



Directorate of Forestry, Hunting and Wood industry

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To: UNECE/FAO Forestry and Timber Section Forests, Land and Housing Division
United Nations Economic Commission for Europe

Subject: Request for preparing a country market

1. General economic trends affecting forests and forest industries sector.

Available statistical data indicate that in the first quarter of 2022 a significant economic growth of 7.2% was achieved. The number of employed persons in April 2022 is higher by about 3% compared to December of the previous year, while the number of unemployed persons in April decreased by 11.9%.

The growth of nominal gross wages for the four months of this year was about 9%. Annual CPI inflation in June 2023 amounted to 7.5%, while HICP inflation amounted to 8.2%. In June 2023, consumer prices recorded monthly increased of 0.9%. The highest price growth recorded the hotels and restaurants category (6.9%), primarily due to a 12.8% increase in the price. Growth was also recorded in the categories health 2.3%, food and non alcoholic beverages 1.5%, recreation and culture 0.8%, furniture, household equipment and routine apartment maintenance transportation 0.7% each, alcoholic beverages and tobacco 0.4% and housing, water, electricity, gas and other fuels 0.3%.

Monthly price decline was recorded in the categories clothing and footwear (2.5%), and miscellaneous goods and services (0.7%), while prices in the category communications and education remained the same.

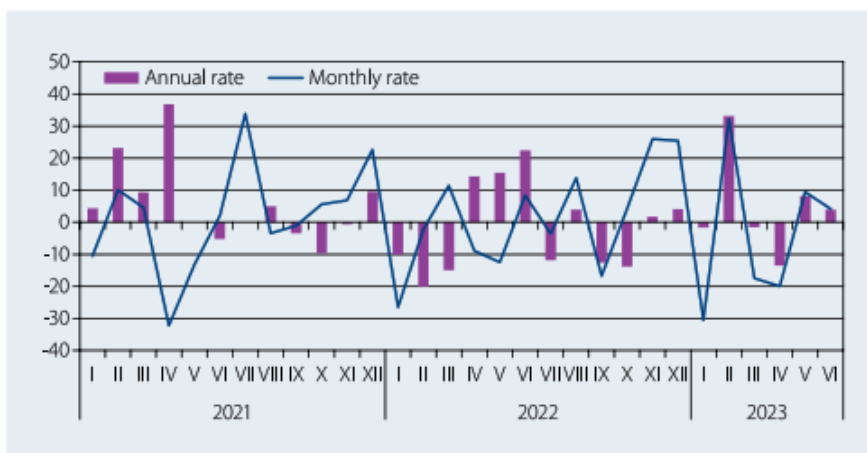


Graph 1 – Consumer prices in Montenegro, annual and monthly rates, in %

Source: MONSTAT

Producers prices of manufactured products records the annual growth of 5.5%, in June this year due order to price in manufacturing industry 3.5% and the mining and quarrying 20.5% while there were no price changes in the electricity, gas and steam supply sector. The producers prices of manufactured products recorded monthly increase of 0.2% due to an 2.6% price increase in mining and quarrying sector, while manufacturing industry recorded 0.6% decreased.

Preliminary MONSTAT data indicate that industrial production recorded the year-on-year increase of 4.5% in the first six month of the current year. Production increase was recorded in electricity, gas and steam supply (37.8%), while manufacturing industry and mining and quarrying sectors recorded production decline of 14.9% and 6.6%, respectively.



Graph 2 –Industrial output in Montenegro, annual and monthly rates, in %

Source: MONSTAT

Eight branches of manufacturing industry recorded production decline in this period. The highest decline was recorded in the area of production of basic metals (53.9%) and production of chemical production (37%), while the lowest decline was recorded in the area of area od production of apparel (0.7%). The highest growth was recorded in printing and reproduction of



audio and video recordings 102.5%, and the lowest in production of rubber and plastic products of 3.7%.

Production of forest assortments from the state forest amounted to 97, 330m³ in the first six months of the current year, which is 53.7% ¹ increase on the same period last year (Note: ¹ Expressed by weight index).

Challenges and risks are related to the development of the geopolitical situation and related tensions, pronounced inflationary pressures, uncertainty regarding the development of the pandemic, then the effects of the expected normalization and tightening of the monetary policy of the leading central banks, as well as the development of risks in the fiscal sphere and the maintenance of fiscal stability. The uncertainty of further developments in Ukraine and the intensity of its consequences will determine the intensity of the impact of the macroeconomic, financial and fiscal trends.

Continued price growth, disrupted supply chains and limited availability of goods on world markets - Initial expectations of key central banks and international financial institutions that the rise in inflation is of a temporary nature, i.e. that the market will play the role of the regulatory mechanism in terms of inflation, have not been achieved. The external shock, the situation in Ukraine, further increased inflationary pressures related to disruptions in the world market of energy sources, food raw materials, inputs for production, disruptions in supply chains and increased prices for transporting goods. Inflationary pressures and disruptions from the international market spill over into the domestic prices of food, petroleum products and transportation, and consequently open an inflationary spiral of upward price growth for other products as well, which is why the inflation rate in Montenegro increases month by month.

Acceleration of inflation growth and growth of inflationary expectations are currently the most pronounced short-term macroeconomic risks, where there is a possibility that the short-term risk of the acceleration of inflation growth will turn into a long-term risk. A further increase in energy prices may adversely affect the increase in the value of imports and, consequently, the deterioration of the balance of payments. Global supply chains are already disrupted, and their further deterioration cannot be ruled out. Disruptions in supply chains that encourage price growth can additionally represent a large burden on the population, especially the population with lower incomes and the economy, as well as social tensions and pressure on the state budget.

The growth of inflationary expectations has an unfavorable effect on planned investments. The pace of investment plans could be slowed down due to problems caused by disrupted global supply chains, as well as rising prices of production inputs themselves, i.e. deteriorating investment financing conditions, and general instability and uncertainty.

All of the above has a negative impact on the economic outlook and can be reflected in the slowdown of economic activity.



2. Policy measures taken in your country over the past 18 months, which might have a bearing on forest management or production and trade on forest product.

➤ **Raw material supply security;**

The Government of Montenegro, in the draft of the Government's Medium-Term Work Program 2022-2024, defined priorities and goals and activities that make the stated goals operational. Two key activities related to the achievement of goal 3.8. *Improved forest management and the development of the wood industry based on the potential of our forests* are related to the amendments to the law on forests and the development of the Forest and Forestry Development Strategy for 2023-2028. year with the Report on the strategic assessment of environmental impact, the Report on the public discussion and the Action Plan for the implementation of the Strategy for the same period, submitted by the Ministry of Agriculture, Forestry and Waterfront The vision of forestry is defined by the National Forestry Policy of Montenegro and suggestion: Improve the existing condition of forests so that the protective, ecological, social and economic functions of forests are balanced, and sustainability is ensured. It was previously established by the current sectoral Law on Forests ("Official Gazette of Montenegro", no. 74/2010, 40/11, 47/15).

The national policy defines five priority areas: sustainable management and management of forests respecting the principle of polyfunctionality; preserving and strengthening the capacity of forests for resistance and adaptation to climate change; protected forests, landscape and biodiversity protection, (social and ecological functions - ecological service); encouraging forest sustainability, sustainability and competitiveness of forest-based industries; legal and institutional strengthening and financial support for sustainability. Almost all Ministries are recognized as bearers of activities, which clearly indicates sectoral interdependence and connectivity at the national level.

In the Appendix defining the Guiding Principles of National Policies for the Restoration of the Forest Landscape of the European Commission (2020), it is stated that the forest is "a huge potential, an indisputable asset, but still little valued. Often fragmented, degraded or neglected, our forest needs support in order to be restored and thus continue to play its multifunctional role, essential for the social and economic life of the regional territories". Specifically, the Helsinki resolution (1993) related to Forests of Europe states that "Forest management should be based on periodically updated plans or programs at the local, regional or national level, as well as at the ownership unit level."

➤ **Wood in construction;**

Relatively stable economic conditions and new investments in construction have contributed to the expansion of the building materials market in Montenegro. In particular, Montenegro's housing market is experiencing rapid growth. Building materials is one of the fastest growing sectors of the country's economy. Traditionally, Montenegrin buildings were constructed with unreinforced brick covered with concrete stucco, or more recently, with steel-reinforced concrete with brick infill. Montenegrin buildings are energy inefficient, heavy, and take a long time to



build. Wood and steel frame buildings are rare, though Montenegrin builders are starting to look at Western-style platform-frame wood construction and prefabricated housing. Most building materials, such as glass, cement, paint, and varnishes are imported.

The existing situation in the housing and urban market in Montenegro offers opportunities to promote domestic production Engineered wood product (glulam timber, laminated veneer lumbe, cross-laminated timber) because forest located in the northern and north-eastern part of Montenegro enable to development aforementioned products. Current and future quantities of harvested timber provide the basis for developing the added value chain of wood industry and other activities. Timber quantities cannot increase significantly, but there is a potential for growth of GDP through increase in the degree of finalization of wood products. The state will motivate the development of the added value chain according to the principle »from the market to the forest«, that is, by generating the demand for biomass, fuelwood and installing wood products into the public buildings by green public procurement, and increased export of competitive final wood products by cluster of producers. Timber sales will be performed in a manner ensuring the stability of the market as much as possible and transparency of market prices.

Combined, Austria, the Czech Republic, Germany, Italy and Switzerland are reported to have produced slightly more than 1 milion m³ of CLT in 2020, an increase of 15% over 2019. Growth is expected to continue in these countries at a similar or even slightly higher rate in 2021. The five countries account for more than half of global CLT production, and their capacity is projected to expand by 650 000 m³ across 2021 and 2022 (Forest products annual market review, 2021-2021). CLT production capacity continues to expand rapidly and is projected to reach 4 million m³ by 2025 (Forest Business Network, 2020).

Solid structural timber MH (sawn timber, slats, and other construction materials) made of conifer species are produced in large amount, and there is sufficient amount to export due to the large insufficiently developed secondary, and final processing wood.

➤ Biotic and abiotic disturbances of forests, their impact on forest products markets and trade and current and planned policy measures to mitigate economic and ecological impact;

Game management shall comprise breeding, protection, hunting and utilization of game and their parts. Hunting as organized game management activity shall be in public interest. Game as natural treasure and general interest welfare, shall represent animal species of mammals and birds independently living in nature or those bred within the space intended for breeding and reproduction for the purpose of hunting and utilization, as provided by the law. Game, within the meaning of this law, shall be considered the following animals:

- 1) Big hairy game;
- 2) Small game;



- 2.1) Small hairy game;
- 2.2) Wild fowl;

In order to fully harmonize with the legal acquis of the EU in this area, amendments to the existing Law on Game and Hunting have been prepared and are currently in the Parliamentary procedure. On the basis of the existing law, a number of by-laws have been adopted, which more closely regulate individual legal provision, and all in order to facilitate the application of prescribed norms. This law is also harmonized with the regulations in the field of Forestry, with which it is directly related, as well as with the regulations in the field of nature protection (Miloš Janković, Head of Hunting, Directorate of Forestry, Hunting and Wood industry).

The factors that threaten forest ecosystems are mainly fires, abiotic factors (droughts, floods, frosts, snow, strong winds, etc.), pests and diseases. Forest fires show a worrying tendency, both in number and intensity, and as such, they pose the greatest danger to forest ecosystems in Montenegro.

Furthermore, it has been observed that forests have become more susceptible to climate change, air pollution and fires, as well as parasitic fungi, insects. Threats to forest ecosystems in Montenegro include:

- weakening of the immunity of trees of certain tree species
- reduced productivity and bioecological stability
- intensive drying of forests, especially conifers: spruce and fir (larch on Lovćen), but also relatively weak defoliation
- the appearance of pathogenic fungal epiphytes and / or gradation of harmful insects

All of this suggests a generally reduced resilience of forest ecosystems, which, along with inadequate management of forest ecosystems, results in an increased share of low-quality wood mass, which negatively affects the wood market.

As part of increasing the resilience of forest ecosystems, Montenegro has joined the programme for Landscape Fire management in the Western Balkans. The program aims at regional landscape fire management, which involves intensifying activities at the national, regional and international levels. For the realization of the program, the following is planned:

- prevention as a basis for the fight against fire
- establishing a national LFM network by involving all participants in accordance with the Law on Protection and Rescue of Montenegro and with LFM principle as a concept
- strengthening capacities and the existing system of protection and rescue
- preparation of a national report on landscape fire management
- creating a threat map with LFM principles as a concept
- application of new technological solutions in the early announcement system
- planning at all levels in accordance with the Law on Protection and Rescue and with LFM principles as a concept
- intensification of education in accordance with LFM principles as a concept



➤ **Forest and the forest-based industries in the circular bioeconomy;**

The circular economy relies on the three principles:

Principle 1 Conserve and enhance natural capital by controlling limited supplies and balancing the flows of renewable resources. Support levers: regenerate, virtualize, exchange;

Principle 2 Optimize resource yields by circulating products, components and materials in use and promoting the greatest utility at all times in both technical and biological cycles;

Principle 3 Encouraging system efficiency by detecting and designing for negative externalities. Reasoning: The principle of the cascade economy was already included in the EU Forest Strategy 2014-2020. According to this principle, wood is used according to the following priority: 1) wood-based products, 2) extending their life, 3) reuse, 4) recycling, 5) as bioenergy and 6) disposal.

Working steps in the circular economy-according to the 9R model: The circular (circular) economy and increasing "circularity" implies:

Smarter production and use of products

R0 Rejection- Declare the product redundant by abandoning its function or offer the same function with a radically different product;

R1 Rethinking- Make the product by more intensive use (e.g. by sharing products);

R2 Reduction- Increasing efficiency in the production of products by using fewer natural resources and materials;

R3 Reuse- Reuse by another consumer of a discarded product that is still in good condition and fulfills its purpose original function;

R4 Repair- Repairing and maintaining a defective product so that it can be used with its original function;

R5 Refurbishing -restoration and updating of old production;

R6 Remanufacturing- Use parts of a discarded product in a new product with the same product.

Beneficial application of materials.

R7 Repurposing- Use a discarded product or its parts in a new product with by another function;

R8 Recycling- Process materials to obtain a product of the same (high quality) or inferior (lower quality) product;

R9 Recovery- Combustion of materials with energy production, according to the modification of the model of the Ellen MacArthur Foundation (Oneil, Russel (2020).

Finally, the activity assumed by new Strategy would refer to the preparation of the Study on the real application of the circular (green) economy in Montenegro - the aspect of forests and the use of wood. In many parts of the UNECE region, wooden housing units account for only 10-11% of new construction, or less. The responsible use of wood in construction is more circular and sustainable than the use of other common building materials. Wood has and provides multiple inherent (essential) advantages because it is a natural material, can be shaped into useful building components with minimal impact on the climate, and can be incorporated into buildings that have



lower energy consumption during the life cycle and lower CO₂ emissions than non-wood structures.

Expected effects: Reduced greenhouse gas emissions and the use of renewable bioenergy in the production of wood products contribute to the circularity and sustainability of "Principle 55". At the same time, additional innovations are needed. Currently, waste from building deconstruction is not effectively recycled. Designing for building adaptability or dismantling and efficient restoration of materials should be achieved to improve the circularity of wood in the construction sector. Data at a global level suggest that there is considerable scope for improving wood recovery and recycling at the end of the life of buildings. The biggest opportunity for improved wood circularity in existing buildings is the recovery and reuse or recycling of building demolition waste. At the same time, wood mainly consists of captured and stored carbon.

➤ **Renewable energy policies and their impacts on forest products markets;**

The Energy Development Strategy of Montenegro until 2030 is a strategic energy sector development and management policy that sets the energy sector national strategy. Energy policy is a special branch in the overall economic policy of the state that deals with research issues and use of energy resources, energy conversion, transmission/transport and supply of energy to consumers in within the specific techno-economic, legal-regulatory and institutional-organizational conditions of the state, with the aim of providing energy services of adequate quality and security of supply, in a acceptable socio-economic conditions and following indicated environmental protection requirements.

Energy strategy is a strategic mechanism - a series of measures and instruments with the implementation of which the fulfillment of adopted goals of the state energy policy shall be achieved. Climate change-Based on its status as a member of the Kyoto Protocol, Montenegro is recognized as a beneficiary of Clean Development Mechanism projects and protocols. Other sectoral European Union legislative documents are also considered. Priorities indicated in this text are as follows: 1) Security of energy supply-Constant, safe, quality and diverse energy supply in order to balance the delivery to customer requirements; 2) Competitive development of energy markets-Ensuring liberalized, non-discriminatory, competitive and open energy market based on transparent conditions, by enabling free market competition in non-monopolies activities (production and supply of electricity and natural gas), basing the pricing policy for energy products on the market, as well as creating conditions for free entry of new participants to the market (independent energy producers, suppliers, traders); 3) Sustainable energy development-Ensuring energy development based on accelerated but rational use of own energy resources with respect to principles of environmental protection, increasing energy efficiency and greater use of renewable energy sources, as well as the need for socio-economic development of Montenegro. Topics and energy sectors involved in this text are including energy sources exploration, coal, natural gas, oil, renewable energy sources, biomass, wood, waste and agricultural biomass, hydropower generation, use of waste from wastewater treatment plants for energy purposes, aerothermal, hydrothermal and geothermal energy (Energy Development Strategy of Montenegro until 2030).



The project *Solari 3000+* and *Solari 500+* represents the beginning of energy transition in Montenegro and it is one of the most important investments into energy sector over the last 40 years. Based on energy transition, the project's goal is to reduce CO2 emission as much as possible and preserve the environment. This project will make it possible for 3,000 households residing in individual residential facilities to get photovoltaic installations, i.e. solar panels, so that customers and buyers become generators and sellers of electricity. In addition, the investment will enable that 500 legal entities apply for participation in this project, i.e. small generating units and public institutions. The Ministry of Ecology, Spatial Planning and Urbanism, the Ministry of Capital Investments, the Ministry of Local Government and CEDIS will have an important role in the project implementation, and particularly the ECO Fund which will use funds paid to it by EPCG to subsidize its customers with minimum 20% of the investment value, so that each participant in the project gets subsidized with €1,000 – €5,000. Citizens and companies will therefore have the possibility that their electricity-related instalment and bill not exceed their ongoing electricity bill amount, during the repayment period of a loan granted for the equipment, which is from 5 to 7 years. The entire project will be implemented during the period not exceeding 6 months, starting from the day of signing the financing agreement. The plan is that the projects *Solari 3000+* and *Solari 500+* be implemented twice a year over the next five years.

The Ministry of Capital Investments is successfully implementing the new phase of the "Energy Efficient Home" program, the goal of which is to reduce heating costs and increase comfort in households, achieving a significant reduction in CO2 emissions, as well as developing the market for efficient heating and cooling system in Montenegro. The program includes an attractive and sustainable financial mechanism aimed at implementing energy efficiency measures in households. For the purposes of this Program, the Ministry of Capital Investments provided 150,000 euros for this year to subsidize interest and loan processing fees for households in Montenegro for:

- purchase and installation of heating systems based on modern forms of biomass (pellets, briquettes);
- purchase and installation of highly efficient heat pumps for heating the building;
- purchase and installation of split and multisplit systems for heating/cooling the building;
- installation of thermal insulation on the facade of the residential building;

Within the Program, citizens had the opportunity to apply for interest-free loans up to a maximum amount of €10,000, with a repayment period of up to six (6) years, for the implementation of the aforementioned energy efficiency measures in their households, while the Ministry of Capital Investments will subsidize the interest costs and loan processing for the entire loan repayment period.



The Ministry of Capital Investments implemented a public call intended for citizens to apply for participation in the program, from July 5, 2023. until August 4, 2023. The fact that 354 requests from interested citizens were processed as part of this public call also speaks of the great interest of citizens, the importance and expediency of this project. The implementation of energy efficiency measures in households is underway, after which other activities will be implemented within the Energy Efficient Home program. Previous experience in the implementation of similar incentive projects that were intended for households, and within which 1732 households in Montenegro applied energy efficiency measures, of which a significant number are in the north of Montenegro, show that citizens' awareness of the effects of applying energy efficiency measures in a significant measure increases. Citizens are becoming more aware that by applying the energy efficiency measures provided for in the "Energy Efficient Home" program, using energy efficient technologies, which are also more environmentally friendly. By applying new technologies, exchanging experiences and continuously implementing reform activities, we must show the citizens of Montenegro real possibilities of energy and financial savings, reduction of harmful impact on the environment, implement a proactive energy policy. Bearing in mind the above, as well as the results achieved in the previous period, the Ministry of Capital Investments will also implement new phases of the Energy Efficient Home program in 2024, to the satisfaction of all involved parties (The Ministry of Capital Investments).

Bioenergy using wood in the EU is mainly (49%) based on residues and waste from felling and wood processing (eg branches and tops, sawdust, waste wood). The remaining 37% is obtained from so-called "primary biomass sources", including low-quality stem and thinnings (20%), of which half of the stem (10%) is derived from shoots, while 4% would be supplied from industrial trees (EU 2030 Strategy). Montenegro has significant resources for energy production based on biomass from forestry and wood processing. The forestry sector has a market for lower quality logs. In relation to that, it is rational to increase the use of biomass from forests and waste from wood processing and to increase the production of energy products from biomass. According to the World Bank Group and Western Balkans Investment Framework Study on heating in the Western Balkans, by switching to efficient stoves, savings in wood would be 178,000 m³/year. So far installed capacities for the production of pellets are 258,000 tons/year = 517,000 m³. According to the recommendations of the European Commission, only part of the previous forest waste, branches, firewood and extraordinary yield of residues can be used as energy raw material after the application of repressive measures and in relation to the remediation of the negative effects of risk factors (abiotic and biotic nature). The operational effectiveness of this measure would be assessed by preparing a study on the energy potential of forests in Montenegro.

Time frame: Considering the expected time of adoption of this Strategy and current organizational problems in the forestry sector, it would be optimal to open this process in 2024.



3. Market drivers- and how they effect the market for forest products in your country, whether passively and negatively. This may include but is not limited to contruction trends, currency exchange rate fluctuations, export and import restrictions for wood products, extra-regional consumption of forest products, targeted incentivies for green building, renewable energy etc.

Decision on temporary restriction of export of certain wood assortments, as in accordance with the Montenegrin Law on foreign trade, determines the export ban and regulates the possible export as regards the wood-timber assortments with codes 4401 11 00, 440112 00 and tariff code 4403 (the export of wood assortments originating from state-owned forest is not allowed). These measures are aimed to prevent shortages of wood assortments and mitigate the consequences of such wood or timber assortment shortages on the internal market.

Also, at the session held on September 2022, the Government of Montenegro adopted the decision to temporary ban export of pellet and it applied until 1st May 2023. This measure is frozen and can be activated in case of shortage in the domestic market.

4. Developments in forest and forest product market

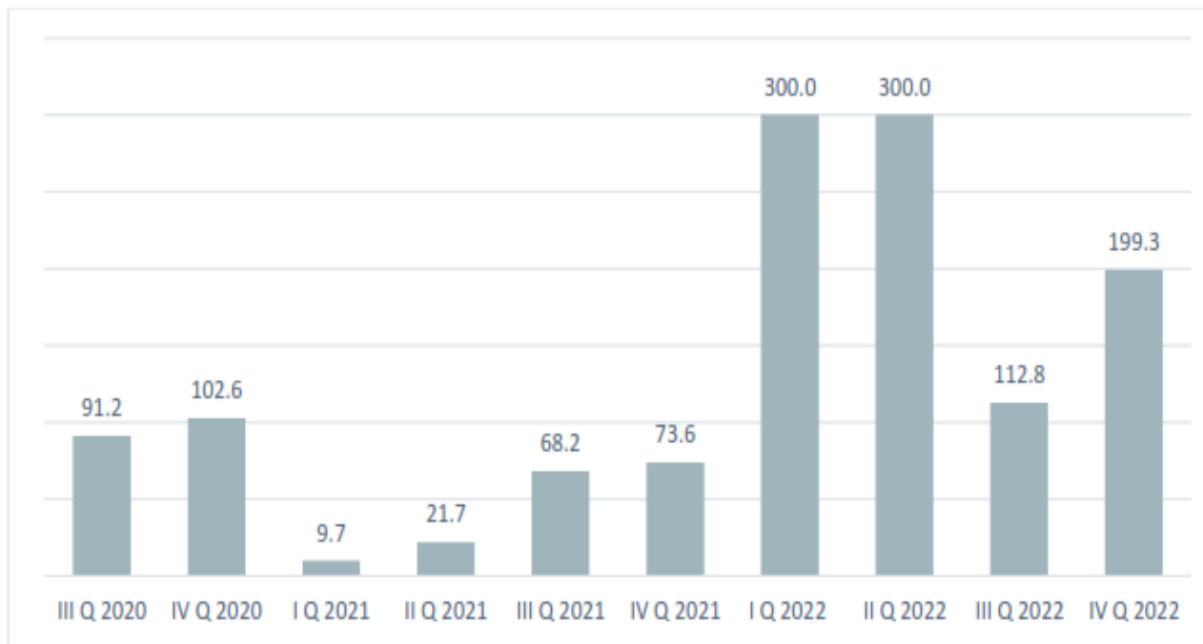
➤ **Wood raw materials (round wood, pulp wood, chips, residues and fuel wood);**

Production of forest assortments from state forests in Montenegro in the fourth quarter of 2022 compared to the same quarter of previous year, recorded increase. Indices of physical volume of publicly owned forest assortments production recorded increase, which is a consequence of the delay in the adoption of the Forest Management Programme in 2021 (Graph 3 and table 1.).

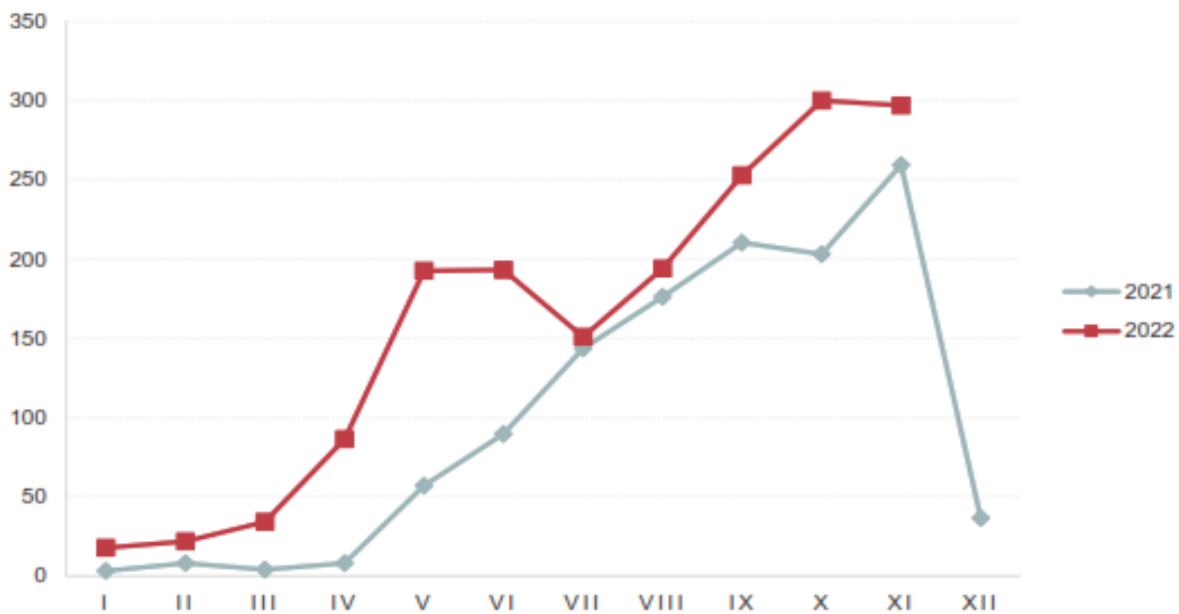
	<u>IVQ 2022</u> <u>Ø 2021</u>	<u>IVQ 2022</u> <u>IIIQ 2022</u>	<u>IVQ 2022</u> <u>IVQ 2021</u>	<u>I-IVQ 2022</u> <u>I-IVQ 2021</u>
Total	300,0 ¹	166.4	199.3	178.3

¹Calculated index is higher than 300.0

Table 1. Indices of physical volume of publicly owned forest assortments production, IV quarter 2022 (Data sources: Montenegro Statistical Office-MONSTAT, Note: ¹ Calculated index is higher than 300.0)



Graph 3. Indices of physical volume of publicly owned forest assortments production (*Data sources: Montenegro Statistical Office-MONSTAT, Note: ¹ Calculated index is higher than 300.0*).

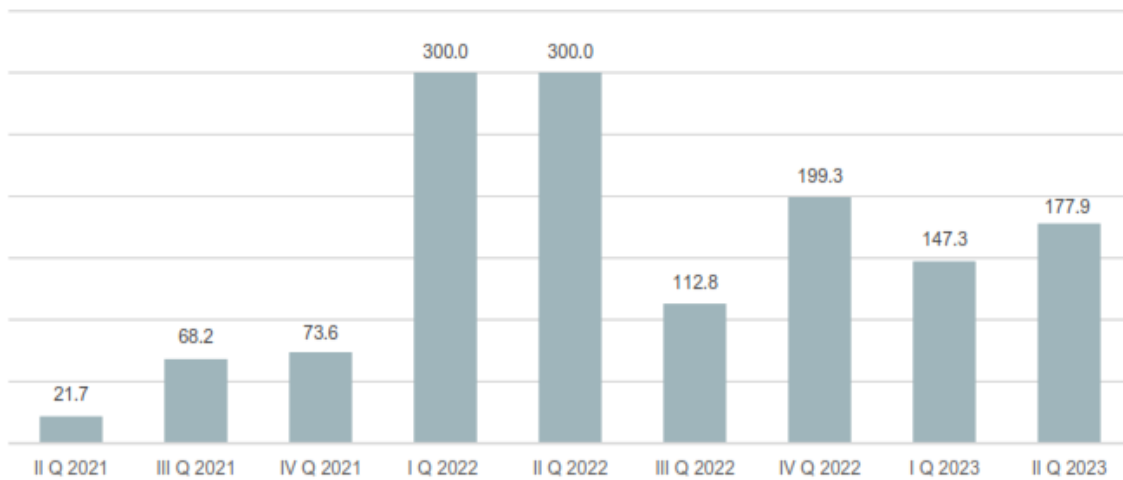


Graph 4. Indices of production of forest assortments 2021-2022 (*Data sources: Montenegro Statistical Office-MONSTAT*).



The graph 4 shows indices of production of forest assortments on the publicly owned forest in 12 months. The overall trend shows fluctuation with slight increase towards the end of period. Over the past 11 months, the production of forest assortments dramatically increased for 2022 compared to 2021.

Production of forest assortments from state forests in Montenegro in the second quarter of 2023 compared to the same quarter of previous year recorded a growth of 77.9 %. The production of forest assortments from state forests in Montenegro in the second quarter of 2023 compared to the fourth quarter of the previous year recorded a significant increase (Graph 5 and table 2.).

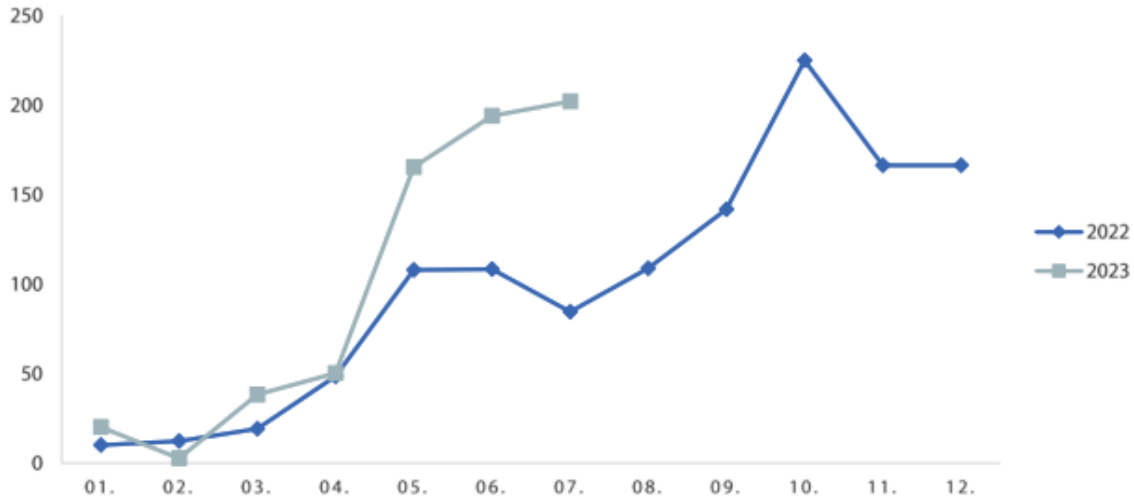


Graph 5. Indices of physical volume of publicity owned forest assortments production (*Data sources:* Montenegro Statistical Office-MONSTAT, Note: ¹ Calculated index is higher than 300.0)

	<u>IIQ 2023</u> <u>Ø 2022</u>	<u>IIQ 2023</u> <u>IVQ 2022</u>	<u>IIQ 2023</u> <u>IIQ 2022</u>	<u>I-IIQ 2023</u> <u>I-IIQ 2022</u>
Total	157.1	300.0 ¹	177.9	153.7

Table 2. Indices of physical volume of publicity owned forest assortments production, II quarter 2022 (*Data sources:* Montenegro Statistical Office-MONSTAT, Note: ¹ Calculated index is higher than 300.0).

The given graph 6 and table 3 illustrate information on the indices of forest production in the 2023 and 2023 year. Overall, one notable trend seems to be that indices of forest assortments has steadily increased every year.



Graph 6. Indices of production of forest assortments 2022-2023 (Data sources: Montenegro Statistical Office-MONSTAT).

ŠUMARSTVO / FORESTRY

Ø 2022 = 100

	Indeks Index	Proizvedeni sortimenti, m ³ / Production of forests assortments						
		Četinara / Conifers				Lišćara / Deciduous trees		
		trupci Saw logs	tehničko drvo Lumber	prostorno drvo Space wood	ogrijevno drvo Firewood	trupci Saw logs	prostorno drvo Space wood	ogrijevno drvo Firewood
2020	108,8	147 878	7 814	17 405	5 642	30 955	26 295	44 186
2021	56,1	73 159	3 638	7 451	5 592	15 719	22 152	27 483
2022	100,0	141 458	7 949	18 891	17 248	18 759	33 118	33 665
Ø 01 – 07. 2022	55,9	6 431	352	742	263	1 247	2 172	1 043
Ø 01 – 07. 2023	96,2	11 952	665	2 256	280	1 453	2 961	634
2022								
07.	84,6	9 313	685	1 086	421	1 918	3 712	2 316
08.	108,9	10 822	907	827	2 289	3 107	4 798	3 466
09.	141,8	17 767	773	2 419	1 053	1 540	2 645	4 785
10.	225,1	26 779	1 258	3 821	3 266	3 222	5 537	6 893
11.	166,5	20 700	1 260	3 381	2 859	1 537	2 699	4 697
12.	166,5	20 370	1 285	3 248	5 944	621	2 236	6 524
2023								
01.	20,1	2 920	257	550	14	30	260	25
02.	2,7	238*	11*	146*	0*	65*	49*	0*
03.	38,4	4 757	248	1 903	0	539	572	44
04.	50,3	5 788	497	1 805	85	380	3 148	206
05.	165,6	22 586	1 410	4 567	342	750	3 177	505
06.	194,0	25 236	1 099	3 645	426	2 567	5 386	1 097
07.	202,2	22 142	1 130	3 180	1 090	5 840	8 132	2 562
01-07. 2023 / 01-07. 2022	172,2	185,8	188,6	300,0¹⁾	106,5	116,5	136,3	60,8

¹⁾ Obračunati indeks veći je od 300,0

²⁾ Revidiran podatak

¹⁾ Calculated index is higher than 300.0

²⁾ Revised data

Table 3. Production of forest assortments in m³ 2022-2023 (Data sources: Montenegro Statistical Office-MONSTAT).



➤ **Wood energy, with a focus on government policies promoting wood energy;**

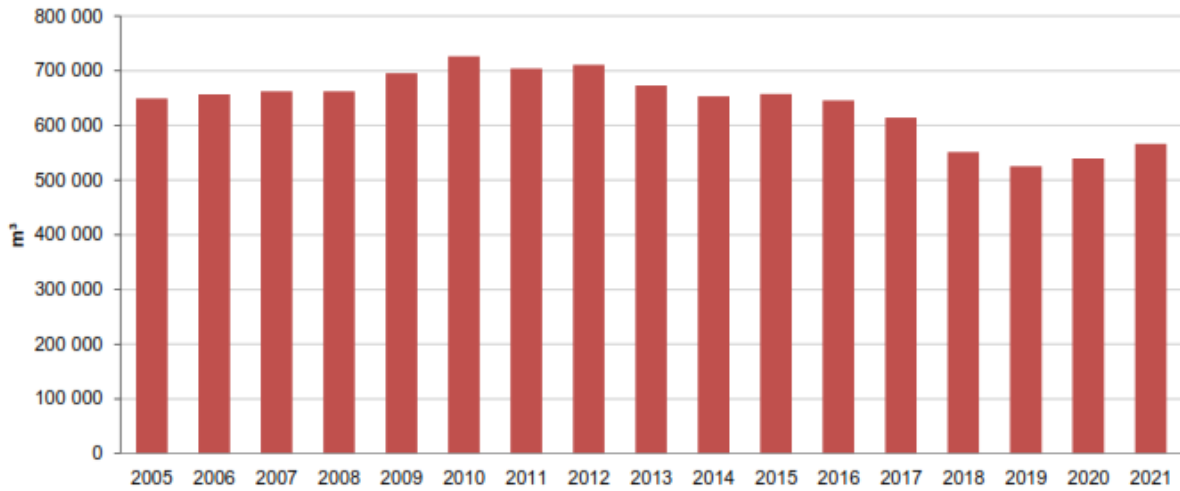
Policies promoting renewable energy and economic recovery in the wake of the COVID-19 pandemic could spur additional growth in the wood-energy demand and production. The evolution of public policy, including sustainable supply and the efficient conversion of biomass into renewable energy, continues to shape wood-energy systems, as illustrated by recent government actions in the Netherlands, Sweden and the the United States (Forest Products Annual Market Review 2020-2021).

According to the degree of forest cover, Montenegro is at the very top of European countries, right behind Finland, Sweden and Slovenia. Montenegro is characterized by a high degree of forest cover of 826,782 ha or 59.5%, while forest land makes up 137,480 ha or 9.9%, together they make up 964,262 ha or 69.4% of the total territory of Montenegro, which is 1,388,581 ha. Available forest resources in the territory of Montenegro according to the National Forest Inventory, say that the total wood stock is 122 million m³ of wood with a current increase of 2.9 million m³. The volume of wood in accessible forests covering 728,133 ha is 116 million m³ with a current with an increase of 2.8 million m³. Of this, 104.9 million m³ are in forests that are available for use because they are accessible and outside protected areas or other protection regimes. In Montenegro, 49.6% of forests are state-owned and 50.4% are privately owned.

The forestry and wood processing in Montenegro recognizes significant advantages through the biomass, namely:

1. Falling is encouraged and professionalized;
2. Increasing the quality of forests is affected by the removal and processing of low-quality trees into wood biomass;
3. It affects the improvement of the health condition and quality of the forest;
4. It affects the reduction of damage from forest fires, by removing dry wood material that lies in the forest and represents a potential danger;
5. Influences the intensification of breeding work through the possible placement of thinning material that has not had a market until now;
6. Develops the wood processing sector and provides new opportunities for the development of the wood industry;
7. It solves the long-standing problem of wood waste from the wood industry and economically valorizes the material that until now had waste treatment.

Primary production from firewood, wood residue, and chips in Montenegro in 2021 was 790 506 m³, wood pellets was 73 401 t. Final consumption on firewood in households was 566 303 m³, in industry 42 731 m³, and the other sector 27 923 m³ (Graph 7, Table 4 and 5).



Graph 7. Final consumption of firewood by households in Montenegro 2005-2021 (*Data sources: Montenegro Statistical Office-MONSTAT*).

	Firewood	Wood residues and chips	Wood pellets	Charcoal
	m³	m³	t	t
Production	748 601	41 905	73 401	-
Imports	(0)	-	1 680	299
Exports	(0)	-	-53 708	-
Intl. marine bunkers	-	-	-	-
Stock change	-	-	-	-
Domestic supply	748 601	41 905	21 373	299
Transfers	-	-	-	-
Statistical difference	-	-	-	-
Transformations	- 111 644	-	-	-1028
Thermal power plants (Main producers)	-	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-
Cogeneration CHP (Main producers)	-	-	-	-
Cogeneration CHP (Autoproducers)	-	-	-	-
Heat-only plants (Main producers)	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-
Patent fuel, briquetting and coke plants	-111 644	-	-	1 028
Oil refineries	-	-	-	-
Other transformation sector	-	-	-	-
Energy sector	-	-	-	-
Coal mines	-	-	-	-
Thermal power plants and CHPs	-	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-
Patent fuel, briquetting and coke plants	-	-	-	-
Hydro power plants	-	-	-	-
Distribution losses	-	-	-	-
Final consumption	636 957	41 905	21 373	1 327
Industry sector	42 731	(0)	460	(0)
Iron and steel	-	-	-	-
Chemical and petrochemical	5 806	-	-	-
Non-ferrous metals	-	-	-	-
Non-metallic minerals	-	-	(0)	-
Transport equipment	-	-	-	-
Machinery	1 519	-	-	-
Mining and Quarrying	-	-	-	-
Food and tobacco	34 310	(0)	(0)	(0)
Paper, pulp and print	-	-	-	-
Wood and wood products	1 096	-	-	-
Construction materials	-	-	-	-
Textile and Leather	(0)	-	(0)	-
Non-specified	(0)	-	460	-
Transport	-	-	-	-
International civil aviation	-	-	-	-
Domestic air	-	-	-	-
Road	-	-	-	-
Rail	-	-	-	-
Pipeline transport	-	-	-	-
Internal navigation	-	-	-	-
Non-specified	-	-	-	-
Other sectors	594 226	41 905	20 913	1 327
Agriculture	2 589	-	-	-
Commerce and public services	25 334	1 268	4 301	617
Residential	566 303	40 637	16 612	710

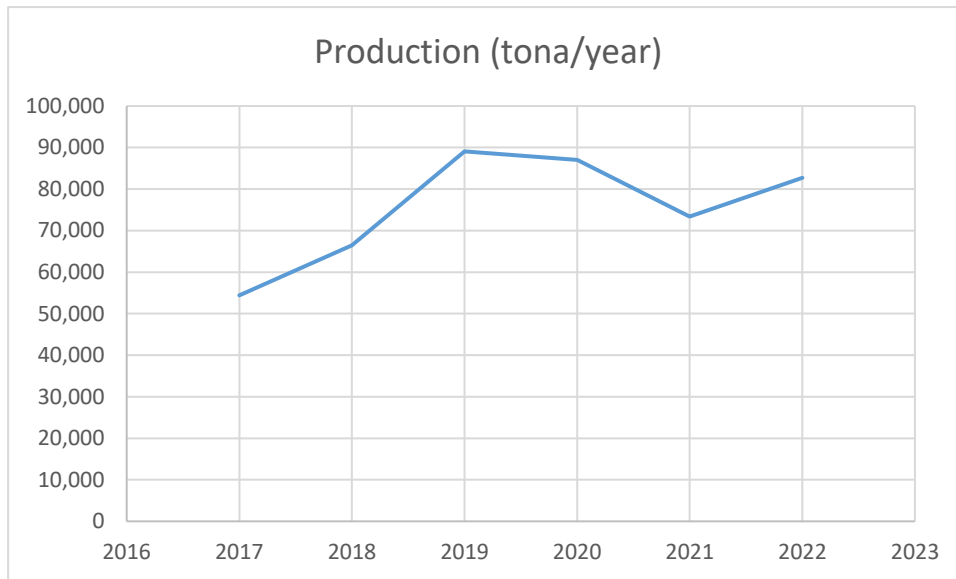
Table 4. Balance of wood fuels in Montenegro 2021 (*Data sources: Montenegro Statistical Office-MONSTAT*).



	Firewood	Wood residues and chips	Wood pellets	Charcoal
	TJ			
Production	6 869	311	1 237	-
Imports	(0)	-	28	9
Exports	(0)	-	-905	-
Intl. marine bunkers	-	-	-	-
Stock change	-	-	-	-
Domestic supply	6 869	311	360	9
Transfers	-	-	-	-
Statistical difference	-	-	-	-
Transformations	-1 024	-	-	32
Thermal power plants (Main producers)	-	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-
Cogeneration CHP (Main producers)	-	-	-	-
Cogeneration CHP (Autoproducers)	-	-	-	-
Heat-only plants (Main producers)	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-
Patent fuel, briquetting and coke plants	-	-	-	-
Oil refineries	-	-	-	-
Other transformation sector	-	-	-	-
Energy sector	-	-	-	-
Coal mines	-	-	-	-
Thermal power plants and CHPs	-	-	-	-
Thermal power plants (Autoproducers)	-	-	-	-
Heat-only plants (Autoproducers)	-	-	-	-
Patent fuel, briquetting and coke plants	-1 024	-	-	32
Hydro power plants	-	-	-	-
Distribution losses	-	-	-	-
Final consumption	5 845	311	360	41
Industry sector	392	(0)	8	(0)
Iron and steel	-	-	-	-
Chemical and petrochemical	53	-	-	-
Non-ferrous metals	-	-	-	-
Non-metallic minerals	-	-	(0)	-
Transport equipment	-	-	-	-
Machinery	14	-	-	-
Mining and Quarrying	-	-	-	-
Food and tobacco	315	(0)	(0)	(0)
Paper, pulp and print	-	-	-	-
Wood and wood products	10	-	-	-
Construction materials	-	-	-	-
Textile and Leather	(0)	-	(0)	-
Non-specified	(0)	-	8	-
Transport	-	-	-	-
International civil aviation	-	-	-	-
Domestic air	-	-	-	-
Road	-	-	-	-
Rail	-	-	-	-
Pipeline transport	-	-	-	-
Internal navigation	-	-	-	-
Non-specified	-	-	-	-
Other sectors	5 453	311	352	41
Agriculture	24	-	-	-
Commerce and public services	232	9	72	19
Residential	5 197	301	280	22

Table 5. Balance of wood fuels in Montenegro 2021 (*Data sources:* Montenegro Statistical Office-MONSTAT).

Biomass is the most important heating energy source in the Montenegro, both rural and urban areas. In rural areas, biomass is the primary source of heating for the majority of the population. Rural households account to 63% of the total biomass consumption, and urban households account to 37%.



Graph 8. Production wood pellet in Montenegro 2017-2022 (Data sources: Montenegro Statistical Office-MONSTAT).

Domestic production of wood pellet in Montenegro increased 12% to 82 671 tons in 2022 compared to 2021. Initial date supplied by MONSTAT, pellet production in Montenegro exceeds consumption, 58 421 tons were exported, and 24 250 tons were used for domestic consumption for 2022. As a result of Policy "Energy Efficient Home", domestic consumption wood pellet in Montenegro raised by 27.63%. Kosovo was the top-ranked importer wood pellet from Montenegro for a few years.

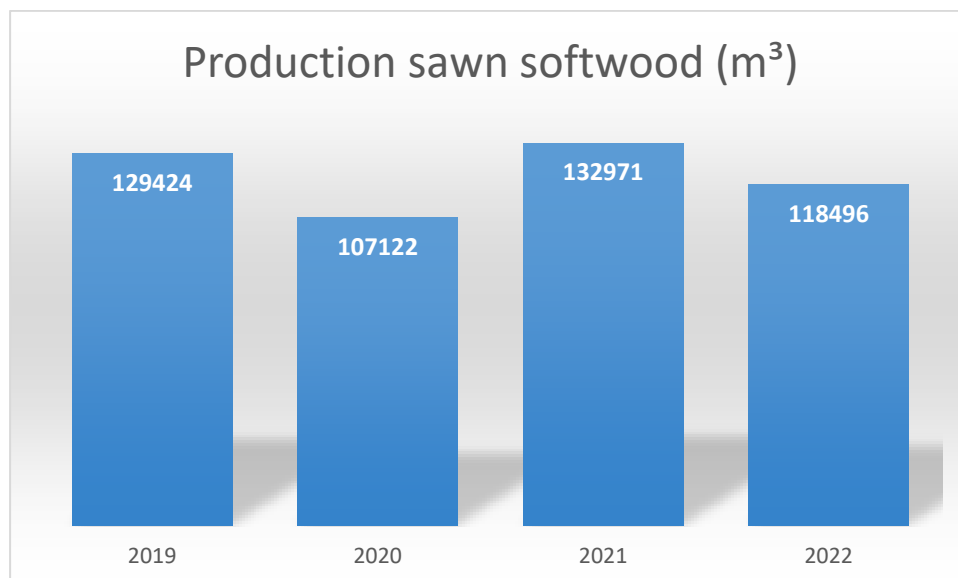
➤ Certified forest products;

Forest certification presents the basic to activities of certifying products of wood processing companies through certificates along the Chain of Custody. Bearing in the mind the Council of the European Union has, on 21st January 2020, adopted the regulation governing the commitments of wood and wood products distributors in EU, distributing these products to the market (Directive no. 5571/10), possession of these certificates has become one of the methods of proving the legal origin of wood the distributed products are made of. Enforcement of this Directive has started on 1st March 2013. In order to carry out forest certification FSC CoC, it is necessary to establish a new organizational model (transformation from Forestry Administration to the Joint Stock Company) .



➤ **Sawn softwood and hardwood;**

In 2021, the demand for softwood sawnwood strengthened in many markets, which was supported by the DIY boom as well as the pick-up in housing construction. However, the supply of sawnwood fell behind the increase in demand, and the price softwood sawnwood skyrocketed in many markets (Graph 9). After September, however, the export price turned downward, being about 340€/m³ in December 2021. For the entire year 2021, the average export price of softwood sawnwood rose by as much as 56% from the previous year. Since both the rise and fall of the export price were steep, the average export price of softwood sawnwood for the entire year 2021 was slightly lower in real terms than in 2007, when the sawnwood markets were last in a strong, global upturn.



Graph 9. Production sawn softwood in Montenegro, 2019-2022 (Data sources: Montenegro Statistical Office-MONSTAT).

The slowdown in the demand for sawnwood, the swelling of sawnwood stocks, increased energy costs and the rise in the price of logs caused Montenegro sawmills in particular to limit their production in the summer of 2022, and the restrictions are planned to continue in the fall as well. Serbian, Bosnia and Herzegovina sawmills have also announced production restrictions. Also production restrictions had been announced in Montenegro by the end of September.

The increase in the export price of Montenegro softwood sawnwood stopped in June 2022 and turned into decrease in July. The demand for sawnwood has been on the decline in many export markets since the beginning of autumn, and the decline in the export price is expected to continue during the rest of the year. However, the average export price for the whole of 2022 remained 5% higher than in 2021 due to the high starting level at the beginning of the year and



the increase that occurred in the spring. In 2023, it is predicted that the export volume of softwood sawnwood were decrease by 5% and production by 3% compared to last year.

➤ **Sawn hardwood (temperate and tropical);**

In relation to the need and obligation to protect the forest fund as a whole, to protect biodiversity, to treat rare and endangered species, only 10 species from the found inventory can be used for processing purposes (if they are not covered by stricter protection regimes in the protection areas), i.e.: beech, spruce, fir, hornbeam, oak, c. pine, sedge, b. pine, honeysuckle, ash. Other types can be used in order to preserve health if they are dry, withered, hatched and broken. In the total volume, beech dominates with 34%, followed by fir with 32%, spruce with 11%, aspen and aspen with 5.5%, while other hardwoods participate with 6.7%.

Montenegro produce mainly beech sawn timber and currently are 3 sawmills of industrial scale. It is very important to note that the some producers represent small scale entreprices. The estimated production volume of beech sawn timber was 42 000 m³ in 2022. The changes are big compared to fullfiled JQ 2020,2021 and will be revised in the next JQ2022. The outlook for Montenegro beech sawn timber in 2023 appears favourable thank to increasing the use wood in construction and furniture.

➤ **Wood-based panels (particle boards, fibreboards and MDF, OSB, plywood);**

A large shortage of domestic wood-based panels occurred in Montenegro market in the last 25 years. The shutdown of several producers during transition from social to private ownership increased demand for wood-based panels. There is only one company located in Berane to produce plywood based on beech wood (estimated 3 300 m³/year).

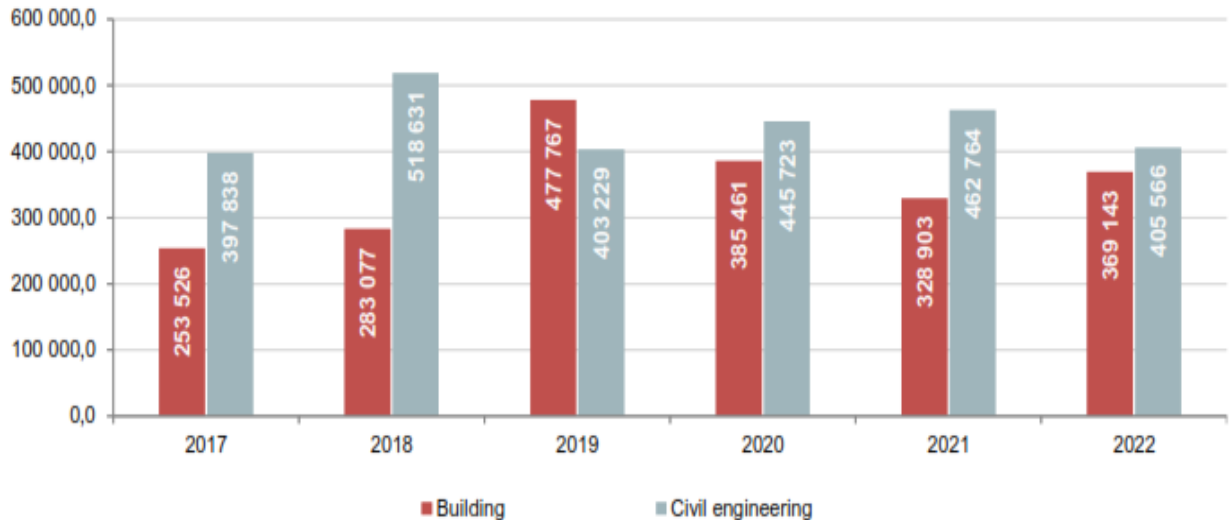
➤ **Pulp and paper;**

Pulp and paper factory in Berane was closed 2 decades ago, after shutdowning factory in Berane, Montenegro produces toilet paper and cardboard packing by purchased paper. The trade and production volume is not possible to show until Decembar 2023.



➤ **Housing and construction with focus on wood construction;**

The total value of finished construction works in Montenegro in 2022 amounted to 775 million, which is 2.1% less than in 2021 (Graph 10). Value of finalized construction works on buildings amounted to 369 million €, while on the other buildings it amounted to 406 million € (Table 6).



Graph 10. Value of finished construction works in Montenegro in thousand €¹, 2017-2022 (*Data sources: Montenegro Statistical Office-MONSTAT, Note: ¹ The buildings are include residential and non-residential buildings, while civil engineering include transport infrastructure, pipelines, communication and electric power lines, complex industrial constructions and other constructions not classified elsewhere).*

	2020	2021	2022
TOTAL	831 184	791 667	774 709
BUILDING	385 461	328 903	369 143
Residential buildings	209 118	200 793	238 934
Non-residential buildings	176 343	128 110	130 209
CIVIL ENGINEERING	445 723	462 764	405 566
Transport infrastructure	(347 524) ²	(347 756)	(311 727)
Pipelines, communication and electricity lines	(73 705)	(75 925)	(59 508)
Complex industrial constructions	2 252	5 967	(11 614)
Other civil engineerings not classified elsewhere	22 242	33 116	(22 717)

Table 6. Value of finalized construction work in Montenegro in thousand €, 2020-2022 (*Data sources: Montenegro Statistical Office-MONSTAT).*



In 2022 are completed 4 054 dwellings with a usefull floor area of 281 thousand m² (Table 7 and 8).

	2020	2021	2022
NUMBER OF COMPLETED DWELLINGS	3 356	3 070	4 054
Dwellings constructed by business companies	(1 194)	(1 233)	(1 589)
Dwellings constructed in the household sector	2 162	1 837	2 465
FLOOR AREA OF COMPLETED DWELLINGS, in m² thousand	204	191	281
Dwellings constructed by business companies	(71)	(69)	(122)
Dwellings constructed in the household sector	133	122	159

Table 7. Number and floor area of completed dwellings in Montenegro,2020-2022 (*Data sources:* Montenegro Statistical Office-MONSTAT).

	2020	2021	2022
NUMBER OF UNCOMPLETED DWELLINGS	6 229	5 776	6 492
Dwellings constructed by business companies	1 317	(1 601)	(2 503)
Dwellings constructed in the household sector	4 912	4 175	3 989
FLOOR AREA OF UNCOMPLETED DWELLINGS, in m² thousand	438	424	477
Dwellings constructed by business companies	86	(100)	(173)
Dwellings constructed in the household sector	352	324	304

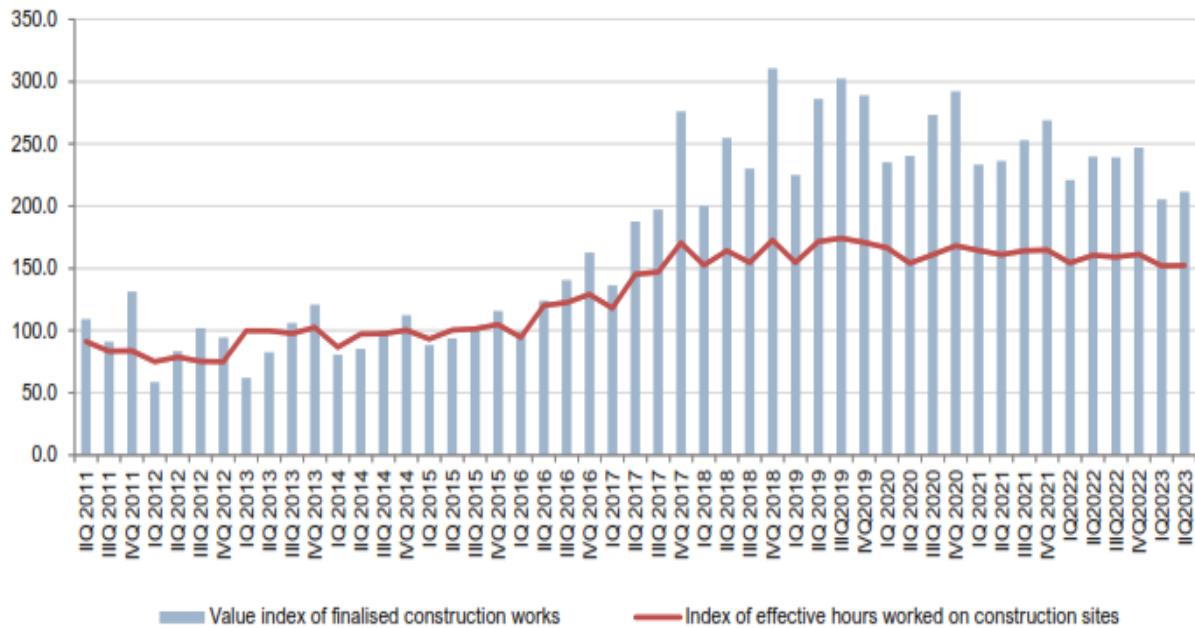
Table 8. Number and floor area of uncompleted dwellings in Montenegro,2020-2022 (*Data sources:* Montenegro Statistical Office-MONSTAT).

The value of finalized construction works in the second quarter of 2023 is lower by 11.8%, compared with the second quarter of 2022, while it is 2.9% higher compared with the first quarter of 2023 (Table 9).

Indicators	<u>IIQ 2023</u>	<u>IIQ 2023</u>	<u>IIQ 2023</u>	<u>I-IIQ 2023</u>
	<u>Ø 2015</u>	<u>IIQ 2022</u>	<u>IQ 2023</u>	<u>I-IIQ 2022</u>
Value of finalized construction works	211.4	88.2	102.9	90.5
Effective hours worked on construction sites	152.2	94.8	100.1	96.6

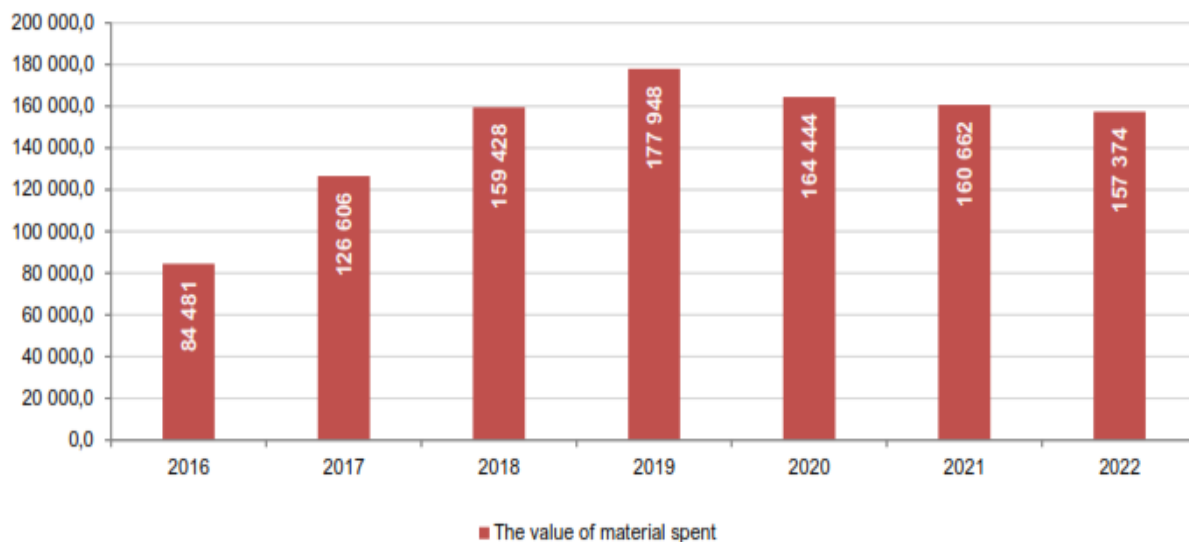
Table 9. Indices of construction activities, II quarter 2022-2023 (*Data sources:* Montenegro Statistical Office-MONSTAT).

Effective hours worked on the construction sites in the second quarter of 2023 are lower by 5.2%, compared with the second quarter of 2022, while it is 0.1% higher compared with the first quarter of 2023 (Graph 11).



Graph 11. Indices of construction work value and effective hour worked, 2015=100, 2011-2023 (Data sources: Montenegro Statistical Office-MONSTAT).

The value of building material spent in 2022 in Montenegro is 157.4 million € representing the decrease of 2% compared with 2021 (Graph 12 and Table 10).



Graph 12. Total value of construction and propulsion material spent in thousand €, 2016-2022 (Data sources: Montenegro Statistical Office-MONSTAT).



Type of material	Unit of measurement	2021		2022	
		Quantity of spent construction materials	Value of spent construction materials, in thous. EUR	Quantity of spent construction materials	Value of spent construction materials, in thous. EUR
Building elements					
Solid brick	thous.pcs	1 358	281	1 407	292
Perforated brick	thous.pcs	1 513	534	1 631	565
Solid facade brick	thous.pcs	386	106	402	111
Hollow clay blocks	thous.pcs	1 638	563	1 798	598
Facade blocks	thous.pcs	112	76	358	231
Brick and blocks, based on cement, slag and dross	thous.pcs	1 041	625	1 193	692
Brick and blocks made from other materials (kermesite, "siporex")	thous.pcs	394	234	436	259
Elements for ceilings and arches					
Floor bricks and inserting bricks	thous.pcs	500	241	506	245
Beams, half-assembly and assembly for arches (clay elements)	thous.m	88	88	44	45
Blocks for ceilings and arches (on the basis of cement)	thous.pcs	80	87	77	84
Prefabricated elements and finished constructions					
Light building boards for outside walls	m ²	1 200	10	2 044	18
Boards for walls facing	m ²	1 099	60	1 067	59
Light building boards for partition walls	m ²	9 380	150	8 550	134
Light building boards for ceilings	m ²	6 312	102	6 458	104
Light building isolation boards	m ²	10 000	260	10 777	271
Plaster boards, all types	m ²	142 452	1 262	135 903	1 203
Steel constructions for bridges	t	12	32	15	39
Other steel constructions, all types (roofs, pillars, frames, scaffoldings and similar)	t	4 873	1 895	4 268	1 602
Building constructions and prefabricated elements for civil engineering	t	8 436	395	8 020	363
High buildings prefabricated constructions elements	t	10 000	666	9 010	620
Wooden construction (finished roof constructions)	m ³	603	82	719	98
Binder material					
Quicklime	t	411	101	413	104
Lime, hydrated	t	1 685	232	1 682	226
Plaster, baked	t	714	73	800	86
Portland cement	t	19 830	2 210	21 170	2 371
Cement, other types	t	24 541	2 385	25 366	2 423
Plastic building materials	t	543	275	788	425
Cement mortars, all types	m ³	27 551	1 722	26 671	1 666
Concrete, fresh	m ³	468 707	32 896	462 671	33 351
Asphalt	t	209 613	19 184	178 396	15 957
Aggregates and profiled material of stone					
Profiled material of stone (curb stone, fence, stone cube, etc.)	m ³	5 051	1 189	6 336	1 559
Crashed technical stone and marble, all types	m ³	5 454	526	5 206	519
Broken stone and small size stone	m ³	12 928	239	8 620	166
Aggregates for concrete	m ³	502 472	6 823	488 574	6 595
Gravel	m ³	37 310	1 003	38 495	1 035
Sand	m ³	11 417	186	10 307	170
Terrazzo-granulates	t	2 000	109	1 808	97

Table 10. Quantity and value of spent construction materials in Montenegro, 2021-2022 (*Data sources: Montenegro Statistical Office-MONSTAT*).



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Type of material	Unit of measurement	2021		2022	
		Quantity of spent construction materials	Value of spent construction materials, in thous. EUR	Quantity of spent construction materials	Value of spent construction materials, in thous. EUR
Reinforcing and attaching material					
Concrete steel	t	22 316	13 039	22 386	13 716
Wire, black and galvanized	kg	59 036	445	55 352	417
Other iron sections, heavy, medium and light	t	2 996	1 464	3 189	1 529
Various elements for reinforced concrete (reinforcing nets, wall canvas)	t	11 499	5 107	9 440	4 117
Nails	kg	125 202	303	142 124	370
Timber					
Timber, conifer (sawn, hewn)	m ³	10 095	1 494	7 124	1 025
Timber, conifer (round)	m ³	2 027	93	2 150	99
Timber, deciduous (sawn and hewn)	m ³	636	41	646	44
Timber, deciduous (round)	m ³	658	282	620	266
Boards for panelling	m ²	10 771	259	9 449	229
Mining wood	m ³	40	10	36	9
Isolation material and coatings					
Roofing boards, all types	roll	2 639	69	2 338	64
Bitumen, bitulit, bituminous jute, strips, matters, emulsions...	t	21 189	1 560	21 839	1 689
Expanded polystyrene	kg	95 940	716	91 985	672
Other isolation materials (glass wool, mineral wool. etc.)	t	2 577	871	2 366	813
Paints (all types), varnishes, enamels, dissolvent etc.	kg	80 041	876	81 293	887
Roofing material					
Corrugated and plane sheets of "salonite" and asbestos	m ²	2 221	33	1 998	30
Plane, corrugated and interlocking title	thous.pcs	279	130	351	171
Other roofing material (concrete tiles, plastic boards)	m ²	1 362	50	1 300	46
Material for floor wall covering					
Vinyl and asbestos boards and other artificial flooring masses	t	1	1	2	2
Ceramic titles (wall, floor and facade)	m ²	77 022	1 158	83 198	1 217
Ceramic and marble facing boards	m ²	15 672	561	15 313	546
Tiles of grinded stone and marble	m ²	3 149	100	2 871	91
Terrazzo boards	m ²	1 001	54	981	52
Plywood, panel, fibreboard and other wood based boards	m ²	8 043	102	7 936	99
Parquet (breech, oak and other)	m ²	22 547	503	22 021	501
Laminated parquet	m ²	24 168	600	23 499	577
Ceiling and wall panelling	m ²	4 000	100	3 800	94
Plastic boards for walls	m ²	559	48	502	43
Wallpapers, all types	m ²	745	32	710	29
Material for plumping, sewerage system, heating, ventilation, for sanitary facilities					
Pipes, seamless	kg	6 783	91	5 838	80
Pipes, seamed	kg	91 237	286	87 293	271
Cast iron pipes and fittings	kg	10 500	77	6 776	50
Pipes, plastic, all types	kg	91 780	337	86 420	317
Pipe fittings and flanges	kg	30 835	174	29 969	163

Table 10. Quantity and value of spent construction materials in Montenegro, 2021-2022 (*Data sources: Montenegro Statistical Office-MONSTAT*).



/continue/

Type of material	Unit of measurement	2021		2022	
		Quantity of spent construction materials	Value of spent construction materials, in thous. EUR	Quantity of spent construction materials	Value of spent construction materials, in thous. EUR
Ceramics, sewage tubes	t	8	38	5	24
Asbestos - cement pipes	t	85	11	14	2
Pipes, concrete, all types	t	17 500	970	16 841	957
Ceramics, sanitary	piece	11 012	404	11 461	420
Sanitary equipment, of plate and cast iron	piece	10	1	29	3
Plastics sanitary equipment	piece	1 222	44	1 225	44
Other ceramic for construction (tiles for stoves and fireplaces, technical ceramic, etc.)	piece	417	50	399	47
Heating furnaces	piece	3	4	2	3
Radiators, all types	m ²	982	72	911	67
Material for power supply installations					
Ropes and wires, copper	kg	20 572	283	20 003	272
Wire, of aluminium and aluminium alloys	kg	11 652	223	10 459	210
Ropes, of aluminium and Ferro – aluminium	kg	1 936	48	1 600	40
Conductors, insulated (poly - vinyl chloride, rubber etc.)	m	32 163	251	28 700	226
Cables, all types	m	313 857	1 147	334 848	1 200
Installation material (switches, plugs, boxes, lamp holders)	thous. EUR	-	2 064	-	1 827
Electric insulators, all types	t	104	95	102	93
Other material and elements for incorporating					
Rails and accessories	t	8	15	7	14
Plates and sheets, black	kg	49 900	85	49 119	77
Zinc galvanized plates and sheets	kg	82 353	268	87 905	283
Aluminium plates and sheets	kg	7 147	65	6 474	59
Glass, heat insulation	m ²	2 033	95	2 182	103
Glass sheets, other types	m ²	10 094	111	10 327	116
Non-ferrous metals joinery (windows, doors, blinds)	t	114	85	150	116
Building metal elements (iron sheet pipes and chimneys, steel windows, doors, Venetian blinds)	t	20	17	17	15
Doors and windows, wooden, all types	piece	10 946	2 226	11 943	2 421
Material for fitting in (built-in furniture, window blinds)	thous. EUR	-	853	-	792
Other material not mentioned elsewhere (for repairs, machinery and vehicles maintenance, stationery and other)	thous. EUR	-	1 340	-	1 116
Consumed power material					
Bitumen	t	12 647	4 591	11 971	4 111
Motor petrol for transport	t	853	1 096	567	713
Motor petrol for drive	t	32	36	97	125
Diesel petrol for transport	t	20 788	25 420	20 368	25 131
Diesel petrol for drive	t	5 094	5 217	6 423	6 428
Gas/Diesel oil and fuel oil	t	858	848	767	769
Other petroleum products	t	1	1	2	2
Other fuels	l	744	2	740	2
Electricity	MWh	40 752	4 618	42 546	4 838

Table 10. Quantity and value of spent construction materials in Montenegro, 2021-2022 (*Data sources: Montenegro Statistical Office-MONSTAT*).



5. Gender and human right issues related to the forest market sector

The forest and forest products sector in Montenegro plays a crucial role in the country's economy and environmental sustainability. However, it is essential to assess how this sector addresses gender and human rights issues, empowers women, includes vulnerable groups, accommodates people with disabilities, and ensures the respect of human rights. As of the latest available statistics, out of the 340 employees in the forestry sector in Montenegro, 62 are women. This represents a significant improvement in gender diversity, especially considering the historically male-dominated nature of forestry. However, further efforts are needed to enhance gender equality within the sector. Initiatives such as promoting women in leadership roles and encouraging female students to pursue forestry-related studies can contribute to a more balanced workforce. To empower women in the forest sector, Montenegro can implement targeted training programs and workshops aimed at enhancing the skills and knowledge of female employees. Encouraging women's participation in decision-making processes within forestry organizations is also crucial to ensuring their empowerment.

Montenegro already has existing labor laws and regulations that address the inclusion of vulnerable groups in the workforce. Leveraging these regulations is essential to ensure that individuals from marginalized backgrounds, such as minorities and people with disabilities, have equal access to opportunities within the forest sector. Specialized training and support programs can help facilitate their integration.

Montenegro should strive to make the forest sector more accessible to people with disabilities by implementing infrastructure improvements and adapting work environments to accommodate their needs. In addition, creating awareness among employers and employees about the rights and capabilities of people with disabilities can help break down barriers and promote their active participation.

Montenegro's forest sector has made strides in addressing gender and human rights issues, with a notable increase in the number of women working in the sector. However, further efforts are required to promote gender equality, empower women, include vulnerable groups, accommodate people with disabilities, and ensure the respect of human rights. By implementing targeted programs, enforcing existing legislation, and fostering a culture of inclusivity and equality, Montenegro can create a more sustainable and equitable forest sector.



6. Tables

➤ Economic indicators;

	Units	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total area	km2	13,812	13,812	13,812	13,812	13,812	13,812	13,812	13,812	13,812	13,812	13,812	13,812	13,812
Population	000	619	620	620	621	622	622	622	622	622	622	622	621	618
Population density	inhabitants/km2	45	45	45	45	45	45	45	45	45	45	45	45	45
GDP (at current prices)	mill. EUR	3,125	3,265	3,181	3,362	3,458	3,625	3,954	4,299	4,663	4,951	4,186	4,955	5,924
Value added (at current prices)	mill. EUR	2,608	2,735	2,668	2,759	2,799	2,992	3,065	3,519	3,816	4,022	4,193	4,731.5	4,769
Economic growth (real change in GDP)	%	2.5	3.2	-2.7	3.5	1.8	3.4	2.9	4.7	5.1	4.1	-15.3	13	6.4
GDP per capita	EUR	5,045	5,265	5,126	5,412	5,561	5,826	6,354	6,908	7,495	7,959.0	6,737	8,002	9,598
GDP per capita in PPS	EUR	:	:	:	:	:	:	:	:	:	:	:	:	:
GDP per capita in PPS (EU-28 =100)	%	41	41	39	41	41	42	45	46	48	50	45	47	
Gross value added of the agriculture, forestry, hunting and fishery sector (A)														
GVA (at current prices)	mill. EUR	239.9	263.6	237.1	270.2	280.1	294.6	295.5	294.7	313.9	316.5	316.2	320.2	358.0
Share in GVA of all activities	%	9.2	9.6	8.9	9.8	10.0	9.8	9.6	6.9	6.7	6.4	7.6	6.5	6.0
Employment in the agriculture, forestry, hunting and fishery sector (A)														
Number	000	12.9	10.9	11.4	9.1	12.3	17.1	17.4	18.2	19.8	17.4	16.5	13.6	10.7
Share in total employment	%	6.2	5.5	5.7	4.5	5.7	7.7	7.7	7.9	8.0	7.1	7.5	6.4	4.3
Inflation	%	0.5	1.2	0.2	2.1	1.1	1.4	5.1	3.8	3.2	2.0	-0.2	5	12.4
Total employment	000	161	163	167	171	174	176	178	229	237	244	219	213	251
Unemployment rate	%	19.7	19.7	19.7	19.5	18	19.7	17.7	16.1	15.2	15.1	17.9	16.6	14.7
Total export of goods	mill. EUR	330	454	367	396	376	317	326	349	400	415	366	4,370	700
Total import of goods	mill. EUR	1,657	1,821	1,773	1,724	1,773	1,841	2,062	2,182	2,554	2,601	2,105	2,505	3,534
External trade balance	mill. EUR	-882	-808	-1,406	-1,329	-1,398	-1,523	-1,736	-1,833	-1,985	-2,185	-1,739	-2,068	-2,834
Trade as a share of GDP		63.6	69.7	67.3	63.1	62.1	59.5	60.4	58.9	66.7	64.8	61.4	61.4	70.9

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