

F0. Introduction

F0.1

(F0.1) Give a general description of and introduction to your organization.

Borregaard operates one of the world's most advanced biorefineries. The Group provides sustainable products and solutions based on renewable raw materials and unique competence.

A BIOREFINERY WITH HIGH VALUE-ADDED

The Group's business model is closely linked to the integrated nature of its biorefinery in Norway, which utilises the three key components of wood – cellulose fibres, lignin and sugars – to produce a diversified portfolio of products. The biorefinery utilises 94 percent of the feedstock to make biochemicals, biomaterials and energy that can replace oil-based products. In addition to its biorefinery in Sarpsborg, Borregaard has 5 production sites outside Norway dedicated to producing lignin-based products. In total, the company has manufacturing operations and sales offices in 13 countries in Europe, Asia and the Americas serving its global customer base. At the end of 2022, the Group had 1,107 full-time equivalent (FTE) employees.

SPECIALISATION IN GLOBAL NICHES

Borregaard is a supplier of specialised biochemicals and biomaterials to a global customer base. The Group's main products are lignin-based biopolymers and biovanillin, speciality cellulose, cellulose fibrils, fine chemical intermediates and second-generation bioethanol. The products are used in a variety of applications in sectors such as feed and agriculture, construction and building materials, food and pharma, personal care, batteries, biofuel and various other industries. The Group's strong market positions have been developed through in-depth understanding of its markets, production of advanced and specialised products and local presence in the form of a global sales and marketing organisation.

COMPETENCE AS THE MAIN COMPETITIVE ADVANTAGE

Borregaard is a competence-driven company with production, research and development (R&D) and sales and marketing as its core competencies. To maintain its leading position, the Group has a strong focus on training programmes and cooperation between the various disciplines. Borregaard has a leading research centre combining various chemical disciplines, biotechnology and microbiology, developing new or improved products, applications and production technologies. The Group had 93 employees in R&D as of 31 December 2022.

SUSTAINABLE BUSINESS MODEL

Sustainability is a key element in Borregaard's business model and one of the Group's core values. This is reflected in the Group's main objective: Providing sustainable products and solutions based on renewable raw materials and unique competence. Our understanding of sustainability and corporate responsibility derives from the fact that our business model itself, the way we run our company and the products we produce, is sustainable and meets global needs.

The UN predicts population growth of around 13% by 2030, which will generate resource scarcity and an extraordinary demand for climate friendly solutions in our daily lives. The UN has defined specific sustainability goals and measures within areas such as access to raw materials, energy, food and infrastructure. These factors are expected to increase demand for sustainable products and will present opportunities for Borregaard's innovative solutions in terms of creating good lives within a sustainable framework, also identified in the climate scenario analysis that Borregaard conducted in 2022.

Borregaard will take climate action and demonstrate how our business can help to advance sustainable development by both minimising negative environmental impacts and maximising positive environmental impacts.

The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment report from August 2021 provides new estimates of the chances of crossing the global warming level of 1.5°C in the next decades, and states that unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C will be beyond reach. In 2022 Borregaard revised the targets for GHG reduction, the targets are in line with the 1.5°C goal in the Paris Agreement and the targets are approved by the Science Based Target Initiative (SBTi).

Borregaard has engaged an independent third party, Norsus, to conduct a life cycle assessment (LCA) based on the ISO 14044/48 standard. The LCA analyses the environmental impacts of our production, from raw materials to finished products. The LCA confirms that the environmental and climate footprint of Borregaard's products have diminished over time. Borregaard's bio-based products do well from a climate perspective when compared to oil-based alternatives. Borregaard has made large efforts to reduce greenhouse gas emissions in its own processes by elimination of heavy oil consumption and increasing the amount of energy derived from more eco-friendly energy sources.

F0.2

(F0.2) State the start and end date of the year for which you are reporting data.

| | Start Date | End Date |
|----------------|----------------|------------------|
| Reporting year | January 1 2022 | December 31 2022 |

F0.3

(F0.3) Select the currency used for all financial information disclosed throughout your response.

NOK

F0.4

(F0.4) Select the forest risk commodity(ies) that you are, or are not, disclosing on (including any that are sources for your processed ingredients or manufactured goods); and for each select the stages of the supply chain that best represents your organization's area of operation.

Timber products

Commodity disclosure

Disclosing

Stage of the value chain

Processing

Are you disclosing information on embedded commodities?

No, because we have no embedded commodities

Explanation if not disclosing

<Not Applicable>

Palm oil

Commodity disclosure

This commodity is not produced, sourced or used by our organization

Stage of the value chain

<Not Applicable>

Are you disclosing information on embedded commodities?

<Not Applicable>

Explanation if not disclosing

<Not Applicable>

Cattle products

Commodity disclosure

This commodity is not produced, sourced or used by our organization

Stage of the value chain

<Not Applicable>

Are you disclosing information on embedded commodities?

<Not Applicable>

Explanation if not disclosing

<Not Applicable>

Soy

Commodity disclosure

This commodity is not produced, sourced or used by our organization

Stage of the value chain

<Not Applicable>

Are you disclosing information on embedded commodities?

<Not Applicable>

Explanation if not disclosing

<Not Applicable>

Other - Rubber

Commodity disclosure

This commodity is not produced, sourced or used by our organization

Stage of the value chain

<Not Applicable>

Are you disclosing information on embedded commodities?

<Not Applicable>

Explanation if not disclosing

<Not Applicable>

Other - Cocoa

Commodity disclosure

This commodity is not produced, sourced or used by our organization

Stage of the value chain

<Not Applicable>

Are you disclosing information on embedded commodities?

<Not Applicable>

Explanation if not disclosing

<Not Applicable>

Other - Coffee

Commodity disclosure

This commodity is not produced, sourced or used by our organization

Stage of the value chain

<Not Applicable>

Are you disclosing information on embedded commodities?

<Not Applicable>

Explanation if not disclosing

<Not Applicable>

F0.5

(F0.5) Select the option that describes the reporting boundary for which forests-related impacts on your business are being reported

Financial control

F0.6

(F0.6) Select the countries/areas in which you operate.

- Brazil
- China
- Czechia
- France
- Germany
- India
- Japan
- Norway
- Poland
- Singapore
- Spain
- United Kingdom of Great Britain and Northern Ireland
- United States of America

F0.7

(F0.7) Are there any parts of your direct operations or supply chain that are not included in your disclosure?

No

F0.8

(F0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.?)

| Indicate whether you are able to provide a unique identifier for your organization | Provide your unique identifier |
|--|--------------------------------|
| Yes, an ISIN code | NO0010657505 |

F1. Current state

F1.1

(F1.1) How does your organization produce, use or sell your disclosed commodity(ies)?

Timber products

Activity

Refining & processing

Form of commodity

Pulp

Other, please specify (Borregaard utilises the three key components of wood – cellulose fibres, lignin and sugars – to produce a diversified portfolio of biochemicals and biomaterial products.)

Source

Multiple contracted producers

Country/Area of origin

Austria

Germany

Norway

Sweden

United States of America

% of procurement spend

11-20%

Comment

F1.2

(F1.2) Indicate the percentage of your organization's revenue that was dependent on your disclosed forest risk commodity(ies) in the reporting year.

| | % of revenue dependent on commodity | Comment |
|-----------------|-------------------------------------|---|
| Timber products | 91-99% | Our core value is: "We deliver sustainable solutions based on renewable resources, and unique expertise" Timber is the major renewable resource. Our company processes wood to biochemicals and biomaterials. Therefore, a large percentage of our products are dependent on timber. To determine the percentage of revenue dependent on timber, it has been calculated that in 2022 our biochemicals and biomaterials products made up approximately 86,4% of our sales revenue figure of 6.776 million NOK. |
| Palm oil | <Not Applicable> | <Not Applicable> |
| Cattle products | <Not Applicable> | <Not Applicable> |
| Soy | <Not Applicable> | <Not Applicable> |
| Other - Rubber | <Not Applicable> | <Not Applicable> |
| Other - Cocoa | <Not Applicable> | <Not Applicable> |
| Other - Coffee | <Not Applicable> | <Not Applicable> |

F1.5

(F1.5) Does your organization collect production and/or consumption data for your disclosed commodity(ies)?

| | Data availability/Disclosure |
|-----------------|--|
| Timber products | Consumption data available, disclosing |
| Palm oil | <Not Applicable> |
| Cattle products | <Not Applicable> |
| Soy | <Not Applicable> |
| Other - Rubber | <Not Applicable> |
| Other - Cocoa | <Not Applicable> |
| Other - Coffee | <Not Applicable> |

F1.5a

(F1.5a) Disclose your production and/or consumption figure, and the percentage of commodity volumes verified as deforestation- and/or conversion-free.

Forest risk commodity

Timber products

Data type

Consumption data

Commodity production/ consumption volume

982777

Metric for commodity production/ consumption volume

Cubic meters

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

EY has performed an independent verification of selected indicators related to Borregaard ASA's Sustainability reporting for 2022. EY has performed controls in order to establish a limited level of assurance for the percentage of purchased wood which is certified under Borregaard's selected certification program. Ref point 7.1a We are performing a Due Dilligence of our supplies in accordance with our PEFC certification and a Due Dilligence of our FSC CW supplies verified by WSP Denmark in September 2022 .

Forest risk commodity

Timber products

Data type

Consumption data

Commodity production/ consumption volume

57900

Metric for commodity production/ consumption volume

Metric tons

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

All rawmaterial is supplied from Domtar Paper Company LLC, Rothschild Mill with certificate NC-CoC-001318 and NC-CW-001318

Forest risk commodity

Timber products

Data type

Consumption data

Commodity production/ consumption volume

82600

Metric for commodity production/ consumption volume

Metric tons

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

All rawmaterial is supplied from Rayonier Advanced Materials, Fernandina Pulp Mill with certificate BW-CoC-128948 and BW-CW-128948

Forest risk commodity

Timber products

Data type

Consumption data

Commodity production/ consumption volume

29200

Metric for commodity production/ consumption volume

Metric tons

Data coverage

Full commodity production/consumption

Have any of your reported commodity volumes been verified as deforestation- and/or conversion-free?

Yes

% of reported volume verified as deforestation- and/or conversion-free

100

Please explain

All rawmaterial is supplied from Lenzing AG, Lenzing Biocel Paskov a.s. with certificate SCS-CoC-008618 and SCS-CW-008618.

F1.5b

(F1.5b) Provide a breakdown of your DCF and non-DCF volumes relevant to your stage in the supply chain according to how verification is achieved and the highest level of traceability, respectively.

Timber products – DCF

% of DCF production/consumption volume from areas with no or negligible risk of deforestation/conversion
0

% of DCF production/consumption volume verified through monitoring systems
0

% of DCF production/consumption volume physically certified
100

% of non-DCF production/consumption volume from unknown origin
<Not Applicable>

% of non-DCF production/consumption volume traceable only as far as country level
<Not Applicable>

% of non-DCF production/consumption volume traceable only as far as sub-national area
<Not Applicable>

% of non-DCF production/consumption volume traceable only as far as processing facility level
<Not Applicable>

% of non-DCF production/consumption volume traceable to production unit level
<Not Applicable>

Total percentage of production/consumption volume reported (DCF) [auto-calculated]
100

Total percentage of production/consumption volume reported (non-DCF) [(auto-calculated)]
<Not Applicable>

Timber products – Non DCF

% of DCF production/consumption volume from areas with no or negligible risk of deforestation/conversion
<Not Applicable>

% of DCF production/consumption volume verified through monitoring systems
<Not Applicable>

% of DCF production/consumption volume physically certified
<Not Applicable>

% of non-DCF production/consumption volume from unknown origin
0

% of non-DCF production/consumption volume traceable only as far as country level
0

% of non-DCF production/consumption volume traceable only as far as sub-national area
0

% of non-DCF production/consumption volume traceable only as far as processing facility level
71

% of non-DCF production/consumption volume traceable to production unit level
29

Total percentage of production/consumption volume reported (DCF) [auto-calculated]
<Not Applicable>

Total percentage of production/consumption volume reported (non-DCF) [(auto-calculated)]
100

F1.5c

(F1.5c) For your disclosed commodity(ies), indicate the percentage of the production/consumption volume sourced by national and/or sub-national jurisdiction of origin.

Forest risk commodity

Timber products

Country/Area of origin

Any other countries/areas

State or equivalent jurisdiction

<Not Applicable>

% of total production/consumption volume

100

Please explain

In 2022 our consumption of wood at our mill i Norway, Sarpsborg was 982,777 solid cubic meters.

Stock 1/1-2022 = 55.785 solid cubic meters under bark measured by Norwegian measuring association (NVM) at our wood yard in Sarpsborg

Spruce Pulplogs = 15.743 solid cubic meters under bark

Spruce Woodchips = 40.042 solid cubic meters under bark

Purchased wood in 2022= 962.624 solid cubic meters under bark measured by Norwegian measuring association (NVM) at our wood yard in Sarpsborg

Spruce Pulplogs = 580.842 solid cubic meters under bark

Spruce Woodchips = 381.782 solid cubic meters under bark

Stock 31/12-2021 = 74.912 solid cubic meters under bark measured by Norwegian measuring association (NVM) at our wood yard in Sarpsborg

Spruce Pulplogs = 40.794 solid cubic meters under bark

Spruce Woodchips = 34 118 solid cubic meters under bark

Purchased volume in 2022 from Norway = 783.582 solid cubic meters under bark (All volume from Viken and Innlandet County) divided by total purchased wood 962.620 =

81 % from Norway

Spruce Pulplogs 570.939 solid cubic meters under bark

Spruce woodchips 212.643 solid cubic meters under bark

Purchased volume in 2022 from Sweden = 179.042 solid cubic meters under bark (All volume from Västre Götaland Region) divided by total purchased wood 962.624 = 19 % from Sweden

Spruce Pulplogs 9.903 solid cubic meters under bark

Spruce woodchips 169.139 solid cubic meters under bark

These numbers are verified by our auditor EY.

F1.6

(F1.6) Has your organization experienced any detrimental forests-related impacts?

Yes

F1.6a

(F1.6a) Describe the forests-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Forest risk commodity

Timber products

Impact driver type

Reputational and markets

Primary impact driver

Exposure to sanctions and litigation

Primary impact

Change in revenue mix and sources

Description of impact

Causing a change in revenue mix and sources of supply because of reduced availability of wood and increased wood prices at our Norwegian site. The impact can be described as follows: After the Russian invasion of Ukraine in February 2022, sanctions towards Russia was introduced. These sanctions led to no import of Russian and Belarus wood and wood products to Europe. Causing a reduction of 10 million cubic metres in the supply of pulpwood to the European market. And a reduction of 15 mill cubic metres in supply of energy wood and three million tons of pellets for European heating plants. This change in the market made export of wood and wood related products from Norway more profitable, causing increased export and reduced the available domestic supply, with accompanying price increases. The total financial impact for Borregaard is estimated to NOK 70 million in 2022.

Primary response

Engagement with suppliers

Total financial impact

70000000

Description of response

Following exposure to sanctions and litigations we experienced a financial impact of NOK 70 million in 2022. This figure is derived from an increase of NOK 140 per solid cubic metres of wood in the second half of 2022. (NOK 140 x 500 000 solid m3 = NOK 70 mill). Our response strategy to address the impact of reduced availability and increased prices following the exposure to sanctions and litigations was to engage with our suppliers. Working closely with suppliers to secure the required supply of wood. We mitigated the impact by increasing the supply area for wood. We extended existing agreements. And we initiated actions to increase storage capacity on site.

More into details we have:

- Started to source Wood from Agder County by vessel
- Stated to source wood from "Hauersester" with rail
- Increased our volumes on shorter transport distance and
- Increased our pulpwood volumes from Sweden

All these actions are taken to secure our supplies.

F1.7

(F1.7) Indicate whether you have assessed the deforestation or conversion footprint for your disclosed commodities over the past 5 years, or since a specified cutoff date, and provide details.

Forest risk commodity

Timber products

Have you monitored or estimated your deforestation/conversion footprint?

Yes, we monitor deforestation/conversion footprint in our supply chain

Coverage

Full consumption volume

Reporting deforestation/conversion since a specified cutoff date or during the last five years?

Since a specified cutoff date, please specify year (2019)

Known or estimated deforestation/ conversion footprint (hectares)

0

Describe methods and data sources used to monitor or estimate deforestation/ conversion footprint

All our purchased wood is from FSC Controlled Wood sources and 99% of the purchased wood is also certified in accordance with PEFC.

We also use the following data sources to monitor deforestation/conversion footprint:

- Kilden (The Source NIBIO Norway)
- Narin (Biofokus map Norway)
- Global forest watch

We do this monitoring every month .

In addition we have a due dilligence system for our wood procurement that is verified by our auditor WSP GLOBAL INC (Orbicon in cooperation with Soil Association Certification Ltd.)

This system is based on the Norwegian forest trade system where the following information is collected:

- Country of harvest, and sub-national region
 - Trade Name and type of product
 - Tree species
 - All suppliers within the supply chain
 - Forest management unit of the supply origin
 - Harvesting coordinates (Pick up point truck) to all supplies from Norway
-

F2. Procedures

F2.1

(F2.1) Does your organization undertake a forests-related risk assessment?

Yes, forests-related risks are assessed

F2.1a

(F2.1a) Select the options that best describe your procedures for identifying and assessing forests-related risks.

Timber products

Value chain stage

- Supply chain
- Other parts of the value chain

Coverage

- Full

Risk assessment procedure

- Assessed as part of an established enterprise risk management framework

Frequency of assessment

- More than once a year

How far into the future are risks considered?

- > 6 years

Tools and methods used

- Internal company methods
- National specific tools and databases

Issues considered

- Availability of forest risk commodities
- Quality of forests risk commodities
- Impact of activity on the status of ecosystems and habitats
- Regulation
- Climate change
- Impact on water security
- Tariffs or price increases
- Loss of markets
- Leakage markets
- Brand damage related to forests risk commodities
- Corruption
- Social impacts

Stakeholders considered

- Customers
- Employees
- Investors
- Local communities
- NGOs
- Other forest risk commodity users/producers at a local level
- Regulators
- Suppliers

Please explain

Internal company method:

We use an internal tool, which is in accordance with ISO 31000.

The forest related risk that we consider to be the most significant: Availability of forest risk commodities is assessed by the use of this tool. This risk is significant because wood is our main raw material.

We use the tool to assess the risks on the availability of wood related to NGO's, regulator, and suppliers, which are considered the most significant stakeholders. We do these assessments every second month. And we assess the risks for current year, 1-3 years and more than 3 years.

How do we use this tool? We have used this tool to assess and map forest related risks based on

- Inherent risk,
- Current risk and
- Future risk levels.

We decide if the risk consequence and probability as high, medium, or low.

We decide the risk trend to be decreasing, neutral or increasing.

Consequence is defined as follows:

- Low = 0-5 mill NOK,
- Medium=5-25 mill NOK
- High= Above 25 mill NOK.

Consequence limits are defined by the board of directors.

Probability is defined as

- Low = less than each 10 year,
- Medium = between one and ten years
- High = each year.

We have chosen this tool because it is a structured way to identify, understand and address significant forest related risks that may impact our company, such as climate changes, regulations, impact on ecosystems and habitats, And because it is the standard tool that the company use for all risk assessments. This way we ensure that forest related risks are embedded in the company risk structure and decision-making process.

National specific tools and databases:

We also use national specific tools and databases such as, the Source, Narin, FSC National Risk Assessment of Norway (NRA), SSB, FSC and PEFC certificated suppliers database, ILO regional reports, IPCC climate report.

As an example, we use the Source, Narin and NRA to assess the

-Impact of activity on the status of ecosystem and habitats.

We have chosen them because they enable us to establish and monitor supply areas of low risk

We monthly assess the interactive maps to decide the current risk level and the impact of ecosystems and habitats in the various supply areas. And based on the assessment we make decisions to procure or not procure from this area, as well as our engagement with the stakeholders of the respective areas.

F2.2

(F2.2) For each of your disclosed commodity(ies), has your organization mapped its value chains?

| | Value chain mapping | Primary reason for not mapping your value chain | Explain why your organization does not map its value chain and outline any plans to introduce it |
|-----------------|--|---|--|
| Timber products | Yes, we have mapped the entire value chain | <Not Applicable> | <Not Applicable> |
| Palm oil | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Cattle products | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Soy | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Rubber | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Cocoa | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Coffee | <Not Applicable> | <Not Applicable> | <Not Applicable> |

F2.2a

(F2.2a) Provide details of your organization's value chain mapping for its disclosed commodity(ies).

Forest risk commodity

Timber products

Scope of value chain mapping

Tier 1 suppliers

Tier 2 suppliers

% of total suppliers covered within selected tier(s)

100

Description of mapping process and coverage

We perform impact analysis and conducts assessment according to the Task Force on Nature-related Financial Risk (TNFD). It is grouped into four core elements of how we operate: governance, strategy, risk and impact management, and metrics and targets, and follows a risk and opportunity assessment approach (LEAP = Locating, Evaluating, Assessing and Preparing). The nature-related risks have been defined as potential threats posed to our own and the wider society's dependencies on nature and nature impacts.

We have a system in place for mapping 100% of our suppliers. The mapping is risk based, meaning that effort are directed towards the suppliers which represent the most significant risk. Our suppliers are first of all mapped as part of the onboarding process. All new suppliers must sign our Supplier Code of Conduct (SCoC) and complete a self-assessment questionnaire. We perform a risk assessment of the supplier, and based on the result of this assessment we decide on further steps. This can be requesting additional information, initiate an audit, or approving the supplier based on the information we have received. When signing the SCoC the supplier "agree to communicate the same expectations and requirements described in this SCoC to our own suppliers and business relationships". We use EcoVadis as a tool to map and monitor our suppliers and our supply chains on 21 Corporate Social Responsibility (CSR) indicators across 4 main themes, Environment, Labour and Human Rights, Ethics and Sustainable Procurement. Currently, in 2022 we conducted a mapping our entire supplier portfolio in EcoVadis. We assess our supplier portfolio annually as a part of our management review process, with the purpose of reviewing the suppliers' performance with respect to our requirements and expectations and identify risks and weaknesses. Non-critical suppliers are excluded from the evaluation. We have a given set of criteria, social and environment amongst them, and each year we have a specific topic of interest. In the evaluation we review last year's supplier audits and decide which suppliers shall be audited the following year, for which reasons and which criteria to be applied.

We have mapped the entire value chains for our wood suppliers and we have thorough information about the supply chain, and work directly together with the stakeholders. 100% of our suppliers of wood are certified in accordance with FSC® or PEFC.

Your own production and primary processing sites: attach a list of facility names and locations (optional)

Your suppliers' production and primary processing sites: attach a list of names and locations (optional)

F2.3

(F2.3) Do you use a classification system to determine risk of deforestation and/or conversion of other ecosystems for your sourcing areas, and if yes, what methodology is used, and what is the classification used for?

| Use of a classification system to determine deforestation and/or conversion risk of sourcing areas | Methodology used for classifying levels of risk | Use of risk classification | Attachment indicating risk classification for each sourcing area (optional) |
|--|---|---|---|
| 1 Yes, we use a classification system | <p>Our approach to determine the risk of deforestation and/or conversion of other ecosystems in our sourcing areas is to follow FSC® and PEFC certification schemes.</p> <p>The certification schemes have methodologies for classifying risk levels and risk categories, including a system for assessing the deforestation risk associated with specific sourcing areas and classifying each geographic area with a risk category.</p> <p>The risk categories we apply follows the FSC® or PEFC risk categories and are supply chain risk and origin, in addition to the following six:</p> <ul style="list-style-type: none"> • HCV1. Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia). • HCV2. Forest areas containing globally, regionally, or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance. • HCV3. Forest areas that are in or contain rare, threatened, or endangered ecosystems. • HCV4. Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control). • HCV5. Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health). • HCV6. Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic, or religious significance identified in cooperation with such local communities). <p>Following the FSC® and PEFC certification schemes we classify the risk levels as either "high" or "low". The criteria for "high-risk" is if harvested in area defined above (HCV 1-6) and NOT "low-risk" where "low-risk" is defined as certified.</p> | <p>We use the classification system by only purchase wood from suppliers that are certified in accordance with FSC® or PEFC. When approving a wood supplier, we request documentation that he is certified. When sourcing wood, we source from approved suppliers. Details of certification and approval are recorded in Norwegian Wood Trade System (Skogdata) and payment to a non-certified supplier is not possible in our ERP system.</p> <p>This system affects our decision making by being a sole determinant for our sourcing decisions. All suppliers are subject to risk assessment associated with specific sourcing areas and classifying each geographic area through the certification scheme. If not certified, we do not source from the supplier.</p> | |

F3. Risks and opportunities

F3.1

(F3.1) Have you identified any inherent forests-related risks with the potential to have a substantive financial or strategic impact on your business?

| | Risk identified? |
|-----------------|------------------|
| Timber products | Yes |
| Palm oil | <Not Applicable> |
| Cattle products | <Not Applicable> |
| Soy | <Not Applicable> |
| Other - Rubber | <Not Applicable> |
| Other - Cocoa | <Not Applicable> |
| Other - Coffee | <Not Applicable> |

F3.1a

(F3.1a) How does your organization define substantive financial or strategic impact on your business?

The Substantive financial impact definitions for Borregaard Group:

EBITDA is defined by Borregaard as operating profit before depreciation, amortization and other income and expenses.

In 2022 EBITDA was 1.643 mill NOK and in 2021 1,372 mill NOK.

The financial impact is defined as substantial within a short-term (3-years) period in our risk management process for the following quantifiable indicators

Low EBITDA effect: 0-25 mill NOK

Medium EBITDA effect: 25-50 mill NOK

High EBITDA effect: > 50 mill NOK

The probability is also considered.

Low probability: 0-50%

Medium probability: 50-75%

High probability: 75-100%

The combination of high and medium probability with high EBITDA and the combination of high probability with medium EBITDA is defined as the substantive financial impact.

In 2022 a loss in EBITDA of 50 mill, would have reduced the EBITDA margin by 0.7%-points from 23.9% to 23,2 %.

A 0.7%-points drop (or increase) in Borregaard's total EBITDA margin from a single indicator is, in the company's opinion, a substantive financial or strategic impact, because this level would probably have influenced our stock price. Borregaard's different business units are closely linked together as they mainly are different parts of the large integrated biorefinery in Norway. As a consequence, it makes sense for Borregaard, as well as for shareholders and customers, to primarily consider the size of the impact on the totality instead of the different business units.

The definition is valid for impacts in the whole value chain that the Borregaard Group operates in. In a medium-term (until 2030) and long-term (until 2050) perspective, impacts considered as a substantive financial impact could be higher than the range used for short-term. Risk reducing activities will be taken to reduce the future negative impact, according to the Groups risk management system.

When the financial impact is used in the risk management process information of the probability of occurrence is also considered.

F3.1b

(F3.1b) For your disclosed forest risk commodity(ies), provide details of risks identified with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Forest risk commodity

Timber products

Type of risk

Reputational and markets

Geographical scale

Country

Where in your value chain does the risk driver occur?

Supply chain

Primary risk driver

Shifts in consumer preference

There is a limited amount of wood available for new businesses. Today approx. 11 million fm³ wood are logged as saw logs and pulpwood in Norway. Of this volume, approx. 2.3 million fm³ ends up as sawn wood, approx. 5 million fm³ is used as raw material for industrial processes and energy production in Norway and approx. 3.6 million fm³ are exported, mainly to Sweden. At the same time, predictions from the "Process Industry roadmap" and various new industrial projects in Norway indicate an increased need of 14-20 million fm³ of raw material from the forest up to 2050. Thus, there is a significant gap between potential access of up to 5.5 million fm³ and Norwegian industrial ambitions (Ref: Process 21 Ekspertgruppe rapport, Biobasert prosessindustri, 2020). Borregaard has increased its value creation in NOK pr solid cubic meter wood from NOK 800 pr solid cubic meter in 2014 to NOK 1200 pr solid cubic meter in 2020. LULUCF can limit the harvesting volumes in Norway from 2023.

Primary potential impact

Increased operating costs

Company-specific description

The market for wood based products is increasing in connection with transition to a more bio-based society, because of the positive impact on reduction in climate gas emissions. Borregaard source wood from the Nordic Region, and there are several new initiatives from other business that will produce biofuel or biobased products from the same raw material. There is a limited amount of wood available in Norway for new business in the markets where Borregaard sources wood from. Increased capacity in the biobased industry and restriction in harvesting activities will put pressure on the prices for biomass in our supply area, hence the cost of the raw material will increase. The market is not in balance because of the Russian war in the Ukraine, and further new investments in biobased industry (such as KEMI Metsä, Kemijärvi Boreal Bioref and Paltamo kaicell) it will be a lack of wood. In addition, the change in physical climate condition to milder winters will give more challenging harvesting and supply conditions, and may result in less wood supplies or increased cost for wood in the Nordic region. Furthermore, it is expected that the requirements linked to the management of the forests and harvesting operations will be stricter to secure biodiversity and ecological standards, thus Borregaard buy certified wood accordance to PEFC/FSC®, 98% of the wood purchased in 2022 was certified. The rest of the purchased wood was controlled wood in accordance with FSC® CW.

Timeframe

4-6 years

Magnitude of potential impact

High

Likelihood

Very likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

50000000

Potential financial impact figure - maximum (currency)

200000000

Explanation of financial impact

If the demand for wood increases the operating cost of wood will increase due to the limited amount of wood that is available for harvesting. The financial impact is calculated from an increased demand wood of 20-25 mill m³ in the Nordic sourcing area, this represent an increase in demand of approx. 15% within the sourcing area, and more than the annual increment. Borregaard follows the development in wood prices closely, <https://woodprices.com/wood-resource-quarterly/>. This is used as tool to calculate how much it is likely that the direct costs of wood will increase when the demand increase or decrease. Historically in the period 2011 to 2016, it was a price drop of NOK 250 pr m³ of wood, due to reduced demand, opposite in the period 2017 to 2020 it was a price increase due to increased demand of NOK 150 pr solid m³ wood. This shows that the prices can vary a lot within the range of NOK +/-250. Based on this we assume if the demand increases as described in our case, the prices can increase between NOK 50 and NOK 200 pr m³. With a consumption of 1 mill m³ the financial impact will give an increase in cost between 50 – 200 mill NOK. We assume the upper range is a maximum, because several pulp and paper companies will not be profitable if the price increase is higher. Borregaard uses 1,000,000 m³ ea. year. The minimum potential financial impact is 1,000,000 m³ x NOK 50 = NOK 50 mill. The maximum potential financial impact is 1,000,000 m³ X NOK 200 = NOK 200 mill.

Primary response to risk

Engagement with suppliers

Description of response

Borregaard's response for mitigating the risk of increased cost of biomass/wood, is to have many different suppliers and alternatives for logistics and to source the wood from forests that are certified and managed in a sustainable and eco-friendly manner.

- Borregaard has established a policy to buy certified wood accordance to PEFC/FSC, which mean a yearly verification process from external auditor.
- To secure the supply of wood, Borregaard has long term contracts, more than 3 years.
- Borregaard work with development of better and new supply channels for wood in the Nordic market including the Baltic region.
- Flexible wood transport to the site in Sarpsborg, by truck, railway and boat, gives no restrictions in supply.
- Frame conditions for transport in Norway and engagement with policymakers for prioritisation of investment in infrastructure for transport.
- Borregaard is more flexible than other players in the wood processing industry when it comes to quality/freshness requirements of wood. A substantial part of the spruce can be old/dry and is not well suited for other wood processing Long-term activities to reduce risk for higher competition for biomass: Borregaard R&D has developed the patented BALI concept as a long-term/medium-term option for additional raw material supply, allowing the extraction of lignin based products from various bio masses, including agricultural waste. This may give a higher flexibility for raw material sources in the future.

Cost of response

1200000

Explanation of cost of response

The position as Director Wood sourcing, responsible for risk response activities above, one extra manning, one FTE. 1 FTE = NOK 1,05 mill. Cost of wood certification (PEFC/FCS) =NOK 0,15 mill R&D cost for BALI related activities = NOK 0 mill Total Cost: 1,05 + 0,15 + 0 = NOK 1,2 mill

(F3.2) Have you identified any forests-related opportunities with the potential to have a substantive financial or strategic impact on your business?

| | Have you identified opportunities? |
|-----------------|------------------------------------|
| Timber products | Yes |
| Palm oil | <Not Applicable> |
| Cattle products | <Not Applicable> |
| Soy | <Not Applicable> |
| Other - Rubber | <Not Applicable> |
| Other - Cocoa | <Not Applicable> |
| Other - Coffee | <Not Applicable> |

F3.2a**(F3.2a) For your selected forest risk commodity(ies), provide details of the identified opportunities with the potential to have a substantive financial or strategic impact on your business.****Forest risk commodity**

Timber products

Type of opportunity

Products & services

Where in your value chain does the opportunity occur?

Direct operation

Primary forests-related opportunity

Increased sales of existing products/services

Company-specific description

Borregaard has produced vanillin from wood since 1962 in its biorefinery in Sarpsborg, and are the only producer of wood-based vanillin in the world. The product has historically sold at a price close to synthetic vanillin. During the last few years, the price and demand has increased substantially, in line with the change in customers preferences for natural and sustainable raw materials. The unique selling points for vanillin is now focused around three key factors:

1. Natural raw material, the vanillin from Borregaard in Sarpsborg is made from certified wood (Norway spruce), PEFC and FSC .
2. Biovanillin from Borregaard in Sarpsborg is documented as sustainable. A Life cycle analysis has been conducted for vanillin produced at Borregaard and is documenting 90% lower CO2 footprint compared to oil-based vanillin, shown in its published environmental product data sheet (EPD) .
3. Unique flavour, the product has subtle but important flavour differences versus other types of vanillin.

"Clean label" is a trend that has been driving the food market in recent years - consumer wants to buy food with natural and sustainable raw materials, presented on the ingredients label in a way that is easy understandable. Food producers and their suppliers, like the flavour and fragrance industry are therefore working to eliminate synthetic ingredients made from oil and replace it with renewable bio-based alternatives. 90% of the global production of the vanilla flavour (vanillin) is synthetic, made from mineral oil. The consumer would prefer to have natural vanilla flavour from the vanilla bean, but this only accounts for less than 0,5% of the global production of vanillin. To significantly increase the production of vanilla beans has proven to be extremely difficult and is not likely to happen in the foreseeable future. The second-best alternative to vanilla beans is vanillin made from natural and sustainable raw materials like wood, rice or other plants.

With the positive trend as outlined above, the board of directors decided in mid 2019 to expand the capacity of wood-based vanillin with 250 metric tonnes up to a total capacity of 1500 metric tonnes/year at the site in Sarpsborg, Norway. Total investment was NOK 130 mill and the project was completed in 2022. The production went up 6% from 2021 to 2022.

Estimated timeframe for realization

1-3 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

20000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The figure is calculated based on these assumptions:

1. The 250 metric tonnes increased production volume will be phased into the market gradually, in line with actual increased demand from existing and new customers.
2. The relevant global market segment was estimated to be around 2300 metric tonnes in 2021.
3. We expect the demand in this market segment to grow with 5% pr year on average from 2021 to 2025. This will give a total demand increase of around 500 metric tonnes by 2025.
4. As the major player in this segment, Borregaard expects to get around 50% of the 500 MT demand increase, i.e. the increased demand will absorb the 250 metric tonnes capacity increase by 2025
5. Contribution margin pr kg is expected to be around 90 NOK
6. We expect fixed costs to increase with around NOK 3 mill pr year

Calculation of the potential financial impact figure:

1. Increase is contribution margin: 90 NOK/kg x 250 metric tonnes = NOK 23 mill
2. Increased fixed costs: NOK 3 mill
3. Net financial impact with effect from 2025: NOK 23 mill – NOK 3 mill = NOK 20 mill

Cost to realize opportunity

14200000

Strategy to realize opportunity

The market opportunity described above, triggered the following actions to realize the project and this opportunity:

1. Preparation of the business case and investment proposal for the capacity expansion of 250 metric tonnes biovanillin.
2. Approval of the investments by the board of directors (mid 2019)
3. Executing the capacity expansion. The key to realize this 250 metric tonnes vanillin opportunity is to remove some critical bottlenecks in production of biobased vanillin. This includes putting up a new line for crystallization (duplicating the existing one), introducing more buffer tanks, installing a new packaging line and improve the handling and capacity of side products and effluents.
4. Completion of the capacity expansion by end 2022
5. Gradually phase in the new capacity to the market from 2021 to 2025

Case study example:

By the end of 2022, the project was broadly on track on cost, time, and performance. However, total investment is estimated to be around 10% above budget, due to a slight change in scope. Production increased to 1429 metric tonnes in 2022, 5% short of the project target of 1500 metric tonnes and up from 1348 in 2021. In 2021 the sales volume for Biovanillin increased by more than 200 metric tonnes, well above our expectations. This was mainly due to a temporary vanillin shortage, expected to normalize during 2022. In 2022 many customers were overstocked and the whole market was affected by the subsequent de-stocking situation combined with the fear of recession. Still, sales volume in 2022 came in at 1238 metric tonnes, a modest 5% decrease from previous year. A general high capacity increase during 2022 has negatively affected the pricing in the market and we expect prices to continue to be lower in the years to come. However, since we have used quite conservative price assumptions in the case study, we don't see any need of revising the financial numbers.

The calculation of the cost to realize this opportunity consists of the following main components and assumptions:

1. Investments to remove bottlenecks: NOK 130 mill.
2. Fixed cost increase from 2021 to 2024: NOK 3 mill pr year x 4 years = NOK 12 mill

Cost to realise the opportunity:

Total costs: NOK 130 mill (Investment to remove bottleneck) + NOK 12 mill (Fixed cost increase from 2021 to 2024) = NOK 142 mill

F4. Governance

F4.1

(F4.1) Is there board-level oversight of forests-related issues within your organization?

Yes

F4.1a

(F4.1a) Identify the position(s) of the individual(s) (do not include any names) on the board with responsibility for forests-related issues.

| Position of individual or committee | Responsibilities for forest-related issues |
|-------------------------------------|---|
| Chief Procurement Officer (CPO) | <p>The CPO (Senior vice president Strategic sourcing) is responsible for forest-related issues for Borregaard. The rationale behind is that the Borregaard's business model is based on using natural, sustainable Norway-spruce wood raw materials. And the CPO is responsible for the procurement and supplies of this forest raw-material for the biorefinery in Sarpsborg; the strategy and the operational aspect, as well as risk management.</p> <p>The CPO is member of the Sustainability Board and the Group Executive Management, and reports to the CEO.</p> <p>A forest-related decision made by the CPO in 2020 was to include Borregaard's sustainable goals and objectives in all contracts for wood raw material. Another was to increase the target for certified wood raw -material in accordance with PEFC/FSC from 98% to 100%. A 2022 decision was to increase the capacity for log storage at site with 30,000 solid m3 to ensure security of supplies in changing and uncertain conditions.</p> |
| Director on board | <p>The Board of Directors is responsible for the decision of the overall forest-related goals at Borregaard in the yearly strategical processes. The Board of Directors considers forest-related issues when reviewing and guiding strategy, risk management policies, annual budgets, and business plans, as well as setting Borregaard's performance objectives.</p> <p>A forest-related decision of the Board of Directors was to support the strategic initiative to increase the capacity for log storage at site with 30,000 solid m3 to ensure security of supplies.</p> |

F4.1b

(F4.1b) Provide further details on the board’s oversight of forests-related issues.

| | Frequency that forests-related issues are a scheduled agenda item | Governance mechanisms into which forests-related issues are integrated | Please explain |
|-------|---|---|--|
| Row 1 | Scheduled - all meetings | Monitoring implementation and performance Monitoring progress towards corporate targets Overseeing acquisitions, mergers, and divestitures Overseeing major capital expenditures Overseeing the setting of corporate targets Overseeing value chain engagement Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding public policy engagement Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing innovation / R&D priorities Setting performance objectives | All these governance mechanisms are essential for the board to understand the complexity and to decide the strategy of the Borregaard group related to wood raw material sourcing and utilization as one of the main costs and enabler for our business model. The reason is that Group’s business model is closely linked to the integrated nature of its biorefinery in Norway, which utilises the three key components of wood – cellulose fibres, lignin and sugars – to produce a diversified portfolio of products. The Board will ensure that the Company complies with the requirements of the Accounting Act and the Code of Practice. The principles of good corporate governance are integrated into the Board’s decision-making process, and the Board will continually discuss and evaluate the principles and their implementation. The Borregaard Group will contribute to the sustainable development of society through responsible commercial operations and continuous improvement. The Group has ethical guidelines and guidelines for corporate responsibility available at www.borregaard.com. The Sustainability and Corporate Responsibility is described in our Annual sustainability report and gives an account of Borregaard’s systematic work in areas important for stakeholders such as employees, business partners and the community. The Board evaluates the objectives, strategies and risk profiles related to wood in all meetings. |

F4.1d

(F4.1d) Does your organization have at least one board member with competence on forests-related issues?

Row 1

Board member(s) have competence on forests-related issues

Yes

Criteria used to assess competence on forests-related issues

We have board members that we consider having competence on forest-related issues. When we are assessing the competencies of board members in relation to climate/forest/water, we evaluate their relevant education and also their careers experience and expertise. We are assessing the competencies case by case, but the overall criteria we are setting for our board representatives are based on their competence in the relevant fields (climate, forest and water) based on their past and present responsibilities and engagement in similar activities in other companies.

For example, our chairman of the board has climate/forest/water competencies based on the professional experience and the roles in similar companies. This person is the CEO of a company focusing on biocarbon storage. Our chairman of the board has, among other, been responsible for climate-related initiatives within energy (‘ENØK’), greenhouse gas reduction initiatives and clean processes, and also products, including the importance of how our operations impact water and forests.

Primary reason for no board-level competence on forests-related issues

<Not Applicable>

Explain why your organization does not have at least one board member with competence on forests-related issues and any plans to address board-level competence in the future

<Not Applicable>

F4.2

(F4.2) Provide the highest management-level position(s) or committee(s) with responsibility for forests-related issues (do not include the names of individuals).

| Name of the position(s) and/or committee(s) | Forests-related responsibilities of this position | Frequency of reporting to the board on forests-related issues | Please explain |
|---|--|---|---|
| Chief Procurement Officer (CPO) | Managing annual budgets relating to the implementation of forest-related policies and commitments Managing major capital and/or operational expenditures, related to low-impact forest products or services (including R&D) Managing forests-related acquisitions, mergers, and divestitures Providing forests-related employee incentives Integrating forests-related issues into business strategy Setting forests-related corporate targets Monitoring progress against forests-related corporate targets Managing public policy engagement that may impact forests Managing value chain engagement on forests-related issues Assessing forests-related risks and opportunities Managing forests-related risks and opportunities Assessing future trends in forest risk commodity demand | More frequently than quarterly | Wood is our primary raw material, and the basis for our business. The supply of wood and securing the long-term availability of certified wood are essential to the company. Consequently, the responsibility for this is placed at the highest level in our organisation. The following forests related issues are reported to the board: Price and availability of certified wood. The SVP Strategic Sourcing is the Chief Procurement Officer (CPO). The CPO is part of the Top Management and reports directly to the Chief Executive Officer (CEO). Sustainability, with securing long-term sourcing of sustainable forest raw material, is defined as strategic for Borregaard, and the CPO is member of the our Sustainability Board. The CPO is responsible for sourcing in general and wood sourcing in particular. This covers the responsibility for establishing policies and procedures and securing that they are followed by the organisation. The CPO is responsible for the supply of wood, the wood sourcing strategy, risk- assessments and mitigation, sustainable sourcing of wood, continuous improvement of wood sourcing and logistics and price and cost control for wood raw material. In the monthly meetings of the board of directors, forest related risk and opportunities are assessed and decisions made. A deep-dive into the sourcing of wood is done twice a year by the board of directors. The following is then addressed: Price, Supply and demand, Strategy, Risk, Sustainability and Continuous improvement. |

F4.3

(F4.3) Do you provide incentives to C-suite employees or board members for the management of forests-related issues?

| | Provide incentives for management of forests-related issues | Comment |
|-------|---|---|
| Row 1 | Yes | The members of The Group Executive Management, the Top Management, in addition to a number of leading employees, attend bonus programs, as published in the company's annual report. The bonus elements are linked to the goals of the company and to personal targets. Each member of Top Management has sustainability target as such personal target. The company has a share option program with approx. 30 participants every year. Options can be allocated to leading employees who have achieved good results and where the company wants to make a long-term commitment with the employee. Sustainable raw material performance is one of the criteria for nominating employees for the program. |

F4.3a

(F4.3a) What incentives are provided to C-Suite employees or board members for the management of forests-related issues (do not include the names of individuals)?

| | Role(s) entitled to incentive? | Performance indicator | Contribution of incentives to the achievement of your organization's forests-related commitments | Please explain |
|---------------------|--|--|--|--|
| Monetary reward | Chief Purchasing Officer (CPO) | Ending deforestation and/or conversion of other natural ecosystems Company performance against a sustainability index with forest-related factors (e.g., CDP Forests Score) | <p>Link: Commitments to buy 100% certified wood (FSC or PEFC) and securing availability of 100% certified raw material. Activities for ending deforestation and/or conversion of other natural ecosystems is a prerequisite for a supplier being certified i.a.w. PEFC and/or FSC® standards.</p> <p>Rationale for incentive and choice of indicator: CPO is responsible for wood supplies and have direct impact on achieving targets. Performance indicator is measured through the share of certified wood that is supplied.</p> <p>Impact: Maintained focus on 100% certified wood to the biorefinery in Sarpsborg certified. Result in 2022: 98% certified, 2% controlled i.a.w. PEFC and/or FSC® standards.</p> <p>Link: CDP Forest Score A linked to our forests-related commitments through our business model: Providing sustainable solutions based on renewable raw materials. With forest management carried out in a responsible and sustainable manner. On CDP Forest we disclose how we source and use the forest risk commodity timber. Our score gives a snapshot of our performance.</p> <p>Rationale for incentive and the choice of indicator: The direct link between CPO's performance and the achieved CDP score. Top score requires top performance. As requirements sharpens, so must the performance. The incentive has impacted our organization by continuous focus and improved performance. Going from score B to A and keeping the A .</p> <p>Future benefits: Documentation of our performance to our customers and transparency in the value chain.</p> | <p>CPO is member of det Group Executive Management and part of the company's bonus scheme with a monetary reward in terms of a salary bonus if given commitments and targets are achieved. The max gain is 50% of annual salary. The bonus criteria are based on financial performance, Health and safety performance (max 7.5%) and personal goals with mandatory targets within sustainability/ESG (0-10%). It is measured at the yearly performance review in which the agreed goal and objectives are addressed. The thresholds for success are: Outstanding performance: Expected bonus level 7-10%, Good Performance - targets achieved: 4-6% and Low performance - targets not achieved: 0+3%. Calculated as % on base salary.</p> <p>The details of the indicators are that the CPO receives a monetary award based if a) the achievement of given ratings in sustainability reporting, i.e CDP Forest and b) the supply of wood is from certified suppliers. And a prerequisite for being certified is activities ending deforestation and/or conversion of other natural ecosystems. As Borregaard's core value is: "We deliver sustainable solutions based on renewable resources and unique expertise" and wood is the major renewable resource, there is a direct link between the CPO's individual achievements with respect to wood supply and the company's forests-related goals. In order to provide sustainable solutions based on renewable resources , the CPO has to procure sustainable wood in a sustainable matter.</p> |
| Non-monetary reward | No one is entitled to these incentives | <Not Applicable> | <Not Applicable> | Non-monetary rewards for C-Suite employees or board members are not part of our company culture or policies and consequently not given for the management of forests-related issues either. |

F4.4

(F4.4) Did your organization include information about its response to forests-related risks in its most recent mainstream financial report?

Yes (you may attach the report – this is optional)

F4.5

(F4.5) Does your organization have a policy that includes forests-related issues?

Yes, we have a documented forests policy that is publicly available

F4.5a

(F4.5a) Select the options to describe the scope and content of your policy.

Row 1

Scope

Company-wide

Commodity coverage

Timber products

Content

- Commitment to eliminate conversion of natural ecosystems
- Commitment to no land clearance by burning or clearcutting
- Commitment to eliminate deforestation
- Commitment to remediation, restoration and/or compensation of past harms
- Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities
- Adoption of the UN International Labour Organization principles
- Commitment to best management practices for soils and peat
- Commitment to take action beyond own supply chain to tackle environmental issues
- Commitment to resolving both social and environmental issues in own operations and supply chain
- Commitments beyond regulatory compliance
- Commitment to transparency
- Commitment to stakeholder awareness and engagement
- Commitment to align with the SDGs
- Recognition of the overall importance of forests and other natural ecosystems
- Description of business dependency on forests
- Recognition of potential business impact on forests and other natural ecosystems
- Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy
- List of timebound milestones and targets
- Description of forests-related performance standards for direct operations
- Description of forests-related standards for procurement

Document attachment

Wood and fiber sourcing_BRG.docx

Please explain

Borregaard has a specific sustainability policy for wood, "Renewable raw material – Borregaard" because our business model is closely linked to dependency on forests. Consequently we support sustainable forest management and promote forest certification on all land used to supply us with wood, so as protect, verify and communicate a wide range of economic, social and environmental values.

The policy is reviewed and updated yearly by a cross functional team.

Our policy includes all the listed options because we regard them all as valid for us as a buyer of wood as we are only sourcing from PEFC certified suppliers and 100% of our wood is FSC Controlled Wood.

The policy covers potential business impact on forests and other natural habitats and forest risk commodities as part of our business, in all stages of the value-chain. Together with Borregaard Supplier Code of Conduct and our commitments and policies related to procurement, this policy provides instructions to our purchasers on how to source wood.

All wood shall be sourced in accordance with international principles of sustainable development and applicable requirements.

Our ambition is to set a science based target for Nature (SBTN). Because of Borregaard's nature-dependency on wood, forest-related issues will be considered throughout the lifespan of the company see TNFD report on https://www.borregaard.com/media/hlelu0z/tnfd-report_2022_final-version.pdf

Details on mechanisms used to implement the policy and commitments:

- We have a target to source 100% certified wood to our Sarpsborg mill in 2023 and in 2022 we purchased 98% certified wood for our Sarpsborg mill.
- We have a long term target of become a chain of custody certification for all our mills outside Norway.
- We have 100% written agreements with all our suppliers that describe these commitments to help us to meet these commitments .

In our sustainability report we have prioritised 6 SDGs that are closely linked to Borregaard's core operations and are in line with our business strategy with respect to the sourcing of natural raw materials.

Specific targets and KPIs are defined such as SDG 12.4 Target 2022 : COD 55 tonnes/day
Result 2022: 54 tonnes/day

F4.6

(F4.6) Has your organization made a public commitment to reduce or remove deforestation and/or forest degradation from its direct operations and/or supply chain?

| Forest risk commodity | Public commitments made |
|-----------------------|-------------------------|
| Timber products | Yes |

F4.6a

(F4.6a) Has your organization endorsed any of the following initiatives as part of its public commitment to reduce or remove deforestation and/or forest degradation?

Other, please specify (Norwegian Living Forest, Forest Stewardship Council (FSC Norway))

F4.6b

(F4.6b) Provide details on your public commitment(s), including the description of specific criteria, coverage, and actions.

Forest risk commodity

Timber products

Criteria

No conversion of natural ecosystems
Zero gross deforestation/ no deforestation
Zero net deforestation
No new development on peat regardless of depth
Restoration and compensation to address past deforestation and conversion
Avoidance of negative impacts on threatened and protected species and habitats
No trade of CITES listed species
No land clearance by burning or clearcutting
No conversion of High Conservation Value areas
No conversion of High Carbon Stock forests
Collaborate in landscapes/jurisdictions to progress shared sustainable land use goals
Implementation of Nature-based Solutions that support landscape restoration and long-term protection of natural ecosystems
Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities
Operations are in accordance with the UN Declaration on the Rights of Indigenous Peoples
Promotion of gender equality and women's empowerment
Remediate any adverse impacts on indigenous people and local communities
Adoption of the UN International Labour Organization principles
Resolution of complaints and conflicts through an open, transparent and consultative process
Facilitate the inclusion of smallholders into the supply chain
Build community capacity and incentivize engagement in multi-stakeholder processes
No sourcing of illegally produced and/or traded forest risk commodities
No sourcing of forest risk commodities from unknown/controversial sources
Restricting the sourcing and/or trade of forest risk commodities to credible certified sources
Recognition of legal and customary land tenure rights

Operational coverage

Direct operations and supply chain

% of total production/ consumption covered by commitment

100%

Cutoff date

2006

Forest risk countries/areas that the cutoff date applies to

Any other countries/areas

Reason for selecting cutoff date

In line with supplier commitments

Commitment target date

2021-25

Please explain

Borregaard has publicly committed the criteria described in column criteria. Our commitments are communicated through:

- Borregaard strategy ,
- Borregaard sustainability report,
- Borregaard TNFD report 2022
- Our supplier Code of Conduct,
- Our forest certification rules and
- Our requirements, for all of our wood supplies and to all our suppliers of wood in all regions.

We take actions to secure that the commitments are being fulfilled by us, and our suppliers of wood

Borregaard has committed to:

- No conversion of Natural ecosystem, and we take action by being FSC and PEFC CoC certified. Our commitment is to sourcing 100% Controlled Wood to secure no wood sourced from conversion of HCVA , in the following sourcing areas: Viken and Innlandet county (Norway) and Västra Götaland (Sweden).
- No conversion of natural ecosystems , zero gross deforestation / no deforestation, no trade of CITES listed species. In 2022, like every year, we conducted monthly random sampling of wood. We do yearly audits of our FSC/PEFC CoC system and our FSC CW DDS to ensuring fulfilment of our commitments in this respect.

An example of actions taken in 2022 is that we checked monthly random samples in Lillehammer, Sør Fron and Gjøvik municipality in the official geoportal Source "Kilden" and the forest database Narin . The purpose was to verify that the harvesting did no harm the natural ecosystem by securing that the harvesting was in accordance with all rules and regulations to secure the biodiversity and natural ecosystem.

In 2021 we took actions towards all our pulpwood suppliers to get confirmation that no wood can come from areas where there is a conversion of natural ecosystem. In 2022 we continued to get the confirmation in our agreements with our suppliers. This requirement is made for the whole purchasing area of our wood supplies.

An example of actions regarding our commitment to "zero deforestation /no deforestation": In 2022, we extended the agreement with our main suppliers of wood in Norway about a KPI, to increase young forest care with 5% in the county of Viken and Innlandet from 2022-2024.

In 2020 Borregaard decided to increase the target for certified wood in Sarpsborg, Norway from 98% to 100% to secure no conversion of HCVA , no conversion of natural ecosystems , zero gross deforestation / no deforestation, no trade of CITES listed species.

The following are examples of actions we took in 2022 to meet our commitment "Secure Free, Prior and Informed Consent (FPIC) of indigenous people and local communities":

All our wood sourcing is covered by our FSC Controlled Due Diligence System, our PEFC Risk assessment and also covered by the EU timber regulations. We verified in that all our wood suppliers to Sarpsborg, Norway had sign our Supplier Code of Conduct in which this requirement is included.

To meet our commitment to "Restoration and compensation to address past deforestation and/or conversion" the following action where taken :

In the Supplier Development Action plans (SDA) of 2022 we have included for all our strategic wood suppliers in Norway a mutually agreed KPI of total area set off for voluntary protection in their sourcing area (Viken County).

All certified suppliers are imposed to compensate past deforestation. In 2022 we had no cases of deforestation reported by the certification scheme.

Borregaard's public commitment to PEFC and FSC CoC system restricts our sourcing and/or trade of forest risk commodities to credible certified sources, and the resolution of complaints and conflicts to be handled through an open, transparent and consultative process.

F5. Business strategy

F5.1

(F5.1) Are forests-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

| | Are forests-related issues integrated? | Long-term time horizon (years) | Please explain |
|-----------------------------------|--|--------------------------------|--|
| Long-term business objectives | Yes, forests-related issues are integrated | >30 | <p>Basically, Borregaard's existence is based on wood. Our long-term business objective is to deliver sustainable solutions based on renewable resources and unique expertise. The renewable resource is wood. Consequently forest-related issues hugely affects our long term business objectives.</p> <p>And because wood is the base of the company, forest-related issues will be considered throughout the lifespan of the company. That is why the "30 years +" horizon has been chosen for the aspect Long-term business objectives.</p> <p>Our Board of Directors emphasizes the importance of sustainability as an integral part of the our operations and development.</p> <p>As an example of integrating forests-related issues into strategic business plan is that Borregaard's ambition is to set a science based target for Nature (SBTN) see TNFD report on https://www.borregaard.com/media/hlelr0z/tnfd-report_2022_final-version.pdf</p> <p>An example of a forests-related actions we have taken, that aligns with the strategic business plan is that we have set the target that 100% of the wood we purchase shall be certified. Consequently,</p> <ul style="list-style-type: none"> - Removing or reducing deforestation and conversion of natural ecosystems from your direct operations and supply chain; and - Promoting ecosystem restoration and/or conservation in your direct operations and supply chain, <p>affects our long term strategic business plan, because the PEFC/FSC certification schemes set requirements regarding these.</p> <p>Another example of action we have taken to align forest-related issues with our long-term business objective is the objective to deliver sustainable wood based solutions to replace petroleum-based products,. This supports the</p> <ul style="list-style-type: none"> - Increasing the sustainable production and/or consumption of forest risk commodities, and make this affect our long-term business plan. <p>These plans applies for all our products.</p> |
| Strategy for long-term objectives | Yes, forests-related issues are integrated | >30 | <p>Basically, our existence is based on wood. Consequently forest-related issues hugely affects our strategy for the long term objectives</p> <p>Because wood is the base of our company, forest-related issues will be considered throughout our lifespan. That is why the "30 years +" horizon has been chosen for the aspect Strategy for long-term objectives.</p> <p>Our strategy is to utilise the different components of wood, to produce biopolymers, speciality cellulose, biovanillin, cellulose fibrils and bioethanol for a variety of applications, in sectors like agriculture and aquaculture, construction, pharmaceuticals and cosmetics, foodstuffs, batteries and biofuels. Our products are alternatives to petroleum-based products. And address many long-term, global challenges related to population growth, resource access and environmental and climate impacts. We pursue a consistent strategy over time, and we have a long-term perspective on innovation and investments.</p> <p>The transition to a more bio-based society as well as a growing demand for wood-based products makes our sourcing of sustainable wood raw material increasingly important. Because wood is our major renewable resource and the centre for our business model, sustainable sourcing of wood is a key element in our long-term strategic business plan. Setting securing long-term availability of wood as a set target in our strategy is an example an action of forests-related issues being integrated in our strategy for long-term objectives.</p> <p>Another key element is R&D and improvements of the manufacturing processes and facilities for wood-based products . The target to increase the value added from the unique Sarpsborg biorefinery based on sustainable wood raw-material is another example of an action of forests-related issues being integrated in our strategy for long-term objectives.</p> <p>The target to further obtain specialization and diversification within wood based BioSolutions and the target to development/sales of sustainable/ climate friendly products that can replace oil-based products is a third example of forest-related issues being integrated in the strategy for long term objectives</p> <p>Finally, development and sales of sustainable wood-based products are core factors in our long-term strategic business plan. In Borregaard all these are affected by forest-related issues.</p> <p>These plans applies for all our products.</p> |
| Financial planning | Yes, forests-related issues are integrated | >30 | <p>Basically, Borregaard's existence is based on wood. Consequently forest-related issues hugely affects our financial planning; that is outlining the actions, assets, and resources necessary to meet our objectives and strategic goals.</p> <p>Because wood is the base of the company, forest-related issues will be considered throughout the lifespan of the company. That is why the "30 years +" horizon has been chosen for the aspect Financial planning.</p> <p>In our financial planning we make long-term capital allocations to support our strategy and to enable us to meet our long term business objective. Examples are:</p> <ul style="list-style-type: none"> - Replacement investments and expansion investments to maintain and further improve our manufacturing facilities. - A high focus on continuous improvement, new use of technology, digitalisation, competence development and an efficient organisation. - A world class in-house R&D, and close co-operation between sales, manufacturing, customers; external institutes and universities in several countries. <p>Our main challenges centre around four areas:</p> <ul style="list-style-type: none"> - Reduction of GHG emissions, - Reduction of effluents of organic compounds to water, - Securing long-term sustainable sourcing of forest raw material - Successful development and sales of sustainable and climate-friendly products that can replace oil-based products. <p>As an example of how forests-related issues are integrated into our financial planning:</p> <p>During 2021 we have adjusted the organization in several areas to support strategy execution. The NOK 450 million upgrade and specialization of the production facilities for biopolymers at the Sarpsborg site included new drying capacity, tanks for storage of liquid materials and improved solutions for logistics, infrastructure and energy. This investment will enable further specialization on the unique raw material base and will over time further reduce our exposure to cyclical market segments. In addition, the increased drying capacity at the Sarpsborg site reduces the need for drying products at other production sites.</p> <p>As a consequence, the operations in Germany have been restructured to reflect future needs. This optimization of the operations in Norway and Germany is targeted to deliver cost reductions of NOK 60 million from 2021.</p> |

F6. Implementation

F6.1

(F6.1) Did you have any forests-related timebound and quantifiable targets that were active during the reporting year?

Yes

F6.1a

(F6.1a) Provide details of your forests-related timebound and quantifiable target(s) and progress made.

Target reference number

Target 1

Forest risk commodity

Timber products

Year target was set

2018

Target coverage

Company-wide

Target category

Third-party certification

Metric

% of volume third-party certified

Traceability point

<Not Applicable>

Third-party certification scheme

FSC Chain of Custody

FSC Controlled Wood

PEFC Chain of Custody

Base year

2018

Base year figure

0

Target year

2023

Target year figure

100

Reporting year figure

98

% of target achieved relative to base year [auto-calculated]

98

Target status in reporting year

Underway

Is this target linked to a commitment?

Zero net/gross deforestation

Please explain

Wood is an essential raw material for Borregaard as our business model is based on utilisation of all compounds of the wood.

Wood is one of the few renewable raw materials that can be produced in large quantities, however there is not unlimited availability of this raw material. Forestry and harvesting of trees also impact nature. Forests are important from a climate perspective and for biodiversity as a home for a variety of important species. It is important that forest resources are used in an optimal way and that forest management is carried out in a responsible and sustainable manner.

Because of this Borregaard Sarpsborg has a target that all wood supplied shall be 100% certified by 2023. This means that 100% of all wood shall be sourced from certified forests by 2023. Most forests are double certified so Borregaard have no separate targets for FSC® or PEFC certification, but a common target for both certification scheme.

Target reference number

Target 2

Forest risk commodity

Timber products

Year target was set

2020

Target coverage

Company-wide

Target category

Engagement with direct suppliers

Metric

% of direct suppliers engaged

Traceability point

<Not Applicable>

Third-party certification scheme

<Not Applicable>

Base year

2020

Base year figure

0

Target year

2023

Target year figure

100

Reporting year figure

90

% of target achieved relative to base year [auto-calculated]

90

Target status in reporting year

Underway

Is this target linked to a commitment?

No conversion of natural ecosystems

Please explain

This target has been chosen because our most effective way too improve is to engage with suppliers, request documentation of actual progress and include relevant criteria for performance. We have chosen direct suppliers because we have the largest impact on these. We have set the target to 100% because we would like to reach out to all of them, non critical suppliers excluded. This target is important to us, and are managed on corporate level, because suppliers are important stakeholders to Borregaard, and may represent a huge risk as well as great opportunities.

In 2022 we continued our supplier engagement campaign, consisting of 1) Sharpening our requirements further on how we evaluate the responses in the RFQs. 2) Establishment of an E-learning tool. The first module "Training & Capacity Building for Suppliers" covers our sustainability approach and our expectations to our suppliers, emphasizing the need for cooperation and transparency in the value chain. 3) Implemented EcoVadis as a tool to assess, monitor and drive change in our supply chain. In addition to enable us to share our own performance within the topics Environment, Labor and Human Rights, Sustainable Procurement and Ethics. EcoVadis enables us to manage and drive improvements amongst our own suppliers, by identifying Corrective action plans (CAP). The supplier engagement campaign will be continued in 2023.

Our program Supplier Development Actions (SDA) continues and we shall have a mutually agreed SDA plan with all our wood suppliers by 2023 (100%).

The SDAs include the following initiatives on how we shall work together to:

Reduce Risk and secure compliance (Example: How to secure deliveries of certified wood)

Secure correct quality of our wood raw material (Example: No contamination of woodchips at the sawmill)

Increased Service (Example :Less time spent on planning by digitalizing)

Reduce Cost (Example: Use of railway when possible)

Increased innovation (Example: Cooperation regarding new measuring methods)

Secure sustainability (social, climate and biodiversity) (Example Agreed less transportation distance for pulplogs from suppliers)

F6.2

(F6.2) Do you have traceability system(s) in place to track and monitor the origin of your disclosed commodity(ies)?

| | Do you have system(s) in place? | Supply chain coverage | Description of traceability system | Exclusions | Description of exclusion |
|-----------------|---------------------------------|---|--|---------------------------|--|
| Timber products | Yes | Volume from direct and indirect suppliers | In Norway Borregaard can track the wood from the forest to payment of the wood through the Norwegian Wood Trade System. The system tracks all activities in the supply chain, from the buying contract with forest-owner, transportation and measurement at our woodyard. As an example; at our woodyard the truckload is given a unique identification number (måledokumentnummer) when measured. This unique identification number is linked to a unique transportation order (fraktbrevnummer) that again is linked to the buying contract with the forest-owner. The system enable us to identify the biome of origin as the system provides GPS coordinates to the harvesting area. Our payments is linked to the unique identification number (måledokumentnummer) and our received volumes from each forest-owner. | Country/geographical area | The forest related supplies to our facilities in the USA are not covered by the described traceability system because this is a Norwegian system that is only implemented for Norway. In Norway 100% of our wood is covered by the system. The portion of the supplies that is not covered is 52% . This is supplies from units outside Norway, that supply lignin raw material. |
| Palm oil | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Cattle products | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Soy | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Rubber | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Cocoa | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Coffee | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |

F6.2a

(F6.2a) Provide details on the level of traceability your organization has for its disclosed commodity(ies).

| Forest risk commodity | Point to which commodity is traceable | Countries/areas to which this traceability point applies | % of total production/consumption volume traceable |
|-----------------------|---------------------------------------|--|--|
| Timber products | Municipality or equivalent | Norway Sweden | 100 |

F6.3

(F6.3) Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)?

| | Third-party certification scheme adopted? | % of total production and/or consumption volume certified |
|-----------------|---|---|
| Timber products | Yes | 98 |
| Palm oil | <Not Applicable> | <Not Applicable> |
| Cattle products | <Not Applicable> | <Not Applicable> |
| Soy | <Not Applicable> | <Not Applicable> |
| Other - Rubber | <Not Applicable> | <Not Applicable> |
| Other - Cocoa | <Not Applicable> | <Not Applicable> |
| Other - Coffee | <Not Applicable> | <Not Applicable> |

F6.3a

(F6.3a) Provide a detailed breakdown of the volume and percentage of your production and/or consumption by certification scheme.

Forest risk commodity

Timber products

Third-party certification scheme

PEFC Chain of Custody

Chain-of-custody model used

<Not Applicable>

% of total production/consumption volume certified

98

Form of commodity

Softwood logs

Sawn timber, veneer, chips

Volume of production/ consumption certified

963121

Metric for volume

Cubic meters

Is this certified by more than one scheme?

Yes

Is embedded soy certified through this scheme?

<Not Applicable>

Please explain

100% of our volume is also FSC Controlled Wood

F6.4

(F6.4) For your disclosed commodity(ies), do you have a system to control, monitor, or verify compliance with no conversion and/or no deforestation commitments?

| | A system to control, monitor or verify compliance | Comment |
|-----------------|---|------------------|
| Timber products | Yes, we have a system in place for our no conversion and/or deforestation commitments | <Not Applicable> |
| Palm oil | <Not Applicable> | <Not Applicable> |
| Cattle products | <Not Applicable> | <Not Applicable> |
| Soy | <Not Applicable> | <Not Applicable> |
| Other - Rubber | <Not Applicable> | <Not Applicable> |
| Other - Cocoa | <Not Applicable> | <Not Applicable> |
| Other - Coffee | <Not Applicable> | <Not Applicable> |

F6.4a

(F6.4a) Provide details on the system, the approaches used to monitor compliance, the quantitative progress, and the non-compliance protocols, to implement your no conversion and/or deforestation commitment(s).

Forest risk commodity

Timber products

Operational coverage

Supply chain

Description of control systems

The following are in place to assess and manage the compliance of raw-material: All the wood we purchased are traced back to the harvesting area by an electronic traceability system (Norwegian Wood Trade System). Our purchasing control system is linked to the traceability system. We have implemented FSC CoC and PEFC CoC system ensure that all our purchased wood is in accordance with PEFC and FSC requirements regarding forest management. The FSC Controlled Wood DDS make sure we are not purchasing wood from controversial sources to avoid conversion and deforestation. We use these control systems to confirm compliance or detect non-compliance with no conversion and/or no deforestation commitments. All measurement and quality of wood is done by a third party organization and enter data into the Norwegian Wood trade system. Our FSC and PEFC CoC system and FSC CW DDS is audited annually by the Danish company Orbicon. We engage all suppliers to avoid deforestation by financial incentives.

Monitoring and verification approach

Third-party verification

% of total volume in compliance

100%

% of total suppliers in compliance

100%

Response to supplier non-compliance

Retain & engage
Suspend & engage
Exclude

% of non-compliant suppliers engaged

<Not Applicable>

Procedures to address and resolve non-compliance with suppliers

Developing time-bound targets and milestones to bring suppliers back into compliance
Providing information on appropriate actions that can be taken to address non-compliance

Please explain

Third Party verification is done annually by Orbicon and in 2022 EY did, on behalf of GRI, a third party verification of our wood sourcing. A deviation is recorded and handled in the implemented deviation tool Kairos (SAP). The applied action(s) depends on the consequences in the following three categories Health and safety, Environment and Economic. We assess the type of non-compliance, the severity, the impact on our business and our possibility to impact the respective supplier before deciding the actual action(s). We mark a deviation with green (no further actions), yellow (actions to get the supplier in line with our expectations) or red colour (loss meeting with the supplier where we go through the incident in a meeting). Subject to the response on yellow or red consequences we decide further actions and state a timeframe when the corrective actions shall be closed by the supplier. In the case of severe breaches of the requirements, illegal matter or lack of progress over time, the contract will be terminated. We provide the following support help our suppliers achieve compliance: Develop time-bound targets and milestones to bring suppliers back into compliance. Provide information on appropriate actions that can be taken to address non-compliance. Assess the efficiency and efforts of non-compliant supplier actions through consistent and quantified metrics. Re-integrate suppliers back into supply chain following successful and verifiable completion of activities.

F6.7

(F6.7) Are you working with smallholders to support good agricultural practices and reduce deforestation and/or conversion of natural ecosystems?

| | Are you working with smallholders? | Type of smallholder engagement approach | Smallholder engagement approach | Number of smallholders engaged | Please explain |
|-----------------|------------------------------------|---|---|--------------------------------|---|
| Timber products | Yes, working with smallholders | Financial and commercial incentives | Financial incentives for certified products | 1200 | In Norway the market for wood can be described as a market consisting of a few large buyers and many small suppliers (smallholders). To ensure the smallholders' rights and obligations when interacting with the large buyers, the smallholders are organized in forest associations (co-operations). The main strategy of engagement with the smallholders is to engage with the forest associations. One example of supplier engagement towards the smallholders is that the requirements we set to the forest associations are communicated to the smallholders and the smallholders are given guidance and support in meeting the requirements. One impact achieved on the ground in 2022 is to have maintained a balance between the large buyers and the smallholders. We have long-term contracts with the smallholders through the co-operations for the supply of wood. These contracts include our requirements for sustainable forestry, including requirements for certified wood. The financial incentive for supplying certified wood is that the supplier will be paid more for certified wood. The forest associations, and by this the smallholders, are financially compensated when and if they supply certified wood. This compensation is agreed in the contracts with the smallholders. The reason for this engagement is to achieve our goal of 100% certified wood within 2023 for our mill in Norway. |
| Palm oil | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Cattle products | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Soy | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Rubber | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Cocoa | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Other - Coffee | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |

(F6.8) Indicate if you are working with your direct suppliers to drive action on forests-related issues and if so, provide details of the engagement.**Forest risk commodity**

Timber products

Are you working with direct suppliers?

Yes, working with direct suppliers

Action(s) on forests-related issues driven by engagement

Ending deforestation and/or conversion of other ecosystems

Type of engagement

Capacity building

Financial and commercial incentives

Innovation and collaboration

Details of engagement

Support suppliers to set their own no deforestation/conversion commitments across their entire commodity operation

Financial incentives for certified products

Long-term contracts linked to forest related commitments

Collaborate with suppliers on innovations to reduce forest-related impacts in products and services

Encourage suppliers to work collaboratively in sectors, landscapes, or jurisdictions

Description of engagement

Our supplier engagement approach is to engage with 100% of our direct suppliers of wood. We have chosen direct suppliers because we have the largest impact on these. We have set the target to 100% because we would like to reach out to all of them, non critical suppliers excluded. This target is important to us, and are managed on corporate level, because suppliers are important stakeholders to Borregaard, and may represent a huge risk as well as great opportunities.

In 2022 we continued our supplier engagement campaign, consisting of 1) Sharpening our requirements further on how we evaluate the responses in the RFQs. 2) Establishment of an E-learning tool. The first module "Training & Capacity Building for Suppliers" covers our sustainability approach and our expectations to our suppliers, emphasizing the need for cooperation and transparency in the value chain. 3) Implemented EcoVadis as a tool to assess, monitor and drive change in our supply chain. In addition to enable us to share our own performance within the topics Environment, Labor and Human Rights, Sustainable Procurement and Ethics. EcoVadis enables us to manage and drive improvements amongst our own suppliers, by identifying Corrective action plans (CAP). The supplier engagement campaign will be continued in 2023. Our Supplier Development Actions (SDA) Program in which we collaborate with our suppliers on innovations to reduce forest related impacts in products and support them to set their own no deforestation/conversion commitments contributes to build capacity among our suppliers to drive action on forests-related issues. The SDAs include the following initiatives on how we shall work together to:

- * Reduce Risk and secure compliance (Example: How to secure deliveries of certified wood)
- * Secure correct quality of our wood raw material (Example: No contamination of woodchips at the sawmill)
- * Increased Service (Example :Less time spent on planning by digitalizing)
- * Reduce Cost (Example: Use of railway when possible)
- * Increased innovation (Example: Cooperation regarding new measuring methods)
- * Secure sustainability (social, climate and biodiversity) (Example Agreed less transportation distance for pulplogs from suppliers)

Our contracts with the wood suppliers are long-term and include financial and commercial incentives to make them supply us with certified wood.

% of suppliers engaged by procurement spend covered by engagement

100

Explain the impact of your engagement on the selected action

Our engagement in ending deforestation and/or conversion of other ecosystems is through working with our suppliers. In 2022 we reached our target to engage with 100% of our direct suppliers.

Examples of how our engagement impacted in 2022:

1. Increased focus from our suppliers in providing certified wood, based on continues request for certified wood and financial benefits for supplying it
2. Making our suppliers consider disclosing on EcoVadis and by this increasing their general knowledge and environment capacity.
3. Our Supplier Development Actions (SDA) program has been mutually agreed with 100% of our wood suppliers. Consequently we have agreed on how we shall work together to:

Reduce Risk and secure compliance (Example: How to secure deliveries of certified wood)

Secure correct quality of our wood raw material (Example: No contamination of woodchips at the sawmill)

Increased Service (Example :Less time spent on planning by digitalizing)

Reduce Cost (Example: Use of railway when possible)

Increased innovation (Example: Cooperation regarding new measuring methods)

Secure sustainability (social, climate and biodiversity) (Example Agreed less transportation distance for pulplogs from suppliers)

With reference to Target 1 in F.6.1a our goal is that 100% of the wood we purchase shall be certified and consequently contribute to ending deforestation and/or conversion of other ecosystems.

In 2022 our engagement impacted that we archived 98% certified wood.

Is this engagement helping your suppliers engage with their suppliers on the selected action?

Yes

Does this engagement contribute to achieving a reported target?

Yes, please specify target ID(s) (Target 1 - Third party certification and Target 2 - Engagement with direct suppliers)

(F6.10) Do you engage in landscape (including jurisdictional) approaches to progress shared sustainable land use goals?

| | Do you engage in landscape/jurisdictional approaches? | Primary reason for not engaging in landscape and/or jurisdictional approaches | Explain why your organization does not engage in landscape/jurisdictional approaches, and describe plans to engage in the future |
|-------|---|---|--|
| Row 1 | Yes, we engage in landscape/jurisdictional approaches | <Not Applicable> | <Not Applicable> |

F6.10a

(F6.10a) Indicate the criteria you consider when prioritizing landscapes and jurisdictions for engagement in collaborative approaches to sustainable land use and provide an explanation.

| | Criteria for prioritizing landscapes/jurisdictions for engagement | Explain your process for prioritizing landscapes/jurisdictions for engagement |
|-------|---|---|
| Row 1 | <p>Response to regulation</p> <p>Risk of deforestation, forests/land degradation, or conversion of other natural ecosystems</p> <p>Risk of biodiversity loss</p> <p>Risk of human rights issues</p> | <p>Borregaard business model is based on sustainable wood raw materials, and it is important for Borregaard to increase supply of sustainable wood based on certification schemes. The certification scheme is important to reduce the risk of deforestation or conversion of other ecosystems and the risk of biodiversity loss. Our involvement with multi-partnership or stakeholders initiatives are important to achieve our goal of 100% certified wood within 2023. Borregaard is therefore an active member of PEFC and FSC through our membership in the Norwegian Pulp and Paper association (TFB), where we have two board-members including the board- leader.</p> <p>Since 2019 an NRA for Norway has been established by the FSC Working group where multi stakeholders participated. FSC Norway was established in 2022. The following stakeholders are board members in Foreningen Skogen: Norges skogeierforbund, Treindustrien, Sapmi, Norsk friluftsliv, Sabima and WWF. Our CPO is chair of the election committee of FSC® Norway</p> <p>During 2022 we have also been working on a revised PEFC standard for Norway through TFB, and should be implemented during 2023.</p> <p>Borregaard co-operate with a wide range of stakeholders relating to ecolabels and standards related to environmental issues, such as Ecovadis. Borregaard has also been a member of UN Global Compact since 2014. Our suppliers to Sarpsborg, Norway sign Supplier Code of Conduct (SCoC) where they confirm to comply with, or actively pursue compliance with: The standards given by the International Labour Organization (ILO). www.ilo.org and The Ten Principles of the UN Global Compact. through the whole supply chain.</p> <p>Borregaard see opportunities though collaboration with these stakeholders to improve its risk assessment and strategy for sourcing of wood and production at our biorafinery.</p> |

F6.10b

(F6.10b) Provide details of your engagement with landscape/jurisdictional approaches to sustainable land use during the reporting year.

Landscape/Jurisdiction ID

LJ1

Country/Area

Norway

Name of landscape or jurisdiction area

Norway

Types of partners engaged in the initiative design and implementation

National civil society organization(s)

Local forest/rural associations

Direct supplier(s)

Academics/ researchers

Type of engagement

Supporter: Implement activities to support at least one goal

Goals supported by engagement

Avoided deforestation/conversion of natural ecosystems and/or decreased degradation rate

Biodiversity protected and/or restored

Decreased ecosystem degradation rate

Respect, protect, and fulfil human rights

Increased uptake of certification

Improved and/or maintained soil health

Reliable commodity traceability and landscape monitoring/data collection system(s)

Company actions supporting approach

Collaborate on establishing and managing monitoring system(s) for deforestation, natural ecosystem conversion and/or degradation

Identify and map stakeholders (including vulnerable and/or marginalized groups) and encourage their engagement in multi-stakeholder processes

Help establish effective mechanisms for undertaking human rights due diligence, risk management, monitoring, verification, and grievance resolution

Share information on supplier non-compliance, supply chain mapping and traceability with other stakeholders in the landscape/jurisdiction

Engage stakeholders on importance of conservation, restoration and/or rehabilitation

Collaborate on commodity traceability

Description of engagement

We supported to establish FSC® Norway through TFB to increase available volumes of FSC certified wood in Norway.

Engagement start year

2019

Engagement end year

Please specify (2026)

Estimated investment over the project period (currency)

5000000

Is a collective monitoring framework used to measure progress?

Yes, progress is collectively monitored using a shared external framework, please specify (Monitored by FSC Norway)

State the achievements of your engagement so far, and how progress is monitored

We have a goal to increase FSC Certified area from 0,63 mill hectar in 2021 to 1,8 mill hectar in 2026.

The FSC certified area in 2022 was 0,68 mill hectar

F6.10c

(F6.10c) For each of your disclosed commodities, provide details of the production/consumption volumes from each of the jurisdictions/landscapes you engage in.

| Indicate landscape/jurisdiction ID | Does any of your commodity production/consumption volume originate from this landscape/jurisdiction, and are you able/willing to disclose information on this volume? | Commodity | % of total production/consumption volume from this landscape/jurisdiction |
|------------------------------------|---|-----------------|---|
| LJ1 | Yes, we do produce/consume from this landscape/jurisdiction, and we are able/willing to disclose volume data | Timber products | 81 |

F6.11

(F6.11) Do you participate in any other external activities and/or initiatives to promote the implementation of your forests-related policies and commitments?

Forest risk commodity

Timber products

Do you participate in activities/initiatives?

Yes

Activities

Involved in multi-partnership or stakeholder initiatives

Country/Area

Norway

Subnational area

Not applicable

Initiatives

UN Global Compact

Global Reporting Initiative (GRI) Community Member

Forest Stewardship Council (FSC)

Programme for the Endorsement of Forest Certification (PEFC)

Other, please specify (EcoVadis)

Please explain

We are member of the United Nations Global Compact Programme since 2014 and have committed to aligning our operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. As the program addresses environment it is in line with our environmental strategy.

We support our environmental strategy by reporting our sustainability performance in accordance with Global Reporting Initiative (GRI) and an independent third party has issued an assurance report on Sustainability reporting (EY)

We are an active member in the MSIs of PEFC and FSC through our membership in the Norwegian Pulp and Paper association (TFB), where we have two board-members including the board- leader.

Since 2019 an NRA for Norway has been established by the FSC Working group where multi stakeholders participated. FSC Norway is established in 2022.

The following stakeholders are board members in FSC Norway:

Norges skogeierforbund, Treindustrien, Sapmi, Norsk friluftsliv, Sabima and WWF. Borregaard via TFB is member of the election committee.

The reason for this involvement is to increase the volume of FSC certified wood in Norway.

Our business model is based on sustainable wood raw materials, and it is important for us to increase supply of sustainable wood based on certification schemes. Our

involvement with multi-partnership or stakeholders initiatives are important to achieve our goal of 100% certified wood within 2023.

This goal is stated in our Annual report 2022 page 56 (100% of the purchased wood to the biorefinery in Sarpsborg shall be certified (FSC® or PEFC).

We are member of EcoVadis and submit information about Borregaard on the areas of Environment, Ethics, Labour and Human Rights, as well as Sustainable procurement, and have received an Platinum rating. Meaning that we are among the top 1% of the 90 000 reporting companies. In addition we use EcoVadis to assess our suppliers and supply chain. Our membership in EcoVadis contributes to increased transparency and efficiency in the supply chain.

All these activities and memberships supports our environmental strategy, by setting requirements, follow up performance and reporting externally; ourselves as well as our suppliers.

F6.12

(F6.12) Is your organization supporting or implementing project(s) focused on ecosystem restoration and long-term protection?

Yes

F6.12a

(F6.12a) Provide details on your project(s), including the extent, duration, and monitoring frequency. Please specify any measured outcome(s).

Project reference

Project 1

Project type

Afforestation

Expected benefits of project

Reduce/halt biodiversity loss

Is this project originating any carbon credits?

No

Description of project

FSC Norway strategy is to increase the volume FSC Certified wood in Norway from 0, 63 mill hectares to 1,8 mill hectares in 2026.

The NFSS Norway will take into consideration national and regional characteristic such as natural conditions, forest ownership structure and legislation in Norwegian Forests to make sure that the biodiversity is taken care of. This as a results of the agreed indicators in the NFSS Norway.

With an increased awareness of the importance of biodiversity, there is an increased customer demand for certified products in this respect. For Borregaard to manufacture and provide such certified products, we need certified wood. Consequently it is important to increase available FSC certified volumes in Norway as lack of FSC certified volumes would lead to lack of FSC certified products from Borregaard in Norway, and consequently reduced income for the company. And equally, increased amount of FSC certified volumes, may lead to increased income.

Where is the project taking place in relation to your value chain?

Project based in sourcing area(s)

Start year

2021

Target year

2026

Project area to date (Hectares)

638015

Project area in the target year (Hectares)

1800000

Country/Area

Norway

Latitude

60

Longitude

11

Monitoring frequency

Annually

Total investment over the project period (currency)

5000000

For which of your expected benefits are you monitoring progress?

Reduce/halt biodiversity loss

Please explain

With an increased awareness of the importance of biodiversity, there is an increased customer demand for certified products in this respect. For Borregaard to manufacture and provide such certified products, we need certified wood. Consequently it is important to increase available FSC certified volumes in Norway as lack of FSC certified volumes would lead to lack of FSC certified products from Borregaard in Norway, and consequently reduced income for the company. And equally, increased amount of FSC certified volumes, may lead to increased income. This monitoring has not so fare resulted in increased FSC® Certified volumes in Norway, but FSC Norway is working on a project to make it easier to become doble certified.

F7. Verification

F7.1

(F7.1) Do you verify any forests information reported in your CDP disclosure?

Yes

F7.1a

(F7.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module

F1. Current State

Data points verified

F.1.5.a: Percentage of purchased wood which is certified under Borregaard's selected certification program.

Verification standard

This is a company specific KPI integrated in the GRI framework.

Please explain

EY has performed an independent verification of selected indicators related to Borregaard ASA's Sustainability reporting for 2022. EY has performed controls in order to establish a limited level of assurance for the percentage of purchased wood which is certified under Borregaard's selected certification program

Disclosure module

F2. Procedures

Data points verified

F2.2a Provide details of your organization's value chain mapping for its disclosed commodity(ies) and

F2.3 Do you use a classification system to determine risk of deforestation and/or conversion of other ecosystems for your sourcing areas, and if yes, what methodology is used, and what is the classification used for

Verification standard

FSC-Std-40-004 V3-0 Chain of Custody Certification

FSC-Std-40-005 V3-1 Requirements for Sourcing FSC Controlled Wood

PEFC ST 2002_2020 Chain of Custody of Forest and Tree Based Products - Requirements

Please explain

Our FSC® and PEFC certification were audited in September 2022 by WSP (Orbicon) Denmark.

F8. Barriers and challenges

F8.1

(F8.1) Describe the key barriers or challenges to eliminating deforestation and/or conversion of other natural ecosystems from your direct operations or from other parts of your value chain.

Forest risk commodity

Timber products

Coverage

Supply chain

Primary barrier/challenge type

Complexity of certification requirements

Comment

Forest certification is an excellent tool to ensure sustainable use of wood. However the complexity of the certification requirements can be a barrier for eliminating deforestation. In 2020 Borregaard set the target of 100% certified wood. Since 2018 we have increased the amount of certified wood from 85% to 98% in 2022. But the last two percent of certified wood is challenging as the forest certification is a voluntary system and the question is how to motivate the forest owners become certified. 1. The market acknowledgement should reach the point where the value of certified products is recognized. The market acknowledgement all depends on the increasing environmental awareness of the end users/consumers 2. To maintain the clarity of the forest certification systems to avoid bureaucratic costs and maintain a lucrative system to the forest owners. To maintain the clarity there is a tendency to produce more regulation to certified forestry in the regions where deforestation and forest degradation are not a serious problem. Certified forest area is 28% in North America, 16% in Europe incl CIS (Commonwealth of Independent States), 8% in Oceania, 4% in Asia, 1,7% in South America and 1,5% in Africa (Source: FAO Global forest Resources Assessment 2020). As an example, in Norway certified forest area is almost 100%. Forest certification systems should do their best to promote and expand forest certification in Africa, Latin America, Asia and Oceania instead of fine-tuning the systems in the countries where there is already high coverage of certified forests. There is a risk that overdoing the schemes will result in resignation of forest owners in the high certification degree regions and impair the opportunities in low certificate degree regions. In latter regions even a less demanding forest certification scheme would improve the situation as the governance of the forests by government authorities is typically weak. In addition to the need for well-functioning and usable forest management certification systems, also Controlled Wood system of FSC needs attention. The basic problem is that FSC® CW risk assessments and national risk mitigation procedures are very complicated and not harmonized with each other. This adds a lot of administrative work and possibly can limit the possibilities for uptake of the system, especially for new areas.

F8.2

(F8.2) Describe the main measures that would improve your organization’s ability to manage its exposure to deforestation and/or conversion of other natural ecosystems.

Forest risk commodity

Timber products

Coverage

Supply chain

Main measure

Greater transparency

Comment

Forest certification standards should be developed to be cost efficient and attractive at the same time when the quality of the system is secured. The biggest barrier for expanding the forest certification in private forests is the bureaucratic process. The stakeholders’ approach to forest certification is needed. The target should be redirected to expand forest certification systems to Africa, Latin America, Asia and Oceania . Once a system is in place it is subject to improvements by revision of standards. In addition to the need for well-functioning and usable forest management certification systems, also Controlled Wood system of FSC needs attention. Controlled Wood system complements the certification scheme and is important to secure responsible wood sourcing and avoid deforestation. FSC® CW risk assessments and national risk mitigation procedures are very complicated and not harmonized with each other. This adds administrative work and possibly can limit the possibilities to exceed new areas.

F17 Signoff

F-FI

(F-FI) Use this field to provide any additional information or context that you feel is relevant to your organization’s response. Please note that this field is optional and is not scored.

F17.1

(F17.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

| | Job Title | Corresponding job category |
|-------|---|-----------------------------------|
| Row 1 | The President and Chief Executive Officer (CEO) | Chief Executive Officer (CEO) |

SF. Supply chain module

SF0.1

(SF0.1) What is your organization’s annual revenue for the reporting period?

| | Annual revenue |
|-------|-----------------------|
| Row 1 | 6773000000 |

SF1.1

(SF1.1) In F6.3 you were asked “Have you adopted any third-party certification scheme(s) for your disclosed commodity(ies)? Indicate the volume and percentage of your certified production and/or consumption”. Can you also indicate, for each of your disclosed commodity(ies), the percentage of certified volume sold to each requesting CDP supply chain member?

Yes

SF1.1a

(SF1.1a) For each of your requesting CDP supply chain members, indicate the percentage of certified volume sold per disclosed commodity(ies).

Requesting member

The Dow Chemical Company

Forest risk commodity

Timber products

Form of commodity

Pulp

Third-party certification scheme

PEFC Chain of Custody

Total volume of commodity sold to member

20151000

Metric

Metric tons

What % of the volume reported in column 5 is certified?

100%

Comment

SF2.1

(SF2.1) Please propose any mutually beneficial forests-related projects you could collaborate on with specific CDP supply chain members.

Requesting member

The Dow Chemical Company

Commodity related to the project

Timber products

Category of project

Communications

Type of project

Other communications projects, please specify (Establish a continuous and effective communication to increase understanding of our sustainability and certification initiatives.)

Estimated timeframe for realization of benefits to customer

1-3 years

Details of project

To increase our mutual interest regarding certification and sustainability.

We listen to their concerns, questions, and suggestions, and take them seriously. To build trust and create an atmosphere of openness and transparency.

We communicate how Borregaard work and are organized regarding sustainability.

We evaluate the effectiveness of our communication and make adjustments.

Projected outcome

Increased understanding of our work regarding sustainability and certification initiatives.

SF2.2

(SF2.2) Have requests or initiatives by CDP supply chain members prompted your organization to take organizational-level action to reduce or remove deforestation/forest degradation from your operations or your supply chain?

No

SF3.1

(SF3.1) For your disclosed commodity(ies), do you estimate the GHG emission reductions and/or removals from land use and land use change that have occurred in your direct operations and/or supply chain?

Timber products

Estimate GHG emissions and removals from land use and land use change

Yes, willing to share details with requesting CDP SC members

Please explain

Borregaard has engaged an independent third party, Norsus, to conduct a life cycle assessment (LCA) based on the ISO 14044/48 standard. The LCA analyses the environmental impacts of our production, from raw materials to finished products- cradle to customer for speciality cellulose from Borregaards biorefinery in Sarpsborg (facility level).

recently in 2021 when it was improved and updated with more details from the biorefinery process.

We have set Science-based target for scope 1, 2 and 3 (base year 2020) that is approved by Scienced Based Target Initiative (SBTI)

For scope 3 our target are:

- 2030: 25% absolute reduction
- 2050: 90% absolute reduction (net-zero)

Borregaard's major sources of scope 3 emissions are purchased goods and services (44%), and upstream and downstream transportation and distribution services (29%).

These two categories are verified by a third-party.

We have published a separate scope 3 emission report, which shows the emissions in each stage and how they have been calculated.

SF3.1a

(SF3.1a) For your disclosed commodity(ies), provide details on the actions implemented in your direct operations and/or supply chain that have resulted in a reduction of GHG emissions and/or enhancement in removals.

Forest risk commodity

Timber products

Description of actions

Borregaard have set targets to reduce our GHG emissions in accordance with SBTi. We have set targets together with our suppliers of wood to reduce the transport distance from forest road to our wood yard for pulp logs transported by truck. The suppliers are getting financial incentives if they are able to deliver wood on shorter distance than agreed distance.

The volume of pulp logs transport by truck in 2022 = 166.220 solid cbm = 149.598 metric ton

Average distance in 2020 = 81,0 km

Average distance in 2022 = 77,4 km

CO2e reductions and removals achieved from base year (metric tons CO2e)

39

Base year

2020

Emissions accounting boundary

Included in the corporate GHG inventory boundary

Scope

Scope 3 (upstream)

Emissions accounting methodology and standards

An established project-level methodology (RED II methodology and ISCCs specifications as described in the ISCC EU 205 Greenhouse Gas Emissions v.4.0:)

Please explain calculation

Volume of pulp logs transported by truck in 2022 = 166.220 cbm = 149.598 metric ton

$etd [kg CO2eq ton] = (Tneeded * (dloaded[km] * Kloaded [l km] + dempty[km] * Kempty [l km]) * EFfuel [kg CO2eq l]) / amount transported material [ton]$. Assuming 32 tons per truck.

2020: Assuming d loaded = d unloaded = 81 km, K loaded (diesel consumption): 0,49 litre/km , K unloaded (diesel consumption): 0,25 litre/km EF fuel: 3,14 kg CO2/litre, the values comes from from ISCC 205 v4.0 Annex 1 p.58

$Etd [kg CO2eq/ ton] = (4675 * ((81 * 0,49 + 81 * 0,25) * 3,14) / 149.598 = 5,9 kg CO2 eq/ton$. Tot kg CO2eq in 2020 = 879.889

2022: Assuming d loaded = d unloaded = 77,4 km: Same assumptions as for the case above except the distance:

$Etd [kg CO2eq/ ton] = (4675 * ((77,4 * 0,49 + 77,4 * 0,25) * 3,14) / 149.598 = 5,6 kg CO2 eq/ton$. Tot kg CO2eq in 2020 = 840.783

Difference 81 km – 77,4 km = 39.106 kg CO2eq

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

| | I understand that my response will be shared with all requesting stakeholders | Response permission |
|---------------------------------------|---|---------------------|
| Please select your submission options | Yes | Public |

Please confirm below

I have read and accept the applicable Terms

