

**RESEARCH ON THE INFLUENCE OF OPERATING CONDITIONS FOR
ESTABLISHING THE PRICE OF TIMBER WOOD IN FORESTRY
MANAGEMENT**

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Abstract: *Considering the logging methods today (wood exploitation on timber wood, wood exploitation by service, collection of wood for its own), The market economy in Romania involves conditions and mechanisms that operate in relation to economic particularities of the organization of the national economy. The transition process in the Romanian economy is reflected in the market for wood products; imperfections in this process as a decrease in economic efficiency impacts of the forestry sector. Since the prices of wood products are established as a result of the confrontation between supply and demand in a free market, it is desirable that law enforcement mechanisms to operate and forestry. World Market is an open market wood product that does not receive an institutional mechanism regulating role, as there are other products (wheat, copper, coffee, a.s.o.). At European level there is a greater sensitivity to price in relation to the North American market development and supply of wood products in the Scandinavian countries and the Russian Federation.*

Key words: *management, standing timber, economy, wood product, price*

INTRODUCTION

The wood on sale is distinguished primarily by average tree volume. Demand different varieties depending on the thickness and the interest which manifests operators to buy wood from a given species. A small elasticity shows a slight change in the market price, which leads to a large change in the quantity sold. If the elasticity of demand is high, change the quantity sold is required lowering the price of wood that is offered on the market.

In the competitive market economy countries standing timber prices is not controlled administratively. For the competition, the average price of wood is determined by negotiation. The existence of a price to be determined based on the starting price auctions results in a lack of adaptation of supply to market conditions, affecting forest heritage. The large differences in the price of feeling area award in relation to the starting price auctions, causes traders to understand each of them not bidding of feeling area that can be awarded at a lower price later. In such cases the real competition is not present, the consequences of being registered on the account forest. In the literature, makes a commendable exposure factors conditioning the timber trade, focusing on comparative analysis of the methods of bidding. Among them, the double auction closed that both buyers and sellers make offers in the envelope, is widely accepted forestry units.

Through these auctions, the transaction is considered completed when asked at what price to sell is tied to one of the offers made by buyers. If the seller is matched offer two bids from buyers bidding process resumes. Auction sale of timber does not exclude the danger of under and / or overstatement, it even by starting price. Undervaluation can create difficulties financing the regenerations, care and management, while overvaluation generates delays in execution of works concerned with unintended consequences in the growth and development of the forest. Supply of wood, according to the forest management plan decennial not only covers the realization of income; is the size required

by the application provided prepared forest management plans. Sale of wood at a fair price has a dimension forestry, which aims to normalize production fund structure by making relatively constant crop.

In practice of the last few years (1993-2000), the price to obtain the wood depends on the Romanian market related factors: characteristics of wood placed on the market and operating conditions: average tree volume , species, distance close out the percentage of wood work, total feeling area; the way in sales and market competition: the methodology of the negotiations the number of companies interested in buying standing timber ; general economic conditions and economic competition at a time: the level and pace of development of manufacturing and construction institutions, international market of wood products, difficulties in economic and financial mechanisms in the transition, a.s.o. Prices of different kinds dimensional structure is not adapted to market demand, which can be proved if we take into account the costs required to obtain thick wood. In most European countries there are concerns the definition of a methodology for wood pricing, taking into account the different stages of its industrialization.

MATERIALS AND METHODS

Pricing of timber wood is a permanent concern of forest administration, meaning that the wood incorporated in the annual opportunity be exploited rationally and further refined for at least two reasons:

- To achieve regeneration conditions timely and proper management of the state stands as Paris.
- To obtain the greatest value from wood obtained necessary funding its forest from development on the open market.

Achieving a balance between the wood extracted by mining works, to effect cultural forest and better exploitation of wood on the market in the interest of forest, is the essence of the correct price of timber wood. In this equation represents a very important component of the process of logging in all known: economic; cultural, environmentally.

As a case study, in this paper, spectrum of timber exploited in 2012 in Forest Moldova Nouă, Caras- Severin Forestry Department under the main aspects of logging that contribute to a fair price of timber wood such as:

- Operating conditions influenced geomorphology;
- Operating conditions generated by the structure of the wood;
- Operating costs of technologies and operating methods consistent with the machinery used the nature of products.

This paper aims to identify the operating criteria characterizing match of wood that are required to be taken into account in determining a price objective, fair and balanced the timber wood and wood to generate a market located right on actual supply and demand. These targets can be embodied in the following for the purpose of achieving the above proposed as follows:

- Analysis of wood under the VPA - sized production Moldova Nouă 2012 at forest;
- Determining the structure of wood exploited and exploited of the wood;
- Establish real collection distances for each match, as well as costs in the sign;
- Establish transport distances and costs;
- Analysis of the price dynamics leg of wood, according to the regulations;
- Establish criteria standing timber price formation based on specific logging costs.

RESEARCH RESULTS

Given the current price of industrial varieties we calculated the price obtained from the sale of industrial varieties resulting from the wood exploited in 2013 to Forestry Department Moldova Nouă. Calculation of income from the sale of timber is shown in Table 1.

Table 1
Calculation of income from the sale of industrial varieties

No.	Wood assortment	Groups of specie	Unit of measurement	Volume (mc)	Price/ U.M.	Total value
1	LM	Softwood, Beech, Quercinee Various soft Various hard	mc	7	200	1400
2	CR		mc	201	150	30150
3	Ce		mc	1735	120	208200
4	Manele		mc	2	100	200
5	PAL		mc	0	120	0
6	L _T		mc	97	150	14550
7	Lobde		mc	114	120	13680
8	Firewood		mc	1654	100	165400
9	Timber	Softwood	mc	192	220	42240
10		Beech	mc	4435	250	1108750
11		Quercinee	mc	407	300	122100
12		diverse tari	mc	123	220	27060
13		Various soft	mc	123	210	25830
14	Veneer	Softwood	mc	10	300	3000
15	Esthetic veneer	Beech	mc	410	600	246000
16		Quercinee	mc	89	700	62300
17		Various hard	mc	7	500	3500
18		Various soft	mc	7	350	2450
20	Technical veneer	Beech	mc	1425	500	712500
21		Quercinee	mc	0	600	0
22		Various hard	mc	21	400	8400
23		Various soft	mc	20	300	6000
TOTAL				11.079		2.803.710

Table 2
Operation and transportation costs of wood

No.	Unit production	Volume (mc)	Transport costs (lei)	Forestry costs (lei)	Total costs (lei)
1	III	6.784	169.600	457.513	627.113
2	IV	3.102	46.530	207.245	253.775
3	V	1.677	16.770	113.097	129.867
TOTAL		11.563	232.900	777.855	1.010.755

Economic analysis based on the data presented above is required to be made for the three logging methods known in Romania: timber wood exploitation by tender to tender or to negotiate; wood exploitation by service awarded by tender or negotiation; wood exploitation for its own (Table 3).

Table 3**Costs in warehouse**

No.	Unit production	Volume (mc)	Unit price (lei/ mc)	Total costs (lei)
1	III	6.784	10	67.840
2	IV	3.102	10	31.020
3	V	1.677	10	16.770
TOTAL		11.563		115.630

Collection of wood standing by awarding tender or to negotiate; under these conditions the forestry production end will charge timber wood, won the auction by economic agents is the fee award from Table 5 that has value: 1,025,552 lei (Table 4).

Table 4**Award fee**

No.	Unit production	Forest fee (lei)	Forestry tax bid (lei) x 1,4
1	III	407.266	570.172
2	IV	237.041	331.857
3	V	88.231	123.523
TOTAL		732.538	1.025.552

Wood exploitation by service awarded by tender or to negotiate By this methodology to the case study, the forest manager spends the amount of 1,126,385 lei, representing services (operation expenses amounting to 777.855 , 232.900 lei transport costs and storage costs of 115,630 lei) , 97, 41 lei/mc .

In exchange for these expenses forest manager in our case the forestry, industrial assortments receive value amounting to 2,803,710 lei. In these circumstances, the forestry service benefit through this way forest for cultural exploitation of forest amount subject: 1,677,325 lei. This represents the true value of forest exploited varieties obtained by the difference between revenues and operating expenses industrial , transportation and delivery fee can be called forest and whose price are summarized accurately all the benefits of which should be in financing forest. By this way the wood is operated by the Forest Department, where operating costs are 1.4 times higher than the provision of services, is the sum of 1,576,939 lei, is 136.37 USD/mc.

In these circumstances Forestry benefits are: 1,226,771 lei. This method is not recommended, since the state is a bad manager, and forest ecosystem is almost entirely neglected. The concept of forest fee had special significance and different so the way it was, especially the role played in the economy and especially companies specialized in forest administration units. The centralized economy, forestry tax represent forest rent and price calculation based on raw wood, especially culture and management costs of managing forests. Profit on the wood exploited his charge at the end of the operating state of the sale of wood raw wood or even the sale of finished products, particularly for export.

Currently forestry tax calculated APV sites that draw starts at the average price of wood set on a statistical basis sour periodically corrected pulled close distance measured from the nearest transport path to the center of gravity of the prosecution. There are no precise rules for this action, which is proven in this paper that the data collected in the field by the forestry and documented acts of enhancement are false, coincidental and does not reflect reality. In these circumstances, the market economy and permanent forest was endangered, finally manifesting a slow permanent and precarious unstable development.

In the future, the future under the Forest Code and other laws intended to develop , all the wood will be exploited by services, forestry tax will know exactly the end of the logging, it remains integral to the administrator forest financing and will have the following formula:

$$Tf(R) = VT - Ch \text{ exp. [lei];}$$

Tf(R) - forestry tax (forestry rent);

VT - revenues from the sale of industrial varieties;

Central public authority responsible for forestry will have to quickly implement this system will raise the image, and the practice of logging and timber market in Romania, for this benefit all actors in the wood.

CONCLUSIONS

From those presented in the paper, based on data from Forest Moldova Nouă, on the wood, the production of 2013, main products and the following conclusions:

1. The wood is medium quality; a gross volume of 11796 cubic timber wood, 64 %, or 7501 cubic meters is wood working;

2. Standing timber value, manufacture 2013, main product is 732.538 lei, is 62.10 euro/mc;

3. Exploitation of wood in 2013, working under the Forest Moldova Nouă, can achieve an average price of about primary platform. 67 lei/mc;

4. Distances determined by the forestry Fit to accessibility and pricing are incorrectly measured raw wood to a no. 22 existing parquet of 29 (76 %);

5. Forestry fee (starting price auction Standing timber) in APV sites not based on objective justification, relative to the concrete conditions of land and is subjective;

6. The values shown in this paper releases that the true tax value resulting forest is wood carving after selling and paying operating expenses in case of 1,677,325 lei, is 142 euro/mc.

$$Tf(R) = VT - \text{forestry costs [lei];}$$

Tf(R) - forestry tax (forestry rent);

VT - revenues from the sale of industrial varieties;

7. Logging method that solves goal without error, the true value of the tax is forest, wood exploitation in service means that it hopes to incite fast logging process in Romania;

8. Bring his work a modest contribution to clarifying the concept of forest fee so that, where properly applied to fulfill the role.

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