

Supply Base Report: Biomasse Børsen ApS

Second Surveillance Audit

www.sbp-cert.org



Completed in accordance with the Supply Base Report Template Version 1.3

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

Document history

Version 1.0: published 26 March 2015

Version 1.1 published 22 February 2016

Version 1.2 published 23 June 2016

Version 1.3 published 14 January 2019

© Copyright The Sustainable Biomass Program Limited 2019

Contents

1	Overview	1
2	Description of the Supply Base	2
2.1	General description.....	2
2.2	Actions taken to promote certification amongst feedstock supplier.....	2
2.3	Final harvest sampling programme.....	5
2.4	Flow diagram of feedstock inputs showing feedstock type [optional].....	5
2.5	Quantification of the Supply Base.....	6
3	Requirement for a Supply Base Evaluation	8
4	Supply Base Evaluation	8
4.1	Scope.....	9
4.2	Justification.....	9
4.3	Results of Risk Assessment.....	9
4.4	Results of Supplier Verification Programme.....	9
4.5	Conclusion.....	10
5	Supply Base Evaluation Process	12
6	Stakeholder Consultation	13
6.1	Response to stakeholder comments.....	13
7	Overview of Initial Assessment of Risk	13
8	Supplier Verification Programme	15
8.1	Description of the Supplier Verification Programme.....	15
8.2	Site visits.....	15
8.3	Conclusions from the Supplier Verification Programme.....	16
9	Mitigation Measures	16
9.1	Mitigation measures.....	18
9.2	Monitoring and outcomes.....	18
10	Detailed Findings for Indicators	20
11	Review of Report	22
11.1	Peer review.....	22
11.2	Public or additional reviews.....	22
12	Approval of Report	22

13	Updates	24
13.1	Significant changes in the Supply Base.....	24
13.2	Effectiveness of previous mitigation measures.....	24
13.3	New risk ratings and mitigation measures	24
13.4	Actual figures for feedstock over the previous 12 months	25
13.5	Projected figures for feedstock over the next 12 months.....	25

2 Description of the Supply Base

2.1 General description

General description of the Danish forest and forestry

Biomasse Børsens supply base is DK.

In Denmark there are approximately 620.000 ha forest equivalent to 14,4 % of the total land area. Over time it is expected that the forest area will increase. The total amount of growing stock is approximately 130 mio m³. The volume of wood in the forests has increased rapidly since year 2000 because off the area with forest still increases and a slightly higher volume pr hectare.

In the Danish forest are there in general several different tree species. The most common species are spruce 15%, beech 14% and oak 10%. Other species is represented by pine 11%, sitkaspruce 6%, nordmann 5%, nobelis 2%, other fir species 10%, maple 4%, birch 7%, ash 3% and other broadleaf 9%. Unplanted area is around 4%. In total broadleaf represents 47% and conifers 49% of the total forest area. The remaining area is unplanted or areas there the species have not been able to identify. None of the species are CITES or IUCN species.

The total number of estates in Denmark is estimated 24.000. Of the total number of estates 89% have between 0,5 and 20 hectares. The other estates have larger area, the main part have less than 500 hectares. Very few have more than 5.000 hectare.

Mostly forest is private owned, ether as private persons 59% or by companies 10% and funds 6%. The forest owned by the State represents 19%, municipalities and other public institutions represents 6%. The ownership structure of the Danish forest is represented by many private owners with less than 20 hectares.

In Denmark is it not legislated by law to have an operational forestplan for the specific estate, as well as the authorities do not require any harvest application by the owner.

The owners of Danish forest are organised in different local and national associations. Dansk Skovforening is the organisation for private forest owners.

Around 6.000 owners of private forests are organised in local forestry associations. These associations serve the owners by advising, forestry operations and participate in some forestry political discussions. In the same way do many private owners use HedeDanmark and other private forestry advisers.

There are two certification standards in forestry - PEFC or FSC. The Danish State Forest has both certification standards. The private and municipal owned forest represent approximately 268.000 hectares PEFC and 215.000 hectares FSC.

The total income from forest products generated around 1 billion kroner. In 2015 sales revenue from energywood aggregated 300 mio kroner.

Operation mode in Danish forestry is all over devided in production of conifer and broadleaf. Conifers are mainly produced I Jutland. The production scheme is often 3-4 thinnings and clearfell followed by replanting.

Broadleaf is operated both by natural generation and by replanting after clearfell. In general, the area with mixed species is increasing.

IUCN and CITES species

In general, there are none IUCN and CITES species in the Danish forest. The Danish red-list with threatened species include many species related to forest.

High nature values in forest

There are no regulatory requirements to map high nature value or areas with red listed species in Denmark. Monuments and protected areas etc. are mapped – also in forest.

The authorities motivate private forest owners to map high nature values, nature elements and red listed species by subsidies to make a Green Management Plan. Many private forests have already mapped high nature values and sensitive areas in a Green Management Plan.

The most important nature values are restricted by forest Act §28 (Skovloven) and Nature Conservation Act §3 (Naturbeskyttelsesloven). §3 areas is regular mapped by the authorities.

Natura 2000 areas, that consist Natura 2000 habitats and species is mapped and is controlled by authorities.

In Denmark all these registrations can be find on web Miljøportalen, which is a public webportal with maps and information.

Biomasse Børsen and how they do in practice

Biomasse Børsens supply base is Denmark, but mostly forests, windbreaks, natural areas and urban close stands primary in Jutland and Funen, but also Sealand.

Biomasse Børsen is a production and trading company that produce, buy and sell wood chips.

Biomasse Børsen is owned by Michael Vismar Birch, Henry Hansen and Paul Lillelund, there in common are responsible for daily operations. There are one employee Paul Lillelund, whose responsibility is trading of biomass and responsible for the certification standards (PEFC COC and SBP) for the company. The staff is educated in forestry on Bsc and Msc, and have several years of practicing in advising in forestry and management of forest operations including production of biomass.

Biomasse Børsens customers are primarily Danish CHP plants and heating plants. Secondary Biomasse Børsen also sell demolition wood for heatproduction abroad. The trading with demolition wood is NOT a part of the SBP certification and is kept apart from the SBP-compliant biomass.

The biomass that Biomasse Børsen trades sources in different ways.

- Own production by direct agreement by forest owner
- Sourcing by subcontractors with documented origin etc
- Sourcing of FSC and/or PEFC certified biomass from supplier with a legal certificate
- Sourcing of secondary feedstock, typically residues from sawmills
- Sourcing of tertiary feedstock, typically residues from wood processing industry

Production of wood chips and the traded amount is between 0-100,000 tons a year. Around 70% of the wood chips is produced on areas defined as forests. The rest is produced in windbreaks etc. The wood chips are in basic residues from thinning in afforestation, stands with conifers and or windbreaks or as energy roundwood after clearfelling in conifer stands. The spread between conifer and broadleaf is fifty - fifty. Around 20% is branches and tops from both conifers and broadleaves, biomass from restoring f.ex. heatlands and biomass from areas to urban development. The last 10% is residues from sawmills and woodprocessing industry.

Thinning

Thinning is made by a harvester by doing tracks and general thinning in younger stands. After a while the wood chips are made by a wood chipper made for production in the terrain and in the stands.

Tree tops

Wood chipping of tree tops from conifer and broadleaf is often residues from harvesting in between aged and older stands. Before chipping the residues is piled alongside road there it also will be chipped.

Energy roundwood

Energy roundwood is that stem residue (the part of the stem that can not be sold to sawmills because of its quality) from harvesting operations. It is produced by a traditionally harvester and forwarded alongside road. From there either it is chipped, or it is transported by truck to a central with a stationary wood chipper.

Clearings

Is made by manually felling and forwarded or in a combined process with a combimachine which can both fell and forward. The biomass is piled along road. Clearings in restoring nature projects is done under intense communication with the authorities, landowners and contractors.

Residues form sawmills

Bark and wood chips is transported to the central place I Obbekær. The bark is sorted into three sizes. The two largest is used as biomass. The third fraction, around 40% is not used for biomass and is not a part of this SBP-certification.

Residues from the wood processing industry

A very little amount of wood chips is bought from the processing industry. This wood chips are typically dried and ready to use on heating plants. The biomass is produced from a small number of suppliers – at the moment approx.10.

Table 1 Distribution of raw material input in %

	Conifer	Broadleaf	Mixed
Controlled feedstock			
SBP-Compliant primary	40	40	10
SBP-Compliant Secondary	9		
SBP-Compliant Tertiary	1		
SBP-non-compliant			

Kilder:

Nord-Larsen, Thomas et al, *Skove og Plantager 2014*, Skov og Landskab, 2014

PEFC Denmark, <http://www.pefc.dk/bliv-certificeret/skovcertificering>

FSC Denmark, <https://dk.fsc.org/dk-dk/hvad-er-fsc/fsc-i-danske-tal>

2.2 Actions taken to promote certification amongst feedstock supplier

Biomasse Børsen has limited directly contact with forest owners. Biomasse Børsen typically source the biomass through subcontractors, that have directly contact to the forestowner.

In cases, there Biomasse Børsen is directly involved in the forest operations, the management of the forest operation is solved within advising about forestry. Indirectly that also means that the management operations that Biomasse Børsen handle, is paying attention to high nature values like fx key nature elements, Natura 2000 or §3 habitats by Biomasse Børsens programme for screening and control.

By dialogue, guidance and supervision Biomasse Børsen advises the subcontractor in solving his forest operation also to take care of the nature. Through the guidelines etc. the subcontractors are showing an increasingly sustainable behaviour.

Biomasse Børsen trades some biomass with FSC and/or PEFC standards.

2.3 Final harvest sampling programme

By Danmarks Statistik November 2015 the total harvest in Denmark is calculated to 3.8 mio m3 in 2014, which increases the harvest with 200.000 m3 compared to 2013.

The distribution of the total harvest 3,8 mio m3 in 2014 is

- Timber 1.730 mio m3
- Energywood 1.705 mio m3
- Firewood 360,000 m3

The distribution between conifers and broadleaf is

- Conifers 2.970 mio m3
- Broadleaf 830,000 m3

Biomasse Børsen uses Danmarks Statistik, and does no prepare statistics in that way itself.

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

N/A. Flow chart for feedstock input is made, and can be found at the office. The flow chart is used to describe the operational procedures in Biomasse Børsens handbook *Entreprenørhåndbogen*.

2.5 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (ha): Approx. 600 000 ha forest in Denmark (forests in Jutland and Funen including public forests)
- b. Tenure by type (ha):
 - private 430.000 ha
 - public 110.000 ha
 - municipalities etc 60.000 ha
- c. Forest by type (ha): Approx. 600 000 ha temperate
- d. Forest by management type (ha):
 - Plantations /semi-natural 550.000 ha
 - Natural forest 50.000 ha
- e. Certified forest by scheme (ha): 268.000 ha PEFC Standard, 215.000 ha FSC Standard.

Feedstock

- f. Total volume of Feedstock: 0-100,000 T
- g. Volume of primary feedstock: 0-100,000 T
- h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
 - 10% Certified to an SBP-approved Forest Management Scheme
 - 90% Not certified to an SBP-approved Forest Management Scheme
- i. List all species in primary feedstock, including scientific name:

English name	Scientific name
Silver fir	<i>Abies Alba</i>
Oregon fir	<i>Abies Grandis</i>
Nordmann fir	<i>Abies Normaniana</i>
Nobel fir	<i>Abies Procera</i>
Silver div	<i>Abies ssp</i>
Larch	<i>Larix ssp</i>
Norway Spruce	<i>Picea Abies</i>
White spruce	<i>Picea Glauca</i>
Sitka spruce	<i>Picea sitchensis</i>
Spruce div	<i>Picea ssp</i>
Contorta pine	<i>Pinus contorta</i>
Scotch Pine	<i>Pinus sylvestris</i>

European black pine	<i>Pinus nigra</i>
Weymouth pine	<i>Pinus strobus</i>
Pine div	<i>Pinus ssp</i>
Maple	<i>Acer pseudoplatanus</i>
Common alder	<i>Alnus glutinose</i>
Birch	<i>Betula Pendula</i>
Birch	<i>Betula pubescens</i>
Ash	<i>Fraxinus Excelsior</i>
Willow	<i>Salix ssp</i>
Oak	<i>Quercus ssp</i>
Beech	<i>Fagus Sylvatica</i>

- j. Volume of primary feedstock from primary forest: 0%
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
 - 0% Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
 - 0% Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme
- l. Volume of secondary feedstock: specify origin and type:
 - 9% wood chips and bark from Danish sawmills using Danish wood.
- m. Volume of tertiary feedstock: specify origin and composition:
 - <1% wood chips from residues from wood processing industry.

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
X	<input type="checkbox"/>

Biomasse Børsen harvests most of the biomass in forests with no certification standards. Because of that it is necessary to do a Supply Base Evaluation, SBE, of the supply base Denmark. As part of the SBE, the SBP-endorsed Regional Risk Assessment for Denmark is used: RRA for Denmark, June 2017.

4 Supply Base Evaluation

4.1 Scope

The extent of the SBE evaluation for the supply base: Denmark, considered all existing and potential sources of primary feedstock. The intention with SBE is to evaluate the level of risks for all the indicators in SBP standard 1.

For the indicators that become character “specified risk” in SBE, Biomasse Børsen will explain and describe the management operations for the processes, for harvest and buying feedstock from forests without any PEFC or FSC standard. In chapter 9 there is a detailed description of the management procedures.

4.2 Justification

Biomasse Børsen evaluation of the SBE is based on SBP-endorsed Regional Risk Assessment for Denmark. The cost to make the NRA Denmark is financed by different stakeholders, among them Biomasse Børsen. Nepcon have in the process making the NRA involved many different stakeholders.

In the process doing the NRA all indicators in Annex 1 is answered and the risk level is evaluated for every single indicator. SBP-endorsed Regional Risk Assessment for Denmark is made by Nepcon, and they have got their information in Danish laws, guidelines, interviews of relevant persons as well as consultations.

Biomasse Børsen have in our SBE worked through SBP-endorsed Regional Risk Assessment for Denmark, and evaluated every indicator. Biomasse Børsens evaluation gives the same result with four indicators with grade “specified risk”.

Taking the mitigation measures in the SBP-endorsed Regional Risk Assessment for Denmark and combine the analysis made by Biomasse Børsens management procedures, are there found useful mitigation measures that secure low risk for all the indicators in Annex 1, to produce primary feedstock.

4.3 Results of Risk Assessment

Biomasse Børsens RA conclude, that there is low risk in all indicators except four indicators, with “specified risk”. To these four indicators with “specified risk” Biomasse Børsen has described and implemented mitigation measures. The four indicators is:

- 2.1.1 Forests with high conservation values are identified and mapped
- 2.1.2 Potential threats to forests and other areas with high conservation values from forest managements activities is identified and addressed
- 2.2.3 Conservation of key ecosystems and habitats
- 2.2.4 Procedures to ensure protection of biodiversity

To every single feedstock Biomasse Børsen buy, there is made a project including a project-number. To every project is a map, checklist and a workinstruction. All available information about HNV and other nature values is controlled in an app based on the maps on Miljøportalen. In the following is mitigation measures

explained if the area for harvest of feedstock has “specified risk”. The process is described in details in Biomasse Børsens instruction note “Entreprenørhåndbog” and the instruction note for screening.

Regarding the SBE Annex 1, it concludes that all stands with broadleaf and unaged stands in none FSC and none PEFC forests requires further analysis /physical screening.

Feedstock from either certified forests or from thinning in afforestation and evenaged stands is always considered low risk.

4.4 Results of Supplier Verification Programme

Biomasse Børsen has developed a Supplier Verification Programme, SVP. The supplier program, *Entreprenørhåndbogen* chapter 4.3, is designed to secure that Biomasse Børsen can source primary feedstock, which can be sold as SBP-compliant.

Biomasse Børsen has developed a control system with *Entreprenørhåndbogen*, instructions and tools that the subcontractors are trained in use of.

Biomasse Børsen has made a verification program for subcontractors. In this writing time verification is done on the 10 subcontractors, which produces biomass of primary feedstock, that will be sold as SBP-compliant. New subcontractors will be trained in the same way, and verification will be done, before the feedstock they produce, will be sold as SBP-compliant.

The results of the supplier verification on the subcontractors shows that the work-tools for mitigation measures ensure the nature values at the feedstock area, and that the indicators with “specified risk” is possible to classify low risk.

4.5 Conclusion

The systematic way to solve a project using checklist, map and work instructions, and the completion of SVP secure low risk for the four indicators there had “specified risk” in Annex1. In the forest management operations where mitigation measures are demanded, are the mitigation measures described in a work instruction as well as there will be done a physical guideline at the place for harvest of feedstock. The subcontractors have the maps and work instruction, as well as Biomasse Børsen continuously have contact to the subcontractors.

Taking the staffs professionalism and competences including their education in forestry (BSc and MSc) and several years of practice in production of biomass and nature management in account, seems the necessary competences and qualifications to identify and manage risky projects to be meet. Further has all the subcontractors that work on sensitive locations done the course “Maskinfærdsel på naturnære arealer” (“Management of machines on nature valuable habitats”).

Biomasse Børsen has made an SBE RA and concluded four indicators with “specified risk”. For those four indicators are there made mitigation measures with screening on maps and a physical examination of the feedstock area. Combined with the SVP program containing training and instructions of subcontractors will all 38 indicators be classed low risk.

Biomasse Børsen is aware of the SBP-system is relative new, and because of that, especially here in the beginning, it might be necessary to practice ongoing adjustments as the company, customers and other collaborators become more confidential with standards, procedures and requirements.

5 Supply Base Evaluation Process

Nepcon has made the SBP-endorsed Regional Risk Assessment for Denmark, ordered by Dansk Energi, Dansk Fjernvarme, Skovdyrkerforeningen, Dansk Skovforening, DM&E and HedeDanmark.

As written in the SBP-endorsed Regional Risk Assessment for Denmark, low risk is identified on all indicators except from the following four, with “specified risk”: 2.1., 2.1.2, 2.2.3 and 2.2.4.

Biomasse Børsens own evaluation of the SBE is based on SBP-endorsed Regional Risk Assessment for Denmark. The SBP-endorsed Regional Risk Assessment for Denmark is financed by different stakeholders, among them Biomasse Børsen. Nepcon has in the workmode /process of the SBP-endorsed Regional Risk Assessment for Denmark consulted different stakeholders.

In relation with the workmode of the SBP-endorsed Regional Risk Assessment for Denmark is all indicators in SBP Standard 1 answered and the risk level is evaluated. The NRA report is done by Nepcon, and they have their information from current legislation, guidelines, interview with relevant persons /stakeholders and consultations.

Biomasse Børsen has by them self worked through the SBP-endorsed Regional Risk Assessment for Denmark, and evaluated every indicator. Biomasse Børsens evaluation concludes that all indicators have low risk except four with “specified risk”. Biomasse Børsens SBE can be studied in Annex 1.

Using the recommendations to mitigation measures in SBP-endorsed Regional Risk Assessment for Denmark and combine the results from analysis of Biomasse Børsens management procedures, is there made useful mitigation measures that secure low risk for all indicators by producing biomass on primary feedstock.

To minimize the risk of production of biomass, Biomasse Børsen have made working procedures, that fulfil the requirements in the standard to due diligence. A detailed description can be found In chapter 9.

Biomasse Børsen have made and implemented a Supplier Verification Programme, SVP with instruction and training of the subcontractors incl. a control system for Biomasse Børsens own procedures.

Biomasse Børsen have used both internal and external persons to do the SBE. The SBE is made of Biomasse Børsens own staff, which is educated in forestry (BSc and MSc) and have several years of experience producing biomass and advising owners of forests.

6 Stakeholder Consultation

Biomasse Børsen has the 27th of January 2017 done a consultation by different stakeholders by sending the SBR by email to the stakeholders beneath. The stakeholders had 30 days to respond.

Organisation	Person	Email adresse
Dansk Fjernvarme	Kate Wieck-Hansen	kwh@danskfjernvarme.dk
Dansk Energi	Kristine Van Het Erve Grunnet	keg@danskenergi.dk
Energistyrelsen	Lars Martin Jensen	lmj@ens.dk
Dansk Skovforening	Marie-Louise Bretner	mlb@skovforeningen.dk
FSC Danmark	Sofie Tind Nielsen	sofie@fsc.dk
PEFC Danmark	Morten Thorøe	mt@pefc.dk
KU	Vivian Kvist Johansen	vkj@ign.ku.dk
Friluftsrådet	Thorbjørn Eriksen	toe@friluftsradet.dk
WWF	Bo Normander	b.normander@wwf.org
Danmarks Naturfredningsforening Nora Skjernaa Hansen		nah@dn.dk
DONG Energy	Peter Kofod Kristensen	pekkr@dongenergy.dk

6.1 Response to stakeholder comments

Biomasse Børsen has not received any response from any of the stakeholders.

7 Overview of Initial Assessment of Risk

In the SBE endorsed RRA for Denmark, it is concluded, that there is low risk on all indicators except four indicators with “specified risk”:

- 2.1.1 Forests with high conservation values are identified and mapped
- 2.1.2 Potential threats to forests and other areas with high conservation values from forest managements activities is identified and addressed
- 2.2.3 Conservation of key ecosystems and habitats
- 2.2.4 Procedures to ensure protection of biodiversity

Biomasse Børsen is “mowing” the four “specified risk” to low risk by doing a qualification of the primary feedstock through procedures and mitigation measures described in chapter 9. Biomass produced by the subcontractors is described in chapter 8.

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

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

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

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

The purpose with the SVP, supplier program is to ensure that the subcontractors does fulfill Biomasse Børsens procedures and do the mitigation measures. Further to ensure that the requirements in standard 1 is fulfilled, and hereby ensure harvest of primary feedstock in low risk areas.

At Biomasse Børsen the responsible for the SBP-programme do the audit of the subcontractors.

Besides the biomass that Biomasse Børsen produce, does Biomasse Børsen sell feedstock from subcontractors. The subcontractors are divided in three types:

1. Subcontractors with valid "DM&E approved biomass producer", and have fulfilled the training programme by DM&E
2. Subcontractors with higher professional forestry skilled personal
3. Subcontractors whitout higher professional forestry skilled personal

To ensure the biomass can be sold SBP-compliant, shall the subcontractors be approved in Biomasse Børsens supplier programme, which is described in details in Biomasse Børsens Entreprenørhåndbog chapter 4.3.

All suppliers have signed a written cooperation agreement with Biomasse Børsen about the circumstances for production and marketing conditions. Se more detailed information in Entreprenørhåndbogen chapter 4.3, fx is it written that suppliers shall follow rules, current legislation and follow the instructions given by Biomasse Børsen etc.

Suppliers get instruction notes for using the worktools and is trained in using the instruments, screeningtools etc by the SBP-responsible person at Biomasse Børsen.

All suppliers will be trained in using the work tools before they are allowed to deliver SBP-compliant biomass. At the moment are there seven suppliers.

The primary feedstock is divided in one of the following types:

1. Biomass from thinning of afforestation and conifer stands
2. Biomass from PEFC/FSC certified estates and estates whit a Green Management Plan
3. Biomass from PEFC/FSC certified feedstock from certified sawmills and wood processing industries
4. Biomass from open land areas, not forest fx. windbreaks, regeneration of nature etc
5. Biomass from areas with "specified risk", whit carefully written mitigation measures
6. Biomass with another origin – not SBP-compliant

Feedstock from type 1, 2, 3 and 4 can be sold SBP-compliant provided legal access.

Type 5 feedstock requires one of the following solutions:

- Staff by Biomasse Børsen do the screening etc to provide low risk

- “DM&E approved biomass producer” do the screening etc to provide low risk
- Higher professional skilled person do the screening etc to provide low risk

Type 6 feedstock is kept separate from the SBP- compliant biomass.

Biomasse Børsen is responsible to ensure primary feedstock is produced and fulfill the SBP standards. Biomasse Børsen ensures that standard 1 have low risk at all indicators by having external audit on at least 5% (estimated) of the projects for each type of Biomasse Børsens suppliers.

8.2 Site visits

The 5% samples to the external audit is taken random out of minimum 5% of the projects in each type of supplier. Beside the randomized audits it is worth to mention, that Biomasse Børsen is engaged in many of the suppliers projects.

Biomasse Børsen does many site visits before and under the forest management operations done by the subcontractors, because of guidance and supervision and control of the operations.

The daily supervisions and samples is done to ensure that all nature values preserves in compliance with the four indicators with “specified risk”.

First of all, the audit is done to ensure harvest of feedstock on locations with “specified risk”, will be done in a secure way. In practice the audit will be done by

- Physical site visit on the feedstock area
- To ensure the screening is done properly and correspond to map etc
- That relevant documents are available

Besides securing screening is done properly, the auditor control that

- The distance from origin to end user consist with the transport document
- That FSC/PEFC feedstock and /or SBP have valid certificate
- That feedstock from “DM&E approved biomass producer” have a valid certificate
- The biomass has origin in Biomasse Børsens supply base.

8.3 Conclusions from the Supplier Verification Programme

Using the SVP by Biomasse Børsen it is ensured, that the primary feedstock from subcontractors can be produced with all indicators in low risk, when the supplier have been trained in the programme described in Entreprenørhåndbogens chapter 4.3 and the instruction notes is used and confirmed.

The implemented and described procedures for screening of the supply base ensures that all 38 indicators incl. the four indicators:

- 2.1.1 Forests with high conservation values are identified and mapped
- 2.1.2 Potential threats to forests and other areas with high conservation values from forest managements activities is identified and addressed

- 2.2.3 Conservation of key ecosystems and habitats
- 2.2.4 Procedures to ensure protection of biodiversity

achieve low risk.

The response from the suppliers are positive. They find the work tools very user-friendly, and the ongoing supervision, advise and help from Biomasse Børsen' staff is valuable. Of course humility, and patience in this beginning is practiced, and people agree in the new routines shall be successful.

Biomasse Børsen agrees in and is conscious about the new systems, and it takes more time and a close follow up in this beginning. Further, the staff is conscious about it will be an ongoing process with continuous improvement. Because of that, there will be an intense follow up on all suppliers in this beginning.

9 Mitigation Measures

9.1 Mitigation measures

For all projects is risk assessment /screening made for the location there the feedstock is produced. This screening is made to clarify if the feedstock area can be classified low risk or specified risk (indicators: 2.1.1, 2.1.2, 2.2.3 and 2.2.4). If specified risk, shall mitigation measures be described and physical visit be done. The risk assessment is done using available information from maps, databases and by physical inspection of the feedstock area.

Screening and the mitigation measures contributes that Biomasse Børsen perform forest management operations at the feedstock area, in a way without negative impact on ecosystems, biodiversity and preservative areas – and in that way all indicators achieve low risk.

Feedstock areas shall be examined and mapped by using the procedure below. Maps is made in relevant applications fx. Arealinformation and Miljøgis which have HNV forest layer alternatively using the DM&E map-application with relevant layers.

- Each project get a unique project ID, and the ID follows on maps, workinstructionnotes, transport documents, invoices etc.
- For each project is made a map showing
 - i. Overview and detail map showing the feedstock area, and if any, the preserved spots
 - ii. On estates with FSC, PEFC and Green Management Plan is maps with regarding spots taking into account to ensure the nature values at the preserved areas. The relevant maps shall be attached the project.
- Doing the checklist
 - i. Screening on map, the relevant points in the checklist is marked
 - ii. Description of relevant mitigation measures
 - iii. Define the type of biomass
 - iv. Indication of responsible person for the screening
- Physical screening / visit at the feedstock site shall be done at
 - i. Broadleaf stands
 - ii. Unevenaged stands
 - iii. Areas with HNV values from value 10 and up
 - iv. Areas with conservations, ancient monuments etc.
- Definition of eventually key habitats and preserved areas.

Physical screening can be omitted if the feedstock area is

- Thinning in afforestation / first generation forest
- Thinning in evenaged conifer stand
- The feedstock area has no forest status (FAO definition), but legislative harvested

Each project has a work instruction note for the management operation as well as eventually mitigation measures is described.

Guidance to screening

Fill out the basic data and chose tree species (at more species describes the main species).

1. *If the forest has FSC/PEFC certificate, are there maps showing spots where to pay attention regarding production of sustainable biomass production. The biomass producer shall have these maps available as well as the producer shall respect the procedures the forest in question. The valid number of certificate is recorded. Do the forest have a Green Management Plan shall the biomass producer have the maps showing attention spots available.*
2. *If the project is thinning in first generation afforestation, or an even aged conifer stand is it concluded, that the thinning is low risk concerning threats to important habitats, and of course do pay attention to mapping of other HCV types regarding annex 10*
3. *In cases there forest is transformed to another use fx agriculture, particular attention must be paid in the documentation /screening etc to ensure that the transformation do not conflict to current legislation, HNV is controlled for the area, and if the HNV>10 on the HNV-forestmap, particular attention must be taken in the operation regarding annex 11*
4. *If the operation is carried out on any §3 areas, there circumstances regarding Nature Conservation Act §3 must be followed. Often the local municipality must grant an exemption. Number of journal may be recorded in notes, annex 12*
5. *If the feedstock area is Natura 2000 shall there be paid attention depending on the reasons for the appointment, se annex 13*
6. *Ancient monuments and dikes may not be disturbed in the operation for biomass production, se annex 14*
7. *Conservative areas may be paid attention to the reason for the appointment. Often the local municipality shall grant exemption for operation in such areas, se annex 15*
8. *Information (often from the owner of the forest) about nesttrees, badgers homerange etc shall be recorded in notes.*

Screening is done by professionals with current knowledge about nature and environmental legislation. At projects with “specified risk” physical screening is done by professionals and educated (BSc and MSc) in forestry, or by persons with valid “DM&E approved biomass producer”

Pilots on the forestry machines have been educated in “Maskinfærdsel på naturnære arealer” (“Management of machines on nature valuable habitats”) through the School of Forestry. The pilots are trained in understanding the workinstructionnotes and maps.

The contractor doing the project get maps, workinstructions etc. either electronic by Tradenda app or physical in paper. Relevant instructions goes to pilots on harvesters, forwarders, chippers and trucks.

If the pilot notes any area, habitat or environmental spot, which should be preserved, he write it on the map and send the information to the responsible for the project. In that way, the newest information always will be available for the following operation. This procedure ensure preserved nature will be identified and protected.

If essential circumstances changes under the forest management operation regarding the workinstruction/-map, it will be recorded and send to the pilot for the following operation.

Observations that not correspond to production of SBP-compliant feedstock shall be recorded and mitigation measures shall be done. In cases where the risk cannot be reduced the biomass can – regarding legislative rights – be classified non-compliant and be kept separated from the SBP-compliant biomass.

9.2 Monitoring and outcomes

Biomasse Børsen assess after further analysis of the NRA that biomass can be produced with low risk on

- Thinning I conifer stands
- Thinning in afforestation
- Biomass from estates with valid PEFC/FSC certificate
- Estates with Green Management Plan

Regarding the above written, it assessed that biomass from the following locations shall follow the procedures for “specified risk” to achieve low risk. The locations are

- Uneven aged stands without PEFC/FSC or Green Management Plan
- Broadleaf stands

The Supplier Verification Programme is in this writing moment done by three subcontractors with good results. The suppliers give positive feedback on the useful worktools /systems Biomasse Børsen have available, and they appreciate the supervision, help and guidelines they get.

Of course, it takes some time to be confidential with the procedures, and because of that Biomasse Børsen will pay more attention to follow up and control of origin and the management of biomass production. Especially extra control will be taken on projects sourced from locations with “specified risk”.

Regarding the 38 indicators in SBP Standard 1 and the completed SBE RA and SVP, Biomasse Børsen consider with the written and implemented procedures fx. by screening the feedstock area that all 38 indicators will achieve low risk – and that also means the “specified risk” indicators:

- 2.1.1 Forests with high conservation values are identified and mapped
- 2.1.2 Potential threats to forests and other areas with high conservation values from forest managements activities is identified and addressed
- 2.2.3 Conservation of key ecosystems and habitats
- 2.2.4 Procedures to ensure protection of biodiversity

Has achieved low risk.

10 Detailed Findings for Indicators

Detailed results for the indicators are found in the SBP approved RRA for Denmark, June 2017.

11 Review of Report

11.1 Peer review

To ensure the validity of this report it shall be reviewed and the comments shall be incorporated in the report.

Claus Clemmensen, consultant at DM&E have reviewed this report, and his comments are incorporated.

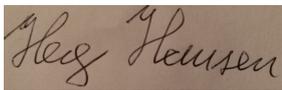
Claus Clemmensen, DM&E have represented one of the stakeholders / interests there have been consulted in the SBP-work for Denmark.

This report is also read by DNVGL, and they have reviewed the report.

11.2 Public or additional reviews

The SBR has had Peer review and there is not made any further review.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	 Paul Lillelund	Owner/Ceo / M.Sc forestry	29/1-2019
	Name	Title	Date
<p>The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.</p>			
Report approved by:	 Michael Vismar Birch	Owner/B.Sc. forestry	29/1-2019
	Name	Title	Date
Report approved by:	 Henry Hansen	Owner	29/1-2019
	Name	Title	Date
Report approved by:	[name]	[title]	[date]
	Name	Title	Date

13 Updates

13.1 Significant changes in the Supply Base

There has been no changes in the supply base area – DK is still the supply base.

The SBR is updated January 2019. Updates are written into the report sections above and unvalid information has been deleted. The SBP endorsed Regional Risk Assessment for Denmark, June 2017, is applied.

13.2 Effectiveness of previous mitigation measures

As described earlier, the following four indicators has “specified risk”:

- 2.1.1 Forests with high conservation values are identified and mapped
- 2.1.2 Potential threats to forests and other areas with high conservation values from forest managements activities is identified and addressed
- 2.2.3 Conservation of key ecosystems and habitats
- 2.2.4 Procedures to ensure protection of biodiversity

Generally, the conclusion is that the implemented mitigation measures have had positively effect in production of SBP-compliant biomass. In the following, the effectiveness of each mitigation measure is described.

- The unique project ID, following all steps and related project-documents do it much easier to identify actions related the unique project.
- Map, showing feedstock area, and if any, the preserved spots is a very competent tool. The DM&E map-application is very useful, easy and valuable to operate. Definitely, the map-screening has forced higher attention to preserved spots etc. from both responsible persons and subcontractors. Sometimes the map-screening help to find preserved spots that otherwise not would have been noticed, and sometimes the opposite happens – that the map is wrong.
- Checklist works well and reminds the responsible project-leader to consider each essential parameter outlined on the checklist.
- Physical screening on harvesting/supply site with specified risk is made. The fact is that many screenings do not give the extra wished benefit. Most of the subcontractors have many years of experience and combined with the course “Maskinfærdsel på naturnære arealer” – are they in our opinion competent to do solve the screening on their own – provided they have maps with essential figures. Of course, an essential reason is that mostly of the forest during all years have been professional cultivated.
- Participation on DM&E field excursion workshop, where several of the sub-contractors also participated, was very informative because grey zone areas in connection with identification of key biotopes and forest management rights were discussed in practice, incl. examples of how to solve forest operations.

13.3 New risk ratings and mitigation measures

Through the mitigation measures implementation, key habitats and preserved areas has suddenly gotten more attention in daily operations – especially by the contractors/drivers. Some drivers even have become more motivated to be doing a good job.

Related to a common conclusion that the implemented mitigation measures have an efficiently strong effect in producing more sustainable biomass, there are no issues for introducing more mitigation measures.

The conclusion is that implementation of SBP and the derived requirements to the production has created a significant stronger consciousness of the meaning of SBP-compliant biomass.

Actually it is a chain reaction:

- Continuously subcontractors getting a more and more positive mindset for producing sustainable biomass
- This attitude have a positive influence on the forest owners
- And by the graduated implementation of the “Brancheaftale” on the heating- and power stations – the suppliers forces into acceptance of the mindset.

Our hoop that the planned evaluation of the Danish Energy sector agreement: “Brancheaftalen” ultimo 2018/primo 2019 would have increased the production and the use of sustainable biomasse further seems now to have failed. We do wish that the Dansk Fjernvarme would take further responsibility for sustainable biomasse by requiring stricter documentation for more heating stations than it is now the case in the “Brancheaftalen” for sustainable biomasse.

13.4 Actual figures for feedstock over the previous 12 months

Total feedstock:	Approx. 20,000 T
Volume of primary feedstock:	Approx. 20,000 T
Of which SBP-approved standards:	<10 % SBP approved forests standards

13.5 Projected figures for feedstock over the next 12 months

Total feedstock:	75,000 T
Volume of primary feedstock:	75,000 T
Of which SBP-approved standards:	<20 % SBP approved forests standards