

# Supply Base Report: Graanul Invest AS Imavere Factory

Second 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

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# **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 suppliers	12
2.3	Final harvest sampling programme	13
2.4	Flow diagram of feedstock inputs showing feedstock type [optional]	13
2.5	Quantification of the Supply Base	13
3	Requirement for a Supply Base Evaluation	15
4	Supply Base Evaluation	16
4.1	Scope	16
4.2	Justification	16
4.3	Results of Risk Assessment	16
4.4	Results of Supplier Verification Programme	17
4.5	Conclusion	17
5	Supply Base Evaluation Process	18
6	Stakeholder Consultation	19
6.1	Response to stakeholder comments	19
7	Overview of Initial Assessment of Risk	20
8	Supplier Verification Programme	21
8.1	Description of the Supplier Verification Programme	21
8.2	Site visits	21
8.3	Conclusions from the Supplier Verification Programme	21
9	Mitigation Measures	22
9.1	Mitigation measures	22
9.2	Monitoring and outcomes	23
10	Detailed Findings for Indicators	24
11	Review of Report	25
11.1	Peer review	25
11.2	Public or additional reviews	25
12	Approval of Report	26



13	Updates	27
13.1	Significant changes in the Supply Base	27
13.2	Effectiveness of previous mitigation measures	27
13.3	New risk ratings and mitigation measures	27
13.4	Actual figures for feedstock over the previous 12 months	27
13.5	Projected figures for feedstock over the next 12 months	27



# 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

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Date report finalised: 26/Oct/2018

Reference period: 1/Oct/2017-30/Sep/2018

Close of last CB audit: First surveillance 7/Nov/2017-10/Nov/2017

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, Instruction Documents: 5A version 1.1; 5B version

1.1, 5C version 1.1, 5D version 1.1;

Weblink to Standard(s) used: <a href="https://sbp-cert.org/documents/standards-documents/standards">https://sbp-cert.org/documents/standards-documents/standards</a>

SBP Endorsed Regional Risk Assessment: <a href="https://sbp-cert.org/documents/risk-assessments/estonia">https://sbp-cert.org/documents/risk-assessments/estonia</a>

Weblink to SBE on Company website: <a href="http://www.graanulinvest.ee/eng/environment/SBR">http://www.graanulinvest.ee/eng/environment/SBR</a>

Indicate how	v the current evalua	tion fits within the c	ycle of Supply Base	Evaluations
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
		х		



# 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 Estonia. According to supplier origin declarations there is secondary and tertiary feedstock within Imavere plant's supply base which originates from Russia, Belarus, Finland, Latvia, Polandm, Norway, Lithuania or Sweden. This type of material cannot be excluded but it is possible to make sure that it is from certified chain of custody systems. Therefore physical segregation is not required nor necessary. The possible impact of Imavere plant's operations on the forest resources of Russia, Belarus, Finland, Latvia, Poland, Norway, Lithuania and Sweden is negligible. The plant has around 22, 4 are primary feedstock suppliers, 10 are secondary and the rest are tertiary suppliers.

Controlled Feedstock 00,00%

SBP-compliant Primary Feedstock 61,90%

SBP-compliant Secondary Feedstock 34,71%

SBP-compliant Tertiary Feedstock 3,39%

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 stakeholders<sup>1</sup>. The Estonian legislation provides strict outlines in respect to the usage of forestry land and the Estonian Forestry Development Plan 2020<sup>2</sup> 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 and its supervision are carried out by two separate entities operating under its governance. The

<sup>1</sup> http://europa.eu/about-eu/countries/member-countries/estonia/index\_en.htm

<sup>&</sup>lt;sup>2</sup> Original title: "Eesti metsanduse arengukava aastani 2020"; approved by Estonians parlament decision nr 909 OE 15.February 2011.a

http://www.envir.ee/sites/default/files/elfinder/article files/mak2020vastuvoetud.pdf



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 area<sup>3</sup> 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 addressed<sup>4</sup>. 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 %<sup>5</sup>. 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 year<sup>6</sup>. 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.

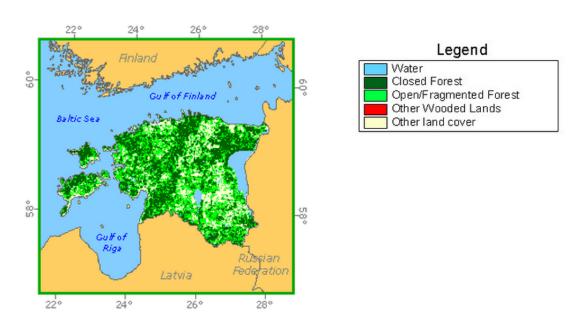


Figure 1. Forest cover of Estonia (FAO: http://www.fao.org/forestry/country/en/est/).

<sup>&</sup>lt;sup>3</sup> http://www.rmk.ee/organisation/operating-areas

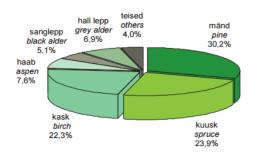
http://www.rmk.ee/organisation/environmental-policy-of-rmk/certificates

<sup>&</sup>lt;sup>5</sup> http://www.fao.org/forestry/country/32185/en/est/

<sup>&</sup>lt;sup>6</sup> 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 database<sup>7</sup>.

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 Act<sup>8</sup>. Estonia has signed the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1992<sup>9</sup> and joined the International Union for Conservation of Nature (IUCN) in 2007<sup>10</sup>. 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

<sup>&</sup>lt;sup>7</sup> http://register.metsad.ee/avalik/

https://www.riigiteataja.ee/en/eli/517062015004/consolide

<sup>9</sup> http://www.envir.ee/et/cites

<sup>10</sup> http://www.envir.ee/et/iucn



(51.68 % 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 (<a href="www.zm.gov.lv">www.zm.gov.lv</a>). 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: <a href="www.vmd.gov.lv">www.vmd.gov.lv</a>). 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 (<a href="www.lvm.lv">www.lvm.lv</a>). 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.

### Finnish 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

# SBP Sustainable Biomass Program

### Focusing on sustainable sourcing solutions

(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/suomen-metsat/index-en.htm

### Swedish 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.

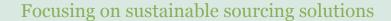
Swedish forests are primarily boreal. The total standing võlume is about 3 000 million m3, of which 41% is spruce/whitewood (Picea abies), also called Norwegian spruce, and 40% pine/redwood (Pinus sylvestris), also called Scots pine. 18% is birch and 6% consists of other deciduous trees.

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.svenskttra.se/siteassets/6-om-oss/publikationer/pdfer/swedish-forestry.pdf





### Russian forest resources

Twenty two percent of all forest land mass and 25 % of the world's wood reserves belong to Russia but its share in the world forest products trade is below 4 percent. Forests take up 69% of all land and the area occupied with forests amounts to 1,183.3 million out of which 885 million ha is forest land. This is owned and managed by the state.

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 83 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 633 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.

Wood biomass for energy use will double, increasing from 32 million cubic metres (2011) to 75 million cubic metres (2033). The national market will be the prime consumer of this biofuel. Limited export only is foreseen for pellets and will originate from those regions with the necessary transportation and economic conditions.

By the end of 2011, 30 million hectares of Russian forests had been certified under the Forest Stewardship Council (FSC) scheme. A much smaller area (177 000 hectares) was certified under the Programme for the Endorsement of Forest Certification (PEFC). At present, Russia ranks second after Canada for area of certified forests. Certified forests represent 26 percent of all Russian forest leased for logging. The average growth rate of certified forests is about 2.7 million hectares per year.

http://www.fao.org/docrep/016/i3020e/i3020e00.pdf "THE RUSSIAN FEDERATION FOREST SECTOR: OUTLOOK STUDY TO 2030"

### Belarus forest resources

In Belarus forests cover area of 9,5 milj hectares. According to the data of the State Forest Ministry Woodenness amounts to 39,3 % Forest industry input into IKP is 1,1%; 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 Belarus has fluctuated aprox., 11 million cubic metres (http://www.mlh.by , 2015.)

Total land area 20,748; Inland water bodies 12; Total area of country 20,76

Source: <a href="http://www.mlh.by">http://www.mlh.by</a>, 2015.

Distribution of forests by the dominant species: • pine 50,4%; • spruce 9,2%; • birch 23,1%; • black alder 3,3%; • grey alder 3,3 %: • aspen 2,1%; • other species 3,3%.

Source: http://www.mlh.by, 2015.

# Sustainable Biomass Program

### Focusing on sustainable sourcing solutions

Timber production by types of cuts, by volume produced (2013): • final cuts 34,5 %; • thinning 45,79 %; • other types of cuts 19,62 %. Source: http://www.mlh.by,

### **Biological diversity**

Belarus has been a signatory of the CITES Convention since 1995. CITES requirements are respected in forest management, although there are no species included in the CITES lists in Belarus. Forest regeneration is carried out annually over an area of 32,000 ha, including 81% of the forest planting planting and seeding and 19% by natural regeneration. <a href="http://belstat.gov.by/">http://belstat.gov.by/</a> (2015.y.) There are 2 strictly protected Nation reserves and 4 National parks present in Belarus at the moment. Area of National reserves accounts 2,98 milj ha and area of National parks is 3,98 milj ha.

#### Forest and community

In 2014 in all kinds of felling there were harvested 12,5 million m3 marketable timber. Foreign trade surplus made USD 104 million. 1.9 million cubic meter round timber and 191.8 thousand cubic meter sawn timber were sold abroad. Forest products and services were exported to 25 states, including 95,3% to the near abroad and 4,7% to the remote countries. Among the main forest export directions are Poland (47,9% of the total export volume in value terms), Germany (11,4%), Lithuania (10%), Latvia (8,62%), the Netherlands (3,3%), Belgium (3,46%), Sweden (3,25%).

All forest area is certified by PEFC certification scheme..

### Poland forest resources

Poland's forests cover 9.2 million hectares, 30.6 percent of the country's territory making it one of the countries with the largest forest area in Europe. 81 percent of forest land belongs to public institutions and 19 percent to private owners. 77 percent of total forest land is administrated by the State Forests National Forest Holding. The rest of the State forests are national parks (2 percent). Other publicly owned land constitutes 2 percent of total forest area.

69 percent of all trees in Polish forests are coniferous trees, and they dominate stock volume for the wood industry. Coniferous stands are dominated by pine and larch (58.5 % of total forest stands). Other coniferous species in Polish forests include spruce (6.3 %), and fir (3.1 %). Broadleaved trees occupy 31 percent of total forest land. The predominant deciduous forest species in Poland are: oak (7.5% of total forest stands), birch (7.4%), beech (5.8%), alder (5.5%), hornbeam (1.5%), aspen (0.7%) and poplar (0.1%). Stands aged from 40 to 80 years dominate Poland's forests, and the average age of forest stands is 60 years. According to the State Forests, stands aged 41–80 years, representing age classes III and IV, prevail in the forest age structure and cover 26 percent and 19.0 percent of the forest area respectively. Stands aged 41–60 years, class III, prevail in most ownership categories, while in private forests they occupy 35.5 percent of the area. Stands older than 100 years, account for 12.3 percent of the forest area managed by the State Forests. Private forests account for only 2.8 percent. Non-forested land in privately-owned forests accounts for 6.8 percent of their total area, and in the State Forests for 3.2 percent.

According to the country forest inventory, published by Poland's Statistical Office, growing stock of woods stands amounts to 2,491 million m3 of barked timber, of which in forests managed by the State Forests



accounts for 79% of total timber, and in private forests for 16.4%. Resources, i.e. the average growing stock of standing wood calculated per 1 ha of forest area, amounts to 271 m3, of which in forests managed by the State Forests is 277 m3, and in private forests is 234 m3.

Soft sawn wood production accounts for 90 percent of total sawn wood production in Poland. In 2014 sawn softwood production amounted to 4.2 million m3. The majority of sawn hardwood was destined for the domestic market and only 18 percent of production was exported. According to Poland's statistics published in the United Nations Economic Commission for Europe (UNECE) report, imports of sawn hardwood by Poland accounted for 50 percent of its domestic production and amounted to 0.25 million m3 (compared to 0.22 million m3 in 2013).

Poland is a big producer of wood-based panels in the EU. In 2014 9.2 million m3 of this product was produced in Poland. Among high value added wood products furniture is of special importance. According to Poland's Ministry of Environment, the value of furniture production (including furniture elements) amounted to PLN 32.3 billion (U.S. \$ 10.2 billion). The wooden packaging (mainly pallets) sector had high development dynamics during the last few years. The value of production amounted to PLN 1.9 billion (U.S. \$ 0.6 billion).

In 2015 FSC certificates were held by 16 out of 17 State Forests Regional Directorates and 2 Forest Experimental Stations. According to the Ministry of Environment, FSC certification covers 6.9 million hectares of forests, or 75 percent of total forested area. In 2015 almost 3,000 FSC-CoC certificates were registered in Poland. Approximately 17 percent of certified companies (313) are certifiedalso in other systems, such as FSC-CW (FSC Controlled Wood). Additionally, 136 companies, or 7 percent, held FSC-RA (FSC Controlled Wood Risk Assessment) certificates, confirming implementation of a risk assessment system for wood supplies. Approximately 70 percent certificates were issued for production companies. These were mainly certificates for the producers of sawn wood, wooden garden products, builder's carpentry and joinery, furniture and its elements, wooden accessories, wood-based panels, wood pulp, and paper and secondary paper products.

https://gain.fas.usda.gov/Recent%20GAIN%20Publications/The%20Forestry%20and%20Wood%20Products%20in%20Poland\_Warsaw\_Poland\_3-23-2017.pdf

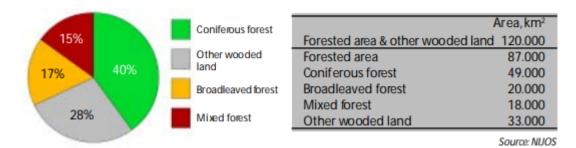
### Norway forest resources

Norway has long traditions in forestry and forest management, and for using wood in constructions and houses and as a source for energy. International trade has been a major element in the Norwegian forest sector since the first sawmills where established more than 400 years ago.

Approximately 88 per cent of the forest area is in private ownership, divided among about 120 000 properties. The majority of the forest holdings are farm- and family forests. Due to the ownership structure and specific terrain conditions, Norwegian forestry is diversified and characterised by small-scale operations/activities. The average size of clear-cuttings are estimated to be 1.4 hectares. Approximately 80 per cent of the harvesting is fully mechanised.



### The forested area of Norway



Source: <a href="https://www.regjeringen.no/globalassets/kilde/ld/bro/2003/0001/ddd/pdfv/177177-norw\_forests-brosjeng.pdf">https://www.regjeringen.no/globalassets/kilde/ld/bro/2003/0001/ddd/pdfv/177177-norw\_forests-brosjeng.pdf</a>

Due to a high demand for forest products, the annual removals exceeded the annual increment by the end of the 19th century. Once this situation was analysed, measures were introduced to restore the forest resources. At present, there is about twice as much standing volume in Norwegian forests as there was 80 years ago. The annual removal is less than 50 per cent of the total annual increment.

Forest and other wooded land cover a total of 12 million hectares. 226 000 hectares, approximately 2 per cent of the total area, is protected through a network of strictly protected areas. Forest protection is high on the political agenda, and it is expected that the area of protected forest land will be expanded the coming years.

https://www.regjeringen.no/globalassets/kilde/ld/bro/2003/0001/ddd/pdfv/177177-norw\_forests-brosj-eng.pdf

### Lithuania Forest Resources

Agricultural land covers more than 50 percent of Lithuania. Forested land consists of about 28 percent, with 2,18 million ha, while land classified as forest corresponds to about 30 percent of the total land area. The south-eastern part of the country is most heavily forested, and here forests cover about 45 percent of the land. The total land area under the state Forest Enterprises is divided into forest and non-forest land. Forest land is divided into forested and non-forested land. The total value added in the forest sector (including manufacture of furniture) reached LTL 4.9 billion in 2013 and was 10% higher than in 2012.

Forest land is divided into four protection classes: reserves (2 %); ecological (5.8 %): protected (14.9 %); and commercial (77.3 %). In reserves all types of cuttings are prohibited. In national parks, clear cuttings are prohibited while thinnings and sanitary cuttings are allowed. Clear cutting is permitted, however, with certain restrictions, in protected forests; and thinnings as well. In commercial forests, there are almost no restrictions as to harvesting methods.

Lithuania has been a signatory of the CITES Convention since 2001. CITES requirements are respected in forest management, although there are no species included in the CITES lists in Lithuania.

Lithuania is situated within the so-called mixed forest belt with a high percentage of broadleaves and mixed conifer-broadleaved stands. Most of the forests - especially spruce and birch - often grow in mixed stands. Pine forest is the most common forest type, covering about 38 percent of the forest area. Spruce and birch



account for about 24 and 20 percent respectively. Alder forests make up about I2 percent of the forest area, which is fairly high, and indicates the moisture quantity of the sites. Oak and ash can each be found on about 2 percent of the forest area. The area occupied by aspen stands is close to 3 percent.

The growing stock given as standing volume per hectare is on the average of l80 m3 in Lithuania. In nature stands, the average growing stock in all Lithuanian forests is about 244 m3 per hectare. Total annual growth comes to 11 900 000 m3 and the mean timber increment has reached 6.3 m3 per year and per hectare.

Current harvest has reached some 3.0 million m3 u.b. per year. The consumption of industrial wood in the domestic forest industry, including export of industrial wood, is estimated to be less than 2.0 million m3. The remainder is used for fuel or stored in the forests, with a deteriorating quality as a result.

The potential future annual cut is calculated at 5.2 million m3, of which 2.4 million m3 is made up of sawn timber and the remaining 2.8 million m3 of small dimension wood for pulp or board production, or for fuel. The figures refer to the nearest 10-year period. Thereafter a successive increase should be possible if more intensive and efficient forest management systems are introduced.

Certification of all state forests in Lithuania is done according to the strictest certification in the world – the FSC (Forest Stewardship Council) certificate. The audit of this certificate testifies to the fact that Lithuanian state forests are managed especially well – following the principles of the requirements set to protection of and an increase in biological diversity.

http://www.fao.org/docrep/w3722E/w3722e22.htm

# 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 lead 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 1<sup>st</sup> 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;
   Russia 885 mln.; Belarus 7,894 mln, Poland 9,2 mln, Norway 12 mln, Lithuania 2,18 mln, Total: 935,38 mln
- b. Tenure by type (ha): Estonia and Latvia 2,65 mln state forests; 2,63 mln private forests, Russia 885 mln state forests; Belarus 7,894 mln ha state forests, Poland 7,452 state and 1,748 mln ha private, Norway 10,56 mln private and 1,44 mln state, Lithuania 1,526 mln state and 0,654 mln private (for Sweden and Finland the exact distribution is not known but using the countries' statistical averages the total split for the countries is 10,8 mln private forests and 4,7 mln state forests.)
- c. Forest by type (ha): boreal Total: 935,38 mln
- d. Forest by management type (ha): Total: 935,38 mln managed semi-natural
- e. Certified forest by scheme (ha): FSC 76,756 mln; PEFC 39,302 mln
- f. Number of suppliers: 22

### 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 m3
- h. Volume of primary feedstock: >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 (67,70%)
  - Not certified to an SBP-approved Forest Management Scheme (32,30% FSC CW, PEFC CS)

# SBP Sustainable Biomass Program

### Focusing on sustainable sourcing solutions

- 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%
- I. 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 is is ca 20% chips and about 15% sawdust.
- n. Volume of tertiary feedstock: 0 200 000 m3



# 3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
х	

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 boarders 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: <a href="https://sbp-cert.org/docs/SBP-endorsed-Regional-Risk-Assessment-for-Estonia.pdf">https://sbp-cert.org/docs/SBP-endorsed-Regional-Risk-Assessment-for-Estonia.pdf</a>



# 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 boarders 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 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	Initi	al Risk	Rating
indicator	Specified	Low	Unspecified
1.1.1		Х	
1.1.2		Х	
1.1.3		X	
1.2.1		Х	
1.3.1		Х	
1.4.1		Х	
1.5.1		Х	
1.6.1		Х	
2.1.1		Х	
2.1.2			X
2.1.3		Х	
2.2.1		Х	
2.2.2		Х	
2.2.3		Х	
2.2.4		Х	
2.2.5		Х	
2.2.6		Х	
2.2.7		Х	
2.2.8		Х	
2.2.9		Х	

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



# 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 boarders or the regional risk assessment is changed.

Site visits

N/A

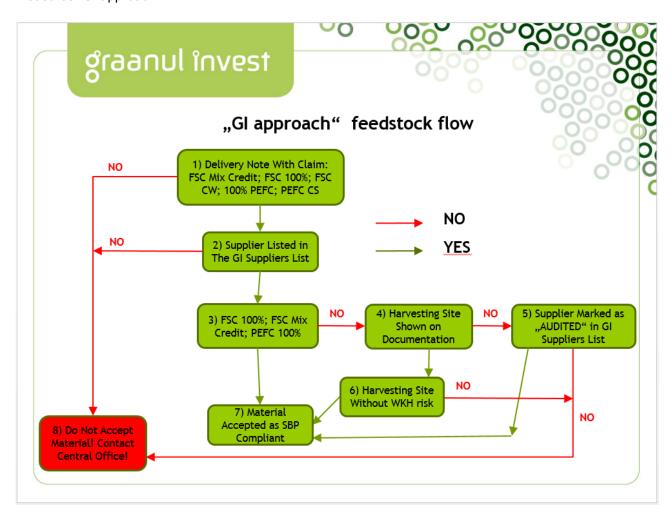
8.2 Conclusions from the Supplier Verification Programme



# 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 1.10.2017-30.09.2018 no material with WKH risk has entered the pellet plant. There has been approx. 8 cases where the feedstock had and overlap with the WKH registry (cadastre level) but during further inspection the felling site did not overlap with the risk area. There have also been first cases of rejected feedstock. The suppliers were reminded of the WKH risk and contractual requirements.



# 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

Report Prepared by:	Mihkel Jugaste		Head of Quality and Certification Systems	26.10.2018
	Name		Title	Date
	ged by senior man	agement as bei	ng accurate prior to approval	and finalisation
acknowledg the report. Report approved	Raul Kirjanen	agement as bei	CEO	26.10.2018



# 13 Updates

Note: Updates should be provided in the form of additional pages, either published separately or added to the original public summary report.

## 13.1 Significant changes in the Supply Base

- 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 000m3
- p. Volume of primary feedstock: >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 (60%)
- Not certified to an SBP-approved Forest Management Scheme (40% FSC CW, PEFC CS)
- r. Volume of secondary feedstock: 400 000 600 000 m3
- s. Volume of tertiary feedstock: 0 200 000 m3

Reason for the volume banding is to prevent the company from publishing commercially sensitive data.