

**THE NETHERLANDS
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1. General economic trends affecting the forest industries sector

COVID-19 impact

Compared to other countries the Dutch economy has been hit less hard by the COVID-19 pandemic. Nonetheless the consequences for the economy are unprecedentedly hard, and are still largely to be felt. Unemployment and bankruptcies are responding with a delay to the crisis. Job and income security differs between sector.

As a consequence the Dutch economy is, according to the Netherlands Bureau for Economic Policy Analysis (CPB) expected to contract by 5% in 2020, followed by 3% growth in 2021. Unemployment will rise towards 7% in 2021. While assuming that no large-scale contact restrictions or a total lockdown are needed.

As a comparison the economy grew with 1,7% in 2019. Exports grew by 2.7% in 2019. A reduction in growth compared to 2018. Unemployment decreased to 3.4% in 2019. Purchasing power increased by 1% in 2019. Consumption by households and the government grew by 1.5% and 1.6% respectively in 2019. Corporate investments increased by 3.6%. According to calculations by CBS (Statistics Netherlands), the Dutch economy has contracted by 8.5% in the second quarter of 2020 compared to the first quarter of 2020. A contraction of a magnitude that has never been measured by Statistics Netherlands before. More than half of the contraction is the result of a sharp fall in household consumption. Investments and the trade balance also declined sharply. The contraction in the Netherlands was smaller than the average in the Eurozone and in countries such as Germany, the United Kingdom and Belgium.

CPB forecasts that the Dutch economy will contract by 5% in 2020 and will grow by 3% in 2021. Based on a scenario with a second major COVID-19 outbreak in the Netherlands in the last quarter of 2020 and the first quarter of 2021, CPB estimates GDP to contract by 6.2% in 2020 and 3.2% in 2021. Financial support measures and lower tax revenues will hit public finances hard. Resulting in a budget deficit of 7% in 2020 and 4% in 2021. The reduction in household consumption (-5.9%) and decreasing business investments (-7.5) are the main consequences of the COVID-19 pandemic in the Netherlands. Both are expected to increase with more than 4% in 2021. Exports are expected to decrease by 5.2% in 2020, but are in 2021 expected to be on more or less the same level as in 2019. Relevant world trade volume of goods and services is expected to decrease by almost 10% in 2020. The unemployment rate increases to 4.4 (410.000 persons) and 6.5% (605.000 persons) in 2020 and 2021 respectively.

Housing market

The housing industry is traditionally important for the softwood industry. After the sharp decline in completed house-buildings of approximately 40% from 2008 to 2012, in recent years the situation has turned around. Partly resulting from stimulating measures of the Dutch government and also due to the low mortgage rates. The number of newly built houses completed in 2019 increased by more than 7% compared to the year before, reaching a record high number of 71.500 (including apartments). The number of house building permits granted just decreased substantially between 2018 and 2019. This slowdown in growth is the consequence of lacking construction sites and development capacity at municipalities and private developers, as well as the impact of building constraints due to NOx-deposition.

¹ <https://www.cpb.nl/en/august-projections-2020-2021>

Due to uncertainties regarding to the possible effects of the COVID-19 pandemic, the consequences of the nitrogen emissions problem² and problems with PFAS³ contaminated soil there is large uncertainty surrounding the predictions for housing construction in the Netherlands in the coming years. For 2020 and especially for 2021 a decrease in the number of newly build houses is expected by all relevant information sources (ING Bank, Bouwkennis and EIB⁴). However the range in expected newly build houses is large with a minimum of 50.000 completed houses estimated by EIB to 63.000 estimated by ING Bank. A reduction compared to 2019 of 30% and 12% respectively.

2. Policy measures influencing timber trade and marketing

Sustainable procurement policy

In the view of the Dutch government, public procurement of sustainably produced timber is very important to give timber producing countries a clear signal regarding consumers' willingness to purchase sustainably produced products at reasonable prices and thus increase such purchases. It also sets an example for semi-governmental organisations and the private sector to introduce sustainably produced timber in their procurement criteria and by doing so, contribute to sustainable forest management.

In June 2008 the Dutch national government established its sustainable procurement policy. By implementing this policy the government intended to increase the use of sustainably produced products. Therefore all governmental organisations must use sustainability as an important criterion when purchasing goods. This way the Dutch government intends to stimulate the market for sustainable products and promote innovation within companies. Clear goals were set. As of 2010 the Dutch government has the ambition that all timber procured by central government should come from a sustainable source. Municipalities and provinces were aiming at 100% by 2015.

Part of the sustainable procurement policy is a set of criteria for sustainably produced timber, the Dutch Procurement Criteria for Timber. Based on these criteria the government can assess whether the offered timber is produced sustainably. The Timber Procurement Assessment Committee (TPAC) is responsible for the assessment of certification systems for sustainable forest management according to the Timber Procurement Assessment System (TPAS). TPAC advises the Dutch Ministry of Infrastructure and Water Management. The minister decides on the final acceptance. Information on the TPAS criteria and the TPAC judgements can be found on the TPAC website (www.tpac.smk.nl).

The website www.inkoopduurzaamhout.nl has been set up to support procurers and suppliers in their efforts to procure or supply sustainably produced timber.

EU Timber Regulation

Until February 2017 over 200 inspections have taken place at 195 operators by the Dutch Competent Authority, the NVWA. Due to strict enforcement, the implementation of the EUTR by the private sector has increased and increasingly impacts further processed wood products.

² On May 29th, the Dutch Council of State ruled that the active Dutch nitrogen policy, "Programma Aanpak Stikstof" (PAS) (active since July 1st, 2015), conflicted with the European Habitat Directive (directive 92/43/EEG), and could no longer be used to grant permits. Since then, many construction projects have been put on hold. As of now they are required to have a project plan that is completely free of nitrogen emissions.

³ Per- and Polyfluoroalkyl Substances

⁴ Economisch Instituut voor de Bouw (Economic Institute for Construction)

Sustainable Energy Agreement

The Dutch Ministry of Economic Affairs agreed with key stakeholders like energy producing companies, environmental groups on promoting sustainable energy so that by 2020 the share of sustainable energy should reach 14% of the total domestic energy consumption. As energy from wind and sun are not able to meet this share, a significant part must come from solid biomass, among which imported wood pellets. To qualify for subsidy the biomass used for large scale energy production must apply to a comprehensive set of sustainability requirements including sustainable forest management, greenhouse gas reduction and carbon debt⁵.

Climate agreement

At the end of June 2019 the National Climate Agreement of the Netherlands was presented by the coalition and cabinet. The aim of this agreement is at least a 49% reduction in CO2 emissions by 2030 compared to 1990. The underlying aim is compliance with the Paris Climate Agreement, in other words a maximum 2-degree temperature increase compared to 1990, and preferably just 1.5 degrees.

Climate Agreement contains a package of measures which has the broadest possible base of societal support, which has the active support of as many contributing parties as possible and which will achieve the political reduction target of 49% in 2030. The agreement was established through meetings of authorities, companies and interest groups at five so-called climate tables. The five tables are: Electricity, Built Environment, Industry, Agriculture & Land Use, and Mobility. At each table a package of measures have been formulated and agreements between parties have been concluded that together comprise the contribution of each of the five sectors to achieve the climate objective.

The forestry- and timber sector is covered by the sector table Agriculture & Land Use. A specific sub-table titled 'trees, forests and nature' is dedicated to the optimization of the contribution of forest and nature (including the timber- and other related sectors) to reach the climate goals, but to also play its role in climate change mitigation. The goals are afforestation, revitalisation of forests, agroforestry and landscape restoration, and carbon storage in biomaterials like wood. Budget has been made available by the government for government bodies to develop tools that can be used within the sector to optimize the contribution of the sector. Main framework for the implementation of the Climate Agreement for forests and timber is the National Forest Strategy.

Forest and Wood Action Plan

Forest and timber organisations, in collaboration with NGO's and other sectors, have drawn up an Action Plan on Forests and Timber, on the contribution to the green economy. The plan proposes to intensify the roundwood harvesting in a sustainable way, to plant new forests, and to use more timber in construction. This plan was presented at the National Climate Summit in October 2016 and received support from the Dutch Prime Minister and state secretary of the ministry of the Environment and Infrastructure. Currently the first activities have started as part of the Action Plan, e.g. in the field of Climate Smart Forestry.

The so called Coalition Forest and Timber is responsible for the further development and promotion of the interventions or actions formulated in the Action Plan in the coming years.

⁵ <http://english.rvo.nl/subsidies-programmes/sde/sustainability-criteria>

National Forest Strategy

The Dutch minister of Agriculture, Nature and Food Quality has announced that together with the provinces she will develop a national forest strategy in close cooperation with the most important partners such as local authorities and nature managers (public and private). The forest strategy will be aligned with the forest visions, which the provinces have announced within the climate table of the National Climate Agreement (see above). The national forest strategy is needed to ensure greater coherence with regard to forest, nature and climate policy. The forest strategy will cover four main topics/issues:

1. The forest strategy will deal with the choices and dilemmas in nature and forest management in the Netherlands. Examples are the transformation from forest to other nature, the trade-off between the various functions of the forest (such as biodiversity, carbon capture, timber production and recreation) and the desired forest expansion in relation to other spatial functions (such as agriculture, urbanization, landscape).
2. It will describe the importance of forests in the context of climate policy. In doing so attention is paid to maintaining carbon stocks by combating deforestation, capturing carbon through the establishment of new forests and increasing the resistance of forests to climate change.
3. The importance of forests in the context of international biodiversity will be mentioned in the strategy as well. The following issues are important in this context:
 - a. Protecting forests worldwide and reducing the pressure on the remaining forest area, for example through more efficient agriculture.
 - b. Worldwide promotion of sustainable forest management, for example through the use of green financing instruments (public and private).
 - c. Reducing the ecological footprint in the world, for example through the commitment of the Netherlands to the import and consumption of wood and agricultural raw materials such as palm oil, cocoa and soy.
4. The promotion of the sustainable timber chain is addressed in the forest strategy, both for imports and for nationally produced timber.

Netherlands Circular in 2050

The outcome of latest Dutch government climate change and wider environmental policy decisions could be increased market opportunity for wood. The country's aim is to create a truly 'circular economy' over the next 30 years, with the stress on using products and materials that can be re-used, recycled and ultimately disposed of in an environmentally sound way. To this end the government submitted the policy paper 'Netherlands Circular in 2050' to the House of Representatives in 2016. In the follow up of this policy ambition the National Agreement on the Circular Economy⁶ has been signed by more than 300 businesses and social partners like NGO's. At the beginning of 2019 the Dutch Cabinet presented the implementation program for the circular economy. This implementation program presents concrete actions and projects for the period 2019-2023 for the sectors: biomass and food, plastics, manufacturing industry, construction and consumer goods.

Covenant Sustainable Forest Management

More than two years ago (March 2017) the covenant Promoting Sustainable Forest Management (Bevorderen Duurzaam Bosbeheer) has been signed by 32 representatives of the timber industry, the construction, furniture and retail branch organizations, trade unions, civil society organizations and the Dutch government in the presence of Dutch Minister for Foreign Trade and Development Cooperation, Lilianne Ploumen. The

⁶ <https://circulaireeconomienederland.nl/grondstoffenakkoord/documenten+grondstoffenakkoord/handlerdownload-files.ashx?idnv=702477>

covenant brings together key public, private, civil society and knowledge sector partners – all needed to scale market demand for sustainably produced forest products. The covenant builds on the previous ‘Green Deal’ Sustainable Forest Management. Signatories pledge to encourage sustainable forest management through procurement and promotion of sustainably sourced timber and wood products. The first year of the covenant was used to get a better understanding of the mechanisms behind and bottlenecks that prevented further growth of market share. In the second year actions were formulated that will be implemented during the third year.

Sustainability framework for bio-based raw materials

Bio-based raw materials, including wood, play an increasing, important role in the transition towards a circular and climate-neutral economy. This is the case for bio-based raw materials for material applications such as the building industry as well as raw material in chemicals and the use of residual flows for energy applications. The Dutch policy for the development of the Circular economy and the Climate agreement were reason for the Dutch government to ask the Social and Economic Council (SER) of the Netherlands to come up with a report to provide guidance to help the government make choices to achieve their policy goals, but to also take two basis principals for the use of sustainable biomass into account:

1. only sustainable biomass contributes to the transition to a low-carbon, circular economy;
2. ultimately, sustainable biomass must be used in the most limited and high-value way possible. This applies to biomass of both national and international origin.

The SER advisory report⁷ was sent to the Dutch government in the summer of 2020. In this advisory report, the SER provides guidance on the development of a sustainability framework and illustrates the consequences of this for the use of bio-based raw materials in various areas of application. The SER's ambition is to ensure that the use of bio-based raw materials will contribute to three sustainability transitions in order to promote a broad concept of prosperity. The SER among other things made use of analysis of the PBL Netherlands Environmental Assessment Agency⁸. The reaction of the Dutch government to the advisory report is currently being prepared.

⁷ <https://www.ser.nl/-/media/ser/downloads/engels/2020/biomass-in-the-balance.pdf>

⁸ https://www.pbl.nl/sites/default/files/downloads/pbl-2020-beschikbaarheid-en-toepassingsmogelijkheden-van-duurzame-bio-massa-verslag-zoektocht-naar-gedeelde-feiten-opvattingen_4188.pdf

3 Developments in Dutch forest products markets sectors

a) Wood raw materials

Removals of roundwood, chips and shreds from the Dutch forests and other wooded area's in 2019 are estimated as 2,380,000 m³ under bark in total.

Industrial roundwood has a share of app. 30% within the total removals. The rest of the removals mainly consist of wood fuel as logs or chips and shreds, including those from landscape care wood and municipal waste streams.

The share of export within the total removals of industrial roundwood in the Netherlands was more than 50% in 2019 and more or less the same as in 2018. The export of pulpwood has a share of almost 75% in the total exports of industrial roundwood.

b) Wood energy

The share of renewable energy in the Netherlands increased from 7.4% in 2018 to 8.6% in 2019⁹. Half of the increase of 1.2 percentage point can be attributed to an increase in the production of renewable energy from biomass, as biodiesel and biogasoline and co-firing of biomass in utilities. Based on the current trend and the expected future developments the Dutch National Climate and Energy Outlook 2019 expects that the target of 16% renewable energy in 2023 will be reached¹⁰.

Total gross consumption of energy from biomass increased by 15% in 2019 compared to 2018. Biomass has a share of 59% within the total consumption of renewable energy in 2019. It is mainly used in the production of electricity and heat in waste incinerations, domestic heating and as biofuel for road transport. The co-firing of biomass in utilities picked up again in 2019. The fuel input for co-firing almost tripled between 2018 and 2019. If waste incineration is excluded the biomass fuels for the production of heat and energy can be generally categorized as fuelwood, wood chips and shreds/shrips, agricultural residues, residuals from the food and snack industry, bio-oil and animal waste.

In 2019 app. 20% of the renewable energy produced in the Netherlands was derived from woody biomass. More than 2 million ton dry matter of woody biomass was estimated to be used for the production of energy and heat in the Netherlands. The majority of this woody biomass originated from the Netherlands.

c) Certified forest products

The market share of certified primary timber products (sawn wood and wood-based panels) on the Dutch market in 2017 was 84.7%, which corresponds to a volume of 5.1 million m³ roundwood equivalents under bark. This concerns primary timber and timber products (sawnwood and wood based panels) that meet the Dutch Procurement Criteria for Timber. Differences between the product groups are large. While sawn softwood and wood-based panels have a market share of respectively 84.8% and 92.5%, sawn tropical hardwood (67.1%) and sawn temperate hardwood (37.8%) are lagging behind.

Results from an internal monitoring system of the Netherlands Timber Trade Association for the year 2018 indicates growth continues within most product groups, but the market share within the product group sawn tropical hardwood decreased for the first time since the measurements started. Next year's monitoring results will show if this trend continues.

⁹ <https://www.cbs.nl/nl-nl/nieuws/2020/22/verbruik-hernieuwbare-energie-met-16-procent-gegroeid>

¹⁰ <https://www.pbl.nl/sites/default/files/downloads/pbl-2019-climate-and-energy-outlook-2019-summary-3825.pdf>

d) Sawn softwood

After a period of decreasing imports and consumption since 2007 (see table 1 and figure 1), the sawn softwood market in the Netherlands recovered in 2015 and this recovery continued until 2019. The imports and consumption for the year 2019 do however show a decrease of 2% and almost 7% respectively. Exports increased by 17.5% between 2018 and 2019. Imports of rough sawn softwood timber decreased by 7%, while imports of further processed (planed) sawn softwood timber increased by 6%. Rough sawn softwood has a share of 60% of the total softwood import (Table 2). Stocks remain at a low level and are expected to move with trend of the imports, probably meaning a slight decrease in the coming years, although nothing is certain due to present developments worldwide.

Table 1
Key facts of the Dutch sawn softwood market x 1000 m³

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Domestic Production	104	169	137	159	163	129	126	110	82	82
Net Imports	2,145	2,120	1,861	1,779	1,789	1,987	1,928	2,187	2,315	2,158
Stock Change	-50	0	-50	0	0	10	5	5	0	0
Apparent Consumption	2,299	2,289	2,048	1,938	1,952	2,106	2,049	2,292	2,397	2,158

Sources: Statistics Netherlands (CBS) / Netherlands Timber Trade Association (Royal VVNH) / Probos

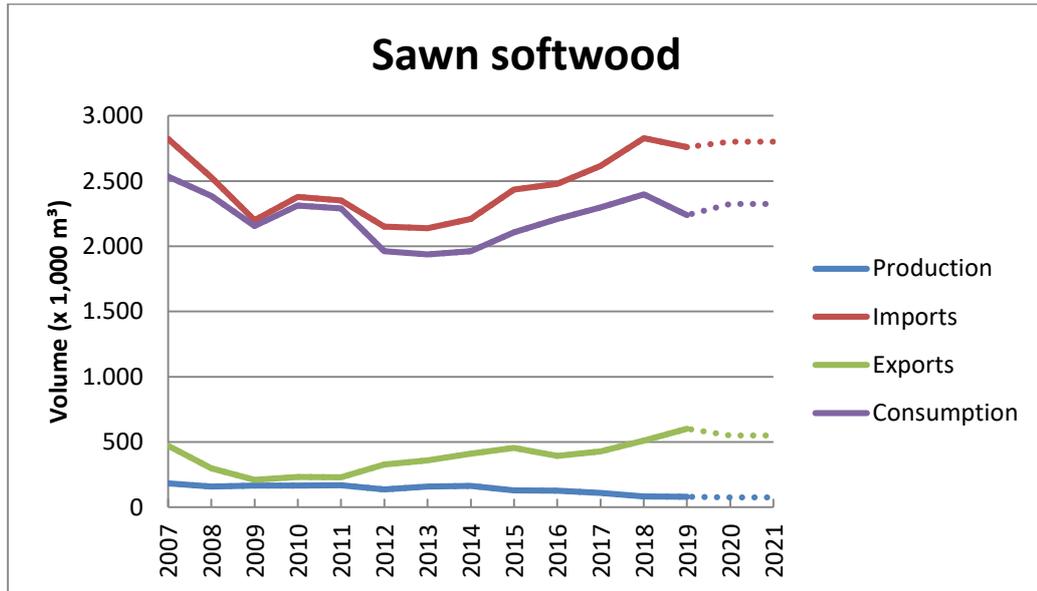
Table 2
Sawn softwood imports (volume in m³)

Countries	2018				2019				Sawn	Planed	Total
	Sawn	Planed	Total	%	Sawn	Planed	Total	%			
1 Sweden	249.821	450.848	700.669	25%	280.248	513.563	793.811	29%	12%	14%	13%
2 Germany	418.978	200.961	619.939	22%	414.206	172.857	587.063	21%	-1%	-14%	-5%
3 Russia	270.592	93.260	363.852	13%	175.645	109.437	285.082	10%	-35%	17%	-22%
4 Belarus	220.543	39.048	259.591	9%	189.538	8.136	197.674	7%	-14%	-79%	-24%
5 Finland	196.512	3.907	200.419	7%	153.943	38.434	192.377	7%	-22%	89%	-4%
6 Latvia	94.289	46.306	140.595	5%	92.287	60.954	153.241	6%	-2%	32%	9%
7 Belgium	81.710	58.576	140.286	5%	94.380	45.341	139.721	5%	16%	-23%	0%
8 Estonia	60.975	320	61.295	2%	40.106	38.165	78.271	3%	-34%	119%	28%
9 Poland	26.277	22.599	48.876	2%	46.445	20.195	66.640	2%	43%	-11%	36%
10 Ukraine	23.353	21.333	44.686	2%	46.157	413	46.570	2%	98%	-98%	4%
Other (*)	154.877	91.627	246.504	9%	135.272	84.659	219.931	8%	-13%	-8%	-11%
Total	1.797.927	1.028.785	2.826.712		1.668.227	1.092.153	2.760.380		-7%	6%	-2,3%

* Other: This group consists of 38 countries with exports to the Netherlands of less than 46,000 m³

(Source: CBS trade statistics edited by Probos and international trade statistics of Sweden, Germany, Finland, Latvia and Estonia for verification)

The top ten countries for softwood import in the Netherlands have not changed between 2018 and 2019 (table 2). Sweden and Germany remain by far the foremost suppliers of softwood timber to the Netherlands. The total import volume from Sweden increased and those from Germany decreased compared to last year. The imports from Finland showed a small decrease where Estonia increased substantially. Imports from Belgium remained stable, while Belarus and Russia decreased by more than a fifth between 2018 and 2019.



(Source: CBS trade statistics edited by Probos, Probos roundwood survey and NTTA estimates and forecasts)

Figure 1

Development of production, import, export and consumption of sawn softwood in the Netherlands in the period 2007-2019 and expectations for 2020 and 2021.

e) Sawn hardwood (temperate and tropical)

After a peak in the imports of tropical hardwood 2018 (+52%) the imports decreased by 29% 2019, but are still well above 2017 levels.

The imports of temperate hardwoods stayed at the same level as in the last two years and lays much higher than in the years before. This high imports are the result of an increase in the imports of so called mixed hardwoods by the packaging industry from for instance the Baltic states and Ukraine. Due to the expected contraction in international trade, but an increase in the flooring for flooring and interior design the demand is expected to stay at the same level or even increase in 2020 and 2021.

The share of further processed/optimized tropical sawnwood keeps increasing in the Dutch joinery industry resulting in more demand for timber from Asian producing countries, but the share of African timber species within these imports are increasing. Demand is shifting from Meranti, traditionally the species most used in the Dutch joinery industry, to Mahogany.

Despite the COVID-19 pandemic the actors within the Dutch market for (tropical) hardwoods are still quite positive about the short term market situation. Although the uncertainty related to the pandemic predominates companies within this market sector are still positive. The productivity within the construction sector is still positive. The DIY and gardening sector benefits from the fact that households spent much more time in their homes and gardens due to the COVID measures and next to this the increase in construction leads to more demand as well. The market for temperate hardwoods is expected to benefit from the recovery of the construction sector and the housing market from 2019 onwards as well. As interior products and furniture are bought at the end of the construction cycle there is a delay compared to tropical timber used in construction. European oak is by far the most popular species within the temperate hardwoods. There is a huge demand for European oak, with almost daily price increases.

According to Statistics Netherlands the turnover of the timber industry decreased by more than 12% the third quarter of 2020 compared to the third quarter of 2019. The companies within the timber industry expect that their prices will slightly decrease during the end of 2020 and the first months of 2021. The producer confidence of the timber and construction materials industry decreased substantially in April and May 2020 (-25%) as a consequence of the smart lockdown, but the confidence already improved again in August and September. Making it the most positive industry sector in the Netherlands again. Due to the current COVID situation the confidence decreased again in October although it is still positive.

The Dutch market for tropical hardwoods can be subdivided into two submarkets: 1) the construction sector, DIY and garden and 2) the market for waterworks (civil engineering). The first submarket is growing due to the recovery of the construction sector. Due to the intelligent lockdown in the Netherlands the construction sector continued working in March and April of 2020. The DIY and garden subsector is booming in 2020 due to the COVID-19 measures. Due to which households have decided to refurbish their gardens and homes as they spend much more time at home.

Timber might also benefit from the increased environmental awareness among consumers and architects. Although competition with other building materials is still heavy, timber seems to recover market share, E.g. in renovation, where now and then PVC plastic is replaced by timber. Increasingly new Life Cycle Analyses studies are published¹¹.

The demand for civil engineering lags behind and is not expected to pick up. Tenders for civil engineering projects are delayed due to the COVID-19 outbreak. This sector has suffered less during the financial crises, due to governmental investments. As a result, the market does not recover as it does in the construction sector. The sector drafted an Action Plan to encourage the use of timber in civil engineering. This Action Plan seems to have a positive effect on the use of (tropical) timber within civil engineering, but due to the COVID situation the results in volume terms are hard to estimate.

Table 3

Key facts of the Dutch sawn hardwood market

	x 1000 m ³									
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Domestic Production	59	69	53	59	66	56	58	60	58	51
of which tropical	10	11	7	5	11	7	6	6	7	6
Net Imports	321	268	276	231	201	224	230	273	359	289
of which tropical	229	196	194	172	148	156	136	125	218	152
Apparent Consumption	380	337	329	290	267	280	288	333	417	340
of which tropical	239	207	201	177	159	163	142	131	225	158

Sources: Probos, Statistics Netherlands (CBS)

f) Pulp and paper

The turnover within the Dutch paper and board industry decreased by more than 7% between 2018 and 2019 to EUR 1,813 million. The total paper production decreased as well between 2018 and 2019, but with just 2.9%. Total production accounting for 88.2% of the total production capacity. The production capacity slightly increased in the Netherlands. Signs for the near future are mixed. The demand for packaging materials, which make up 74% of the production of the Dutch paper and paper board industry, is very promising. The graphical sector isn't developing very well resulting in less demand for graphical papers. The advantage is that the paper and board industry in the Netherlands is one of the leading sectors in recycling and energy reduction. This is due to the large collection of waste paper by consumers and the

¹¹ <http://www.europeanstc.com/environment/>

biobased production process. Export accounted for 79% of the total production. Germany remains the most important export country (30%), followed by Belgium (12%), France (12%) and the UK (10%).

Paper and board producing factories in the Netherlands almost solely produce paper and board from recovered paper and/or imported pulp. From the total of 22 factories in the Netherlands there is only one factory that is producing mechanical wood pulp for the production of board for folding boxes. The species used are Poplar and Norway spruce. Next to virgin fibres, this factory also consumes recovered paper.

In 2017 76.7% of the imported market pulp was certified sustainably (FSC or PEFC) sourced. A slight increase compared to 2015.

Table 4
Fibre furnish of the Dutch paper and board industry X 1,000 m³ round wood equivalents under bark

Year	2012	2013	2014	2015	2016	2017	2018	2019
Cellulose	2,701	2,496	2,611	2,275	2,377	2,181	2,083	2024
Recovered paper	6,955	7,170	7,179	7,254	7,426	8,561	8,541	8379
Total fibre input	9,656	9,666	9,790	9,529	9,803	10,741	10,624	10,402

Source: Probos and Royal VNP

In 2019 the total number of employees in the paper and board industry slightly increased by 0,6% compared to 2018 and reached the number of 3,865 employees. As a result of improving labour productivity in the last decade and closure of mills, the number of employees in the industry in the Netherlands already decreased by almost 33% since 2005. This refers to personnel operating the paper and board producing machinery.

In 2004 the Dutch paper and board industry, together with the Ministry of Economic Affairs, launched the Energy Transition in the Paper Production Chain. The aim of this program is: “To halve the energy consumption per unit end product in the production chain by 2020”. This challenge is translated by relating energy savings with reduction of CO₂-emissions, cost efficiency, international competition and re-use of raw materials. In 2009 a new energy agreement has been signed between the paper and board industry and the government. The aim of this agreement is to improve the energy efficiency in production and the value chain. In 2018 the industry uses 16% less energy per ton product produced compared to the situation ten years ago. In 2013 the Energy Transition goals were incorporated in the new innovation agenda Creating Sustainable Fibre Solutions 2014-2020 (CSF). The Dutch industry agreed to achieve these goals by:

1. Raw materials of the future: Launch of three paper and cardboard products based on local bio based raw materials in order to close local cycles in a sustainable manner;
2. Towards a sustainable energy supply: Realization of sustainable energy supply for several paper and board mills, independent of natural gas;
3. High performance materials: Market introduction of a variety of paper and board products with entirely new features (active, intelligent and high performance materials (light weight, stronger, whiter, thermos isolating and electro conductive).

Table 5*Recent developments of the Dutch paper and board industries*

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Change in production in %:									
Thermo-mechanical pulp (integrated)	-65	15	3,1	8	0%	2,3%	2,3%	0,0%	0,0%
Graphic papers	5	1	-0,4	0	4%	-2,6%	-3,3%	-5,7%	-8,3%
Packaging papers	-2	4	3,5	0	1%	4,3%	30,1%	2,8%	-0,6%
Case materials	-2	4	3,5	0	1%	4,3%	30,1%	2,8%	C
Other packaging paper and board	0	5	3,3	2	4%	0,9%	4,8%	0,3%	C
Sanitary & household	3	2	0	-6	-3	-0,9%	0,0%	-1,8%	-14,5%
Total paper & board	-4	1	1,1	-1	-4	1,1%	11,7%	-0,1%	-2,9%
(Turnover [million Euro])	1,746	1,813	1,786	1,809	1,737	1,693	1,859	1,956	1,813
Price change of production of paper and board industries	n,a,								

Source: Royal VNP C = confidential

h) Wood pellets

The production of wood pellets was almost 300,000 m.t. in 2019. More than 60% of this quantity is exported. Especially to Germany. The imports of wood pellets have increased substantially in 2020 due to the fact that the utilities restarted co-firing of wood pellets in 2019. In 2019 more than 1 million tons (+221%) of wood pellets were imported by the Netherlands.

New SDE+ grants¹² have been granted to 3 companies who manage 4 co-fired utilities which are or will be converted to be able to co-fire wood pellets. While all utilities will start co-firing the coming years, imports might increase strongly soon as the utilities will start to build their stocks. For 2020 imports of more than 2 million tons of wood pellets are expected based on the imports during the first 7 months of 2020.

For co-firing all grants within the SDE+ have been granted. However, there are still grants available to produce industrial steam by firing wood pellets and a new category is added for large scale district heating systems based on wood pellets. This will result in an extra demand for wood pellets in the Netherlands from 2021 onwards.

¹² With the SDE + subsidy scheme the Ministry of Economic Affairs encourages the development of a sustainable energy supply in the Netherlands. Businesses and (non-profit) institutions who (will) produce renewable energy, can utilize the SDE +.

5, Tables

A, Economic indicators for the Netherlands

Change in %, unless otherwise specified	2015	2016	2017	2018	2019	2020
GDP	2.0	2.2	2.9	2.4	1.7	-5.1
Private consumption	2.0	1.1	2.1	2.2	1.5	-5.9
Private gross fixed investment (excl. housing)	10.0	-15.9	2.2	3.9	3.6	-7.5
Exports of goods and services	7.4	1.7	6.5	4.3	2.7	-5.2
Imports of goods and services	14.5	-2.0	6.2	4.7	3.2	-3.7
Consumer Price Index (inflation)	0.2	0.1	1.3	1.6	2.7	1.4
Labour share in enterprise income (in level %)	72.2	73.6	73.3	73.4	74.0	73.2
Active labour force	1.0	1.3	2.1	2.3	2.0	-1.3
Unemployment level, % of labour force ¹	6.9	6.0	4.9	3.8	3.4	4.4
EMU-debt level (ultimo year, in % GDP)	64.6	61.9	56.9	52.4	48.7	59.9
EMU-balance level (in % GDP)	-2.0	0.0	1.3	1.4	1.7	-7.1

Source: CPB (Netherlands Bureau for Economic Policy Analysis)

¹ According to the international definition

B, Forest products production and trade in 2019, 2020 and 2021

Product Code	Product	Unit	Estimate		Forecast
			2019	2020	2021
1,2,1,C	SAWLOGS AND VENEER LOGS, CONIFEROUS				
	Removals	1000 m ³	174	180	180
	Imports	1000 m ³	73	70	70
	Exports	1000 m ³	77	75	75
	Apparent consumption	1000 m ³	170	175	175
1,2,1,NC	SAWLOGS AND VENEER LOGS, NON-CONIFEROUS				
	Removals	1000 m ³	72	80	80
	Imports	1000 m ³	84	80	80
	Exports	1000 m ³	65	65	65
	Apparent consumption	1000 m ³	91	95	95
1,2,1,NC,T	of which, tropical logs				
	Imports	1000 m ³	20	15	15
	Exports	1000 m ³	6	6	6
	Net Trade	1000 m ³	13	9	9
1,2,2,C	PULPWOOD (ROUND AND SPLIT), CONIFEROUS				
	Removals	1000 m ³	267	270	270
	Imports	1000 m ³	89	90	90
	Exports	1000 m ³	218	220	220
	Apparent consumption	1000 m ³	138	140	140
1,2,2,NC	PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS				
	Removals	1000 m ³	177	180	180
	Imports	1000 m ³	17	15	15
	Exports	1000 m ³	131	130	130
	Apparent consumption	1000 m ³	63	65	65
3 + 4	WOOD RESIDUES, CHIPS AND PARTICLES				
	Domestic supply	1000 m ³	902	926	925
	Imports	1000 m ³	626	625	625
	Exports	1000 m ³	713	715	715
	Apparent consumption	1000 m ³	816	836	835
1,2,3,C	OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS				
	Removals	1000 m ³	41	20	20
1,2,3,NC	OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS				
	Removals	1000 m ³	11	10	10
1,1,C	WOOD FUEL, CONIFEROUS				
	Removals	1000 m ³	434	434	434
1,1,NC	WOOD FUEL, NON-CONIFEROUS				
	Removals	1000 m ³	1.944	1.944	1.944

5,C	SAWNWOOD, CONIFEROUS		2019	2020	2021
	Production	1000 m ³	90	85	85
	Imports	1000 m ³	2.760	2.800	2.800
	Exports	1000 m ³	602	550	550
	Apparent consumption	1000 m ³	2.248	2.335	2.335
5,NC	SAWNWOOD, NON-CONIFEROUS				
	Production	1000 m ³	51	51	51
	Imports	1000 m ³	366	388	380
	Exports	1000 m ³	77	70	70
	Apparent consumption	1000 m ³	340	369	361
5,NC,T	of which, tropical sawnwood				
	Production	1000 m ³	6	6	6
	Imports	1000 m ³	181	175	180
	Exports	1000 m ³	29	21	20
	Apparent consumption	1000 m ³	158	160	166
6,1	VENEER SHEETS				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	34	40	34
	Exports	1000 m ³	12	9	10
	Apparent consumption	1000 m ³	22	31	24
6,1,NC,T	of which, tropical veneer sheets				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	6	17	10
	Exports	1000 m ³	0	1	1
	Apparent consumption	1000 m ³	6	16	9
6,2	PLYWOOD				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	605	603	605
	Exports	1000 m ³	84	77	80
	Apparent consumption	1000 m ³	521	526	525
6,2,NC,T	of which, tropical plywood				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	96	89	90
	Exports	1000 m ³	36	34	35
	Apparent consumption	1000 m ³	60	55	55
6,3	PARTICLE BOARD (including OSB)				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	603	595	600
	Exports	1000 m ³	114	117	120
	Apparent consumption	1000 m ³	489	478	480

6,3,1	of which, OSB		2019	2020	2021
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	144	133	140
	Exports	1000 m ³	12	6	10
	Apparent consumption	1000 m ³	132	127	130
6,4	FIBREBOARD				
	Production	1000 m ³	29	29	29
	Imports	1000 m ³	549	595	600
	Exports	1000 m ³	159	165	171
	Apparent consumption	1000 m ³	419	459	458
6,4,1	Hardboard				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	65	68	70
	Exports	1000 m ³	10	12	15
	Apparent consumption	1000 m ³	55	56	55
6,4,2	MDF (Medium density)				
	Production	1000 m ³	0	0	0
	Imports	1000 m ³	412	445	450
	Exports	1000 m ³	143	147	150
	Apparent consumption	1000 m ³	269	298	300
6,4,3	Other fibreboard				
	Production	1000 m ³	29	29	29
	Imports	1000 m ³	72	82	80
	Exports	1000 m ³	6	6	6
	Apparent consumption	1000 m ³	95	105	103
7	WOOD PULP				
	Production	1000 m,t,	37	37	37
	Imports	1000 m,t,	1.486	1.397	1.400
	Exports	1000 m,t,	804	748	750
	Apparent consumption	1000 m,t,	719	686	687
10	PAPER & PAPERBOARD				
	Production	1000 m,t,	2.895	2.850	2.850
	Imports	1000 m,t,	2.332	2.122	2.100
	Exports	1000 m,t,	2.556	2.505	2.500
	Apparent consumption	1000 m,t,	2.671	2.467	2.450
4,1	WOOD PELLETS				
	Production	1000 m,t,	300	300	320
	Imports	1000 m,t,	1.050	2.000	2.500
	Exports	1000 m,t,	199	163	160
	Apparent consumption	1000 m,t,	1.151	2.137	2.660