

**UKRAINE 2024**  
**STATEMENT ON THE WOOD MARKET**  
**REVIEW AND PROSPECTS**

## 1. GENERAL ECONOMIC TRENDS AFFECTING FORESTS AND THE FORESTRY SECTOR.

Russia's full-scale invasion of Ukraine in 2022 had a catastrophic impact on the country's socio-economic situation and significantly changed the trends of its development. Given the scale of hostilities in Ukraine in 2022-2024, the negative economic consequences for its industries are many times greater than those caused by the previous Russian aggression (in 2014). This applies, in particular, to the forestry and related industries, and has affected the stability of the timber market in Ukraine. The total damage to forest ecosystems during the two years of hostilities amounted to about UAH 20 billion (USD 540 million), with equipment worth UAH 420 million (USD 11.5 million) destroyed and real estate worth UAH 1.2 billion (USD 32.5 million) damaged. As of May 2024, Russia's military actions against Ukraine have caused damage to the Nature Reserve Fund (NRF), the main territorial object<sup>1</sup> of biodiversity conservation in Ukraine, amounting to UAH 102.79 billion (USD 2.55 billion). Just in the Nature Reserve Fund, the destruction and damage of 4.775 million trees and plants has been documented on the area of about 8,000 hectares<sup>2</sup>. Damage to Ukraine's ecosystems is increasing daily.

According to macroeconomic calculations, in 2022, the economic losses from the war against Ukraine were equivalent to 30% of Ukraine's GDP.

In 2023, there was a certain improvement in macroeconomic indicators, in particular, Ukraine's GDP in actual prices increased by 24.8%, and in prices of the previous year - by 5.3%, with an annual inflation rate of 5.1% (in 2022 it was a record 26.6%). According to the forecast of the Government of Ukraine, nominal GDP will continue to grow gradually. It will amount to UAH 7643.0 billion in 2024 (104.6% of the previous year), UAH 8980.6 billion in 2025 (106.8% of the previous year), and UAH 10421.8 billion in 2026 (106.6% of the previous year). The main drivers of growth in the real economy were the manufacturing industry, with its real GDP increasing by 13.8% (with a share of 8.2 percentage points in the GDP structure), agriculture, forestry, and fisheries (with a share of 8.7 percent in GDP), with GDP growth of 7.6%, and the construction industry (with a share of 1.6 percent in GDP), with growth of 24.6%. In the services sector, the drivers of economic growth in 2023 were information and telecommunications (4.2 p.p. of GDP) with a 12.9% increase in real GDP, and real estate operations (4.7 p.p. of GDP) with a 10.6% increase in GDP. Along with the positive dynamics in 2023, some sectors of the economy

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<sup>1</sup> Defined geographical area that is recognized as having a certain level of political authority or administrative control.

<sup>2</sup> <https://ecoza.gov.ua/damage/pzf>

were characterized by a decline in real GDP. In particular, in the mining and quarrying industry, GDP declined by 1.9% (with a share in GDP of 4.1 percentage points), in the supply of electricity, gas, steam, and air conditioning by 1.8% (with a share in GDP of 4.1 percentage points), and in the financial and insurance sector by 1.8%., in financial and insurance activities - 8.3% (with a share in GDP of 2.6 points), in education - 3.6% (with a share in GDP of 3.9 points), in professional, scientific and technical activities - 1.0% (with a share in GDP of 1.8 points). The negative impact of the war against Ukraine on the forestry economy of Ukraine was also reflected in the decrease in the share of forest rent in the country's GDP from 0.21% in 2021 to 0.16% in 2022 and 0.15% in 2023. It should be noted that in general, the share of forestry in Ukraine's GDP has always been small, ranging from 0.26% to 0.37%. However, in 2023, the forestry industry paid taxes and payments to the budgets of all levels for UAH 10.8 billion (about USD 300 million), which indicates its significant contribution to the country's economy. It should be emphasized that this amount is 41 times higher than the amount of funds allocated to the forestry industry from the State Budget for forest management, conservation, and protection (maintenance of protected areas, national forest inventory, and forest management).

In 2023, Ukraine recorded an increase in industrial sales, namely by 14.1% (but this was after a 17.6% decline in the previous year, 2022) and an even more significant increase in the manufacturing industry - by 24.1%, compared to a decline of almost 30% in 2022. In 2023, the share of sales of wood, paper, and printing products amounted to 3.4% of all industrial sales and 65.0% of sales in the manufacturing industry. In 2023, sales of wood, paper, and printing products increased by 18.3%, compared to an 11.0% decline in the previous year. In 2023, sales of furniture, other products, repair, and installation of machinery and equipment accounted for 2.3% of total industrial sales and 20.8% of manufacturing sales. They increased by 30.8% in 2023, compared to a decrease of 23.9% in 2022. Thus, 2023 was characterized by a certain stabilization of industrial activity, including in the wood processing sectors after the first year of the Russian aggression against Ukraine.

Foreign economic activity is characterized by predominantly negative trends in increasing import dependence while reducing exports. The decline in exports of woodworking products is due to a decrease in the production capacity of the woodworking industries of Ukraine due to a reduction in the number of operating business entities. It is worth noting that the domestic wood market in Ukraine was very competitive in terms of the number of potential consumers who produced primary wood products (especially sawn timber) and furniture. Thus, as of 2019, there were 15692 business entities (enterprises and individual entrepreneurs) engaged in wood processing in Ukraine, 53% of which produced

sawn timber. However, in the first year of the war against Ukraine in 2022, the volume of wood harvesting in Ukraine fell by 9.7%, and the number of operating business entities in logging decreased by 9.3%, in woodworking by 14.0%, in the furniture industry by 12.9%, and in the production of paper pulp, paper and cardboard by 15.1%.

In 2023, compared to the previous year, foreign trade turnover did not increase significantly (by 0.3% or USD 318.6 million). Exports amounted to USD 36.2 billion (UAH 1.3 trillion), and imports amounted to USD 63.6 billion (UAH 3.7 trillion). In 2023, exports decreased by 18.0%, while imports, on the contrary, increased by 15.0%, which led to a deterioration in the country's trade balance by almost 2.5 times compared to 2022 and amounted to a negative value of USD 27.4 billion. Exports of these groups of goods amounted to USD 1.5 billion in 2023: for wood products - USD 1.5 billion. USD against imports of USD 196.1 million. and for furniture - \$786.5 million. The exports amounted to USD 355.4 million against USD 355.4 million of imports. USD of imports. In 2023, the volume of imports for the group of products - paper and cardboard - grew by 11.4%, while exports decreased by 15.1%. In 2023, both exports and imports decreased for the group of wood pulp products (by 1.4% and 12.0%, respectively). The positive side of the country's foreign economic activity includes a positive trade balance in 2022-2023 for the group of products - wood products, which amounted to USD 1.3 billion in 2023. (76.5% of the level of 2022) and furniture - USD 431.1 million. (87.7% of 2022). According to the Government of Ukraine, the country's trade balance is expected to improve over the next three years and will amount to USD 40.2 billion in 2024, USD 40.2 billion in 2025, and USD 40.2 billion in 2026. In 2024, the trade balance will be USD 40.2 billion, in 2025 - USD 27 billion, and in 2016 - USD 27 billion. In 2024, the trade balance will be \$40.2 billion, in 2025 - \$27 billion, and in 2026 - \$25.4 billion.

The registered unemployment rate in Ukraine in 2023 was 19.2%, compared to 21.1% in the previous year, 2022. The unemployment rate has almost doubled compared to the pre-war period (in 2021, it was 10.5%). The Government of Ukraine predicts that the unemployment rate in the country will gradually decline and will amount to 18.7% in 2024, 17.7% in 2025, and 15.0% in 2026. As of September 01, 2023, 108.7 thousand people in Ukraine had the status of unemployed. Among the registered unemployed, 10% were employed in agriculture, forestry, and fisheries. Military actions in 2023 harmed the level of wages in Ukraine: the decrease in the average monthly salary compared to the level of 2022 was 1.8% in national currency (from UAH 14577 to UAH 14308) and, taking into account the depreciation of the hryvnia by 13.2% (from 450.74 to 391.25) in terms of USD. In the agriculture, forestry, and fisheries sectors, on the contrary, the level of wages in 2023 increased by 3.4% from UAH 1,899 to UAH 12,300 per month. However, in USD. The

average monthly salary in this sector of the economy in 2023 decreased from USD 367.93 to USD 336.34. USD to 336.34 USD. (or by 8.6%). The impoverishment of the Ukrainian population in 2022-2023 is also indicated by high levels of the consumer price index for goods and services, 120.2% and 112.9%, respectively, compared to 109.4% in pre-war 2021. The Ukrainian government forecasts a gradual decline in consumer price growth over the next three years to approx: 109.7% in 2024, 108.1% in 2025, and 106.9% in 2025. Along with high unemployment, companies, including those in the forestry sector, are experiencing a shortage of skilled labor, due to the mobilization of workers.

In 2023, businesses in Ukraine somewhat adapted to the new situations and conditions caused by the war against Ukraine and resumed business activity after the economic downturn in 2022. In particular, 80% of companies are currently operating in pre-war mode, 12% are partially operating but plan to recover. Moreover, 28% of companies reported an increase in revenue over the past year, 23% said that their profits remained unchanged, and 19% reported a decrease in revenue by 25-50%. The forestry industry also performed quite well, with a net profit of UAH 2.9 billion (about USD 80 million) and an increase in the profitability of the industry's enterprises from 4.9% to 12.3% compared to 2022.

The measures taken to increase defense spending, mitigate the effects of falling household incomes, and support temporarily displaced citizens who evacuated from the war zone in 2022-2023 put a significant strain on the economy and public finances. The main risk factor for Ukraine's economic development forecasts for the coming years is the further course of the war in the country and its consequences for the economies of the country, the European Union, and the world. The impact of the following factors may also increase:

- Reduction in the number of enterprises and institutions due to the expansion of the area of military operations or the need to demine forest and agricultural land,
- an additional flow of internally displaced persons from the expansion of the territory of hostilities,
- Increased destruction of civil, industrial and energy infrastructure,
- Increased economic losses due to the growing environmental damages caused by the war against Ukraine ,
- outflow of foreign investment from the country,
- a drop in domestic consumption and investment,
- the resumption of rapid inflation growth, which is extremely difficult to predict and to assess the extent of their impact on the national economy.

## **2. POLICY MEASURES IN THE LAST 18 MONTHS THAT MAY HAVE AN IMPACT ON FOREST MANAGEMENT OR THE PRODUCTION AND TRADE OF FOREST PRODUCTS IN UKRAINE**

According to the Law of Ukraine "On the Basic Principles (Strategies) of the State Environmental Policy of Ukraine until 2030", the key goal of Ukraine's environmental policy on the way to EU accession is to ensure sustainable development of the country's natural resource potential. The development and implementation of the state environmental policy strategy to achieve balanced forest management is the main task in the area of responsibility of the forestry sector of the economy.

The main policy documents that define the strategic directions of the national economy, including the forest sector, are the Main Forecast Macroeconomic and Social Development Indicators of Ukraine for 2024-2026 (Forecast), approved by the Resolution of the Cabinet of Ministers of Ukraine No. 1315 dated 15.12.2023, the Concept of Implementation of the State Policy in the Field of Climate Change for the Period up to 2030, approved by the Resolution of the Cabinet of Ministers of Ukraine No. 932-r dated 7 December 2016 (Concept), and the State Forest Management Strategy until 2035, approved by the Order of the Cabinet of Ministers of Ukraine No. 1777-r dated 29.12.2021, as amended by No. 8940 dated 22.09.2023 (Strategy), as well as the operational plan for its implementation in 2022-2024 (as amended on 22.09.2023).

The forecast was taken into account when finalizing the draft Law of Ukraine "On the State Budget of Ukraine for 2024" and forms an idea of the quantitative prospects for the development of the Ukrainian economy in 2024-2026.

The Concept defines the basis for the development of draft laws and other regulations, strategies, and action plans for their implementation for various components of the state policy in the field of climate change. Prevention of climate change by reducing anthropogenic emissions increasing absorption of greenhouse gases and ensuring a gradual transition to low-carbon development of the state is carried out, among other things, by increasing the volume of greenhouse gas absorption through measures in the field of forestry and land use.

The Strategy stipulates the need to change the forest management system, in particular, to distribute controlling, regulatory and economic functions of the State Forest Resources Agency of Ukraine (SFRAU), the central executive body that implements the state policy in the field of forestry and hunting. The prerequisites for reforming Ukraine's forestry industry are laid down in the Presidential Decree "On Certain Measures for the Conservation and Restoration of Forests," which provides for measures to reform the forestry sector, including

improving the management system of state forestry enterprises. The Resolution of the Cabinet of Ministers of Ukraine No. 1003 dated 07.09.2022 "Some Issues of Reforming the Management of the Forestry Sector" decided to establish the State Specialized Economic Enterprise "Forests of Ukraine" (SE "Forests of Ukraine") as a result of the merger of state forestry enterprises belonging to the sphere of management of the State Forest Resources Agency of Ukraine, with the subsequent transformation of SE "Forests of Ukraine" into a joint-stock company with 100% of shares owned by the state. The main activities of the enterprise include forestry, logging, and the exclusive right to harvest timber. Currently, SE "Forests of Ukraine" is a national-level company with 146 branches organized by region into 10 offices and is the largest forest user in Europe. In 2024, the Government of Ukraine included the State Enterprise "Forests of Ukraine" in the list of business entities of particular importance for the public sector of the economy.

The implementation of the strategic goal of effective forest management involves, among other things, guaranteeing an increase in the contribution of forests to the development of the country's economy through the introduction of a transparent mechanism for the functioning of the timber market. Along with the reorganization of forestry management, the government is trying to balance the interests of the forestry and woodworking sectors of the economy. The consensus of interests in the domestic timber market of Ukraine is achieved by establishing a mechanism for setting economically reasonable prices for raw wood through its sale at electronic exchange trading, as well as the state's simultaneous obligation to meet the needs of domestic woodworking enterprises in raw wood as a matter of priority.

Timber is sold to commercial buyers through electronic trading on commodity exchanges. Back in 2019, the Cabinet of Ministers of Ukraine adopted the Resolution "On the Implementation of a Pilot Project on Holding Electronic Auctions for the Sale of Raw Timber", which regulates the holding of electronic auctions for the sale of certain lots of raw timber. In July 2021, the updated Law of Ukraine "On Capital Markets and Organized Commodity Markets" and amendments to the Law of Ukraine "On Commodity Exchanges" came into force, according to which timber is included in the list of products that can be traded through commodity exchanges licensed by the National Securities and Stock Market Commission.

In order to implement anti-corruption measures in the forestry sector as part of the implementation of the Anti-Corruption Strategy for 2021-2025 (Law of Ukraine "On the Principles of State Anti-Corruption Policy for 2021-2025" of 20.06.2022 No. 2322-IX), in 2023 an experiment was introduced to issue a logging ticket to all forest users and a certificate of origin of timber and timber products made from them in electronic form (Resolution of the Cabinet of

Ministers of Ukraine "On Implementation of the Pilot Project on Issuance of a Special Permit for Special Use of Forest Resources (Logging Ticket) and a Certificate of Origin of Timber and Timber Products Made from Them in Electronic Form" of 12.05.2023 No. 483). In addition, to strengthen anti-corruption measures in the structures of the State Enterprise "Forests of Ukraine", the relevant Anti-Corruption Program for 2023-2025 was adopted (approved by the Order of the State Enterprise "Forests of Ukraine" dated 03.02.2023 No. 425).

The construction industry of Ukraine has been and remains one of the main consumers of wood materials, in particular, due to the huge scale of destruction of civil, industrial, and energy infrastructure caused by Russian military aggression. The Law of Ukraine "On Compensation for Damage and Destruction of Certain Categories of Real Estate as a Result of Hostilities, Terrorist Acts, and Sabotage Caused by the Armed Aggression of the Russian Federation against Ukraine" (Law of Ukraine No. 2923-IX of 23.02.2023) established the *"State Register of Property Damaged and Destroyed as a Result of Hostilities, Terrorist Acts, and Sabotage Caused by the Armed Aggression of the Russian Federation against Ukraine"*. Its data makes it possible to predict the volume of restoration construction work and, accordingly, the volume of wood materials involved.

### **3. FACTORS AFFECTING THE FOREST PRODUCTS MARKET**

Ukraine's forests are an important component of the country's landscape systems, performing mainly ecological and social functions, are very diverse and are located in five natural zones (Polissya, Forest-Steppe, Steppe, Carpathians, and Crimea). By departmental subordination, the largest area of forest land (almost 73%) is used by forestry enterprises, institutions and organizations of the State Forest Resources Agency of Ukraine. A significant part of Ukrainian forests (62%) are classified as special use categories for environmental, social and economic reasons and have limited operational value. The total timber stock in Ukraine's forests is about 2.1 billion cubic meters, of which 72.0% is in the forests of the State Forest Resources Agency of Ukraine. The annual average change in the stock in the forests of Ukraine is 35 million cubic meters. The stocks of trees in the forests of Ukraine are growing at a higher rate than the annual volume of logging. It should be noted that in the pre-war period, the annual volume of timber harvesting in Ukraine was about 20 million cubic meters. The average stock change utilization rate was about 60% (currently, this figure is even lower), while in developed European countries this figure is much higher - from 70% to 85%. This imbalance leads to a significant accumulation

of tree stocks. In all natural zones, the actual volume of timber harvesting is much lower than the potentially possible. Accordingly, the increase in logging in Ukraine is quite reasonable, taking into account the timber production practices of developed European countries. Analysis of the regional peculiarities of the forest fund shows positive dynamics of the potential supply of raw materials on the timber market in the country to meet the needs of both domestic woodworking enterprises and exports of round timber.

At the same time, the timber market in Ukraine is currently unstable and difficult to predict both in terms of the number of consumers and the amount of raw wood required for production. Russia's aggression against Ukraine coincided with the organizational reform of the forestry sector. The stage of organizational transformation of the forestry industry in 2022-2023, the main supplier of wood raw materials, together with the devastating war against Ukraine, affected the stability of the wood market in Ukraine. Therefore, the regulatory framework for the timber market should reflect the current situation of its functioning under martial law and the post-war development of the country's economy.

The functioning of the timber market will be affected by the draft Law of Ukraine "On the Timber Market", which was adopted by the country's parliament in the first reading at the end of 2021. The purpose of this draft law is to create a forest portal that will provide forestry and timber market information and become the official source of information on the state of forests, forestry, and the timber market in Ukraine. According to the draft law, timber sales by forest owners and permanent forest users are carried out exclusively through electronic auctions and on the terms of an offer, except in certain cases of timber sales outside of auctions, including the sale of timber to meet the needs of budgetary institutions and the population for heating. The draft law provides for mandatory declaration of timber transactions. At present, final consideration of the draft law "On the Timber Market" remains necessary as one of the main factors for improving the functioning of the timber market in the country.

In 2023, the Cabinet of Ministers of Ukraine restricted the export of fuel wood in accordance with the Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Lists of Goods, Export and Import of which are Subject to Licensing, and Quotas for 2023" dated 27.12.2023 No. 1402. In particular, the export quota for fuel wood in the form of logs, knots, brushwood, branches or similar forms, wood chips or shavings is set at 0 tons. It should be noted that since 2015, a partial, and since 2017, a full ten-year ban on the export of business roundwood products from Ukraine (Law of Ukraine "On Amendments to the Law of Ukraine "On Peculiarities of State Regulation of Business Entities Related to the Sale and Export of Timber" regarding the Temporary Ban on Export of Unprocessed Timber" No. 325-VIII of 09.04.2015) significantly limits

the export potential of the forestry industry, but stimulates the development of the woodworking industry in Ukraine. The outcome of the restrictive measures on the export of unprocessed timber products in Ukraine will depend on how effectively the government and business can adapt to new challenges and use this measure to strengthen the country's economy under martial law.

A significant number of forestry regulations are related to logging and harvesting of timber as the basis for the functioning of the timber market in the country. In 2023-2024, a number of regulatory documents governing the forestry industry are being revised: The Law of Ukraine "On Environmental Impact Assessment" No. 2059-VIII dated 23.05.2017 (Draft dated 01.02.2023); "Rules for Improving the Quality Composition of Forests", "Rules for Main Use Felling", "Procedure for Special Use of Forest Resources" and "Sanitary Rules in the Forests of Ukraine". These legal acts contain certain norms that do not meet modern challenges, most of them were approved almost a decade and a half ago and require improvement of logging, taking into account the need to strengthen the state's defense capability under martial law. The updated package of these regulatory documents prepared by the State Forest Resources Agency of Ukraine was submitted to the Cabinet of Ministers of Ukraine for consideration and approval.

One of the main obstacles to the production activities of the forestry sector in the context of the military aggression against Ukraine is the shortage of qualified personnel due to the mobilization of workers and specialists into the ranks of the Ukrainian armed forces.

Since the outbreak of hostilities in Ukraine, there have been significant changes in the US dollar exchange rate - the national currency (hryvnia) has devalued significantly. The devaluation of the hryvnia in 2023 against the pre-war USD in 2021 was 34.0 percent on average. The average devaluation of the hryvnia against the US dollar in 2023 was 34.0%, and 13.1% against the average exchange rate in 2022. According to the International Monetary Fund (IMF), if the hostilities continue, the average hryvnia/US dollar exchange rate will be UAH 41.0 in 2024 and UAH 45.8 in 2025. The hryvnia depreciation is a consequence of military and economic turmoil and has a certain impact on any sector of the economy, including the forestry sector. Thus, in 2022, the physical volume of sales of roundwood products decreased by 15%, and the increase in its value by 5.4% was due only to an average increase in timber prices by 24%. However, an estimate of sales volumes of roundwood products in USD equivalent shows a decrease in their value compared to the previous year. However, an estimate of roundwood sales in USD equivalent shows an 11% decline in its value compared to the previous year. It is worth noting that the devaluation of the hryvnia increases the competitiveness of national timber

products on the global market, stimulates exports, but makes imports unprofitable.

One of the main areas of work of the State Forest Resources Agency of Ukraine is the digital transformation of key processes, including timber harvesting and sales. The SFRAU uses the unified state system of electronic timber accounting (ETA), an automated information and telecommunication system that collects, stores, processes and protects information on the origin, harvesting and sale of timber. Electronic timber accounting begins with the acceptance of timber directly at the timber harvesting sites. The system allows recording the volume of harvested wood and tracking its further movement. Currently, a more secure and modern EDMS 2.0 system is being developed with new functionality to extend its operation to woodworkers. It should be noted that the current generation of the EDI system is a unique Ukrainian development that has no analogues in other countries. In 2023, two extremely important digital tools were also introduced, which had been under development for more than two years (e-Certificate of Origin and e-Felling Ticket). In 2024, the Cabinet of Ministers of Ukraine adopted a resolution on photo-fixation of timber during transportation, and now it is mandatory for all forest users. These changes are very important, as they are an effective tool to combat illegal logging and the gray timber market, and are a continuation of the digitalization of the forestry industry.

Green (sustainable) construction is a concept that involves the use of environmentally friendly materials, including wood from certified forests or recycled wood, and technologies aimed at reducing the negative impact on the environment and ensuring the energy efficiency of buildings. The green building sector in Ukraine is regulated by a number of legal acts covering energy efficiency, environmental safety, use of renewable energy sources, and environmental protection (Laws of Ukraine: "On Energy Saving", "On Energy Efficiency of Buildings", "On Regulation of Urban Development", "On Environmental Protection", "On Environmental Expertise"; Resolutions of the Cabinet of Ministers of Ukraine: "On Approval of State Building Standards for Energy Efficiency of Buildings", "On Approval of the Action Plan for Implementation of the Energy Efficiency Strategy", etc.)

According to analytical estimates, the share of green construction in Ukraine is about 2% of the total construction market, which is about 15 times less than the average for European countries and is almost entirely represented by the commercial sector (shopping malls, business centers, etc.). Until 2023, the total amount of state funding for energy efficiency projects in buildings did not exceed UAH 2 billion (about EUR 50 million). At the same time, experts of the Energy Community Secretariat estimated the need for financial resources for thermal modernization of Ukrainian buildings by 2030 at almost EUR 50 billion.

In Ukraine, about half of the buildings have the lowest energy efficiency class, and the construction industry generates 6% of carbon emissions. According to an annual global study by Energodata, the energy intensity of Ukraine's GDP is 2 times higher than the global average<sup>3</sup>. Green building in Ukraine began to develop in response to global environmental challenges and the need to reduce energy consumption and now has the potential for further development with a reduction in energy consumption by buildings of up to 42%.

As part of Ukraine's renewable energy development programs, wood raw materials are actively used. The country encourages the production of electricity and heat from biomass. The Law of Ukraine "On Alternative Energy Sources" provides for the stimulation of electricity production, including from wood and its waste, through the possibility of obtaining a "green" tariff. Currently, the "green" tariff for electricity is set by the National Commission for State Regulation in Energy and Utilities and is valid until the end of 2029 for installations that have already received such a "green" tariff before January 1, 2024. Ukraine continues to work on the development of renewable energy through international assistance and support, as well as through its own efforts to rebuild its energy infrastructure.

## **4. DEVELOPMENTS IN FORESTS AND FOREST PRODUCTS MARKETS SECTORS**

### **4. (A) Wood raw materials**

In 2023, Ukraine harvested 15.25 million cubic meters of roundwood, which is 1.1% more than in 2022. However, the increase in roundwood harvesting was due to business roundwood (up 3.8%), while fuelwood harvesting, on the contrary, decreased by 0.9% (or 77.2 thousand cubic meters). The decline in fuelwood harvesting in the context of military operations may be the result of both a decrease in the number of rural residents in the frontline areas and an increase in unauthorized logging for household heating. Despite the legal ban on the export of business roundwood since 2017, Ukraine exported more than 1.2 million tons of fuelwood, wood chips and shavings in 2023. This volume is 15.4% more than in 2022, but 0.8% less than in 2021. Since 2023, Ukraine has introduced export quotas for fuelwood, with a 0 t quota for roundwood, which makes it impossible to supply wood raw materials (roundwood) to the European and global markets. The assortment structure of the harvested business roundwood (6.6 million cubic meters) consists of 67%

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<sup>3</sup> "European recipe for energy efficiency: Best practices and pitfalls". Available at: <https://www2.deloitte.com/ua/en/pages/press-room/press-release/2019/european-energy-efficiency-recipe.html>

sawlog and plywood ridge (4.4 million cubic meters), 30.2% other business assortments (2.0 million cubic meters) and 2.8% balance wood (0.2 million cubic meters). The separation of woodworking shops from the branches of the State Enterprise "Forests of Ukraine" in 2024 additionally freed up roundwood for supply to the domestic market, which reduced the intensity of competition between woodworking companies for raw materials. With the end of hostilities in Ukraine and the start of the country's reconstruction, the demand for business roundwood from the woodworking and construction sectors will grow. The rate of this growth is difficult to predict in the absence of complete information on economic losses and the amount of financial resources that will be attracted to restore the country.

#### **4.(C) Wood-based energy, with a focus on government policies promoting wood energy**

During the military years of 2022-2023, more than 660 MW of new renewable energy sources (RES) capacity was commissioned in Ukraine. However, as a result of Russia's full-scale invasion, Ukraine lost significant RES capacity: 80% of wind power plants (WPPs) and 20% of solar power plants (SPPs). But even so, the share of renewables in Ukraine's energy sector remains significant: in 2023, about 10% of electricity was generated by wind and solar power plants. Taking into account large hydroelectric power plants, the share of clean energy produced reached 20.3%, which is more than in the pre-war period. Currently, more than one thousand companies operate in the sector, operating more than 1767 renewable energy facilities/installations. The total volume of "green" electricity production in 2023 did not change compared to 2022 and reached about 8 million MWh.

In Europe, the rise in gas prices has led to an increase in demand and sales of firewood, pellets and other raw materials for heating. This, given the ban on fuelwood exports from Ukraine, stimulates the supply of other types of energy wood resources to European markets. In particular, in 2022, export volumes of pellets from Ukraine amounted to 96.3% (87.5% in the previous year) of their production (430 thousand tons).

To expand the use of solid biofuels for heating and production of heat energy from alternative sources and solid biomass, the state has established a special tariff. In particular, tariffs for heat energy for categories of consumers (budgetary institutions), as well as for the needs of the population, are set at 90% of the current tariff for heat energy produced using natural gas for the producer, or 90% of the weighted average tariffs by region. According to the Energy Strategy of Ukraine for the period up to 2035, the contribution of RES to the total primary energy supply should be 12% in 2025, with biomass, biofuels and waste contributing half of this figure at 6.0%.

#### **4. (C) Certified forest products**

According to the State Forest Management Strategy of Ukraine until 2035, forest certification is a marketing tool for increasing the competitiveness of forestry production. The strategy stipulates that the state should provide comprehensive support to the national forest certification system under the PEFC scheme and the certification system under the international FSC scheme as the basis for healthy competition in achieving common goals. According to the Operational Plan for the implementation of the State Forest Management Strategy of Ukraine in 2022-2024, at least 10 enterprises should be certified under the PEFC system and 50 under the FSC system. According to the State Enterprise "Forests of Ukraine", as of September 01, 2024, 4.73 million hectares of forests were certified under the FSC system; the number of certified branches is 93. PEFC certified 202.75 thousand hectares in 7 branches.

#### **4.(D) Softwood lumber**

Softwood lumber dominates in Ukraine, accounting for over 90% of production. In 2022, the production of softwood lumber amounted to 2.7 million cubic meters, an increase of 1.0% compared to the previous year. 56.9% (more than 1.5 million cubic meters) of the production volume was exported. Export volumes fell by 56.3% (almost 1.2 million cubic meters) to the level of 2021, which was the result of a significant (almost 4 times) increase in domestic consumption compared to the pre-war period. Imports of coniferous lumber to Ukraine in 2022 were almost non-existent (only 2 thousand cubic meters) and decreased by 13.5 times (27 thousand cubic meters) compared to the previous year, and have no impact on the domestic timber market. The downward trend in softwood lumber exports is likely to continue in the next few years due to a reduction in timber harvesting and an increase in the demand for lumber on the domestic market for the construction of fortifications and the elimination of the consequences of the destruction of civil and industrial infrastructure.

#### **4.(E) Hardwood lumber**

In 2022, Ukraine produced about 0.3 million cubic meters of hardwood lumber, which is 1.7 times less than in 2021 (about 0.2 million cubic meters). Exports of hardwood lumber decreased by 22.1% over the year (to 0.2 million cubic meters), while its share in production increased from 61.6% to 80.8%. Imports in 2021-2022 were insignificant (9 and 5 thousand cubic meters, respectively). Domestic consumption of hardwood lumber in 2022 decreased by more than 3 times and amounted to 0.06 million cubic meters. The dynamics of hardwood lumber volumes indicates a predominantly export-oriented production and, unlike softwood lumber, a tendency for annual reduction in domestic consumption. The decline in hardwood

lumber production, which continued in 2023, indicates that this trend will continue in the near future.

#### **4.(F) Veneer sheets**

In 2022, Ukraine's veneer production amounted to 216 thousand cubic meters, which meant a decrease of almost 10.7% compared to 2021. In 2022, imports of veneer to Ukraine slightly decreased (by 2 thousand cubic meters) compared to the previous year, but their volume (9 thousand cubic meters) in relation to production amounted to only 4.2%. About 74% of the veneer produced in Ukraine (159 thousand cubic meters) was exported (i.e. 91.4% of the level of 2021). Domestic veneer consumption decreased by 16.5% in 2022. The decline in veneer production is expected to continue in 2024 and will not reach the level of pre-war 2021.

#### **4.(G) Wood-based panels**

A 5.4% decline in the production of wood-based panels was recorded in Ukraine in 2022. Production volumes of plywood, fiberboard, and MDF/HDF boards did not decline. The decline in production affected OSB (by 11.6%) and particleboard (by 6.1%). In 2022, about 3.5 million square meters of wood-based panels were produced. The production was dominated by chipboard with a share of 74.9% (2.6 million square meters) and fiberboard with a share of 11.0% (about 0.4 million square meters). OSB boards accounted for 6.3% (0.222 million square meters), plywood for 5.5% (0.193 million square meters) and MDF/HDF for 2.3% (0.081 million square meters). In 2022, Ukraine additionally imported 0.221 million square meters of wood-based panels, which is 3.4 times less than a year earlier (6.3% of production). 59.7% of imports were MDF/HDF boards (0.132 million square meters; at the same time, imports decreased by almost 3 times compared to 2021), 16.7% were particleboard (0.037 million square meters; however, supplies fell by almost 6 times), 8.1% were plywood (0.018 million square meters; imports fell by more than 2 times). Other fiberboard, 5.8% of fiberboard and 4.3% of OSB accounted for 5.8% of imports. As with imports, exports of wood-based panels in 2022 were almost 10% lower than in 2021. However, in 2022, there was an increase in exports compared to the previous year for plywood by 31.7% and OSB by 60.6%. On the contrary, chipboard, fiberboard and MDF/HDF boards saw a decrease in exports by 3.9%, 42.6% and 36.5%, respectively. In 2022, the supply of wood-based panels to foreign markets amounted to 0.6 million square meters and accounted for 17.3% of domestic production. Almost half of the exported boards (49.1%) were chipboard (0.3 million square meters), 27.5% plywood (0.166 million square meters), 10.1% MDF/HDF (0.061 million square meters), and 8.8% OSB (0.053 million square meters). In 2023, the production of wood-based panels in Europe fell by 6.3%, which also affected the dynamics of exports from Ukraine.

#### **4.(H) Pulp and paper**

Due to the absence of relevant enterprises, Ukraine does not produce wood pulp, and all domestic consumption needs are covered by imports, which amounted to 38 thousand tons in 2022, down 51.9% year-on-year. The import structure is significantly dominated by chemical wood pulp with a share of over 85%. In 2022, Ukraine imported 97.3% (27 thousand tons) of chemical pulp and only 2.7% (1 ton) of chemical and semi-chemical pulp. No significant changes are expected in the Ukrainian wood pulp market.

In 2022, Ukraine recorded a drop in paper and cardboard production by a record 18.0%. Production amounted to 0.982 million tons. As in previous years, the product mix was dominated by packaging paper and cardboard (81.7%, 0.802 million tons) and household and sanitary paper (15.9%, 0.156 million tons), with graphic paper accounting for only 0.5% (5 thousand tons) and other types of paper and cardboard making up the remaining 1.9% (19 thousand tons). The Ukrainian paper and cardboard market is significantly supplemented by imports, which in 2022 amounted to 0.328 million tons, which is 33.4% of domestic production, but was 40.7% lower than in the previous year. In 2022, Ukraine imported mainly packaging paper and cardboard (58.5%) and graphic paper (31.7%). On the other hand, 0.068 million tons of paper and cardboard were exported (6.9% of domestic production). Exports fell by 61.4% compared to 2021. The main export product, as well as imports, was packaging paper and cardboard (86.8%). Household and sanitary paper accounted for another 11.8% of exports, and graphic paper for only 1.4%. Pulp and paper production in Europe declined by 12.8% in 2023, and consumption by 15.3%. These European trends and the ongoing military actions will also have a negative impact on the production and export of cardboard and paper products from Ukraine in 2024 and beyond.

#### **4.(I) Housing and construction**

One of the main consumers of lumber is the construction industry. Ukrainian construction changed its format during the war against Ukraine. Whereas before the war there was significant development in the residential construction sector, now the main format is focused on the construction of modular towns and the restoration of damaged communities. Such work is often funded by donors. Demand for "specific" works, such as military facilities, has also increased, but the volume of such types of work is not known. In line with the changes in the format of construction works in Ukraine caused by the hostilities, in 2023, there was a 4.0% increase in the share of repair works (to 42.8%) and a decrease in the share of reconstruction and technical re-equipment works (to 21.3%) and a 0.7% decrease in the share of new construction (to 35.9%).

According to the KSE Institute, as of January 2024, there were more than 250 thousand damaged and destroyed buildings in Ukraine. Of these, 222 thousand were private houses, more than 27 thousand were apartment buildings, and 526 dormitories. In 2023-2025, 580 restoration projects are expected to be implemented, not only in the housing stock. This will increase demand for building materials, including wood, and labor in the coming years. However, over the two years of the full-scale invasion, about 15% of building materials production capacity has been damaged, causing shortages and further price increases.

In 2023, the volume of construction products produced in Ukraine in national currency increased by 44.3%, but this was largely due to the high price dynamics for construction materials and construction works. Thus, according to ProConsulting, as of the end of October 2022, the price of building materials in Ukraine rose from 19% for tiles to 61% for roofing materials. As a result of rising prices and wages in 2022-2023, the cost of construction in Ukraine increased by 53%. In 2023, the volume of construction output grew at the highest rate (up 54.8%) in the engineering structures sector, slightly less (up 41.5%) in the construction of non-residential buildings and only 14.1% in residential construction. Accordingly, in 2023, the total area of non-residential buildings put into operation increased by 3.8% compared to the previous year, while for residential buildings it decreased by 6.1%.

In 2023-2024, the construction industry in Ukraine will be further stimulated by the state program "eRecovery". Starting from 10.05.2023, every Ukrainian whose home was damaged or destroyed as a result of Russian aggression can receive financial compensation under the state support program "eRecovery". Funds from this program must be used within 1 year to purchase construction materials, repair or restore roofs, replace damaged windows or doors, and perform construction work. Funds from the state budget as well as funds provided by international donors are used to compensate for damages and restore housing.

The cost of construction in Ukraine will continue to grow, driven by objective processes, including increased demand and inflation. Ukraine's needs for reconstruction and restoration of infrastructure and housing amount to almost USD 486 billion.

#### **4.(J) Gender and human rights issues related to the forest market sector**

Equality of men and women is enshrined in the Constitution of Ukraine, Part II, Article 24. Ukrainian legislation is the basis of gender equality policy, with the Law of Ukraine "On Ensuring Equal Rights and Opportunities for Women and Men" (2005) being the leading law in this area, along with the Law

of Ukraine "On Principles of Preventing and Combating Discrimination in Ukraine" (2012). Since 2017, the position of Government Commissioner for Gender Policy of Ukraine has been in place. The country is implementing the Concept of Preventing and Combating Domestic Violence for the period up to 2023, which is based on international standards and the relevant law of Ukraine.

As of January 01, 2023, men prevail in leadership positions in the material production sector in Ukraine, with 83.3% in construction, 81.4% in agriculture, forestry and fisheries, and 79.9% in industry. Overcoming gender inequality in forestry is one of the problems to be solved through the implementation of the State Forest Management Strategy of Ukraine until 2035, approved on December 29, 2021. Section I of the Strategy states that gender inequality - the underrepresentation of women in forestry, especially in management and responsible positions - is one of the main problems in the forestry sector that needs to be addressed. That is why the Gender Action Plan for the Forestry Sector of Ukraine for 2022-2025 was developed to implement the Strategy in terms of gender issues.

To summarize, the trends in 2022-2024 for the forestry sector and timber market in Ukraine presented in this Report will continue to be observed over the next few years, given that military operations in the country are still ongoing. It is quite obvious that the restoration and development of the forest resource and production potentials of the forestry and woodworking industries, as well as the economy as a whole, will require a certain period of time after the end of hostilities in the country. It will largely depend on attracting the necessary investments into the forestry sector on a multichannel basis from the state, private business, international sponsors, as well as through reparations received.

## **5. ECONOMIC INDICATORS**

Since the beginning of the military aggression against Ukraine, the Law of Ukraine "On Protection of the Interests of Submitters of Reports and Other Documents during Martial Law or a State of War" of 03.03.2022 has been in force. According to this Law, the State Statistics Service of Ukraine has suspended the publication of a significant amount of statistical information. The provisions of the Law generally apply to all individuals and legal entities that provide settlement and any other documentation to the relevant public authorities. In this regard, certain statistical indicators are not available as of the date of submission of the Report.

Table 1 - Dynamics of economic indicators

Indicators.	Years						
	2017	2018	2019	2020	2021	2022	2023
GDP, billion USD	112.09	130.89	153.88	156.62	199.77	161.99	178.76
Share of agriculture, forestry, and fisheries in total GDP, %.	10.2	10.1	9	9.3	10.9	8.6	7.4
Forest rent in Ukraine as a share of total GDP, %.	0.37008	0.36323	0.27777	0.27179	0.20902	0.16491	0.1419
Production of wood and paper products, printing, UAH millions	84153.4	104062	99497.5	101782.9	141718.4	126119.4	149173.1
Volume of construction products produced, UAH millions	105682.8	141213.1	181697.9	202080.8	258073.6	114943.8	165818.2
including residential buildings	23730	29344.8	33208.8	29083.6	39147.9	20072.2	22906.6
non-residential buildings	29079.6	37446.8	50380.5	51542	63746.4	30100.3	42604.9
engineering structures	4880.2	6751.7	7354	6319.3	7535.3	2706.3	4188.5
Average monthly salary (income) in Ukraine, UAH	7105	8867	10504	11597	14018	14577	14308
Agriculture, forestry, and fisheries	6035	7522	8833	9739	12238	11899	12300
Registered unemployment rate, %.	9.9	9.3	8.7	10.1	10.5	21.1	19.2
Consumer price indices for goods and services (in % of the previous year)	114.4	110.9	107.9	102.7	109.4	120.2	112.9
Capital investments, UAH millions	448461.5	578726.4	623978.9	508217	673899.3	409660	-
including forestry and logging	768.9	980.3	548.7	460.1	1413.2	1463.1	-
<b>Trade, USD millions</b>							
Export	43.27	47.33	50.06	49.21	68.07	44.14	36.19
Import	49.61	57.15	60.8	54.16	72.84	55.29	63.57
Trade balance	-6.34	-9.82	-10.74	-4.95	-4.77	-11.15	-27.38

Table 2 - Roundwood harvesting (thousand cubic meters)

Types of forest products	Years					
	2018	2019	2020	2021	2022	2023
<b>A round forest of everything</b>	<b>19695,7</b>	<b>17886,6</b>	<b>16773,0</b>	<b>16666,9</b>	<b>15085,1</b>	<b>15252,1</b>
Including business roundwood together -	8976,0	9303,4	8996,3	8214,8	6395,8	6640,0
- conifers	6713,2	7314,8	7343,8	6552,4	4823,3	5149,7
- hardwoods	2262,8	1988,6	1652,5	1662,4	1572,5	1490,3
Fuel wood - together	10719,7	8583,2	7776,7	8452,1	8689,3	8612,1
- conifers	6048,4	3950,6	3548,3	3670,4	3534,5	3321,1
- hardwoods	4671,3	4632,6	4228,4	4781,7	5154,8	5291,0

Table 3 - Indicators of forest products

Types of forest products	Years				
	2018	2019	2020	2021	2022
<b>Lumber, coniferous, thousand cubic meters</b>					
Production	3500	3079	3280	2689	2717
Import	38	27	20	27	2
Export	3189	2811	3000	2744	1545
domestic consumption	349	295	300	-28	1174
<b>Lumber, hardwood, thousand cubic meters</b>					
Production	600	504	434	484	287
Import	8	4	2	9	5
Export	522	364	298	298	232
Domestic consumption	86	144	172	195	60
<b>Veneer, thousand cubic meters</b>					
Production	217	216	230	242	216
Import	9	9	8	11	9
Export	191	174	173	174	159
Domestic consumption	35	51	65	79	66
<b>Plywood, thousand square meters</b>					
Production	190	177	190	193	193
Import	64	61	39	39	18
Export	136	126	126	126	166
Domestic consumption	118	112	103	106	45
<b>Chipboard, thousand square meters</b>					
Production	2405	2121	1687	2781	2611
Import	122	209	214	214	37
Export	457	329	308	308	296
Domestic consumption	2070	2001	1593	2687	2352
<b>OSB boards, thousand square meters</b>					
Production	153	153	153	251	222
Import	139	82	82	82	9
Export	3	4	10	33	53
Domestic consumption	289	231	225	300	178
<b>Fiberboard, thousand square meters</b>					
Production	475	439	439	463	463
Import	349	416	422	422	157
Export	103	133	143	143	88
Domestic consumption	721	722	718	742	532
<b>of which, hardboard, thousand square meters</b>					
Production	382	382	382	382	382
Import	3	17	24	24	12
Export	35	53	47	47	27
Domestic consumption	350	346	359	359	367
<b>MDF/HDF boards, thousand square meters</b>					
Production	93	57	57	81	81
Import	329	379	379	379	132
Export	68	80	96	96	61
Domestic consumption	354	356	340	364	152

Continuation of Table 3

Types of forest products	Years				
	2018	2019	2020	2021	2022
<b>Other boards, thousand sq. m.</b>					
Production	0	0	0	0	0
Import	17	20	19	19	13
Export	0	0	0	0	0
Domestic consumption	17	20	19	19	13
<b>Wood mass, thousand tons</b>					
Production	0	0	0	0	0
Import	66	72	76	79	38
Export	0	0	0	0	0
Domestic consumption	66	72	76	79	38
<b>Paper and cardboard, thousand tons</b>					
Production	1155	1033	1097	1198	982
Import	590	590	553	553	328
Export	257	180	176	176	68
Domestic consumption	1488	1443	1474	1575	1242
<b>Wood pellets, thousand tons</b>					
Production	553	519	519	497	430
Import	0	0	0	5	7
Export	397	451	465	435	414
Domestic consumption	156	68	54	67	23