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POLAND 2023 STATEMENT ON THE WOOD MARKET REVIEW AND PROSPECTS

Ministry of Climate and Environment

1. GENERAL ECONOMIC TRENDS AFFECTING FORESTS AND FOREST INDUSTRIES SECTOR

Despite the strong impact of external factors related to Russia's aggression against Ukraine, the Polish economy recorded relatively high growth in 2022. Gross domestic product (GDP) increased 5.1% in real terms (6.9% in 2021), and gross added value 5% (6.6% in 2021), including a 7.5% increase in industry. The main driver of growth was domestic demand - it increased 5.1% (however, the year before 8.5%), and its contribution to GDP was 4.9 percentage points. The share of consumption within GDP was 1.4 percentage point (4.4 in 2021), and of gross accumulation 3.5 percentage point (3.6 in the previous year). The challenge for the economy and public finances in 2022 were actions taken in connection with the increase in expenditure on defense, mitigating the effects of rising food and energy prices for households, vulnerable entities and enterprises, or actions aimed at supporting the citizens of war-stricken Ukraine staying in Poland. It is assumed that after the slowdown in 2023 (a 0.9% growth in GDP) there will be a slow recovery of the economy in the coming years (the draft budget for 2024 forecasts a 3% growth in GDP). The expected slowdown in the dynamics of private investments in 2023 will be compensated by an increase in public investments (a 3.8% increase in gross outlay on fixed assets in 2023 and a 4.4% increase in 2024 compared to 5% in 2022). Polish wood enterprises play an important role in the wood sector of the European Union economy - in 2020 their share in all EU wood enterprises amounted to 16% (in the wood industry it was 13% (3rd place), in the pulp and paper industry 18% (2nd place) and in furniture 20% (1st place)).

In 2022, a significant increase in sold production of industry, i.e. 9.5% in real terms, and in manufacturing, i.e. 9.7%, was recorded in Poland (however, this was respectively about 5 and more than 4 percentage points less than in the previous year). Almost 9% of industry sales and more than 10% of manufacturing sales was generated by the wood sector (PLN 228.6 billion, \$ 51.3 billion, \notin 48.8 billion). The wood industry and the pulp and paper industry together with paper processing each accounted for about 35% of the value of sold production of the sector (in relation to the previous year the increase was approximately 7% in each case), and furniture production accounted for less than 30% (at the same time, the furniture industry recorded a decrease in sales of more than 2%). The results to date indicate that in 2023 the sold production of both industry in total and manufacturing may decrease 1-2% in fixed prices. The general business climate in industry is assessed more negatively than before, with uncertainty about the general economic situation, a decline in demand, and employment costs being indicated among the barriers hindering business activity. In the wood sector a more than 10% decrease in sales is probable. It is assumed that the industry and wood industries will return to the path of growth in 2024.

The situation on the labour market in Poland was relatively good in 2022. Average employment in the economy increased 1.5%, and in the enterprise sector 2.6%, including a 1.4% increase in industry and a 1.6% increase in manufacturing. Poland also remains a country with relatively low unemployment – the registered unemployment rate was 5.2% at the end of the year and that was 0.6 percentage point lower than in 2021. However, with a high increase in nominal remuneration (11.7%), real remuneration in the economy decreased 2.1% compared to the previous year, and in the enterprise sector 1% (this was partially compensated by changes in direct and indirect taxes). In this sector average monthly wages are lower than in the industry as a whole (in 2022 in the wood industry they were 20% lower, in the furniture industry 25% lower, only in case of the pulp and paper industry the average wages were 2% higher than in the industry). It is estimated that in 2022 the wood sector employed approximately 366 thou. people (1% more than in 2021; 12% of the employed in industry in total and more than 14% in manufacturing). 32% of the employed in the wood sector was working in the wood industry,

18% in the pulp and paper industry and paper processing, and almost 50% in the furniture industry. Additionally, approximately 40 thou. people were employed in forestry. It is expected that in the following years there will be a limitation of the supply of workers on the labour market, a slight increase in employment in the economy (0.3% in 2023 and 1.2% in 2024), and an increase in the registered unemployment rate to 5.4% in 2023 followed by its decrease to 5.2% at the end of 2024. An increase in real remuneration is forecasted for 2024 (2.9%). In 2023 a 1-2% decrease in employment is possible in the wood sector and forestry, but mainly in the furniture industry (up to 5%). In the following years employment in the forestry-wood sector should demonstrate and upward trend; however, also in the wood industries the labour market may be impacted by demographic processes (ageing of society and reduction of labour resources).

In 2022 foreign trade turnover was higher than in the previous year (in 2021 Poland was 4th in the EU in terms of exports, after Germany, Czechia and Lithuania). The export turnover amounted to PLN 1618.6 billion (\$ 365.8 billion; € 346.2 billion), and the import turnover to PLN 1711.8 billion (\$ 387 billion; € 366.2). The actual import dynamics (4.4%) surpassed the export dynamics (2.5%), and the balance of foreign trade was negative and amounted to PLN -93.2 billion (\$ -21.2; € -20.0). The contribution of the balance in GDP generation was 0.2 percentage point. The share of the European Union within the Polish export increased (to 75.8% from 75.1% in 2021), while the share within import decreased (from 54.1% in 2021 to 51.4%). Wood and wood products generated more than 8% of the value of export (PLN 132.2 billion; \$ 30 billion; € 28.3 billion). In this number almost 48% (almost 4% of the total value of export) was furniture, 27% wood and products of the wood industry, and 25% products of the pulp and paper industry and paper processing. On the other hand, supplies of wood and wood products to the domestic market (worth PLN 67.1 billion (\$ 15.2 billion; € 14.4 billion) and accounting for 3.9% of total import) were dominated by the products of the pulp and paper industry and paper processing (with a share of 54%). Wood and wood industry products accounted for more than 21%, and furniture for almost 25% (1% of import in total). The results of the first half of 2023 indicate higher dynamics of export than of import compared to 2022 (restrictions on the import from Russia and Belarus), and therefore a positive balance of foreign trade. It is assumed that the real export growth rate will be 2.0% in 2023 and will increase to approximately 4% in the following years, whereas the real import growth rate will decrease -1.5% and will be lower than that of export in the next years.

The dynamic increase in the prices of raw materials, especially energy and agricultural raw materials on world markets, which is a consequence of the war in Ukraine, caused an increase in inflation in Poland. The consumer price index amounted to 14.4% in 2022 (in 2021 it was 5.1%), including a 16% increase in food prices, a 32.5% increase in energy carrier prices, and an almost 20% increase in transport prices. %. Wood prices were also rising – average price growth in years 2021-2022 was 50%. The draft state budget assumes a decrease in inflation to 12% in 2023 (single-digit inflation is also possible at the end of the year), and to 6.6% in 2024.

The main risk factor for the forecasts of economic development in Poland in the coming years is the further course of the war in Ukraine and its consequences for the domestic, EU and global economy. However, the possible occurrence of factors such as a possible re-influx of migrants from Ukraine, an outflow of foreign investments from the region of Central and Eastern Europe, a decline in domestic consumption and investments, a renewed increase in inflation – is extremely difficult to predict. So is the assessment of the scale of their effect on the national economy.

2. POLICY MEASURES TAKEN IN POLAND OVER THE PAST 18 MONTHS, WHICH MIGHT HAVE A BEARING ON FOREST MANAGEMENT OR PRODUCTION AND TRADE OF FOREST PRODUCTS

One of the basic documents setting forth the lines of the development of national economy, including the forestry-wood sector, is the Multiannual Financial Plan of the State for the period 2023-2026, which is also the basis for drafting the budget bill. The main element of the Plan is the convergence programme (update for 2023) which includes a medium-term scenario of the economic conditions in Poland and its public finances till 2026. The Plan also presents the main goals of the state together with the measures of their attainment. Another instrument of mediumterm planning is the National Programme of Reforms 2023/2024 which encompasses main social and economic challenges as well as respective actions, which are a response to the priorities of the European Union in the perspective of 2023/2024. Similarly to the previous year, the Programme contains solutions proposed as part of the National Plan of Restoration and Resilience Enhancement (KPO) for the period 2021-2026 as well as additional investments and reforms aside the KPO. The main part of this Plan is a response to the challenges set in the Country Specific Recommendations for Poland (CSRs) dated 2019-2022 and to the development lines defined in the Annual Sustainable Growth Survey 2023 and concerning climate transition, improvement of economic productivity, social fairness, and macroeconomic stability. One of the attachments to the Programme is a juxtaposition presenting the implementation of actions under KPO thanks to the prefinancing from the Polish Development Fund. The strategic goal of KPO is rebuilding the developmental potential of the economy lost due to the pandemic and aiding sustainable competitiveness of the economy as well as the increase in the standard of living of society in the long term.

The long-term planning encompasses further development of the *State Development Concept 2050 (KRK 2050)*, which is to point out the developmental challenges of Poland in comparison with the trends shaping social, economic, spatial, institutional, and environmental milieu, and to present possible scenarios of the country's development. Strategic documents concerning energy are also being updated, i.e. the *National plan for energy and climate for the period 2021-2030 (KPEiK)* and the *Energy policy of Poland till 2040 (PEP2040)*. Present preconsultation is aimed at defining chances, challenges and actions, tools and means necessary to achieve sustainable development of the power sector. These documents will also be subject to public consultation.

3. MARKET DRIVERS

In 2022 and still in 2023 the rebuilding of the economy after COVID-19 pandemic, the war in Ukraine and intensified inflation trends have decreased business sentiments. One of the key issues has been the significant increase in the prices of energy raw materials, as a result of which the government continued to support enterprises and households under the *Government's* energy shield which guarantees lower prices of electric energy and freezes the prices of gas and heat. On the other hand, the new regulations on public procurement provided for, inter alia, indexation of contractors' remunerations to offset rising material prices.

Due to the key importance of innovation for further economic development of Poland, in 2023 the government established the programme *Innovations for digital, green, healthy, and socially sustainable future*. The programme envisages competitions for students, enterprises, and social partners in order to choose and finance the best ideas, technologies, services, and initiatives aimed at satisfying important social, environmental, and economic needs.

One of the major barriers to economic activity in the forestry-wood sector is shortage of

qualified staff. The amendment to the education law, which is currently in the legislative process, provides for the creation of a network of *industry skill centres*, which aim to integrate education with business and to disseminate innovation and new technologies in a given industry. The furniture industry is the addressee of a pilot programme Robogrant which finances the robotization of the operations of small and medium-sized enterprises producing furniture. Running a business is to be facilitated by a *package of solutions for entrepreneurs* encompassing, inter alia, further streamlining business start-ups, reducing paperwork in business operations, and making succession regulations more flexible. A number of fresh solutions for family businesses have also been proposed as part of the act on family foundation, which is to facilitate succession, build strong brands and protect capital from fragmentation. The timeliness of settling mutual liabilities is to be improved by the anti-embolism act, clarifying the existing regulations, simplifying reporting obligations and increasing the efficiency of proceedings regarding delays in settling monetary benefits. A new instrument for selective support for industry introduced by the *Productivity Strategy 2030* (adopted in 2022) is the Industry contract defining the forms and tools of cooperation between the private and public sectors, which are aimed at overcoming specific barriers to the development of enterprises from specific industries. Work on the *contract* should be initiated by industry representatives who propose its draft including intervention mechanisms and commitments of both parties in the areas such as productivity growth, R+D, knowledge transfer, green transformation, and dual education. The work on the contract should also serve selforganisation of individual industries and defining of their needs, as well as encourage cooperation oriented at long-term development. On the other hand, changes to the Programme for supporting investments of significant importance for the Polish economy for the years 2011-2030 implemented in 2023 increase the availability and limits of support in the area of investments: improve project evaluations for SMEs and growing companies, as well as for investments of major importance to the economy.

An important issue for companies operating on an international scale (e.g. furniture manufacturers), is the amendment to the *Commercial Companies Code* which broadens the possibilities of cross-border and domestic reorganizations of commercial companies by introducing into the legal order the concept of merger by acquisition and merger by separation and increases the protection of employees, creditors, and minority shareholders. The protection of exporters is also increased by the *act on export insurance* adopted by the Sejm, extending the catalogue of available insurance and facilitating the use of guaranteed insurance.

Ensuring security in the digital area has become an essential element of company operation, including companies from the forestry-wood sector. The programme *Digitally secure company*, whose pilot project was launched in 2023, aims to develop digital competences among Polish entrepreneurs, increase the level of network protection in the SME sector and the stability of business transactions in the country, as well as to popularise and implement a new cybersecurity standard in companies.

4. DEVELOPMENTS IN FORESTS AND FOREST PRODUCTS MARKETS SECTORS

4. (A) Wood raw materials

In 2022 45.7 million m³ of roundwood was harvested in Poland, including more than 1 million m³ of wood from trees and shrubs outside the forest, which meant a 6% increase compared to 2021. However, the increase in harvesting (54%) concerned only fuelwood (7 million m³), while harvesting of wood for production purposes remained at a level similar to that of the previous year (a 0.4% increase only). The increased supply of fuelwood resulted from the

growing demand, especially from individual customers (for heating purposes). Approximately 93% of wood (42.3 million m³) originated from the State Forests NFH (PGL Lasy Państwowe). Despite the still relatively small volume (2.6 million m³), the high growth dynamics of harvesting of wood from private forests was observed (38% compared to the previous year). Softwood is the main roundwood harvested in Polish forests (78%), and it is predominantly industrial wood (38.7 million m³, 85% of harvesting in total). Poland is in the 12nd place in the world with respect to industrial wood removals, with almost 2% share. The assortment structure consists in 50% of pulpwood (19.4 million m³), in 48% of saw and veneer logs (18.5 million m^3), and in 2% of other wood for material processing (0.8 million m^3). The shortage of roundwood on the domestic market was supplemented by imports, which in 2022 was more than 8% of the harvesting and amounted to 3.8 million m³ (a 25% increase compared to the previous year). 95% of it was wood for production purposes (3.6 million m³, 30% more than in 2021), mainly softwood (2.8 million m³). Poland also imported 0.8 million m³ of hardwood (an 86% increase), including 2.3 thou. m³ of tropical wood. On the other hand, more than 11% of roundwood harvested in Poland was exported in 2022 (5.3 million m³, 26% more than the year before). The exports were also dominated by industrial wood (96%, 5.1 million m³), of which 85% was softwood. Hardwood exports amounted to 0.7 million m³ (and was 9% higher than the year before). Poland was 9th in the world in 2022 with 2,8% share in global industrial wood exports volume. Main importer of Polish industrial wood is Germany (29% share in exports).

In the coming years, the demand of the wood sector for the raw material is expected to rise, hence a 2-3% annual increase in domestic harvesting, to 48.6 million m^3 in 2024, is anticipated (including an increase in harvesting of wood for production purposes to 40.9 million m^3). Possible shortages of roundwood from the domestic resources may be supplemented by imports – it is estimated that in the years 2023-2024 imports will increase to 4.1 million m^3 and 4.4 million m^3 , respectively. The European Union sanctions imposed on Russia and Belarus in connection with Russia's aggression against Ukraine make it necessary though to change the current geographic structure of imports and fully block the possible influx of wood and wood products from these countries through re-export. The increase in domestic demand for wood should result in decline in export dynamics. The export volume may reach 5.5 million m^3 in 2023 and 5.8 million m^3 in 2024.

4. (B) Wood energy, with a focus on government policies promoting wood energy

In 2021 in Poland, generation of primary energy from renewable sources (RES) amounted to 12.8 Mtoe, which means a 2.3% increase compared to the previous year. Most of it (69.4%) was energy from biomass (to a considerable extent wood biomass) and from wind (10.9%). The share of energy from RES within energy generation in total was 21.30%, and within consumption 11.74% (in the last year the share was 21.60% and 12.21%, respectively). The capacity of power plants using energy from solid biofuels equalled 803 MW, which meant a 9.4% increase compared to 2020.

The regulations adopted in 2023 as part of the *amendment to the RES act*, concerning, inter alia, hybrid installations, energy clusters, wind energy and biomethane, and the introduction of the category of tenant prosumers (living in multi-unit buildings), are to contribute to increasing the share of energy from renewable sources within the Polish energy mix. These regulations are to speed up and simplify the procedures connected with investments in power grids, which is particularly important in the context of the dynamic development of small photovoltaic installations and prosumer power industry. Until the construction of the planned nuclear power plants, the transformations of the domestic power sector are to be facilitated by the establishment of the *National Energy Security Agency* (NABE). The *Agency* will take over domestic coal assets (existing coal-fired power plants and lignite mines), which will enable the current owners to raise capital for zero- and low-emission investments. The

establishment of NABE is to ensure in the future coordination of the long-term schedule for shutting down coal-fired units and adapting it to the needs of the National Power System, as well as to allow the *extension of the scope of insurance offered by the Export Credit Insurance Corporation* (KUKE) by projects related to the development of a low-carbon economy. In 2023, a special act on the preparation and implementation of investments in pumped-storage power plants was also adopted. These plants are to play a key role as electricity storage, especially with the growing number of RES.

4. (C) Certified forest products

Forests and wood products in Poland are covered by two certification systems: Programme for the Endorsement of Forest Certification Schemes (PEFC) and the Forest Stewardship Council (FSC). The sustainable forest management certificate, i.e. FM (Forest Management) certificate, in the FSC system covers about 42% of Polish forests (4.0 million ha), which is 7.0% of forests certified in this system in Europe and 2.9 in the world (September 2023). The upward trend characterizes the certification of forests in the PEFC system - it already covers 78% of Polish forests (7.2 million ha; June 2023), which accounts for 8.8% of forests certified in this system in Europe and 2.5% in the world. Regarding CoC certification in Poland (Chain of Custody), i.e. controlling the flow of raw material, in the FSC system 2394 certificates have been issued (10.7% of certificates in Europe and 4.2% worldwide), and in the PEFC system 405 certificates (3.6% of such certificates in Europe and 2.9% worldwide). In both the PEFC and FSC systems, most of the CoC certificates are held by production companies (producers of sawn materials, pallets, flooring materials, wood-based panels, cellulose and paper, paper products, and furniture), but also by distributors, traders, printing houses, publishing houses, etc. It should be highlighted that the certification of forest management and forest products is a voluntary certification carried out by private entities. Increasing bureaucracy and certification costs, and in forest management standards (procedures) not adapted to legally established national management principles, are becoming a barrier resulting in reduced interest in this form of promotion of forestry and forest products.

4. (D) Sawn softwood

Sawnwood in Poland is dominated by sawn softwood, which accounts for almost 90% of sawnwood production. In 2022 sawn softwood production amounted to 4.1 million m³ (together with impregnated and non-impregnated sleepers), which meant a 9% drop compared to the previous year. The shortages of sawn softwood on the domestic market were supplemented by imports in the amount of 1.2 million m³ (a level comparable with that of 2021). In relation to the production volume imports were 29%. The situation on the sawn softwood market also resulted in a decline in export dynamics. In 2022 exports were more than 24% lower than the year before and amounted to 0.7 million m³ (it was 18% of the production volume).

A slight increase in the production of sawn softwood is anticipated only from 2024 (to 4.2 million m³, i.e. 1% increase compared to 2022). Imports still will be of high importance for the satisfaction of the domestic demand, and it is estimated that in 2024 it will increase to 1.3 million³ (to 31% of the production volume). The downward trend in exports of sawn softwood will also continue, and in 2024 it should not exceed 0.7 million m³ (which will be approximately 17% in relation to the production volume).

4. (E) Sawn hardwood

In 2022, similarly to the previous year, approximately 0.5 million m^3 of sawn hardwood (together with impregnated and non-impregnated sleepers) was manufactured in Poland, while supplies from abroad were more than 14% lower than in 2021 and amounted to less than 0.3

million m^3 (including 12 thou. m^3 of sawn tropical wood, i.e. 16% less than the year before). At the same time, imports of sawn hardwood amounted to 55% of its domestic production volume. Approximately 0.3 million m^3 of sawn hardwood (53% of the production volume) was exported, which meant an almost 10% drop of exports compared to 2021.

The decline in the production of sawn hardwood observed in the subsequent months of 2023 suggests that also in 2024 it will probably not exceed 0.5 million m^3 . Therefore, it is predicted that there will be a 12% increase in sawn hardwood imports in 2024 compared to 2022 (to 0.3 million m^3) and that it supplies to foreign markets will remain at a level similar to that of 2022 (0.3 million m^3).

4. (F) Veneer sheets

In 2022 in Poland veneer sheets production amounted to 45 thou. m³, which meant an almost 3% decrease compared to 2021. 64% of the production volume were hardwood veneers. The demand resulted in veneer imports twice as high as the domestic production volume (imports amounted to 92 thou. m³, however, it was 24% lower than the year before). Approximately 36% of veneers manufactured in Poland (16 thou. m³) was exported (i.e. 77% of the level of 2021).

It is assumed, that after the production of veneers have declined in 2023, till 2024 it will not reach the level of 2021 and will amount to approximately 45 thou. m³. The forecast for foreign trade in the years 2023-2024 assumes that veneer imports will be at a level of 94-98 thou. m³ and veneer exports will demonstrate a downward trend (to 14 thou. m³ in 2024).

4. (G) Wood-based panels

A significant decrease in the production of wood-based panels, more than 15%, was recorded in 2022 in Poland. The decrease in production concerned all types of panels – the highest was observed for particleboards (18%), including OSBs (22%), and the lowest of approximately 0.5% for plywood. In said period 11.4 million m³ of panels was manufactured. The production was dominated by particleboards with the share of 52% (5.9 million m^3) and fibreboards with the share of 44% (5.0 million m³). 11% of particleboards were OSBs (0.7 million m³), while 62% (3.1 million m³) of fibreboards were dry-process fibreboards (LDF, MDF, and HDF). In 2022 0.5 million m³ of plywood was produced as well. In 2022 Poland additionally imported 3.5 million m³ of wood-based panels, i.e. 10% less than the year before (31% of the production volume). 70% of the imports were particleboards (2.5 million m³; in this case the imports increased almost 3% compared to 2021), 17% fibreboards (0.6 million m³; however, the supplies dropped 35%), and 13% was plywood (0.5 million m³). 12% of the volume of imported particleboards were OSBs, while dry-process fibreboards, with the share of 80%, dominated the imports of fibreboards. As in the case of import, the export of wood-based panels in 2022 was almost 13% lower than in 2021. A significant drop in exports was observed in the case of fibreboards (23% compared to the previous year), especially dry-process fibreboards (more than 39%). Supplies of wood-based panels to foreign markets amounted to 3.3 million m³ and accounted for 29% of domestic production. More than half of the exported panels (53%) were fibreboards (1.7 million m³, of which 54% were wet-process porous fibreboards), 36% particleboards (1.2 million m³; of which 25% were OSBs), and 11% was plywood (0.4 million m³).

An increase in wood-based panel production is expected only in 2024 (4% in relation to 2022, to 11.8 million m³). The production of particleboards should rise more than 5% (to 6.2 million m³), especially of OSBs (almost 16% increase, to 0.8 million m³). It is also assumed that in 2024 the production of fibreboards will increase 2% (5.1 million m³), mainly of wetprocess porous fibreboards (1.9 million m³). On the other hand, in the foreign trade in wood-based panels, it is forecasted that by 2024 there will be a 3-4% growth in imports and the current

level of their export will be maintained. In the years 2023-2024 the assortment structure of both exported and imported wood-based panels should not change significantly.

4. (H) Pulp and paper

In recent years, the production of wood pulp in Poland, due to its specificity (only a surge in production capacity is possible), has been quite stable at the level of approximately 1.7 million tonnes. The structure of the production also remained quite stable. In 2022 40% (0.7 million tonnes) of the production was mechanical wood pulp and semi-chemical wood pulp, 57% cellulose (1 million tonnes), and 3% dissolving grades (0.06 million tonnes). The growing demand results in increased import of wood pulp, which already amounts to 75% of the production volume and in 2022 was 8% higher than in 2021 (it amounted to 1.3 million tonnes). The export is of relatively lower importance for the domestic market – in 2022 it increased almost 4% and accounted for less than 11% of the production volume (0.2 million tonnes). Both import and export of wood pulp is dominated by cellulose, accounting for 94% and 99%, respectively.

No significant changes on the Polish market in wood pulp are forecasted for the years 2023-2024 – its production should not exceed 1.8 million tonnes, import will probably grow further (1.3 million tonnes), and export will slowly decline (0.1 million tonnes).

For the first time in many years a drop in paper and paperboard production was recorded in Poland in 2022 (almost 2%). The production amounted to 5.2 million tonnes. As in the previous years, the assortment structure of the production was dominated by packaging paper (68%, 3.6 million tonnes), while graphic paper accounted for 16% (0.8 million tonnes), and household and sanitary paper for 13% (0.7 million tonnes). The Polish market in paper and paperboard is considerably supplemented by imports, which in 2022 amounted to 4.9 million tonnes, accounted for 93% of the domestic production volume, but in relation to the previous year was 7% lower. Poland imported mainly packaging paper (73%) and graphic paper (23%). On the other hand, 2.6 million tonnes of paper and paperboard (49% of the domestic production volume) was exported, and it was a level similar to that of 2021. Main exports, as in the case of imports, was packaging paper (77%) and graphic paper (20%).

Based on the results of paper and paperboard production in mid-2023, it is assumed that it will increase to 5.3 million tonnes by 2024 (but will not exceed the level of 2021). Foreign trade is likely to see a further increase in imports (to approximately 5 million tonnes) and exports (to 2.7 million tonnes). In the assortment structure of imports and exports, the current trends should continue.

4. (I) Housing and construction

The situation on the wood market in Poland is closely related to the condition of the construction industry, the main consumer of many types of wood materials and products (including interior furnishing). In 2022, the added value in this sector increased 4.3% in real terms compared to the previous year (however, in 2021 it was 8.7%), and the average employment decreased 1% (and was at the level of 663 thou. people). Sales of construction and assembly production remained at a similar level as in the previous year (8.8%, compared to 8.5% a year earlier). However, in 2023 the general business conditions in the construction industry are assessed less favourably than before. In the first half of the year, sales of construction and assembly production increased only 3.8% (compared to the corresponding period of the previous year), while in the case of construction of buildings a 5.3% decrease was recorded, which was related to the slowdown in the demand on the housing market (on the other hand, sales in the category of civil engineering construction increased almost 11%). Among the barriers to business operation, entrepreneurs most often point to employment costs, insufficient demand and the

uncertainty of the overall economic situation. Construction companies also signal the possibility of job cuts and an increase in the prices of construction and assembly works.

In 2022, 238.5 thou. dwellings were completed, i.e. 1.6% more than a year earlier. However, it was already noticeable that the previous upward dynamics of the housing market had slowed down – 833 thou. dwellings under construction meant a 4.4% decrease compared to 2021. The number of dwellings with issued construction permits (or an application has been made with a construction project) also decreased (by 12.6%), as well as the number of dwellings whose construction had been commenced (by 27.8%). These negative trends continue in 2023 as well. Although the number of dwellings completed increased 2.5% in the first half of the year (compared to the first half of 2021), the number of dwellings under construction decreased 8.5%, the number of dwellings whose construction had been comtruction had been commenced 28.5%, and the number dwellings with issued construction permits 34.7%.

The closing of the housing gap in Poland and the development of housing construction is to be aided by government programmes, especially the *First Dwelling Programme*. The program is intended to help finance, especially for young people, the purchase of their first apartment or house, and includes two instruments – a mortgage subsidy scheme (2% safe loan) and support for housing savings (*housing account* – a special savings account). On the other hand, the *House without Permit* programme simplifies the procedure for building single-family residential houses (currently of an area of up to 70 m²). The purpose of the *No self-contribution dwelling* programme is to subsidize a portion of the mortgage for the purchase or construction of a house, while the *Starter dwelling* programme consists in subsidising rents for renters of a new or revitalized dwelling. Social and communal construction as well as rental construction is also supported. It is also planned to launch the *Dwelling Price Portal* which would be accessible to all and increase the transparency of the housing market (statistics on transaction prices of apartments and single-family houses by region).

5. GENDER AND HUMAN RIGHTS ISSUES RELATED TO THE FOREST MARKET SECTOR

The Constitution of the Republic of Poland assumes equality of women and men in family, political, social, and economic life. In social and economic practice, efforts are made to maintain gender equality (equal rights of men and women to employment, education, and promotion), to raise employees' awareness of the principles of equality and non-discrimination, to support the balance between work and family life. However, forestry and timber industries are still perceived as typically male professions. And although women are still a minority in this sector, their role has been steadily increasing. In 2021 women were more than 28% of the employed in the whole forestry-wood sector, whereas in 2010 they accounted for less than 25%. The share of women employed in forestry and working on logging is relatively lower, which results from the specificity of the work (18%, in 2010 the share was almost 17%). However, even in the Forest Service of the State Forests (employees responsible for forest stewardship, forest management, forest protection and combating forest damage crimes and offenses) women accounted for 16% of the employees in 2021. On the other hand, women account for more than 23% of the employed in the production of wood materials and products (approximately 20% in 2010), more than 34% in the production of paper and paperboard and paper processing (almost 34% in 2010), and 32% in the furniture industry (in this industry, the largest increase in the percentage of women among employees was noticeable in the years 2010-2021 - 4.4 percentage points). The share of women among forestry studies students is also increasing - from less than 24% in the academic year 2010/2011 to almost 35% in the year 2021/2022.

The voice of women has been also increasingly heard in the discussion on the future of the wood industries. For several years in Poznan, during the *National Furniture Congress*, a meeting of women associated with the furniture industry has been held. This year, the next, 4th meeting was held under the slogan "*How to succeed in a world of new challenges*". Since 2009 the *Forest Women's Association* has been operating in Poland – it is a non-profit association promoting, supporting, and integrating women working in forestry.

Table 1

Economic indicators

Indicator	2017	2018	2019	2020	2021	2022				
mulcator	% change on previous year (in real terms)									
Gross Domestic Product	104.8	105.4	104.7	98.0	106.9	105.1				
Sold production of industry	106.2	105.4	105.1	98.1	114.7	109.5				
Construction and assembly production	110.9	114.7	104.8	98.7	108.5	108.8				
Dwellings completed	109.2	103.8	112.1	106.5	106.3	101.6				
Dwellings under construction	103.8	104.9	103.8	100.4	105.2	95.6				
Average paid employment - total	102.9	101.9	101.8	98.9	101.6	101.5				
- in the enterprises sector	104,5	103.5	102.7	98.9	100.3	102.6				
Registered unemployment rate $(at the end of the year)^1$	6.6	5.8	5.2	6.8	5.8	5.2				
Average monthly gross real wages and salaries										
- total	103.7	105.4	104.8	102.9	103.3	97.9				
- in the enterprises sector	103.9	105.4	104.1	101.5	103.4	99.0				
Price indices of consumer goods and services (<i>inflation</i>)	102.0	101.6	102.3	103.4	105.1	114.4				
Investment outlays	106.5	115.4	103.1	95.0	106.3	97.8				
Trade										
billion of PLN, current prices										
Exports	882.6	951.3	1023.6	1062.5	1316.0	1618.6				
Imports	880.1	970.8	1018.5	1015.4	1323.0	1711.8				
Balance of trade	+2.5	-19.5	+5.1	+47.1	-7.0	93.2				
billion of USD, current prices										
Exports	231.6	264.8	267.1	272.6	342.0	365.8				
Imports	231.0	270.2	265.8	260.6	343.5	387.0				
Balance of trade	+0.6	-5.4	+1.3	+12.0	-1.5	-21.2				
billion of EUR, current prices										
Exports	206.7	223.6	238.2	239.9	288.1	346.2				
Imports	206.1	228.2	237.0	229.4	289.6	366.2				
Balance of trade	+0.6	-4.6	+1.2	+10.5	-1.5	-20.0				

¹ as a ratio of registered unemployed persons to the economically active civil population

	Country: Poland Date:						2023-09-11		
			cial responsible fo	or reply:		- uioi	2020 00 11		
			ska, Ewa Leszczyszyn						
		Official Addre	ess (in full):						
	TF1 Note:	Łukasiewicz Re	search Network – Poz	nań Institute of Technol Winiarsk		d Technology (CW	T), 60-654 Poznań,		
Complee only if data TIMBER FORECAST QUESTIO		Telephone: +48 61 8492442; +48618492461 Fax: +48 61 822 43 72							
	Roundwood revised.	E-mail: gabri	ela.bidzinska@pit	.lukasiewicz.gov.pl					
Product Code	Product	Unit	Historio 2021	cal data 2022	Revised 2022	Estimate 2023	Forecast 2024		
1.2.1.C	SAWLOGS AND VENEER LOGS, CONIFEROUS								
	Removals	1000 m ³ ub	15 697,881	15 695 N	15775,241	16000	16250		
	Imports	1000 m ³ ub	1 089,982	1 150 #	1244,550	1400	1550		
	Exports	1000 m ³ ub	1 919,666	2 050 #	2776,622	2900	3000		
	Apparent consumption	1000 m ³ ub	14 868,197	14 795	14 243,169	14 500	14 800		
1.2.1.NC	SAWLOGS AND VENEER LOGS, NON-CONIFEROUS								
	Removals	1000 m ³ ub	2 810,057	2 651 N	2757,424	2800	2900		
	Imports	1000 m ³ ub		80 R#	- ,.=.				
	Exports	1000 m ³ ub		150 R#					
	Apparent consumption	1000 m ³ ub		2 581					
1.2.1.NC.T	of which, tropical logs	1000 111 UD		2 301					
1.2.1.10.1		40003 .	1,717	2 #	2,290	3	3		
	Imports	1000 m ³ ub			2,290	-	•		
	Exports	1000 m ³ ub	0,244	0 #	-,	0	0		
	Net Trade	1000 m ³ ub	1,473	2	2,085	3	3		
1.2.2.C	PULPWOOD (ROUND AND SPLIT), CONIFEROUS								
	Removals	1000 m ³ ub	14 861,115	15 395 N	15411,187	15950	16250		
	Imports	1000 m ³ ub	1 173,927	1 200 #	1428,484	1500	1650		
	Exports	1000 m ³ ub	1 329,165	1 300 #	1462,043	1550	1600		
	Apparent consumption	1000 m ³ ub	14 705,877	15 295	15 377,628	15 900	16 300		
1.2.2.NC	PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS								
	Removals	1000 m ³ ub	4 610,003	3 900 N	3938,858	4150	4300		
	Imports	1000 m ³ ub		560 R#					
	Exports	1000 m ³ ub		75 R#					
	Apparent consumption	1000 m ³ ub		4 385					
3	WOOD CHIPS, PARTICLES AND RESIDUES								
	Domestic supply	1000 m ³	13 300,869 N	10 300 C	14180,794	14500	14900		
	Imports	1000 m ³	2 212,766	2 155 C	1663,985	1600	1500		
	Exports	1000 m ³	469,362	365 C	396,376	370	350		
	Apparent consumption	1000 m ³	15 044,273	12 090	15 448,403	15 730	16 050		
1.2.3.C	OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS	1000 111							
	Removals	1000 m ³ ub	571.518 N	563 N	754.393	850	970		
1.2.3.NC	OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROU		571,510 N	303 N	1 04,080	030	370		
1.2.3.140	Removals	1000 m ³ ub	36.245 N	31 N	97,921	130	180		
110		au 'm 0001	30,243 N	31 N	97,921	130	180		
1.1.C	WOOD FUEL, CONIFEROUS	4000 3 1	0.400.000	0.001	0000 - 44	00000	00750		
	Removals	1000 m ³ ub	2 189,028 N	3 601	3626,741	3820	3950		
1.1.NC	WOOD FUEL, NON-CONIFEROUS								
	Removals	1000 m ³ ub	2 330,320 N	3 235	3331,188	3600	3800		

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By e-mail to stats.timber@un.org.

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data. N - National estimate The trade turnover is based on data that includes the estimated value of trade turnover by entities exempt from the reporting obligation. These trade turnover figures are estimated at 3%.

red colour - corrected data Roundwood: sawlogs and veneer logs and pulpwood and wood fuel - with removals from tress and shrubs outside the forest, including forest chips, with stump Roundwood removals underbark Residues - production excluding recovered wood

		Country: Poland Date: 2023-09-11							
		Name of Official responsible for reply:							
	UNECE	Gabriela Bidzińska, Ewa Leszczyszyn Official Address (in full):							
	TEA			- Poznań Institute of Tec	hnology Center of	Wood Technology (CWT) 60-654		
	TF2			Poznań, Wini		(
	TIMBER FORECAST QUESTION Complete only if data			'+48 61 8492442; +4	8618492461	Fax: +48 61 822	43 72		
	Forest products for 2022 have been revised.	-mail: gabri	ela.bidzinska@pi	lukasiewicz.gov.pl	ewa.leszczysz	zyn@pit.lukasiev	vicz.gov.pl		
		_	Ulatar	and data			-		
Product Code	Product	Unit	2021	cal data 2022	Revised 2022	Estimate 2023	Forecast 2024		
6.C	SAWNWOOD, CONIFEROUS	0							
	Production	1000 m ³	4 549,465	4 400	4 144,118	4 100	4 200		
	Imports Exports	1000 m ³ 1000 m ³	<u>1 239,066</u> 964,500	<u>1 479</u> 880	<u>1 218,813</u> 732,033	<u>1 240</u> 710	<u>1 300</u> 700		
	Apparent consumption	1000 m ³	4 824,031	5 000	4 630,898	4 630	4 800		
6.NC	SAWNWOOD, NON-CONIFEROUS								
	Production Imports	<u>1000 m³</u> 1000 m ³	489,873 311,897	450 338	486,809 266,822	450 270	460		
	Exports	1000 m ³	286,391	268	259.088	250	260		
	Apparent consumption	1000 m ³	515,379	521	494,543	470	500		
6.NC.T	of which, tropical sawnwood	4000 3	0.000		0.407				
	Production Imports	1000 m ³ 1000 m ³	0,000 16,800	3 11	0,107 12,435	0 13	<u> </u>		
	Exports	1000 m ³	3,227	3	2,074	2	2		
	Apparent consumption	1000 m ³	13,573	12	10,468	11	12		
7	VENEER SHEETS Production	10003	46,340	43 C	45,025	42	45		
1	Imports	1000 m ³ 1000 m ³	46,340 120,633	43 C 93 C	45,025 92,036	42	45		
	Exports	1000 m ³	20,895	19 C	16,063	15	14		
	Apparent consumption	1000 m ³	146,078	117	120,998	121	129		
7.NC.T	of which, tropical veneer sheets Production	1000 m ³	1,000	1	1,000	1	1		
	Imports	1000 m ⁻ 1000 m ³	0,238	0	0,387	0	0		
	Exports	1000 m ³	0,259	0	0,306	0	0		
	Apparent consumption	1000 m ³	0,979	1	1,081	1	1		
8.1	PLYWOOD Production	1000 m ³	542,856	525 C	539,360	515	530		
	Imports	1000 m ³	604,005	648 C	468,073	475	480		
	Exports	1000 m ³	373,976	369 C	357,139	350	340		
	Apparent consumption	1000 m ³	772,885	804	650,294	640	670		
8.1.NC.T	of which, tropical plywood Production	1000 m ³	2,358	3	0,017	1	1		
	Imports	1000 m ³	5,821	6	5,313	6	6		
	Exports	1000 m ³	1,216	1	1,531	2	2		
	Apparent consumption	1000 m ³	6,963	8	3,799	5	5		
8.2	PARTICLE BOARD (including OSB) Production	1000 m ³	7 159.879	5 800	5 874,543	5 800	6 200		
	Imports	1000 m ³	2 408,518	1 955	2 474,381	2 500	2 550		
	Exports	1000 m ³	1 165,058	1 204	1 193,076	1 200	1 250		
8.2.1	Apparent consumption of which, OSB	1000 m ³	8 403,339	6 551	7 155,848	7 100	7 500		
0.2.1	Production	1000 m ³	826.887	810	647,392	650	750		
	Imports	1000 m ³	315,997	169	301,580	320	350		
	Exports	1000 m ³	340,623	340	293,668	320	340		
8.3	Apparent consumption	1000 m ³	802,261	639	655,304	650	760		
0.0	Production	1000 m ³	5 750,236	5 530 C	4 960,167	4 920	5 080		
	Imports	1000 m ³	911,909	784 C	590,413	585	630		
	Exports Apparent consumption	1000 m ³	2 264,238 4 397,907	2 143 C 4 171	1 743,025	1 740 3 765	<u>1 690</u> 4 020		
8.3.1	Hardboard	1000 m ³	4 331,901	41/1	3 807,555	3 / 05	4 020		
	Production	1000 m ³	76,231	80	79,993	80	80		
	Imports	1000 m ³	139,030	136	88,135	100	120		
	Exports Apparent consumption	1000 m ³ 1000 m ³	427,478 -212,217	386 -170	346,806 -178,678	300 -120	<u>250</u> -50		
8.3.2	MDF/HDF (Medium density/high density)	1000 111	-212,211	-170	-170,070	-120	-50		
	Production	1000 m ³	3 541,568	3 400	3 052,304	3 030	3 100		
	Imports Exports	1000 m ³	743,197	637	469,596	450 460	<u>470</u> 440		
	Apparent consumption	1000 m ³ 1000 m ³	751,853 3 532,912	685 3 353	455,829 3 066,071	460 3 020	440 3 130		
8.3.3	Other fibreboard								
	Production	1000 m ³	2 132,437	2 050	1 827,870	1 810	1 900		
	Imports Exports	1000 m ³	29,682 1 084,907	11 1 073	32,682 940,390	35 980	40		
	CAPOILS	1000 m ³ 1000 m ³	1 084,907	988	940,390 920,162	980	940		
	Apparent consumption		,==						
9	Apparent consumption WOOD PULP					1 710	1 750		
9	WOOD PULP Production	1000 m.t.	1 749,182	1 745 C	1 728,868				
9	WOOD PULP		1 194,429	1 227 C	1 290,582	1 300 180	1 320 140		
-	WOOD PULP Production Imports Exports Apparent consumption	1000 m.t. 1000 m.t.				1 300	<u>1 320</u> 140		
9 12	WOOD PULP Production Imports Exports Apparent consumption PAPER & PAPERBOARD	1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t.	1 194,429 176,658	1 227 C 155 C 2 816	1 290,582 183,152 2 836,298	1 300 180 2 830	1 320 140 2 930		
-	WOOD PULP Production Imports Exports Apparent consumption PAPER & PAPERBOARD Production	1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t.	1 194,429 176,658 2 766,953 5 326,000	1 227 C 155 C 2 816 5 200 C	1 290,582 183,152 2 836,298 5 237,232	1 300 180 2 830 5 130	1 320 140 2 930 5 250		
-	WOOD PULP Production Imports Exports Apparent consumption PAPER & PAPERBOARD Production Imports Exports	1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t.	1 194,429 176,658 2 766,953 5 326,000 5 233,203 2 555,558	1 227 C 155 C 2 816 5 200 C 5 179 C 2 632 C	1 290,582 183,152 2 836,298 5 237,232 4 868,938 2 573,764	1 300 180 2 830 5 130 4 870 2 600	1 320 140 2 930 5 250 4 950 2 650		
12	WOOD PULP Production Imports Exports Apparent consumption PAPER & PAPERBOARD Production Imports Exports Apparent consumption	1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t.	1 194,429 176,658 2 766,953 5 326,000 5 233,203	1 227 C 155 C 2 816 5 200 C 5 179 C	1 290,582 183,152 2 836,298 5 237,232 4 868,938	1 300 180 2 830 5 130 4 870	1 320		
-	WOOD PULP Production Imports Exports Apparent consumption PAPER & PAPERBOARD Production Imports Exports Apparent consumption WOOD PELLETS	1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t.	1 194,429 176,658 2 766,953 5 326,000 5 233,203 2 555,558 8 003,645	1 227 C 155 C 2 816 5 200 C 5 179 C 2 632 C 7 747	1 290,582 183,152 2 836,298 5 237,232 4 868,938 2 573,764 7 532,406	1 300 180 2 830 5 130 4 870 2 600 7 400	1 320 140 2 930 5 250 4 950 2 650 7 550		
12	WOOD PULP Production Imports Exports Apparent consumption PAPER & PAPERBOARD Production Imports Exports Apparent consumption	1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t. 1000 m.t.	1 194,429 176,658 2 766,953 5 326,000 5 233,203 2 555,558	1 227 C 155 C 2 816 5 200 C 5 179 C 2 632 C	1 290,582 183,152 2 836,298 5 237,232 4 868,938 2 573,764	1 300 180 2 830 5 130 4 870 2 600	1 320 140 2 930 5 250 4 950 2 650		

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Inese data are flagged with E, K, N of C for secretarial contract, report, name and the supplied data. N - National estimate Sawnwood - with sleepers (impregnated and non-impregnated) The trade turnover is based on data that includes the estimated value of trade turnover by entities exempt from the reporting obligation. These trade turnover Figures are estimated at 3%. Plywood (product code 8.1) - no bamboo plywood Wood pulp (product code 9) is reported in metric tonnes (no air-dry weight) Wood pulp - excluding pulp from fibres other than wood and excluding pulp from recovwered fibre pulp