

# Supply Base Report for The Danish Nature Agency



## Version 1.2 June 2016

**Note:**

**This template, v1.2, is effective as of the date of publication, that is, 23 June 2016. Template v1.1 may still be used for those audits undertaken prior to 23 June 2016 and where the certificate is issued to Certificate Holders before 1 October 2016.**

*For further information on the SBP Framework and to view the full set of documentation see [www.sustainablebiomasspartnership.org](http://www.sustainablebiomasspartnership.org)*

*Document history*

*Version 1.0: published 26 March 2015*

*Version 1.1 published 22 February 2016*

*Version 1.2 published 23 June 2016*

© Copyright The Sustainable Biomass Partnership Limited 2016

# Contents

<b>1</b>	<b>Overview</b> .....	<b>1</b>
<b>2</b>	<b>Description of the Supply Base</b> .....	<b>2</b>
2.1	General description .....	2
2.2	Actions taken to promote certification amongst feedstock supplier .....	3
2.3	Final harvest sampling programme .....	4
2.4	Flow diagram of feedstock inputs showing feedstock type [optional] .....	4
2.5	Quantification of the Supply Base .....	5
<b>3</b>	<b>Requirement for a Supply Base Evaluation</b> .....	<b>6</b>
<b>4</b>	<b>Supply Base Evaluation</b> .....	<b>7</b>
4.1	Scope .....	7
4.2	Justification .....	7
4.3	Results of Risk Assessment .....	7
4.4	Results of Supplier Verification Programme .....	7
4.5	Conclusion .....	7
<b>5</b>	<b>Supply Base Evaluation Process</b> .....	<b>8</b>
<b>6</b>	<b>Stakeholder Consultation</b> .....	<b>9</b>
6.1	Response to stakeholder comments .....	9
<b>7</b>	<b>Overview of Initial Assessment of Risk</b> .....	<b>10</b>
<b>8</b>	<b>Supplier Verification Programme</b> .....	<b>11</b>
8.1	Description of the Supplier Verification Programme .....	11
8.2	Site visits .....	11
8.3	Conclusions from the Supplier Verification Programme.....	11
<b>9</b>	<b>Mitigation Measures</b> .....	<b>12</b>
9.1	Mitigation measures.....	12
9.2	Monitoring and outcomes .....	12
<b>10</b>	<b>Detailed Findings for Indicators</b> .....	<b>13</b>
<b>11</b>	<b>Review of Report</b> .....	<b>14</b>
11.1	Peer review.....	14
11.2	Public or additional reviews .....	14
<b>12</b>	<b>Approval of Report</b> .....	<b>15</b>
<b>13</b>	<b>Updates</b> .....	<b>16</b>
13.1	Significant changes in the Supply Base .....	16
13.2	Effectiveness of previous mitigation measures .....	16
13.3	New risk ratings and mitigation measures.....	16
13.4	Actual figures for feedstock over the previous 12 months .....	16
13.5	Projected figures for feedstock over the next 12 months .....	16

# 1 Overview

*On the first page include the following information:*

Producer name: The Danish Nature Agency (Naturstyrelsen)  
 Producer location: Førstballevej 2, 7183 Randbøl, Denmark  
 Geographic position: 55 42.4496, 9 16.5409  
 Primary contact: Mogens Krog, mokro@nst.dk  
 Company website: www.nst.dk  
 Date report finalised: 31.05.2018  
 Close of last CB audit: 31.05.2018  
 Name of CB: DNV GL Business Assurance Finland Oy Ab  
 Translations from English: Yes  
 SBP Standard(s) used: Standard 2 version 1.0, Standard 4 version 1.0, Standard 5 version 1.0  
 Weblink to Standard(s) used: <http://www.sustainablebiomasspartnership.org/documents>  
 SBP Endorsed Regional Risk Assessment: Not applicable  
 Weblink to SBE on Company website: Not applicable

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>	<input type="checkbox"/>

## 2 Description of the Supply Base

### 2.1 General description

#### Danish forest area

According to Statistics Denmark (2013) the forest cover in Denmark is 615254 ha which is equal to app. 14 % of the total land area and the forest area is increasing. A total of app. 75% of the forest area is under private ownership while 25% is managed by public organizations. There are many small forest owners (less than 20 ha), but the main part (more than 50%) of the forest area is owned by larger forest owner >250 ha.

Forest Area Denmark		2016
	Total forest area	624.600 ha
	Broadleaves	42 %
	Conifers	38 %
	Mixtures of broadleaves and conifers	10 %
	Christmas trees and greenery	5 %
	Unstocked	2 %
	Temporarily unstocked	3 %

Table 1. Forest cover in Denmark (Thomas Nord-Larsen et al.2017)

Ownership	%
Private forest	57
Private companies	12
Foundations	5
State forest	18
Other state owned	1
Other public forest	4
Unknown	2
Total	100

Table 2. Forest ownership (Thomas Nord-Larsen et al.2017)

Forestry farms sizes in Denmark		2016	%
	All forestry farms	22744	100
	Farms with 0,5-19,9 hectare forestry	19996	87,9
	Farms with 20,0-49,9 hectare forestry	1621	7,1
	Farms with 50,0-99,9 hectare forestry	475	2,1
	Farms with 100,0-249,9 hectare forestry	363	1,6
	Farms with 250,0-499,9 hectare forestry	144	0,6
	Farms with 500,0 hectare forestry and over	146	0,6

Table 3. Forest ownership distributed on forest size (Thomas Nord-Larsen et al.2017)

The standing volume is app. 130 mio m<sup>3</sup> which is equal to 209 m<sup>3</sup>/ha. Broadleaves account for 57 % and conifers for 43 % of the standing volume. Standing volume has increased for many years due to an increasing forest area, and properly also an increase in standing volume/ ha. The annual total increment in standing volume is estimated to 7,7 mio m<sup>3</sup>/ha and the annual harvest is estimated to 4,8 mio m<sup>3</sup>/ha. Thus the annual net increment is 2,9 mio m<sup>3</sup>/year.

The total gross factorial income for forest products is app, 1 billion Danish Kroner (app. 133 mio euro). In 2015 the production of energy wood accounted for 300 mio Danish Kroner.

More than 85% of the Danish forest area is protected under the Danish forest legislation. Certain forest habitats are also protected under Nature 2000 legislation.

**The Supply-base: State forest managed by the Danish Nature Agency**

The Danish Nature Agency manages forest and nature areas owned by The Ministry of Food and Environment and only supply wood chips from these areas. The areas are managed in a holistic approach, where respect for nature protection, outdoor recreation, cultural history, production, etc. are all rated highly. However there is a special emphasis on nature protection and support of outdoor opportunities.

The total FSC certified area is 203.074 ha, while the PEFC certified and SBP compliant area is 204.272 ha.

The forest management is certified according to PEFC og FSCs standards for responsible forest management. Only a limited area is excluded from the certificates:

Certificate	Areas excluded	Area excluded (ha)
PEFC	Farmland, camping grounds, golf courts , nurseries, special project areas	4.559
FSC	Farmland, camping grounds, golf courts , nurseries, special project areas, christmas tree areas	5.756
SBP	Farmland, camping grounds, golf courts , nurseries, special project areas	4.559

Table 4. List over areas excluded from certificates.

The Danish Nature Agency manages the forest according to principles for Nature Based Management. The means that clear felling in general is not used although exceptions can occur.

Beech	Oak	Ash and mapple	Other broadleaves	Spruce	Noble fir	Mountain pine	Other conifers	Forest areas	Open nature areas	Other areas e.g. roads	Total
21589	16281	2420	5464	30405	6566	6764	17503	106997	81586	15688	204272

Table 5 Land use (ha) state forest.

## 2.2 Actions taken to promote certification amongst feedstock supplier

The Danish Nature Agency is sourcing the main part of the biomass from own areas. Only in connection with nature projects where neighbor areas are included there may be woodchip from outside The Danish Nature

Agency's ownership. Woodchip from outside The Danish Nature Agency's ownership will not be claimed as SBP compliant. Areas managed by The Danish Nature Agency are for the main part certified against PEFC as well as FSC forest management standards. Furthermore The Danish Nature Agency is participating in certification standard setting processes.

## 2.3 Final harvest sampling programme

The Danish Nature Agency only use clear fellings to a limited extend. A clear felling is a restricted coherent forest areas where all the trees are cut down at the same time. Instead the forest management is based on principles for nature based forest management. Nature Based forest management aims to build stable forests that are rejuvenating naturally, and where forest climate is maintained. Forests will consist of locally adapted and especially native species and the forest will be characterized by high variation in age and species composition. In the management of state forest there is a focus on providing dead wood, natural hydrology, protect and provide key habitats and create recreational values. Furthermore, there is ban on the use of pesticides in the state's forests.

Wood chip production represents around 200,000 tonnes annually. The chips are preferably provided in connection with the initial thinning, and as a byproduct in later fellings.

**Thinnings** 102.469 m<sup>3</sup> (2017 numbers). From the first thinnings where trees are cut down using a feller/- buncher. Wood chip are the only product from these operations. Chipping is carried out in the stand and the chips are transported to the power plant or to a storage. Some of the wood chip also come from nature projects (For example clearing of heath).

**Treetops:** 95.450 m<sup>3</sup> (2017 numbers). Treetops from harvesting mid age or older deciduous trees are chipped. Treetops are stacked and chipped at roadside.

**Downgraded round wood chipped by NST:** 56.360 m<sup>3</sup> + 1.958 m<sup>3</sup> (2017 numbers) Is produced as a by-product in later fellings of conifers where timber is the main product. The wood chip is low quality wood which cannot be used for high quality products. The products are harvested using a harvester forwarded to road side as round wood. Most of the round wood (56.360 m<sup>3</sup>) is transferred to a storage where it is stored and later chipped. A smaller amount (1.958 m<sup>3</sup>) is chipped as round wood at roadside in the forest and transported to directly to the end point.

**Downgraded round wood – not chipped by NST:** 32.379 m<sup>3</sup> (2017 numbers) Is produced as a by-product in later fellings of conifers where timber is the main product. The wood chip is low quality wood which cannot be used for high quality products. The products are harvested using a harvester forwarded to road side, from where it is transported directly to the power plant. The wood is sold as roundwood and delivered at the powerplant. Chipping of roundwood is done by the buyer.

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

N/A.

## 2.5 Quantification of the Supply Base

Provide metrics for the Supply Base including the following. Where estimates are provided these shall be justified.

### Supply Base

- a. Total Supply Base area (ha): 204.272 ha <sup>1</sup>
- b. Tenure by type (ha): public 204.272 ha
- c. Forest by type (ha): temperate 204.272 ha
- d. Forest by management type (ha): managed natural
- e. Certified forest by scheme (ha): 204.272 ha ha is PEFC certified  
203.074 ha is FSC certified<sup>2</sup>

### Feedstock

- f. Total volume of Feedstock: between 200.000 to 400.000 m<sup>3</sup>
- g. Volume of primary feedstock: between 200.000 to 400.000 m<sup>3</sup>.
- h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - PEFC certified 100 %
  - FSC certified 98 %
- i. List all species in primary feedstock, including scientific name:

Coneferious species			
Abies Alba	Larix spp	Pinus contorta	Pinus spp
Abies Grandis	Picea abies	Pinus nigra	Pseudotsuga menziesii
Abies Normania	Picea glauca	Pinus ponderosa	Thuja plicata
Abies Procera	Picea sitchensis	Pinus strobus	Tsuga heterophylla (Raf.) Sarg
Abies spp.	Picea spp	Pinus sylvestris	
Broadleaved species			
Acer platanoides	Betula pubescens	Populus tremuloides	Quercus Rubra
Acer pseudoplatanus	Carpinus betulus L	Populus Spp	Quercus Spp
Alnus glutinosa	Fagus sylvatica	Prunus avium	Salix Spp
Alnus incana	Fraxinus excelsior	Quercus Petraea	Sorbus Spp
Betula pendula	Populus tremula	Quercus robur	

- j. Volume of primary feedstock from primary forest 0 ha
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes: N/A
- l. Volume of secondary feedstock: 0%
- m. Volume of tertiary feedstock: 0%

<sup>1</sup> Parts of the area is set-aside as protected forest and will not contribute to the Feedstock

<sup>2</sup> FSC does not recognize and allow greenery areas as certified. This area covers an area of 1199 ha which is the between the FSC and PEFC certified area.

### 3 Requirement for a Supply Base Evaluation

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

*The full forest area of the Danish state forests managed by the Danish Nature Agency, which is the supply base is FSC and/or PEFC certified.*

## 4 Supply Base Evaluation

N/A.

### 4.1 Scope

N/A

### 4.2 Justification

N/A

### 4.3 Results of Risk Assessment

N/A

### 4.4 Results of Supplier Verification Programme

N/A

### 4.5 Conclusion

N/A

## 5 Supply Base Evaluation Process

N/A

## 6 Stakeholder Consultation

N/A

### 6.1 Response to stakeholder comments

N/A.

## 7 Overview of Initial Assessment of Risk

N/A

## 8 Supplier Verification Programme

N/A

### 8.1 Description of the Supplier Verification Programme

N/A

### 8.2 Site visits

N/A.

### 8.3 Conclusions from the Supplier Verification Programme

N/A.

## 9 Mitigation Measures

N/A

### 9.1 Mitigation measures

N/A

### 9.2 Monitoring and outcomes

N/A.

## 10 Detailed Findings for Indicators

N/A

## 11 Review of Report

Data and information used in this report is for a large part public available. In order to ensure this report further credibility it has been sent to peer review.

### 11.1 Peer review

2016: Peer review has been carried out by forestry professor Palle Madsen at Copenhagen University. Comments and recommendations have been incorporated in the report.

### 11.2 Public or additional reviews

2017: There are very few changes in the 2017 report therefore the SBR 2017 edition has not been reviewed.

2018: There are very few changes in the 2018 report therefore the SBR 2018 edition has not been further reviewed.

## 12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Mogens Krog</i>	<i>Forest Officer</i>	<i>31.05.2018</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	<i>Mads Jensen</i>	<i>Head of Division</i>	<i>31.05.2018</i>
	Name	Title	Date
Report approved by:			
	Name	Title	Date
Report approved by:			
	Name	Title	Date

## 13 Updates

### 13.1 Significant changes in the Supply Base

*No significant changes to the supply base. The forest area has increased slightly.*

### 13.2 Effectiveness of previous mitigation measures

*N/A*

### 13.3 New risk ratings and mitigation measures

*N/A*

### 13.4 Actual figures for feedstock over the previous 12 months

*SBP-compliant biomass sold in 2017: 143.804 m<sup>3</sup> (wood chips) + 32.379 m<sup>3</sup> (downgraded roundwood) sold as SBP-compliant biomass.*

*Total amount of wood chips sold in 2017: 290.509 M<sup>3</sup> (of which only 143.804 m<sup>3</sup> is sold as SBP-compliant biomass).*

### 13.5 Projected figures for feedstock over the next 12 months

*Budget for 2018: 247.000 M<sup>3</sup> (Total amount, SBP-compliant biomass and non-SBP)*