



BUNDESVERBAND
Bioenergie e.V.

Assessment of the risk of
unsustainable
production of forest biomass
for
Germany

Date: 08.11.2020

1. Information on the author of the risk assessment

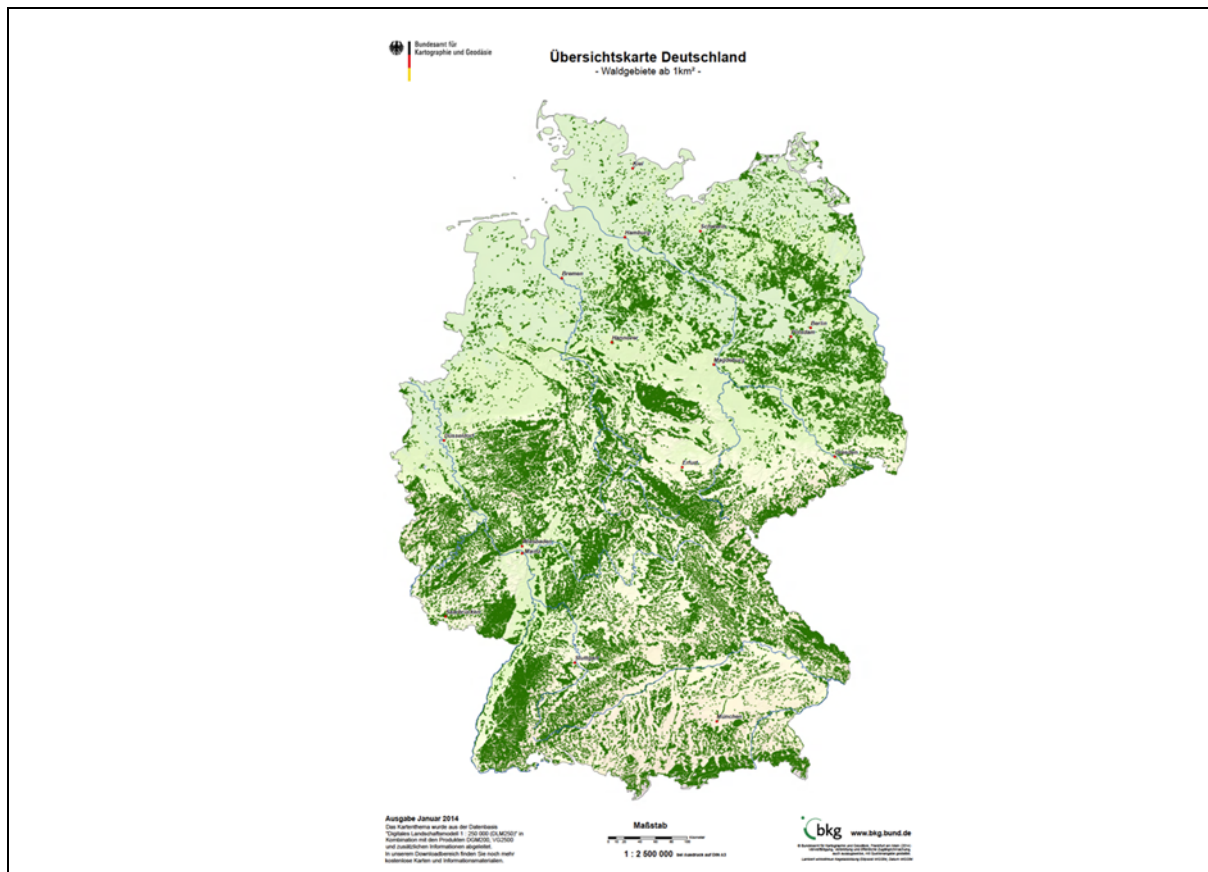
This risk assessment was written by Florens H. Dittrich. Florens H. Dittrich successfully completed his studies in forestry sciences at the Albert-Ludwigs-University of Freiburg im Breisgau. After working for several years as a policy officer for bioenergy at the Bavarian Ministry of Economic Affairs, Regional Development and Energy, he accepted a position as a policy officer for sustainability and climate change mitigation at the German Bioenergy Association (Bundesverband Bioenergie e.V.), the federal umbrella organisation for bioenergy in Germany. In this capacity, he mainly deals with the requirements of the national implementation of Directive (EU) 2018/2001 (RED II). The national implementation of Art. 29 (6) and (7) in Germany is a main focus of his activities.

2. Scope of the risk assessment

2.1 Spatial scope of the risk assessment

This risk assessment relates to the political borders of the Federal Republic of Germany and spans the entire forested area of Germany. The risk assessment therefore covers a forest area of around 11.4 million hectares of forest. This area is illustrated in the map below¹:

¹Federal Agency for Cartography and Geodesy (ED.) (2014): Overview map of Germany – forested areas larger than 1 km² https://www.bkg.bund.de/SharedDocs/Downloads/BKG/DE/Downloads-Karten/Downloads-Wussten-Sie-Schon/Deutschlandkarte-Waldgebiete-2014.pdf;jsessionid=D9C6BF53CE53D2AA236A77589E466C90.live21?_blob=publicationFile&v=1 (accessed in April 2020)



The risk assessment may only be applied to forest biomass produced in an area within these borders. An official map showing Germany's borders can be viewed on the online portal “Geodateninfrastruktur Deutschland” (Spatial Data Infrastructure Germany) run by the Federal Office for Cartography and Geodesy.²

This risk assessment reviews the legal framework and requirements of Articles 29(6) and (7) in Directive (EU) 2018/2001.

2.2 Temporal scope of the risk assessment

The maximum period of validity of the risk assessment is five years from the date of publication. Any updates can be found on the following website (in German): www.bioenergie.de

Date created:	April 2020	Validity expires:	April 2025
---------------	------------	-------------------	------------

²Federal Agency for Cartography and Geodesy (ED.) (2020): Geodateninfrastruktur Portal Deutschland <https://www.gdi-de.org/DE/Geoportal/Karten/karten.html?lang=de> (accessed in April 2020)

3. Structure of the forestry and wood processing industry in Germany

3.1. Description of the forestry industry

According to the Federal Forest Inventory (BWI, 2012), 11.4 million hectares and about 32% of Germany's total area are covered with forest. The changes in forest area between 2002 and 2012 are very minor. Even though 58,000 hectares of forest were lost, 108,000 hectares of new forest were gained.

48% of forest in Germany is privately owned (5.5 million hectares), 29% is state-owned (3.3 million hectares), 19% is municipal forest (2.2 million hectares) and 4% is federal forest (0.4 million hectares). Half of private forests is made up of small-scale private forests (less than 20 hectares). In Germany, 430,000 forest owners are organised into around 3,600 forestry associations to ensure efficient management and administration even for small-scale ownership structures.

Certification schemes can support and promote sustainable forest management and increase the availability of sustainably produced timber. In Germany, the PEFC standard (Programme for the Endorsement of Forest Certification Schemes) is the most important certification scheme in terms of certified forest area, with around 7.3 million hectares and a share of approx. 64% (as of 2016) of forest area. The FSC standard (Forest Stewardship Council) has certified 1.1 million hectares and approx. 9% of the forest area in Germany. As some forests are covered by both standards, the values for the total certified area cannot be added together. The total area certified by the PEFC and FSC standards is estimated at 8 million hectares. In the long term, the aim is to further increase the percentage of certified forest areas in Germany.

In German forests, deciduous trees account for 43% (BWI 2012) of forested land. Compared to 2002, the share of deciduous trees has thus increased by 7%. The increase in the amount of land where beech trees grow has been particularly pronounced. The most important deciduous trees in terms of area are beech with 15% and oak with 10%, followed by the deciduous tree species birch, alder, ash and maple.

The percentage of coniferous trees has decreased compared to deciduous trees. In the period from 2002 to 2012, it fell by 267,000 hectares or 4%. This decline was strongest for

spruce, although it is still the most common tree species in Germany with a share of 25%, followed by pine (22%). The changes in tree species composition in Germany reflect the current conversion of coniferous forests into deciduous or mixed forests. These have now reached a percentage of 72%.

The predominant forest types in Germany are regionally very different due to the area structure (lowlands, low mountain ranges, alpine structures). In addition to the topographical conditions, forest ownership structures and the age classes of forest stands play a relevant role in the development of forest types. The forest stands in Germany and Central Europe can generally be classified as deciduous and mixed deciduous forests in the temperate zone.³

The Federal Forest Inventory defines three main forest types, which account for 83% of Germany's forest area:⁴

- ✓ Luzulo-Fagetum beech forest
- ✓ Asperulo-Fagetum beech forest
- ✓ Galio-Carpinetum oak-hornbeam forest

The remaining 17% of the forest area in Germany is dominated by the remaining 16 forest types, which are, however, not documented under the Federal Forest Inventory and the sampling system on which it is based.

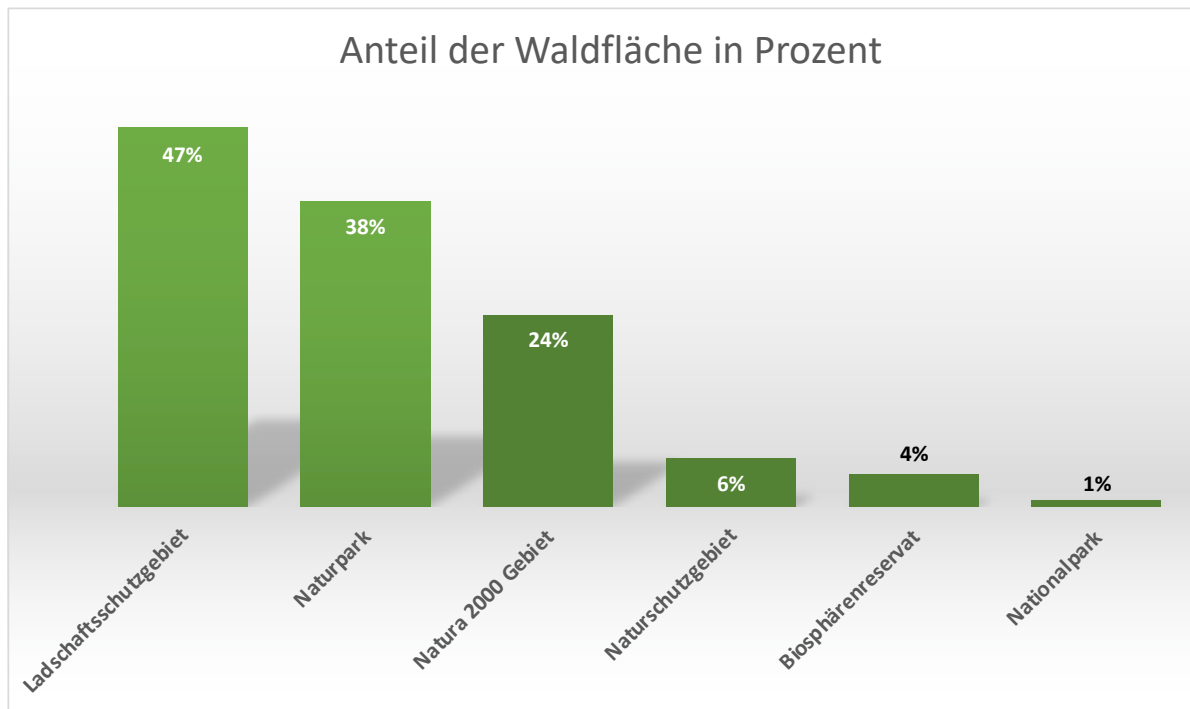
German forest is naturally rejuvenated with an 85% share of young forest cover (trees up to 4 metres high). Plantings account for 13% of forest regeneration. Mainly Douglas fir and oak stands are rejuvenated by plantings. Seeding and coppicing are a rare form of forest rejuvenation in Germany with only 2%.⁵

³University of Hamburg (ED.) (2020): Botanik online (1996 – 2004) – Vegetationszonen <http://www1.biologie.uni-hamburg.de/b-online/d57/57a.htm> (accessed in March 2020)

⁴Federal Ministry of Food and Agriculture (ED.) (2016): Der Wald in Deutschland – Ausgewählte Ergebnisse der dritten Bundeswaldinventur <https://www.bmel.de/SharedDocs/Downloads/DE/Broschueren/bundeswaldinventur3.pdf?blob=publicationFile&v=3> (accessed in April 2020)

⁵Federal Ministry of Food and Agriculture (ED.) (2017): Waldbericht der Bundesregierung 2017 – Langfassung <https://www.bmel.de/SharedDocs/Downloads/DE/Broschueren/Waldbericht2017.pdf?blob=publicationFile&v=3> (accessed in April 2020)

According to a study published by the Thünen Institute, almost two thirds of Germany's forest area is located in protected areas. The diagram below shows the distribution of forests in this publication as follows:



These are, on the one hand, forest areas that are protected under nature conservation law and areas that are protected under forestry law. On the other hand, there are also areas protected under the EU Habitats Directive⁶ Special Areas of Conservation under the Habitats Directive are part of the Natura 2000 protection concept.

According to the data of the Federal Ministry of Food and Agriculture (BMEL), the Federal Agency for Nature Conservation (BfN) and the publication of the Thünen Institute⁷, forest areas in Germany are protected by the following categories of protected areas (alphabetical order)⁸

⁶ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

⁷ Polley, H. Thünen Institute (ED.) (2009): Wald in Schutzgebieten – ein Überblick https://literatur.thuenen.de/digbib_extern/dk041611.pdf (accessed in April 2020)

⁸ Federal Ministry of Food and Agriculture (ED.) (2016): Der Wald in Deutschland – Ausgewählte Ergebnisse der dritten Bundeswaldinventur https://www.bmel.de/SharedDocs/Downloads/DE/Broschueren/bundeswaldinventur3.pdf?__blob=publicationFile&v=3 (accessed in April 2020)

- ✓ Biosphere reserve
- ✓ Landscape protection area
- ✓ National park
- ✓ Natura 2000
- ✓ Nature park
- ✓ Nature conservation area

The forest area is distributed as follows by hectare:

- ✓ Biosphere reserve (0.46 million hectares)
- ✓ Landscape protection area (5.4 million hectares)
- ✓ National park (0.11 million hectares)
- ✓ Natura 2000 (2.7 million hectares)
- ✓ Nature park (4.3 million hectares)
- ✓ Nature conservation area (0.69 million hectares)

These areas partly overlap and a forest area can be protected under different regulations. The intensity of nature conservation and the restrictions vary greatly in the various protected areas. While forest management is hardly restricted in landscape protection areas, all uses in national parks and nature conservation areas must be subordinated to the conservation objective. The proportion of forests completely excluded from use and left to develop naturally is more than 4%.⁹

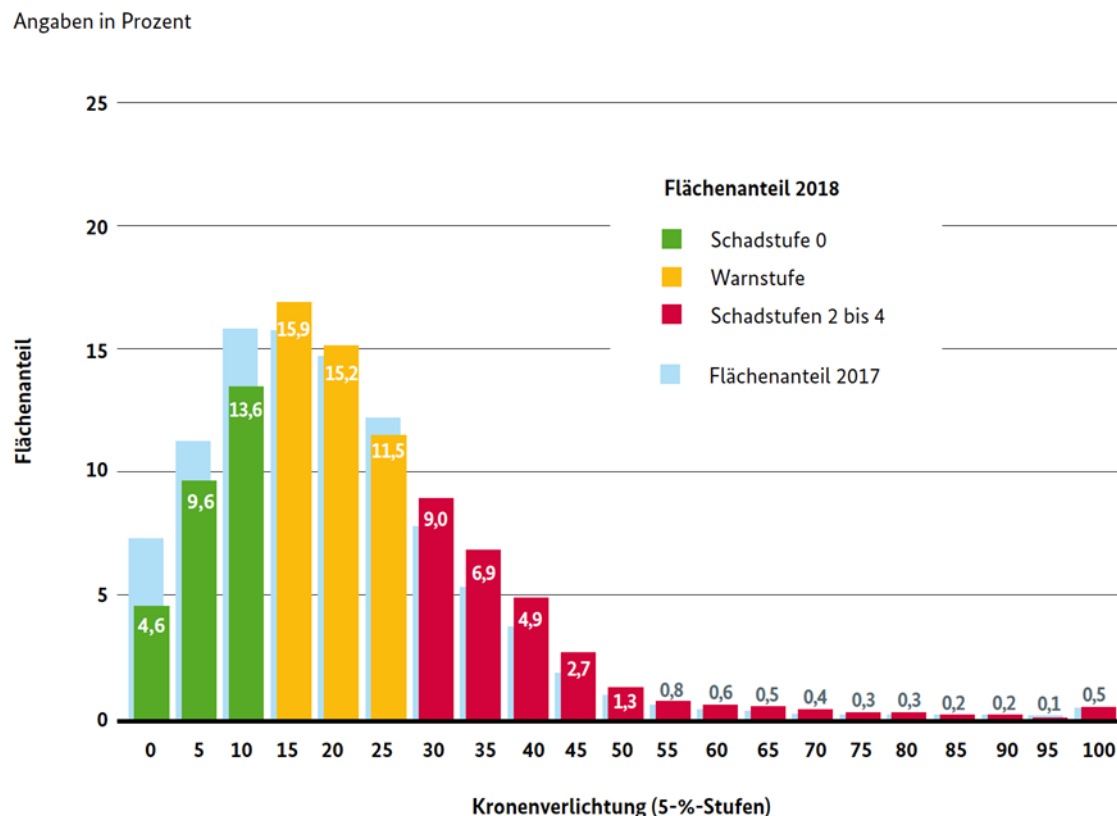
In recent years, German forestry has increasingly had to deal with destructive events in the form of drought, storms and bark beetles. In particular, the ongoing bark beetle infestation will continue to destroy more forest areas in the future.¹⁰ As a result of the destructive events and calamities, 180,000 hectares of forest have died and more than 100 million solid

⁹ Johann Heinrich von Thünen Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries: Dritte Bundeswaldinventur – 1.11 Waldfläche [ha] nach Land und Nutzungseinschränkung
<https://bwi.info/inhalt/1.3.aspx?Text=1.11%20Nutzungseinschränkung&prRolle=public&prInv=BWI2012&prKapitel=1.11>
(accessed in June 2020)

¹⁰Federal Ministry of Food and Agriculture (ED.) (2019): Press release no. 65 Klöckner: “Die Schäden im Wald sind besorgniserregend”
<https://www.bmel.de/SharedDocs/Pressemitteilungen/DE/2019/065-tag-des-waldes.html> (accessed in April 2020)

cubic metres of timber have accumulated on damaged areas.¹¹ The figures are currently being updated on a regular basis and are constantly on the rise.

In Germany's current forest condition survey, the state of forests is indicated by damage levels from 0 to 4. The average distribution of damage across all tree species is documented in the forest condition survey 2018 as follows:¹²

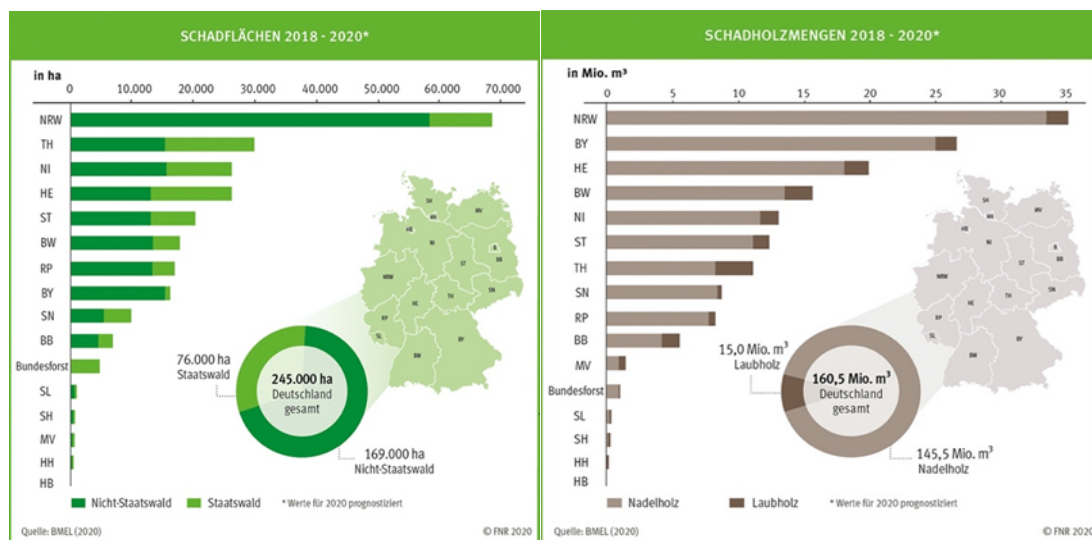


The Federal Ministry of Food and Agriculture (BMEL) concludes that the condition of forests has deteriorated from the previous year, particularly as a result of the prolonged drought. The BMEL also assumes that the full extent of the damage caused by drought will only be apparent in the documentation of the condition of forests for the year 2019.

¹¹Thünen Institute (ED.) (2019): Wissenschaft erleben – Standpunkt: Wie umgehen mit den Waldschäden? <https://www.thuenen.de/de/thema/waelder/forstliches-umweltmonitoring-mehr-als-nur-daten/wie-umgehen-mit-den-waldschaeden/> (accessed in April 2020)

¹²Federal Ministry of Food and Agriculture (ED.) (2019): Ergebnisse der Waldzustandserhebung 2019: Die Trockenheit setzte den Bäumen weiter zu <https://www.bmel.de/DE/Wald-Fischerei/Waelder/texte/Waldzustandserhebung.html> (accessed in April 2020)

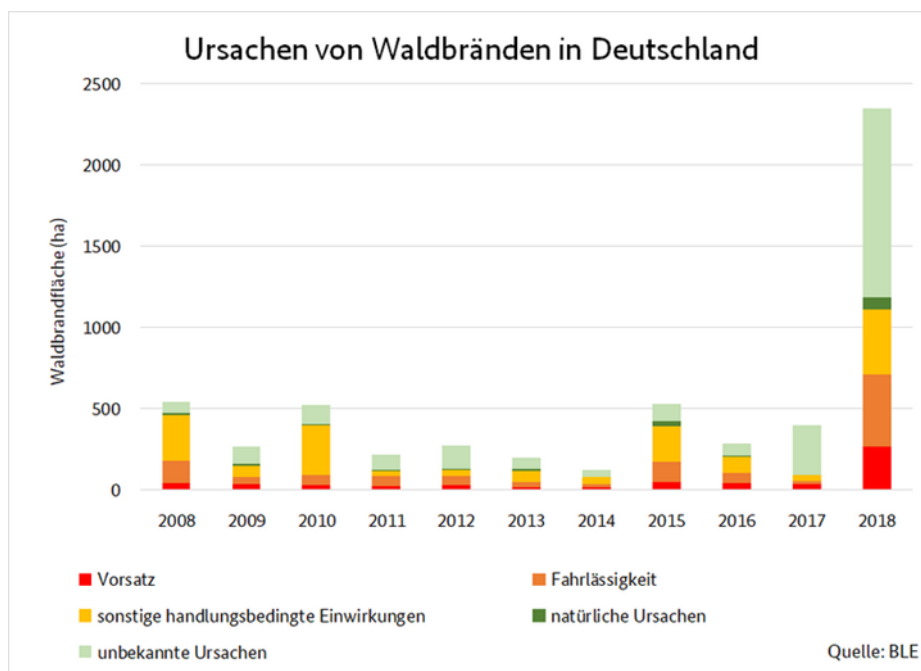
This assumption is confirmed by the figures published in 2020 by the Agency for Renewable Resources (*Fachagentur für nachwachsende Rohstoffe - FNR*), the central coordinating agency for renewable resources in Germany, on the extent of forest damage in 2019. The Agency for Renewable Resources documents the assumption of the Federal Ministry of Food and Agriculture with a level of damage of about 2% of the national forest area for the period 2018 to 2020 and a total of about 22% more wood from damaged areas in the years 2018 to 2020 compared to the amount of wood used in 2015.¹³



The forest fire statistics of the Federal Office for Agriculture and Food (BLE) describe a significant increase in forest fires in 2018 compared to the previous year. The BLE states that 2,480 hectares of forest were lost to fire in 2018.¹⁴

¹³Agency for Renewable Resources (ED.) (2019): BMEL legt Waldschadenzahlen vor https://www.fnr.de/index.php?id=984&tx_news_pi1%5Bnews%5D=11248&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=cbd63ec9eb05b6ed9f91d2246bce81e9 (accessed in April 2020)

¹⁴Federal Ministry of Food and Agriculture (ED.) (2020): Statistics and reports of the BMEL – Forestry and forest monitoring (in German) <https://www.bmel-statistik.de/forst-holz/forstwirtschaft-waldmonitoring/> (accessed in April 2020)



The German government adopted the Forest Strategy 2020 to ensure that forests can continue to be used and maintained in a variety of ways in the future. The Forest Strategy 2020 aims to reconcile the various demands placed on forests as a natural and economic space. It regulates the climate, preserves biodiversity, supplies timber, serves as a place for recreation and provides energy. The Federal Ministry of Food and Agriculture is currently developing a Forest Strategy 2050.¹⁵

According to statements made by the Thünen Institute on 20 March 2020, there are no tree species listed according to CITES (Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora) for Germany. The listings of species like *Quercus*, *Taxus* or *Fraxinus* relate to species originating in Asia.

¹⁵Federal Ministry for Consumer Protection, Food and Agriculture (ED.) (2011): Waldstrategie 2020 https://www.bmel.de/SharedDocs/Downloads/DE/Broschueren/Waldstrategie2020.pdf?__blob=publicationFile&v=5 (accessed in April 2020)

3.2. Description of the timber volume and timber use

With a timber stock of 3.7 billion m³ or 321.4 m³ per hectare, Germany is the European country with the most timber.¹⁶ The timber increment is at a high level at an average of 11.2 m³ per hectare and year and 121.6 million m³ in the entire forest in Germany.

In the period from 2002 to 2012, an average of 76 million m³ (harvest solid cubic metres without bark) of raw wood was used per year.

Of the total timber increment, 15 million m³ went to increasing stocks, 8 million m³ remained as deadwood in the forest and the rest comprised harvest losses such as stumps, brushwood and bark.

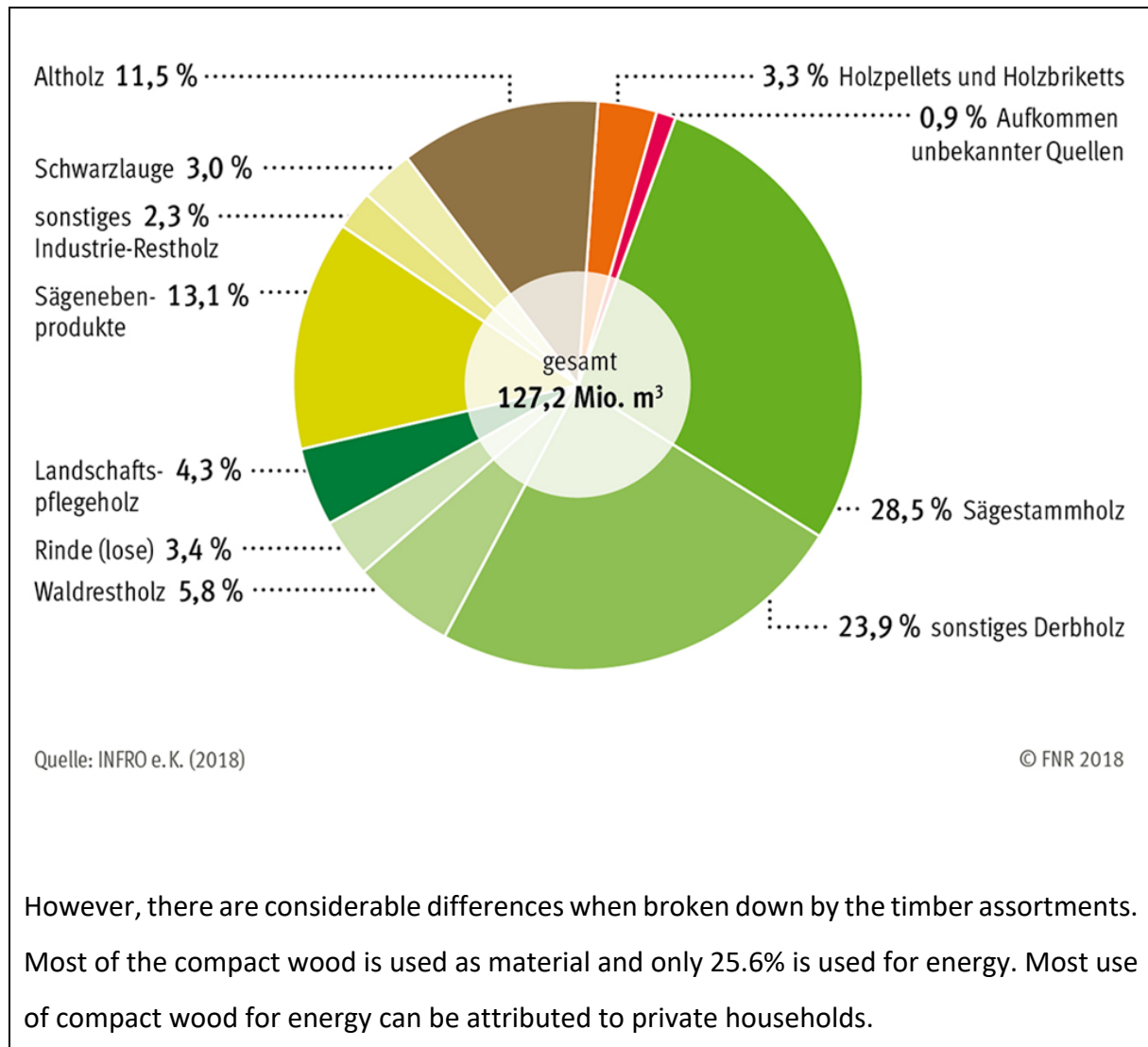
There is no information on illegal logging in Germany. According to estimates by the Thünen Institute, 2% to 5% of the timber imported into Germany comes from illegal sources.¹⁷

The surveys of the wood resource balance show that in Germany there is an annual volume of timber raw materials totalling 127.2 million m³. The wood resource balance reflects both the volume and use of timber and material from landscape management, including the multiple use of residual wood (wood residues) and recycled wood (cascading use). The use of wood for material and energy is currently at the same level (of about 64 million m³). The wood resource balance is shown in the following diagram of the Agency for Renewable Resources:¹⁸

¹⁶Federal Ministry of Food and Agriculture (ED.) (2020): Rohstoffquelle Wald – Holzvorrat auf Rekordniveau <https://www.bundeswaldinventur.de/dritte-bundeswaldinventur-2012/rohstoffquelle-wald-holzvorrat-auf-rekordniveau> (accessed in April 2020)

¹⁷Federal Ministry of Food and Agriculture (ED.) (2019): Internationale Waldpolitik – Illegaler Holzeinschlag https://www.bmel.de/DE/Wald-Fischerei/Waldpolitik/_texte/IllegalerHolzeinschlag.html (accessed in April 2020)

¹⁸Agency for Renewable Resources (ED.) (2020): Basisdaten Nachwachsende Rohstoffe – Wald und Holz <https://basisdaten.fnr.de/land-und-forstwirtschaft/wald-und-holz/> (accessed in April 2020)



3.3. Description of the wood processing industry

The forest in Germany is an important source of timber as a renewable raw material. The forest and wood cluster provides jobs for around 1.1 million people. Based on the current classification, 122,991 companies are allocated to the cluster. In 2016 they generated total sales of EUR 182.39 billion and gross value added of EUR 57.60 billion.¹⁹ The data for the forestry and wood cluster are shown as a diagram below:²⁰

¹⁹ Seitsch, B. - Thünen Institute (ED.) (2013): Cluster Forst und Holz nach neuer Wirtschaftszweigklassifikation - Tabellen für das Bundesgebiet und die Länder 2000 bis 2011 https://literatur.thuenen.de/digbib_extern/bitv/dn052186.pdf (accessed in April 2020)

²⁰Federal Ministry of Food and Agriculture (ED.) (2018): Charta für Holz 2.0 - Klima schützen. Werte schaffen. Ressourcen effizient nutzen. <https://www.charta-fuer-holz.de/mediathek/> (accessed in April 2020)

Cluster Forst & Holz in Deutschland 2016

Branche	Umsatz [Mrd. Euro]	Bruttowertschöpfung [Mrd. Euro]	Unternehmen	Gesamtbeschäftigte
Forstwirtschaft (wgr)	6,00	3,42	33.596	93.096
Holzbearbeitendes Gewerbe	12,50	2,28	3.170	43.756
Holzverarbeitendes Gewerbe	36,51	11,18	22.785	226.365
Holz im Baugewerbe	21,18	7,91	40.279	235.067
Papiergewerbe	43,05	11,12	2.163	131.241
Verlags- u. Druckgewerbe	54,13	20,38	18.551	336.513
Holzhandel	9,02	1,32	2.447	17.084
Cluster Forst & Holz ohne Druck und Verlage	128,26	37,22	104.440	746.609
Cluster Forst & Holz gesamt	182,39	57,60	122.991	1.083.122

Quelle: Becher 2018

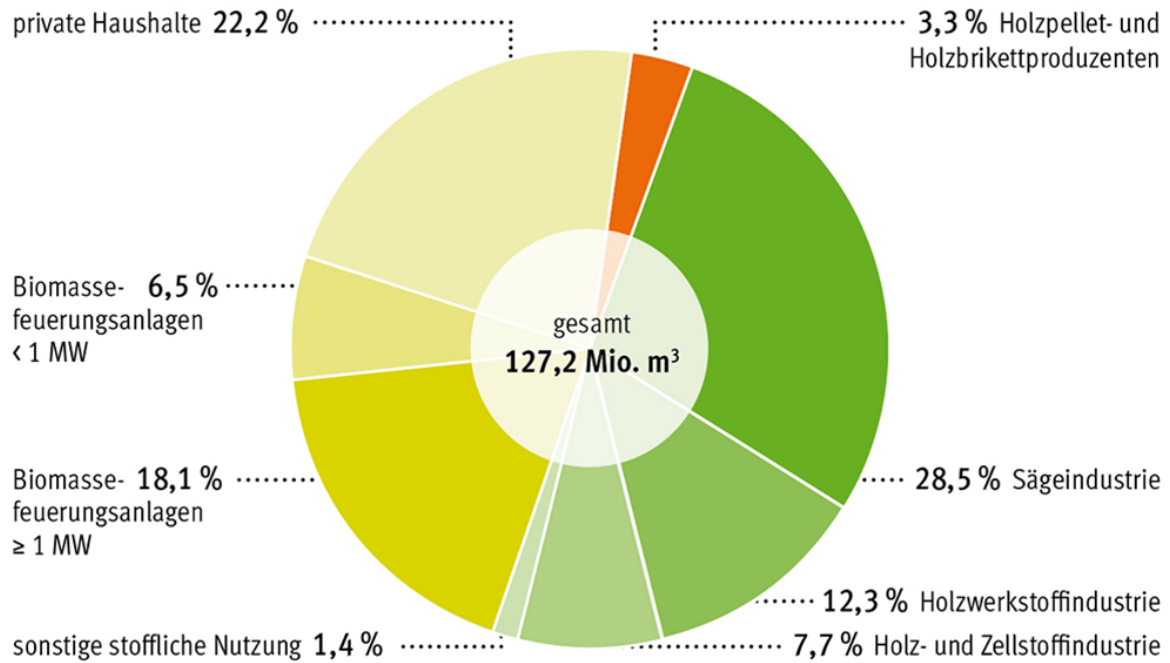
The German wood processing industry is very diversified. It is highly influenced on the one hand by the processors of raw wood such as the sawmill and wood product industry, as well as the pulp and paper industry. In addition, the furniture and packaging industry as well as craft enterprises and wood traders are an important part of the German wood processing industry. The use of wood as a renewable raw material for energy is an important part of the cascading use in the wood processing industry.

On the material side, the sawmill industry is the largest user group of timber raw materials. The sawmill industry accounts for 28.5% (36.3 million m³) of the total volume of timber used, followed by the wood product industry with 12.3% (15.64 million m³). Another important consumer of timber raw materials is the pulp industry with a share of 7.7% (9.8 million m³).

Most timber raw materials for energy are used by private households (22%, 28 million m³), followed by biomass combustion plants ≥ 1 MW²¹ (18.1%, 23 million m³). Biomass combustion plants < 1 MW²² consume 6.5% (8.3 million m³) of the timber volume and 3.3 % (4.2 million m³) is used by wood pellet and wood briquette production.²³

²¹ Rated thermal input²² Rated thermal input²³ Agency for Renewable Resources (ED.) (2018): Rohstoffmonitoring Holz: Daten und Botschaften <https://mediathek.fnr.de/rohstoffmonitoring-holz-daten-und-botschaften.html> (accessed in April 2020)

Timber use in Germany is shown in the following diagram of the Agency for Renewable Resources:²⁴



Quelle: INFRO e.K. (2018)

© FNR 2018

The German sawmill industry is the most important link between the forestry and wood processing industry with approximately 2,000 companies and more than 24,000 employees. Their operations constitute the first processing stage of the raw timber harvested in the forest. The annual sales of the German sawmill industry are approximately EUR 6.5 billion.²⁵ According to data from Prof. Mantau (INFRO) and the diagram of the Agency for Renewable Resources, the structure of the wood product industry is as follows:

²⁴Agency for Renewable Resources (ED.) (2020): Basisdaten Nachwachsende Rohstoffe – Wald und Holz <https://basisdaten.fnr.de/land-und-forstwirtschaft/wald-und-holz/> (accessed in April 2020)

²⁵Deutsche Säge- und Holzindustrie (ED.) (2020): Marktdaten <https://www.saegeindustrie.de/de/content/saegeindustrie/marktdaten> (accessed in April 2020)

	2011	2012	2013	2014	2015	2016	2017	2018
Spanplatten	8,5	8,2	8,2	8,1	8,0	8,3	8,5	8,2
Faserplatten	3,0	3,5	3,6	3,6	3,7	3,8	3,8	3,7
Sperrholz	0,1	0,1	0,1	0,4	0,5	0,5	0,5	0,5
Insgesamt	11,6	11,8	11,9	12,1	12,2	12,6	12,8	12,4

Quelle: StBA (2019)

Angaben in Millionen Kubikmeter;
Sägewerke ab 5.000 m³ Jahreseinschnitt
und mit 10 und mehr Beschäftigten

According to industry figures, the German pulp and paper industry consumed approximately 5.16 million tonnes of pulp (cellulose/wood pulp) in 2019. It produced around 22 million tonnes of paper and cardboard at 153 locations throughout Germany. The industry employed nearly 40,000 people and recorded sales of EUR 14.34 million.²⁶

In 2018, 7.5% of primary energy consumption in Germany was provided by the production of bioenergy. Biogenic waste contributed another 0.9%. In the area of renewable energy, bioenergy has an 86% share of renewable heat and a 23% share of renewable electricity.²⁷

According to figures from the Federal Environment Agency, wood energy accounted for 4.3% of electricity production from renewable energy sources in 2018, which corresponds to around 10.5 billion kilowatt hours. In terms of energy consumption for heating, wood energy had a share of renewable energy of around 65.7% – around 115.9 billion kilowatt hours.²⁸

According to the GWS Research Report 2018/2, more than 40,000 people were employed in the solid biomass sector in 2016.²⁹ Based on industry figures, the bioenergy sector had total sales of EUR 12.1 billion in 2017.³⁰

²⁶Verband deutscher Papierfabriken (ED.) (2020): Aktuelle Statistiken <https://www.vdp-online.de/industrie/statistik> (accessed in April 2020)

²⁷Agency for Renewable Resources (ED.) (2019): Basisdaten Bioenergie Deutschland 2019 https://www.fnr.de/fileadmin/allgemein/pdf/broschueren/basisdaten_bioenergie_2019_web.pdf (accessed in April 2020)

²⁸Federal Environment Agency (ED.) (2020): Erneuerbare Energien in Deutschland – Daten zur Entwicklung im Jahr 2019 https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2020-03-13_hgp-ee-in-zahlen_online.pdf (accessed in April 2020)

²⁹GWS mbH (ED.) (2018): GWS RESEARCH REPORT – Erneuerbar beschäftigt in den Bundesländern <https://www.gws-os.com/de/index.php/publikationen/gws-research-reports.html> (accessed in April 2020)

³⁰Bundesverband Bioenergie e.V. (ED.) (2018): Branchenzahlen <https://www.bioenergie.de/downloads/branchenzahlen> (accessed in April 2020)

4. Review of the sustainability criteria for forest biomass

4.1. Legality of timber harvesting

Step 1: Identification of applicable laws

<p>Applicable laws identified</p>	<ol style="list-style-type: none"> 1. Constitution for the Federal Republic of Germany in the amended version published in the Federal Law Gazette Part III, classification code 100-1, which was last amended by Article 1 of the Law of 15 November 2019 (Federal Law Gazette I p. 1546) - Article 14 2. German Civil Code (<i>Bürgerliches Gesetzbuch</i>) in the version promulgated on 2 January 2002 (Federal Law Gazette I p. 42, 2909; 2003 I p. 738), last amended by Article 1 of the Act of 19 March 2020 (Federal Law Gazette I p. 541); Division 2 General provisions on rights in land Section 873 Acquisition by agreement and registration 3. Ibid: Subtitle 5 Farm lease Land Register Code 4. Federal Forest Act of 2 May 1975 (<i>Bundeswaldgesetz</i>) (Federal Law Gazette I p. 1037), as last amended by Article 1 of the Act of 17 January 2017 (Federal Law Gazette I p. 75) 5. Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market (Text with EEA relevance) 6. Timber Trade Security Act (<i>Holzhandels-Sicherungs-Gesetz</i>) of 11 July 2011 (Federal Law Gazette I p. 1345), last amended by Article 415 of the Ordinance of 31 August 2015 (Federal Law Gazette I p. 1474)
<p>Sources</p>	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/gg/art_14.html (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bgb/ (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bgb/BJNR001950896.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/BJNR010370975.html (accessed in March 2020)

	<p>5. Publication Office of the European Union (ED.) (2020): EUR-Lex https://eur-lex.europa.eu/legal-content/DE/ALL/?uri=CELEX%3A32010R0995 (accessed in March 2020)</p> <p>6. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/holzsig/BJNR134500011.html (accessed in March 2020)</p> <p>7. Forest Stewardship Council (ED.) (2018): FSC National Risk Assessment for Germany: https://fsc.org/en/document-centre/documents/resource/201 (accessed in April 2020)</p> <p>8. FAOLEX Database http://www.fao.org/faolex/results/en/#querystring=aW5tZXRhJTNBc3ViamVidHNIbGVjdGlvbj1GTyZmYW9sZXhfY291bnRyeT1ERVUmZW5kc3RyaW5nPTE= (accessed in April 2020)</p>
Have existing laws been identified?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)
Step 2: Description of enforcement and monitoring	
Description of the practical implementation of the laws	<p>In Germany, property rights in general and for forests are determined by the German Constitution and by Article 14 of the German Civil Code (<i>Bürgerliches Gesetzbuch</i>). Possession and ownership are documented in a land register entry. The general provisions for the documentation of the property are stipulated in the Land Register Code. This is regulated in the German Civil Code (<i>Bürgerliches Gesetzbuch</i>) in Division 2 General provisions on rights in land Section § 873 Acquisition by agreement and registration.</p> <p>As long as no other laws are violated, the management right also lies with the owners of the land. The right to manage forests can be transferred to others in the form of a lease agreement. The requirements for lease agreements and the rights and duties of lessees and lessors are defined by the German Civil Code (<i>Bürgerliches Gesetzbuch</i>) in Subtitle 5.</p> <p>In Germany there are no concessions or state-regulated logging plans. Timber harvesting as well as other forest planning activities (minimum age, diameter, etc.) is usually prepared and monitored by forest rangers employed by public or private forestry enterprises.</p>

The decisions are based on the forest management plans, which must be drawn up at regular intervals by municipal and state forestry enterprises and are usually also drawn up by large private forestry enterprises.

The condition of German forests is monitored at regular intervals by the Thünen Institute on behalf of the Federal Ministry of Food and Agriculture through the Federal Forest Inventory. Laws are identified, and forest planning in Germany is described and evaluated in detail for sustainability criterion 1.6 “Maintenance of the long-term production capacity of the forest”.

All rights and duties of forest owners are prescribed by law. For the most part, this is done at an overarching level through the Federal Forest Act (*Bundeswaldgesetz*) and is further differentiated through state laws.

Each federal state (*Land*) has the authority to monitor compliance with forest laws through the forest supervisory authority (*Forstaufsicht*). Government forestry organisations are monitored by the Federal Forestry Authority (*Bundesforstbehörde*). This means that forest activities are monitored both in private and public forests. The forest supervisory authority (*Forstaufsicht*) is the executive authority of a federal state through which the state ensures legal implementation.

As the structure of the authorities in Germany is very complex, it is presented in detail for the individual federal states and the areas of forestry, nature conservation, water management in a table in the annex.

The Timber Trade Security Act (*Holzhandels-Sicherungs-Gesetz*) is the national implementation of the FLEGT Action Plan (Forest Law Enforcement Governance and Trade) and the EU Timber Trade Regulation (EUTR). The laws aim to combat illegal logging and to

	<p>stop the import of illegally harvested timber. The legislation prohibits economic operators from selling illegal timber and timber products on the European internal market. An economic operator is the individual who places timber or timber products on the European internal market for the first time. Traders are those who buy or sell timber already on the market during commercial activities. In practice, in order to comply with the law, economic operators must integrate a system of due diligence into their business process. According to European legislation, due diligence consists of three parts:</p> <ul style="list-style-type: none"> ✓ gathering information ✓ risk assessment ✓ possible risk mitigation <p>To monitor compliance with the law, each EU member state must designate a “competent authority (CA)”. In Germany, the role of the CA is carried out by the Federal Office for Agriculture and Food (BLE). Paragraph 5 of the Timber Trade Security Act provides for fines of up to EUR 20,000 in the event of violations of the Timber Trade Security Act or the EUTR.</p>
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/gg/art_14.html (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bgb/ (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bgb/BJNR001950896.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/BJNR010370975.html (accessed in March 2020) 5. Publication Office of the European Union (ED.) (2020): EUR-Lex https://eur-lex.europa.eu/legal-content/DE/ALL/?uri=CELEX%3A32010R0995 (accessed in March 2020) 6. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/holzsig/BJNR134500011.html (accessed in March 2020) 7. Forest Stewardship Council (ED.) (2018): FSC National Risk Assessment for Germany: https://fsc.org/en/document-centre/documents/resource/201 (accessed in April 2020)

	<p>8. GD Holz (ED.) (2020): HolzSiG https://www.gdholz.net/monitoring-organisation/holzsig.html (accessed in April 2020)</p> <p>9. Reusch, P.; D. Bernhard reuschlaw Legal Consultants (ED.) (2019): Auf dem Holzweg? Status quo der EU-Holzhandelsverordnung https://www.reuschlaw.de/news/auf-dem-holzweg-status-quo-der-europaeischen-holzhandelsverordnung/ (accessed in April 2020)</p>
Are enforcement and monitoring ensured for the identified laws?	<p><input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)</p>
Degree of compliance of the criterion “Legality of timber harvesting”	
<input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled	

Step 3: Evaluation of the effectiveness of the legal framework on the legality of timber harvesting				
Evaluation of the practical implementation of the law and explanation for the evaluation	<p>In step one, laws were identified that enshrine the sustainability criterion “legality of timber harvesting” in law.</p> <p>The second step described how the identified laws for the sustainability criterion “legality of timber harvesting” are regulated, practically enforced and monitored.</p> <p>For the two indicators of the Worldwide Governance Indicators, Germany has a rating of 1.63 (as of 2018) for “rule of law” and 1.95 (as of 2018) for “control of corruption”, which are very good indicator values. Both values are in the top fourth of the scale. This means that the rule of law and corruption control are implemented “well” to “very well” in Germany and the legality of timber harvesting can be considered guaranteed.</p> <p>On this basis, the sustainability criterion “legality of timber harvesting” is rated in category A.</p>			
Sources	<p>1. World Bank (ED.) (2018): Worldwide Governance Indicators https://info.worldbank.org/governance/wgi/ (accessed in March 2020)</p>			
Effectiveness (points):	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;"><input checked="" type="checkbox"/> Category A (20 points)</td> <td style="width: 33%;"><input type="checkbox"/> Category B (10 points)</td> <td style="width: 33%;"><input type="checkbox"/> Category C (0 points)</td> </tr> </table>	<input checked="" type="checkbox"/> Category A (20 points)	<input type="checkbox"/> Category B (10 points)	<input type="checkbox"/> Category C (0 points)
<input checked="" type="checkbox"/> Category A (20 points)	<input type="checkbox"/> Category B (10 points)	<input type="checkbox"/> Category C (0 points)		

4.2. Forest regeneration	
Step 1: Identification of applicable laws	
Applicable laws identified	<ol style="list-style-type: none"> 1. Federal Forest Act of 2 May 1975 (<i>Bundeswaldgesetz</i>) (Federal Law Gazette I p. 1037), as last amended by Article 1 of the Act of 17 January 2017 (Federal Law Gazette I p. 75) is Article 9 Forest preservation (own translation; no official translation of this law exists in English) 2. Ibid: Article 11 Forest management (own translation) 3. Federal Nature Conservation Act of 29 July 2009 (<i>Bundesnaturschutzgesetz</i>) (Federal Law Gazette I, p. 2542), as last amended by Article 1 of the Act of 4 March 2020 (Federal Law Gazette I, p. 440) is Article 5 Agriculture, forestry and fisheries 4. Ibid: Article 3 Competencies, tasks and authorisations, contractual agreements, co-operation of authorities
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet http://www.gesetze-im-internet.de/bwaldg/_9.html (accessed in 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/BJNR010370975.html (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/_3.html (accessed in March 2020)
Have existing laws been identified?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)
Step 2: Description of enforcement and monitoring	
Description of the practical implementation of the laws	<p>According to the Article 9 of the Federal Forest Act (<i>Bundeswaldgesetz</i>), forest may only be cleared and converted to another type of use in Germany for the purpose of forest conservation after approval by the authority responsible under</p>

state law. When deciding on an application for conversion, the rights, obligations and economic interests of the forest owner as well as the interests of the general public must be weighed up against and among one another. Permission is to be refused if preservation of the forest is primarily in the public interest, and especially if the forest is of essential importance for the functional capacity of the natural regime, public recreation or silvicultural production.

In the case permission is granted to change the land use of a certain forest area, for example for infrastructure measures, compensation must take the form of afforestation or compensation payments.

The Federal Forest Act (*Bundeswaldgesetz*) in Article 11 Forest management stipulates that the forest must be managed properly and sustainably. The individual forest laws of the federal states must stipulate for all forest owners that thinned out forest stands or cleared forest areas must be reforested and supplemented within a reasonable period of time if natural restocking is incomplete. Furthermore, forests may not be destroyed. If a forest has to be cleared for special reasons or an area has to be reforested, an environmental impact assessment pursuant to Directive 2011/92/EU (EIA Directive) must be carried out. These requirements are derived from the German federal and state forest laws as well as the soil and nature conservation laws.

Each federal state (*Land*) has the authority to monitor compliance with forest laws through the forest supervisory authority (*Forstaufsicht*). Government forestry organisations are monitored by the Federal Forestry Authority (*Bundesforstbehörde*). This means that forest activities are monitored both in private and public forests. The forest

	<p>supervisory authority (<i>Forstaufsicht</i>) is the executive authority of a federal state through which the state ensures legal implementation.</p> <p>Article 5(3) of the Federal Nature Conservation Act (<i>Bundesnaturschutzgesetz</i>) stipulates that regarding the use of woodlands for forestry purposes, the aim must be to establish semi-natural forests and to manage these sustainably without clear-felling. An adequate proportion of native woodland plants must be retained.</p> <p>On the basis of the division of competences laid down in the German Constitution, the enforcement of nature conservation law falls, with few exceptions, under the remit of the authorities of the <i>Länder</i> (federal states) responsible for nature conservation and landscape management under state law. The Federal Agency for Nature Conservation is only responsible to the extent that it has been assigned responsibilities under the Federal Nature Conservation Act (<i>Bundesnaturschutzgesetz</i>). This is also based on practical considerations, as the state authorities are often better placed to assess the circumstances on the ground.</p>
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet http://www.gesetze-im-internet.de/bwaldg/_9.html (accessed in 2020) 2. Forest Stewardship Council (ED.) (2018): FSC National Risk Assessment for Germany: https://fsc.org/en/document-centre/documents/resource/201 (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/BJNR010370975.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html (accessed in March 2020) 5. Federal Office for Nature Conservation (ED.) (2020): Naturschutzrecht https://www.bfn.de/themen/recht/naturschutzrecht.html (accessed in March 2020) 6. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/_3.html (accessed in March 2020)

Are enforcement and monitoring ensured for the identified laws?	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no (Audit required)
Degree of compliance of the criterion “forest regeneration”		
<input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled		

Step 3: Evaluation of the effectiveness of the legal framework for forest regeneration	
Evaluation of the practical implementation of the law and explanation for the evaluation	<p>In step one, laws were identified that enshrine the sustainability criterion “forest regeneration” in law.</p> <p>The second step described how the identified laws for the sustainability criterion “forest regeneration” are regulated, practically enforced and monitored.</p> <p>Data from the FAO’s <i>Global Forest Resource Assessment (FRA)</i> show that the forested area in Germany increased by 0.02% in the period from 2010 to 2015. This is an indication that forests are reliably regenerated in Germany. This trend is also confirmed by the most recent carbon inventory created by the Thünen Institute, which confirms that the forested area expanded by 3,617 hectares between 2012 and 2017. Furthermore, this is also confirmed by all the Federal Forest Inventories carried out since 1986.</p> <p>On this basis, the sustainability criterion “forest regeneration” is rated in category A.</p>
Sources	<ol style="list-style-type: none"> 1. Food and Agriculture Organization (ED.) (2015): Global Forest Resource Assessment http://www.fao.org/forest-resources-assessment/past-assessments/fra-2015/en/ (accessed in March 2020) 2. Thünen Institute (ED.) (2017): Kohlenstoffinventur 2017 https://www.thuenen.de/de/wo/projekte/waldressourcen-und-klimaschutz/projekte-treibhausgasmonitoring/kohlenstoffinventur-2017/ (accessed in March 2020)
Effectiveness (points):	<input checked="" type="checkbox"/> Category A (20 points) <input type="checkbox"/> Category B (10 points) <input type="checkbox"/> Category C (0 points)

4.3. Biodiversity	
Step 1: Identification of applicable laws	
Applicable laws identified	<ol style="list-style-type: none"> 1. Act on Nature Conservation and Landscape Management (Federal Nature Conservation Act - <i>Bundesnaturschutzgesetz</i>) Article 14 Interventions in nature and landscape (date of issue: 29.07.2009) 2. Act on Nature Conservation and Landscape Management (Federal Nature Conservation Act - <i>Bundesnaturschutzgesetz</i>) Article 5 Agriculture, forestry and fisheries (date issued: 29.07.2009) 3. Federal Act on Forest Conservation and the Promotion of Forestry (Federal Forest Act - <i>Bundeswaldgesetz</i>) Article 8 Safeguarding the functions of the forest in the planning and measures of public project executing agencies (own translation - law not officially translated into English) (date issued: 02.05.1975) 4. Federal Act on Forest Conservation and the Promotion of Forestry (Federal Forest Act - <i>Bundeswaldgesetz</i>) Article 1 Purpose of the Act (date issued: 02.05.1975)
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/_14.html (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/_5.html (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet http://www.gesetze-im-internet.de/bwaldg/_8.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020) 5. FAOLEX Database http://www.fao.org/faolex/results/en/#querystring=aW5tZXRhJTNC3ViamVjdHNIbGVjdGlvbj1GTyZmYW9sZXhfY291bnRyeT1ERVUmZW5kc3RyaW5nPTE= (accessed in April 2020)
Have existing laws been identified?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)

Step 2: Description of enforcement and monitoring

Description of the practical implementation of the laws

The Federal Nature Conservation Act (*Bundesnaturschutzgesetz*) (Article 14) stipulates that the use of soil must not be deemed an intervention, provided the purposes of nature conservation and landscape management are taken into account.

In the case of forestry, Article 5 of the Federal Nature Conservation Act (*Bundesnaturschutzgesetz*) stipulates that the natural features of the arable land (soil, water, flora, fauna) must not be impaired beyond the extent required to achieve a sustainable yield. In addition, the landscape components required for the linking of biotopes must be preserved and, where possible, their numbers increased.

Germany has also signed many international and European agreements to protect biodiversity, such as the EU Habitats Directive (Council Directive 92/43/EEC), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which promotes the conservation of biodiversity. The Habitats Directive is explained in more detail under 1.5 “Regulations for protected areas”.

Forest management measures in Germany are regulated by the Federal Forest Act (*Bundeswaldgesetz*) and the Forest Acts of the *Länder* (federal states). If forest areas are managed, the measures pursuant to Article 8 of the Federal Forest Act (*Bundeswaldgesetz*) must be coordinated with the authorities responsible for forestry. This is done through management plans such as the forest management plan, which also take into account the conservation values of the forest, and measures for biodiversity conservation must be coordinated accordingly.

	<p>Article 1 of the Federal Forest Act (<i>Bundeswaldgesetz</i>) defines the purpose of the law as the conservation of forests due to their protective function.</p> <p>Each federal state (<i>Land</i>) has the authority to monitor compliance with forest laws through the forest supervisory authority (<i>Forstaufsicht</i>). Government forestry organisations are monitored by the Federal Forestry Authority (<i>Bundesforstbehörde</i>). This means that forest activities are monitored both in private and public forests. The forest supervisory authority (<i>Forstaufsicht</i>) is the executive authority of a federal state through which the state ensures legal implementation.</p> <p>On the basis of the division of competences laid down in the German Constitution, the enforcement of nature conservation law falls, with few exceptions, under the remit of the authorities of the <i>Länder</i> (federal states) responsible for nature conservation and landscape management under state law. The Federal Agency for Nature Conservation is only responsible to the extent that it has been assigned responsibilities under the Federal Nature Conservation Act (<i>Bundesnaturschutzgesetz</i>). This is also based on practical considerations, as the state authorities are often better placed to assess the circumstances on the ground.</p>
Sources	<ol style="list-style-type: none"> 1. Forest Stewardship Council (ED.) (2018): FSC National Risk Assessment for Germany: https://fsc.org/en/document-centre/documents/resource/201 (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/_14.html (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/_5.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet http://www.gesetze-im-internet.de/bwaldg/_8.html (accessed in March 2020)

	5. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020)
Are enforcement and monitoring ensured for the identified laws?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)
Degree of compliance of the criterion "Biodiversity"	
<input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled	

Step 3: Evaluation of the effectiveness of the legal framework for biodiversity	
Evaluation of the practical implementation of the law and explanation for the evaluation	<p>In step one, laws were identified that enshrine the sustainability criterion "Biodiversity" in law.</p> <p>The second step described how the identified laws for the sustainability criterion "maintenance of biodiversity" are regulated, practically enforced and monitored.</p> <p>The Forest Report of the Federal Ministry of Food and Agriculture shows that the deadwood stock in German forests is 20.6 m³ of deadwood per hectare and 224 million m³ in total (Federal Forest Inventory 2012). Compared to the 2002 Federal Forest Inventory, the proportion of deadwood in German forests has increased by 18%. This is largely a result of the targeted deadwood programmes for habitat and biotope management.</p> <p>According to the results of the Federal Forest Inventory, there are a total of 93 million trees with ecologically significant characteristics in German forests. This is an average of 9 per hectare. Of these, 22 million are trees with woodpecker nests or cavities, 741,000 are eyrie (nesting) trees and 1 million are marked biotope trees. This data was not collected in the 2002 Federal Forest Inventory.</p> <p>With regard to the naturalness of the forests in Germany, almost the entire forest is classified as "semi-natural". The UNECE report</p>

	<p><i>Forests in the ECE Region: Trends and Challenges in Achieving the Global Objectives on Forest Management</i> shows that the forest area classified as “semi-natural” has stayed constant. The values for the category “forest area undisturbed” are zero, as there are no forest areas in Germany that are not affected by humans. The values for the category “plantation” are also zero. It can therefore be concluded that no “semi-natural” forests will be converted to plantation use.</p> <p>According to data from the FAO’s <i>Global Forest Resource Assessment</i>, the area of forests for biodiversity conservation and for specific conservation objectives has been steadily increasing between 2000 and 2015.</p> <p>The Federal Forest Inventories 2002 and 2012 show that the forests are 77 years old on average during this period and are four and a half years older than in 2012 than in 2002. The proportion of trees over 100 years old has increased by 18%. The largest share of land is in the 41 to 60 age group (2.2 million hectares). In addition, the diameters of trees in German forests have also increased. The number of trees with large diameters increased during the Federal Forest Inventory 2012 compared to 2002.</p> <p>The facts and values listed for the various indicators suggest and allow the conclusion to be drawn that biodiversity has been successfully maintained and expanded and enforced in national legislation and thus also on national forest areas.</p> <p>Since at least two of the indicator values for the sustainability criterion “maintenance of biodiversity” show positive development for Germany, the sustainability criterion “maintenance of biodiversity” is rated in category A.</p>
Sources	<ol style="list-style-type: none"> 1. Federal Ministry for Consumer Protection, Food and Agriculture (ED.) (2017): Waldbericht der Bundesregierung – Langfassung https://www.bmel.de/DE/Wald-Fischerei/Forst-Holzwirtschaft/_texte/Waldbericht2017.html (accessed in April 2020)

	<p>2. UNECE (ED.) (2015): FORESTS IN THE ECE REGION: TRENDS AND CHALLENGES IN ACHIEVING THE GLOBAL OBJECTIVES ON FORESTS http://www.unece.org/forests/forests-in-the-ece-region-2015.html (accessed in March 2020)</p> <p>3. Food and Agriculture Organization (ED.) (2015): Global Forest Resource Assessment http://www.fao.org/forest-resources-assessment/past-assessments/fra-2015/en/ (accessed in March 2020)</p> <p>4. Federal Ministry for Consumer Protection, Food and Agriculture (ED.) Der Wald in Deutschland – Ausgewählte Ergebnisse der dritten Bundeswaldinventur https://www.bmel.de/SharedDocs/Downloads/Broschueren/Bundeswaldinventur3.html (accessed in March 2020)</p>
Effectiveness (points):	<input checked="" type="checkbox"/> Category A (20 points) <input type="checkbox"/> Category B (10 points) <input type="checkbox"/> Category C (0 points)

4.4. Maintenance of soil quality	
Step 1: Identification of applicable laws	
Applicable laws identified	<ol style="list-style-type: none"> 1. Act on Protection against Harmful Changes to Soil and on Remediation of Contaminated Sites (Federal Soil Protection Act – <i>Bundes-Bodenschutzgesetz</i>) Article 1 Purpose and Principles of the Act (date issued: 17.03.1998) 2. Act on Protection against Harmful Changes to Soil and on Remediation of Contaminated Sites (Federal Soil Protection Act – <i>Bundes-Bodenschutzgesetz</i>) Article 4 Obligations to Prevent Hazards (date issued: 17.03.1998) 3. Act on Protection against Harmful Changes to Soil and on Remediation of Contaminated Sites (Federal Soil Protection Act – <i>Bundes-Bodenschutzgesetz</i>) Article 26 Provisions Regarding Fines (date issued: 17.03.1998) 4. Federal Act on Forest Conservation and the Promotion of Forestry (Federal Forest Act - <i>Bundeswaldgesetz</i>) Article 1 Purpose of the Act (own translation; no official translation of this law exists in English) (date issued: 02.05.1975)

	<p>5. Federal Act on Forest Conservation and the Promotion of Forestry (Federal Forest Act - <i>Bundeswaldgesetz</i>) Article 11 Forest management (own translation) (date issued: 02.05.1975)</p> <p>6. Federal Act on Forest Conservation and the Promotion of Forestry (Federal Forest Act - <i>Bundeswaldgesetz</i>) Article 41a Forest surveys (own translation) (date issued: 02.05.1975)</p> <p>7. Act on Nature Conservation and Landscape Management (Federal Nature Conservation Act - <i>Bundesnaturschutzgesetz</i>) Chapter 3 General protection of nature and landscape (date of issue: 29.07.2009)</p>
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bbodschg/_1.html (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bbodschg/_4.html (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bbodschg/_26.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020) 5. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_11.html (accessed in March 2020) 6. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_41a.html (accessed in March 2020) 7. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/ (accessed in March 2020) 8. FAOLEX Database http://www.fao.org/faolex/results/en/#querystring=aW5tZXRhJTNBc3ViamVjdHNIbGVjdGlvbj1GTyZmYW9sZXhfy291bnRyeT1ERVUmZW5kc3RyaW5nPTE= (accessed in April 2020)
Have existing laws been identified?	<p style="text-align: center;"><input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)</p>
Step 2: Description of enforcement and monitoring	
Description of the practical implementation of the laws	<p>The purpose of the Federal Soil Protection Act (<i>Bundes-Bodenschutzgesetz</i>) (Article 1) is to protect or restore the functions of the soil on a permanent sustainable basis. These actions include prevention of harmful soil changes (to the soil),</p>

rehabilitation of the soil, of contaminated sites and of waters contaminated by such sites; and precautions against negative soil impacts. Where impacts are made on the soil, disruptions of its natural functions and of its function as an archive of natural and cultural history should be avoided as far as possible.

Article 4 of the Federal Soil Protection Act (*Bundes-Bodenschutzgesetz*) on the duties of hazard prevention stipulates that any person who is by his action affecting the soil shall act in such a manner that harmful soil changes do not occur. Furthermore, property owners are obligated to take measures to prevent harmful soil changes originating from their property. In addition, the party who caused a harmful soil change is obligated to remediate the soil and contaminated sites, and any water pollution caused by harmful soil changes or contaminated sites, in such a manner that no hazards occur in the long term.

Compliance with soil protection is monitored at various levels by the following authorities:

- ✓ Supreme soil protection authority (*Oberste Bodenschutzbehörde*)
- ✓ Higher soil protection authority (*Obere Bodenschutzbehörde*)
- ✓ Lower soil protection authority (*Untere Bodenschutzbehörde*)

These are often attached to authorities or ministries of the various federal states that are responsible for the agricultural sector.

In the case of administrative offences which violate the Federal Soil Protection Act (*Bundes-Bodenschutzgesetz*), fines of EUR 10,000 are due. In some cases, fines of up to EUR 50,000 may be imposed.

The fulfilment of the duty of precaution in the case of forestry land use is governed by Article 1 of the Federal Forest Act (*Bundeswaldgesetz*), as well as the forestry and forest laws of the individual federal states. In the section on the purpose of the law, the Federal Forest Act (*Bundeswaldgesetz*) stipulates that the forest must be conserved, if necessary improved and its proper management ensured on a sustainable basis due to its economic benefits (utility function) and its importance for the environment, especially for soil fertility.

Article 11 of the Federal Forest Act (*Bundeswaldgesetz*) stipulates that forests are to be managed properly and sustainably within the scope of their intended purpose.

Under Article 41a Forest surveys of the Federal Forest Act (*Bundeswaldgesetz*), the Federal Ministry of Food and Agriculture is authorised to collect data on the nutrient supply and pollution of forest soils (Forest Soil Survey) by statutory order with the consent of the *Bundesrat* (legislative body that represents the sixteen *Länder* of Germany at the federal level).

Each federal state (*Land*) has the authority to monitor compliance with forest laws through the forest supervisory authority (*Forstaufsicht*). Government forestry organisations are monitored by the Federal Forestry Authority (*Bundesforstbehörde*). This means that forest activities are monitored both in private and public forests. The forest supervisory authority (*Forstaufsicht*) is the executive authority of a federal state through which the state ensures legal implementation.

Chapter 3 of the Federal Nature Conservation Act (*Bundesnaturschutzgesetz*) states that intervening parties must primarily avoid any significant adverse effects on nature and

	<p>landscape. Unavoidable significant adverse effects are to be offset via compensation measures (<i>Ausgleichsmaßnahmen</i>) or substitution measures (<i>Ersatzmaßnahmen</i>) or, where such offset is not possible, via monetary substitution. Furthermore, the use of soil for forestry is not to be deemed an intervention, provided the purposes of nature conservation and landscape management are taken into account.</p>
<p>Sources</p>	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bbodschg/_1.html (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bbodschg/_4.html (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bbodschg/_26.html (accessed in March 2020) 4. Ministry for Environment, Agriculture, Conservation and Consumer Protection of the State of North Rhine-Westphalia (ED.) (2020): Wer macht was – Bodenschutz https://www.umwelt.nrw.de/umwelt/wer-macht-was/wer-macht-was-bodenschutz/ (accessed in 2020) 5. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020) 6. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_11.html (accessed in March 2020) 7. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_41a.html (accessed in March 2020) 8. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/ (accessed in March 2020)
<p>Are enforcement and monitoring ensured for the identified laws?</p>	<p><input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)</p>
<p>Degree of compliance of the criterion “Maintenance of soil quality”</p>	
<p><input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled</p>	

Step 3: Evaluation of the effectiveness of the legal framework for the maintenance of soil quality

Evaluation of the practical implementation of the law and explanation for the evaluation

In step one, laws were identified that enshrine the sustainability criterion “maintenance of soil quality” in law.

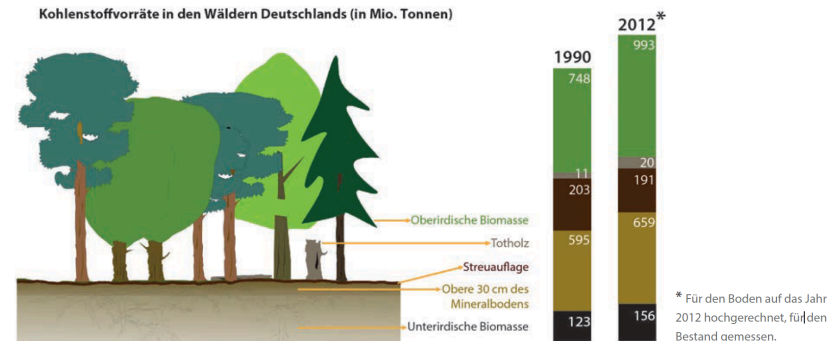
The second step described how the identified laws for the sustainability criterion “maintenance of soil quality” are regulated, practically enforced and monitored.

The comparison of the first and second Forest Soil Survey of German forests shows that the condition of forest soils has improved slightly. This is due both to the sustainable management of forests by forest owners and foresters and to the efforts of forestry and environmental policy.

According to the Forest Soil Survey in Germany, improved air pollution control, forest restructuring and soil protection liming have improved the following parameters of forest soils:

- ✓ The soils are less acidic. This is shown by the increased pH values.
- ✓ The humus condition and base saturation of the soils have improved.
- ✓ Spruce, pine, beech and oak are predominantly well nourished (at the time of the Forest Soil Survey, currently no longer applicable due to calamities and drought)
- ✓ Heavy metal inputs into the forest and the content of heavy metal in the humus layer have decreased.

Carbon sequestration was positively influenced by silvicultural changes and soil protection liming. This development is also reflected in the Forest Soil Survey.³¹



In the period between 1990 and 2006, the annual increase in carbon stocks from the humus and mineral soil to a depth of 90 cm is 0.75 tonnes per hectare.

The Forest Soil Survey has other meaningful data, graphs and maps that comprehensively describe the development and condition of the soil.

In addition, guides and reports are available, for example from the *Kuratorium für Waldarbeit und Forsttechnik* (research institution with the aim of contributing to the long-term sustainability of forestry through applied research and knowledge transfer), which provide information on soil-conserving forest management.³² These guides are often also made available as informational material by the forestry enterprises of the individual federal states.

³¹ Johann Heinrich von Thünen-Institut (2014): Wissenschaft erleben
https://www.thuenen.de/media/publikationen/wissenschaft-erleben/wissenschaft_erleben_2014-1.pdf
 (accessed in June 2020)

³² Bodenschonende Holzernte - Abschlussbericht zum Auftrag der Forstchefkonferenz an das Kuratorium für Waldarbeit und Forsttechnik e. V. (KWF) 2010 as well as the following documents

	<p>Furthermore, this information is an integral part of the German PEFC Forest Standard “Forest health and vitality” 2.5 and Guide 3.</p> <p>In Germany there is sufficient monitoring of forest soils, and the condition of forest soils has improved slightly between Forest Soil Surveys. In addition, information, guides and best practice examples on soil-conserving forest management are available.</p> <p>On this basis, the sustainability criterion “maintenance of soil quality” is rated in category A.</p>		
Sources	<ol style="list-style-type: none"> 1. Federal Ministry for Consumer Protection, Food and Agriculture (ED.) (2019): Gesündere Waldböden: Ergebnisse der zweiten Bodenzustandserhebung im Wald https://www.bmel.de/DE/Wald-Fischerei/Waelder/texte/Bodenzustandserhebung.html (accessed in March 2020) 2. Kuratorium für Waldwirtschaft und Forsttechnik (ED.) (2010) Bodenschonende Holzernte – Abschlussbericht zum Auftrag vom FCK an das KWF Herausgeber https://www.kwf-online.de/index.php/wissenstransfer/technikfolgenabschaetzung/337-forsttechnik-bewertung-und-entwicklung-bodenschonung-ag-boden-des-kwf (accessed in March 2020) 		
Effectiveness (points):	<input checked="" type="checkbox"/> Category A (20 points)	<input type="checkbox"/> Category B (10 points)	<input type="checkbox"/> Category C (0 points)

4.5. Regulations for protected areas	
Step 1: Identification of applicable laws	
Applicable laws identified	<ol style="list-style-type: none"> 1. Federal Nature Conservation Act of 29 July 2009 (<i>Bundesnaturschutzgesetz</i>) (Federal Law Gazette I p. 2542), as last amended by Article 1 of the Act of 4 March 2020 (Federal Law Gazette I p. 440) Chapter 1 Articles 1 - 5 2. Ibid: Chapter 4 Articles 20 - 36 3. Federal Forest Act of 2 May 1975 (<i>Bundeswaldgesetz</i>) (Federal Law Gazette I p. 1037), as last amended by Article 1 of the Act of 17 January 2017 (Federal Law Gazette I p. 75) Article 8 Safeguarding the functions of the forest in the planning and measures of public project executing

	<p>agencies (own translation; no official translation of this law exists in English)</p> <p>4. Ibid: Article 11 Forest management (own translation)</p> <p>5. Federal Water Act of 31 July 2009 (Federal Law Gazette I p. 2585), as last amended by Article 2 of the Act of 4 December 2018 (Federal Law Gazette I p. 2254) Article 78 a and d Other protective measures for designated flood retention areas (own translation)</p>
<p>Source s</p>	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html#BJNR254210009BJNG000100000 (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/ (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_8.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_11.html (accessed in March 2020) 5. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/whg_2009/_78a.html (accessed in March 2020) 6. FAOLEX Database http://www.fao.org/faolex/results/en/#querystring=aW5tZXRhJTNC3ViamVjdHNIbGVjdGlvbj1GTyZmYW9sZUhFY291bnRyeT1ERVUmZW5kc3RyaW5nPTE= (accessed in April 2020)
<p>Have existing laws been identified?</p>	<p><input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)</p>
<p style="text-align: center;">Step 2: Description of enforcement and monitoring</p>	
<p>Description of the practical implementation of the laws</p>	<p>The various classifications of protected areas in Germany are defined at international, national and sub-national level. The different classifications of protected areas and different provisions governing them regulate whether forest management is permitted and to what extent management is permitted in the respective protected areas.</p> <p>Chapter 1 of the Federal Nature Conservation Act (<i>Bundesnaturschutzgesetz</i>) defines the general provisions of the Act. These include the objectives of nature conservation, the</p>

conservation values and the inclusion of agriculture and forestry in nature conservation.

Chapter 4 of the Federal Nature Conservation Act (*Bundesnaturschutzgesetz*) lays down the various regulations for the individual classifications of nature conservation areas. Article 1 Articles 20 – 30 sets out the legal provisions for interlinked biotopes and biotope networks, as well as protected parts of nature and landscape.

In Article 2 Articles 31 – 36 relating to the Natura 2000 network, Germany fulfils the obligations arising from Directives 92/43/EEC and 2009/147/EC to establish and protect the coherent European Natura 2000 ecological network as defined in Article 3 of Directive 92/43/EEC.

In Germany, Natura 2000 comprises the sites designated under the Habitats and Birds Directives. Forests may generally be used in Natura 2000 sites if the silvicultural measures undertaken do not cause the conservation status of FFH habitat types or habitats of species protected under the Habitats or Birds Directives to deteriorate.

According to Article 8 of the Federal Forest Act (*Bundeswaldgesetz*), the executing agencies of public projects must take the functions of the forest into account when planning and implementing measures which involve the use of forest areas or which may affect forest areas in their effects. This means to conserve and, if necessary, to increase its use (utility function) due to its economic benefits and because of its importance for the environment, in particular for the long-term functional capacity of the natural regime, the landscape and the protective function.

Furthermore, Article 11 stipulates that the management of the forest must take appropriate account of its function as an archive of natural and cultural history. The Federal Forest Act (*Bundeswaldgesetz*) is further specified by the individual forest and forestry laws of the federal states.

According to Article 78a of the Federal Water Act, the conversion of alluvial forests to another type of use is prohibited in designated flood plains. This regulation protects peat bogs and other wetlands within the forest.

In addition, Article 78d of the Federal Water Act stipulates that in designated flood formation areas, the removal of forest or the conversion of forest to another type of use requires a permit from the competent authority.

The following categories of protected areas exist in Germany and are protected under the following legal basis:

Protected area category at federal level³³	Legal basis and delimitation
Nature conservation area	Article 23 of the Federal Nature Conservation Act
National park	Article 24 of the Federal Nature Conservation Act
National natural monuments	Article 24(4) in conjunction with Article 22(5) of the Federal Nature Conservation Act This category is based on Category III of the International Union for the

³³ Scope of the risk assessment. Other categories of protection are defined at the federal state level.

	Conservation of Nature (IUCN).
	Biosphere reserves Article 25 of the Federal Nature Conservation Act
	Landscape reserves Article 26 of the Federal Nature Conservation Act In the IUCN international category system, the landscape protection area generally corresponds to category V (protected landscape).
	Nature parks Article 27 of the Federal Nature Conservation Act
	Protected landscape elements Article 29(1) of the Federal Nature Conservation Act
	Specially protected biotopes Article 30 of the Federal Nature Conservation Act
	Wetlands of international importance Ramsar sites
	Natura 2000 Articles 31 to 36 of the Federal Nature Conservation Act
Sources	<ol style="list-style-type: none"> 1. Forest Stewardship Council (ED.) (2018): FSC National Risk Assessment for Germany https://fsc.org/en/document-centre/documents/resource/201 (accessed in March 2020) 2. Deutschlands Natur (ED.) (2020): FFH-Gebiete, FFH-Arten und Vogelschutzgebiete – Natura 2000 http://www.ffh-gebiete.de/ (accessed in March 2020) 3. Federal Office for Nature Conservation (ED.) (2020): Forstwirtschaft in Natura 2000 Gebieten https://www.bfn.de/themen/natura-2000/management/kooperation-mit-nutzern/forstwirtschaft.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/ (accessed in March 2020)

	<p>5. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_8.html (accessed in March 2020)</p> <p>6. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_11.html (accessed in March 2020)</p> <p>7. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/whg_2009/_78a.html (accessed in March 2020)</p> <p>8. Federal Office for Nature Conservation (ED.) (2020): Gebietsschutz / Großschutzgebiete https://www.bfn.de/themen/gebietsschutz-grossschutzgebiete.html (accessed in March 2020)</p>
Are enforcement and monitoring ensured for the identified laws?	<p><input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)</p>
Degree of compliance of the criterion “regulations for protected areas”	
<p><input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled</p>	

Step 3: Evaluation of the effectiveness of the legal framework for regulation of protected areas	
<p>Evaluation of the practical implementation of the law and explanation for the evaluation</p>	<p>In step one, laws were identified that enshrine the sustainability criterion “regulations for protected areas” in law.</p> <p>The second step described how the identified laws for the sustainability criterion “regulations for protected areas” are regulated, practically enforced and monitored.</p> <p>The protected areas in Germany are clearly defined and their boundaries are clearly documented on maps. A map of the various nature conservation areas can be viewed using the Geodienst web services provided by the Federal Agency for Nature Conservation.</p> <p>The national protected areas have a detailed legal structure and are demarcated from each other. For each category of protected areas, protection guidelines are specified, which are differentiated and specified in detail by ordinances and plans, so that practical implementation is straightforward, and enforcement of the conservation purpose is binding.</p>

	<p>Furthermore, there are recommendations and guidelines for the management of the various protected areas where forest management is permitted, in particular for protected areas covered by the Natura 2000 Directive. These are provided, among others, by the EU, but also by the competent authorities of the individual federal states.</p> <p>In this respect, the implementation and enforcement of protection for designated areas is considered to be ensured.</p> <p>On this basis, the sustainability criterion “regulations for protected areas” is rated in category A.</p>		
Sources	<ol style="list-style-type: none"> 1. Federal Office for Nature Conservation (ED.) (2020): Schutzgebiete in Deutschland https://geodienste.bfn.de/schutzgebiete?lang=de (accessed in March 2020) 2. European Commission (ED.) (2020): Management of Natura 2000 Sites https://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm#guidance_forests (accessed in March 2020) 		
Effectiveness (points):	<input checked="" type="checkbox"/> Category A (20 points)	<input type="checkbox"/> Category B (10 points)	<input type="checkbox"/> Category C (0 points)

4.6. Maintenance of the long-term production capacity of the forest	
Step 1: Identification of applicable laws	
Applicable laws identified	<ol style="list-style-type: none"> 1. Federal Forest Act of 2 May 1975 (<i>Bundeswaldgesetz</i>) (Federal Law Gazette I p. 1037), as last amended by Article 1 of the Act of 17 January 2017 (Federal Law Gazette I p. 75) is Article 41 a Forest surveys (own translation; no official translation of this law exists in English) 2. Ibid: Article 1 Purpose of the Act (own translation) 3. Ibid: Article 11 Forest management (own translation)
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_41a.html (accessed in March 2020) 2. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_11.html (accessed in March 2020)

	<p>4. FAOLEX Database http://www.fao.org/faolex/results/en/#querystring=aW5tZXRhJTNBc3ViamVidHNlbGVidGlvbj1GTyZmYW9sZXhfY291bnRyeT1ERVUmZW5kc3RyaW5nPTE= (accessed in April 2020)</p>
<p>Have existing laws been identified?</p>	<p><input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)</p>
<p>Step 2: Description of enforcement and monitoring</p>	
<p>Description of the practical implementation of the laws</p>	<p>In Germany, the Federal Forest Inventory is carried out at regular intervals. Article 41a of the Federal Forest Act (<i>Bundeswaldgesetz</i>) stipulates that a large-scale forest inventory covering the entire federal territory is to be carried out every ten years on a sample basis (Federal Forest Inventory). The Federal Forest Inventory is intended to provide a general overview of forest conditions and forest production possibilities over a large area. The measurements and descriptions of the condition of the forest necessary for this purpose (basic data) are collected using a standardised method. The federal states collect the basic data and the Federal Ministry of Food and Agriculture compiles and evaluates it.</p> <p>In Germany there are no harvesting permits in the form of concessions, rights of felling or similar. Forestry planning is carried out in both public and private forests on the basis of the forest management plan or the forest management reports. Forest owners who own only small areas of forest are exempted from drawing up a strategic plan by the forest and forestry laws of the federal states. The limit is usually 30 hectares. However, these forest owners are nevertheless subject to the Federal Forest Act (<i>Bundeswaldgesetz</i>) and monitoring by the forest authorities. The main aims of the forest management plan are the planning and evaluation of the sustainable use of forest resources, harvest monitoring and compliance with</p>

	<p>sustainability. In addition to the forest management plan, state forest enterprises must submit an annual forest plan.</p> <p>For private forestry enterprises, there are different regulations for strategic planning based on the forest and forestry laws of the federal states. Larger private forestry enterprises, usually 100 hectares or more, usually also draw up forest management plans at regular intervals.</p> <p>Articles 1 and 11 of the Federal Forest Act (<i>Bundeswaldgesetz</i>) legally enshrine the additional obligations to ensure sustainable management and to maintain the long-term production capacity of the forest. This means, for example, reforestation after harvest or calamities. Furthermore, forests may not be destroyed. If a forest has to be cleared for special reasons or an area has to be reforested, an environmental impact assessment pursuant must be carried out.</p>
Sources	<ol style="list-style-type: none"> 1. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_41a.html (accessed in March 2020) 2. Forest Stewardship Council (ED.) (2018): FSC National Risk Assessment for Germany https://fsc.org/en/document-centre/documents/resource/201 (accessed in March 2020) 3. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020) 4. Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bwaldg/_1.html (accessed in March 2020) Federal Ministry of Justice and for Consumer Protection (ED.) (2020): Gesetze im Internet https://www.gesetze-im-internet.de/bnatschg_2009/ (accessed in March 2020)
Are enforcement and monitoring ensured for the identified laws?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no (Audit required)
Degree of compliance of the criterion “maintenance of the long-term production capacity of the forest”	
<input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled	

Step 3: Evaluation of the effectiveness of the legal framework for maintenance of the long-term production capacity of the forest

Evaluation of the practical implementation of the law and explanation for the evaluation

In step one, laws were identified that enshrine the sustainability criterion “maintenance of the long-term production capacity of the forest” in law.

The second step described how the identified laws for the sustainability criterion “maintenance of the long-term production capacity of the forest” are regulated, practically enforced and monitored.

According to the *Global Forest Resource Assessment (FRA)*, between 2005 and 2015 the timber stock in German forests steadily increased by a total of 16.1 million m³ and was thus at a level of 3.6 billion m³ in 2015.

This is also demonstrated by the documentation of the *Country Report on SFM indicators* for the values of timber growth and felling. According to this report, there is a positive balance of timber growth in German forests over the entire period covered by the *Country Reports on SFM indicators*:

[Germany](#)
Reporting Form 3.1: Increment and fellings

Pan-European indicator 3.1: Balance between net annual increment and annual fellings of wood on forest available for wood supply.
Related SoEF definitions: Forest, Forest available for wood supply, Growing stock, Gross annual increment, Net annual increment, Natural losses, Fellings.

Table 3.1: Increment and fellings

Category	Year	Gross annual increment	Natural losses	Net annual increment	Fellings	
					Total	... of which: of natural losses
Volume (1000 m ³ o. b.)						
Forest	2015	121.602	1711.70	119890.17	95925.00	n/a
	2010	121.495	1713.20	119782.18	95171.43	n/a
	2005	121533.00	2921.00	118612.00	93871.00	n/a
	2000	121650.55	2890.00	118760.55	91175.00	n/a
	1990	n/a	n/a	n/a	n/a	n/a
... of which: Forest available for wood supply	2015	105873.18	1713.20	104159.98	79663.35	n/a
	2010	107716.90	2943.40	118589.60	95171.43	n/a
	2005	109783.43	2921.00	118612.00	93871.00	n/a
	2000	112086.50	2890.00	118760.55	91175.00	n/a
	1990	n/a	n/a	n/a	n/a	n/a

In addition, the sustainability criteria forest regeneration, maintenance of biodiversity and maintenance of soil quality were rated in category A in the risk assessment for Germany.

On this basis, the sustainability criterion “maintenance of the long-term production capacity of the forest” is rated in category A.

Sources

1. Food and Agriculture Organization (ED.) (2015): Global Forest Resource Assessment <http://www.fao.org/forest-resources-assessment/past-assessments/fra-2015/en/> (accessed in March 2020)

	2. Forest Europe (ED.) (2020): Country Reports on SFM indicators 2020 https://foresteurope.org/iv0306rr0765mv8432cr/ (accessed in		
Effectiveness (points):	<input checked="" type="checkbox"/> Category A (20 points)	<input type="checkbox"/> Category B (10 points)	<input type="checkbox"/> Category C (0 points)

4.7. Guarantee of carbon sequestration parity	
Paris Agreement ratified?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Submission of a relevant NDC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sources	<ol style="list-style-type: none"> United Nations (ED.) (2020): United Nations Treaty Collection https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=en (accessed in March 2020) UNFCCC (ED.) (2020): NDC Registry https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=DEU (accessed in March 2020)
Brief description of how agriculture, forestry and land use are accounted for in NDC	<p>In the European NDC, with regard to the accounting of agriculture, forestry and other land uses, a comprehensive accounting framework, activity-based or land-based approach, is mentioned for emissions and degradation by land use, land use change and forestry. Reference is further made to LULUCF Decision 529/2013/EU, which includes the following aspects and refers to the following principles:</p> <ul style="list-style-type: none"> • Afforestation, reforestation • Deforestation • Forestry • Arable farm management • Pastureland management • Or equivalence-based accounting with • UNFCCC reporting categories • Other categories/activities chosen by the EU • And its Member States as parties to the Kyoto Protocol and the Doha amendment. <p>Further supplementary information on national implementation is provided under levels 1, 2 and 3.</p>
OR^(*) <small>(*) This option should be selected if no NDC has been submitted. If the answer is yes for both options, these fields can be skipped.</small>	

Step 1: Identification of applicable laws	
<p>1. COMMISSION IMPLEMENTING REGULATION (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012</p> <p>2. REGULATION (EU) 2018/841 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU</p> <p>3. REGULATION (EU) 2018/842 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013</p> <p>4. DECISION No 529/2013/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 May 2013 on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities</p>	
Sources	<p>1. Official Journal of the European Union L334/1 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R2066&from=EN (accessed in July 2020)</p> <p>2. Official Journal of the European Union L 156/1 http://publications.europa.eu/resource/cellar/f4bb0d04-737f-11e8-9483-01aa75ed71a1.0004.01/DOC_1 (accessed in July 2020)</p> <p>3. Official Journal of the European Union L 156/26 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0842&from=DE (accessed in July 2020)</p> <p>4. Official Journal of the European Union L 165/80 https://www.thuenen.de/media/institute/lr/LULUCF-Beteiligung_2014/Beschluss/Beschluss_529_2013_LULUCF.pdf (accessed in July 2020)</p>
Were applicable laws identified?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (audit required)
Step 2: Description of enforcement and monitoring	
<p>Pursuant to Decision 15/CMP.1, the preparation and documentation of national emission inventories is mandatory for all countries listed in ANNEX I of the Framework Convention on Climate Change that are also Parties to the Kyoto Protocol in order to be able to use the flexible mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol.</p>	

With the decision 529/2013/EU it is the aim of the European Union to harmonise and improve the reporting on the LULUCF sector in Europe. The main reporting and accounting requirements are

- "Mandatory reporting and accounting of greenhouse gas emissions / sinks from afforestation, deforestation and reforestation (AD / R) and forestry (FM), which applies for the commitment period 2013-2020 in accordance with Article 3 (1)
- A roadmap for the improvement of the reporting and accounting systems for greenhouse gas emissions/ sinks from arable farming (CM) and grassland management (GM), which will become mandatory from 1 January 2021 (Article 3 (2));
- Option for voluntary accounting for replanting (RV) and drainage and rewetting of wetlands (WDR) (Article 3 (3))."³⁴

Although the individual Member States have already partly entered into the obligation to have a fully balanced CO₂ balance in the LULUCF sector under the Kyoto Protocol by 2020, the obligation is now anchored in EU law for the period 2021-2030 for the first time by Regulation (EU) 2018/841.

Emissions reporting is carried out by the Federal Environment Agency.³⁵ The emission surveys on LULUCF are determined by the Thuenen Institute and compiled by the Federal Environment Agency in the overall report together with the other data. Reporting is carried out annually.

The emissions for the LULUCF sector in 2018 amounted to minus 26.9 million tonnes CO_{2eq}.³⁶ According to the Federal Environment Agency, Germany's total emissions without LULUCF amounted to around 858 million tonnes CO_{2eq} in 2018.³⁷

Sources	<ol style="list-style-type: none"> 1. http://www.umweltbundesamt.de/emissionen (Accessed in July 2020) 2. Thuenen Institut: https://www.thuenen.de/de/ak/projekte/richtlinien-und-politikoptionen-fuer-die-umsetzung-von-lulucf/ (Accessed in July 2020)
Are enforcement and monitoring ensured for the identified laws?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (audit required)
Degree of compliance of the criterion "guarantee of carbon sequestration parity"	
<input checked="" type="checkbox"/> Requirements fulfilled <input type="checkbox"/> Requirements not fulfilled	

³⁴ Thünen Institut: <https://www.thuenen.de/de/ak/projekte/richtlinien-und-politikoptionen-fuer-die-umsetzung-von-lulucf/> (accessed in July 2020)

³⁵ <https://www.umweltbundesamt.de/themen/klima-energie/treibhausgas-emissionen> (accessed in July 2020)

³⁶ https://www.umweltbundesamt.de/sites/default/files/medien/361/dokumente/2019_01_15_em_entwicklung_in_d_trendtabelle_thg_v0.6.1_f-gase.xlsx (accessed in July 2020)

³⁷ https://www.umweltbundesamt.de/sites/default/files/medien/361/dokumente/2019_01_15_em_entwicklung_in_d_trendtabelle_thg_v0.6.1_f-gase.xlsx (accessed in July 2020)

Step 3: Assessment of the effectiveness of the legal framework for the guarantee of carbon sequestration parity

Germany signed the Paris Agreement on 22 April 2016. It was ratified and the NDC “nationally determined contribution” was submitted on 5 October 2016.³⁸

The documentation and reporting against the European Commission is annually.³⁹ The emissions of the LULUCF sector in Germany are negative.

It is stated that the reported carbon emissions for the LULUCF sector are not higher than the carbon extraction from the sector.

On this basis, the sustainability criterion “LULUCF” is rated in category A and “low-risk”.

Sources	<ol style="list-style-type: none"> United Nations (ED.) (2020): United Nations Treaty Collection https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=en (accessed in March 2020) UNFCCC (ED.) (2020): NDC Registry https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=DEU (accessed in March 2020) 		
Effectiveness (points):	<input checked="" type="checkbox"/> Category A (20 points)	<input type="checkbox"/> Category B (10 points)	<input type="checkbox"/> Category C (0 points)

4.8. Annex Authority structure of the individual federal states

Country	Authority	Supreme authority	Higher authority	Lower authority
1. Baden-Württemberg	Forest authorities	x	x	x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
2. Bavaria	Forest authorities	x		x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
3. Berlin	Forest authorities	x		x
	Nature conservation authority	x		x

³⁸ <https://www4.unfccc.int/sites/ndcstaging/Pages/Party.aspx?party=DEU&prototype=1> (accessed in July 2020)

³⁹ Umweltbundesamt <https://www.umweltbundesamt.de/themen/klima-energie/treibhausgas-emissionen> (accessed in July 2020)

	Water management authority	x		x
4. Brandenburg	Forest authorities	x		x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
5. Bremen	Forest authorities	x		x
	Nature conservation authority	x		x
	Water management authority	x	x	x
6. Hamburg	Forest authorities	x		x
	Nature conservation authority	x		x
	Water management authority	x		x
7. Hesse	Forest authorities	x	x	x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
8. Mecklenburg-Western Pomerania	Forest authorities	x		x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
9. Lower Saxony	Forest authorities	x		x
	Nature conservation authority	x		x
	Water management authority	x	x	x
10. North Rhine-Westphalia	Forest authorities	x	x	x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
11. Rhineland-Palatinate	Forest authorities	x	x	x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
12. Saarland	Forest authorities	x		x
	Nature conservation authority	x		x

	Water management authority	x	x	x
13. Saxony	Forest authorities	x	x	x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
14. Saxony-Anhalt	Forest authorities	x	x	x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
15. Schleswig-Holstein	Forest authorities	x		x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x
16. Thuringia	Forest authorities	x		x
	Nature conservation authority	x	x	x
	Water management authority	x	x	x

4.9. Sources

1.	http://www.landesrecht-bw.de/jportal/?quelle=jlink&query=WaldG+BW&psml=bsbawueprod.psml&max=true&aiz=true (accessed in March 2020)
	https://um.baden-wuerttemberg.de/de/umwelt-natur/naturschutz/naturschutzverwaltung-wer-macht-was/ (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
2.	https://www.gesetze-bayern.de/Content/Document/BayWaldG-27?AspxAutoDetectCookieSupport=1 (accessed in March 2020)
	https://www.gesetze-bayern.de/Content/Document/BayNatSchG-43 (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
3.	http://gesetze.berlin.de/jportal/;jsessionid=80E95225ABF371633FD84F6D1DFBE0BA.jp24?quelle=jlink&query=WaldG+BE&psml=bsbeprod.psml&max=true&aiz=true#jlr-WaldGBEpP3 (accessed in March 2020)
	http://gesetze.berlin.de/jportal/portal/t/as9/page/bsbeprod.psml?pid=Dokumentanzeige&showdoccase=1&js_peid=Trefferliste&fromdoctodoc=yes&doc.id=jlr-NatSchGBE2013rahmen&doc.part=X&doc.price=0.0&doc.hl=0#jlr-NatSchGBE2013pP3 (accessed in March 2020)
	http://gesetze.berlin.de/jportal/portal/t/1hgc/page/bsbeprod.psml?pid=Dokumentanzeige&showdoccase=1&js_peid=Trefferliste&documentnumber=1&numberofresults=199&fromdoctodoc=yes&doc.id=jlr-WasGBErahmen&doc.part=X&doc.price=0.0&doc.hl=1#jlr-WasGBEV3P85 (accessed in March 2020)
4.	https://bravors.brandenburg.de/gesetze/lwaldg#31 (accessed in March 2020)
	https://bravors.brandenburg.de/gesetze/bbgnatschag_2016#30 (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
5.	https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.72104.de&asl=bremen02.c.732.de&template=20_gp_ifg_meta_detail_d#jlr-WaldGBRpP14 (accessed in March 2020)
	https://www.transparenz.bremen.de/vorschrift_detail/bremen2014_tp.c.68890.de#jlr-NatSchGBR2006pG9 (accessed in March 2020)

	https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.72128.de&template=20_gp_ifg_meta_d_etail_d#jlr-WasGBR2011V3P92 (accessed in March 2020)
6.	http://www.landesrecht-hamburg.de/jportal/portal/page/bshaprod.psm1?showdoccase=1&st=lr&doc.id=jlr-WaldGHARahmen&doc.part=X&doc.origin=bs (accessed in March 2020)
	http://www.landesrecht-hamburg.de/jportal/portal/page/bshaprod.psm1?showdoccase=1&doc.id=jlr-BNatSchGAGHArahmen&st=lr (accessed in March 2020)
	http://www.landesrecht-hamburg.de/jportal/portal/page/bshaprod.psm1?showdoccase=1&doc.id=jlr-WasGHA2005rahmen (accessed in March 2020)
7.	https://umwelt.hessen.de/sites/default/files/media/hmueiv/hwaldg_he_-_hessisches_waldgesetz_20.05.2016_13-22-17.pdf (accessed in March 2020)
	https://www.hlg.org/uploads/tx_icdownload/HAGBNatSchG.pdf (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
8.	http://www.landesrecht-mv.de/jportal/portal/page/bsmvprod.psm1?showdoccase=1&st=lr&doc.id=jlr-WaldGMV2011rahmen&doc.part=X&doc.origin=bs (accessed in March 2020)
	http://www.landesrecht-mv.de/jportal/portal/page/bsmvprod.psm1?showdoccase=1&doc.id=jlr-NatSchAGMVrahmen&doc.part=X (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
9.	http://www.nds-voris.de/jportal/?quelle=jlink&query=WaldLG+ND&psml=bsvorisprod.psm1&max=true (accessed in March 2020)
	http://www.nds-voris.de/jportal/?quelle=jlink&query=BNatSchGAG+ND+%C2%A7+24&psml=bsvorisprod.psm1&max=true (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
10.	https://recht.nrw.de/lmi/owa/br_bes_detail?sg=0&menu=1&bes_id=3830&anw_nr=2&aufgehoben=N&det_id=428148 (accessed in March 2020)
	https://recht.nrw.de/lmi/owa/br_bes_detail?sg=0&menu=1&bes_id=4910&anw_nr=2&aufgehoben=N&det_id=428005 (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
11.	http://landesrecht.rlp.de/jportal/portal/t/vsq/page/bsrlpprod.psm1/action/portlets.iw.MainAction?p1=18&eventSubmit_doNavigate=searchInSubtreeTOC&showdoccase=1&doc.hl=0&doc.id=jlr-WaldGRPV4P33&doc.part=S&toc.poskey=#focuspoint (accessed in March 2020)
	http://landesrecht.rlp.de/jportal/portal/t/9zs/page/bsrlpprod.psm1?doc.hl=1&doc.id=jlr-NatSchGRP2015rahmen&documentnumber=1&numberofresults=1&doctyp=Norm&showdoccase=1&doc.part=X&paramfromHL=true#jlr-NatSchGRP2015pP2 (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
12.	https://www.saarland.de/dokumente/thema_justiz/790-14.pdf (accessed in March 2020)
	http://www.lexsoft.de/cgi-bin/lexsoft/justizportal_nrw.cgi?xid=2187899,48 (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
13.	https://www.revosax.sachsen.de/vorschrift/5405-SaechsWaldG#p35 (accessed in March 2020)
	https://www.revosax.sachsen.de/vorschrift/12836-Saechsisches-Naturschutzgesetz (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
14.	https://www.landesrecht.sachsen-anhalt.de/bsst/document/jlr-WaldGST2016rahmen (accessed in March 2020)
	https://www.lav-sachsen-anhalt.de/index.php/ueber-uns/ordnungen-lsa/137-t (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewaesser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
15.	http://www.gesetze-rechtsprechung.sh.juris.de/jportal/?quelle=jlink&query=WaldG+SH&psml=bssshoprod.psm1&max=true&aiz=true (accessed in March 2020)

	http://www.gesetze-rechtsprechung.sh.juris.de/jportal/?quelle=jlink&query=NatSchG+SH&psml=bssshoprod.psml&max=true (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewasser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)
16.	http://landesrecht.thueringen.de/jportal/?quelle=jlink&query=WaldG+TH&psml=bsthueprod.psml&max=true&aiz=true#jlr-WaldGTH2008V5P59
	http://landesrecht.thueringen.de/jportal/?quelle=jlink&query=NatSchG+TH&psml=bsthueprod.psml&max=true&aiz=true#jlr-NatSchGTH2019pP2 (accessed in March 2020)
	https://www.bmu.de/themen/wasser-abfall-boden/binnengewasser/gewaesserschutzpolitik/deutschland/wasserwirtschaftsverwaltung-in-den-laendern-und-kommunen/ (accessed in March 2020)

5. Results			
Criterion	Degree of compliance		Number of points (effectiveness)
	Requirements fulfilled	Requirements not fulfilled	
Legality of wood harvesting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20
Forest regeneration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20
Maintenance of biodiversity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20
Maintenance of soil quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20
Regulations for protected areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20
Maintenance of the long-term production capacity of the forest	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20
Guarantee of carbon sequestration parity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20

6. Evaluation of the risk assessment

Risk status:	The sustainability criteria were fulfilled seven <i>times</i> .
	The sustainability criteria were not met zero <i>times</i> .
	<input checked="" type="checkbox"/> Low-risk area <input type="checkbox"/> Specified-risk area
Risk level: (Total points)	140 of a maximum of 140 points was awarded.
Written summary of the results:	
<p>This risk assessment reviews the legal framework and the requirements of Directive (EU) 2018/2001 Article 29(6) and (7). All sustainability criteria of the directive are taken into account in the described scope of application and are fulfilled. Thus, the risk of unsustainable management of forest areas in Germany is low and negligible. An additional audit for forestry biomass whose area of production is Germany is therefore not necessary, as the sustainability of forest management is regulated by law, well monitored and enforced, and a positive development of forest condition can be identified.</p>	

Annex to the risk assessment: Documentation of the stakeholder dialogue

Author of the risk assessment:

Florens Hans Dittrich

Date of the stakeholder dialogue:

1st July 2020 to 16th August 2020

Specific issue discussed in the stakeholder dialogue:

Challenges and approaches for Art. 29 para. 2, 6 and 7 of Directive (EU) 2018/2001 (RED II)

Participating institutions or individuals:

Arbeitsgemeinschaft Deutscher Waldbesitzerverbände e.V., Bundesverband Bioenergie e.V., Deutscher Bauernverband e.V., Deutsche Forstwirtschaftsrat e.V., Fachverband Holzenergie im BBE e.V., Deutsche Säge- und Holzindustrie Bundesverband e.V., Fachverband Biogas e.V., Kuratorium für Waldarbeit und Forsttechnik e.V., Union Zur Förderung von Oel- und Proteinpflanzen e.V.

Result of the stakeholder dialogue:

The risk-based approach according to recital 102 of Directive (EU) 2018/2001 and the risk assessment based on it was presented at the stakeholder dialogue on 1st July 2020. The approach and the risk assessment were welcomed by all participants. During the participation period of one and a half months until 16th August 2020, no additions or changes to the present risk assessment were reported to the author. Thus, the participants of the stakeholder dialogue have agreed to the risk assessment presented here.

In addition, the risk assessment was discussed with the forestry and timber industry on 28th September 2020 at the 20th Wood Energy Congress. This did not give rise to any objections either.

This risk assessment has been prepared in accordance with the "Technical Guidance Document for Risk Assessment of Non-sustainable Production of Forest Biomass" of the Sustainable Resources Verification Scheme GmbH.

Sponsored by:



Landwirtschaftliche Rentenbank

Hochstraße 2
60313 Frankfurt am Main
Tel.: 069 2107-0 Fax: -6444
E-mail: office@rentenbank.de

Publication information

Bundesverband Bioenergie e.V. (BBE)
Servatiusstraße 53
D-53175 Bonn

+49(0)228 81 002-22

www.bioenergie.de