development of growth in forests with biomass use in form of forest residues is partially monitored by federal state forest authorities and by several research instituts to develop a
	documentation system and to give recommendations for future use of forest residues. (See also 1.1.1) There is no available evidence challenging a 'low risk' designation.
	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
	Bundesamt für Naturschutz, Gesetz über Naturschutz und Landschaftspflege:
	(Bundesnaturschutzgesetz – BNatSchG). 2009
	Bundesamt für Naturschutz (German Federal Agency for Nature Conservation)
Means of Verificatio	Umweltbundesamt (UBA)
n	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" 1.
	Article 12 "Protection Forest" (last amended by article 1 on the 17.01.2017)
	-Landeswaldgesetz: (LWaldG). 2000
	-"Natura 2000 und Wälder: Teil I–III."
	Küchler-Krischun J. Dr., Walter A.M., "Nationale Strategie zur biologischen Vielfalt
Evidence	https://www.bfn.de/fileadmin/MDB/documents/themen/monitoring/BNatSchG.PDF
Reviewed	http://www.umweltbundesamt.de/themen/nachhaltigkeit-

	strategieninternationales/umweltrecht/umweltverfassungsrecht/vorsorgeprinzip
	BWaldG - nichtamtliches Inhaltsverzeichnis (gesetze-im-internet https://www.gesetze-im- internet.de/)
	Gesetze des Bundes und der Länder: Startseite - Übersicht (lexsoft.d https://www.lexsoft.de/cgi-bin/lexsoft/justizportal_nrw.cgi)
	https://environment.ec.europa.eu/topics/nature-and-biodiversity_en
	https://www.bfn.de/die-nationale-strategie-2007
	https://www.waldwissen.net/technik/holzernte/boden/lwf_biomasse_naehrstoffentzug/index_ DE
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.6	The BP has implemented appropriate control systems and procedures to verify that negative impacts on ground water, surface water and water downstream from forest management are minimised (CPET S5b).
Finding	In Germany, the forests are bearing a legally binding protection status and which fulfil the following functions (in accordance with the federal forest act, §12): protection against damaging environmental influences sensu the German federal emissions protection act (Bundes-Immissionsschutzgesetz, BImSchG) of 15 March 1974 (Bundesgesetzblatt I, p. 721), erosion by water and wind, desiccation, damaging run-off of precipitation and avalanches. Mapping of forest functions for the individual forest areas, presents an overview and valuation basis concerning utility, protection and recreation functions. In addition to forest areas with particular importance for individual forest functions, the forest function map also includes topography and protected areas such as natural forest reserves, water protection areas, soil monuments or nature reserves.
	Forest function maps using the example of Lower Saxony. Here the individual protection zones including water protection areas are marked. Regulations of the silvicultural guidelines are based on the National Forest Act and the Federal Nature Conservation Act, which include the stipulations that forests have to be managed properly, advantageously and sustainably, retaining the function of the forest. The natural features of the managed site (soil, water, flora, fauna) must not be impaired beyond the extent

required to achieve a sustainable yield.

This applies to all federal states in Germany. More precise details for timber harvesting activities, technologies and forest management rules are incorporated in the silviculture guidelines, including minimum age, diameter, felling activities, skidding trails etc. The specific measure (harvesting under various conditions, forest road maintenance or building, pest or calamity management,...) provides specific risks to the environment. Not only regarding water protection, these guidelines request an individual risk potential analysis when planning the operations. Basis are for instance data from the Forsteinrichtung and all accompanying data like the mentioned Waldfunktionskarten etc. Result of the planning must be, that the risk to harm ecosystems, habitats or applicable is neglibgible. The use of such guidelines is mandatory to consider and implemented in common practice.

In addition to forest laws various other relevant laws do exist that (e.g.) regulate protection of soils, water bodies and other environmental values. They need to be considered when working in forests (e.g. Bodenschutzgesetz: Soil Protection Act).

Every federal state has the authority to monitor the implementation of the law by the forest supervision ("Forstaufsicht").

In general there are two kinds of negative impacts on water by biomass generation.

1.Contamination with substances

Certified forests and companies (PEFC and FSC) are obliged to use bio oils in machinery that are biodegradable. As contractors with own machinery work on order of the forest owners and the majority of forest areas is PEFC or FSC or both certified (see graphic below) the vast majority works with applicable certification standards and use biodegradable fluids. From time to time, federal state forest authorities take fluid samples and test for biodegradability.

Therefore most contractors work in private forests as if in certified forests, as they do not change back to mineral oil or switch to tires that are not soil protecting, for works in private forests.

2.consequences of biomass harvest concerning changed waterflow, erosion protection, etc. Prevention of such consequences is a matter of following best practise, certification requirements and not least applicable law. Biomass is typically a by-product of round wood harvest which has more economic value and therefore such harvesting operations are usually accompanied and controlled by the ordering forester to. Those controls then include the biomass harvest as well, so to say as a side- effect of roundwood- harvest. According to HedeDanmarks experience from "field", more than 90% of the operations are at least once visited by the responsible forester or client.

Maintaining the forests productivity is a crucial aim for future incomes and water protection, protection from erosion etc. is a key factor to achieve this aim. So beside laws and regulations, an intrinsic motivation of forest owners results in respective control mechanisms.

Forestry is a land use that is particularly beneficial to water protection. In this context, compliance with the legal framework, such as forest and water laws, is a basic requirement for water-protective forestry. The aim of sustainable and near-natural

	forestry, to preserve forest ecosystems adapted to the location, is generally in line with the requirements of effective water protection. The water-protecting effect of forests can be impaired by external factors, e.g. germination by wildlife, acidification and nutrient surpluses due to the combing effects of trees in the presence of air pollution.
	Non-forest biomass is harvested under the same preconditions as biomass from forests. Applicable laws and regulations are to be known and followed by executing companies. Depending on the federal state, the legislation predefines measures and behavior when working near or next to open water or with regards to ground water.
	As described in indicator 2.2.3, planned operations are often, sometimes mandatorily discussed with relevant authorities and detailed work instructions to ensure environmental protection in general, are given to the contractors.
	Also in contrast to forest works, the non-forest biomass is harvested under the eye of the public, what leads to an enhanced sensitivity with the contractors, as they must expect every violation against laws and regulations will be reported to police or authorities,
	According to interviews, the public opinion on allowed measures in usually more strict than applicable legislation.
	The Federal Nature Conservation Act ("Bundesnaturschutzgesetz") defines environmental requirements at a national level in Article 5 (Agriculture, forestry and fisheries). In addition to these Acts are various laws and regulations that define protection of environmental values (e.g. soils, water resources) and which have to be followed when working in forests. These are equally binding for all forest owners.
	On sites visits by authorities for water protection and nature conservation are done on a regular basis. It is obligatory to notify/register water and soil damages, e.g. as mentioned in the Soil Protection Act, the Water Resources Act.
	The following statistic shows the cases of violation against water protection laws nationwide. The cases refer to pollution of surface water, ground water and sea water in general. No specific data for forests is available.
	The case 'water' is also discussed in indicator 2.5.2. The risk designation is 'low risk'
	Wasserhaushaltsgesetz(WHG) vom 31. Juli 2009 (BGBI. I S. 2585) - "Water Resources
	Act" (last amended by article 1 on the 18.07.2017)
Morrow	Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) – "Soil
Means of Verification	Protection Act" 1. Article §17 ("Good agriculture practice")
vernication	- FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence	http://www.gesetze-im-internet.de/whg_2009/
Reviewed	https://www.umweltbundesamt.de/publikationen/umweltdelikte-2016-auswertung-von-

	statistiken https://de.dwa.de/de/agrarwende-angehen-gew%C3%A4sserschutz-beachten.html
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.7	The BP has implemented appropriate control systems and procedures for verifying that air quality is not adversely affected by forest management activities.
Finding	Germany has numerous laws, regulations, ordinances and directives designed to regulate environmental values and requirements. Federal state Forestry Departments are duty- bound to enforce and supervise regulations or obligations equally in all forest types. On sites visits by authorities for water protection and nature conservation are done on a regular basis.
	The aim of the German Air pollution Prevention and climate Protection Policy is to reduce air pollution and climate emissions in the long term. The exact knowledge of the emission situation is fundamental for the necessary strategies and measures. For this purpose, a reporting system has been set up with which the proportionate
	emission quantities are determined and published annually. This information and data are collected and calculated on the basis of national, European and international conventions and agreements. Emissions are reported in uniform structures, on specified dates and accompanied by comprehensive documentation and quality assurance and control regulations. In the national trend tables, the contributions of the individual source groups to the total emissions of greenhouse gases are shown. Other emissions are the absolute dominance of energy related emissions. Overall, emissions of greenhouse gases and other air pollutants have fallen significantly since 1990. Considerations of the individual components prove this trend to a different degree. In addition it needs to be mentioned, that the vast majority of the emissions referred to in the following statistic is emitted by the transport sector, the energy sector, industry, and the agricultural sector.
	There is no available evidence challenging a 'low risk' designation.
Means of	-Umweltbundesamt, nationale Trendtabellen für die deutsche Berichterstattung
Verification	atmosphärischer Emissionen seit 1990 – Development of air quality 1990-2017 (Stand
	02/2019)
	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-

	1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence Reviewed	https://www.umweltbundesamt.de/themen/luft/emissionen-von-luftschadstoffen https://www.umweltbundesamt.de/sites/default/files/medien/384/bilder/dateien/3_tab_emi -ausgew-luftschadst_2019.pdf Luftqualität 2022 Umweltbundesamt https://www.umweltbundesamt.de/publikationen/luftqualitaet-2022 https://www.baysf.de/fileadmin/user_upload/07- publikationen/2016/Grundsaetze_zum_Bodenund_Gewaesserschutz.pdf
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.8	The BP has implemented appropriate control systems and procedures for verifying that there is controlled and appropriate use of chemicals, and that Integrated pest management (IPM) is implemented wherever possible in forest management activities (CPET S5c).
Finding	Germany has numerous laws, regulations, ordinances and directives designed to regulate environmental values and requirements. Federal state Forestry Departments are duty- bound to enforce and supervise regulations or obligations equally in all forest types. There are no statistics available relating to regular on-site visits by relevant authorities focusing on environmental requirements; however on-site visits are a known measure of control and planning. On sites visits by authorities for water protection and nature conservation are done on a regular basis. It is obligatory to notify/register water and soil damages, e.g. as mentioned in the Soil Protection Act, the Water Resources Act. In cases of violations penalties are in place and are implemented. Environmental NGOs function as watchdogs, also the public is present in most of the forests
	 and natural sites for recreational purposes. According to forest authorities, most of the reported pollutions and violations of laws and restrictions, are reported by the public. For private forests, the silvicultural guidelines are only recommendations, but of course private forests are also bound to national and federal law. Regulations of the silvicultural guidelines are based on the National Forest Act and the Federal Nature Conservation Act, which include the stipulations that forests have to be managed properly, advantageously and sustainably, retaining the function of the forest. Fertilizers and pesticides must only be used in accordance with the provisions of the agricultural and forest legislation. In accordance with the German legislation fertilization in a conventional sense is excluded to

a major extent for forest management. Pesticides may only be applied in Natura 2000 areas if their use has been carefully tested for compatibility in a nature conservation approval procedure under EU nature conservation law.

The Federal Agency for Nature Conservation (BfN) and the Federal Environ ment Agency (UBA) have now developed a guideline for the competent state authorities on how to carry out this assessment. Natura 2000 sites, i.e. fauna, flora, habitat and bird sanctuaries, together form the EU network of protected areas Natura 2000, which was established to protect particularly endangered animal and plant species and habitat types. New scientific findings now show that the use of pesticides is particularly problematic in nature conservation terms. This is especially true when the agents are to be applied by helicopter, because such an application from the air does not allow the targeted treatment of individual trees, but inevitably affects larger areas.

If impairments of a Natura 2000 area and its protected assets cannot be reliably excluded by the use of pesticides, an FFH compatibility assessment must be carried out in any case. A permit may only be granted after a thorough investigation. BfN and UBA explain in their updated information paper "Plant protection with aircraft" which exact nature conservation regulations must be observed in the approval procedure for such applications

Common practise and communicated aim of all federal state forests and most of private forests is to keep the use of chemicals as low as possible. For cost reasons and not at least because of the (public) awareness. A core principle of integrated pest management in german forests is, that the use of pesticides is only to be considered as an ultima ratio, when all organisatory and technical countermeasures have proven insufficient.

In recent times hot and dry summers and mild winters lead to a wide spread of bark beetles in the central European regions. The mitigation measures are mostly harvesting of infected trees and areas. Those logs are commonly transported as fast as possible out of the forests to prevent further spreading. In parts this is not possible and the use of approved chemicals come to use on the log piles. This is regulated by applicable laws mentioned in the means of verification. Also it is common practise, that this work is closely monitored by foresters. In praxis, the use of chemicals in large scale is not efficiently to handle, as the piles to treat should not exceed 2m height and 20 scbm in volume. Otherwise only the top layer of logs is treated.

Due to the very high volumes of bark beetle infested logs that are harvested, the piles usually exceed hundreds of scbm. The method of choice by several federal state forest administrations for the moment is, to sell the beetle logs for very low prices under the condition to remove all volume shortly after the sale.

Therefore the use of chemicals in German forests is according to interviews with forest owners and foresters only an exemption in the scope of pest management.

Federal states have different legislation and regulation regarding the integrated pest management, the common practice does also differ due to different forest types, but laws like the "Bundesnaturschutzgesetz", "Bundeswaldgesetz" and more on state level, are forming the framework for chemical use, as state legislation is superior to federal state legislation.

If chemicals are used in forests, there is the obligation to have documentation of the details what chemical was used, how much, where it was used, who was involved. However, the use of chemicals on forest management unit is not reported to any entities, so there is no statistical data available. Interviews with forest management in federal state forests confirmed, that the extreme bark beetle outbreak lead to increased chemical usage in the hope to slow down or even prevent new infestiation.

One reported observation is, that the chemical pest control had only a negligible effect on the spreading. So the cost-benefit equation seems to be negative. Also working staff is rare and needed in other fields of pest control. According to interview partners, the use of chemicals in large scale, like treatment of log piles etc. is predicted to decrease. A selective use on small scale areas with regards to the individual situation with higher chance of success, will increase instead.

The following picture gives an overview of the information given on the approved chemicals within a database with all approved chemicals by the "Bundesamt für Verbraucherschutz und Lebensmittelsicherheit".

The chemicals law ("ChemG") function as a protection of dangerous substances. Germany ranks high on the worldwide governance indicator with rule of law and control of corruption, therefore it can be concluded that the existing legislation is effectively enforced. Chemicals could only be bought with a "Sachkundenachweis", a proof of competence according to §23 PflSchG.

At the moment 4 insecticides are approved by the "Bundesamt für Verbrauchersicherheit und Lebensmittelsicherheit" for use against bark beetles.

According to the IRAC classification, all are category 3A chemicals. The closest distance to use next to surface water is 40 meters. When applied correctly in the intended purpose, all are rated not dangerous for bees.

The active agents are instable in water and adhere to soil particles, where a degradation to non-toxic metabolites happens. According to research, no significant eluviation into ground water occurs.

PEFC takes all above into consideration and allows the uses of pesticides in cases of substantial dangers for the forest, under consideration of applicable plant- and environmental protection laws.

FSC does not allow the use of pesticides. If wood was treated, a period of 6 months need to pass, before it could be sold with a valid FSC claim.

As the form of application for products mentioned above, is direct and thick spraying on logs, an application by spraying from planes or helicopters would have almost none effect. The agent would deposit on branches and needles and not reach infested stem parts.

In general, the application by aircraft is forbidden in Germany and needs to be individually permitted by authorities.

There is on the other hand reported pest management by helicopter, against oak processionary. This caterpillar is benefiting from consequences of climate change as well and occurs in larger numbers as in the past. Not only is it a danger for oak forests, but also a significant danger to human health if getting in contact. Therefore an enforced fight against the spread is intended, especially in urban and non-rural areas. Forest areas are hardly target for this attention.

The application via aircraft is only approved, when other ground based methods are inadequate. As the oak processionary mainly lives in tree crowns, the tree height is one

	factor and helicopters come to use for heights above 20m. Also in contrast to bark beetle pest control, a deposition of active agents in the crown will be highly effective.
	There are 4 products approved for application via aircraft. The most commonly used agent against oak processionary is "Bacillus turengiensis". The mode of action works by degradation of larva intestinals. Technically it is not a chemical pest control, but biologically and strictly speaking not part of this indicator. For this indicator the area under assessment is determined to be 'low risk'.
	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
	1.Article §8 ("Protection of forest functions upon plannings and measures by public
	projects");Article §9 ("Preservation of the Forests"); Article §11("Management of
	forests");Article §41a ("Forest Monitoring")
	-Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) - "Federal
	Nature Conservation Act" 1. Article §5 ("Agriculture, forestry and fisheries")
	-Düngeverordnung (DüV) in der Fassung der Bekanntmachung vom 27. Februar 2007
	(BGBI. I S. 221) – "Fertilizer legislation"
	-Düngemittelverordnung (DüMV) vom 5. Dezember 2012 (BGBI. I S. 2482) - "Fertilizer
Means of	ordinance"
Verificatio	
n	Chemikaliengesetz (ChemG) in der Fassung der Bekanntmachung vom 28. August 2013
	(BGBI. I S. 3498, 3991)– "Chemicals Act"
	Pflanzenschutzgesetz (PflSchG) vom 6. Februar 2012 (BGBI. I S. 148, 1281) – "Plant
	Protection Act"
	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	Merkblatt - Aufzeichnungspflicht für die Anwendung von Pflanzenschutzmitteln gemäß
	Verordnung (EG) 1107/2009 und § 11 PflSchG
Evidence	https://www.waldwissen.net/de/waldwirtschaft/schadensmanagement/pflanzenschutz/insekti
Reviewed	zide-gegen-borkenkaefer
	https://www.fva-bw.de/fileadmin/publikationen/wsinfo/wsinfo2007_01.pdf
	https://www.wald-und-

	holz.nrw.de/fileadmin/Forstwirtschaft/Borkenkaefer/190401_Merkblatt_Spritzapplikation.pdf https://bfw.ac.at/400/pdf/fsaktuell_43_4.pdf https://www.umweltbundesamt.de/themen/chemikalien/pflanzenschutzmittel/im- hubschrauber-gegen-eichenprozessionsspinner-co https://www.waldwissen.net/de/waldwirtschaft/schadensmanagement/pflanzenschutz/insekti
	zide-gegen-borkenkaefer https://www.fva-bw.de/fileadmin/publikationen/wsinfo/wsinfo2007_01.pdf https://www.wald-und- holz.nrw.de/fileadmin/Forstwirtschaft/Borkenkaefer/190401_Merkblatt_Spritzapplikation.pdf
	https://bfw.ac.at/400/pdf/fsaktuell_43_4.pdf https://www.umweltbundesamt.de/themen/chemikalien/pflanzenschutzmittel/im- hubschrauber-gegen-eichenprozessionsspinner-co
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.2.9	The BP has implemented appropriate control systems and procedures for verifying that methods of waste disposal minimise negative impacts on forest ecosystems (CPET S5d).
Finding	There are no significant impacts – from forest management activities or other forestowner-mandated activities – due to waste disposal in forests under any type of ownership in Germany.Interviews with foresters did not show that harvesting or any other forest works lead to waste disposal in the forests, put aside single cases that were reported and pursued. The majority of waste disposal originates from forest visitors. Littering and illegal waste disposal in German forests do occur along roads, parking spaces and recreational facilities, especially where these occur near cities and recreational sites that are often visited by forest guests. Whenever possible, the source
	of the waste is identified and authorities notified. The purpose of the circular economy and waste disposal law (KrW-/AbfG) promotes the circular economy to conserve natural resources and ensure the environmentally sound disposal of waste. This law applies maturely to forest works as well. In reference to the aspect of sustainability (2.4.2), forest management in Germany ensures the preservation of health, vitality and ecosystem services of the forests. The risk of negative impacts from waste disposal in forest is

	assessed to be 'low'.
Means of Verification	-Existing legislation -Level of enforcement -Regional best management practices -KrW-/AbfG - Kreislaufwirtschafts- und Abfallgesetz Gesetz zur Förderung der Kreislaufwirtschaft und Sicherung der umweltverträglichen Beseitigung von Abfällen, vom 27. September 1994 – "circular economy and waste disposal law"
Evidence Reviewed	https://umwelt-online.de/recht/abfall/krwabfg/krw_ges.htm http://www.gesetze-im-internet.de/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.3.1	Analysis shows that feedstock harvesting does not exceed the long-term production capacity of the forest, avoids significant negative impacts on forest productivity and ensures long-term economic viability. Harvest levels are justified by inventory and growth data.
Finding	Harvesting permits do not exist in Germany. The legal owner of the forest is allowed to harvest or to sell harvesting rights, without additional permits. Related to activities in private to the purchase tenancy of claims the legislation shall not be violated (concerning taxes protection). Official national forest inventories ("Bundeswaldinventur") do exist in Germany, the last one was finished in 2012. The inventories are subject to binding regulations in the German Forest Act. Forest inventories form the basis of forest planning for each forest organization. The main goals of management planning are to plan and evaluate the sustainable use of forest resources, to control felling activities and to comply with sustainability. To take account of long-term developments in forestry, every ten to 20 years, public organizations establish a mid-term framework report ("Forsteinrichtung"), for which responsibility occurs at sovereignlevel. The following chart shows the stock of standing wood and how it developed between 2002 and 2012. In general it could be stated, that continuously the forest area and the growing stock (see below) is increasing.

When planning occurs in relation to public or private forests, reports have to be sent to the corresponding forest authorities for evaluation and control. Private organizations that are not obliged to do planning are subjected to a control mechanism by the tax assessment. The preparation of mid-term framework reports is done by officials or freelancing consultants. The results of the National Forest Inventory ("Bundeswaldinventur") 2012 have demonstrated that the average timber stocks in German forests rose compared to earlier inventories, which is an indicator of sustainable forestry and proper planning.

The legal background for monitoring and planning is clearly regulated and enforced. Due to the good governance and law enforcement indicators described in the introduction, it can be concluded that are no enforcement deficits. Management plans are public available.

Planning and sustainable management is described in the statute books: Mid-term management planning ("Forsteinrichtung") and annual planning ("Forstbetriebsgutachten") are required in most cases. When plans are submitted to and approved by forest departments, harvesting measures are assumed, based on this planning. Therefore, the owner of the area or the harvesting rights does not need to ask for permission to carry out harvesting activities.

Regulations of the silvicultural guidelines are based on the National Forest Act and the Federal Nature Conservation Act, which include the stipulations that forests have to be managed properly, advantageously and sustainably, retaining the function of the forest. A site- adapted selection of species a persistent soil fertility for long-term usability must be ensured, the natural features of the managed site (soil, water, flora, fauna) must not be impaired beyond the extent required to achieve a sustainable yield. Regarding the use of woodlands for forestry purposes, the aim must be to establish seminatural forests and to manage these sustainably without clear-cuts; with an adequate proportion of native woodland plants retained. Clear-cutting is prohibited, unless afforestation is completed in a reasonable time.

Conversion of forests into any other form of land use is only allowed with a permission of a Federal State authority ("Forstbehörde"), when appropriate compensation measures take place.

This applies to all federal states in Germany. More precise details for timber harvesting activities, technologies and forest management rules are incorporated in the silviculture guidelines, including minimum age, diameter, felling activities, skidding trails etc. In addition to forest laws various other relevant laws do exist that (e.g.) regulate protection of soils, water bodies and other environmental values. They need to be considered when working in forests (e.g. Bodenschutzgesetz: Soil Protection Act).

Forestry in Germany adheres to the concept of the multifunctionality of forests, as is reflected among other things in the legal intent of the Federal Forest Act. This means that the forest area shall be preserved, increased and sustainably managed not only for its economic utility but also for its environmental values (e.g., the hydrological cycle, climate, landscape aesthetics, recreation) (BMEL, 2015).

Municipal public forests in most federal states are managed and thus supervised by state authority foresters, so that control mechanisms exist. Private forest organizations, which are bound only to ten-year planning, are thus controlled every ten years and, if the forests are not sustainably managed, the organizations are sentenced. For small forests with no planning, statutory possibilities for punishment do exist, if laws are not adhered to. We are not aware of relevant cases in which sustainability was seriously compromised by small forest organizations.

As a consequence of storms, extreme dry years and a following bark beetle calamity, the volumes of calamity roundwood grew since 2017 from 12 mio scbm to 70 mio scbm in 2019. The predicted figures for 2020 in the following graph are most likely to be even higher than 2019.

Mainly affected by bark beetles is spruce in mid Germany and in the southern regions. Also eastern France, Czech Republic and Poland report bark beetle outbreaks and significant volumes of damaged wood. Those mono-culture-like areas are often historically planted spruce forests on sites, where Spruce normally would not be dominant. One example is the Harz Region in the middle of Germany, where Spruce was planted in past centuries to meet the demand of fast growing wood for the mining industry, to smelt ore and stabilize mine shafts. After the second world war, reparations claims of victorious powers lead to clear cuts in many forests. Replanting Spruce was a common way to aim for a quick reforestation.

Exponential growth of bark beetles in the extreme years 2018 and 2019 led to high volumes of infested trees. A high population pressure among the beetles led to quick infestation and death of healthy trees, even beyond pure spruce.

Those infested trees and harvested logs, are to be removed from the forests as quickly as possible to prevent surrounding trees to be infested as well. As a result, some beetle stricken areas were clear cut.

The "Bundesministerium für Landwirdschaft und Ernährung" stated in June 2020, that

285.000 ha are tob e replanted as the forest is a key factor for climate protection, biodiversity and raw material source.

In 2019 a key issue paper was published to address the most important topics to deal with this crisis and open discussion for the announced Forest Strategy 2050. One result of the discussion, are financial aids of about 800 mio € until 2024. This includes beside replanting, the removal of infested trees, slowing down/preventing further infestation...

To cope with the changing conditions due to the climate change, scientific projects have been started on many levels, as several challenges are to be met.

è Selection of species to plant. The specific impacts of changing climate is only based on modulation. Diversification should be a key element. Also following an approach of the LWF Bavaria, to generate maps with regional risk based planting recommendations.

è Establishing high supplies of seeds and nursed trees. In addition an infrastructure to be able to replant such areas in adequate time.

è Transfer the knowledge to private forests. Strongly specified financial aids could act as incentives to restock forests in sustainable ways, instead of financially focused.

At this moment, there is no definite strategy what to plant and how to do it. Undoubtedly the areas are planned to be restocked with trees that cope with upcoming challenges of the ongoing climate change and lead to an ongoing, emotional debate, how to achieve

	this. One approach is to decrease the game density massively in afflicted regions to maximize natural regeneration. This debate started in the 80's in the last century and are now more up to date than ever
	Until now, there is no governmental discission made, but a legislative draft was issued to amend the "Bundesjagdgesetz" in 2020.
	Interviews showed that foresters are pleading for an amendment toward lower game density, as traditional hunters care for higher numbers to pursue their hobby. The approach of lower density is also favoured by forest scientists.
	Even though non-forest biomass is not assessed in this indicator, it is worth mentioning, that, where applicable, the long term viability and productivity is taken care of. As mentioned in 2.2.3 and 2.2.6, there is often a close cooperation with authorities in advance, when it is not a standard measure. This results in quite specific work regulations and instructions. Non-forest biomass is mainly generated while areas are (completely) cleared for construction projects like industrial site or infrastructure projects. In those cases, there is always an official approval from one or more authorities with regards to binding laws. This ensures appropriate compensatory measures and guarantees that the whole process was revised by governmental officials, regarding legal, social and ecological aspects.
	Another source is road, rail, canal, etc. maintenance and securing the traffic safety. Top priority here is the avoidance of harm to human health, which ranks higher than ecological concerns. Nevertheless those measures are carefully planned and underlie defined regulations, depending on the state and responsible authority. As the correct execution of commissioned works is relevant to safety, the control mechanisms are quite strong.
	The public sector is the biggest contracting entity for landscaping companies in Germany. From interviews and reviewed evidence, it if fair to contend, that biomass from those measures is bound by laws, closely controlled and often in cooperation with competent authorities. Therefore legality and sustainability for this biomass category are determined "low risk"
	For this indicator the area under assessment is determined to be 'low risk'.
	As the discission process on measures is still ongoing, this indicator will be surveyed
	regularly.
Means of	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
Verification	1. § 41: Inventory Forest acts of the federal states
	Richtlinie zur Forsteinrichtung ("Guideline for Forest Planning")
	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076

Evidence Reviewed	Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) – "Soil Protection Act" Deutschlands Wald im Klimawandel – Eckpunkte und Maßnahmen Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" 1. § 41: Inventory Forest acts of the federal states Richtlinie zur Forsteinrichtung ("Guideline for Forest Planning") FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076 Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) – "Soil
	Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) – "Soil Protection Act" Deutschlands Wald im Klimawandel – Eckpunkte und Maßnahmen
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.3.2	Adequate training is provided for all personnel, including employees and contractors (CPET S6d).
Finding	Generally, forest managers and workers in Germany have a high level of education. Basic training for skilled forest workers lasts three years and includes both practical placement and classroom education. The curriculum includes forest mechanization, ergonomics, health and safety, forestry techniques, biology and economics.
	The ministry of education approves the curriculum. Shorter and more specific courses are also available and even unskilled forest workers and contractors typically attend one or more trainings every year. Foresters in Germany receive mandatory training in accordance with safety procedures
	and accident prevention. New technices from forest research or non-governmental institutions like the Kuratorium für Wald- und Forstwirtschaft (KWF) are adapted and new

	equipment is tested if it supports work safety.
	Personal protective equipment for foresters, or PPE forestry for short, is intended to help reduce the risk of injury when working in the forest, particularly when using a chain saw. The following five items of equipment are part of a complete protective equipment: The protective helmet for forestry work must be equipped with face and ear protection and comply with DIN EN 397, 352 and 1731. It should protect against falling branches. The wire mesh visor shows as much as possible, but protects eyes and face from whipping branches, splinters or sawdust. The helmet also indicates the location of the worker in a warning colour. Hearing protection is essential to prevent permanent damage to hearing due to the noise of the chain saw. A work jacket with sections in signal colours should indicate the location of the forest worker. Protective gloves according to DIN EN 420 and 388. A cut protection trousers should protect against injuries when working with a chain saw. On contact with the running saw chain, larger bundles of the long plastic fibres incorporated in the trousers (cut protection insert) are pulled out, wrap themselves around the chain saw drive wheel and block it in a fraction of a second. The cut protection trousers must comply with DIN EN 381 Parts 2 and 5.
	Safety shoes or boots must have an upper length of at least 19.5 centimetres and be equipped with a non-slip sole, toe cap, ankle protection and cut protection in accordance with DIN EN 345 and 344 Part 2.
	The risk for this indicator has been assessed as 'low'.
Means of	Existing legislation
Verification	Level of enforcement
Evidence	https://www.forstwirtschaft-in-deutschland.de/forstwirtschaft/arbeitgeber-
Reviewed	forstwirtschaft/forstwirt-in/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.3.3	Analysis shows that feedstock harvesting and biomass production positively contribute to the local economy, including employment.
Finding	Nearly 500.000 people were employed in the wide range of the forest-, wood- and paper industry in Germany in 2017. The vast majority of forest areas in Germany are privately owned, although the regional distribution of ownership types varies greatly. For example,

	the proportion of private forest varies between 24% in Hesse and up to 67% in North Rhine-Westphalia. The majority of those private forests consist of forest areas < 2ha and the majority of the forest working companies are one-man companies or smaller 5 employees. As those companies work on a very regional level, the local economy is benefiting.
	Depending on the used source, up to 1.2 million people work in the wide frame of the
	wood cluster, what makes it the cluster with the most employees in Germany
	Accordingly, for this indicator the area under assessment is determined to be 'low risk'.
Means of	Agentur für Erneuerbare Energien – agency for renewable enery Unemployment
Verification	statistics, employment statistics
	https://www.unendlich-viel-energie.de/themen/wirtschaft/arbeitsplaetze
Evidence	https://de.statista.com/statistik/daten/studie/1223/umfrage/arbeitslosenzahl-in- deutschland-jahresdurchschnittswerte/
Reviewed	https://de.statista.com/statistik/daten/studie/71776/umfrage/arbeitsplaetze-im-bereich- erneuerbare-energien/
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.4.1	The BP has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).
Finding	Important large-scale landscape ecosystems have been identified and placed under protection in the form, for example, of national parks. Management for forestry purposes is either prohibited or partially regulated. Although representatives of nature conservation interests may wish to see specific improvements in relation to the management of HCVs, essentially the risk based on the foreseeable threat of further fragmentation of the overall area of the landscape ecosystem and mosaics. The size of clear-cutting is regulated by law in Germany. Clear cuttings, which could lead to fragmentation on the size of landscape ecosystems, are in any case subject to approval and may require compensation and compensation. The licensing requirement also applies to theconversion of forest areas. To protect landscape cosystems and mosaics from fragmentation, different approaches arepursued in Germany. Forest habitats and landscape ecosystems with forests are under protection and often setaside from forest management activities or managed with low intensity forest management. The

conservation value is present in the form of Natura 2000/habitat types of the Habitats directive (with exception of beech forest habitat types 9110 and 9130) and in the form of sites protected under the Federal Nature Conservation Act as landscape-level ecosystems andsmall habitats. Germany possesses 8,676 nature protection areas (BfN, 2016; Adler, 2014).In addition, the Federal Nature Conservation Act (§30), the Federal State Nature Conservation Laws (e.g., LNatSchG BaWü, §24a) and the State Forest Laws specify special biotopes. Relevant forest biotopes in this context are fen woods, swamp forest, riparian forest, ravine forest, forest on stone runs, talus forest and subalpine larch and larchSwiss pine forests (BfN, 2016). According to the national forest inventory (BWI) (BMEL, 2015), especially protected biotopes occupy ca. 593,000 ha, or 5 % of the forest area. In most cases (77 %) these are fen woods, swamp forest or riparian forest.

Certificates of exemption that give priority to timber production over other ecosystem services are issued only after an official impact assessment in individual cases. The threat assessment is, therefore, classified as 'low risk.'

As mentioned in criterion 2.4.2 the natural processes in forests are managed responsible. The forest management does not endanger food or water supply as carved out in criterion 2.5.2.

In reference to the aspect of sustainability (2.4.2), forest management in Germany ensures the preservation of health, vitality and ecosystem services of the forests.

The status of protected sites is documented and monitored in the midterm

planning (Forsteinrichtung) and is therefore respected when planning management measures. Controls are carried out by forest control (Forstaufsicht), employees of the Nature Conservation Federal Agency or by the police.

Environmental values in relation to timber harvesting activities are covered by Articles 8, 9 and 11 in the National Forest Act which contains effective regulations, but also the regulative framework for federal state laws. Further environmental requirements are also defined by each federal state in their guidelines for silviculture which are binding for municipal forests and state forests.

The Federal Nature Conservation Act (Bundesnaturschutzgesetz) defines environmental requirements at a national level in Article 5 (Agriculture, forestry and fisheries). In addition to these Acts are various laws and regulations that define protection of environmental values (e.g. soils, water resources) and which have to be followed when working in forests. These are equally binding for all forest owners (e.g. Bundes-Bodenschutzgesetz (BBodSchG): Soil Protection Act; Düngemittelgesetz (DüV): Fertilizer legislation; Düngemittelverordnung (DüMV): Fertilizer ordinance; Wasserhaushaltsgesetz (WHG): Water Resources Act; Europäische – Wasserrahmenrichtlinie: European Water Framework Directive).

Germany signed the Convention on Biological Diversity in 1992. In cases of violations penalties are in place and are implemented.

	The risk designation is 'low risk'.
Means of Verification	 Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" Article §8 "Protection of forest functions upon plannings and measures by public projects" - Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) – "Soil Protection Act" 1. Article §17 ("Good agriculture practice") - Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) - "Federal Nature Conservation Act" 1. Article §5 ("Agriculture, forestry and fisheries") - Wasserhaushaltsgesetz(WHG) vom 31. Juli 2009 (BGBI. I S. 2585) - "Water Resources Act" - Düngeverordnung (DüV) in der Fassung der Bekanntmachung vom 27. Februar 2007 (BGBI. I S. 221) – "Fertilizer legislation" - Düngemittelverordnung (DüMV) vom 5. Dezember 2012 (BGBI. I S. 2482) - "Fertilizer ordinance" - C Chemikaliengesetz (ChemG) in der Fassung der Bekanntmachung vom 28. August 2013 (BGBI. I S. 3498, 3991)– "Chemicals Act"
	Forest function mapping (mapping of forest functions like water, soil, air)
	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	https://www.gesetze-im-internet.de/bbodschg/
	http://www.gesetze-im-internet.de/chemg/index.html
Evidence	http://www.gesetze-im-internet.de/whg_2009/
Reviewed	https://www.bfn.de/monitoring-fuer-naturschutz
	https://geodienste.bfn.de/schutzgebiete?lang=en
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.4.2	The BP has implemented appropriate control systems and procedures for verifying that natural processes, such as fires, pests and diseases are managed appropriately (CPET S7b).
Finding	Germany has numerous laws, regulations, ordinances and directives designed to regulate environmental values and requirements. Federal state Forestry Departments are duty-bound to enforce and supervise regulations or obligations equally in all forest

types. There are no statistics available relating to regular on-site visits by relevant authorities focusing on environmental requirements; however on-sitevisits are a known measure of control and planning. On sites visits by authorities for water

protection and nature conservation are done on a regular basis. Environmental NGOs function as watchdogs (see also CW Category 3) and bring up cases of

non-compliances, which might lead to law cases and/or penalties respectively correction measures. For example, the German Federal Nature Conservation Act (BNatSchG) regulates thegeneral protection of nature and landscape, the protection of certain parts of nature and landscape as well as of wild animal and plant species. Species and area protection, recreational use, provision for fines and penalties are addressed as well (BfN 2009). But also an adapted forest management compatible and connected with nature conservation aspects is reflected. Each federal state has its own land conservation law, which is linked to the Federal Nature Conservation Act according to Art. 72 GG.

Due to a very good structure of fire brigades in Germany, forest fires are effectively dealtwith. In case of bigger fires, within the scope of administrative assistance, the German armed forces could be installed as support. The forest act requires that forest owners maintain forest cover on forest land, as well as establishing resistant and resilient forests towards calamities such as pests, wind and climate change.

The main natural process that has negative impact on forests are storm calamities. Since 2017 exceptional growth in bark beetle populations, due to already weakened by storm, in forest areas, lead to a new form of calamity. It is the responsibility of the forest owners and/or managers to apply silvicultural methods that improve the stability of forest stands.

As a response to this thread, the government decided in 2019 to provide financial aids of 800 mio \in for the next 4 years to protect forest resources and replant infected areas.

In addition the forest structure at least in federal state forests is going to be changed from partially monoculture to a wider mix of species to help the forest dealing with calamities by natural resistance. Those measures are included in the strategic forest management planning.

Official national forest inventories (BWI) do exist in Germany, the last one was finished in 2012. The inventories are subject to binding regulations in the German Forest Act. Forest inventories form the basis of forest planning for each forest organization. The main goals of management planning are to plan and evaluate the sustainable use of forest resources, to control felling activities and to comply with sustainability. That ensures the development of sustainable and stabile forests to resist calamities.

As a countermeasure the salvage loggings overall and specifically due to bark beetle infection were increased. The following statistic, provided by the Federal Statistical Office, shows the regional effects on federal state level. Representative areas of natural forest habitats and valuable ecosystems are identified and some of these have been given a protection status. Nature conservation and species protection as well as biodiversity conservation are already incorporated in the German legislation both at federal and state level. The Federal nature conservation act regulates the conferral of protection status on monuments of natural heritage and natural monuments.

Protection measures are effective and sufficient, as several laws do exist (such as BWaldG, BNatschG, DSchG) and intensive mapping takes place.

	The risk designation is 'low risk'.
Means of Verification	Federal Nature Conservation Act (BNatschG) Articles §§14 "Interventions in nature and landscape", 15 "Obligations of the intervening party, inadmissibility of intervention; authorization to issue statutory ordinances", 17 "Procedures; authorization to issue statutory ordinances" (Protective sites §§ 23, 24, 25, 26, 27, 28, 29, 30, 31) Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" 1. § 41: Inventory Forest acts of the federal states -Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) - "Federal Nature Conservation Act" 1. Article §5 "Agriculture, forestry and fisheries" Forest acts of the federal states FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d-e10585a67076
Evidence Reviewed	http://www.gesetze-im-internet.de/index.html http://www.gesetze-im-internet.de/bnatschg_2009/BNatSchG.pdf Schutzgebiete in Deutschland https://geodienste.bfn.de/schutzgebiete?lang=en)
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.4.3	The BP has implemented appropriate control systems and procedures for verifying that there is adequate protection of the forest from unauthorised activities, such as illegal logging, mining and encroachment (CPET S7c).
Finding	Germany enjoys well established forest legislation across all of the federal states. The legislation is applied reliably with respect to the legality of forest wood harvesting measures. Germany scores 79 points on the Corruption Perceptions Index (CPI) 2022 on

Means of Verification	a scale from 0(highly corrupt) to 100 (very clean). Germany ranks 9 th out of 180 with rank nr.1 being the cleanest country. Legal authority is given by the Federal Ministry of Finance and wood trading is recorded Germany is not reported as a source for illegal timber. As far as FSC Germany is aware, Germany is not reported as a source of conflict wood. There is a high level of law enforcement in Germany. Trading within Germany is regulated as described in the Handelsgesetzbuch or HGB (Commercial Code), which is also binding for forestry companies (HGB §§2.3). Forestry companies must follow the trading laws described in the Commercial Code. A special case exists for companies that harvest timber in primary forests (HGB §§2.41), but this has nopractical relevance in Germany. All documents are sent to the finance authorities for verification – also irrespective of size, turnover quantity and form of organization. All cash flows have to be documented to verify and to avoid illegal and black market profits. There are only occasional reports on timber thefts, what is backed up by the following statistic that shows the estimated illegal logging volume in Germany is 0. According to staff interviews and discussions with federal state foresters, illegal logging in Germany is, if any, happening due to unclear property boundaries, misread maps or comparable reasons. HedeDanmark has implemented control mechanisms according to FSC Controlled Wood and staff in field is updated in this regard. As already mentioned, Germany ranks high on the worldwide governance indicator with rule of law as well as above the Corruption Perception Index, which states the effectiveness of law enforcement. Legal authority is the Federal Ministry of Finance and wood trading is recorded with the aid of bills or purchase agreements. It is assessed that the risk from unauthorised activities in German forests is 'low'.
	Holzzentralblatt (Nummer 10; 2012) – "Holz aus illegalem Einschlag in Deutschland und in der EU"
	https://www.transparency.org/en/countries/germany
Evidence	http://d2ouvy59p0dg6k.cloudfront.net/downloads/failingforests.pdf
Reviewed	https://literatur.thuenen.de/digbib_extern/dn060162.pdf
Risk Rating	Low Risk

Comment or Mitigation Measure	Not Applicable
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	Indicator
2.5.1	The BP has implemented appropriate control systems and procedures for verifying that legal, customary and traditional tenure and use rights of indigenous people and local communities related to the forest, are identified, documented and respected (CPET S9).
2.5.1 Finding	communities related to the forest, are identified, documented and respected (CPET S9). Tenure rights are determined through the German Constitution and the Civil Code("Bürgerliches Gesetzbuch"). Ownership of estates is documented in the Land Charge Register ("Grundbuch"). Customary rights to forest products do not legally exist; but there are traditions that are respected. These, however, refer to a small scale and small amount of use (e.g. traditional collection of non-merchantable wood by local citizens). In some cases, customary rights are registered via entries in the land register. Based on United Nations and ILO definitions, no indigenous people exist in Germany. Also, there is no Act in the German Constitution concerning indigenous people. Therefore, this indicator is not really applicable. In 2013 the Federal Cabinet has adopted a draft Law for the Improvement of Public Participation and Standardization of Planning Procedures (PIVereinhG). With this Act, the Federal Government ensures that greater public participation is achieved in large projects. The law also serves to harmonize special regulations from different technical laws. Overall, plan approval procedures are in principle simplified and accelerated. The Law for Freedom of Information (IFG) provides a precondition for access to official information of federal authorities. The entitlement to information or access to the files in the authority: Everyone is entitled to claim (Jedermannsrecht); There is no need to be concerned about the matter, either legally or actually. The information claim can be restricted, in particular by public and private information, participate in consultation and make statements. Identified laws are upheld. Cases where law/regulations are violated are efficiently followed up via preventive actions taken by the authorities and/or by the relevant entities. Recognized and fair processes regulating conflicts surrounding traditional rights, including land use, are anchored in the German legislation. Som
	2.5). There is no evidence leading to a conclusion of presence of indigenous and/or traditional peoples in the area under assessment; AND Other available evidence do not challenge 'low risk' designation.

Means of Verification	Grundgesetz für die Bundesrepublik Deutschland vom 23. Mai 1949 (BGBI. I S. 2438) "German Constitution" - Article 14 Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2. Januar 2002 (BGBI. I S. 42, 2909; 2003 I S. 738) "German Civil Code" - § 873 (1): Acquisition by agreement and registration Grundbuchordnung in der Fassung der Bekanntmachung vom 26. Mai 1994 (BGBI. I S. 1114) GBO - "Landbook Rule" -Law for Freedom of Information (Gesetz zur Regelung des Zugangs zu Informationen des Bundes (Informationsfreiheitsgesetz - IFG)) "Informationsfreiheitsgesetz vom 5. September 2005 (BGBI. I S. 2722), das durch Artikel 2 Absatz 6 des Gesetzes vom 7. August 2013 (BGBI. I S. 3154) geändert worden ist" -Law for the Improvement of Public Participation and Standardization of Planning Dragedward (Ocentr and Victore energy der Öffentlichschligingen und
	Procedures (Gesetz zur Verbesserung der Öffentlichkeitsbeteiligung und Vereinheitlichung von Planfeststellungsverfahren" (PIVereinhG)) -Definition of UN -ILO Dossier on Indigenous People (pp. 5 ff.) FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence Reviewed	Grundgesetz für die Bundesrepublik Deutschland vom 23. Mai 1949 (BGBI. I S. 2438) "German Constitution" - Article 14 Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2. Januar 2002 (BGBI. I S. 42, 2909; 2003 I S. 738) "German Civil Code" - § 873 (1): Acquisition by agreement and registration Grundbuchordnung in der Fassung der Bekanntmachung vom 26. Mai 1994 (BGBI. I S. 1114) GBO - "Landbook Rule"
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.5.2	The BP has implemented appropriate control systems and procedures for verifying that production of feedstock does not endanger food, water supply or subsistence means of communities, where the use of this specific feedstock or water is essential for the fulfillment of basic needs.
Finding	Access to forests is generally permitted by law and is respected. Regulations of the silvicultural guidelines are based on the National Forest Act and the Federal Nature Conservation Act, which include the stipulations that forests have to be managed properly, advantageously and sustainably, retaining the function of the forest. the natural features of the managed site (soil, water, flora, fauna) must not be impaired beyond the extent required to achieve a sustainable yield. This applies to all federal states in Germany. More precise details for timber harvesting activities, technologies and forest management rules are incorporated in the silviculture guidelines, including minimum age, diameter, felling activities, skidding trails etc. In addition to forest laws various other relevant laws do exist that (e.g.) regulate protection of soils, water bodies and other environmental values. They need to be considered when working in forests (e.g. Bodenschutzgesetz: Soil Protection Act). The Federal Nature Conservation Act Bundesnaturschutzgesetz) defines environmental requirements at a national level in Article 5 (Agriculture, forestry and fisheries). In addition to these Acts are various laws and regulations that define protection of environmental values (e.g. soils, water resources) and which have to be followed when working in forests. These are equally binding for all forest owners (e.g. Bundes-Bodenschutzgesetz (BBOSchG): Soil Protection Act; Düngemittelgesetz (DüV): Fertilizer legislation; Düngemittelverordnung (DüMV): Fertilizer ordinance; Wasserhaushaltsgesetz (WHG): Water Resources Act; Europäische – Wasserrahmenrichtlinie: European Water Framework Directive). On sites visits by authorities for water protection and nature conservation are done on a regular basis. It is obligatory to notify/register water and soil damages, e.g. as mentioned in the Soil Protection Act, the Water Resources Act. Mapping of forest functions for the individual forest area, presents an overview and valuation basis concerning utility
	activities in the area under assessment. Fundamental, endangered ecosystem services including the protection of water catchment areas and protection against the erosion of endangered soils and slopes. In Germany these are forests bearing a legally binding protection status and which fulfil the following functions (in accordance with the federal forest act, §12): protection against damaging environmental influences according to the German federal emissions protection act (BundesImmissionsschutzgesetz, BImSchG) of 15 March 1974 (Bundesgesetzblatt I, p. 721), erosion by water and wind, desiccation, damaging run-off of precipitation and avalanches. There is no compromising of fundamental needs by forest management activities in Germany. Access to forests is legally regulated and the provision of recreation forest is a part of the multifunction al approach to forest management. Local restrictions may arise in isolated cases, for example, during harvesting operations, but these are provided for legality. In Germany the regular biomass in form of wood chips is produced from stem wood, forest residues, thinnings or from landscaping measures. These production areas are not competing against agricultural areas, as they are clearly separated by law and the land use form is not allowed to be changed without permissions by responsible authorities.Biomass

	production from short rotation plantation is also regulated by authorities and doesnot play a significant role in Germany. Based on the above, it is concluded that there is ow risk of
	non-compliance with therequirement. Other available evidence does not challenge a 'low risk' designation. Therefore the risk designation for this indicator is 'low risk'.
	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
	1. Article §8 "Protection of forest functions upon plannings and measures by public projects"
	-Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) – "Soil
	Protection Act" 1. Article §17 ("Good agriculture practice")
	-Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) - "Federal
	Nature Conservation Act" 1. Article §5 ("Agriculture, forestry and fisheries")
	-Wasserhaushaltsgesetz(WHG) vom 31. Juli 2009 (BGBI. I S. 2585) - "Water Resources
	Act"
Means of	-Düngeverordnung (DüV) in der Fassung der Bekanntmachung vom 27. Februar 2007
Verification	(BGBI. I S. 221) – "Fertilizer legislation"
	-Düngemittelverordnung (DüMV) vom 5. Dezember 2012 (BGBI. I S. 2482) - "Fertilizer
	ordinance"
	-C Chemikaliengesetz (ChemG) in der Fassung der Bekanntmachung vom 28. August
	2013 (BGBI. I S. 3498, 3991)– "Chemicals Act"
	-Forest function mapping (mapping of forest functions like water, soil, air)
	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence	http://www.gosotzo.im.internet.do/index.html
Reviewed	http://www.gesetze-im-internet.de/index.html
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.6.1	The BP has implemented appropriate control systems and procedures for verifying that appropriate mechanisms are in place for resolving grievances and disputes, including those relating to tenure and use rights, to forest management practices and to work conditions.
Finding	Tenure rights are determined through the German Constitution and the Civil Code("Bürgerliches Gesetzbuch"). Ownership of estates is documented in the Land Charge
	Register ("Grundbuch"). The legal owner of an estate also owns the management rights of the estate, as long as no other laws are violated. Ownership of land is not legally valid, until the owner is registered in the Land Charge Register. To establish a more efficient management, some small private forest owners are incorporated in orstbetriebsgemeinschaften ('forest enterprises associations'). Here, organizations keep the land ownership and the right to manage, but the management of several small forests is centralized. All owners have to agree to the management and harvesting plans of the association. So every single member is part of the decision making.
	Fair working conditions are guaranteed by the ILO Fundamental Principles and Rights at work. Detailed description in indicator 2.7.5. Germany has ratified all the 8 Fundamental ILO Conventions that represent principal rules on labour law. In addition, fair working conditions are ensured by the Allgemeines Gleichbehandlungsgesetz (AGG), Jugendarbeitsschutzgesetz (JArbSchG) Kinderarbeitsschutzverordnung (KindArbSchV), Schwarzarbeitsbekämpfungsgesetz (SchwarzArbG), beitsgenehmigungsverordnung (ArGV), Das Fünfte Buch Sozialgesetzbuch (SGB V), Das Sechste Buch Sozialgesetzbuch (SGB VI), Das Siebte Buch Sozialgesetz (BEEG), Bundesurlaubsgesetz (BUrlG), Kündigungsschutzgesetz(KSchG) and Mutterschutzgesetz (MuSchG).
	Legislation and control mechanisms are in place and are constantly adapted. The legal framework conditions were assessed previously as part of the legality assessment of the centralized national risk assessment and were classified as 'low risk.' There are no known conflicts relating to compulsory labour or child labour in Germany. No information was found about Germany as being a source of conflict timber and the forest sector is not associated with any violent armed conflict. Germany scores positive on all indicators reviewed in this context section. It is ranked relatively high on all relevant aspects such a stable country, with good governance, absence of conflicts of any magnitude and it is a free country for all its citizens with a good justice system. Human rights issues are around migrants and asylum seekers, mostly, and are, in
	global context, minor Recognized and fair processes regulating conflicts surrounding traditional rights, including land use, are anchored in the German legislation.
	Some such conflicts arose in the federal states formerly belonging to East Germany (German Democratic Republic) following German reunification in 1990. The German
	authorities systematically pursued and processed these cases according to due legal process (STD40 005; Anh. 2B; 2.4). There are no indigenous populations in the Federal
	Republic of Germany, as defined by the United Nations (see also German FSC Standard, Principle 3) (STD40 005; Anh. 2B; 2.5). There are identified core conflicts between nature

	conservation and various land uses (e.g. agriculture, forestry). However nature conservation requirements are widely applied within forestry concepts and forestry planning, e.g. in the form of mapping of the occurrences of strictly protected species, old and dead wood concepts for habitat conservation, selection of ecological forest management concepts and environmentally friendly harvesting methods, identification of FFH areas and habitat types in the forest as well as development of monitoring concepts by the state governments. Disputes concerning forest management are prevented by the federal forest management plans. Each federal state drafts guidelines for silviculture which are obligatory for the forest management in municipal forests and state forests. For private forests, those guidelines are only recommendations, but of course they are also bound to national and federal law. Regulations of the silvicultural guidelines are based on the National Forest Act and the Federal Nature Conservation Act, which include the stipulations that forests have to be managed properly, advantageously and sustainably, retaining the function of the forest. Other available evidence do not challenge 'low risk' designation.
Means of	-Grundgesetz für die Bundesrepublik Deutschland vom 23. Mai 1949 (BGBI. I S. 2438)
Verificatio	"German Constitution" - Article 14
	-Bürgerliches Gesetzbuch (BGB) in der Fassung der Bekanntmachung vom 2. Januar
	2002 (BGBI. I S. 42, 2909; 2003 I S. 738) "German Civil Code" - § 873 (1): Acquisition by
	agreement and registration
	-Grundbuchordnung in der Fassung der Bekanntmachung vom 26. Mai 1994 (BGBI. I S.
	-ILO Fundamental Principles and Rights at work
	-Allgemeines Gleichbehandlungsgesetz (AGG) vom 14. August 2006 (BGBI. I S. 1897)
	– "General Equal Treatment Act"
	-Jugendarbeitsschutzgesetz (JArbSchG) vom 12. April 1976 (BGBI. I S. 965) – "Youth employment protection act"
	-Kinderarbeitsschutzverordnung (KindArbSchV) vom 23. Juni 1998 (BGBI. I S. 1508) –
	"Child Labor Protection Ordinance"
	-Schwarzarbeitsbekämpfungsgesetz (SchwarzArbG) vom 23. Juli 2004 (BGBI. I S. 1842) - "Act against illegal employment"
	-Arbeitsgenehmigungsverordnung (ArGV) vom 17. September 1998 (BGBI. I S. 2899) – "Regulation on Work Permits for Foreign Workers"
	-Das Fünfte Buch Sozialgesetzbuch (SGB V) – Gesetzliche Krankenversicherung – (Artikel 1 des Gesetzes vom 20. Dezember 1988, BGBI. I S. 2477, 2482) – "Social Code Book V - Statutory Health Insurance"
	-Das Sechste Buch Sozialgesetzbuch (SGB VI) – Gesetzliche Rentenversicherung – in der Fassung der Bekanntmachung vom 19. Februar 2002 (BGBI. I S. 754, 1404, 3384) – "Social Code Book VI – Statutory Annuity Insurance"
	-Das Siebte Buch Sozialgesetzbuch (SGB VII) – Gesetzliche Unfallversicherung – (Artikel 1

	des Gesetzes vom 7. August 1996, BGBI. I S. 1254) - "Seventh Social Code Book
	-statutory accident insurance"
	-Allgemeines Gleichbehandlungsgesetz (AGG) vom 14. August 2006 (BGBI. I S. 1897)
	– "General Equal Treatment Act"
	-Arbeitszeitgesetz (ArbZG) vom 6. Juni 1994 (BGBI. I S. 1170, 1171) – "Working Time Act"
	-Bundeselterngeld- und Elternzeitgesetz (BEEG) vom 5. Dezember 2006 (BGBI. I S. 2748) – "Federal Parental Benefit Act"
	-Bundesurlaubsgesetz (BUrlG) vom 20. April 2013 (BGBI. I S. 868) - Federal Holiday Act
	-Kündigungsschutzgesetz (KSchG) in der Fassung der Bekanntmachung vom 25. August 1969 (BGBI. I S. 1317) – "Employment Protection Act"
	-Mutterschutzgesetz (MuSchG) in der Fassung der Bekanntmachung vom 20. Juni 2002 (BGBI. I S. 2318) – "Maternity Protection Act"
	-Global Gender Gap Index 2022 https://www.weforum.org/reports/global-gender-gap-report- 2022/
	-Gender Wage Gap;OECD 2022 https://www.weforum.org/reports/global-gender-gap-report- 2022/
	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	-Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBl. I S. 1037) - "National Forest Act" 1. Article §8 "Protection of forest functions upon plannings and measures by public projects"
	http://www.gesetze-iminternet.de/.html
	https://www.fablf.de/themen/eigentum/
Evidence	http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:10 2643
Reviewed	https://www.oecd.org/germany/
	http://reports.weforum.org/global-gender-gap-report-2014/rankings/
	http://www.gesetze-im-internet.de/index.html
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.7.1	The BP has implemented appropriate control systems and procedures for verifying that Freedom of Association and the effective recognition of the right to collective bargaining are respected.
Finding	No information was found that proved that labour rights as well as the ILO Fundamental Principles and Rights at work are at risk. Applicable legislation for the area under assessment covers the key principles recognized in the ILO Fundamental Principles and Rights at work (which are recognized as: freedom of association and right to collective bargaining; elimination of forced and compulsory labour; eliminations of discrimination in respect of employment and occupation; and effective abolition of child labour), AND other available evidence does not challenge a 'low risk' designation. The Observation (CEACR) document contains no information that leads to a 'specified risk' designation in Germany regarding ILO Convention C87. Since 1972 exists the "Betriebsverfassungsgesetz" that guarantees the right to form an employee organization in
	every company. It is by this law prohibited to prevent such forms of organization and the existing level of enforcement is high in Germany. According to the Government's report, employees in the public service ("Arbeitnehmer des öffentlichen Dienstes"), e.g. teachers employed under collective agreements in the education services of the Länder, do enjoy the right to bargain collectively, whereas civil servants ("Beamte") do not have the right to bargain collectively because the legislative regulation of the civil service is a constitutionally endowed traditional principle of the civil service under article 33(5) of the Basic Law and because civil servants ("Beamte") have the duty to exercise their functions lawfully, impartially and altruistically. The Government stressed that, even for particular groups of civil servants ("Beamte"), collective bargaining which is aimed at concluding collective agreements is incompatible with the principle of the legislative regulation of the civil service, and that this remains valid regardless of the outcome of wage negotiations by employees in the public service ("Arbeitnehmer des öffentlichen Dienstes"). So there is a pecified risk of exclusion of the right to collective bargaining for foresters who are civil servants (Beamte) (see additional information for low risk indication). In the forest sector in Germany, the number of employees employed by collective bargaining and the number of employees who are employed have declined for more than 10 years.
	The different status groups "tariff workers" and "civil servants" are not considered by the BDF as a core problem with regard to the risk assessment of "controlled wood"!
	The issue is of low relevance for IG BAU. Rights like freedom of association and collective bargaining are upheld, except for foresters who are civil servants (Beamte). Experts of the Federation of German Foresters don't consider this to be a core problem, but as negligible risk. Other available evidence does not challenge a 'low risk' designation.
	Therefore the risk designation for this indicator is 'low risk'.
Means of	-ILO Fundamental Principles and Rights at work
Verificatio n	-Observation (CEACR) - adopted 2014, published 104th ILC session (2015) Right to
	Organize and Collective Bargaining Convention, 1949 (No. 98) - Germany (Ratification: 1956)

	-Answer from BDF to request of FSC Germany 14-11-2016
	-Answer from IGBAU (forest workers union) representative on the board of FSC
	Germany as of 16-11-2016#
	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	-Betriebsverfassungsgesetz
Evidence	http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:10 2643
Reviewed	
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable
	•

	Indicator
2.7.2	The BP has implemented appropriate control systems and procedures for verifying that feedstock is not supplied using any form of compulsory labour.
Finding	Germany has ratified all the 8 Fundamental ILO Conventions that represent principal rules on labor law. There are no known conflicts relating to compulsory labor or child labor in Germany. Germany signed the eight Fundamental ILO (International Labour Organization) Conventions (29, 87, 98, 105, 100, 111, 138, 182) which represent principal rules on labour law. Labour rights are respected including rights as specified in ILO Fundamental Principles and Rights at work. No information was found that proved that abour rights as well as the ILO Fundamental Principles and Rights at work are at risk. Applicable legislation for the area under assessment covers the key principles recognized in the ILO Fundamental Principles and Rights at work (which are recognized as: freedom ofassociation and right to collective bargaining; elimination of forced and compulsory labour; eliminations of discrimination in respect of employment and occupation; and effective abolition of child labour), AND other available evidence does not challenge a 'low risk' designation. Regulations relating to illegal employment are described in Schwarzarbeitsbekämpfungsgesetz – SchwarzArbG (Act Against Illegal employment). In public forests, illegal work is not an issue due to the legal framework and requirements. Contractors working in public forests are required to include details f legal employment in their terms and conditions. In private forests, there are no known cases of illegally employed employers or contractors. Risk can arise in cases where workers (especially overseas

	workers) are hired as temporary assistant forest workers, e.g. after wind catastrophes. Since this is illegal, random inspections are carried out by the employers' liability insurance association. There are no known significant cases of illegal employment in Germany in the forestry sector. The existing associations for subcontractors in the forestry sector are very active to set up certifications for subcontractors to guarantee a standard for quality management including wages, e.g. DFSZ or RAL Certificate GZ 244. There is evidence confirming absence of compulsory and/or forced labour. Other available evidence does not challenge a 'low risk' designation. Therefore the risk designation for this indicator is 'low risk'.
	-ILO Fundamental Principles and Rights at work
	- FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
Means of	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Verificatio n	-Schwarzarbeitsbekämpfungsgesetz (SchwarzArbG) vom 23. Juli 2004 (BGBI. I S. 1842) - "Act against illegal employment"
	-Arbeitsgenehmigungsverordnung (ArGV) vom 17. September 1998 (BGBI. I S. 2899) –
	"Regulation on Work Permits for Foreign Workers"
Evidence Reviewed	http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:10 2643
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.7.3	The BP has implemented appropriate control systems and procedures to verify that feedstock is not supplied using child labour.
Finding	There are no known conflicts relating to compulsory labour or child labour in Germany. Germany signed the eight Fundamental ILO (International Labour Organization) Conventions (29, 87, 98, 105, 100, 111, 138, 182) which represent principal rules on labour law. Further national laws covering minimum age, working hours and working conditions of children are based on two legal foundations, namely Kinderarbeitsschutzverordnung (KindArbSchV or Child Labour Protection Ordinance) and Jugendarbeitsschutzgesetz (JArbSchG) or Youth Employment Protection Act). No

	information was found that proved that labour rights as well as the ILO Fundamental
	Principles and Rights at work are at risk. Germany has ratified all the 8 Fundamental ILO Conventions that represent principal rules
	on labor law. The status on the ILO website for all 8 Conventions is 'in force' Further national laws covering minimum age, working hours and working conditions of children are based on two legal foundations, namely Kinderarbeitsschutzverordnung (KindArbSchV or Child Labor Protection Ordinance) and Jugendarbeitsschutzgesetz (JArbSchG) or Youth Employment Protection Act). There are no known conflicts relating to compulsory labour or child labour in Germany. Germany does not feature in the Child Labour Country Dashboard. No references to Germany regarding child labour or child trafficking. Germany has ratified the Convention on the rights of the child.
	Most Länder have explicitly recognized children's rights in their constitutions. Germany scores 'low risk' on the Child Labour Index. "FSC Germany is not aware of any instances of child labour or of any violations of fundamental principles and rights of the International Labour Organization (ILO) occurring at work places in the forestry sector in Germany (STD40 005; Anh. 2B; 2.3)." Applicable legislation for the area under assessment covers the key principles recognized in the ILO Fundamental Principles and Rights at work (which are recognized as: freedom of association and right to collective bargaining; elimination of forced and compulsory labour; eliminations of discrimination in respect of employment and occupation; and effective abolition of child labour), AND the risk assessment confirms enforcement of applicable legislation.
	Other available evidence does not challenge a 'low risk' designation. The risk designation for this indicator is 'low risk'.
Means of	Kinderarbeitsschutzverordnung (KindArbSchV) vom 23. Juni 1998 (BGBI. I S. 1508) –
Verificatio	"Child Labour Protection Ordinance"
n	ILO Fundamental Principles and Rights at work, C182 Worst Forms of Child Labour
	Convention, 1999
	Jugendarbeitsschutzgesetz (JArbSchG) vom 12. April 1976 (BGBI. I S. 965) – "Youth
	employment protection act"
	Convention 182 on Worst Forms of Child Labour, 1999
	Convention 138 on Minimum Age for Admission to Employment, 1973
	Direct Request (CEACR) - adopted 2012, published 102nd ILC session (2013) Worst
	Forms of Child Labor Convention, 1999 (No. 182) - Germany (Ratification: 2002) Article 7(2)
	ILO Child Labor Country Dashboard
	Office of the United Nations High Commissioner for Human Rights (OHCHR),
	Committee on Rights of the Child
	Global March Against Child Labour

	Indicator
2.7.4	The BP has implemented appropriate control systems and procedures for verifying that feedstock is not supplied using labour which is discriminated against in respect of employment and occupation.
Finding	Germany has ratified all the 8 Fundamental ILO Conventions that represent principal rules on labor law. There is no information that leads to a 'specified risk' designation neither with relation to the forestry sector nor on any other specified risks in Germany regarding ILO Convention C111. There are activities to reduce the payment gap as well as the issue of gender inequality or discrimination gains recognition in special support programs for women, girls to get involved in technical, scientific jobs. A special representation of women's interests in the forestry sector has been established in form of the association "Forstfrauen". http://forstfrauen.de/der-verein/
	It is estimated that 1.5 million workers a day in Germany are victims of on-the-job bullying. Germany is watching the suit closely as it struggles with integration and discrimination. Discrimination and racism are problems that immigrant groups have faced in Germany for many years. There is also a specific risk for discrimination because of foreign names. In 2006 Germany has implemented a "Law for Equal Treatment" (Allgemeines Gleichbehandlungsgesetz (AGG). Its object is to prevent or eliminate iscriminationbecause of racial or ethnic origin, gender, religion or belief, disability, age or sexual identity. The rights

	of handicapped people are protected via the AGG as well as "Schwerbehindertengesetz" (SchwbG) in Germany. The gender pay gap is no specific risk because of the opportunities for women in Germany to express themselves freely for their rights and because of existing legislation to protect women's rights to close this gap and because of support programs for women in technical professions or management positions, the is no danger of serious discrimination. There is evidence of structural socio-cultural discrimination at the workplace. Germany tackles this issue via different instruments, e.g. studies have been undertaken in context with the National Integration Action plan and there are measures to improve transparency. There is no special reference to people working in the forestry sector describing a higher imbalance. Germany is in the process of implementing European legislation and strengthening civilsociety measures to address these problems. The fact that the German government and non-governmental organizations are active in the field of combating discrimination, carry out surveys, offer access to advice and legal instruments and that these findings and legalcases are public, shows the existing / increasing sensitivity. With regard to this issue, freedom of expression, freedom of information and legal recognition, there is no clear evidence of high risk in the forestry sector or that this risk is comparatively high. There are indications that confirm for a low incidence of forms of discrimination in relation to employment and/or occupation and/or gender and indications of occurrence. Instances of reported discrimination in the workplace are not widespread and no specific cases have been found in forestry. This is also confirmed by an expert survey. While taking the precautionary approach into consideration, the evidence found does not challenge a 'low risk' designation. Applicable legislation for the area under assessment covers the key principles recognized in the ILO Fundamental Principles and Rights at wor
Means of	-ILO Fundamental Principles and Rights at work, C111 Discrimination (Employment
Verificati on	and Occupation) Convention, 1958
	-Committee on the Elimination of Discrimination against Women; Fiftieth session; 3 –
	21 October 2011
	-Law for Equal Treatment ((Allgemeines Gleichbehandlungsgesetz), 2006
	-FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
	-Schwerbehindertengesetz (SchwbG), Gesetz zur Sicherung der Eingliederung
	Schwerbehinderter in Arbeit, Beruf und Gesellschaft in der Fassung der
	Bekanntmachung vom 26. August 1986 (BGBI I S. 1421, 1550), zuletzt geändert durch
	Art. 9 des Gesetzes vom 19. December 1997 (BGBI I S. 3158)/ Disabled Persons Act
	(SchwbG), Act on the Integration of Disabled Persons into Work, Occupation and Society

Evidence Reviewe d	as amended by the Notice of 26 August 1986 (Federal Law Gazette I p. 1421,1550), as last amended by Article 9 of the Act of 19 December 1997 (Federal Law Gazette I p. 3158) https://www.ilo.org/global/langen/index.htm http://uhri.ohchr.org/document/index/c66445d0-b850-4286-9b4d-51e02541e6d4?from=ru http://forstfrauen.de/der-verein/ Antidiskriminierungsstelle https://www.antidiskriminierungsstelle.de/SharedDocs/downloads/DE/publikationen/AGG/agg _evaluation.html - Publikationen - Evaluation des AGG
Risk Rating	Low Risk
Commen t or Mitigatio n Measure	Not Applicable

	Indicator
2.7.5	The BP has implemented appropriate control systems and procedures for verifying that feedstock is supplied using labour where the pay and employment conditions are fair and meet, or exceed, minimum requirements.
Finding	Since 2015 there exists a minimum wage, which is binding and is strictly controlled. No violations could have been detected for the forestry and timber sector so far, as workers are paid above the minimum wage. The existing associations for subcontractors in the forestry sector are very active to set up certifications for subcontractors to guarantee a standard for quality management including wages, e.g. DFSZ (http://www.alko-cert.de/zertifizierungen/dfsz/) or RAL Certificate GZ 244 (http://www.ral- ggwl.de/index.php/wirzertifizieren-betriebe-fuer/7-guetezeichen-holzernte-ralgz-244-1).A new study of the Hands-Böckler-Stiftung (2017) comes to the result that
	so-called "Minijobbers" haven 't received the minimum wage in 2015, with no specialreference to the forestry sector. Legislation and control mechanisms are in place and are constantly adapted. In addition, fair working conditions are ensured by the Allgemeines Gleichbehandlungsgesetz (AGG), Jugendarbeitsschutzgesetz (JArbSchG), Kinderarbeitsschutzvererdnung (KinderbSchV). Schwarzerbeitsbekömpfungsgesetz
	Kinderarbeitsschutzverordnung (KindArbSchV), Schwarzarbeitsbekämpfungsgesetz (SchwarzArbG), Arbeitsgenehmigungsverordnung (ArGV), Das Fünfte Buch Sozialgesetzbuch (SGB V), Das Sechste Buch Sozialgesetzbuch (SGB VI), Das Siebte

	Buch Sozialgesetzbuch (SGB VII), Arbeitszeitgesetz (ArbZG), Bundeselterngeld- und
	Elternzeitgesetz (BEEG), Bundesurlaubsgesetz (BUrlG), Kündigungsschutzgesetz (KSchG) and Mutterschutzgesetz (MuSchG).
	There are differences in wages between the employees in the public service (Arbeitnehmer des öffentlichen Dienstes) and Civil Servants and a gender gap in salary
	outcome, too. According to OECD data from 2014 Germany is on rank 14 by international comparison, with a pay gap about 17%, while looking on fulltime employees.
	Global Gender Gap Index 2022. The highest possible score is 1 (equality) and the lowest possible score is 0 (inequality) Germany scores nr. 12 out of 142 countries with a
	score of 0.801 but ranks nr. 80 on wage equality for similar work with a score of 0,63. The gender pay gap is no specific risk because of the opportunities for women in
	Germany to express themselves freely for their rights and because of existing legislation to protect women's rights to close this gap and because of support programs for women in technical professions or management positions, the is no danger of serious discrimination. The evidence found does not challenge a 'low risk' designation.
	Other activities to reduce the payment gap as well as the issue of gender inequality or discrimination gains recognition in special support programs for women, girls to get
	involved in technical, scientific jobs. A special representation of women's interests in the forestry sector has been established in form of the association "Forstfrauen".
	http://forstfrauen.de/der-verein/There do exist associations for employees in Germany like the Forest worker association (IG BAU).
	Germany has ratified all the 8 Fundamental ILO Conventions that represent principal ules on labor law. Further national laws covering minimum age, working hours and working conditions of children are based on two legal foundations, namely Kinderarbeitsschutzverordnung (KindArbSchV or Child Labour Protection Ordinance) and Jugendarbeitsschutzgesetz (JArbSchG) or Youth Employment Protection Act). Requirements for foreign people working in Germany are covered by the Verordnung über die Arbeitsgenehmigung für ausländische Arbeitnehmer (Regulation on Work Permits for Foreign Workers). Regulations relating to illegal employment are described in Schwarzarbeitsbekämpfungsgesetz – SchwarzArbG Act Against Illegal Employment). The risk designation for this indicator is 'low risk'.
Means of	Allgemeines Gleichbehandlungsgesetz (AGG) vom 14. August 2006 (BGBI. I S.
Verification	1897) – "General Equal Treatment Act"
	Jugendarbeitsschutzgesetz (JArbSchG) vom 12. April 1976 (BGBI. I S. 965) –
	"Youth employment protection act"
	Kinderarbeitsschutzverordnung (KindArbSchV) vom 23. Juni 1998 (BGBI. I S. 1508)
	– "Child Labor Protection Ordinance"

Schwarzarbeitsbekämpfungsgesetz (SchwarzArbG) vom 23. Juli 2004 (BGBI. I S.
1842) - "Act against illegal employment"
Arbeitsgenehmigungsverordnung (ArGV) vom 17. September 1998 (BGBI. I S.
2899) – "Regulation on Work Permits for Foreign Workers"
Das Fünfte Buch Sozialgesetzbuch (SGB V) – Gesetzliche Krankenversicherung –
(Artikel 1 des Gesetzes vom 20. Dezember 1988, BGBI. I S. 2477, 2482) – "Social Code
Book V - Statutory Health Insurance"
Das Sechste Buch Sozialgesetzbuch (SGB VI) – Gesetzliche Rentenversicherung –
in der Fassung der Bekanntmachung vom 19. Februar 2002 (BGBI. I S. 754, 1404, 3384)
 "Social Code Book VI – Statutory Annuity Insurance"
Das Siebte Buch Sozialgesetzbuch (SGB VII) – Gesetzliche Unfallversicherung –
(Artikel 1 des Gesetzes vom 7. August 1996, BGBI. I S. 1254) - "Seventh Social Code
Book - statutory accident insurance"
Allgemeines Gleichbehandlungsgesetz (AGG) vom 14. August 2006 (BGBI. I S.
1897) – "General Equal Treatment Act"
Arbeitszeitgesetz (ArbZG) vom 6. Juni 1994 (BGBI. I S. 1170, 1171) – "Working
Time Act"
Bundeselterngeld- und Elternzeitgesetz (BEEG) vom 5. Dezember 2006 (BGBI. I S.
2748) – "Federal Parental Benefit Act"
Bundesurlaubsgesetz (BUrlG) vom 20. April 2013 (BGBI. I S. 868) - Federal Holiday
Act
Kündigungsschutzgesetz (KSchG) in der Fassung der Bekanntmachung vom 25.
August 1969 (BGBI. I S. 1317) – "Employment Protection Act"
Mutterschutzgesetz (MuSchG) in der Fassung der Bekanntmachung vom 20. Juni
2002 (BGBI. I S. 2318) – "Maternity Prot ction Act"
Global Gender Gap Index 2022 https://www.weforum.org/reports/global-gender-gap- report-2022/
Gender Wage Gap;OECD 2022 https://www.weforum.org/reports/global-gender-gap- report-2022/
ILO Fundamental Principles and Rights at work, C138 Minimum Age Convention,
1973
FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1-

	1. Date: 03 April 2018 (updated 31 July 2020) https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076
Evidence Reviewed	https://www.oecd.org/gender/data/ https://www.weforum.org/reports/global-gender-gap-report-2022/ http://www.gesetze-im-internet.de/index.html
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.8.1	The BP has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).
Finding	Legal requirements for health and safety are regulated by the German OccupationalSafety and Health Act (Arbeitsschutzgesetz, ArbSchG) and the Occupational Safety Act
	(Arbeitssicherheitsgesetz, ASiG). The so-called PSA-Benutzungsverordnung is a detailed regulation relating to safety and health protection through use of personal protective equipment at work, based on European Union directive 89/656/EWG. Binding health and safety regulations –particularly for people who work in forests and/or are employed by forest enterprises – is a matter for the Sozialversicherung für Landwirtschaft Forsten und Gartenbau (SVLFG, 'Social Insurance for Agriculture, Forestry and Horticulture program') or the German Statutory Accident Insurance scheme (Deutsche Gesetzliche Unfallversicherung, DGUV). Every employee signing an employment contract at a private or public forest company automatically agrees to the Unfallverhütungsvorschrift (Accident Prevention Regulations) available through the SVLFG or the so called Regel Waldarbeiten (Rules on Forest Work) and Sichere Waldarbeiten (Safe Forest Working) distributed by the DGUV. There is no known instance of a private or municipal forest company that is not a member of the SVLFG. If this were the case, however, SVLFG would still pay in the event of an accident; however, the company would be required to pay SVLFG back afterwards. Unfallverhütungsvorschrift Accident Prevention Regulations) and Regel Waldarbeiten (Rules on Forest Work) are based on laws and describe duties in terms of safety, health and working appropriately in forests. Employees working in a private or municipal forest are insured through DGUV. Both are legally binding due to §15 in the Seventh Social Code Book –Statutory Accident
	Both are legally binding due to §15 in the Seventh Social Code Book –Statutory Accident Insurance (Siebtes Buch Sozialgesetzbuch, SGB VII – Gesetzliche

	Unfallversicherung).In addition to these, there are many guidelines for occupational safety published by public and private forest organizations. In some cases, these organizations demand additional commitments to safety conditions from their employees. This depends on what work has to be done (e.g. harvesting in steep areas). Foresters in Germany receive mandatory training in accordance with safety procedures and accident prevention. If work-related accidents occur (while employees are either working in stands or on forest roads) and the accident leads to three or more days of illness, this has to be disclosed and documented with the employer's insurance association. State forest enterprises document such accidents themselves. The Social Insurance for Agriculture, Forestry and Horticulture scheme produces statistics for public municipal forests as well as private forests. The Employer's liability insurance coverage ("Berufsgenossenschaft") acts as legal authority. Documents or records are the Employment contract/agreement or the Social Security card. Identified laws are upheld. Cases where law/regulations are violated are efficiently followed up via preventive actions taken by the authorities and/or by the relevant entities. For this indicator the area under assessment is determined to be 'low risk'.
	Arbeitsschutzgesetz (ArbSchG) vom 7. August 1996 (BGBI. I S. 1246) -
	Occupational Safety and Health Act
	Gesetz über Betriebsärzte, Sicherheitsingenieure und andere Fachkräfte für
	Arbeitssicherheit (ASiG) vom 12. Dezember 1973 (BGBI. I S. 1885) – "Occupational
	Safety Act"
	PSA-Benutzungsverordnung (PSA-BV) vom 4. Dezember 1996 (BGBI. I S. 1841) –
	Directive on personal equipment protection
	DGUV Regel 114-018 Juni 2009 "Regel Waldarbeiten" - "Rules on Forest Work"
	DGUV-Information 214-046 Mai 2014 "Sichere Waldarbeiten" - "Safe forest working"
Means of	Unfallverhütungsvorschrift(VSG) – "Accident prevention regulations" 1. VSG 1.1
Verification	Allgemeine Vorschriften für Sicherheit und Gesundheitsschutz – General Regulations on
	Security and Health protection
	VSG 4.3 Forsten – Forestry
	VSG 4.5 Gefahrstoffe – Gefahrstoffe - Hazardous substances
	Social security for agriculture, forestry and horticulture
	IGBAU (forest workers union)
	FSC Controlled Wood Risk Assessment for Germany Assigned code: FSC-NRA-DE V1- 1. Date: 03 April 2018 (updated 31 July 2020)
	https://connect.fsc.org/document-center/documents/7e68eab0-f059-4554-b20d- e10585a67076

Evidence Reviewed	https://www.bmas.de/EN/Labour/Occupational-Safety-and-Health/occupational-safety- and-health.html https://www.gesetze-im-internet.de/arbschg/ EvidenceSVLFG Gesetze und Vorschriften im Arhttps:// https://www.svlfg.de/gesetze- vorschriften-im-arbeitsschutz Reviewedhttp://www.svlfg.de/ https://kwf2020.kwf-online.de/?s=unfallstatistik_
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.9.1	Feedstock is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.
Finding	Peat- and wetlands in Germany are substantially located in the northern part and in the very south. The north-western peatlands are mainly high moors, the north-eastern and southern peatlands are mainly low moores. Peatlands have bin intensely been used as source for peat, have been converted to farmland and dewatered for infrastructural reasons. Recently 90% of the original peatlands are in use for Greenland (50%) agriculture (25- 30% and forestry (13%).
	Many plants and animals that occur in wet- and peatlands are strictly protected according to the red list. But also the wet – and peatlands are endangered as biotope and therefore on the red list of biotope types. Nearly all high moors in Germany are covered in protected areas. All moors in general are protected according to the Bundesnaturschutzgesetz" §30. In the scope of the National Biodiversity Strategy and the funding program "chance.natur", a revitalisation of moors and wetlands is encouraged and executed. This contributes to the national efforts to reduce carbon emissions, as drying moors and wetlands emit significant greenhouse gas volumes.
	In the map above, a ranking of landscapetypes is shown. Landscapes especially worth protecting, are in many cases congruent with the regions of moores and wetland.
	Since the 1980s no new concessions for peat depletion are granted in Germany for peatlands. Exceptions are made for peatlands that are already in agricultural use since then and are denatured. Now existing moors cannot be transformed in any other form of use or landscape type and are strictly protected. In addition to the "Bundesnaturschutzgesetz" on federal state level are several individual regulations

	Regarding wetlands, the international "Ramsar-Convention" was closed in 1971 and ratified in Germany in 1976. This convention is designated to the protection of wetlands. Currently 34 Ramsar sites with 868,226 ha of designated area are labelled in Germany. As the map below shows, those are located mainly in the same regions as the moores. For Ramsar sites a management plan and a constant monitoring is mandatory. In Germany nearly the complete Ramsar area is protected in the scope of Natura 2000. The federal environmental agencies compiled a "Moorbodenkarte" to classify moors and wetlands. This data is publicly available from several governmental sources. The classifications and definitions are according to those of the International Panel on Climate Change (IPCC). This maps are a fundamental basis for the moor protection and is included in forest management planning in regions with moors and wetlands. In several contexts peat- and wetlands are protected for quite a while by law and regulations. In addition every measure to change the form of land use needs to be approved by relevant authorities. As mentioned in various indicators of this Risk assessment, a broad band with of data and information is available and to be considered in such cases.
	Existing legislation Level of enforcement
	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act"
	Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) –
	"Soil Protection Act" 1. Article §17 ("Good agriculture practice")
Means of	Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) -
Verification	"Federal Nature Conservation Act"
	Bundesamt für Naturschutz (2016): Monitoring gemäß FFH-Richtlinie
	https://www.bfn.de/themen/biotop-und-landschaftsschutz/schutzwuerdige-
	landschaften.html
	Bfn-Skripten 462: Moorschutz in Deutschland"
Evidence	Existing legislation

Reviewed	Level of enforcement
	Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest
	Act"
	Bundes-Bodenschutzgesetz(BBodSchG) vom 17. März 1998 (BGBI. I S. 502) –
	"Soil Protection Act" 1. Article §17 ("Good agriculture practice")
	Bundesnaturschutzgesetz (BNatSchG) vom 29. Juli 2009 (BGBI. I S. 2542) -
	"Federal Nature Conservation Act"
	Bundesamt für Naturschutz (2016): Monitoring gemäß FFH-Richtlinie
	https://www.bfn.de/landschaften
	Bfn-Skripten 462: Moorschutz in Deutschland"
Risk Rating	Low Risk
Comment or Mitigation Measure	Not Applicable

	Indicator
2.9.2	Analysis demonstrates that feedstock harvesting does not diminish the capability of the forest to act as an effective sink or store of carbon over the long term.
Finding	As the commitment period in 2008 for reduction of the greenhouse emissions began, the firstinventory study was carried out in 2008. The is set in the Treibhausgas- Emissionshandelsgesetz ("greenhouse emissions trading act"). The Kohlenstoffinventur
	2017 (CI 2017) in combination with the Bundeswaldinventur (BWI) deliver the data for the implementation of the Kyoto-Protokoll. The outcome of this
	inventories every five years is a data base for the climate reporting und political decisions. Basis for those inventories for recording the carbon storage in forests is the State DW/state 2 ("National forest est")
	is the §41a BWaldG Absatz 3 ("National forest act"). The Bundeswaldinventur ("Federal Forest Inventory") is applied to analyse the carbon stocksin the areas covered with forests. The increase of carbon stocks in the space of time from BWI 2002 to BWI 2008 in overground nd underground biomass feedstock amounts 4.7 million tonnes per annum. Considering the huge increase in sustainable use of wood in recent years, it is remarkable that further additional carbon was set in the
	forests, to a level far in excess of the cap of 1.24 million tonnes of carbon annually under the Kyoto Protocol applicable to Germany. The intensive accumulation of deadwood to support the biodiversity contributed considerably. With reference to the amount of the

	stock of wood there is to record an increase of 1.6 % in Germany. As key elements are redundant, see also indicator 2.9.1 in this Annex. As the results of the BWI analysis show, the German feedstock harvesting does not diminish the carbon storage and sink capability of the forests. For this indicator the area under assessment is determined to be 'low risk'.
Means of Verification	 -Kohlenstoffinventur 2017 ("carbon inventory 2017") -Bundeswaldinventur 2008 ("Federal Forest Inventory 2008") -Bundeswaldinventur 2012 ("Federal Forest Inventory 2012") -Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" -Gesetz über den Handel mit Berechtigungen zur Emission von Treibhausgasen (Treibhausgas-Emissionshandelsgesetz -TEHG) unter Einschluss der Änderungen durch Art. 2 des Gesetzes zur Änderung der Rechtsgrundlagen zum Emissionshandel im Hinblick auf die Zuteilungsperiode 2008 bis 2012 vom 07.08.2007 (BGBI. I, S. 1788) – "Greenhouse Gas Emissions Trading Act"
Evidence Reviewed	 -Kohlenstoffinventur 2017 ("carbon inventory 2017") -Bundeswaldinventur 2008 ("Federal Forest Inventory 2008") -Bundeswaldinventur 2012 ("Federal Forest Inventory 2012") -Bundeswaldgesetz (BWaldG) vom 2. Mai 1975 (BGBI. I S. 1037) - "National Forest Act" -Gesetz über den Handel mit Berechtigungen zur Emission von Treibhausgasen (Treibhausgas-Emissionshandelsgesetz -TEHG) unter Einschluss der Änderungen durch Art. 2 des Gesetzes zur Änderung der Rechtsgrundlagen zum Emissionshandel im Hinblick auf die Zuteilungsperiode 2008 bis 2012 vom 07.08.2007 (BGBI. I, S. 1788) – "Greenhouse Gas Emissions Trading Act"
Risk Rating Comment or Mitigation Measure	Low Risk Not Applicable

Annex 2: Detailed findings for REDII Supply Base Evaluation indicators (Level B)

N/A