

Supply Base Report: Graanul Invest AS - Imavere Factory

First Surveillance Audit

www.sbp-cert.org



Completed in accordance with the Supply Base Report Template Version 1.2

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

© Copyright The Sustainable Biomass Partnership Limited 2016

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	9
2.3	Final harvest sampling programme	10
2.4	Flow diagram of feedstock inputs showing feedstock type [optional]	10
2.5	Quantification of the Supply Base	10
3	Requirement for a Supply Base Evaluation	12
4	Supply Base Evaluation	13
4.1	Scope	13
4.2	Justification	13
4.3	Results of Risk Assessment	13
4.4	Results of Supplier Verification Programme	14
4.5	Conclusion	14
5	Supply Base Evaluation Process	15
6	Stakeholder Consultation	16
6.1	Response to stakeholder comments	16
7	Overview of Initial Assessment of Risk	17
8	Supplier Verification Programme	18
8.1	Description of the Supplier Verification Programme	18
8.2	Site visits	18
8.3	Conclusions from the Supplier Verification Programme	18
9	Mitigation Measures	19
9.1	Mitigation measures	19
9.2	Monitoring and outcomes	20
10	Detailed Findings for Indicators	21
11	Review of Report	22
11.1	Peer review	22
11.2	Public or additional reviews	22
12	Approval of Report	23

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	24
13.5	Projected figures for feedstock over the next 12 months	24

1 Overview

Producer name: AS Graanul Invest
Producer location: Imavere plant – Imavere parish 72401 Järvamaa, Estonia
 (Head Office – Humala 2, 10617 Tallinn, Estonia)
Geographic position: 58°43'45.8"N 25°45'28.2"E
Primary contact: Mihkel Jugaste, Head of Quality and Certification Systems, +372 5519000
mihkel.jugaste@graanulinvest.com
Company website: www.graanulinvest.com
Date report finalised: 24/Oct/2017
Reference period: 01/Oct/2016-30/Sep/2017
Close of last CB audit: First evaluation 14/Dec/2016-16/Dec/2016
Name of CB: NEPCon Estonia
Translations from English: Yes
SBP Standard(s) used: Standard 1 version 1.0; Standard 2 version 1.0; Standard 4 version 1.0;
 Standard 5 version 1.0
Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>
SBP Endorsed Regional Risk Assessment: <https://sbp-cert.org/documents/risk-assessments/estonia>
Weblink to SBE on Company website: <http://www.graanulinvest.ee/eng/news/85/graanul-invest-has-successfully-completed-its-first-sbp-surveillance-audits>

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"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Description of the Supply Base

2.1 General description

AS Graanul Invest is a privately owned company, established in 2003, which operates in the fields of forestry, development of bioenergy and production of renewable energy. The company owns 11 wood pellet plants, Imavere plant being one of the largest ones.

All of the used primary feedstock originates from Estonia. Secondary feedstock originates mainly from Estonia and a minority is from Latvia. According to supplier origin declaration there is tertiary feedstock within Imavere pellet plants supply base which originates from Germany, Russia, Finland, Ireland and Sweden. This type of material cannot be excluded but it is possible to make sure that it is 100% certified. Physical segregation is therefore not required nor necessary. The potential impact of Imavere plant's operations on the forest resources of Finland, Russia, Sweden, Ireland and Germany is negligible. Pre-consumer untreated tertiary feedstock accounts for 5,95% of Imavere's feedstock and out of all secondary processors only 2-3 source wood outside of Estonia. The plant has around 20 stable suppliers out of which 4 are primary feedstock suppliers, 11 are secondary and the rest are tertiary suppliers.

Controlled Feedstock 00,00%

SBP-compliant Primary Feedstock 58,55%

SBP-compliant Secondary Feedstock 35,5%

SBP-compliant Tertiary Feedstock 5,95%

SBP non-compliant Feedstock 0%

Species: Picea abies; Pinus sylvestris; Alnus glutinosa; Alnus incana; Populus tremula; Betula pendula; Betula pubescens; Fraxinus excelsior; Tilia cordata; Salix spp.

Estonia's Forest Resources

Estonia is a member of the European Union since 2004. The Estonian legislation is in compliance with the EU's legislative framework and directives. National legislative acts make references to the international framework. All legislation is drawn up within a democratic system, subject to free comment by all stakeholders¹. The Estonian legislation provides strict outlines in respect to the usage of forestry land and the Estonian Forestry Development Plan 2020² has clear objectives and strategies in place to ensure the forestland is protected up to the standards of sustainable forest management techniques. The Ministry of the Environment coordinates the fulfilment of state duties in forestry. The implementation of environmental policies

¹ http://europa.eu/about-eu/countries/member-countries/estonia/index_en.htm

² Original title: „Eesti metsanduse arengukava aastani 2020“; approved by Estonians parliament decision nr 909 OE 15. February 2011.a
http://www.envir.ee/sites/default/files/elfinder/article_files/mak2020vastuvoetud.pdf

and its supervision are carried out by two separate entities operating under its governance. The Estonian Environmental Board monitors all of the work carried out in Estonia's forests whereas the Environmental Inspectorate exercises supervision in all areas of environmental protection.

The forest is defined in the Forest Act. There are three main forest categories described in this legislation: commercial forests, protection forests and protected forests. According to the ownership, forests are also divided into private forests, municipality forests and state owned forests. The state owned forest represent approximately 40% of the total forest area³ and are certified according to FSC and PEFC forest management and chain of custody standards in which the indicators related to forest management planning, maps and availability of forest inventory records are being constantly evaluated and addressed⁴. The state forest is managed by State Forest Management Centre (RMK) which is a profit-making state agency founded on the basis of the Forest Act and its main duty lies in a sustainable and efficient management of state forest.

Currently more than 2 230 000 ha, equal to 51% of the Estonian land territory, is covered by forest as indicated in Figure 1 and the share of forest land is growing. According to FAO data, during 2000 - 2005, average annual change in the forest cover was +0.4 %⁵. Forestry Development Plan 2012-2020 and Yearbook Forest 2014, that gives annual reports and facts about the forest in Estonia, state that during last decade the cutting rate in Estonian forests is from 7 to 11 mill m³ per year⁶. The amount is in line with sustainable development principle when the cutting rate doesn't exceed the annual increment and gives the potential to meet the long-term economic, social and environmental needs. According to the Forestry Development Plan 2012-2020 the sustainable cutting rate is 12-15 mil ha per year.

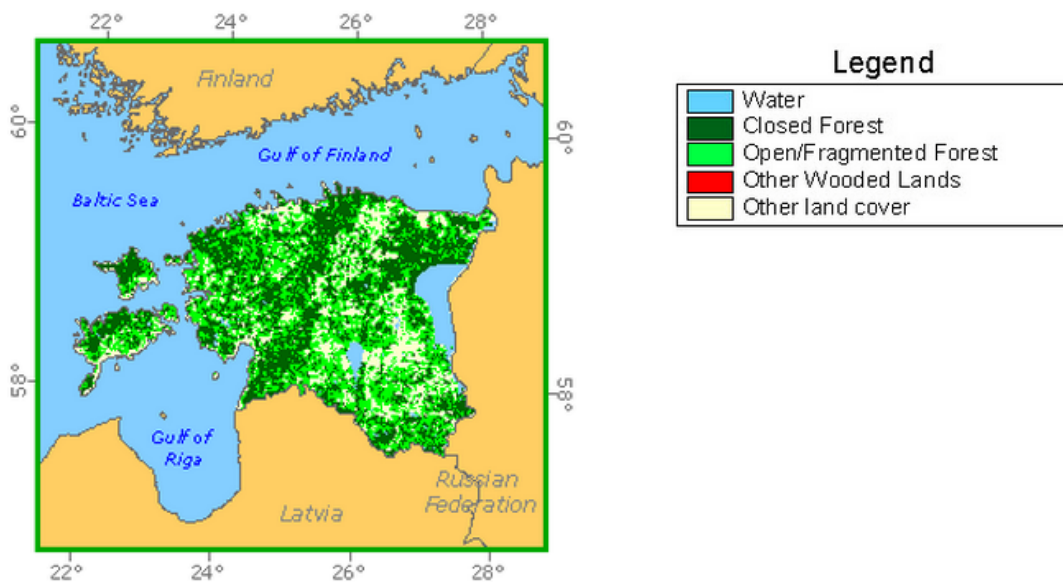


Figure 1. Forest cover of Estonia (FAO: <http://www.fao.org/forestry/country/en/est/>).

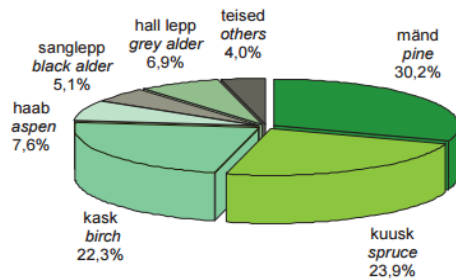
³ <http://www.rmk.ee/organisation/operating-areas>

⁴ <http://www.rmk.ee/organisation/environmental-policy-of-rmk/certificates>

⁵ <http://www.fao.org/forestry/country/32185/en/est/>

⁶ Yearbook Forest 2014 (all key figures, graphs and tables are bilingual)

Figure 2. The distribution of growing stock by tree species (Yearbook Forest 2014).



For logging in any type of forest, it is required that a valid forest inventory or forest management plan, along with a felling permit issued by the Environmental Board, is available. All issued felling permits and forest inventory data is available in the public forest registry online database⁷.

Area of protected forests accounts for 25.3% of the total forest area whereas 10% is considered to be under strict protection. The majority of protected forests are located on state property. The main regulation governing the preservation of biodiversity and the sustainable use of natural resources is the Nature Conservation Act⁸. Estonia has signed the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1992⁹ and joined the International Union for Conservation of Nature (IUCN) in 2007¹⁰. There are no CITES or IUCN protected tree species naturally growing in Estonia.

According to the Forestry Yearbook 2014 the wood, paper and furniture industry (646,4 million euro) contributed 23.7% to the total sector providing 3.8% of the total value added. Forestry accounted for 1.5% of the value added.

In Estonia, it is permitted to access natural and cultural landscapes on foot, by bicycle, skis, boat or on horseback. Unmarked and unrestricted private property may be accessed any time to pick berries, mushrooms, medicinal plants, fallen or dried branches, unless the owner forbids it. On unmarked and unrestricted private property camping is allowed for 24 hours. RMK creates exercising and recreational opportunities in nature and in recreational and protection zones and also provides education about nature.

Latvia's Forest Resources

In Latvia, forests cover an area of 3 056 578 hectares. According to the data of the State Forest Service (concerning the surveyed area allocated to management activities regulated by the Forest Law), forest Land amounts to 51.8 % (ratio of the 3 347 409 hectares covered by forest to the entire territory of the country). The Latvian State owns 1 495 616 ha of forest (48.97% of the total forest area), the other 1 560 961 ha (51.68 %

⁷ <http://register.metsad.ee/avalik/>

⁸ <https://www.riigiteataja.ee/en/eli/517062015004/consolide>

⁹ <http://www.envir.ee/et/cites>

¹⁰ <http://www.envir.ee/et/iucn>

of the total forest area) belongs to private sector owners. Private forest owners in Latvia amount to approximately 144 thousand.

The area covered by forest is increasing. The expansion happens both naturally and by afforestation of infertile land unsuitable for agriculture. Within the last decade, the timber production in Latvia has fluctuated between 9 and 13 million cubic meters (State Forest Services: vmd.gov.lv, 2015).

Forest land consists of:

- forests 3 056 578 ha (91.3%);
- marshes 175 111.8 ha (5.3%);
- glades (forest meadows) 35 446.7 ha (1.1%);
- flooded areas 18 453.2 ha (0,5%);
- objects of infrastructure 61 813.4 ha (1.8%).

State Forest Services: vmd.gov.lv, 2015.

Distribution of forests by the dominant species:

- pine 34.3 %;
- spruce 18.0 %;
- birch 30.8 %;
- black alder 3.0 %;
- grey alder 7.4 %;
- aspen 5.4 %;
- oak 0.3 %;
- ash 0.5 %;
- other species 0.3 %.

State Forest Services: vmd.gov.lv, 2015.

Share of species used in reforestation, by planting area (2014):

- pine 20 %;
- spruce 17 %;
- birch 28 %;
- grey alder 12 %;
- aspen 20 %;
- other species 3 %.

State Forest Services: vmd.gov.lv, 2015.

Timber production by types of cuts, by volume produced (2014):

- final cuts 81.00 %;
- thinning 12.57 %;
- sanitary clear-cuts 3.63 %;
- sanitary selective cuts 1.43 %;
- deforestation cuts 0.76 %;
- other types of cuts 0.06 %.

State Forest Services: vmd.gov.lv, 2015.

In Latvia, the field of forestry is supervised by the Ministry of Agriculture, which in cooperation with stakeholders of the sphere develops forest policy, development strategy of the field, as well as drafts of legislative acts concerning forest management, use of forest resources, nature protection and hunting (www.zm.gov.lv). Implementation of requirements of the national law and regulations notwithstanding the type of tenure is carried out by the State Forest Service under the Ministry of Agriculture (State Forest Services: www.vmd.gov.lv). Management of the state-owned forests is performed by the Joint Stock Company "Latvia's State Forests", established in 1999. The enterprise ensures implementation of the best interests of the state by preserving value of the forest and increasing the share of forest in the national economy (www.lvm.lv). Export yielded 1.978 billion euro (approx. 20 % of the total amount in 2014).

Historically, extensive use of forests as a source of profit began later than in many other European countries, therefore a greater biological diversity has been preserved in Latvia. For the sake of conservation of natural values, a total number of 674 protected areas have been established. Part of the areas have been included in the European network of protected areas Natura 2000. Most of the protected areas are state-owned. In order to protect highly endangered species and biotopes located without the designated protected areas, if a functional zone does not provide that, micro-reserves are established. According to data of the State Forest Service (2015), the total area of micro reserves is 40 595 ha. Identification and protection planning of biologically valuable forest stands is carried out continuously. Latvia has been a signatory of the CITES Convention since 1997. CITES requirements are respected in forest management, although there are no species included in the CITES lists in Latvia.

Areas where recreation is one of the main forest management objectives add up to 8 % of the total forest area or 293 000 ha (2012y). Observation towers, educational trails, natural objects of culture history value, picnic venues: they are just a few of recreational infrastructure objects available to everyone free of charge. Special attention is devoted to creation of such areas in state-owned forests. Recreational forest areas include national parks (excluding strictly protected areas), nature parks, protected landscape areas, protected dendrological objects, protected geological and geomorphologic objects, nature parks of local significance, the Baltic Sea dune protection zone, protective zones around cities and towns, forests within

administrative territory of cities and towns. Management and governance of specially protected natural areas in Latvia is co-ordinated by the Nature Conservation Agency under the Ministry for Environmental Protection and Regional Development.

Finland's forest resources

Finland is Europe's most heavily forested country, with over 3/4 of the land area representing 23 million hectares, under forest cover. Altogether forestry land accounts for 86% of the land area.

There are four coniferous species native to Finland, and over twenty species of deciduous trees. The most common species, which are also economically most significant, are Scots pine (*Pinus sylvestris*), Norway spruce (*Picea abies*), and silver and downy birch (*Betula pendula* and *Betula pubescens*).

Despite the 13% reduction in forest area in 1944 due to the losses of land in the war, Finland's wood resources are currently more plentiful than in the pre-war years. According to the 1st national forest inventory (1921–

1924), the total growing stock volume was 1 588 million m³. The latest estimate, based on the 11th inventory, is 2 332 million m³ (103 m³/ha) with annual growth of 105 million m³ (4,6 m³/ha).

As in the majority of Western European countries, non-industrial forest ownership dominates in Finland. Private persons, ordinary Finnish citizens, own about 60% of all the forestry land. The Government owns 25%, forest industries 10%, and municipalities and parishes 5% of the Finnish forested area.

Finnish forestry is based on the management of native tree species. The management of forests seeks to respect their natural growth and mimic the natural cycle of boreal forests. The objective is to secure the production of high-quality timber, and to preserve the biological diversity of forests as well as the preconditions for the multiple use of forest. Currently, about 120 000 hectares of forest land are planted or seeded annually favouring almost exclusively native tree species.

Today forestry and the forest industry make up about 5% of Finland's gross domestic product, and approximately 20% of Finnish exports. High-quality printing and writing paper make up over 40% of the total export value of forest industry products, while sawn goods and wood-based panels account for some 20% of export value.

<http://www.metla.fi/metla/finland/finland-forest-resources.htm>

Sweden's forest resources

Sweden is the third largest country by area in Europe, and 70% of it is forest. The total area of forest land is 28 million hectares.

Swedish forests are primarily boreal. The total standing volume is about 3 000 million m³, of which 41% is spruce/whitewood (*Picea abies*), also called Norwegian spruce, and 40% pine/redwood (*Pinus sylvestris*), also called Scots pine. 18% is birch and 6% consists of other deciduous trees.

50% of Sweden's forests are owned by private individuals, 25% by large forest companies and 25% by the state and other public organizations. A major part of the mountain forest is state-owned. The average size of a privately owned forest is roughly 50 hectares. In total, there are about 350 000 private forest owners in Sweden, of whom 70% live on their properties.

Annual growth is about 120 million m³ and annual felling is around 80 million m³. Each year the volume of standing timber increases by around 40 million m³ (net annual increment).

The forest products industry plays a major role in the Swedish economy, and accounts for between nine and 12 percent of Swedish industry's total employment, exports, sales and added value. It includes companies within the pulp and paper industry, as well as the wood-mechanical industry. Close to 90 percent of paper and pulp production is exported, and the corresponding figure for sawn-wood products is almost 75 percent.

<http://www.svensktra.se/siteassets/6-om-oss/publikationer/pdfer/swedish-forestry.pdf>

Germany's forest resources

In Germany, around 11,4 million hectares corresponding to one third of the national territory are covered with forests. The timber stocks in Germany account for 336 m³ per hectare, with the annual timber increment totalling around 76 million m³. The timber growth is 11.2 m³ / ha per year or 121.6 million m³ per year.

Approx. 73 % of German forests consist of mixed stands. Spruce accounts for the largest share among the tree species (28 %), followed by pine (23 %), beech trees (15 %) and oak trees (10 %).

Out of the total 11,4 million hectares 48% are private forests, about 33% are state owned and 19% are communal forests. The private forest in Germany is predominantly small structured and fragmented. About half of the private forest area share holdings with less than 20 hectares. Only 13% of private forest have a size of more than 1,000 hectares.

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

<http://www.forstwirtschaft-in-deutschland.de/german-forestry/forest-facts/?L=1>

Russia's forest resources

Twenty two percent of all forest land mass and 25 % of the world's wood reserves belong to Russia. Forests take up 69% of all land and the area occupied with forests amounts to 1,183.3 million ha. 1,144 million ha of which 97% is under federal ownership.

Most Russian forests are boreal. Predominant forest tree species are the larch, pine, spruce, Siberian pine, oak, beech, birch, and aspen. According to the 2010 forest account, the total growing stock of the forest estate is 80 billion m³. The country average growing stock of mature and overmature stands (without shrubs) is 132 m³ /ha. The mean annual increment in volume is rather low in Russia: it is no more than 1.23 m³ per hectare of forested land.

The annual allowable cut for 2010 was 634 million m³, including 61 million m³ for protection forests and 573 million m³ for production forests. The greatest allowable cut is set for coniferous forests (128 million m³). The actual cut is below 28% of the allowable cut.

In 45 Russian regions, the shares of timber and paper outputs range from 10% to 50% in their total industrial outputs. Forest enterprises and organisations employ over one million people

<http://www.profor.info/sites/profor.info/files/Background-ForestGovernance-Russia-English.pdf>

Ireland forest resources

At the end of 2015, forests covered 10.7% of Ireland's land area. This supports a sustainable, export-orientated forest products sector. The Irish forestry and forestry products sector contributes €2.3 billion to the Irish economy supporting 12,000 jobs.

The strengths of the sector include:

- A competitive, export oriented sawmilling and wood products sector.

- A young, highly productive forest estate
- A comparative advantage in growing trees
- Strong technical competence
- Highly mechanised contractor resource

Over the period 1996-2015, the national forest estate has increased from 576,000 hectares to 750,351 hectares. Since 1990, afforestation has been dominated by the private sector.

Ireland has a strong and well-developed wood processing sector, and is a net exporter of timber and timber related products. This arises from a combination of relatively high timber growth rates and investment in processing technology. There is strong on-going demand in the Republic of Ireland for wood fibre for use in sawmills, panel mills and for the provision of wood biomass energy. This is largely driven by the success of Irish forest products in export markets. Over the period 2016-2035, roundwood production from Irish forests is forecast to double to 7.90 million cubic metres. Almost all of this increase is expected to come from the private sector.

http://www.iffpa.ie/Sectors/IFFPA/IFFPA.nsf/vPages/Press_and_Publications~iffpa-annual-review-2016-18-01-2017

2.2 Actions taken to promote certification amongst feedstock suppliers

In order to increase transparency in the supply chain and to reach near 100% certification levels inside the organisation, from 1st of January 2016 Graanul Invest AS started to purchase only certified feedstock. "FSC Controlled Wood" and "PEFC Controlled Sources" (controlled feedstock) were set as the minimum sustainability requirements in supplier contracts. Non-compliant feedstock is rejected at the pellet plant with zero tolerance. This initiated a certification race amongst feedstock suppliers and led to a 41% increase in Imavere's feedstock certification levels. Since beginning of 2016 Graanul Invest has 0% of "legal-only" material (including material used for heating). This step also increased the certified feedstock levels of other BP's who source from the same suppliers.

The above mentioned changes in supplier contracts also included a section about Woodland Key Habitats. Graanul Invest provided clear guidelines on how feedstock suppliers could minimise the risks related with possible sourcing from WKH's and only signed contracts with suppliers who implemented the WKH risk mitigation measures. These guidelines reached over 30 feedstock supplying companies in Estonia and were introduced together with a brief overview about SBP certification scheme.

In addition Graanul Invest arranged a SBP seminar for all its' suppliers to further promote and explain the scope and background of the certificate as well as the requirements for GHG data collection, feedstock origin evidence and WKH risk mitigation procedures. This event had 57 participants from 27 different feedstock supplying companies. The seminar was carried out by SBP accredited auditors.

From 1st of January 2017 Graanul Invest AS only accepts SBP compliant feedstock from all suppliers. This means that all production and output in 2017 is 100% compliant.

2.3 Final harvest sampling programme

This analysis and reporting is the responsibility of the Estonian Environmental Agency which is controlled by the Estonian Ministry of the Environment. They collect the final harvest data from the state forest and private forest owners. The statistics are published annually in "Yearbook Forest". According to the most recent Yearbook Forest 2014 fuelwood accounted for 15% of total roundwood sales. Link to the latest yearbook: http://www.keskkonnaagentuur.ee/sites/default/files/aastaraamat_mets_2014_loplik.pdf

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

Option was not chosen.

2.5 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (ha): Estonia 2,23 mln; Latvia 3,05 mln; Finland 1,24 mln; Sweden 12,59 mln; Germany 1,16 mln; Russia 885 mln; Ireland 0,731 mln . Total: 906,001 mln ha
- b. Tenure by type (ha): Estonia and Latvia 2,65 mln state forests; 2,63 mln private forests, Russia 885 mln state forests; (for Germany, Sweden and Finland the exact distribution is not known but using the countries' statistical averages the total split for the three countries is 10,95 mln private forests and 4,9 mln state forests.)
- c. Forest by type (ha): boreal 906,001 mln
- d. Forest by management type (ha): 906,001 mln managed semi-natural
- e. Certified forest by scheme (ha): FSC 61,1 mln; PEFC 3,206 mln
- f. Number of suppliers: 20

Feedstock

Note: ranges area used so that the numbers would be valid before and after the stakeholder consultation and also because reporting specific numbers would provide confidential information about our performance indicators and recipes.

- g. Total volume of Feedstock: 1 000 000 – 1 500 000 m³
- h. Volume of primary feedstock: 800 000 – 1 000 000 m³
- i. List percentage of primary feedstock (g),
Subdivide by SBP-approved Forest Management Schemes:
 - Certified to an SBP-approved Forest Management Scheme (77,86%)
 - Not certified to an SBP-approved Forest Management Scheme (22,14% FSC CW, PEFC CS)
- j. List all species in primary feedstock, including scientific name: Picea abies; Pinus sylvestris; Alnus glutinosa; Alnus incana; Populus tremula; Betula pendula; Betula pubescens; Fraxinus excelsior; Tilia cordata; Salix spp.
- k. Volume of primary feedstock from primary forest: 0%

- l. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes: N/A
- m. Volume of secondary feedstock: 400 000 – 600 000 m³ which consist of 99,4% material from Estonian and 0,6% from Latvian sawmills. It is 17,85% chips and about 17,65% sawdust.
- n. Volume of tertiary feedstock: 0 – 200 000 m³

3 Requirement for a Supply Base Evaluation

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

Imavere pellet plant is only purchasing certified feedstock and is rapidly increasing their forest management certified feedstock levels. All raw material used is already approximately 71% certified and therefore SBP-compliant. Since Estonia has strict forest management laws and AS Graanul Invest has thorough control over their suppliers, there is no doubt that the controlled feedstock is traceable and low risk and therefore also SBP-compliant. A high % of SBP-certified pellets would allow more flexibility for storage and sales.

The SBE was added to the SBP scope in order to make sure that all feedstock used at Imavere could be used as SBP-compliant. **The current SBE was carried out as a sub-scope to only evaluate controlled feedstock that originates from Estonia.**

Since Imavere’s controlled wood supply base is strictly within Estonia’s borders the SBP endorsed regional risk assessment for Estonia is fully applicable and an additional risk assessment is not required.

AS Graanul Invest acknowledges and follow the risk assessment report dated 22.04.2016 and found here: <http://www.sustainablebiomasspartnership.org/documents/risk-assessments/regional-risk-assessments-for-the-baltic-states/estonia>

4 Supply Base Evaluation

4.1 Scope

The SBE was initiated to evaluate the feedstock sold to AS Graanul Invest Imavere pellet plant under the claim “FSC Controlled Wood” or “PEFC Controlled Sources”. The used feedstock and supplier evaluation procedures (also referred to as “mitigation measures” or “GI approach”) were designed to determine whether the feedstock and the documentation provided by the supplier was/is sufficient to prove that the feedstock was not cut from a WKH (only “specified” risk in the SBP endorsed regional risk assessment for Estonia 22.04.2016; indicator 2.1.2) and does not originate from outside of Estonia - the SBE. The evaluation covers both primary and secondary feedstock including all species. These evaluation procedures are a part on risk mitigation measures for feedstock within SBE (explained in chapter 9. of this report).

- Primary feedstock “FSC Controlled Wood” and “PEFC Controlled Sources” – wood origin documentation maintained throughout the supply chain from the felling site to the biomass producer. WKH risk mitigation procedures in place within the supply chain with credible evidence. This is monitored and controlled by pellet plant staff before the feedstock is allowed to enter the plant territory.
- Secondary feedstock “FSC Controlled Wood” and “PEFC Controlled Sources” –wood origin documentation maintained throughout the supply chain from the felling site to the biomass producer. WKH risk mitigation procedures in place within the supply chain with credible evidence. This is/the supplier is audited once every 12 month by the Head of Quality and Certification Systems.

4.2 Justification

As mentioned before, AS Graanul Invest fully acknowledges and follows the SBP endorsed regional risk assessment for Estonia (22.04.2016) which is in compliance with SBP standards 1 and 2. All stakeholders and interested parties were consulted and involved in the process of putting together the risk assessment for Estonia.

AS Graanul Invest is confident that a GI approach for SBE based on the findings of the regional risk assessment is the most reliable way to evaluate controlled feedstock in Imavere pellet plant.

4.3 Results of Risk Assessment

The only specified risk identified in the SBP endorsed risk assessment for Estonia is indicator 2.1.2: “Potential threats to forests and other areas with high conservation values from forest management activities are identified and addressed.

In Estonia, legislation covers all aspects of this indicator. According to the Estonian legislation protection of Woodland Key Habitat (WKH) is optional for private forest owners. Private forest owners can sign a contract with the state and protect WKH. In which case the state pays compensation to the owner. If a private forest owner does not want to protect WKH then the owner is allowed to cut it. It is possible to determine the location of WKH from the Public Forest Registry and where felling permits are issued it is possible to see if the material is cut from WKH. In cases where fellings are carried out without a felling permit (small scale sanitary cutting is

allowed without a felling permit) then an on-site visit is only way to see if the WKH is untouched or not. In state forest, FSC or PEFC-certified private forest, and in private forests where a WKH contract has been signed, WKH are protected.”

Like explained throughout this report the WKH related risk in the only specified risk that requires additional mitigation measures from the whole supply chain. All other indicators in the SBP endorsed risk assessment for Estonia are marked as low risk and are not directly addressed in Imavere plant’s SBE.

4.4 Results of Supplier Verification Programme

Imavere pellet plant did not carry out a supplier verification program as defined in the SBP standard 2. The already implemented mitigation measures for the feedstock supply chain are sufficient to minimise the risk explained in chapter 4.3 of this report. These mitigation measures (further explained in chapter 9.) were developed specifically to address the risk area highlighted in the regional risk assessment as “specified risk” (indicator 2.1.2) and are also approved as internal FSC and PEFC procedures. By mitigating the only “specified” risk related to feedstock AS Graanul Invest can conclude that the feedstock entering Imavere plant is low risk and therefore SBP-compliant. A supplier verification program might be introduced once the SBE is extended beyond Estonia’s borders or the regional risk assessment is changed.

4.5 Conclusion

Based on the SBP endorsed regional risk assessment for Estonia, there is only one specified risk area in Estonia – indicator 2.1.2 referring to potential threats from forest management activities to areas with high conservation value. In case of Estonia the potential threats to Woodland Key Habitats (WKHs).

Controlled feedstock within Imavere plant’s SBE is only low risk and SBP-compliant IF the mitigation measures have been applied. Once a feedstock supplier is listed in the GI suppliers’ list they have proven that their wood origin documentation is maintained throughout the supply chain from the felling site to the biomass producer. Their WKH risk mitigation procedures are in place within the supply chain with credible evidence. They are either already been audited or have agreed to go through an audit once every 12 months. The GI suppliers list is updated every 3 months and all controlled feedstock, coming from listed/approved suppliers, is considered low risk and SBP-compliant.

The main strength of this SBE is that it extends throughout the supply chain until the felling site. It allows different procedures and accepts different evidence as long as the defined risk is minimised. The only possible weakness is that in theory a supplier can fake documentation to meet the requirements until the audit cycle reaches them. This is unheard of and impossible to benefit from but theoretically possible.

5 Supply Base Evaluation Process

The SBE scope was decided based on Imavere plant's feedstock profile. After assessing the existing controlled feedstock suppliers and SBP-compliant material demand the preliminary suppliers list was put together. These suppliers were approached and informed about SBP and the WKH risk mitigation requirements. The suppliers who expressed readiness to implement the mitigation measures were further consulted and provided with guidelines on how to move forward with the WKH risk mitigation measures and documentation requirements. The suppliers who rejected the changes were removed from the GI suppliers' list and no longer supplied feedstock to Imavere pellet plant.

After 3 months the approved suppliers within the SBE were asked to provide a description about how they have implemented the mitigation measures into their internal procedures. What kind of evidence are they prepared to provide and how do they control their sub-suppliers. This feedback was evaluated by AS Graanul Invest central office and necessary changes or improvements were recommended to the suppliers. The suppliers with effective procedures and credible evidence were invited to sign a contract extension committing to continue the mitigation procedures and provide necessary evidence whenever AS Graanul Invest asks.

To further train the suppliers AS Graanul Invest arranged a training seminar for their suppliers. The seminar focused on the WKH risk mitigation procedures and the evidence that suppliers have to record. Attending the seminar was also a precondition for suppliers to qualify for the GI Suppliers List. The seminar had 57 participants from 27 different feedstock suppliers.

AS Graanul Invest audits all suppliers within the SBE at least once every 12 months. Within this period 3 suppliers were successfully audited.

The SBE and the related procedures were developed and carried out by AS Graanul Invest central office personnel. The work group includes: CEO, COO, Imavere Production Manager, Head of Quality and Certification Systems, Biomass Purchasing Manager and the Head of Forestry. Consultations were held with feedstock suppliers, pellet plants from neighbouring countries, forest owners, forest harvesters, certification bodies and SBP.

6 Stakeholder Consultation

23.09.2016-23.10.2016 this SBR was published for stakeholder consultation. In addition to publishing the report on the company's webpage [http](http://) it was sent to the following key stakeholders: Estonian Private Forests' Union, Estonian University of Life Sciences, Estonian Renewable Energy Association, Estonian Council of Environmental NGOs, Estonian Nature Fund, Stockholm Environmental Institute Tallinn, Estonian Green Movement, Foundation Private Forest Centre, Estonian Timber, FSC Estonia, PEFC Estonia.

None of the stakeholder made any written comments or inquiries.

Graanul Invest AS' Forestry Sector Manager, a member of the Estonian FSC standard working group, was asked within the working group why Graanul Invest needs SBP certification in addition to FSC certification. The Forestry Sector Manager explained that the main reason due to fact that FSC does not have a standard to address GHG data.

6.1 Response to stakeholder comments

No written comments received.

7 Overview of Initial Assessment of Risk

The only specified risk identified in the SBP endorsed risk assessment for Estonia is indicator 2.1.2: “Potential threats to forests and other areas with high conservation values from forest management activities are identified and addressed.”

Refer to point 4.3 for more detail.

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

Imavere pellet plant did not carry out a supplier verification program as defined in the SBP standard 2. The already implemented mitigation measures for the feedstock supply chain are sufficient to minimise the risk explained in chapter 4.3 of this report. These mitigation measures (further explained in chapter 9.) were developed specifically to address the risk area highlighted in the regional risk assessment as “specified risk” (indicator 2.1.2) and are also approved as internal FSC and PEFC procedures. By mitigating the only “specified” risk related to feedstock AS Graanul Invest can conclude that the feedstock entering Imavere plant is low risk and therefore SBP-compliant. A supplier verification program might be introduced once the SBE is extended beyond Estonia’s borders or the regional risk assessment is changed.

8.2 Site visits

N/A

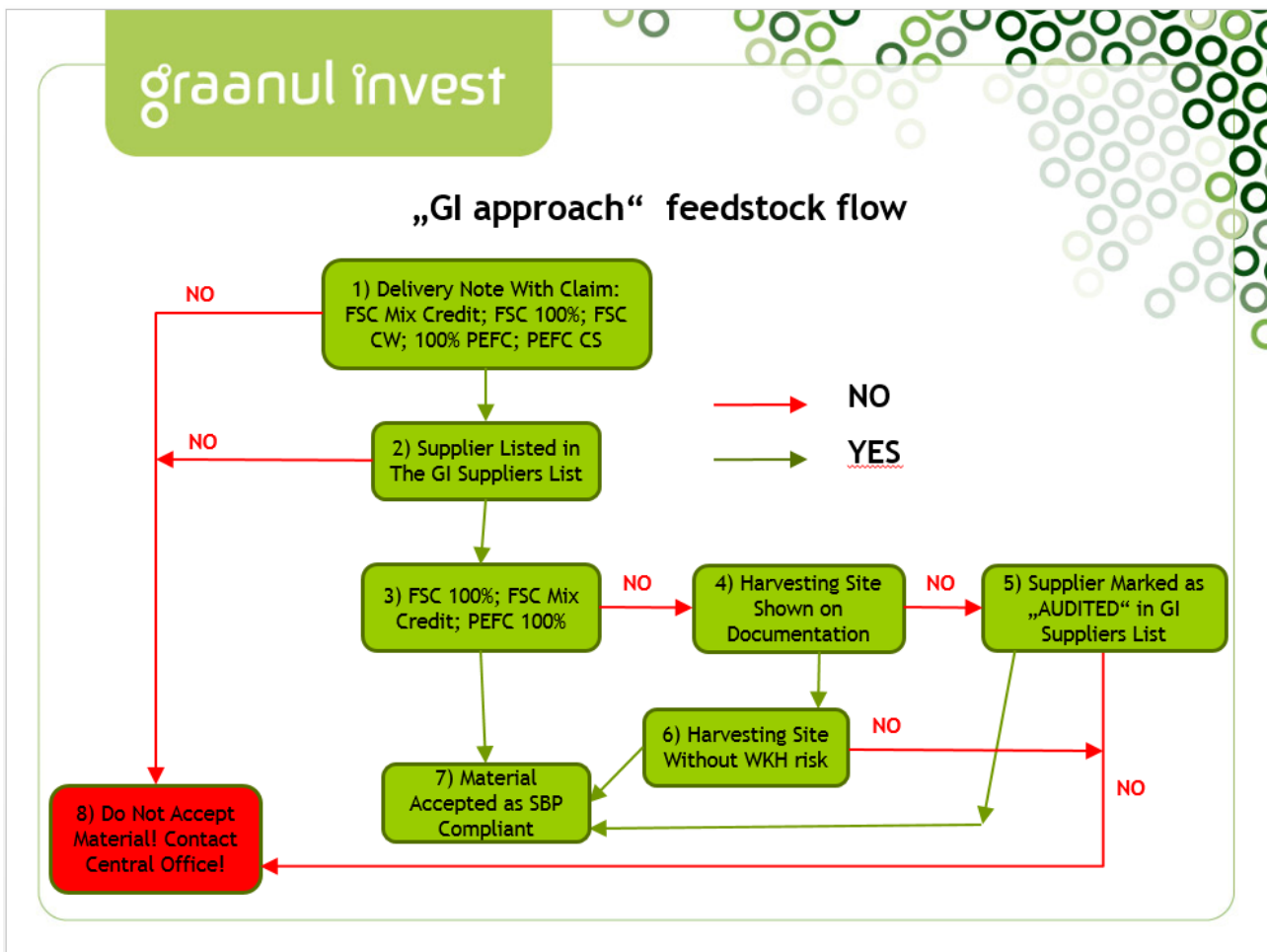
8.3 Conclusions from the Supplier Verification Programme

N/A.

9 Mitigation Measures

9.1 Mitigation measures

Below is explained the whole cycle of feedstock flow through AS Graanul Invest direct and indirect mitigation measures “GI approach”.



- 1) Every feedstock delivery has to have a delivery note with feedstock type, weight/volume, certification claim and code. The format and content have to be according to FSC and PEFC standards. This is examined by pellet plant personnel before the delivery is allowed through the gate.
- 2) The GI Suppliers List consist of the companies who are approved by central office and are allowed to deliver feedstock to Imavere’s pellet plant. The list is updated every 3 months and a supplier only qualifies for the list if:
 - a.They have a valid certificate visible in the certification scheme’s online database.
 - b.The certificate includes the feedstock types they supply.
 - c.They source their controlled feedstock from inside Estonia’s borders, inside the SBE.
 - d.They have expressed readiness to implement the mitigation measures and provide evidence.

e.They have signed a contract with AS Graanul Invest which included the WKH risk mitigation measures appendix.

f.In case they are not a contractual supplier they must have received the WKH risk mitigation measures' guidelines from AS Graanul Invest.

g.They must have attended the AS Graanul Invest suppliers training seminar (registration was recorded).

If one of the conditions from “d”,“e”,“f” or “g” is not met then the supplier only qualifies for the GI Suppliers List if they have been audited by AS Graanul Invest central office and approved. The conditions “a”,“b” and “c” have zero tolerance and not meeting them automatically disqualifies the supplier.

- 3) If the feedstock is forest management certified then it is SBP-compliant. The accepted certification claims are FSC 100%, FSC Mix Credit or 100% PEFC Certified Material.
- 4) If the feedstock is controlled feedstock then the harvesting site information has to be shown on the documentation. Controlled feedstock is defined as feedstock with certification claims “FSC Controlled Wood” and “FSC Controlled Sources”.
- 5) If controlled feedstock does not have the harvesting site information in the delivery documentation then the feedstock can only be accepted if the supplier has been audited by AS Graanul Invest central office and approved. Audited and approved suppliers are marked as “AUDITED” in the suppliers list. This possibility exists because some feedstock suppliers have a WKH risk mitigation measure in place but do not segregate material for their clients. Therefore the risk is low but the exact harvesting site is not known. This system is accepted but has to be audited before.
- 6) If the controlled feedstock documentation includes the harvesting site information then the site is examined by Imavere pellet plant personnel, from the Environmental Agency's WKH database or Forest Registry's WKH map. If the harvesting site does not have a WKH on it the material can be accepted as SBP-compliant.
- 7) SBP-compliant material is allowed to enter the pellet plant territory and is stored according to the plant's storage plan. The compliant material is recorded according to its' quality and sustainability characteristics.
- 8) Whatever the reason for feedstock rejection the pellet plant has to register and report the case to central office. Each case will be reviewed individually and measures will be taken to avoid similar issues in the future.

9.2 Monitoring and outcomes

The mitigation measures have been well implemented and all feedstock supplies are according to SBE and SBP requirements. Graanul Invest AS has audited all suppliers who are within the SBE scope and has not discovered any non-conformances.

Between 1.10.2016-30.09.2017 no material with WKH risk has entered the pellet plant. There has been approx. 7 cases where the WKH public registry gave an alert for the origin but further inquiries to the environmental agency and visual inspections cleared the timber as low risk and was accepted. On 3 occasions the wood was rejected at the gate.

10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in the SBP endorsed regional risk assessment for Estonia dated 22.04.2016 and found here:

<https://sbp-cert.org/documents/risk-assessments/estonia>

11 Review of Report

11.1 Peer review

This report was reviewed by AS Graanul Invest central office's top management: CEO, COO, Head of Quality and Certification Systems, Biomass Purchasing Manager and the Head of Forestry.

The SBR was published to all stakeholders and feedback will be provided to whoever expresses interest or concern.

22.12.2016 this SBR was reviewed by Henrik Välja a representative of the Estonian Timber Association.

11.2 Public or additional reviews

23.09.2016-23.10.2016 this SBR was published for stakeholder consultation. In addition to publishing the report on the company's webpage it was sent to the following key stakeholders: Estonian Private Forests' Union, Estonian University of Life Sciences, Estonian Renewable Energy Association, Estonian Council of Environmental NGOs, Estonian Nature Fund, Stockholm Environmental Institute Tallinn, Estonian Green Movement, Foundation Private Forest Centre, Estonian Timber, FSC Estonia, PEFC Estonia.

None of the stakeholder made any written comments or inquiries.

Graanul Invest AS' Forestry Sector Manager, a member of the Estonian FSC standard working group, was asked within the working group why Graanul Invest needs SBP certification in addition to FSC certification. The Forestry Sector Manager explained that the main reason due to fact that FSC does not have a standard to address GHG data.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Mihkel Jugaste</i> 	<i>Head of Quality and Certification Systems</i>	<i>21.12.2016</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>Raul Kirjanen</i> 	<i>CEO</i>	<i>21.12.2016</i>
	Name	Title	Date

13 Updates

13.1 Significant changes in the Supply Base

The supply base changed due to a new country in tertiary feedstock supply chain. Ireland was a new addition. Overview of Ireland forestry resources was added.

- 2.1 Supply base description changed to include new countries
- 2.2 Feedstock split updated.
- 2.5 Supply base quantification updated

13.2 Effectiveness of previous mitigation measures

Graanul Invest has concluded the mitigation measures to be 100% effective and therefore the same measures are continued without changes.

13.3 New risk ratings and mitigation measures

NA

13.4 Actual figures for feedstock over the previous 12 months

This report included the actual figures because it was updated right at the end of the reference period.

13.5 Projected figures for feedstock over the next 12 months

- o. Total volume of Feedstock: 1 000 000 – 1 500 000 m³
- p. Volume of primary feedstock: 800 000 – 1 000 000 m³
- q. List percentage of primary feedstock (g),
Subdivide by SBP-approved Forest Management Schemes:
 - Certified to an SBP-approved Forest Management Scheme (80%)
 - Not certified to an SBP-approved Forest Management Scheme (20% FSC CW, PEFC CS)
- r. Volume of secondary feedstock: 400 000 – 600 000 m³
- s. Volume of tertiary feedstock: 0 – 200 000 m³