

# Portugal Market Report 2021

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## **1 MAJOR ECONOMIC TRENDS <sup>1</sup>**

### **1.1 COVID – 19 OUTBREAK**

At least since March 2020, when the first deaths associated with the SARS-COV2 virus were registered, the effects of the pandemic and the consequent policy measures to safeguard public health have profoundly altered the normality of Portuguese life.

As a result, the overall indicators show a significant impact of the pandemic, with a reduced number of those appearing not have been affected. Some seems to observe a positive shift, such as the increases in the households' savings rate and in the average earning.

#### **1.1.1 MACROECONOMIC IMPACT**

##### **NATIONAL ACCOUNTS**

In 2020, Gross Domestic Product (GDP) contracted by -7.6% in volume (in 2019, the growth rate of +2.5% was registered). The contraction results mostly from the deep impact of the COVID-19 pandemic in economic activity: between the second quarter of 2020 and the first quarter of 2021, GDP contracted -8.4%, in volume.

The Portuguese public debt attained 133.6% of GDP, in 2020, being one of the highest levels ever registered in the country, limiting budgetary inner capabilities and posing debt constraints to further developments.

Private consumption registered a rate of change of -5.8%, in real terms (+2.6% in 2019), with the public consumption observing a rate of change of 0.4% (0.7% in 2019), with a negative impact caused by the measures adopted to reduce the spread of COVID 19, which implied the closure of several public services, particularly in the second quarter.

In the three last quarters of 2020, the net lending of public administration decreased from +0.1% to -7.2% of GDP while the households' savings rate increased from +9.6% to +16.0% of their disposable income, vis-à-vis the same period in 2019. Reflecting not only public policy measures to support employment but also the severe contraction of consumption, to some extent forced by restrictions on mobility and access to many services and consumer goods.

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<sup>1</sup> The overview of recent developments in Portuguese Socio-economic situation was mostly based on the official statistical data (Publications & Database) of Statistics Portugal ([www.ine.pt](http://www.ine.pt)). The main references were the annual Statistical Yearbook of Portugal (Statistics Portugal, 2021a), complemented by the publication A YEAR OF PANDEMIC: A BRIEF OVERVIEW (Statistics Portugal, 2021b), and international trade (Statistics Portugal, 2021c) and economic accounts databases.

Investment decreased -4.7% in real terms in 2020 (+5.4% in 2019), reflecting the evolution of +1.8% Gross Fixed Capital Formation (+5.4 % in the previous year).

## TRADE

Imports of goods (-17.8%) decreased more sharply than exports (-11.4%) allowing the reduction of trade deficit (figure 1), which in average corresponded to an improvement of 602 million euros in the first year of the pandemic.

The main negative impact in terms of trade repercussion on the economy as a whole was on tourist and related activities, standing out the sharp contraction in demand for the respective services by non-residents and, consequently, the unprecedented reduction of tourism exports.

Also significant were the negative impacts on individual and collective consumption services and, to a lesser extent, on industry and agriculture.

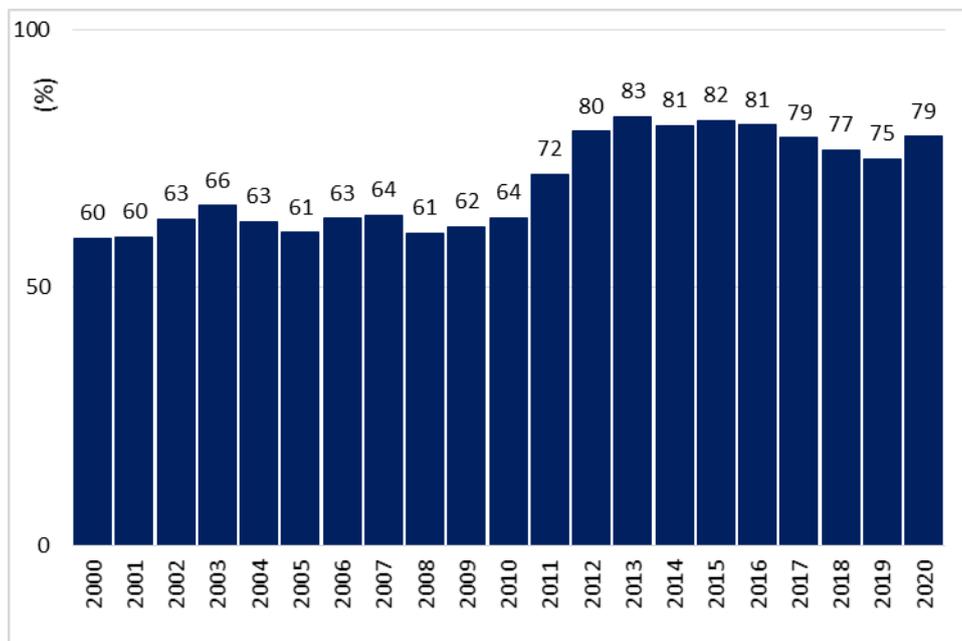


Figure 1 - National export/import coverage rate (Statistics Portugal, 2021c).

There were no significant impacts on the Consumer Price Index (CPI). In the agricultural goods output price indices, the variation was also little significant, with a slight increase (+0.3%), while in the industry there was a decrease (-4.4%).

## ENVIRONMENT AND ENERGY

The pandemic generated improvements in greenhouse gas emissions (-13.7%) compared with the pre-pandemic period (-9.9%).

The reduction in the consumption of petroleum-based fuels, mainly jet fuel for aviation (-71.4%) and gasoline (-23.4%) and the increase in domestic consumption of electricity (+14.5%) and natural gas (+16.2%) are the main reasons for the improvement.

Portugal is energetically dependent on the outside, importing a large share of its primary energy consumption. In 2019, renewable energy sources contributed 30.6% to the gross final energy consumption (Statistics Portugal, 2021 a).

Multi-material recovery remained almost unchanged in relative terms, with the quantities of materials separated and available for recycling accounting for 12.8% of the total managed by operations (the same proportion in 2018 and 2019). However, in absolute terms the quantities per inhabitant increased slightly from 62.1 kg per inhabitant (2018) to 62.5 kg per inhabitant (2019).

The effort of industrial enterprises to promote environmental performance standards in their production processes resulted in an investment of €167 million (€14 million more than in 2018). Expenditure totalled €320 million and income stood at €192 million (-15.2% than in 2018).

### **DEMOGRAPHY**

In the demographic domain, the number of deaths was significantly higher than normal, with, on average, more 1,925 deaths per month, compared to the 5 previous years, of which 1,363 were associated with the SARS-COV2 virus.

In 2020, live-births decreased -4.8% and consequently the negative natural balance was accentuated.

As of 31 December 2020, the resident population in Portugal was estimated to be of 10,298,252 persons, 2,343 more than in 2019. This resulted in a positive crude rate of increase of 0.02% (Statistics Portugal, 2020 a).

The population increase resulted from an increase in net migration (41,274) since the natural balance remained negative (-38,931)

### **LABOUR**

The labour market registered a reduction of the employed population (-2.1%). Though, the increase in the unemployment rate and in the rate of labour underutilisation was below the levels reached during the adjustment program of the Portuguese economy, in force from 2011 to 2014. The 2020 better results are mostly a consequence of the impact of employment protection measures, as the simplified Lay-off covering a total of 20,110 enterprises and a107.295 workers (Pordata 2021).

The +3.2% monthly change in earning per employee (from 982€ to 1.014€) reflects the destruction of lower-paid jobs mostly.

### **CONSTRUCTION**

The construction sector showed resilience, with buildings and dwellings average licensing figures very close to the 12 months prior to the pandemic. Housing transactions continued to be very high in both number and value, and even grew in average terms in the new housing segment.

## **1.1.2 MITIGATION MEASURES**

### **POLICY MEASURES**

Portugal acted promptly after registering its first two cases, imposing severe restrictions - by the 16th of March, 2020, all schools for all academic levels were closed.

Portuguese government proceeded with the objective of containing the threat of contagion. The first step was the reinforcement of the national healthcare system, easing the recruitment of human resources and improving health national contact centre, named SNS24.

The full lockdown set on March 22 in Portugal included stay at home measures such as promoting teleworking, limiting the circulation on the public road, closing shops, restaurants, gyms and recreation facilities and cancelling religious ceremonies. Additionally, some sentences for the least serious crimes were partially forgiven to prevent the spread of virus inside prisons.

### **ECONOMIC MEASURES**

The measures taken by Government had immediate and long term budgetary impact. On the short term, the major financial impacts covered:

- Additional resources for virus-related health and education spending;
- Over €600 million per month (0.3 % GDP) in supporting those temporarily furloughed by their employer;
- Incentives to support progressive reopening and to normalize business activity, about €1.3 billion (0.6% of GDP)

With long-term impact, the measures taken included:

- Up to €13 billion (6.8 % GDP) of state-guaranteed credit lines for medium, small and micro enterprises in affected sectors, operated mainly through the banking system;
- €7.9 billion (3.7 % GDP) of tax and social security contribution deferrals for companies and employees.

The core measures to tackle the crises comprise a temporary more flexible labour system, allowing companies who were severely hit by the pandemic to lower their labour costs, with the Government maintaining a certain percentage of the employee's wage. Additional financial support was also provided for the self-employed affected by the virus; the unemployed; people forced to stay home to care for children, the national airline and; those sick or in isolation due to the virus (Amorim *et al*, 2021).

Almost 750 thousand employees (15% of the labour force) benefited from forms of state support. This allowed to contain unemployment which only saw a moderate increase from 6.5% to 8% in August, 2020.

## 2 POLICY MEASURES IMPACTING FOREST MANAGEMENT AND FOREST PRODUCTS TRADE<sup>2</sup>

### 2.1 CLIMATE CHANGE AND ENERGY

The Portuguese framework for climate and energy policy (APA, 2021) is aligned with the European Commission strategic package to tackle in different areas the Paris Agreement global challenge.

The European Union targets are set in the «2020 climate and energy package» and «2030 climate and energy framework», being detailed within the 2050 long-term strategy and enshrined in the European Climate Law. They advocate the progressive reduction in greenhouse gas emission up to 2050.

The European Green Deal also envisage to tackle climate and environmental-related challenges setting the policy initiatives with the overarching aim of making Europe climate neutral in 2050.

Those instruments are being or have been transposed to the Portuguese legal system, underlining for the direct or indirect application/impact on forest sector:

- The Roadmap for Carbon Neutrality 2050 (Government Order 107/2019), establishing the vision and ;
- The National Roadmap for adaptation 2100, a project aiming to evaluate de vulnerability of the Portuguese Territory to climate changes in the XXI century
- The National Integrated Energy and Climate Plan 2030 (Government Order n.º 53/2020);
- The Climate Change Adaptation Action Program (Government Order 130/2019);

#### 2.1.1 ROADMAP FOR CARBON NEUTRALITY 2050

Portugal has committed internationally to reduce its greenhouse gas emissions so that the balance between emissions and removals from the atmosphere, namely through the use of forests, will be zero by 2050. The goal of a net zero carbon footprint has been labelled "carbon neutrality".

The main objective of the Roadmap for Carbon Neutrality 2050 (RCN 2050) is to identify and analyse the implications associated with technically feasible, economically viable and socially accepted alternative trajectories.

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<sup>2</sup> Based on references disseminated by the National Authorities empowered within the policies of forests, environment, economy and energy, mainly: the Portuguese Agency for Environment (apambiente.pt), endorsed on Climate Change themes; the Directorate-General of Economic Activities (<https://www.dgae.gov.pt/>) with attributions on circular economy (<https://eco.nomia.pt/>); the Directorate-General of Energy and Geology (<http://www.dgeg.gov.pt/>), with competence on energy policies; the Institute for Nature Conservation and Forests (<https://www.icnf.pt/>), the National Authority for Nature Conservation and Biodiversity and the National Authority for Forests.

The roadmap will embark on alternative, low-carbon development paths until 2050 in four areas of intervention linked to those sectors mainly responsible for greenhouse gas emissions and carbon sequestration: energy; transport and mobility; waste; agriculture forest and land use. These will be based on three multifaceted aspects: socioeconomic scenarios; circular economy; societal participation.

The Roadmap consider and systematise the work done under the National Strategy for Adaptation to Climate Change (ENAAC 2020), endorsing within the actions lines to tackle impacts and vulnerabilities the: prevention of rural wildfires; implementation of practices of soil conservation and fertility; increase the resilience of ecosystems, species and habitat's to the effects of climate change; prevent the installation and expansion of invasive species, diseases transmitted by vectors, agricultural and forest pests and diseases. The financing instruments mobilized to implement the actions and measures of the roadmap are laid down on it.

### **2.1.2 THE NATIONAL ROADMAP FOR ADAPTATION 2100 (RNA2100)**

The National Roadmap for Adaptation 2100 (RNA2100) will set guidelines on adaptation to climate change for territorial and sectoral planning.

The preparation of the National Roadmap for Adaptation 2100 (RNA 2100) started in 2020 and is expected to end in 2023. The work underlying the preparation of the Roadmap aims to assess Portugal's vulnerability to climate change, as well as estimate the costs of economic sectors in adapting to the expected impacts of climate change in 2100.

### **2.1.3 NATIONAL STRATEGY FOR ADAPTATION TO CLIMATE CHANGE 2020**

The National Strategy for Adaptation to Climate Change 2020 (ENAAC2020), now extended until 31 Dec 2025, sets goals and the model for the implementation of solutions for the adaptation of different sectors to the effects of climate change: agriculture, biodiversity, economy, energy and energy security, forests, human health, security of people and goods, transport, communications and coastal zones.

For this purpose, ENAAC2020 aims to improve the level of knowledge about climate change and promote the integration of adaptation to climate change in sectoral policies and territorial planning instruments. ENAAC2020 also intends to help central, regional and local administration and policy makers to find the means and tools to implement adaptation solutions based on technical-scientific knowledge and good practices.

ENAAC2020 includes six thematic areas that cut across all sectors, including forestry: research and innovation, financing and implementation, international cooperation, communication and dissemination, adaptation in spatial planning and adaptation in water resources management.

#### **2.1.4 NATIONAL INTEGRATED ENERGY AND CLIMATE PLAN 2030**

The National Integrated Energy and Climate Plan 2030 (PNEC2030) integrates on its 2030 targets the reduction of greenhouse gases within -45% to -55% and the use of renewable sources to 47%.

The Plan recognises the role of forests and forest biomasses toward the measures of action to decarbonize economy, promote sustainable agriculture and enhance carbon sequestration, advocating the:

- Augmentation of the natural capacity of forest as carbon sinks;
- Promote more effective forest management with the reduce of burned area;
- Enhance the role of bioeconomy through the intensification of active afforestation, promotion of more efficient forestry practices and upgrading ecosystem services;
- Promotion of circular use of materials, including wood and non-wood forest productions and derived products, and the cascading use of energy, enabling the transition for circular economy;
- Progress with green taxation;
- Promotion of R&D projects that support the transition to a low carbon economy.

The Plan covers as well actions to reinforce and promote renewable sources and reduce the country dependency on energy, endorsing within its measures the acceleration of the contribution of small renewable production in market mechanisms by promoting their aggregation and enhance the purchase and use of decentralized heat and cold production systems from renewable energy sources.

#### **2.1.5 CLIMATE CHANGE ADAPTATION ACTION PROGRAM**

The Climate Change Adaptation Action Program (P-3AC), approved by the Government Order 130/2019, of 2 of August, complements and systematizes the work carried out in the context of the previews National Strategy for Adaptation to Climate Change (ENAAAC 2020). The Program elects eight lines of action with direct intervention in the territory and infrastructures, complemented by a transversal line. These lines aim to address the main impacts and vulnerabilities identified for Portugal.

The P-3AC lines of action and correspondent measures encompass:

- Rural fire prevention (e.g. economic valorisation of biomass; creation of discontinuity buffers and plots; reconfiguration of infrastructures and support systems);
- Conservation and improvement of soil fertility (e.g. erosion control; water retention; soil composition and structure);

- Diseases, pests and invasive species (e.g. enhancement of genetic material; disease control and invasive alien species; surveillance; information and communication);
- Capacity building, awareness raising and adaptation tools (e.g. monitoring and decision making; capacity building and planning; communication).

The operationalization of the Program is ensured through two parallel approaches to promote adaptation actions: one in the short term (by 2020); and one in the medium term (by 2030). These approaches embody guidelines to mobilize financial resources. Additionally, the medium term also define policies and political instruments and promotes the implementation of structural actions to reduce the vulnerability of the territory and economy to climate change impacts.

## **2.2 DESERTIFICATION**

The National Action Program to Combat Desertification (PANCD), approved in 2014 (Government order n.º 78/2014, of 24 of December), follows international agreements in the framework of the United Nations Convention to Combat Desertification (UNCCD). The first strategic objective of the PANCD concerning soil and water conservation is a consequence of UNCCD commitments. The map of susceptibility to desertification for mainland Portugal was drawn in the framework of this Program.

## **2.3 CIRCULAR ECONOMY AND CASCADING USE OF BIOMASS**

Portugal is one of the EU member states that has come up with a Circular Economy strategy, roadmap and action plan, in line with the ambitions of the European Commission.

The ambition set out for Portugal 2050 was designed to leverage and spur development of work within the Action Plan for the Circular Economy (APCE), Government Order n.º 190-A 2017, which advocates on its elements (ECO.NOMIA, 2019):

- A carbon neutral economy that is efficient and productive in its use of resources encompassed by neutral GHG emissions and effective use of materials, with the significant fall in their extraction, importing and in final waste generated, attaining better management and value extraction from the resources in circulation;
- Knowledge as impulse, enhancing solutions in products, services, business models, consumption/use and behaviour with lower emissions and resource intensity, integrated into business models that spur job creation, efficient and effective use of mobilized resources, and their lasting economic value;
- Inclusive and resilient economic prosperity through economic development impacting all sectors of society and the resilience against price and risk volatility and gradually decoupled from negative environmental and social impacts;

- A flourishing, responsible, dynamic and inclusive society.

The plan considers three levels of actions:

- Macro, structural in scope, produces transversal and systemic effects which enable society to appropriate the principles of the circular economy;
- Meso, or sectoral, covering actions or initiatives defined and accepted by all players in the value chain of sectors relevant to raising productivity and the efficient use of resources, seizing the economic, social and environmental benefits;
- Micro, regional or local, related to actions or initiatives defined and accepted by all regional and/or local government, economic and social actors which incorporate a local economic aspect and which emphasise this in the approach to social challenges.

The different levels of actions are inter-related and reinforce each other positively, creating feedbacks that evolve the context iteratively and allow knowledge, policies, projects and results to be consolidated, spurring the actors involved.

The plan is based on the understanding and experience common to four areas of governance (science, technology and high education; economy; **environment, agriculture, forestry and rural development**), comprising the “inter-ministerial group” which drafted the APCE. This involved a survey of current performance, known measures, an analysis of the European action plan, and benchmarking against other circular economy plans, from which actions were proposed with their respective guidelines.

The example of Portuguese forest sector is reiterated by the long term practices under the principals of circular economy and cascading use, covering resources efficiency and reutilization of by-products and residues. The underline in 2020 through the dynamics of production and markets of these processing sub-products:

- On sawn and furniture chain, the wood residues and the recovered post-consumer wood, with, respectively, over 749 and 271 thousand tons, in production, and about -33.7 million and 345 thousand euros, on international trade balance;
- On pulp, paper and paperboard chain, the recovered fiber pulp and the recovered paper with, respectively, 258 and 948.8 thousand tons, in production and 35.7 million euros and over 653 million euros, on international trade balance;
- On cork chain, the cork waste, crushed, powdered or ground with a production of around 362.6 thousand tons million euros and an international trade balance of more than 29.5 million euros;
- On biomass for energy chain, within the production of electricity and steam, the consumption of more than 4.8 million tons of by-products and residues originated on forest processing industries, comprising: 63.5 thousand tons of

sawdust and wood chips, mostly of pine and eucalyptus; 998.4 thousand tons of bark; and more than 3,774.5 thousand tons of fibers from other ligneous constituents, mostly black liquor.

## **2.4 FORESTS POLICY**

The Portuguese forest sector is subordinated to the instruments of political administration provided in the 1976 Portuguese Constitution and endorsed by the Forest Policy Act of 1996, as well as other specific legislation.

The European commitments for forest policies are incorporated in the Portuguese National Strategy for Forests (NSF), which was approved in 2006 and updated in 2015, by the Government Order n.º 6-B/2015.

The NSF assumes the maximization of the total economic value of forest as its main purpose, and it's organized in the following strategic objectives: minimization of fire risks and biotic agents; specialization of the territory; enhancement of productivity through sustainable forest management; internationalization and increase in products value; to enhance efficiency in general and to improve the sector's competitiveness.

The NSF aims and targets are articulated within seven Regional Forest Plans (PROF).

The PROF are national sectorial policy instruments, embodied under the scope of the Portuguese territorial planning legal system. At regional scale, they encompass the strategic framework, guidelines and specific norms regarding the use, occupation and forest management.

## **2.5 FOREST MANAGEMENT**

The Forest Intervention Zones (ZIF) created by Decree-Law n.º 127/2005 (altered by Decree-Law n.º 15/2009, with Declarations of rectification n.º 10/2009, Decree-Law n.º 2/2011, n.º 27/2014 and n.º 67/2017) endorse the association of forest owners and/or forest producers for a common management, enabling the cooperative management of forest lands and mitigating their splitting up. This legal instrument permits the combination of forest properties to create larger management unities. The ZIF main objectives are: to promote sustainable management in forest spaces; to coordinate, in a planned way, the protection of forest and natural spaces; to reduce ignition and fire propagation conditions; to recover these spaces.

The Forest Management Plan (FMP) legislation (Decree-Law n.º 16/2009, in its present redaction) establish mandatory FMP on public and community forests, on private properties, above a size defined regionally under each PROF, and on the "forest intervention zones" (ZIF). In the Mainland, about 4,336 FMP are approved, which cover 1.996 million hectares, corresponding to 62% of the total forest area. Eucalyptus stands have a FMP coverage rate above the national average.

The small forest holdings, below the size of mandatory FMP and not integrated by a ZIF zone, are still subject to the minimum standards endorsed by each PROF. These standards entail:

- Preventive forestry standards;
- General forestry standards;
- Forestry models adopted within each PROF following the homogeneous division of the region in sub-regions.

## 2.6 HARVEST AND CUTTING LEGAL REGIME

The Decree-Law n.º 31/2020, 10 of June, establishes the mandatory declaration of cuts, extraordinary cuts, thinning or uprooting of forest trees to be commercialized or auto-consumed by industry, as well as the traceability of the wood for primary transformation. The declaration is to be made in digital format in the specific electronic Cutting Information System (SiCorte) located at the Institute for Nature Conservation and Forests (ICNF, I.P.), the National Forest Authority website.

The premature cutting of *Eucalyptus* and *Pinus* species in areas superior to two hectares requires the previews authorization by the National Forest Authority (Decree-Law n.º 173/88). In *Eucalyptus* the criteria defined by law to consider the felling as premature entail the stands with at least 75% of trees with less than 12 centimeters, of diameter, or 37.5 centimeters, of perimeter, at chest height.

## 2.7 AFFORESTATION

The legal regime of afforestation and reforestation actions is regulated by Decree-Law n.º. 12/2019, of 21 of January, second amendment to Decree-Law 96/2013, of 19 of July. This legal regime establishes the essential technical standards to be considered in the scope of afforestation and reforestation project design, and the minimum qualifications required for project design and subscription.

## 2.8 TIMBER AND TIMBER PRODUCTS MARKETS

The Timber Regulation (Reg. EU 995/2010) to combat trade in illegally harvested timber was adopted in October 2010 by the EU. This regulation counters the trade in illegally harvested timber and timber products through key obligations:

- It prohibits the placing on the EU market of illegally harvested timber and products derived from such timber;
- It requires traders who place timber products on the EU market for the first time to exercise ‘due diligence’.

The legislation to apply the timber regulation on Portugal establishes as mandatory the register of all the operators with activity in the country. The register is made electronically through a system named «RIO system». The link to the digital platform of «RIO system» is located at the website of ICNF, I.P., the competent authority for the application of the Regulation, and is accessible since the 26 of July, 2013. The main indicators are also available in the same website (<https://ruem.icnf.pt/>).

It was considered that the register of the operators was a good instrument to verify the application in Portugal of the obligations laid down by the timber regulation. The register was considered essential to identify the operators working in Portugal, enabling to plan the monitoring actions to verify the application of the “due diligence”.

## **2.9 FOREST BIOMASS FOR ENERGY**

The production and use of forest biomass for energy is regulated by the Decree-Law n.º 5/2011 (changed by Decree-Law n.º 179/2012, Decree-Law n.º, 166/2015 and Decree-Law n.º 48/2019). Within its terms, in order to benefit the incentive established by the legislation, the promoters of forest biomass power plants are, namely, obliged to:

- Organize and maintain a system of data records that allows the identification of the type and characteristics of the biomass consumed at the plant;
- Present an action plan for 10 years developed in close articulation with forest producer and local authorities, aiming the sustainability of the supply of biomass on the long-run.

The legal regime of forest biomass for energy new centrals is endorsed by the Decree-Law n.º 120/2019 (which republishes Decree -Law n.º 64/2017). This regime bound the definition of new biomass power centrals, entailing the installation for the production of electrical and thermal energy, with production in cogeneration or trigeneration, which uses biomass as fuel, and may incorporate a maximum percentage of 5% of fossil fuel as auxiliary and starter fuel. Other requirement is the installation of new biomass plants within the proximity to critical fire risk zones.

## **3 MARKET DRIVERS**

### **3.1 GENERAL OVERVIEW**

The Portuguese forest sector has long been export oriented. Forest products exports have been among the country’s main exports, accounting in the current millennium for 10% of the total exports, while the sector is only responsible for 4% of the imports (figure 2). After 2010 the exports surpass the imports in more than 2.5 thousand million euros (table 1), making it one of the most international markets dependent sector of the Portuguese economy.

Portugal is a price-taker in international markets. The fact that a large share of forest production is exported and that Portugal is primarily a price taker makes it very vulnerable to market developments elsewhere (Rego *et al*, 2014).

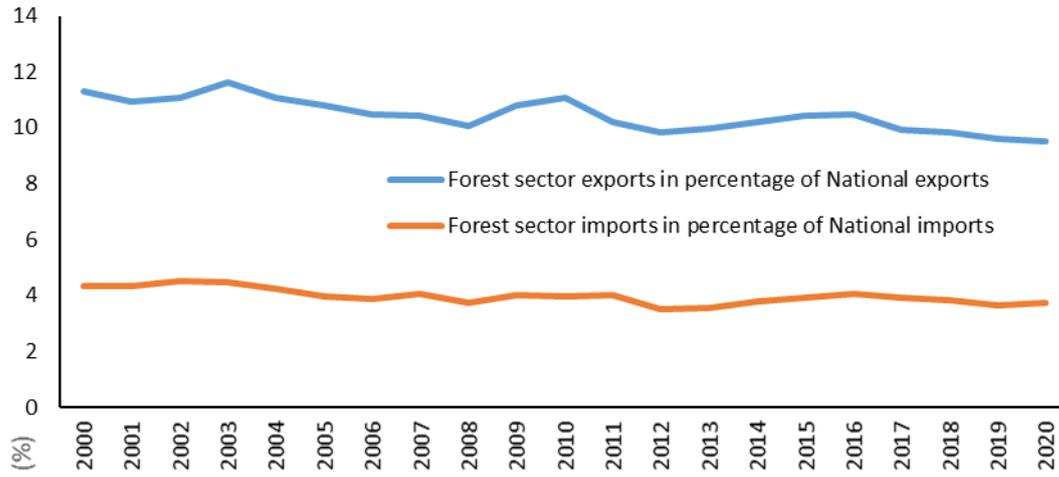


Figure 2 – Relevance of forest sector exports & imports in the context of the Portuguese international trade (Statistics Portugal, 2021c)

Table 1 - National and forest sector commercial balance (Statistics Portugal, 2021c)

| Year | Commercial balance (million €) |          | Coverage rate of exports over imports (%) |          |
|------|--------------------------------|----------|---|----------|
|      | Forest sector                  | National | Forest sector                             | National |
| 2000 | 1 061                          | -18 491  | 153                                       | 60       |
| 2001 | 994                            | -18 701  | 149                                       | 60       |
| 2002 | 1 078                          | -16 619  | 153                                       | 63       |
| 2003 | 1 389                          | -15 181  | 170                                       | 66       |
| 2004 | 1 328                          | -18 340  | 164                                       | 63       |
| 2005 | 1 304                          | -20 242  | 163                                       | 61       |
| 2006 | 1 532                          | -20 654  | 170                                       | 63       |
| 2007 | 1 539                          | -21 632  | 163                                       | 64       |
| 2008 | 1 484                          | -25 347  | 161                                       | 61       |
| 2009 | 1 321                          | -19 682  | 164                                       | 62       |
| 2010 | 1 771                          | -21 379  | 175                                       | 64       |
| 2011 | 1 954                          | -16 723  | 181                                       | 72       |
| 2012 | 2 456                          | -11 161  | 223                                       | 80       |
| 2013 | 2 664                          | -9 710   | 230                                       | 83       |
| 2014 | 2 657                          | -10 978  | 219                                       | 81       |
| 2015 | 2 800                          | -10 711  | 217                                       | 82       |
| 2016 | 2 712                          | -11 385  | 207                                       | 81       |
| 2017 | 2 682                          | -14 671  | 197                                       | 79       |
| 2018 | 2 758                          | -17 589  | 194                                       | 77       |
| 2019 | 2 777                          | -20 074  | 193                                       | 75       |
| 2020 | 2 531                          | -14 388  | 198                                       | 79       |

### 3.2 CERTIFICATION SCHEMES

The export orientation of Portuguese forest sector is the dominant factor on the option for certification schemes. Presently two systems are followed:

- The Programme for the Endorsement of Forest Certification (PEFC) with 307 thousand hectares of certified area, 2,983 forest producers and managers, 203 Chain of Custody's certificates related to 565 enterprises (PEFC Portugal, 2021).
- The Forest Stewardship Council (FSC) with 530,7 thousand hectares of certified area, corresponding to 34 certificates of forest management, more than 3,350 forest owners and 459 Chain of Custody certificates (FSC Portugal, 2021).

## **4 DEVELOPMENTS IN FOREST PRODUCT MARKETS**

### **4.1 COVID – 19 OUTBREAK & THE FOREST SECTOR**

As observed in the overall national activities, the Portuguese forest sector also register a “slowdown” in forest management and related industrial activities due to the pandemic in 2020. Though the supply chains remained relatively stable and the sector confirmed to be “strategic” for the country's economic recovery.

At forest level the base is fragile, dominated by small producers/owners. Promoting the National self-capacity to supply forest raw material to main industries was reinforced as essential. In forest production the main concern resulting from the pandemic situation was bound in the supply chain sustainability. This was also confirmed in international trade statistics, showing industrial roundwood exports slowdown and the increase of imports, in 2020.

This being said, in general forest management activities took place at an almost normal pace. The normal activities of forest management were more or less maintained, with some adjustments to the exploration plans, but activities continued with a minimum of distortion.

There was a need to adapt to the new legislation to combat the pandemic, namely during the lockdown periods and in labour laws, and industries were affected in different ways and intensities, but the sector proved to be resilient and endure less the impact of COVID 19 than other activities (ex: tourism).

In sawmills, wood panels and agglomerated wood furniture a diminution in production due to COV 19 was observed. Though, as construction sector showed resilience the lessening was not as intense as previously foreseen. In wood panels and furniture the temporary shutdown of Ikea, a major consumer of split round wood and derived products, led to the reduction in demand. A large majority of the enterprises dedicated to these activities appealed to the Government subventions created support lay-off.

In the pulp and paper sector, was reported a reduction in the production of printing and writing paper, a major end product of the chain in Portugal. The main reason pointed for the decreasing is connected to the diminishing demand in exports, which cover more than 120 country destinations. Also, the lessening in packaging materials’ production might reflect the declining demand, both at national and international levels, due to the overall economic shutdown.

### **4.2 WOOD AND TIMBER BASED PRODUCT MARKETS**

The overview of timber production in current millennium as shown by the forestry accounts (table 3) done by Statistics Portugal (2021d) under the national economic accounts, indicate that the production, in value, of coniferous timber for industrial uses has been decreasing at concerning rates (average annual variation -2%). Even so, in the current decade (2010 to 2019) a positive change of 3% was observed and of 1%

between 2018 and 2019. The non-coniferous roundwood shows an evolution rising at an annual average rate of 3%.

The evolution in cubic meters unities of volume from 2000 to 2020 (Faostat, 2021), as reported under the Joint Forest Sector Questionnaires (JFSQ), follows.as well, in the production of coniferous timber for industrial uses, a reduction pattern with average annual rates of -1% (total variation -21%); whilst the non-coniferous timber has been rising on average 3% (total variation 48%). In the present decade (2010 to 2020) both these types augmented, though the average increase in non-coniferous was more intense, with the average annual change of 2% (total 39%), whereas in coniferous was 1% (total 14%).

In 2020, wildfires incidence in Portugal kept the declining trend registered in 2018 and 2019, following the 2017 extreme impact of their severity. This year was registered a total burnt area of 539,921 hectares, equivalent to: 500,099 hectares in forest space (329,514 hectares in forest stands and 170,585 hectares in scrublands); and 39,822 hectares in agriculture areas. In 2020, from 1 of January to 15 of October, the total burnt area was much smaller (65,887 hectares), with 59,627 hectares in forest space (31,803 hectares in forest stands and 27,824 hectares in scrublands); 6,260 hectares in agriculture. (ICNF, 2020).

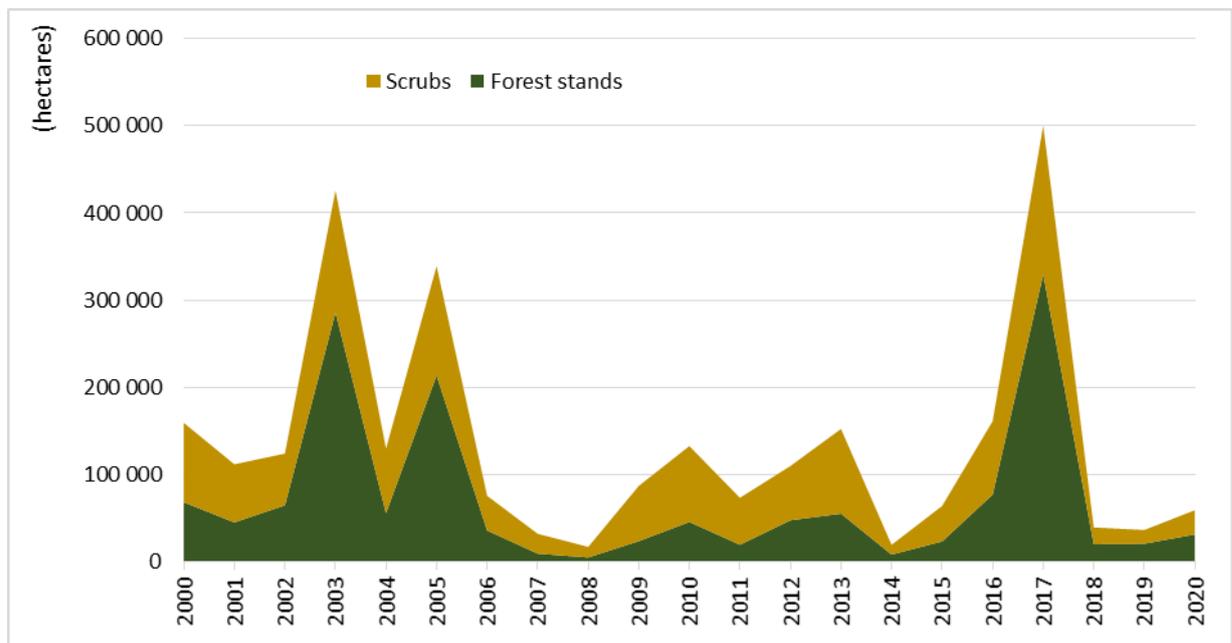


Figure 3 – Burnt areas in forest space, comprising forest stands and scrublands.

The quality of burnt wood is depreciated or even unappropriated for industrial uses. Thought, a part of the burnt wood can be used by wood base chains. On the short term, this evidence changes the patterns of the markets.

Table 2 – Forest production structure between 2000 and 2019.

|   |  | 2000                  | 2010  | 2018  | 2019  | 2018/2019          | 2000/2019      |       | 2010/2019      |       |  |
|---|--|-----------------------|-------|-------|-------|--------------------|----------------|-------|----------------|-------|--|
|   |  | 10 <sup>6</sup> euros |       |       |       | rate of change (%) |                |       |                |       |  |
|   |  |                       |       |       |       | annual             | annual average | total | annual average | total |  |
| Forestry and logging output at basic prices |  | 1 538                 | 1 105 | 1 358 | 1 306 | -4                 | -1             | -15   | 2              | 18    |  |
| Forestry goods at basic prices              |  | 1 190                 | 791   | 884   | 855   | -3                 | -1             | -28   | 0,9            | 8     |  |
| Timber                                      | Coniferous timber for industrial uses      | 270                   | 122   | 149   | 151   | 1                  | -2             | -44   | 3              | 24    |  |
|   | Sawlogs and veneer logs - coniferous       | 220                   | 99    | 131   | 130   | 0                  | -2             | -41   | 3              | 31    |  |
|   | Pulp wood (round & split) - coniferous     | 42                    | 17    | 13    | 15    | 17                 | -3             | -64   | -1             | -11   |  |
|   | Other wood - coniferous                    | 9                     | 6     | 6     | 6     | 0                  | -2             | -33   | 0              | 4     |  |
|   | Non-coniferous timber for industrial uses  | 200                   | 263   | 288   | 298   | 3                  | 3              | 49    | 2              | 14    |  |
|   | Sawlogs and veneer logs - non-coniferous   | 3                     | 5     | 5     | 6     | 16                 | 4              | 71    | 2              | 16    |  |
|   | Pulp wood (round & split) - non-coniferous | 194                   | 256   | 282   | 291   | 3                  | 3              | 50    | 2              | 14    |  |
|   | Other wood - non-coniferous                | 3                     | 2     | 2     | 2     | -10                | -2             | -45   | -1             | -9    |  |
|   | Biomass for energy                         | 88                    | 47    | 51    | 60    | 17                 | -2             | -32   | 3              | 29    |  |
| Growing stock                               |  | 112                   | 135   | 61    | 66    | 9                  | -2             | -41   | -6             | -51   |  |
| Other products                              | Cork                                       | 491                   | 205   | 312   | 258   | -17                | -2             | -47   | 3              | 26    |  |
|   | Nursery forest plants                      | 8                     | 4     | 5     | 5     | 2                  | -2             | -38   | 1              | 11    |  |
|   | Other forestry products                    | 21                    | 16    | 17    | 17    | 1                  | -1             | -17   | 1              | 9     |  |
| Secondary non forest activities             |  | 64                    | 59    | 79    | 76    | -4                 | 1              | 19    | 3              | 28    |  |
| Net added value                             |  | 1 130                 | 685   | 809   | 770   | -5                 | -2             | -32   | 1              | 12    |  |

### 4.3 ESTIMATES FOR 2020 AND PROSPECTS FOR 2021

The estimates for 2021 and prospects for 2022 (annex) foresees a recovery trend after the impact of the pandemic in the overall economy.

This context with the new policy measures encompassing bioeconomy, circular economy and bio based cellulose products prospects a raising shift in end use timber products, in particular wrapping products and recovered products, as well as forest biomass for energy.

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**ANNEX**
**Table 3 - TIMBER FORECAST QUESTIONNAIRE, roundwood**

| Product Code |  | Product   | Unit                   | Historical data |         | Revised | Estimate | Forecast |
|--------------|--|---|------------------------|-----------------|---------|---------|----------|----------|
|              |  |   |                        | 2019            | 2020    | 2020    | 2021     | 2022     |
| 1.2.1.C      |  | <b>SAWLOGS AND VENEER LOGS, CONIFEROUS</b>        |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 1 718           | 1 650 N | 1 696   | 1 866    | 1 800    |
|              |  | Imports   | 1000 m <sup>3</sup> ub | 149 #           | 130 #   | 428     | 150      | 140      |
|              |  | Exports   | 1000 m <sup>3</sup> ub | 29 #            | 25 #    | 25      | 30       | 25       |
|              |  | Apparent consumption                              | 1000 m <sup>3</sup> ub | 1 838           | 1 755   | 2 099   | 1 986    | 1 915    |
| 1.2.1.NC     |  | <b>SAWLOGS AND VENEER LOGS, NON-CONIFEROUS</b>    |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 201             | 170 N   | 220     | 200      | 180      |
|              |  | Imports   | 1000 m <sup>3</sup> ub | 144 #           | 122 #   | 696     | 150      | 140      |
|              |  | Exports   | 1000 m <sup>3</sup> ub | 32 #            | 27 #    | 30      | 30       | 30       |
|              |  | Apparent consumption                              | 1000 m <sup>3</sup> ub | 312             | 265     | 885     | 320      | 290      |
| 1.2.1.NC.T   |  | <b>of which, tropical logs</b>                    |                        |                 |         |         |          |          |
|              |  | Imports   | 1000 m <sup>3</sup> ub | 72 #            | 25 #    | 192     | 80       | 75       |
|              |  | Exports   | 1000 m <sup>3</sup> ub | 6 #             | 5 #     |         | 6        | 6        |
|              |  | Net Trade   | 1000 m <sup>3</sup> ub | 66              | 20      | 187     | 74       | 69       |
| 1.2.2.C      |  | <b>PULPWOOD (ROUND AND SPLIT), CONIFEROUS</b>     |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 2 336           | 2 130   |         | 2 300    | 2 230    |
|              |  | Imports   | 1000 m <sup>3</sup> ub | 83 #            | 70 #    | 81      | 80       | 82       |
|              |  | Exports   | 1000 m <sup>3</sup> ub | 45 #            | 38 #    | 6       | 30       | 40       |
|              |  | Apparent consumption                              | 1000 m <sup>3</sup> ub | 2 374           | 2 162   | 2 205   | 2 350    | 2 272    |
| 1.2.2.NC     |  | <b>PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS</b> |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 7 619           | 7 410   |         | 7 600    | 7 620    |
|              |  | Imports   | 1000 m <sup>3</sup> ub | 1 143 #         | 980 #   | 1 353   | 1 000    | 1 050    |
|              |  | Exports   | 1000 m <sup>3</sup> ub | 351 #           | 300 #   | 178     | 300      | 320      |
|              |  | Apparent consumption                              | 1000 m <sup>3</sup> ub | 8 412           | 8 090   | 8 585   | 8 300    | 8 350    |
| 3            |  | <b>WOOD CHIPS, PARTICLES AND RESIDUES</b>         |                        |                 |         |         |          |          |
|              |  | Domestic supply                                   | 1000 m <sup>3</sup>    | 2 041 C         | 1 800 C | 1 921   | 2 000    | 2 020    |
|              |  | Imports   | 1000 m <sup>3</sup>    | 1 998 C         | 929 C   |         | 1 200    | 1 250    |
|              |  | Exports   | 1000 m <sup>3</sup>    | 99 C            | 108 C   |         | 100      | 110      |
|              |  | Apparent consumption                              | 1000 m <sup>3</sup>    | 3 939           | 2 621   |         | 3 100    | 3 160    |
| 1.2.3.C      |  | <b>OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS</b>     |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 198             | 160 N   | 147     | 150      | 160      |
| 1.2.3.NC     |  | <b>OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS</b> |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 202             | 172 N   | 200     | 200      | 200      |
| 1.1.C        |  | <b>WOOD FUEL, CONIFEROUS</b>                      |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 338             | 422     |         | 400      | 410      |
| 1.1.NC       |  | <b>WOOD FUEL, NON-CONIFEROUS</b>                  |                        |                 |         |         |          |          |
|              |  | Removals  | 1000 m <sup>3</sup> ub | 906             | 1 196   |         | 1 100    | 1 150    |

Table 4 - TIMBER FORECAST QUESTIONNAIRE, forest products.

|  <b>UNECE</b><br><br><b>TF2</b><br><b>TIMBER FORECAST QUESTIONNAIRE</b><br><b>Forest products</b> |  | Country:                                | Portugal            | Date:                       | September 2021 |  |               |
|--|--|---|---------------------|-----------------------------|----------------|--|---------------|
|  |  | Name of Official responsible for reply: | Graça Louro         | Official Address (in full): |                | Instituto da Conservação da Natureza e das Florestas, IP, Avenida da República, 16, 1050-191 LISBOA – PORTUGAL |               |
|  |  | Telephone:                              | (+351) 213 507 900  | Fax:                        |                |  |               |
|  |  | E-mail:                                 | Graça.Louro@icnf.pt |                             |                |  |               |
| Product Code   | Product                                      | Unit                                    | Historical data     |                             | Revised 2020   | Estimate 2021  | Forecast 2022 |
| 6.C  | <b>SAWNWOOD, CONIFEROUS</b>                  |   | 2019                | 2020                        |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 886                 | 600 N                       | 874            | 880  | 890           |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 114                 | 133                         |                | 120  | 130           |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 324                 | 237                         |                | 230  | 240           |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 675                 | 496                         |                | 770  | 780           |
| 6.NC   | <b>SAWNWOOD, NON-CONIFEROUS</b>              |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 149                 | 90 N                        | 148            | 149  | 150           |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 115 E               | 96 E                        |                | 100  | 100           |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 40                  | 22                          |                | 30   | 40            |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 225                 | 164                         |                | 219  | 210           |
| 6.NC.T   | <b>of which, tropical sawnwood</b>           |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 14                  | 9 N                         | 15             | 15   | 15            |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 58                  | 43 E                        |                | 45   | 50            |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 19                  | 11                          |                | 15   | 18            |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 53                  | 41                          |                | 45   | 47            |
| 7  | <b>VENEER SHEETS</b>                         |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 76 C                | 76 C                        | 25             | 45   | 40            |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 21 C                | 48 C                        |                | 30   | 35            |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 65 C                | 71 C                        |                | 65   | 70            |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 33                  | 53                          |                | 10   | 5             |
| 7.NC.T   | <b>of which, tropical veneer sheets</b>      |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 20 N                | 20 R                        | 0              | 20   | 20            |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 6                   | 11                          |                | 8  | 9             |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 4                   | 10                          |                | 6  | 8             |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 22                  | 21                          |                | 22   | 21            |
| 8.1  | <b>PLYWOOD</b>                               |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 0 C                 | 0 C                         | 91             | 0  | 0             |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 160 C               | 118 C                       |                | 130  | 140           |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 26 C                | 14 C                        |                | 15   | 18            |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 133                 | 104                         |                | 115  | 122           |
| 8.1.NC.T   | <b>of which, tropical plywood</b>            |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 0                   | 0                           | 66             | 0  | 0             |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 14                  | 9                           |                | 10   | 12            |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 8                   | 4                           |                | 6  | 8             |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 6                   | 5                           |                | 4  | 4             |
| 8.2  | <b>PARTICLE BOARD (including OSB)</b>        |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 716                 | 700                         |                | 710  | 720           |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 470                 | 325                         |                | 400  | 450           |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 465                 | 439                         |                | 430  | 440           |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 721                 | 585                         |                | 680  | 730           |
| 8.2.1  | <b>of which, OSB</b>                         |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 0                   | 0                           |                | 0  | 0             |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 32                  | 37                          |                | 35   | 38            |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 2                   | 1                           |                | 2  | 1             |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 30                  | 36                          |                | 33   | 37            |
| 8.3  | <b>FIBREBOARD</b>                            |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 442 C               | 443 C                       |                | 450  | 480           |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 334 C               | 319 C                       | 320            | 325  | 330           |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 480 C               | 378 C                       | 382            | 400  | 450           |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 296                 | 383                         | 382            | 375  | 360           |
| 8.3.1  | <b>Hardboard</b>                             |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 21                  |                             | 12             | 19   | 20            |
|  | Imports                                      | 1000 m <sup>3</sup>                     |                     |                             | 28             | 29   | 30            |
|  | Exports                                      | 1000 m <sup>3</sup>                     |                     |                             | 19             | 20   | 25            |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     |                     |                             | 21             | 28   | 25            |
| 8.3.2  | <b>MDF/HDF (Medium density/high density)</b> |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 412                 | 423                         |                | 425  | 428           |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 284                 | 280                         |                | 282  | 284           |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 403                 | 343                         |                | 345  | 350           |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | 294                 | 360                         |                | 362  | 362           |
| 8.3.3  | <b>Other fibreboard</b>                      |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m <sup>3</sup>                     | 9                   | 8                           |                | 9  | 9             |
|  | Imports                                      | 1000 m <sup>3</sup>                     | 12                  | 9                           | 12             | 12   | 12            |
|  | Exports                                      | 1000 m <sup>3</sup>                     | 59                  | 19                          |                | 20   | 22            |
|  | Apparent consumption                         | 1000 m <sup>3</sup>                     | -39                 | -3                          | 0              | 1  | -1            |
| 9  | <b>WOOD PULP</b>                             |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m.t.                               | 2 745 C             | 2 683 C                     |                | 2 700  | 2 750         |
|  | Imports                                      | 1000 m.t.                               | 162 C               | 143 C                       |                | 145  | 150           |
|  | Exports                                      | 1000 m.t.                               | 1 255 C             | 1 329 C                     | 1 320          | 1 230  | 1 250         |
|  | Apparent consumption                         | 1000 m.t.                               | 1 652               | 1 497                       |                | 1 615  | 1 650         |
| 12   | <b>PAPER &amp; PAPERBOARD</b>                |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m.t.                               | 2 025 C             | 1 900 C                     |                | 2 000  | 2 030         |
|  | Imports                                      | 1000 m.t.                               | 877 C               | 845 C                       | 858            | 850  | 860           |
|  | Exports                                      | 1000 m.t.                               | 1 892 C             | 1 751 C                     |                | 1 800  | 1 900         |
|  | Apparent consumption                         | 1000 m.t.                               | 1 009               | 994                         |                | 1 050  | 990           |
| 5.1  | <b>WOOD PELLETS</b>                          |   |                     |                             |                |  |               |
|  | Production                                   | 1000 m.t.                               | 1 008               | 859                         |                | 900  | 950           |
|  | Imports                                      | 1000 m.t.                               | 12                  | 2                           |                | 4  | 5             |
|  | Exports                                      | 1000 m.t.                               | 709                 | 606                         |                | 700  | 710           |
|  | Apparent consumption                         | 1000 m.t.                               | 311                 | 255                         |                | 204  | 245           |