

Forest and Forest Products Country Profile

Republic of Moldova

CONTENTS

	<u>Page</u>
Preface by the secretariat	4
Symbols and abbreviations used	5
I. COUNTRY PROFILE	6
1. Brief historical sketch	6
2. General economic situation	7
3. Forest resources	9
4. Forest industry	13
5. Trade	14
6. Prices	14
7. Output, trade and consumption	14
8. Institutions	15
9. Outlook	15
II. TABLES	17
III. FIGURES	49
IV. SUPPLEMENTARY INFORMATION ON FORESTRY AND FOREST INDUSTRIES	59
A. Government bodies dealing with forest and forest industries sector	59
B. Industry and trade organizations	59
C. Universities	60
D. Research institutes, planning institutes and other institutions	61
Some facts about the Timber Committee	62
UN-ECE/FAO Publications	63

PREFACE BY THE SECRETARIAT

For over 10 years, the Timber Section in Geneva has been preparing and issuing profiles of the forest and forest products sector in its member countries, prepared in consultation with national experts, which essentially bring together the statistical and other information available in Geneva. The emergence of the new group of countries in transition from a centrally planned to a market economy brought a new urgency to the work. It is widely recognized that there is a need to make available internationally a complete and comparable data set for these countries, which would include basic statistical data, with a long-term time element where possible, as well as up-to-date and reliable information on the status of institutional reform. Among other things, these country profiles have provided the starting point for the analysis of the outlook for these countries in the context of the fifth study of European timber trends and prospects (ETTS V).

Profiles have already been issued for Albania (ECE/TIM/73), Armenia (ECE/TIM/SP/8), Bulgaria (ECE/TIM/SP/1), Belarus (ECE/TIM/SP/5), Czech and Slovak Federal Republic (ECE/TIM/64), Estonia (ECE/TIM/74), Hungary (ECE/TIM/66), Lithuania (ECE/TIM/SP/3), Poland (ECE/TIM/67), Romania (ECE/TIM/65), Slovenia (ECE/TIM/SP/2), and Ukraine (ECE/TIM/SP/4). Other transition countries will be covered as fast as resources allow.

The profiles have been prepared by national correspondents, who express their opinions in a personal capacity. The data are from national official sources or the ECE/FAO database.

Each profile contains the following main sections:

- an analysis, with the main headings of the general economic situation, the forest resource, forest industries, trade, prices, consumption, institutions and outlook;
- statistical data on the same subjects, with series back to 1964 where possible;
- addresses of relevant organizations and institutions.

The profile for the Republic of Moldova has been prepared by Mr. D.T. Galupa, Engineer of the Forest Inspectorate, Moldsilva State Forest Combine, Chişinău, Republic of Moldova. The secretariat would like to express its profound gratitude to the author for his excellent work. The profile is based on the guidelines established by the Planning and Statistical Branch, Policy and Planning Division, FAO Forestry Department.

SYMBOLS AND ABBREVIATIONS USED

- None or negligible
- No data available
- * Unofficial data or secretariat estimate

FOREST AND FOREST PRODUCTS COUNTRY PROFILE:
REPUBLIC OF MOLDOVA

1. Brief historical sketch

The Republic of Moldova, which has an area of 33,800 km², lies between Ukraine and Romania (45° 25'-48° 30' N and 26° 40'-30° 10' E). Until 1991 the Republic of Moldova (Moldavian Soviet Socialist Republic) was part of the Union of Soviet Socialist Republics.

On 27 August, the Parliament declared the Republic of Moldova independent.

On 30 January 1992, the Republic of Moldova joined the Conference on Security and Cooperation in Europe (CSCE).

On 2 March 1992, the Republic of Moldova was admitted to the United Nations. Its independence and territorial integrity are recognized by the international community.

The population is 4,347,900, with a density of 128.6 persons per km². The capital of the Republic of Moldova is Chişinău*. The country contains 4 municipalities, 60 towns and 1,617 rural settlements.

The country extends for 350 km from north to south and 150 km from west to east.

The Republic of Moldova occupies a considerable part of the area between the Dniester and Prut rivers and a narrow strip along the left bank of the Dniester. The most northerly point is the village of Naslavcha; the most southerly, Dzhurdzhuleshty, the only settlement on the bank of the Danube; the most westerly, the village of Kriva; and the most easterly, the village of Palanka.

Natural conditions in the Republic of Moldova are characterized by diversity and contrast, resulting from a distinctive combination of relief, geological structure, climate, soil and vegetation.

The general nature of the relief is a plain with shallow depressions and very rugged uplands. The biggest such area is the central Moldavian uplands, known as Codri. In Codri there are variations in the relief of 300 m and more, with an absolute surface height of 429 m. Among such variations there are in particular different valleys and gorges, together with depressions in the form of amphitheatres or circuses, sometimes up to 3-5 km in diameter. In the north the plain is interrupted by a band of old limestone crags.

* Translator's note: Place-names are given in the Romanian form where known. Otherwise they have been transliterated from the original Russian.

The markedly rugged relief, the tendency for rain to fall in heavy showers and the highly developed nature of the land tend to encourage relief formation processes even today. Existing relief forms are becoming more complex and new ones are coming into being - ravines and landslides of varying dimensions.

The climate of Moldova is temperate continental. The average annual temperature is 8-10° C. Annual precipitation amounts to 370-560 mm. The number of days in the year with precipitation is 111-136.

Moldova is not rich in surface waters. There is a dense network of rivers, but they are small, shallow streams, most of which get very low at times or dry up altogether. Only the Dniester and Prut flow all year round, the former into the Black Sea and the latter into the Danube. The country has 57 lakes and over 60 reservoirs, the largest ones being Costești-Stynka on the Prut and Dubăsari on the Dniester.

The pattern of water consumption in the country is as follows: agriculture - 63%, including irrigation 53%, domestic use and municipal services - 15%, industry - 14%, construction, transport and other - 8%.

The river Dniester and its tributaries provide 56% of the total amount of water required, the Prut 16%, small rivers in the south of the country 8% and underground sources 20%.

The Republic of Moldova's main natural resource is black earth, which covers over 75% of its area. No other country in the world has such a high proportion of black earth.

The soil cover's worst enemy is erosion. A total of 1,942,000 ha, or 81% of the land, is threatened with erosion. The area of eroded soil is over 700,000 ha, including 437,000 ha of arable land, 158,000 ha of perennial plantations and 105,000 ha of pasture and hayfields. An average of 0.5-0.7 t of humus per ha of agricultural land is lost through water erosion every year, and the total humus deficit amounts to 1.7-1.9 t per ha.

Landslides do a great deal of damage. The total area subject to landslides is 400,000 ha, or about 17% of all land, including 46,300 ha of active landslides.

The Republic of Moldova is situated in three natural vegetation and landscape zones - forest, forest-steppe and steppe.

2. General economic situation

The economic capacity of the Republic of Moldova is determined primarily by natural factors and was formed under the conditions prevailing in the former USSR. The country is an agro-industrial area. Its agriculture specializes in industrial and grain crops. Vegetable growing and vineyards also occupy a leading place. The proportion of cultivated land is over 70%. The food industry accounts for 45% of the gross product, light industry 21%, chemical engineering and metal processing 14%, chemicals and

petrochemicals 2%, building materials 4%, glass and china 1%, forestry, woodworking and paper and pulp 3%, power 4% and other branches 6% (1988 figures).

All types of transport are well developed in the Republic: rail, road, air and river (Dniester). The biggest rail junctions are the stations at Chişinău, Ungheni, Bendery I and II, Bălţi and elsewhere. The network has 1,100 km of track.

The road network has a total of 4,340.5 km of national roads.

The total length of secondary and local roads is 5,672.5 km, or 2.3 km per 1,000 ha of the total area of the country. The total area of the roads themselves, including unmetalled roads, is 80,300 ha, or 2.4% of the area of the country.

In recent years, Moldova has been introducing economic reforms aimed at establishing a mixed economy and developing market relations. Structural improvements are taking place in the sphere of ownership.

In 1995 the process of privatization through national property coupons was completed.

Gross domestic output (GDP) in 1995 totalled 7,636 million lei, which was 3% down on 1994 (the 1994 figure was 31.2% down on 1993).

Industrial output dropped by 6% in 1995 (28% in 1994), and the index of physical volume by 10% (34% in 1994).

Gross agricultural output (in 1994 prices) by all categories of farms rose by 4% in 1995, and services to the public by 0.7% (in 1994 the figures had been 42% and 48% lower than in 1993 respectively).

The foreign trade figures for 1995 show that exports were 28% higher and imports 25% higher than in 1994, resulting in a negative trade balance of 394 million lei.

The average wage was 154.4 lei, or 44% of the minimum consumer budget. Real wages were 5% lower than in 1994.

Average monthly inflation was 1.8% in 1995, as compared with 6.2% in 1994 and 32% in 1993.

With the continuing slump in the economy, it is becoming more and more important to attract foreign investment.

At 1 April 1996 there were 753 firms with foreign investment registered in the Republic of Moldova.

The total amount of share capital was \$150.6 million. The main inflow of foreign capital is from such countries as Italy, Malta, Switzerland, Germany, Luxembourg and the United States (78% of all investment).

In the first quarter of 1996, firms with foreign investment exported \$6.9 million worth of goods (4.2% of the country's total exports).

Imports of goods over the same period amounted to \$10.9 million (4.4% of total imports). The main import items continue to be oil products (40%), detergents (6%), plastic products (5%), medicines, cosmetic products, alcoholic beverages and glass products (4% each).

3. Forest resources

The Republic of Moldova is sparsely wooded and deficient in forest resources. The area of forest accounts for 11% of the total land area, which is considerably less than in other European countries. The area per inhabitant is no more than 0.08 ha of forest land or 0.07 of forest.

Given the ruggedness of the terrain, the low proportion of forest areas, the high level of soil erosion, the aridity of the climate and the high population density, the country's forests are exceptionally important, both ecologically and socially.

The last forest organization exercise covering all the country's forests was carried out in 1985-1986, and the government survey of the country's forests resources according to the standard system used in the former USSR was undertaken as at 1 January 1988.

The total area of land in the country's forest resources (comprising non-forest areas and forest areas, the latter wooded land and unwooded land) including amounts to 379,000 ha, of which 318,000 ha is wooded. The proportion of wooded land (in relation to the total area of the country) is thus 9.6%.

The geographical distribution of forests is extremely uneven. Most of them are concentrated in the centre - Codri (Strășeni, Călărași, Hîncești, Orhei, Nisporeni districts), where from 17 to 31% of the land is wooded. The least wooded districts are in the Bălți and Budzhak areas and in the south-eastern Dniester basin (Drochia, Florești, Grigoriopol, Țaraclia and other districts), where the proportion of wooded land is no more than 0.6-4%.

The State forestry agencies are responsible for an area of 325,300 ha (86% of the country's total forest resources), 304,000 ha of forest area (85% of the total), 274,000 ha of wooded land (86%) and 33.38 million m³ of growing stock (95%). Forests belonging to municipalities and agricultural enterprises cover 54,000 ha (14%).

At the present time, because of the privatization of land, structural changes are taking place in the agro-industrial complex, with the establishment of joint-stock companies, small combines and private farms. As a result, lands in the country's forest resources are being redistributed, but all forests remain in public hands.

The main forest-forming species in the country's forest resources are oak, which leads with 52%, followed by false acacia with 26%, ash with 6%, hornbeam with 4%, soft-wooded broad-leaved species (poplar, lime, aspen) with 4%, and conifers (pine, spruce) with 3%.

Intensive working of the forests in the past has upset their normal age structure. Young trees account for 30%, medium-aged trees 47%, trees approaching maturity 14%, and mature and over-mature trees 9%. The area of ancient stands of timber is about 6,000 ha, of which oak accounts for 4,900 ha, ash 600 ha, beech 300 ha and hornbeam 100 ha. These stands are concentrated mainly in reserves and park areas.

One of the goals of forestry management is to gradually achieve a balanced age structure in the forests, which will in the long term make it possible to increase the proportion that can be felled to the level of the average annual increment.

The forests of the Republic of Moldova are characterized by high density. Low-density stands represent about 2% of wooded land (density 0.3-0.4).

Average forest valuation figures for the period 1957-1985 are given in a table.

The figures in table 2 show the changes that have taken place in the country's forest resources since 1945. Over this period the forest area has increased by 142,000 ha or 60%. Many steppe areas were previously unwooded, but now have a forest density of 3-5%.

In all, forest regeneration operations undertaken between 1945 and 1995 in the forest resources managed by State agencies covered an area of 171,340 ha and those undertaken under agreements with other owners covered 113,682 ha of forest and 21,198 ha of shelter belts.

Large-scale operations to expand the area of the country's forests, increase the proportion of wooded land and raise forest productivity are planned under the long-term comprehensive programme for the protection of the environment and rational use of natural resources of the Republic of Moldova for the period up to 2005, which was adopted in 1987. It has to be pointed out, however, that there are a number of difficulties in the way of the execution of this programme. In recent years there has been a sharp decline in afforestation, the main reason being lack of land. Most agricultural enterprises do not set aside land for afforestation, because it is needed for pasture.

Agrarian reform and privatization of land have also had negative effects on afforestation.

The amount of work being done on forest regeneration is also declining for lack of land. There are potential opportunities for forest regeneration by planting oak on cleared sites of mature acacia stands growing on comparatively level ground with rich soil. However, this work is held up because of the shortage of stump-grubbing equipment and the heavy expenditure involved.

It is laid down by law in the Republic of Moldova that as far as their economic purpose is concerned, the country's forests belong in group I, having exclusively environmental protection functions.

Depending on the functions the forests perform, the following categories of protection are distinguished:

1. Protection for water, soil, the environment and items of national property;
2. Protection of the genetic and ecological heritage (reserves, national parks, natural monuments, etc.).

The uses and functions of the forests are shown in the figures.

In order to preserve rare species of plants and wild animals and the most valuable stretches of forest, the following sites have been specially designated:

National nature reserves - four, with an area of 17,700 ha;

National reserve areas of countryside - 30, with an area of 22,436 ha;

National game reserves - 10, with an area of 2,927 ha;

National natural monuments - 11, with an area of 397 ha;

National sections of especially valuable forest with meadow vegetation - 27, with an area of 397 ha;

Ancient trees - 274.

Forestry in the Republic of Moldova is highly intensive. Some 20,000 hectares are tended every year.

The volume of felling per ha of closed forest is 1.78 m³. The intensity of forest use is 1.6.

The Republic of Moldova's forests suffer from man-made factors. A great deal of harm is done to them by illegal felling and pasturing of livestock.

A table gives data on illegal felling in the forest resources coming under the State forestry authorities. There has been a steady upward trend in such abuses, particularly in the last few years, 1992-1995. But the greatest damage is being done at present to forests in the hands of agricultural enterprises and municipalities. In 1995 alone, the amount of illegal felling totalled 150,000 m³. The main reason is the lack of any forest protection at such enterprises. At State forestry enterprises which do have a forest protection service, the amount of illegal felling in 1995 was 4,702 m³, or 17.1 m³ per 1,000 ha of wooded land, as compared with 2,631 m³ of illegal felling per 1,000 ha of wooded land in non-State forests, a figure 154 times higher. The increase in the amount of unauthorized felling in the country's forest resources as a whole is also due to problems connected with the supply

of fuel to the population for heating purposes. Fuel and power are scarce and dear, and this has a negative effect on the conservation of forests and the trees and bushes that grow in them.

Measures are being taken to improve forestry management. A number of ordinances have been adopted by the Government of the Republic of Moldova. All forests are being transferred into the control of State agencies.

At the same time, additional ways are being sought of supplying the population with wood for fuel without damaging the forest.

Every year in the Republic of Moldova, 360,000 m³ of timber is harvested in final felling, regeneration felling and tending felling, which meets some 40-50% of total consumption. The remainder is imported from abroad, mainly from Russia. Imports declined sharply from 1,183,000 m³ in 1989 (75% of total consumption) to 344,000 m³ in 1995 (43% of total consumption).

The pattern of consumption that has become established in the Republic of Moldova is neither rational nor efficient, and resource-conserving production has not been developed.

Another important problem for forestry in Moldova is that forests are withering. Frequent droughts and severe winters with low snowfall create unfavourable conditions for forest development. Most stands originating from suckers from earlier generations have low biological resistance and as a result of heavy man-made influence and unsatisfactory structure are liable to massive withering.

In recent years, pure, single-species stands of acacia and ash without underwood have been the main ones subject to withering. The annual area of clear felling is about 2,000 ha.

The negative influence of climatic factors and the low biological resistance of the forests encourage periodic outbreaks of infestation and disease. Complex centres of infestation develop in the country's forests. The leading role in the development of leaf eaters is played by such pests as:

Winter moth;

Mottled umber moth and other species of loopers;

Tortricids (green oak-roller moth and other species);

Gypsy moth;

Slimy ash weevil.

The average annual area infested with leaf-eating pests is 50-70,000 ha (16-22% of wooded land), of which 30-40,000 ha have to be sprayed from the air every year to destroy the pests. The main method of aerial pest control involves spraying in small amounts at a rate of 50 litres of solution per ha (the preparations used are lepedotsid, dendrobatsilinn and forei).

Forest monitoring has been in progress since 1993. The data are presented in a table and give an idea of the large-scale effects of transboundary air pollution.

4. Forest industry

The forest industry in the Republic of Moldova includes enterprises engaged in saw-milling, woodworking and furniture-manufacturing which come under another body, Mobilă-GRUP, a joint-stock company and financial and industrial group (formerly the Ministry of Forest Industry), which is the largest furniture combine in the Republic of Moldova.

Total furniture output capacity amounts to \$51 million.

Total annual sales at present come to over \$20 million, 25% of which is accounted for by foreign sales.

The Mobilă-GRUP's total workforce numbers 7,500.

It includes 16 industrial furniture and woodworking enterprises and seven enterprises of service organizations.

The basic types of goods produced are a range of all kinds of furniture, sliced and peeled veneer, glued bentwood and flat-pressed veneer products for furniture, glass and mirror products, corrugated board and corrugated board packaging.

Mobilă-GRUP works with timber imported from abroad.

Under the Department of Architecture and Building of the Republic of Moldova, there are two factories producing joinery goods and five building trusts, which have five small sections producing joinery goods, planking and wood. A total of 70,000-100,000 m³ of roundwood materials is processed in the course of a year. At present 15-20% of capacity is being used. The raw material needed is imported from abroad.

The enterprises of the Moldsilva State Forestry Combine are integrated units performing operations connected with forest regeneration, afforestation, protection and shelter and with the sawing and working of timber obtained from final felling, forest regeneration and tending. They also used to process part of the wood imported from Ukraine and Russia. In 1995 there were 5,205 persons working at these enterprises, 4,455 in the forest sector and 750 in woodworking.

There are 3 woodworking enterprises and 16 woodworking workshops. The highest figure for procurement and processing was achieved in 1980 - 140,000 m³.

Recent years have seen a decline, the figure for 1995 being 29,000 m³. The chief reasons are a fall in supplies of timber and a deterioration in its quality.

The main items produced at these enterprises are shown in the annexed tables.

5. Trade

Until the beginning of the 1990s there was a complete monopoly of the wood materials trade in the domestic market.

Through this channel and within the funds and limits allocated by the State Planning Committee, wood and wood products were supplied essentially from sources outside the country. Domestic timber resources were felled and processed by the forestry enterprises.

Foreign trade was a monopoly of Soviet trade organizations. Today, any economic agent can engage in foreign trade operations with wood materials.

Such operations are mainly concerned with importing wood and wood products from other countries, because of the acute shortage on the domestic market.

Exports of wood materials from the Republic of Moldova are very small.

6. Prices

Under the conditions of a centrally-planned economy, all prices for wood materials were fixed and kept relatively low, considerably below the world market level. Prices were fixed centrally and had limited economic significance.

Since 1992, all wood products have been sold at uncontrolled prices. Because of the limited scope for financing forestry under the budget, they have begun to play an important role in the accumulation of internal resources to cover expenditure. However, at present prices are considerably lower than those for similar products in neighbouring countries. This is due to the low purchasing power of most of the population, and not to the actual demand.

7. Output, trade and consumption

Under centralized planning, output was determined by volume indicators fixed in the plan.

Timber felling is strictly limited by the permitted rate of utilization and is undertaken by forestry enterprises. It is planned in the long term to allow competition in the use of forest resources.

As a result of privatization, a market-based supply system is coming into being, with pricing determined by market forces.

The main purposes for which wood materials are consumed are:

Fuel and power - 60%;

Building - 25%;

Packing and packaging - 5%;

Production of consumer goods - 10%.

8. Institutions

The basis for the organization of forestry is the Forest Code, which was adopted in 1996. This code is designed to realize the concept of sustainable development of forests, preservation of their biological variety, continuous functional effectiveness of forests and rational use of forest resources.

The State body in charge of forestry is the Moldsilva State Forestry Combine, which is authorized by law to regulate and coordinate the management of forestry in the State forest resources. It establishes the forestry regime - the system of technical, economic and legal regulations governing forest management, regeneration, use, protection and shelter and exercises State supervision to ensure compliance with this regime. The Moldsilva State Forestry Combine includes:

State forestry enterprises - 18;

State woodworking enterprises - 3;

Pomushoara Forest Fruits Processing Enterprise - 1;

Forest Management and Research Centre - 1;

State nature reserves - 4;

Silvaimpex State Commercial Firm - 1.

At the enterprises of the Moldsilva Combine, a State forestry service has been set up, with the following functions: management of the country's combined forest and hunting areas, implementation of measures relating to the use, reproduction, preservation and protection of forests and management of hunting in the forest resources.

In order to provide direct protection for the country's forestry and hunting areas, a forest warden unit has been set up, which is an integral part of the State forestry service.

The basic organizational unit is the forest district. There are 83 of them in the Moldsilva Combine. The average area of a forest district is 2,500-3,500 ha. The State forestry enterprise has four or five districts.

9. Outlook

With the slump in production and the unstable economic situation, it is difficult to forecast the development of the forestry industry and of the sectors that consume forestry resources.

It can be taken at the moment that there will be further reforms in the direction of privatization and changes in the structure of production and forms of trade.

9.1 It is expected that the detailed forest survey to be carried out in 1997 will give fuller information on the state of the country's forest resources.

The area of wooded land will increase. This will include a 15-20% increase in the area of artificial stands.

Oak stands will increase in area by 5-10%, and those of false acacia by 5-7%. There is expected to be an improvement in the main valuation indicators showing the state of the forest resources. The average volume per ha is expected to increase (by 5-10%).

The level of felling will increase, as a result of a greater volume of regeneration cutting, differentiation of the felling cycle depending on site class, reconstruction felling and more felling in woods fulfilling special functions.

The increment utilization indicator will increase by 5-10%.

9.2. For the Republic of Moldova it is a matter of principle to make multipurpose use of forests and strengthen their environmental protection functions. By 2005 it is expected that the proportion of shelter belts will increase by 10-15%. It is planned to establish two biosphere reserves and a national park.

9.3 There is particular concern over the state of health of the forests. After mass withering of false acacia stands, weakened stands of oak and ash have also started to wither. Rehabilitative measures will be expanded.

9.4 In the total volume of forest regeneration and afforestation work, the proportion of plantations of fast-growing species will be increased with a view to obtaining the necessary amounts and types of woods.

9.5 There will be further improvements in the technology for operations in the forests so as to put less stress on the forests and protect them.

9.6 In the organizational structure a gradual transition is to be expected from centralized organization of production to greater autonomy.

The forests of the Republic of Moldova will remain in public ownership. Some private forests may be planted on private land.

Privatization in forestry will cover the means of production - the processing of timber and by-products.

9.7 In trade in forestry products, imports are expected to outweigh exports.

In the consumption of forest products, the domestic market will continue to predominate.

A revival is expected in building, packaging and, as in the past, fuel and power consumption.

9.8 The development of the other sectors apart from forestry will continue to depend on imported timber.

Republic of Moldova

Table 1

General economic indicators

Indicator	Unit	1959	1970	1979	1990	1991	1992	1993	1994	1995
Population	Thousands	2 884	3 569	3 950	4 362	4 366.3	4 359.1	4 347.8	4 352.7	4 347.9
Gross national product by sectors of the economy	Thousand lei Billion roubles				22 629	42 527	397 541	4 203 861	10 408 486	
Average number employed in the economy	Thousand		18 068	2 023.7	2 071	2 070	2 050	1 939	1 932	1 926
Net material product produced				5.9 billion roubles	9 443 thousand lei	18 753 thousand lei	166 889 thousand lei	1 690 thousand lei	4 338 thousand lei	
Fixed assets at full book value	Billion roubles			18.6	32.5	33.6	34.6			
Industrial output in prices adjusted to previous year's	Billion roubles %			7.1	11.5	22.2	217.9	73		
					103.2	88.9		100.7		
	Million roubles			2 433	3 640	3 295	2 442			
Capital investment (in constant 1991 prices)	Thousand lei				3 640	3 295	2 422	1 153	558	

Retail turnover (in prices adjusted to previous year's)	Billion roubles			3.4		11			
		%			6.4		57.1		
					114.3	81.9	52.9	75	58.3

Republic of Moldova

Table 2

Main categories of land use (at beginning of year)

	Unit	1961	1965	1970	1975	1980	1985	1990	1995	1996
Total land	1 000 ha	3 376	3 376	3 376	3 376	3 376	3 376	3 376	3 385.1	3 385.3
Agricultural land	"	2 832.3	3 001.3	2 984.8	2 922	2 904.8	2 904	2 881		2 032.6
State property	"	357.5	424.5	582.5	760.3	977.1	115.4	880.7		78
Private property	"	2 474.8	2 576.8	2 402.8	2 161.7	1 927.7	1 788.9	2 003.3		1 954.6
Land of inhabited localities	"	224.8	27	31.1	30	28.9	52.9	63.2		441.7
Land for industry, transport, etc.	"	76.2	71.1	74	81.7	83	64	68.4		58.4
Land for environmental protection	"	—	—	—	—	—	—	0.2	—	3.5
Forest resources land	"	234.5	251.2	259.6	315.3	329.1	322.8	326.1		340.6
Water resources land	"	—	—	0.5	3.2	23.2	12.9	13.6		46

	Unit	1961	1965	1970	1975	1980	1985	1990	1995	1996
State stock land	"	32.1	25.4	26	23.8	7	19.1	20.5		462.5

Republic of Moldova

Table 3

Area of forests and other wooded land by use category of use
and type of management

1988

Ownership	1 000 ha	%
Total area of forest	357	100
including		
State forests	333	93.3
including:		
Forests managed by State forestry authorities	304	91.3
Forests coming under other ministries and departments	29	8.7
Non-State forests, including:		
Collective-farm and other communal forests	24	100
Private forests	-	-

Republic of Moldova

Table 4

Distribution of stock of all forests by age class and by
species class and main individual species

1988

	Stock million m ³	%		
		Total	State	Non-State
Total	35.29	100	34.44 100	0.85 100
Forest stands by age class				
Class I	0.91	2.6	2.5	7
Class II	3.72	10.5	10.3	20
Medium-aged	18.94	53.7	53.7	51.8
Approaching maturity	6.84	19.4	19.6	11.8
Mature and over-mature	4.88	13.8	13.9	9.4
of which: over-mature	1.16	3.3	3.4	-
Forest stands by species class and main individual species				
Conifers, including:	0.28	1.1	1	22.2
Pine	0.26	92.9	95.8	75
Spruce	0.02	7.1	4.2	25
Deciduous species, including:				
Oak and ash	24.15	99.3	99.3	100
Beech	0.11	0.5	0.5	-
Birch	0.03	0.1	0.1	-
Aspen	0.03	0.1	0.1	-

Republic of Moldova

Table 5
Evolution of forest resources
(1957-1995)

Period	Area ha	Stock million m ³	Average age	Stock m ³ /ha	Gross increment m ³ /ha	Felling m ³ /ha/year
Up to 1957	236 900	16.6	30	93	3.2	1.26
1957-1965	253 900	19	33	95	2.8	1.46
1966-1975	252 485	24.5	34	107	3.2	1.57
1976-1985	279 494	33.5	40	124	3.3	1.36
1986-1994	323 981					1.1

Republic of Moldova

Table 6

Distribution of the predominant species in closed forests
belonging to State forestry authorities

Year: 1988

Species	Area		Growing stock	
	1 000 ha	%	million m ³	%
Total principal forest-forming species	271.3	100	31.76	100
Conifers	6.3	2.3	0.21	0.7
Hard-wooded broad-leaved species	243.9	89.9	29.3	92.3
Oak	140.7	51.9	19.67	61.9
Beech	0.4	0.1	0.11	0.3
Hornbeam	9.4	3.5	1.62	5.1
Ash	16.6	6.1	2.72	8.7
Maple	2.9	1.1	0.19	0.6
False acacia	71	26.1	4.82	15.2
Elm and other ulmaceae	2.9	1.1	0.17	0.5
Soft-wooded broad-leaved species	11.1	4.1	1.97	6.1
Birch	0.6	0.2	0.03	0.1
Aspen	0.2	0.1	0.03	0.1
Lime	2.9	1.1	0.5	1.5
Poplar	5.5	2	1.07	3.3
Willows	1.9	0.7	0.34	1.8
Other arborescent species	9.3	3.4	0.27	0.8
Shrubs	0.7	0.2	0.01	0.1

Republic of Moldova

Table 7
Distribution of exploited forests by age class

Year: 1988

	Total 1,000 ha	Of which: by age class					Range of felling ages (years)
		Young trees		Medium-aged	Approaching maturity	Mature and over-mature	
		Class I	Class II				
Exploited forests, total							
Conifers	3.3	2.9	0.4	—	—	—	121/130
Hard-wooded broad-leaved species							
Of which: High-growing oak	37.5	9.6	14.6	12.9	0.3	0.1	121/130
Low-growing oak	49.6	0.3	0.7	24.1	17.5	7	131/140
Hornbeam	4.8	—	0.2	3.9	0.6	0.1	81/90
Ash	8.9	0.5	2.4	2.4	2.9	0.7	81/90
Maple	1.9	0.7	0.4	0.7	0.1	—	81/90
Ulmaceae	1.7	0.4	0.6	0.3	0.4	—	51/60
False acacia	47	3.4	8.3	20.4	7.2	7.7	31/35
Total	151.4	14.9	27.2	64.7	29	15.6	—
Of which: Low-growing	105.3	4.1	9.9	50	26	15.3	—
Soft-wooded broad-leaved species							
Birch	0.2	0.1	0.1	—	—	—	71/80
Aspen	0.1	—	—	—	—	0.1	31/40
Lime	0.8	—	—	0.8	—	—	81/90
Poplar	3.7	0.3	0.9	1.1	0.2	1.2	36/40
Arborescent willows	1.5	0.1	0.1	0.5	0.1	0.7	36/40
Total	161.2	18.4	28.7	67.2	29.3	17.6	—

Republic of Moldova

Table 8

Intensity of use

Year: 1995

Indicator	Unit	Amount
Amount of timber logged	1,000 m ³	484.1
Growing stock per head of population	m ³ /head	7.3
Volume used per ha of closed forest	m ³ /ha	1.78
Volume used per head of population	"	0.11
Total mean increment per head of population	"	0.26
Utilization of the mean increment	%	42
Intensity of forest use	"	1.6

Table 9
Volume of operations in forest regeneration and forestation

Years	Forest regeneration in State forests (ha)				Years	Forest regeneration under agreements with collective farms and forestry establishments			
	Artificial		Natural			Forest		Shelter belts	
	Total	Per year	Total	Per year		Total	Per year	Total	Per year
1945	454	454							
1946–1950	16 766	3 353.2	–	–	1949–1950	1 543	774	–	–
1951–1955	13 016	2 603.2	–	–	1951–1955	4 121	824.2	–	–
1956–1960	8 421	1 684.2	–	–	1956–1960	3 125	625	–	–
1961–1965	22 580	4 516	3 042	608.4	1961–1965	8 871	1 774.2	–	–
1966–1970	20 921	4 184.2	2 610	522	1966–1970	13 024	2 604.8	from 1968 3 908	1 302.7
1971–1975	17 789	3 557.8	1 530	306	1971–1975	26 647	5 329.4	6 194	1 238.8
1976–1980	36 554	7 310.8	1 512	302.4	1976–1980	22 681	4 536.2	3 154	630.8
1981–1985	13 652	2 730.4	–	–	1981–1985	15 014	3 002.8	2 687	537.4
1986–1990	12 020	2 404	–	–	1986–1990	16 259	479.6	634	126.8
1991–1995	9 167	1 833.4	3 166	633.2 (including natural renewal)	1991–1995	2 398	479.6	634	126.8
Total 1945–1995	171 340		11 860			113 682		21 198	

Table 10

Numbers of the main types of game

Year	Deer		Wild boar		Roe-deer	
	Population	Number shot	Population	Number shot	Population	Number shot
1989	1 133	67	1 351	114	3 790	171
1990	1 107	69	1 746	3	3 634	6
1991	1 107	59	2 381	121	3 914	116
1992	1 076	129	1 775	212	3 818	165
1993	1 033	143	2 164	152	3 787	9
1994	782	7	2 392	118	3 535	—
1995	406	14	1 689	84	3 293	—

Republic of Moldova

Table 11

Forest fire statistics

	Year													
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Number of forest fires	6	30	4	5	35	13	6	30	91	18	14	1	33	3
Area affected by fire, ha	12	60	8.4	25.6	53.1	16.6	7.1	27.8	121	20.1	32	1.5	215.9	2.1
of which: forest area	12	60	8.4	25.6	53.1	16.6	7.1	27.8	121	20.1	22	1.5	79.4	1.4
Area of crown fires	-	-	-	-	-	-	-	-	3.9	-	17.9	-	0.9	-

Table 12

Illegal felling in forests of the State forestry authorities

Indicator	1965	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995
Volume of illegal felling	678	609	515	914	826	1 048	1 554	3 392	3 100	5 676	4 702
Volume of felling per thousand ha of forested area	3.23	2.9	2.45	3.67	3.19	3.86	5.69	12.36	11.3	20.58	17.1
Detection rate in cases of illegal felling, %	35	37	37	36	37	42.2	52.9	41.9	37.9	32.2	26.8

Republic of Moldova

Table 13

Area of infestation and pest control measures

	Year																		
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Total area of infestation by leaf-eating pests at beginning of year (1 000 ha)	51	62	95	75	57.7	85	78.9	66.7	51.9	39.2	47.3	60.4	58.1	65.1	82.1	46.6	39.3	36.7	105
Protection of forests from pests and diseases including:	8.6	8	9.1	9.3	7.8	26.1	22.6	32.1	40.1	30.3	35.9	43.1	44.4	36	41.2	21.3	18.5	20.5	60.5
Aerial control measures	2.4	2	3.2	6.1	4.6	17.4	12.2	22.2	29.1	20	24.9	32.1	33	24.9	29.5	9.8	7	8.7	48.5
Ground control measures	6.2	6	5.9	3.2	3.2	8.7	10.4	9.9	11	10.3	11	11	11.4	11.1	11.7	11.5	11.5	11.8	12

Table 14

Area of infestation and pest control measures (continued)

	Year						
	1989	1990	1991	1992	1993	1994	1995
Total area of infestation by leaf-eating pests at beginning of year (1 000 ha)	86.3	70.6	49.1	55.6	66.6	66.3	75
Protection of forests from pests and diseases including:	58.7	26.6	32.6	31.8	48.5	36.6	35.3
Aerial control measures	45.3	13.7	21.5	21.4	38.7	26.7	26.5
Ground control measures	13.4	12.9	11.1	10.4	9.8	9.9	8.8

Table 15

Forest monitoring data

Observation year	Number of trees under observation	% of trees by class of damage					
		0	1	2	3	4	2-4
1993	288	19.4	22.3	53.1	1.9	0.3	58.3
1994	288	10.8	25.7	61.1	2.4	0	63.5
1995	286	4.6	36.4	50.3	6.6	2.1	59
1996	247	10.9	20.2	64.9	4	0	68.9

Republic of Moldova

Table 16

Volume of timber processed by the Moldsilva Combine, 1966-1995

Product	Unit	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Sawn wood	1 000 m ³	11.5	12	12	13.17	13.3	20.11	20.6	27.9	27	28.9	28.7	27	28.5	32.1
Building timber	1 000 m ³	5	5.03	5.03	5.03	5.1	6.9	3.6	—	2.3	2.8	2.3	2.3	9.2	10.2
Boxwood	1 000 m ³	2.7	3.47	6	6	6.5	7	7.8	6.9	10.9	10.9	7.6	10.9	7.5	5.7
Industrial split wood	1 000 m ³	5	5	5.9	5.9	6.4	7.6	11	15	12.8	14.3	8.8	12.7	13.5	16
Domestic firewood	1 000 m ³	5	5	6.1	5.8	6.4	6.4	7.1	8.1	7.9	8.3	7.3	7.7	11.8	16.6
Including															
Commercial	1 000 m ³	19.2	20.5	23.03	24.2	24.9	34.01	32	34.8	40.2	42.6	38.6	40.2	45.2	48
Soft-wooded broad-leaved	1 000 m ³	8.5	11.7	11.8	13.9	16.9	20.9	19.7	22.3	22.1	22.3	14.5	22.1	18	—
Timber waste (brushwood, offcut, laths, etc.)	1 000 m ³	21.5	25.5	27.2	26.6	27.9	32.1	38.6	42.4	39.2	48.1	46.1	34.7	42.3	43.4
Total	1 000 m ³	50.7	56	62.23	62.5	65.6	80.1	88.7	100.3	100.1	113.3	100.8	95.3	112.8	124

Table 17

Volume of timber processed by the Moldsilva Combine, 1966-1995 (continued)

Product	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Sawn wood	1 000 m ³	36.9	32.3	30.2	30.2	26.2	27.68	10.77	10.2	9.3	8.8	5.8	1.26	1.50	0.67	2.45	4.02
Building timber	1 000 m ³	8.9	4.6	2.5	2.6	2.3	3.556	7.937	8.6	9.5	9.3	9	7.50	2.15	2.72	6.56	6.92
Box wood	1 000 m ³	6.5	13.3	20.5	17	19.3	23.16	24.69	24.3	22.3	23.2	18.8	8.15	7.30	6.42	8.13	7.65
Industrial split wood	1 000 m ³	20.5	24.3	18.6	24.9	24.9	26.25	14.66	14.5	14.9	15.4	9.8	5.15	3.22	2.33	3.25	5.18
Domestic firewood	1 000 m ³	22	21.3	20.8	21.2	25.6	22.56	28.94	32.83	36.1	46.2	46.2	21.9	13.2	7.35	7.55	3.88
Including																	
Commercial	1 000 m ³	52.3	50.2	53.8	49.8	45.5	54.40	43.41	43.1	41.1	41.3	33.6	16.9	10.9	9.82	17.1	18.6
Soft-wooded broad-leafed	1 000 m ³	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Timber waste (brushwood, offcut, laths, etc.)	1 000 m ³	44.9	42.7	34.4	34.1	15.7	15.36	17.3	17.5	18	21.9	15	6	2.5	2	1.2	1.49

Product	Unit	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Total	1 000 m ³	139	138. 5	127. 6	130	114	118.5	104.3	107.9	110. 1	124. 8	104. 6	50.0 3	29.8 9	21.5 0	29.1 4	29.1 6

Table 18

Volume of timber extracted and output of woodworking products by the Moldsilva Combine, 1966-1995

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
	Actual figures														
Timber extracted	187.9	194.3	197.8	197	209.4	204.3	204.2	207.3	205.7	205.7	165.4	171	148.9	143.9	142.9
A. Commercial timber I-VI	74.1	70.4	75.7	81	80.3	78.1	77.9	81	82.02	84.3	62.7	65.5	73.2	61.7	62.5
of which:															
I. Timber for production of sawn wood and semi-finished items	16	19	23.1	23.3	24.9	24.7	27.5	25.4	23.75	25.7	17.8	18.8	18.2	17.69	16.6
II. For dry packing	-	0.7	6.5	5.4	6.7	8.55	9.2	10.8	10.3	11.3	7.5	8.3	7.2	5.2	8.1
III. Timber for peeling and slicing	0.8	1.3	0.8	0.6	0.7	0.28	0.2	-	-	-	-	-	-	-	-
IV. Timber for use in round form	29	26.3	18.3	20.7	20.1	16.35	14.2	16.7	15.74	16.2	10.7	13.1	15.1	14.1	12.5
V. Raw material for producing tanning extracts	-	-	-	3.5	3.7	4.42	4.7	6	6.96	7.8	6.3	6.4	6.3	6.5	6.9

Republic of Moldova

Table 19

Volume of timber extracted and output of woodworking products
by the Moldsilva Combine, 1966-1995 (continued)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
	Actual figures														
VI. Other commercial timber	28.3	23.1	27	27.5	24.2	23.68	22.1	22.1	25.3	23.3	20.4	18.9	15.3	18.2	18.4
Including poles and stakes	—	0.6	0.5	0.5	0.7	0.5	0.15	0.27	—	—	—	—	—	—	—
B. Industrial split wood	5.9	9.5	6.63	4.8	5.7	7.52	8.8	11	10.7	11.1	8.4	9.5	11.1	11.2	12.2
C. Firewood	102	114.4	115.4	111.2	123.5	118.72	117.5	115.3	113	110.3	94.3	96	64.6	71	68.2
Output sales (1 000 roubles)	2 960	3 329	3 864	3 901	4 241	4 743	4 913	5 004	5 085	5 284.2	4 773	5 121	2 621.5	6 139.3	6 946
Cultural, social and domestic goods (1 000 roubles)	—	—	—	—	—	—	—	—	—	342	332	403.1	4 073.4	493.8	839
Whole-rims and half-rims (1 000)	13.13	13.19	12.6	13.27	12.68	13.1	13.4	14.22	13.7	12.9	12.378	15.12	15.455	15.344	15.845

Republic of Moldova

Table 20

Volume of timber extracted and output of woodworking products
by the Moldsilva Combine, 1966-1995 (continued)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
	Actual figures														
Semi-finished products:															
for knitting needles (1 000)	759	687	702	665	711	665	778	831	776	803.4	669.4	747.5	678.1	710.6	754.4
for hubs (m ³)	844	838	864	819	860	793	824	804	828	787	724.1	662	690	664	678
for wheel rims (1 000)	123	119	126	128	145	127.6	117	152	112	110.8	71	10.6	—	—	—
for parquet (m ³)	3 099	3 326	3 393	2 773	2 572	2 967	3 054	3 658	3 589	3 782	3 609.7	3 211	3 328	3 351	3 589.8
for parquet (m ³) to specifications	—	—	—	—	—	—	—	—	—	—	2	22.4	149	189.6	311.5
Industrial chips (1 000 m ³)	—	—	—	—	—	—	—	—	—	—	—	—	—	150	1 714
Parquet (1 000 m ³)	—	—	—	12.3	45.7	74.6	88.4	47.7	35.2	36	39.5	44.985	63.3	73.8	90.425
Box board (m ³)	1 919	2 616	2 994	3 383	4 131	4 656	5 806	5 186	5 428	5 145	3 336	3 448.5	3 082	3 196	3 020.8
Vegetable baskets (1 000)	76	101	99.9	96.6	102.5	116.7	139.3	149.4	161.3	163.6	157.05	170	171.6	163.7	171.18
Christmas trees (1 000)	—	—	—	—	—	—	—	—	—	—	10.4	14.3	9.9	12.38	32.2

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Wickerwork products (1 000 roubles)	—	1.6	3	10.6	15	42.92	36	58.6	94	105.8	11.4	138.7	146.9	149.5	236.6

Republic of Moldova

Table 21

Volume of timber extracted and output of woodworking products
by the Moldsilva Combine, 1966–1995 (continued)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
	Actual figures														
Timber extracted	145.40	146.78	149.1	144.30	141.51	142.80	141.1	139.2	140.8	122.1	65.157	58.444	62.826	97.15	105.46
A. Commercial timber I–VI	63.164	63.351	63	60.568	47.567	46.487	43.1	41.1	41.3	33.6	16.927	17.299	14.893	23.71	23.547
of which:															
I. Timber for production of sawn wood and semi–finished items	15.956	16.031	13.131	11.546	—	10.774	10.2	9.3	8.8	5.8	1.268	1.502	0.672	2.45	4.029
II. For dry packing	20.34	20.043	22.964	23.617	—	24.699	24.3	22.3	23.2	18.8	8.157	7.304	6.425	8.13	7.651
III. Timber for peeling and slicing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IV. Timber for use in round form	0.953	1.171	0.519	—	—	7.937	8.6	9.5	9.3	9	7.502	2.151	2.726	6.56	6.928
V. Raw material for producing tanning extracts	6.966	6.54	7.109	6.133	—	—	—	—	—	—	—	—	—	—	—

Republic of Moldova

Table 22

Volume of timber extracted and output of woodworking products
by the Moldsilva Combine, 1966-1995 (continued)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
	Actual figures														
VI. Other commercial timber	18.949	19.566	19.248	19.111	—	—	—	—	—	—	—	6.342	5.07	6.57	4.939
Including poles and stakes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B. Industrial split wood	14.587	14.664	15.8	14.571	15.032	14.667	14.5	14.9	15.4	9.8	5.157	3.22	2.333	3.25	5.181
C. Firewood	—	—	—	—	—	81.6	83.5	83.2	84.1	78.7	43.073	37.925	45.6	70.19	76.739
Output sales (1 000 roubles)	7 209.3	9 856.4	10 394	10 568	—	10 281	10 560	—	—	—	—	—	—	9 058.5	11 758
Cultural, social and domestic goods (1 000 roubles)	853.2	1 293	1 560	1 760	1 738	1 801	2 615	—	—	—	—	—	—	—	—
Whole rims and half rims (1 000)	14.162	12.07	11.51	11.942	9.163	10.373	9.972	—	—	—	—	—	63.5	—	—

Republic of Moldova

Table 23

Volume of timber extracted and output of woodworking products
by the Moldsilva Combine, 1966-1995 (continued)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
	Actual figures														
Semi-finished products:															
for knitting needles (1 000)	612.52	657.6	673	481.2	478.9	429.6	434.53	—	—	—	66	—	—	—	—
for hubs (m ³)	628	660	560	540	500	406	219.97	—	—	—	—	—	—	—	—
for wheel rims (1 000)	—	103	120	48	—	—	—	—	—	—	—	—	—	—	—
for parquet (m ³)	3 392.3	3 620	3 800	3 780.4	4 087.5	3 783.9	386	—	—	—	—	336.5	203.4	940.2	533.5
for parquet (m ³) to specifications	299	391	379	366	364	442	62.681	—	—	—	306.3	52.637	40.8	—	—
Industrial chips (1 000 m ³)	4 190.4	9 179.3	1 316.9	14 57.0	16 318	15 022	18 000	22 000	29 500	30 000	16 219	8 359.1	3 844	2 760	2 731
Parquet (1 000 m ³)	85.837	93.385	99.6	100.71	110.18	107.10	105.5	55.6	111	102.1	42.651	—	—	33.786	35.25
Box board (m ³)	2 156	3 514	3 563	3 504.5	3 680	3 539.5	3 550	3 500	2 300	2 100	—	498	2 719	442.8	2 263
Vegetable baskets (1 000)	141.03	169.31	200	228.21	235.36	199.41	—	—	—	—	38.465	36.61	12.657	60.143	12.62
Christmas trees (1 000)	41.869	88.222	100.5	142.99	160.3	132	—	—	—	—	31.886	30	20.89	3.86	3.9
Wickerwork products (1 000 roubles)	285.3	405	326	359.6	475.9	579.6	—	—	—	—	776.2	4 501.4	—	306.11	149.68

Table 24

Number and age of the main machines and pieces of equipment at enterprises
of the State forestry authorities

Year: 1995

Type of woodworking equipment	Number	Period in service			
		Less than 5 years	5 to 9 years	10 to 19 years	20 years or more
Circular saws for rip-sawing	69	2	27	35	5
Circular saws for cross-cutting	60	-	24	31	5
Combined tools	27	4	10	11	2
Machines for slicing and shaping wood	13	-	2	11	-
Parquet machines	7	-	3	4	-
Turning and shaping machines	42	-	13	27	2
Frame saws	28	2	6	15	5
Sharpening tools	29	1	6	15	7
Special-purpose tools and miscellaneous equipment	44	3	7	25	9
Motor vehicles	430	9	270	135	16
Tractors	443	4	244	182	13

Republic of Moldova

Table 25

Timber consumption (in terms of roundwood, 1 000 m³)

	1989	1990	1995
Capital construction	312	278.7	59.1
Repair and operating needs	419.4	373.6	139.1
Industrial and production needs	576.3	513.7	174.5
Fuel and energy needs	265	248	397
Imports	1 183	1 048	344
Exports	-	-	-
Total	1 573	1 414	81

Republic of Moldova

Table 26

Formation of timber resources

	Unit	1988	1989	1990	1995
Total resources	million m ³	1.225	1.573	1.414	0.81
Domestic resources	million m ³	0.393	0.39	0.366	0.466
As percentage of total	%	32.1	24.8	25.9	57.5
of which:					
Fuel wood	million m ³	0.268	0.265	0.248	0.397
Imports (in terms of roundwood)	million m ³	0.832	1.183	1.048	0.344
As percentage of total	%	67.9	75.2	74.1	42.5
of which:					
Roundwood	million m ³	0.373	0.581	0.597	0.138
Sawn wood	million m ³	0.26	0.332	0.215	0.108
Particle board	million m ³	0.0142	0.0122	0.0175	0.0213
Fibreboard	million m ³	2.275	4.655	4.931	0.8869
Wooden packaging	tons	-	-	-	0.107
Plywood	thousand m ³	9.3	16.8	20.4	-
Cardboard, all types	thousand m ²	-	26 041	30 594	2 515
Paper	tons	-	24 246	30 518	18 972
Parquet	thousand m ²	-	115	229	-
Exports (out of total resources)	thousand m ³	-	-	-	-
Roundwood	thousand m ³	-	-	-	-

Republic of Moldova

Table 27

Coefficients for conversion of most important types of
wood products into terms of roundwood

	Unit	Conversion coefficient
Sawn wood	m^3/m^3	1.5
Particle board	m^2/m^3	1.65
Fibreboard	$m^3/1\ 000\ m^2$	9.8
Plywood	m^3/m^3	2.53

Republic of Moldova

Table 28

Exports and imports of wood products by the Republic of Moldova, 1988-1995

	Unit	1988	1989	1990	1991	1992	1993	1994	1995
Timber	1 000 m ³	-	-	-	-	-	-	-	-
		373.3	580.98	597	276	115	15.6	85.1	138.5
Sawn wood	1 000 m ³	-	-	-	-	-	-	-	-
		259.7	332.4	215.2	145.6	210.6	40	284.7	108.1
Cardboard, all types	1 000 m ²	-	-	-	-	-	-	716.7	832.3
		-	26 041	30 598	221	177.5	79.4	5 638	2 515
Paper	tons	-	-	-	5 676.8	5 417	10 444	5 865.5	5 072.3
		-	24 246	30 518	25 267	7 358	14 842	17 840	19 872
Cardboard packaging	1 000 m ²	-	-	-	25 939	16 382	5 672	2 807.9	3 204.6
		-	-	-	-	-	-	4 832	6 567
Wooden packaging	1 000 m ³	-	-	-	-	-	-	-	-
		-	-	-	71.6	37.8	39.6	448.8	10.7
Particle board	1 000 m ³	-	-	-	-	-	-	-	-
		14.2	12.2	17.5	18.7	-	-	16.8	21.3
Fibreboard	1 000 m ²	-	-	-	-	-	-	-	-
		2 275	4 655	4 931	11 770	-	-	651.3	886.9
Plywood	1 000 m ²	-	-	-	-	-	-	-	-
		9.3	16.8	20.4	26.1	-	-	-	-
Parquet	1 000 m ²	-	-	-	-	-	-	-	-
		-	115	229	492	-	-	-	-

Republic of Moldova

Table 29

Data on annual consumption of the most important types of product (in physical terms)

	Unit	1988	1989	1990	1995
Timber	1 000 m ³	498	706	715	207
Sawn wood	1 000 m ³	259.7	332.4	215.2	108.1
Particle board	1 000 m ³	119.2	117	122.5	21.3
Fibreboard	1 000 m ²	2 275	4 655	4 931	886.9
Wooden packaging	1 000 m ³	-	-	-	10.7
Plywood	1 000 m ³	9.3	16.8	20.4	-
Cardboard	1 000 m ² /tons	-	26 041	30 524	1 683
Paper	tons	-	24 246	30 518	13 900
Cardboard packaging	tons	-	-	-	3 362.4
Furniture	1 000 lei				

Republic of Moldova

8. Institutions

Table 30

Information on the State forestry service

Information on forestry service facilities and equipment in the Moldavia forestry system	1996
Number of forest districts	83
Section workshops	180
Beats	946
Cordons for foresters	467
Percentage provided for	49
Service transport for foresters	24
Percentage provided for	2.5
Service horses for foresters	446
Percentage provided for	47
Service guns	677
Percentage provided for	57
Forest protection communication facilities	
With telephones	74
With radios	12
Percentage provided for	8
Forest wardens	

9. Prices

Table 31

Prices for the main types of forest products

Product	Unit	Wholesale prices								
		1971 (roubles)	1978 (rouble s)	1981 (roubles)	1987 (roubles)	1990 (roubles)	1992 (roubles)	1993 (roubles)	1994 (lei)	1995 (lei)
Parquet	m ²	5.6	6	6	8	13	2 600	126 000	40	44
Parquet materials	m ³	129	129	129	175	280	30 300	16 080 000	750	790
Sawn wood	m ³	43.1	74.8	80.3	123	172	1 900	61 300	250	278
Fencing wood	m ³	39.6	45.8	53.5	83.4	126.5	11 100	50 640	312	340
Box board	m ³	58.6	79.1	83	137	194	10 400	57 000	344	380
Chips	m ³	—	—	—	14.7	20	3 000	8 450	62	70
Particles	ton	53.4	70.6	71	85	120	11 100	—	—	—
Particle board	m ²			2.1	4	7				12.23
Fibreboard	m ²			2	2.2	3.5				6.51
Wooden packaging	piece			1.25	1.25	0.85				7.38
Plywood	m ²			2.6	3.4					1 911
Cardboard	1 000 m ²				140.8					2 400
Paper	ton				651.25					10 000
Cardboard packaging	piece									7

Republic of Moldova

Table 32

Price rises

Product	Unit	Wholesale prices								
		1971 (roubles)	1978 (roubles)	1981 (roubles)	1987 (roubles)	1990 (roubles)	1992 (roubles)	1993 (rouble s)	1994 (lei)	1995 (lei)
Parquet	m ²	1	1.07	1.07	1.43	2.32	464.29	2 250	7 142.86	7 857.14
Parquet pieces	m ³	1	1	1	1.36	2.17	234.88	1 246.51	5 813.95	6 124.23
Sawn wood	m ³	1	1.74	1.86	2.85	3.99	252.9	1 422.27	5 800.46	6 450.12
Fencing	m ³	1	1.16	1.35	2.11	3.19	280.3	1 278.79	7 878.79	8 585.86
Box board	m ³	1	1.35	1.42	2.34	3.31	177.47	972.69	5 870.31	6 484.64
Chips	m ³	—	—	—	1	1.36	204.08	577.83	4 217.69	4 761.9
Particles	ton	1	1.32	1.33	1.59	2.25	207.87	—	—	—

— 54 —

Republic of Moldova

Table 33

Wholesale prices for timber (at felling site)

	1982 (roubles)	1990 (roubles)	1992 (roubles) 1.01.94	1994 (roubles) 1.10.94	1994 (lei)	1995 (lei)

	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³
Oak, ash, maple	24.7	2.65	47	6.1	220.5	55	16.8	4.41	38.75	14.3	81.3	26
Beech	20	2.65	42.55	6.1	220.5	55	16.8	4.41	38.75	14.3	81.3	26
Acacia	25	2.65	49.15	6.1	208	55	15.97	4.41	38.25	14.3	81.1	26
Lime	8.4	2.4	12.85	4.5	117.5	55	11.29	3.35	25.5	11.2	60.1	20
Poplar	8.4	2.4	12.85	4.5	117.5	40	9.25	3.35	27.45	11.2	58.3	20

Republic of Moldova

Table 34

Price movements

	1982 (roubles)		1990 (roubles)		1992 (roubles) 1.01.94		1994 (roubles) 1.10.94		1994 (lei)		1995 (lei)	
	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³	Timber m ³	Firewood m ³
Oak, ash, maple	1	1	1.9	2.3	8.93	20.75	680.16	1 664.15	1 568.83	5 396.23	3 291.5	9 811.32
Beech	1	1	2.13	2.3	11.03	20.75	840	1 664.15	1 937.5	5 396.23	4 065	9 811.32
Acacia	1	1	1.91	2.3	8.06	20.75	618.99	1 164.15	1 482.56	5 396.23	3 143.41	9 811.32
Lime	1	1	1.53	1.88	13.99	22.92	1 344.05	1 395.83	3 035.71	4 666.67	7 154.76	8 333.33
Poplar	1	1	1.53	1.88	13.99	16.67	1 133.33	1 395.83	3 267.86	4 666.67	6 940.48	8 333.33

Republic of Moldova

Table 35

Statutory prices for species of timber set according to norms

	1982 (roubles)				1990 (roubles)				1991 (roubles)			
	Timber (barked) m ³			Firewood (with bark) m ³	Timber (barked) m ³			Firewood (with bark) m ³	Timber (barked) m ³			Firewood (with bark) m ³
	Large	Medium	Small		Large	Medium	Small		Large	Medium	Small	
Oak, ash, maple	26	22.3	16.7	2.5	57	49	37	4.2	52.5	44.8	33.6	3.4
Beech	21.7	18.6	13.9	2.2	52	44.5	33.6	3.7	50	43	32.2	2.95
Acacia	24.65	21.1	15.8	2.5	39	33.45	25.2	4.2	39	33.45	25.2	4.2
Lime	5.1	4.4	3.3	2.2	9	7.7	5.8	3.4	7.7	6.6	4.9	2.75
Poplar	3	2.6	2	1.45	5.2	4.4	3.3	2.4	4.6	3.9	3	1.9

IV. SUPPLEMENTARY INFORMATION ON FORESTRY AND FOREST INDUSTRIES

A. Government bodies dealing with forest and forest industries sector

Ministry of Agriculture and Food
of the Republic of Moldova
Ștefan cel Mare, 162
Chișinău
Tel.: 23-34-27

Ministry of the Economy of the
Republic of Moldova,
Piața Marea Adunare Națională, 1
277033 Chișinău
Tel.: 22-11-33

Ministry of Foreign Affairs of
the Republic of Moldova
Piața Marea Adunare Națională, 1
277033 Chișinău
Tel.: 23-39-40

Department of Environmental
Protection
Ștefan cel Mare, 73
277001 Chișinău
Tel.: 22-51-44

Moldsilva State Forestry Combine
Ștefan cel Mare, 124
277001 Chișinău
Tel.: 22-55-12
Fax.: 22-32-51

Moldresurse Republican Material
Resources Concern
Ștefan cel Mare, 73
277001 Chișinău
Tel.: 22-26-52

B. Industry and trade organizations

Mobilă-GRUP
Ștefan cel Mare, 69
277001 Chișinău
Tel.: 22-22-40

Bendery State Forestry Enterprise
Kishinevskaya, 128
Bendery
Tel.: (8-232) 5-91-11
Fax.: 5-91-11

Bălți State Forestry Enterprise
Aerodromnaya, 16
Bălți
Tel.: (8-231) 4-37-82

Cahul State Forestry Enterprise
Dunery 13
Cahul
Tel.: (8-239) 2-24-83

Călărași State Forestry Enterprise
Bozhole, 17
Călărași
Tel.: (8-244) 2-05-89

Chişinău State Enterprise
Kalya Eshilor, 69
Chişinău
Tel.: 62-69-29

Cimişlia State Forestry Enterprise
Chetatya Albe, 1
Cimişlia
Tel.: (8-241) 2-35-92

Glodeni State Forestry Enterprise
Eminescu, 17
Glodeni
Tel.: (8-249) 2-28-60

Comrat State Forestry Enterprise
Tretyakov, 123
Comrat
Tel.: (8-238) 2-21-35

Hînceşti State Forestry Enterprise
Marinesku, 14
Hînceşti
Tel.: (8-234) 2-22-59

Yargara State Forestry Enterprise
Ştefan cel Mare, 180
Yargara
Tel.: (8-263) 63-255

Nisporeni State Forestry Enterprise
Toma Chorbe, 12
Nisporeni
Tel.: (8-264) 2-38-70

Orheiu State Forestry Enterprise
Vasile Lupu, 166
Orheiu
Tel.: (8-235) 2-19-59

Soroca State Forestry Enterprise
Vasile Stroescu, 90
Soroca
Tel.: (8-230) 2-62-60
Fax.: 2-61-71

Străşeni State Forestry Enterprise
Ştefan cel Mare, 1
Străşeni
Tel.: (8-237) 2-56-51

Şoldaneşti State Forestry Enterprise
31 avgusta, 125

Şoldaneşti
Tel.: (8-272) 2-23-53

Teleneşti State Forestry Enterprise
M. Sadovyanu, 5
Teleneşti
Tel.: (8-258) 2-33-26

Ungheni State Forestry Enterprise
Cosmescu, 1
Ungheni
Tel.: (8-236) 2-29-42

Şoldaneşti State Wood Working
Enterprise
31 avgusta, 125
Şoldaneşti
Tel.: (8-272) 2-22-53
Fax.: 2-22-53

Vorniceni State Wood Working
Enterprise
Vorniceni
Straşeni District
Tel.: (8-237) 61-337

Codri National Reserve
Lozova
Straşeni District
Tel.: (8-237) 55-386

Prutul de Zhos National Reserve
Slobozia Mare
Vulcăneşti District
Tel.: (8-253) 61-587

Pedurya Domnyaske National Reserve
Glodeni
Tel.: (8-249) .-49-98

Playul Fagului National Reserve
Redeny Vek
Ungheni District
Tel.: (8-236) 2-37-26

Forest Management and Research
Centre
Kalya Eshilor 69
Chişinău
Tel.: 62-52-38

Forest Protection Administration
Shipotelor 2
Chişinău
Tel.: 24-26-42

C. Universities

State Agricultural University of the
Republic of Moldova
Munchesht, 44
Chişinău
Tel.: 24-64-22
Fax.: 24-63-26

State University of the Republic of
Moldova
A. Mateevich, 60
Chişinău
Tel.: 24-00-41
Fax.: 24-06-55

Independent International University
Bul. Ştefan cel Mare, 198
Tel.: 24-21-35
Fax.: 24-25-75

D. Research institutes, planning
institutes and other
organizations

National Ecological Institute
Bul. Dacia, 58
Chişinău
Tel.: 77-04-88
Fax.: 77-04-88

Botanical Institute of the Academy
of Sciences of Moldova
Redury, 18
Chişinău
Tel.: 55-04-43
Fax.: 52-38-98

SOME FACTS ABOUT THE TIMBER COMMITTEE

The Timber Committee is a principal subsidiary body of ECE (United Nations Economic Commission for Europe) based in Geneva. It constitutes a forum for cooperation and consultation between member countries on forestry, forest industry and forest product matters. All countries of Europe, the former USSR, the United States of America, Canada and Israel are members of ECE and participate in its work.

The ECE Timber Committee shall, within the context of sustainable development, provide member countries with the information and services needed for policy- and decision-making regarding their forest and forest industry sector ("the sector"), including trade in and use of forest products, and, when appropriate, formulate recommendations addressed to member Governments and interested organizations. To this end, it shall:

1. With the active participation of member countries, undertake short-, medium- and long-term analyses of developments in, and having an impact on, the sector, including those offering possibilities for the facilitation of international trade and for enhancing the protection of the environment;
2. In support of these analyses, collect, store and disseminate statistics relating to the sector, and carry out activities to improve their quality and comparability;
3. Provide the framework for cooperation e.g. by organizing seminars, workshops and ad hoc meetings and setting up time-limited ad hoc groups, for the exchange of economic, environmental and technical information between Governments and other institutions of member countries that is needed for the development and implementation of policies leading to the sustainable development of the sector and to the protection of the environment in their respective countries;
4. Carry out tasks identified by UN/ECE or the Timber Committee as being of priority, including the facilitation of subregional cooperation and activities in support of the economies in transition of central and eastern Europe and of the countries of the region that are developing from an economic point of view;
5. It should also keep under review its structure and priorities and cooperate with other international and intergovernmental organizations active in the sector, and in particular with FAO (Food and Agriculture Organization of the United Nations) and its European Forestry Commission and with ILO (International Labour Organization), in order to ensure complementarity and to avoid duplication, thereby optimizing the use of resources.

More information about the Committee's work may be obtained by writing to:

Timber Section
UN/ECE Trade Division
Palais des Nations
CH-1211 Geneva 10, Switzerland
Fax: +41 22 917 0041
E-mail: info.timber@unece.org

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Timber Bulletin Volume L (1997) ECE/TIM/BULL/50/...
(Six issues per year)

1. Forest Products Prices
2. Forest Products Statistics
3. Forest Products Annual Market Review
4. Forest Fire Statistics
5. Forest Products Trade Flow Data
6. Forest Products Markets in (current year) and Prospects for (next year)

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Estonia, Hungary, Lithuania, Poland, Romania, Slovenia and
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Long-term historical changes in the forest resource ECE/TIM/SP/10
European Timber Trends and Prospects: into the
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ETTS V working papers:
Pajuoja, "The outlook for the European forest resources
and roundwood supply" ECE/TIM/DP/4
Brooks, Baudin and Schwarzbauer, "Modeling forest
products demand, supply and trade" ECE/TIM/DP/5
Baudin and Brooks, "Projections of forest products
demand, supply and trade in ETTS V" ECE/TIM/DP/6
Eronen, "Forest resources and consumption of forest
products in countries in transition, 1990-2020" ECE/TIM/DP/8
Issartel and Vikinge, "Price trends for forest
products, 1964-1991" ECE/TIM/DP/9
European forests and timber: Scenarios into the
21st century (sold with ECE/TIM/SP/11) ECE/TIM/DP/10

Peck and Descargues, "The policy context for the development of the forest and forest industries sector in Europe"

ECE/TIM/DP/11

Seminar and Workshop Proceedings (original language only)

- Seminar on "Exploring multiple use and ecosystem management: from policy to operational practice", Prince George, Canada, September 1995

International Forest Fire News (two issues per year)

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