

# Supply Base Report:

## Sustainable biomass from Skovdyrkerne SYD

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## 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](http://www.sbp-cert.org)*

### *Document history*

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# 1 Overview

**Producer name:** Skovdyrkerforeningen SYD A.M.B.A  
**Producer location:** Brejning Søndergade 26, 7080 Børkop, Denmark  
**Geographic position:** Lat E 9 degrees 40.236 minutes, Long N 55 degrees 39.471 minutes  
**Primary contact:** Henrik Fredslund, Brejning Søndergade 26, 7080 Børkop, ph. +4520574810, e-mail: [hfr@skovdyrkerne.dk](mailto:hfr@skovdyrkerne.dk)  
**Company website:** [www.skovdyrkerne.dk/syd/](http://www.skovdyrkerne.dk/syd/)  
**Date report finalised:** 31.11.2016 (for stakeholder consultation)  
**Close of last CB audit:** N/A  
**Name of CB:** NepCon  
**Translations from English:** No  
**SBP Standard(s) used:** Standard 1 v1.0  
 Standard 2 v1.0  
 Standard 4 v1.0  
 Standard 5 v1.0  
**Weblink to Standard(s) used:** <http://www.sustainablebiomasspartnership.org/documents>  
**SBP Endorsed Regional Risk Assessment:** RRA for Denmark, June 2017  
**Web link to SBE on Company website:** <http://www.skovdyrkerne.dk/syd/salg-af-flis/>

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

## 2 Description of the Supply Base

The scope of this description is to provide the necessary background information to read and understand this Supply Base Report - which constitutes a central part of the preparations for documenting the procedures involved in sustainable harvesting of forest biomass at Skovdyrkerne SYD.

### 2.1 General description

Skovdyrkerne SYD (SYD is a service organisation owned and controlled by local forest owners. The purpose of the organisation is to provide all services related to forest management - delivered in a way that takes the conditions and outlook of each forest owner as the starting point.

Skovdyrkerne SYD is one of five local branches that constitutes 'De Danske Skovdyrkerforeninger' - together forming a nationwide network providing services to the forest owners.

SYD has, per 1<sup>st</sup> of January 2017, app. 1.450 members owning a total of app. 17.000 ha forest land (including Christmas tree plantations and open nature types related to forests). The members control the management of their organisation through a board of directors - elected on an annual general assembly.

The service and the operations of the organisation are carried out by a staff of foresters (all educated with a M.Sc. or B.Sc. in forestry) under the leadership of a forest supervisor (CEO). Per 1<sup>st</sup> of January 2017 the staff included 10 foresters.

The services of SYD comprise all relevant aspects of forest management / natural resource management:

- Advisory services (on site, written reports, green forest management plans, project plans for afforestation etc.).
- Harvest operations in forest - timber and biomass (controlling the supply chain from tree to industry).
- Harvest operations in Christmas trees and decoration foliage (controlling the supply chain from tree to end user).
- All types of manual and mechanical operations in relation to silviculture, Christmas trees, foliage and management of nature in the open range.

Most of the activities and operations takes place in forests owned by the members of SYD – which also enjoys certain advantages compared with other forest owners (non-members). However, buying / selling forest produce and services from / to other forest owners also takes place, as well as buying / and selling forest produce on a trading basis.

#### 2.1.1 Baseline definitions and scope

In this context the following baseline definition about SYD as a biomass producer (BP) can be made:

- Biomass from all harvest operations where SYD is responsible for the whole supply chain (from planning, felling and all the way to the customer) can be considered as 'within the production facility' - and all procedures in the Supply Base Evaluation, including risk assessment and mitigation measures, are carried out by SYD's own forest educated and trained staff.

- Biomass sourced from third party has to undergo the procedures in the Supplier Verification Programme to determine whether it can be considered sustainable according to the SBP standard.

The scope of this Supply Base Report is restricted to *primary feedstock*. As an operator closely connected to the forests, SYD does not work with secondary or tertiary feedstock at all.

In relation to the sustainability characteristics defining a batch (SBP instruction note 5a section 8.1) the appropriate distinctions in this context is:

- Input type: All primary.
- Forest size: All < 1.000 ha (with rare exceptions)
- Forest certificate / under Group Scheme:
 

FSC: 8 estates / 3.468 ha.
PEFC: 13 estates / 5.142 ha.
- SBE status: Inside SBE.
- Stump wood: Does not contain stump wood
- Primary forest: No.

Batches are defined in the management system only according to the GHG profile data and the origin according to eventual forest management scheme.

The definition of forest land - where SBP is applicable - is the FAO standard: *Tree covered area of no less than 0.5 ha where the trees becomes higher than 5 m. – Complemented by the definition from the Danish department of Nature stating that the width is at least 20 m <sup>1</sup>.*

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<sup>1</sup> See FAO definition of forest land in full [link](#) or Danish version [link](#).

## 2.1.2 Defining the Supply Base Area

SYD is mainly harvesting biomass from region “Syddanmark” and “Midtjylland”.



Figure 1: The supply base is mainly region “Syddanmark” and “Midtjylland”

### 2.1.3 Denmark - forest resources

*Where no other source or reference is given, this section - giving a description of the forest resources in Denmark - is based on the similar description in 'SBP Regional Risk Assessment for Denmark' <sup>2)</sup>.*

*This choice is made for several reasons:*

- *The RRA gives an updated overview of the relevant information,*
- *The RRA contains the necessary and relevant references to sources of information - please press this [link](#) for further information.*
- *The stakeholder involvement secures that the description is made in consensus with other stakeholders - even if we at SYD are a bit more optimistic in our view on the current status in the Danish forests, we in this manner includes the precautionary principle in our approach.*

The terrestrial environment of Denmark is divided between two EU biogeographical regions by means of a north-south divide through the middle of the Jutland Peninsula: 1) the Atlantic region, covering the western part of Jutland and the Continental region, and 2) the Continental region covering the eastern part of Jutland and Denmark's islands. These regions are used by the Danish Nature Agency under the Ministry of the Environment and Food to the EU Commission to report on the status and management results of Natura 2000 conservation areas.

In the early 1800's, the forest cover in Denmark is estimated to have been as low as 3-4% of the total land area. Deforestation was caused by logging for timber and firewood and for animal grazing areas. Denmark's first forest legislation came into force in 1805. Its main objective - as well as following Danish forest acts - has been to maintain the forest covered area and to protect the existing forest from overexploitation, premature felling and grazing by farm animals. In the mid nineteenth century, intensive / structured forest management became widespread and large afforestation projects were carried out. Today approximately 14% (615,000 hectares) of Denmark's land area is covered by various types of forest.

According to the Danish National Forest Inventory, conducted by the Danish Nature Agency, 41% of Denmark's forest area is dominated by broadleaved trees, 39% by coniferous tree species, 11% by a mixed coniferous and broadleaved tree species, 5% are Christmas tree plantation (located within all the above forest types) and 4% of the area is unstocked, e.g., log loading and landing yards, fire prevention areas etc. Furthermore, 67% of the Danish forest area is covered with even-aged planted stands, 9% being even-aged stands from natural regeneration, 10% being un-even-aged managed and 6% of the forest area is uneven-aged natural forest. The latter represent pockets forests that would be closest to what is considered of natural forest stands having retained or regained natural forest characteristics; which can be found in forests both under private and public ownership and they are predominantly located in the Continental region (east Jutland and the isles). The location of these natural forest stands is generally well-known, but some may still be unidentified.

Of Denmark's 615,000 hectares of forest, 440,000 hectares are managed as forest reserves (called 'fredskov' in Danish) governed under the Danish Forest Act. The Forest Act permits forest management

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<sup>2</sup> 'THE REGIONAL RISK ASSESSMENT FOR DENMARK' (draft submitted for public consultation by NepCon, May 2016. [Link](#). This draft is still the only version available. We have however been informed, that the results of the public hearing is in no contrast to the outline and procedures in this SBR'

activities within these areas; however, Article 8 requires the managed area shall regain forest cover within 10 years from felling, that a maximum of 10% of the forest area can be used for short rotation Christmas trees or greenery production (e.g., cuttings typically from *Abies procera*), and another maximum of 10% of the area can be used for coppicing or for animal forest grazing. The Forest Act also protects streams and wetlands in forests that are not covered by the Nature Protection Act or under the Ministry of Environment or local authorities. It stipulates that lakes, bogs, heathlands, species-rich grasslands, coastal grasslands and bogs and fens located in “fredskov” forest reserve may not be planted or cultivated, drained or in other way changed. It is also important to note the Forest Act does not include many regulations regarding, e.g. harvesting, planting or thinning.

There are 79,000 hectares of forests designated as Natura 2000 areas (13% of the Danish forest area) which have some overlap with the 74,900 hectares forests and other natural areas designated under the EU Habitat Directive, 51,500 hectares under the EU Birds Directive and 13,900 hectares as Ramsar sites. A harvest permit must be obtained from the Danish Nature Agency to conduct any timber harvesting activities within Natura 2000 forests; permits are given provided that the forest ecosystem will not be degraded. Issuing such permit is to be regarded more as an exception than common practice.

In relation to HCV category 3, it is worth noting that although the Forest Act §25 sets standards for registering ‘*especially valuable forests*’ i.e., valuable in terms of their biodiversity and conservation value, and accompanying appropriate conservation management activities for these areas, these areas have not yet been registered by the Danish Nature Agency. Danish forests biodiversity and conservation values have been surveyed by Department of Geosciences and Natural Resource Management at Copenhagen University through a sampling methodological approach. Therefore, not all forest areas have been systematically surveyed, particularly small privately forests areas. The task of systematically surveying ‘*especially valuable forests*’ will be carried out by the Danish Nature Agency in the years 2016 - 2019.

Forest ownership in Denmark is divided by private forests owners, (70%), State and Municipal owners (24%), trust funds or foundations (4%) and unknown owners (2%). There exist app. 26.000 forest estates in Denmark, and the ownership structure is characterised by that e.g. 90% of the owners holds less than 20 ha covering only 20% of the total forest area. Whereas only app. 2% of the owners holds more than 100 ha, but covers almost 65% of the total forest area.

### **Biodiversity in Danish forests**

In general, the biodiversity in the Danish forests are affected by the historic development. In the beginning of the 18<sup>th</sup> century the forest cover was reduced to a few percent of the land coverage. In 1805 the forest act was implemented for all most all the forests at that time. The intensive afforestation that followed largely coincided with the industrialisation. This shifted focus from firewood to the production on timber, and over the next 200 years’ the use of exotic tree species, in particularly coniferous species was dominating. The afforestation largely took place on impoverished open land. Within the exiting (degraded) forests the immediate consequence of the Forest Act was that the forest cover became denser because the trees and the regeneration was protected from the grazing livestock, and degraded / open areas replanted. The actions initiated 200 years ago, with afforestation on open land and reforestation in the forest reminiscences have had a great impact on the biodiversity and we are therefore bound to stop additional reduction of biodiversity in forest. In particularly in the latter forest category.

Since the 1990's forestry practices in Denmark, have gradually shifted from traditional, production oriented forest management towards management regimes with a wider set of goals for conservation, biodiversity, recreation and addressing other social needs such as preserving cultural heritage sites.

Today there is a significant focus on preserving and even increasing the biodiversity in the forest. The awareness of this issue is an important aspect in sustainable forest management, where a lot of considerations must be balanced.

Danish forest have been surveyed by Department of Geosciences and Natural Resource Management at Copenhagen University by means of a sample methodology and their biodiversity and conservation values have been documented under the Danish National Forest Inventory (NFI) hosted by the Danish Nature Agency. (Latest in 2015)

Denmark ratified the Convention on Biological Diversity in 1994. Today more than 11% of Denmark’s terrestrial lands are protected, one third of which are classified as IUCN Categories I and II; of which a large number are protected under the Nature Protection Act and the Natura 2000 EU Directive. These areas have been designated specifically to protect species, landscapes, cultural heritage and/or for scientific research and/or education purposes.

Approximately, over 6,300 species in 8 major species groups in Denmark have been assessed according to IUCN Red List criteria, and just over 1,500 or 24% of these have been red-listed. Forests constitute 52% of the habitat affiliations for red-listed species. Furthermore, areas enjoying protection under the Forest Act, Natura 2000 and/or the Nature Protection Act are also mapped and available online via the Danish Nature Agency’s digital nature map. Biodiversity data is updated regularly by the Danish Nature Agency and, as mentioned above, the Agency will be completing the registration of “especially valuable forest” over 2016 - 2019. There is one forest area in North Zealand which is listed as UNESCO world heritage due to its historical significance as royal ‘Parforce’ hunting grounds landscape as, the site demonstrates the application of Baroque landscaping principles to forested areas.

### 2.1.4 Proportions of SBP feedstock product groups

SBP product group	Annual no. of suppliers	Proportion (%)	Forest certificate (%)	Coniferous (%)	Broadleaved (%)
SBP-compliant Primary Feedstock	150	80	15	10	90
SBP-compliant Secondary Feedstock	0				
SBP-compliant Tertiary Feedstock	0				
SBP non-compliant Feedstock	20	20		10	90

**Table 2.1.1 SBP product groups - forecast values for the period 01.06.16 until 31.05.17. The numbers are based on data from previous 12 months. 'Forest certificate' expresses share of 'Proportion', where feedstock originates from forest with a PEFC or FSC certificate.**

## 2.2 Actions taken to promote certification amongst feedstock supplier

SYD have since 2007 been approved to hold a PEFC group forest management as well as CoC certificate. This was followed by a FSC group forest management certificate in 2010.

SYD has embraced the SBP standard as a mean to ensure the procurement of sustainable biomass in a scheme that is affordable for small scale forestry. Skovdyrkerne have been a strong driver and stakeholder in the process towards a Regional Risk Assessment on a national level in Denmark.

SYD implements the SBP risk assessment and mitigation measures in procurement of all primary feedstock - both biomass and timber - and through our Supplier Verification Programme we reach out to further increase the level of sustainability within our geographical work range.

## 2.3 Final harvest sampling programme

The scope of this description is to quantify how large a proportion of the round wood, which has a potential for value-added use in the woodworking industry, which ends up as biomass.

Due to the price relations in the market, this proportion is insignificant small. There is no realistic risk of / incentive to substitution between i.e. timber logs and wood chips – if a part of a log, that has reached timber dimension or high value end use, is used for biomass, it is usually because of:

- Damages
- Rot
- Inferior quality

SYD approach to forest management and harvesting operations is to optimize the overall economic output for the forest owner. There is a strong economic driver for choosing any other assortment than round wood for energy – as shown in the below sample plot.

Assortment	End use	Volume (m3s)	Proportion (%)	Price relation	Value (%)
2,43 m. KTM EMB - MIX (60/40) T14R100	High-Value	295	19%	136	16%
2,43 m. KTM EMB - MIX (60/40) T14R100	High-Value	90	6%	139	5%
4,25 m. Korttømmer T20R60	High-Value	142	9%	167	10%
4,85 m. Korttømmer T14R40	High-Value	473	30%	167	32%
3,65 m. Korttømmer T15R40	High-Value	10	1%	167	1%
3,05 m. Troidhedetræ T14R35	High-Value	254	16%	186	19%
4,85 m. Korttømmer T14R40	High-Value	143	9%	167	10%
3 m. Energitræ T5R60	Biomass	168	11%	100	7%
<b>Total</b>		<b>1.574</b>	<b>100%</b>		<b>100%</b>

**Table 2.3.1: Final Harvest Sampling. Data from one representative sample plot indicating, that round wood end use as biomass only constitutes 11% of volume and 7% of value in final harvesting in mature stands (over 40-year rotation age). Please note that the forest owner has at least 36% gain from any other end use than biomass.**

The minimum quantity threshold for making High-Value timber in smaller projects is normally one truckload (40 kfm).

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

N/A

## 2.5 Quantification of the Supply Base

### Supply Base

Data is collected from the National Forest Inventory (2014) <sup>3)</sup>

Skovdyrkerne SYD is defining the Supply Base as the region: “Syddanmark” and “Midtjylland” – which correspond to the map on page 2.

- a. Total Supply Base area app. (ha): 363.000 ha forest.
- b. Tenure by type (ha): 268.700 ha privately owned, foundations 8.200 ha, 78.000 ha public owned, 8.100 ha other.
- c. Forest by type (ha): 0 ha boreal, 363.000 ha temperate, 0 ha tropical
- d. Forest by management type (ha): 250.900 ha plantation/planted, 77.900 ha natural forest, 34.200 ha unknown.
- e. Certified forest by scheme (ha): ca. 50.000 ha FSC-certified forest and ca. 60.000 ha PEFC forest. Note that many forests hold both FSC and PEFC certificates. The numbers are based on an estimate for the regions in question.

### Feedstock

- f. Total volume of Feedstock: 0 – 150.000 tonnes pr. year (specific number varies – and is considered to be commercially sensitive information. Skovdyrkerne has no dominant position in the market place).
- g. All feedstock is primary: 0-150.000 tonnes pr. year.
- h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes (guestimate):
  - 5% Certified to an SBP-approved Forest Management Scheme
  - 95% Not certified to an SBP-approved Forest Management Scheme

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<sup>3)</sup> National Forest Inventory 2014 is available here: [link](#)

- i. List all species in primary feedstock, including scientific name.

Danish	English	Latin
Ahorn	Sycamore	<i>Acer pseudoplatanus</i>
Ask	Ash	<i>Fraxinus excelsior</i>
Dunbirk	White birch	<i>Betula pubescens</i>
Vortebirk	Silver birch	<i>Betula pendula</i>
Bjergfyr	Mountain pine	<i>Pinus mugo</i>
Bævreasp	Aspen	<i>Populus tremula</i>
Bøg	Beech	<i>Fagus sylvatica.</i>
Contortafyr	Lodgepole pine	<i>Pinus contorta</i>
Cypres	Lawson cypress	<i>Chamaecyparis lawsoniana</i>
Douglas	Douglas fir	<i>Pseudotsuga menziesii</i>
Stilkeg	Common Oak	<i>Quercus robur</i>
Vintereg	Sessile Oak	<i>Quercus petraea</i>
Elm	Mountain elm	<i>Ulmus glabra</i>
Ene	Juniper	<i>Juniperus communis</i>
Grandis	Grand fir	<i>Abies grandis</i>
Hestekastanie	Horse chestnut	<i>Aesculus hippocastanum</i>
Hvidgran	White spruce	<i>Picea glauca</i>
Lind	Common lime	<i>Tilia cordata</i>
Lærk	European larch	<i>Larix decidua</i>
Lærk	Japanese larch	<i>Larix leptolepis</i>
Hybridlærk	Dunkeld Larch	<i>Larix eurolepis</i>
Nobilis	Noble fir	<i>Abies procera</i>
Nordmannsgran	Nordmann fir	<i>Abies normanniana</i>
Omorika	Serbian spruce	<i>Picea omorica</i>
Poppel	Poplar	<i>Populus sp.</i>
Rødeg	Northern red oak	<i>Quercus rubra</i>
Rødel	Common alder	<i>Alnus glutinosa</i>
Rødgran	Norway spruce	<i>Picea abies</i>
Sitkagran	Sitka spruce	<i>Picea sitchensis</i>
Skovfyr	Scots pine	<i>Pinus sylvestris</i>
Spidsløn	Maple	<i>Acer platanoides</i>
Taks	Yew	<i>Taxus baccata</i>
Thuja	Western red cedar	<i>Thuja plicata</i>
Tsuga	Hemlock	<i>Tsuga heterophylla</i>
Ædelgran	Silver fir	<i>Abies alba</i>
Østrigsk fyr	Austrian pine	<i>Pinus nigra</i>

- j. Volume of primary feedstock from primary forest: 0 tonnes (no harvest operations takes place in virgin forest).
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - (N/A) Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
  - (N/A) Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme
- l. Volume of secondary feedstock: N/A
- m. Volume of tertiary feedstock: N/A

### 3 Requirement for a Supply Base Evaluation

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

. Skovdyrkerne SYD as BP is mainly sourcing uncertified primary feedstock. A SBE is required.

## 4 Supply Base Evaluation

### 4.1 Scope

The scope of this Supply Base Evaluation is primary feedstock harvested in region “Syddanmark” and Midtjylland”, Denmark. The majority of the feedstock is harvested by trained professionals at Skovdyrkerne SYD according to the procedures described in “Management System for biomass production at Skovdyrkerne SYD”. The rest of the feedstock is sourced from suppliers approved by the Supplier Verification Programme.

The feedstock is divided in following sub-scopes:

- Primary feedstock sourced from coniferous thinning operations
- Primary feedstock sourced from areas of first generation afforestation
- Primary feedstock sourced from a forest holding with a FM certificate (FSC/PEFC)
- Primary feedstock sourced from a forest holding with a Green Management Plan
- Primary feedstock sourced from areas without a Green Management Plan
- Primary feedstock received with an SBP-approved Chain of Custody (CoC) System claim
- Primary feedstock sourced from non-forest areas

### 4.2 Justification

. Skovdyrkerne SYD adopted the ‘The Regional Risk Assessment for Denmark’ –published June 2017. The RRA is prepared according to SBP Regional Risk Assessment Procedure Version 1.0 and is a thorough investigation / evaluation of relevant risks in a Danish forest management context.

Skovdyrkerne SYD will, if needed and relevant, make the necessary adjustments according to eventual changes in the RRA later in the endorsement process.

The RRA concludes that there is a specified risk for 4 indicators, all related to mapping and protection of areas of high conservation values (HCV) in the supply base. When an area of high conservation value is mapped and defined, it is possible to identify and address potential threats from forest harvest operations, and hence conserve and protect key ecosystems and the associated biodiversity.

However, in a Danish context coniferous species are all imported and therefore not a part of a natural forest type. The biodiversity is sparse and in case of thinning operations there is no negative impact on the biodiversity. This justifies making a sub-scope categorising all feedstock sourced from coniferous thinning operations as low risk.

In the same way, first generation afforestation holds no high conservation values that can be negatively affected by a harvest operation. Therefore, harvesting operations in forests established as first generation afforestation are all categorised as low risk.

A forest holding with a forest management certificate has a detailed description of the forest including detailed maps with areas in the forest that has high conservation values (specific HCV map). All risks are low when consulting the maps and initiate necessary mitigations actions prior to sourcing biomass from broadleaved stands or clear cuts.

A forest holding with a green management plan has a detailed description of the forest. The plan includes detailed maps with areas in the forests that have high conservation values (specific HCV map). The HCV registration is mandatory. All risks are low when consulting the HCV maps and initiate necessary mitigations actions prior to sourcing biomass from broadleaved stands or clear cuts.

The last group in the scope consists of areas without a forest management certificate or a green management plan. There is a specified risk that areas of high conservation value have not been mapped. A further consultation of the HNV forest map is needed, possibly complemented by field visits prior to sourcing biomass from thinning in broadleaved stands or clear cuts from areas that are not first generation afforestation. If HCV's are identified, mitigating actions are made.

SYD has implemented a procedure where all harvesting areas are assessed according to the above sub-scopes prior to biomass production. The procedure is described in the management system and all staff is educated in the procedures.

### 4.3 Results of Risk Assessment

. The Regional Risk Assessment (RRA) states that there is a 'specified risk' in 4 indicators listed below (see appendix).

<b>2.1.1</b>	Forests and other areas with high conservation values in the Supply Base are identified and mapped.
<b>2.1.2</b>	Potential threats to forests and other areas with high conservation values from forest management activities are identified and addressed.
<b>2.2.3</b>	Key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).
<b>2.2.4</b>	Biodiversity is protected (CPET S5b).

There is an understood coherence between identifying areas with high conservation values and being able to conserve important habitats and protect the biodiversity. There is also an understood coherence between threats to high conservation values and the type of forest operation and forest type.

The HCV's are identified and mapped in some forest holding (FSC/PEFC certified forest holdings and in forest holdings with a green management plan) and in other areas there is a specified risk that there may be unidentified areas with high conservation values.

Thinning operations in coniferous stands and in first generation afforestation is always low risk.

The supply base is therefore divided in the following sub-scopes:

- Primary feedstock sourced from coniferous thinning operations – all low risk
- Primary feedstock sourced from areas of first generation afforestation – all low risk
- Primary feedstock sourced from a forest holding with a FM certificate (FSC/PEFC) - all low risk
- Primary feedstock sourced from a forest holding with a Green Management Plan – specified risk, but the Green Management Plan includes a screening, and when adhering to the mitigation measures for the specified risks indicated in the plan, an all low risk can be obtained.
- Primary feedstock sourced from an area without a Green Management Plan – specified risk
- Primary feedstock received with an SBP-approved Chain of Custody (CoC) System claim – all low risk
- Primary feedstock sourced from non-forest areas - Low risk

## 4.4 Results of Supplier Verification Programme

. The Supplier Verification Programme is designed to ensure that sourcing biomass from external suppliers can be approved as SBP-compliant if it meets certain criteria's. However the SVP has not yet been activated at this time.

The SVP concludes 5 possibilities for meeting the SVP criteria's:

1. Primary feedstock purchased with a valid FSC or PEFC claim
2. Primary feedstock purchased with a valid SBP claim
3. Primary feedstock from other suppliers that are subject to Supplier Verification Program, were the stand of origin can be verified and were it can be verified the stand is in a low risk sub-scopes; these sub-scopes are:
  - a. Feedstock from thinning in coniferous stands
  - b. Feedstock from thinning in first-generation afforestation projects
  - c. Feedstock from legally compliant non-forest origin

## 4.5 Creditsystem

In a Danish context the SBP risk based approach ensures, that biomass is sourced from a non-controversial source in terms of biodiversity is a mean to provide documentation according to the voluntary agreement between the Danish Ministry of Energy, Utilities and Climate and the Danish energy sector <sup>4</sup>). This agreement (Brancheaftalen) contains two important features:

- The demands for documentation is only obligatory for biomass consumers with an input of 20 Mw or higher,

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<sup>4</sup> 'Brancheaftalen' is only available in Danish, but can be downloaded here [link](#)

- There is a stepwise implementation from 2016 (40%) until 2019 (90%).

Since SYD practice a 100% implementation of risk assessment and associated risk mitigation measures (see section 9 for further description) this means that a surplus volume of fully SBP compliant biomass will be produced to customers who do not demand (are not required to demand) it due to time or size.

Thus, SYD has developed a credit system to effectively address the demand where it occurs. The credit system is further described in the Management System. However the credit system from SYD has not been activated.

## 4.6 Conclusion

The organisation meets the SBP requirement due to a concise approach to risk assessment, where the supply base is divided in 5 different sub-scopes. The competent staff at Skovdyrkerne SYD all have a degree as B.sc or M.sc in forestry and they are able to identify the registered HCV areas within the supply base and determine in which operations a field assessment is demanded. Necessary mitigation methods are described in the operational plan and map that is handed to the contractor prior to harvest.

External suppliers can provide FSC/PEFC certified feedstock as SBP-compliant feedstock if they hold a valid PEFC CoC/FM or FSC CoC/FM certificate – or if the feedstock can be determined as ‘low risk’ according to the same criteria’s as included in the SBE.

The strength of this approach is:

- It provides the necessary protection of biodiversity in harvesting areas.
- It is integrated in the workflow at Skovdyrkerne SYD and thus feasible and controllable.

## 5 Supply Base Evaluation Process

. The Supply Base evaluation process was initiated by the Regional Risk Assessment for Denmark. Skovdyrkerne SYD has by the representation of Skovdyrkerne Vestjylland has been an indirect stakeholder in the process leading to the decision of making an RRA for Denmark. Through Skovdyrkerne Vestjylland, Skovdyrkerne-DK has played an active role in the RRA stakeholder consultation meeting on May 20<sup>th</sup> 2016, where the stakeholders were invited to see how Skovdyrkerne Vestjylland assess risks and implement mitigation measures in two different harvest operations –

- thinning operation in coniferous stands
- thinning operation in an old broadleaved stand

After the stakeholder meeting Skovdyrkerne Vestjylland has submitted stakeholder comments to the RRA. The comments were submitted on June 26<sup>th</sup> 2016.

While adjusting to local conditions this Supply Base Report (SBR) leans on the experiences made by Skovdyrkerne Vestjylland, and will assure that sourcing of biomass is SBP-compliant. The SBR was submitted for public consultation on December 1<sup>st</sup> 2016.

## 6 Stakeholder Consultation

The stakeholder consultation will take place during a 30 day period from December 15<sup>th</sup> 2016 to January 15<sup>th</sup> 2017

The SBR will be submitted by e-mail to:

Danmarks Naturfredningsforening	Nora Skjernaa Hansen	nsh@dn.dk
FSC Danmark	Sofie Tind Nielsen	sofie@fsc.dk
Verdens Skove	Jakob Ryding	jr@verdensskove.org
WWF (Verdensnaturfonden)	Bo Normander	<a href="mailto:b.normander@wwf.dk">b.normander@wwf.dk</a>
Københavns Universitet	Vivian Kvist Johansen	vkj@ign.ku.dk
PEFC Danmark	Morten Thorøe	mt@pefc.dk
Dansk Energi	Kristine van het Erve Grunnet	keg@danskeenergi.dk
Dansk Fjernvarme	Kate Wieck-Hansen	kwh@danskfjernvarme.dk
Dansk Skovforening	Marie-Louise Bretner	mlb@skovforeningen.dk
Energistyrelsen	Lars Martin Jensen	lmj@ens.dk
Dong Energy	Peter K Kristensen	pekkr@dongenergy.dk
Friluftsrådet	Thorbjørn Eriksen	toe@friluftsradet.dk
BAT Kartellet	Sidse Buch	sidse.buch@batkartellet.dk
SVANA		<a href="mailto:svana@svana.dk">svana@svana.dk</a>

NEPCon	Christian Rahbek	<a href="mailto:car@nepcon.org">car@nepcon.org</a>
Dansk Træforening	Jakob Klaumann	<a href="mailto:jakob@dktimber.dk">jakob@dktimber.dk</a>

## 6.1 Response to stakeholder comments

No comments were received from the stakeholders within the 30 days period.

## 7 Overview of Initial Assessment of Risk

Skovdyrkerne SYD has adopted the ‘The Regional Risk Assessment for Denmark’ –Final published version from June 2017. The RRA is prepared according to SBP Regional Risk Assessment Procedure Version 1.0 and is a thorough investigation of relevant risks in a Danish context. See also the annex 1 to this Supply Base Report. Skovdyrkerne SYD has made the necessary adjustments according to eventual changes in the RRA after the completion of the endorsement process.

Indicator	Mitigating measure
2.1.1 Forests and other areas with high conservation values in the Supply Base are identified and mapped	<p>The goal of the mitigation measure is to ensure that any HCV in the area within the Supply Base is identified and sufficiently mapped before sourcing begins of feedstock for biomass production, so that the information about any HCVs can be securely passed on to staff carrying out the felling and chipping operation.</p> <p>As per the source type risk evaluations above, appropriate risk mitigating measure before sourcing biomass feedstock from source type 5: Uneven-aged stands or stands of broadleaf species, is that identification and mapping of HCVs must be carried out.</p> <p>It is suggested that existing knowledge about the forest area where feedstock sourcing is planned is supplemented with a review of the online HNV forest map (which available at <a href="http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk">http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk</a>) prior to a field survey of HCVs for a calculated indication of the potential for HCVs, and that this is used in deciding the scale and intensity of the field survey and mapping activities. It is suggested that the catalogue of Key Biotopes or similar methodology is used in the identification of the HCVs present.</p> <p>The effectiveness of the application of the catalogue of Key Biotopes is reliant upon sufficient skill and training of the personnel carrying out the survey. For a skilled professional the identification and mapping of HCVs would be possible with an acceptable level of effort compared to the size of the area where sourcing of feedstock will take place.</p> <p>It is suggested that the knowledge of relevant third parties and external experts is used for the mapping of key biotopes and that the records (mapping) is made available to third parties on request, if this can contribute to additional identification and mapping of key biotopes based on inputs from relevant third parties and external experts..</p> <p>Once the maps resulting from the identification and mapping of ‘forests containing particular natural values’ as per the Danish Forest Act (Article 25) is available, it is suggested that these are used as the indication of the presence of HCVs.</p>
2.1.2 Potential threats to forests and other areas with high conservation values from forest management activities are identified and addressed.	<p>For forests with a green management plan, HCVs have been identified and mapped, but since there is no requirement for independent evaluation of adherence to limitations in the green management plan, the plan including the maps must be consulted and planned activities must be compared to HCV identified the green management plan.</p> <p>For forests without at least a green management plan, HCVs in the area where feedstock for biomass production is sourced must first be identified and mapped (see Indicator 2.1.1), and sufficient maps and instruction prepared – for personnel in charge of the felling or other activities – to ensure that HCVs will not be threatened by forest management activities.</p> <p>It is suggested that the knowledge of relevant third parties and external experts is used for the mapping of key biotopes and that the records (mapping) is made available to third parties on request, if this can contribute to additional identification and mapping of key biotopes based on inputs from relevant third parties and external experts.</p>
2.2.3 Key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b)	<p>Risk mitigation measures are the same as for Indicator 2.1.2:</p> <p>For forests with a green management plan key biotopes and habitats have been identified and mapped, but since there is no requirement for independent evaluation of adherence to limitations in the green management plan, the plan including the maps must be consulted and planned activities must be compared to key Biotopes and habitats identified the green management plan.</p> <p>For forests without at least a green management plan key biotopes and habitats in the area where feedstock for biomass production is sourced must first be identified and mapped (see Indicator 2.1.1), and sufficient maps and instruction prepared – for personnel in charge of the felling or other activities – to ensure that key biotopes and habitats will not be threatened by forest management activities.</p>
2.2.4 Biodiversity is protected (CPET S5b)	<p>The goal of the mitigation measure is to ensure that biodiversity is sufficiently protected. This Indicator is seen as being partially covered by Indicators 2.1.1 and 2.1.2, for which Low risk must be demonstrated or reached through mitigating measures. Required risk mitigation measures are the same as outlined for Indicators 2.1.1 and 2.1.2.</p> <p>Due to the technical requirements that the biomass shall fulfill with regards to humidity and density, it is generally not accepted by Energy Producers that decaying wood is used as input in the chips supplied from Danish Forests. However, it must be ensured that biologically valuable dead and decaying and deadwood on the forest floor is not chipped or removed in connection with production and extraction of biomass.</p>

**Table 7: The Regional Risk Assessment for Denmark found 4 Indicators with specified risk. This table shows the corresponding mitigation methods. Skovdyrkerne SYD consents to the suggestions for mitigation methods on all parameters except for the suggestion that HCV maps are made publicly available.**



In the following section the risk related to the sub-scopes defined in 4.1:

- Primary feedstock sourced from coniferous thinning operations
- Primary feedstock sourced from first generation afforestation areas
- Primary feedstock sourced from a forest holding with a FM certificate (FSC/PEFC)
- Primary feedstock sourced from a forest holding with a Green Management Plan
- Primary feedstock sourced from an area without a Green Management Plan
- Primary feedstock sourced from non-forest areas

... will be assessed – with an individual overview table per sub-scope.

Table 1: **Sub-Scope: Primary feedstock sourced from coniferous thinning operations.** Overview of results from the risk assessment of all Indicators

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	

Table 2. **Sub-Scope: Primary feedstock sourced from harvest operations in afforestation areas.**  
 Overview of results from the risk assessment of all Indicators

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	

**Table 3: Sub-Scope: Primary feedstock sourced from a forest holding with a FM certificate (FSC/PEFC).** Overview of results from the risk assessment of all Indicators

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	

Table 4: **Sub-Scope: Primary feedstock sourced from a forest holding with a Green Management Plan.** Overview of results from the risk assessment of all Indicators

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	

Table 5: **Sub-Scope: Primary feedstock sourced from an area without a Green Management Plan.**  
 Overview of results from the risk assessment of all Indicators

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	

Table 6: **Sub-Scope: Primary feedstock sourced from non-forested area.** Overview of results from the risk assessment of all Indicators

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	

### 7.1.1 SBP compliance – conclusion on initial risk

Skovdyrkerne SYD assesses that:

- Primary feedstock sourced from coniferous thinning operations is low risk.
- Primary feedstock sourced from areas of first generation afforestation is low risk.
- Primary feedstock sourced from a forest holding with a FM certificate (FSC/PEFC) is low risk.
- Primary feedstock sourced from a forest holding with a Green Management Plan is specified risk.
- Primary feedstock sourced from an area without a Green Management Plan is specified risk.
  
- Primary feedstock sourced from non-forest areas - Low risk

Feedstock sourced from areas outside the forest (farmland) according to FAO definition of forest is non-controversial according to the SBP scope and is hence SBP-compliant on the condition, that harvesting is in compliance with all relevant legislation.

In order to move from a status as specified risk to low risk, Skovdyrkerne SYD as the Biomass Producer (BP) will adapt and implement mitigation measures according to the standard operation procedure (SOP). See 9.1 for a full review of the mitigation measures. Feedstock from suppliers must pass the Supplier Verification Programme. See section 8.

## 8 Supplier Verification Programme

### 8.1 Description of the Supplier Verification Programme

Skovdyrkerne SYD procures biomass from a small group of external suppliers. Feedstock from these suppliers must be approved by our Supplier Verification Programme before it can be enter into the supply chain as SBP-compliant. However the SVP has not yet been activated.

Feedstock can be divided in the following biomass categories:

1. Feedstock from FM certified (PEFC/FSC) forest.
2. Feedstock from thinning in coniferous stands.
3. Feedstock from thinning in first generation afforestation.
4. Feedstock from non-forest areas.
5. Other feedstock – non-compliant.
6. Feedstock from the neighbouring forest owner associations
7. Feedstock from areas with a specified or unspecified risk. This option is only possible if the full mitigation measures (according to section 9) are implemented by the SYD qualified staff and records of the instructions are kept.
8. Feedstock from a SBP approved supplier

Categories 1-4 and 7-8 can be passed on as SBP-compliant biomass.

Category 6 can be passed on as SBP-compliant biomass only after a scope extension audit has taken place. Here the CB must conduct interview with the forest staff and through field visits find evidence that the staff are competent in implementing mitigation measures.

Biomass from FSC/PEFC certified forest holdings is recognised by SBP as low risk. This leads to a division in to two supplier groups:

- Suppliers with a valid PEFC CoC or FSC CoC certificate – able to pass on biomass for forest holdings with a FM certificate as low risk.
- Suppliers without a valid PEFC CoC or FSC CoC certificate – *not* able to pass on biomass for forest holdings with a FM certificate as low risk.

Category 5 can be passed on as SBP-controlled biomass if it meets the specific criteria's in Management System section 6.2.2. which insures legality according to EUTR.

All suppliers must:

- Implement the SYD Supplier Code of Conduct
- Provide geographic information ensuring that the feedstock is originating from within the Supply Base area.
- Ensure traceability from the harvesting area to the end user for feedstock that is to be passed on as SBP compliant.
- For feedstock that is to be passed on as SBP compliant have reliable systems to provide the necessary data for GHG profile for the batches:
  - Woodchips from forest residues
  - Fuel wood (round wood) for energy
- Have systems enabling planning and description of harvest operations with a corresponding geographical location.
- For feedstock that is to be passed on as SBP compliant on demand deliver the documents of such harvest plan to Skovdyrkerne SYD. The plan must show that the biomass originates from:
  - Primary feedstock where the stand of origin can be verified and where it can be verified the stand is in a low risk sub-scopes; these sub-scopes are:
    - a. Feedstock from thinning in coniferous stands
    - b. Feedstock from thinning in first-generation afforestation projects
    - c. Feedstock from legally compliant non-forest origin

## 8.2 Site visits

. Skovdyrkerne SYD ensures that all biomass with a SBP-claim is sourced in compliance with the SBP standards. The following sampling measure is used: 5 percent of the amount of the sourced biomass SYD is being scrutinized, by conducting an unannounced paper tracking and visits to the sourcing areas.

The internal auditor must control that:

- The origin of the biomass is with-in the supply base
- The biomass category and the distance from the forest to the end-user is correctly recorded / reported.
- If the biomass originates from a forest with a PEFC og FSC FM certificate, the auditor must control the validity of the certificate.
- If the biomass is marked with category 7, - there must be a corresponding *work instruction* made by SYD own forest staff.

## 8.3 Conclusions from the Supplier Verification Programme

The Supplier Verification Programme is designed to ensure that sourcing biomass from external suppliers can be approved as SBP-compliant if it meets certain criteria's. The SVP concludes 4 possibilities for meeting the SVP criteria's:

1. Primary feedstock purchased with a valid FSC or PEFC claim
2. Primary feedstock from other stands that are subject to Supplier Verification Program, where the stand of origin can be verified and where it can be verified that the stand is within a low risk sub-scopes; these sub-scopes are:
  - a. Feedstock from thinning in coniferous stands
  - b. Feedstock from thinning in first-generation afforestation projects
  - c. Feedstock from legally compliant non-forest origin

# 9 Mitigation Measures

## 9.1 Mitigation measures

<p>2.1.1</p>	<p>Forests and other areas with high conservation values in the Supply Base are identified and mapped.</p>	<p>The goal of the mitigation measure is to ensure that any HCV in the area within the supply base is identified and sufficiently mapped before sourcing of feedstock for biomass production begins, so that the information about any HCV can be securely passed on to staff carrying out the felling and chipping operation. For non-FSC or PEFC certified forests and forests without a green management plan, identification and mapping of HCVs must be carried out. It is suggested that the HNV forest online map (available at <a href="http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk">http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk</a>) is consulted for a calculated indication of the potential for HCVs prior to a field survey of HCVs, and that the catalog of key biotopes or similar is used. The effectiveness of the application of the catalog of key biotopes is reliant upon sufficient skill and training of the personnel carrying out the survey. For a skilled professional the identification and mapping of HCVs would be possible with an acceptable level of effort compared to the size of the area where sourcing of feedstock will take place. It is also suggested that, as a safeguard mechanism, the resulting maps are made publicly available. This would allow for expert and stakeholder review and comments.</p>
<p>2.1.2</p>	<p>Potential threats to forests and other areas with high conservation values from forest management activities are identified and addressed.</p>	<p>For forests with a green management plan, HCVs have been identified and mapped, but since there is no requirement for independent evaluation of adherence to limitations in the green management plan, the plan including the maps, must be consulted and planned activities must be compared to limitations in the management plan. For forests without at least a green management plan, HCVs in the area where feedstock for biomass production is sourced must first be identified and mapped (see indicator 2.1.1), and sufficient maps and instruction be prepared for personnel in charge for the felling or other activities, so that it is ensured that HCV will not be threatened for FM activities. It is also suggested that, as a safeguard mechanism, the resulting maps are made publicly available. This would allow for expert and stakeholder review and comments.</p>
<p>2.2.3</p>	<p>Key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).</p>	<p>The goal of the mitigation measure is to ensure that any HCV in the area within the supply base is identified and sufficiently mapped before sourcing of feedstock for biomass production begins, so that the information about any HCV can be securely passed on to staff carrying out the felling and chipping operation. For non-FSC or PEFC certified forests and forests without a green management plan, identification and mapping of HCVs must be carried out. It is suggested that the HNV forest online map (available at <a href="http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk">http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk</a>) is consulted for a calculated indication of the potential for HCVs prior to a field survey of HCVs, and that the catalog of key biotopes or similar is used. The effectiveness of the application of the catalog of key biotopes is reliant upon sufficient skill and training of the personnel carrying out the survey. For a skilled professional the identification and mapping of HCVs would be possible with an acceptable level of effort compared to the size of the area where sourcing of feedstock will take place. It is also suggested that, as a safeguard mechanism, the resulting maps are made publicly available. This would allow for expert and stakeholder review and comments.</p>
<p>2.2.4</p>	<p>Biodiversity is protected (CPET S5b).</p>	<p>The goal of the mitigation measure is to ensure that any HCV in the area within the supply base is identified and sufficiently mapped before sourcing of feedstock for biomass production begins, so that the information about any HCV can be securely passed on to staff carrying out the felling and chipping operation. For non-FSC or PEFC certified forests and forests without a green management plan, identification and mapping of HCVs must be carried out. It is suggested that the HNV forest online map (available at <a href="http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk">http://miljoegis.mim.dk/cbkort?profile=miljoegis-plangroendk</a>) is consulted for a calculated indication of the potential for HCVs prior to a field survey of HCVs, and that the catalog of key biotopes or similar is used. The effectiveness of the application of the catalog of key biotopes is reliant upon sufficient skill and training of the personnel carrying out the survey. For a skilled professional the identification and mapping of HCVs would be possible with an acceptable level of effort compared to the size of the area where sourcing of feedstock will take place. It is also suggested that, as a safeguard mechanism, the resulting maps are made publicly available. This would allow for expert and stakeholder review and comments.</p>

Figure 4.4: From the RRA: Indicators with specified risk and proposals for corresponding mitigation methods.

The indicators are defined in the RRA. A new national digital map covering all areas of high conservation value in forest is in progress. When this new national HCV map is finished, all indicators will be ‘low risk’.

Skovdyrkerne SYD as the Biomass Producer (BP) will adapt and implement the mitigation measures suggested in the RRA - except the suggestion of publishing HCV maps - according to the below standard operating procedure (SOP):

### 9.1.1 Basics - level of expertise:

All harvest operations are planned and supervised by own forest staff (B.Sc. or M.Sc. in forestry).

- a. All staff is trained in the below procedures.
- b. All staff is trained in identifying areas of high conservation value according to [the catalogue of key biotopes](#) within the supply base.

### 9.1.2 Planning and risk management:

- a. Operations are planned and described in the company database (Pinus) with a corresponding geographic location (GIS) showing a map of the forest with a clear demarcation of ownership, the planned harvest area and eventual areas of high conservation value, that needs to be taken into consideration.
- b. The database holds information about the forest owner and the basic risk class of the sourcing area – whether the area is ‘PEFC/FSC Certified’, ‘has a Green Management Plan’ or none of the above. This status is marked along with a ‘Traffic light’:
  - i. ‘Green light’ (no risk),
  - ii. ‘Orange light’ (specified risk identified – proceed with caution / implement mitigating actions)
  - iii. ‘Red light’ (sourcing of feedstock is only possible if the operation can be carried out within EUTR regulation. The biomass originating from such project is SBP non-compliant).
- c. When initiation of a new harvest operation, the SBP status is default set as a ‘Red light’. In order to move the status to ‘Orange light’ or ‘Green light’ - the qualified staff must determine legality (EUTR), the source type and forest type:
- d. If the feedstock is sourced from thinning in coniferous stands or 1. Generation afforestation – and legality (EUTR) is ok, - the operation is low risk and status is changed to ‘Green light’. The conclusion is described in the *work instructions* <sup>5</sup>.
- e. If the feedstock is sourced from other areas than section 9.1.2 d. – The forest staff consults suitable information in order to identify areas of High Conservation Value (HCV) and legality issues (EUTR).
  - iv. In areas with a FSC/PEFC certificate, - the specific HCV map and management plan is consulted.
  - v. In areas with a ‘green management plan’, - the specific HCV map and green management plan is consulted.
  - vi. In areas without a ‘forest certificate’ or ‘green management plan’, the official Danish [HNV forest online map](#) is consulted. In case of HNV score of 10 or above - the harvest area must be visited and assessed by the trained forest staff.

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<sup>5</sup> *Work instruction* – a set of documents including instructions on how to perform the task, all relevant risk assessments and a corresponding map.

- vii. If all three cases apply:
1. If there is no conflict with HCV or legislation on the harvest area the status is changed to 'Green light' – and the conclusion is described in the *work instructions*.
  2. If there is a conflict with HCV on the harvest area the status is changed:
    - a. To 'Orange light' *if* the harvest operation supports the HCV management purpose and can be carried out with extra precaution. The mitigation measures are described in the *work instructions*.
    - b. Or maintained as 'Red Light' if the harvest has potential negative impact on the HCV. The biomass can then only be sourced as *Non-compliant*.
  3. If there is a conflict with legislation, the status is changed:
    - a. To 'Orange light' if the legality is met by dispensation (§3 or Natura 2000) or if the sourcing is possible with extra precaution (e.g. cultural heritage). The mitigation measures are described in the *work instructions*.
    - b. Or maintained as 'Red light' if the operation is not in compliance with EUTR. *In this case harvest is not carried out*.
  4. If it becomes clear that under the planning of a project area, that the area contains biological valuable dead or decaying wood ( including especially big dimensioned wood, of resident tree species, woodpecker trees, trees with visual fungal fruiting body or other types of valuable biodiversity) the entrepreneur a special attention is made, by direct instruction to the entrepreneur, to ensure the biological valuable is not unintentional removed.
- f. The *work instruction* is emailed / handed over to the sub-contractor, who is instructed to respond if there is a SBP status without a corresponding conclusion and description of the mitigation measures.
- i.
  - ii. When proceeding with harvesting operation under 'Red Light conditions' - *work instructions* must be emailed to the internal auditor ([ahptvj@skovdyrkerne.dk](mailto:ahptvj@skovdyrkerne.dk)).

### 9.1.3 Harvest operations

All harvest operations (cutting, wood chipping, transport etc.) are conducted by trained subcontractors with long term relationships and contracts to the BP.

- g. All contractors and staff are trained in understanding the *work instructions* set of documents.
- h. All contractors work under the instruction of a SOP for harvesting operations.
- i. All contractors and staff have a basic training in identifying areas of high conservation value.

### 9.1.4 SBP compliance - conclusion

Skovdyrkerne SYD assesses that:

- Feedstock sourced from harvest operations conducted under the above SOP with:
  - 'Green light' – feedstock is low risk.

- 'Orange light' – the harvest operation contains specified risk, but feedstock is delivered through a mitigation process, that ensures that the biomass is non-controversial in relation to SBP.
- Primary feedstock sourced from coniferous thinning operations is low risk.
- Primary feedstock sourced from areas of first generation afforestation is low risk.
- Feedstock sourced from areas outside the forest (farmland) according to FAO definition of forest.

All is non-controversial according to the SBP scope and is hence SBP-compliant, whereas ...

- Feedstock sourced from harvest operations conducted under the above SOP with:
  - 'Red light' – the harvest operation contains specified risk, and the resulting biomass is SBP-non-compliant (but still legal according to EUTR).

Can be considered as legally sourced and hence non-controversial (SBP Controlled) – but not passed on as SBP Compliant.

## a. Monitoring and outcomes

With respect to the precautionary principle it is decided, that:

- When harvesting in 'Red light' areas - work instructions must be emailed cc. to the internal auditor ([AHPTvj@skovdyrkerne.dk](mailto:AHPTvj@skovdyrkerne.dk)). The work instructions will be reviewed and mitigation measures evaluated prior to felling.

This procedure will be evaluated after 12 months in order to verify the outcome and necessity for adjustments of procedures.

## 10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in Annex 1.

## 11 Review of Report

To ensure the credibility of this report, a peer review will be conducted.

### 11.1 Peer review

Identification of Peer Reviewer still pending

### 11.2 Public or additional reviews

As an additional review The Supply Base Report has also been submitted to the 4 CEO of the sister organisations of Skovdyrkerne. The reviewers' comments and recommendations have been incorporated in the report.

## 12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Flemming Sehested</i>	<i>M.sc in Forestry</i>	<i>December 1<sup>st</sup>, 2016</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>Henrik Fredslund</i>	<i>Forest manager (CEO)</i>	<i>December 1<sup>st</sup> 2016</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date

## 13 Updates

### 13.1 Significant changes in the Supply Base

There are no changes to the Supply Base. The BP is still sourcing below 200.000 tons primary feedstock from the regions of South and middle Jutland.

### 13.2 Effectiveness of previous mitigation measures

The mitigation measures have been effective. The harvest procedures implemented has improved the communication between forest management, the entrepreneurs and the forest owners.

### 13.3 *No new mitigation measures has been adopted since last audit* New risk ratings and mitigation measures

*No new risk ratings has occurred.*

*However the Supplier Verification Programme has not yet been activated, as well as the Credit System*

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

All feedstock is primary.

Total volume of Feedstock: 0 – 200.000 tonnes pr. year (specific number is reported to the CB – and is considered to be commercially sensitive information. Skovdyrkerne has no dominant position in the market.

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

All feedstock is primary.

Total volume of Feedstock: 0 – 200.000 tonnes pr. year (specific number is reported to the CB – and is considered to be commercially sensitive information. Skovdyrkerne has no dominant position in the market place)

Updated 5-12-2019 on the homepage at Skovdyrkerne SYD

<http://www.skovdyrkerne.dk/syd/salg-af-flis/>