

# Forest accounts in Poland in 2021

An increase in the value of gross output of forestry and logging division in comparison with 2020 (in current prices)

According to the methodology of the European Forest Accounts (EFA), the value of gross output of forestry and logging division in Poland in 2021 amounted to PLN 25.8 billion, which was an increase in comparison with the previous year by 14.9% (in current prices).

#### **Forest land balance**

At the end of 2021, the area of forest land in Poland equalled 9467.5 thousand hectares and grew within a year by 3.3 thousand hectares. As a result of classification changes of non--forest land into forest land, there were 0.7 thousand hectares of forest land more, and almost 0.4 thousand hectares of forest land less due to deforestation.

Forest land area in forests available for wood supply at the end of 2021 was 9162.2 thousand hectares and constituted, just like a year before, 96.8% of total forest land.

Table 1.	Forest	land	balance	in 2021
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SPECIFICATION	Total	Forests available for wood supply	Forests not available for wood supply
	in thousand hectares		
Opening area	9464.2	9159.5	304.7
Afforestation	0.7	0.7	0.0
Deforestation	0.4	0.4	
Changes in use	0.0	-0.6	0.6
Balancing item	3.0	3.0	0.0
Closing area	9467.5	9162.2	305.3

At the end of 2021, the value of forest land amounted to PLN 42,6 billion and grew in comparison with the previous year by 7.9% (in current prices). The value of forest land available for wood supply equalled PLN 41.1 billion, which was 96.6% of total forest land value.

At the end of 2021, the value of forest land amounted to PLN 42.6 billion

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#### Table 2. Balance of forest land value in 2021

SPECIFICATION	Total	Forests available for wood supply	Forests not available for wood supply
		in million PLN	
Opening area	39457.6	38117.8	1339.8
Afforestation	3.0	3.0	0.0
Deforestation	1.9	1.9	•
Changes in use	0.0	-2.8	2.8
Revaluation	3091.0	2986.0	105.0
Balancing item	21.4	21.9	-0.5
Closing area	42571.1	41124.0	1447.1

#### Balance of growing stock of standing wood

Growing stock of standing wood in Polish forests at the end of 2021 was 2678.4 million m<sup>3</sup> and increased by 0.4% within a year. The annual increment of timber volume, adjusted for mortality of trees, added 77.1 million m<sup>3</sup> of standing wood (by 1.0% less than in 2020). Removals equalled 52.8 million m<sup>3</sup> (i.e. by 6.5% more than the previous year). At the end of 2021, growing stock of standing wood in forests available for wood supply equalled 2569.7 million m<sup>3</sup>, which was 95.9% of total growing stock of standing wood.

#### Table 3. Balance of growing stock of standing wood in 2021

SPECIFICATION	Total	Forests available for wood supply	Forests not available for wood supply
	in thousand m <sup>3</sup>		
Opening growing stock	2668958.5	2561084.8	107873.7
Net increment of timber	77050.4	75708.6	1341.8
Removals (over bark)	52805.4	52582.6	222.8
Losses	258.6	257.9	0.7
Changes in use	0.0	-187.5	187.5
Balancing item	-14578.4	-14016.2	-562.2
Closing growing stock	2678366.5	2569749.2	108617.3

At the end of 2021, the production value of growing stock of standing wood in forests available for wood supply reached PLN 354.7 billion and within a year increased by 9.0% (in current prices). Within a year, the value of net increment of timber amounted to PLN 10.4 billion; the removals totalled PLN 8.4 billion.

The value of growing stock in forests available for wood supply at the end of 2021 equalled PLN 354.7 billion

Table 4. Value balance of growing stock of standing wood in 202
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SPECIFICATION	Total	Forests available for wood supply	Forests not available for wood supply
	in million PLN		
Opening growing stock	342697.1	325558.3	17138.8
Net increment of timber	10645.2	10416.9	228.3
Removals (over bark)	8417.8	8382.3	35.5
Losses	36.1	36.0	0.1
Changes in use	0.0	-26.9	26.9
Revaluation	26846.1	25503.5	1342.6
Balancing item	1750.4	1707.2	43.2
Closing growing stock	373484.9	354740.7	18744.2

At the end of 2021, in the area of forests not available for wood supply comprising 305.3 thousand hectares, there were 108.6 million m<sup>3</sup> of growing stock (i.e. 4.1% of total growing stock). The potential production value of this stock was PLN 18.7 billion.

#### Economic accounts of the forestry and logging division

In 2021, the amount representing the value of gross output of the forestry and logging division (in accordance with EFA) was PLN 25.8 billion, of which production of goods characteristic of forestry activities was valued at PLN 22.0 billion, and forestry and logging services – PLN 2.0 billion.

In the analysed period, the value of gross output in the part concerning the annual increment of timber volume in forests available for wood supply amounted to PLN 10.4 billion. The production of wood in the rough went as high as PLN 10.5 billion, of which 96.1% was roundwood. The value of gross output of the forestry and logging division in 2021 amounted to PLN 25.8 billion (according to EFA)

of which output for own final use13.1Goods characteristic of the forestry and logging activity21980.3trees, tree plants and forest tree seeds10470.0live forest tree plants and tree seeds112.5forest trees10357.5wood in the rough10464.7roundwood10059.7fuel wood405.0non-wood products10466.2Services characteristic of the forestry and logging activity2049.3		
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non-wood products1046.2Services characteristic of the forestry and logging activity2049.7	roundwood	10059.1
Services characteristic of the forestry and logging activity 2049.7	fuel wood	405.0
	non-wood products	1046.2
Products of secondary activities 1817.6	Services characteristic of the forestry and logging activity	2049.7
	Products of secondary activities	1817.6

## Table 5. Gross output of the forestry and logging division in 2021

In 2021, intermediate consumption in the analysed division totalled PLN 17.4 billion. A significant share was the consumption of trees, plant trees and forest tree seeds (valued at PLN 8.4 billion), of which the majority were trees removed from forests available for wood supply. Another significant item in intermediate consumption are services related to forestry activity, whose value in 2021 reached PLN 2.0 billion.

### Table 6. Intermediate consumption in the forestry and logging division in 2021

Trees, tree plants and forest tree seeds8353.1Energy, lubricants359.5Fertilisers and soil improvers182.5Plant protection products and pesticides27.8Services characteristic of the forestry and logging activity1951.3Regular maintenance and repair of equipment398.7Maintenance of buildings657.3Financial Intermediation Services Indirectly Measured (FISIM)51.7		
Trees, tree plants and forest tree seeds8353.1Energy, lubricants359.5Fertilisers and soil improvers182.5Plant protection products and pesticides27.8Services characteristic of the forestry and logging activity1951.3Regular maintenance and repair of equipment398.7Maintenance of buildings657.3Financial Intermediation Services Indirectly Measured (FISIM)51.7	SPECIFICATION	In million PLN
Energy, lubricants359.5Fertilisers and soil improvers182.5Plant protection products and pesticides27.8Services characteristic of the forestry and logging activity1951.3Regular maintenance and repair of equipment398.7Maintenance of buildings657.3Financial Intermediation Services Indirectly Measured (FISIM)51.7	TOTAL	17355.1
Fertilisers and soil improvers182.5Plant protection products and pesticides27.8Services characteristic of the forestry and logging activity1951.3Regular maintenance and repair of equipment398.7Maintenance of buildings657.3Financial Intermediation Services Indirectly Measured (FISIM)51.7	Trees, tree plants and forest tree seeds	8353.1
Plant protection products and pesticides27.8Services characteristic of the forestry and logging activity1951.3Regular maintenance and repair of equipment398.7Maintenance of buildings657.3Financial Intermediation Services Indirectly Measured (FISIM)51.7	Energy, lubricants	359.5
Services characteristic of the forestry and logging activity1951.3Regular maintenance and repair of equipment398.7Maintenance of buildings657.3Financial Intermediation Services Indirectly Measured (FISIM)51.7	Fertilisers and soil improvers	182.5
Regular maintenance and repair of equipment 398.7   Maintenance of buildings 657.3   Financial Intermediation Services Indirectly Measured (FISIM) 51.7	Plant protection products and pesticides	27.8
Maintenance of buildings 657.3   Financial Intermediation Services Indirectly Measured (FISIM) 51.7	Services characteristic of the forestry and logging activity	1951.3
Financial Intermediation Services Indirectly Measured (FISIM) 51.7	Regular maintenance and repair of equipment	398.7
	Maintenance of buildings	657.3
Other goods and services 5373.2	Financial Intermediation Services Indirectly Measured (FISIM)	51.7
	Other goods and services	5373.2

In 2021, gross value added in the forestry and logging division was PLN 8.5 billion (increase by 11.4% compared to 2020) and net value added – PLN 7.6 billion (increase by 11.9%). Labour input in this division equalled 47.7 thousand annual work units<sup>1</sup> (by 4.6% less than in 2020), of which 7.0 thousand AWUs of self-employed persons (by 7.9% less).

<sup>&</sup>lt;sup>1</sup> An annual work unit (AWU) is a representative of a full time equivalent. In Poland it is 2120 hours.

#### **Methodological notes**

Forest Accounts in Poland are prepared in accordance with the European Forest Accounts methodology. They are a sectoral satellite account related to national accounts, widening their scope with additional information concerning forestry activity.

Data on forests are broken down by forests available and not available for wood supply<sup>2</sup>. This division makes it possible to show forest resources which can be of productive use. The estimation of forest production capacity of these resources is vital to show the role of forests in national economy.

Production value can only be attributed to forests available for wood supply. Its estimation for forests not available for wood supply is only done because of the theoretical possibility of including these resources in productive resources.

The valuation of the increment of growing stock of standing wood in forests available for wood supply is necessary to include this value in the gross output of the forestry and logging division. Forest accounts in Poland use the gross method to estimate the gross output of forestry, which means that this value represents the annual increment of timber volume in forests available for wood supply less losses caused by mortality. Intermediate consumption, however, consists in the value of timber removed from forests available for wood supply in a given year. All values are provided at current prices.

The tables show both afforestation, with reclassification-related changes in the area of the land that was so far non-forest land and that was included in forest land in a given year, and other factors leading to the increase in the area (e.g. succession). Deforestation concerns forest land area decrease that results from excluding this land from forest use. Changes in forest land use reflect changes in the classifications from forests available for wood supply to forests not available for wood supply, and vice versa. Other changes refer to changes of figures stemming from price changes (revaluations), losses (fires) as well as the balancing item.

Net increment of growing stock of standing wood is a yearly increase in timber volume that is the result of the processes of natural growth adjusted by the change in the stock (volume) of standing and lying dead trees (i.e. mortality).

Data for the years 2016–2018 presented in the previous news release editions of "Forest accounts in Poland" have been adjusted due to the benchmarking revision of national accounts as well as the change in the way removals are reported, namely, until 2018, they had been under bark, and since 2019 – over bark. Revised data for the years 2016–2018 are available in the Centre for Environment, Nature and Forestry Statistics in the Statistical Office in Białystok – <u>OSSPil@stat.gov.pl</u>, as well as in the Eurostat database – <u>Eurostat Database – Forestry</u>.

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<sup>&</sup>lt;sup>2</sup> Forests not available for wood supply are forests where wood supply is severely restricted. In Poland, forests not available for wood supply are forests in national parks and nature reserves.

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#### **Related information**

Statistical Yearbook of Forestry 2022

### Data available in databases

Local Data Bank – Forestry and Hunting Knowledge Database – Forestry and Hunting Eurostat Database – Forestry

#### Terms used in official statistics

Forest land Growing stock of standing wood Gross output Intermediate consumption Gross value added