

ASPECTS RELATED TO THE ACQUISITION AND EXECUTION OF FORESTRY WORKS ASSOCIATED TO THE PRIVATELY-OWNED FOREST STOCK

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Abstract

Forestry works, regardless of the owner and the administration of the forest stock is necessary to be achieved at a timely and appropriate technical conditions. Although there are now more opportunities for the acquisition of silvicultural interventions to achieve them, it is intended to streamline this process and thus to optimize the entire series of forestry works.

The case study analyzes the particularities of the acquisition and construction works related to the forest stock as a private property of Scărișoara and Vadu Motilor Municipalities in Alba County, respectively Ignești Municipality in Arad County, in 2014.

Forestry works were purchased by direct award and by public auction, according to the owner and administrator options.

Although some forest districts managing various private forest stocks of different owners have the opportunity to realize a series of silvicultural works, economic and technical efficiency are the criteria underlying the acquisition and hence their achievement.

As a result, the entrepreneurs who meet the technical conditions for carrying out the forestry works and providing quality and technically efficient services, have the best chance of acquiring them.

The execution of forestry works by the managers and / or owners of privately owned forest stock with specialized entrepreneurs, represents clear opportunities for optimizing the management (maintenance) process of regenerations and young tree stands.

Key words: administrator, owner, private forest stock, forestry works, technical offer, economic offer.

INTRODUCTION

The national forest stock currently belongs to several owners, 3,227,907 ha representing public property forest stock and 3,171,594 ha were returned under the laws of restoring ownership upon forests stock (http://www.rosilva.ro/articole/prezentare_generala__p_178.htm).

In accordance with art. 10 of Law 46/2008, all owners and forest stock holders are required to administer or perform forestry services through an authorised forest district.

As a result, the National Forest Administration -Romsilva signed the management and insurance forestry service contracts related to the forest stock belonging to other owners. Thus, 378 911 ha are managed this way and forest services are provided for 758 979 ha, being recorded a total number of 147493 concluded contracts (http://www.rosilva.ro/articole/prezentare_generala__p_178.htm).

The difference of private forest stock is managed by private forest districts and / or owners.

The forestry works required to be executed within the privately owned forest stock can be achieved by the administrator if it has the necessary technical possibilities (workers and logistics) or by licensed contractors for such services (Crainic, 2014).

If the administrator of the private forest stock doesn't have the conditions for implementing the forestry works, then the specialized companies will take over these works.

The acquisition of the forestry work can be done by public auction or by direct award, following some negotiations.

MATERIAL AND METHOD

The case study was conducted within the private forest stock of Scărișoara and Vadul Motilor communes and managed by Horea Apuseni Forest District in Alba County and Ignești commune managed by Codrîi Zarandului Forest District in Arad County in 2014.

The research methods are: bibliographic documentation, itinerary observation, site observation, experiment and simulation.

To achieve the case study more options to purchase forestry works by auction and through direct award were analyzed.

The forestry works related to privately owned forest stock belonging to Vadul Motilor municipality were purchased by direct award and their specific is shown in Tables. 1, 2 and 3.

Table 1

Artificial installation works of forest vegetation in the private forest stock of Vadul Motilor municipality, Alba county

Owner	Compartment (c.)	Symbol of work / Grid / T.N./M.U.*					
		C1IIIc	C20IIc2	C21.a+b1	C23Ic12	C24Ia1 +24IIa	C70Ib
		Gr. 2	Gr. 2	Gr. 3	Grele	Gr. 3	Gr. 5
		0.96	1.31	1.28	4.13	0.39	60.41
		Ar	10m	mp	mb	mb	mb
B.U. I Vadu Motilor	80A	2700	54	162	99.9	99.9	99.9
	81A	1700	34	102	62.9	62.9	62.9
	82C	740	14.8	44.4	29.6	29.6	29.6
Total B.U- I Vadu		5140	102.8	308.4	192.4	192.4	192.4

*T.N.-Time norm, M.U.-Measurement unit; B.U. – base unit

C1IIIc-clearing the land;

C20IIc2- digging trench for seedling storage

C21.a+b1-preparation of the storehouses with ice

C23IC12-transport of seedlings through direct carrying (direct carrying represents the manual transport of seedling either in arms or on the back from the storage place to the place where it is going to be planted);

C24Ia1+24IIa-trench storage and preservation in storehouses with ice;
C70Ib-planting seedlings on unprepared land.

Table 2

Distribution of seedlings that will be planted on plots and species in the private forest stock
of Vadul Motilor municipality, Alba county

Of Vadu Mohor Municipality, Arua County									
Owner	Compartment (c.)	Surface to be regenerated			Seedlings to be planted				Total of seedlings
		Total	Out of		Mo Spruc e	Br Fir- tree	La Larch	Pam Sycamo re	
		To be regenerated	Natural	Artificial					
		ha	ha	ha					
0	1	2	3	4	5	6	7	8	9
B.U. I Vadu	80A	38.5	11.5	27.0	86.4	0	13.5	0	99.9
	81A	17.0	0.0	17.0	54.4	0	8.5	0	62.9
	82C	11.0	3.6	7.4	29.6	0	0	0	29.6
Total U.B. I Vadu		66.5	15.1	51.4	170.4	0	22	0	192.4

Table 3

Maintenance works of forest cultures in the private forest stock of
Vadul Motilor municipality, Alba county

Owner	Compartment (c.)	Work symbol/Grid/ T.N./M.U		
		C58Ib	C58Iib3	C46c
		Gr. 5	Gr. 5	Gr. 4
		1.16	0.47	0.47
		Ar	Ar	Ar
0	1	2	3	4
B.U I Vadu	80A	1000	500	2500
	81A	1500	350	1500
	82C	1000	150	1140
Total U.B. I Vadu		3500	1000	5140

C58Ib-weeding the forest species from grass and woody species on
the whole surface;

C58Iib3-weeding the forest species from grass and woody species
around the seedlings;

C46c-Review of plantations.

The forestry works related to privately owned forest stocks of
Scărișoara Municipality were also purchased by direct award-table no. 4.

Table 4

Maintenance works of forest cultures within the private forest stock of Scarisoara
municipality, Alba county

Owner	Symbol of work/Grid/ T.N./M.U	
	C58Ib	C58Iib3
	Gr. 5	Gr. 5
	1.16	0.47
	Ar	Ar
Scărișoara Municipality	5050	850

Also in the case of the private forest stock of Ignești Municipality, the forestry works necessary to be achieved in 2014 were purchased by direct award-table no. 5.

Table 5

Maintenance works of forest cultures and young tree stands
within the private forest stock of Ignești Municipality, Arad county

Owner	Compartment (c)	Symbol of work/Grid/ T.N./M.U			
		C58Ib	C60b	C9a	C73b2
		Gr. 5	Gr. 5	Gr. 3	Gr. 3
		1.16	0.65	0.33	79.41
		Ar	Ar	Ar	1000 pieces
Ignești Municipality	3A%	390	600	-	-
	4B%	-	-	600	-
	5F%	-	-	500	-
	8A%	-	-	50	-
	8C%	-	-	500	-
	9B	-	-	70	-
	9C	610	-	-	-
	19B%	-	-	500	-
Total Ignești Municipality		1130	600	2220	1.1

C58Ib- Weeding the forest species from grass and woody species (average conditions);
C60b-Respacing the cultures and natural seedlings by cutting down the overwhelming species with hand tools
C9a-Natural regeneration works on the entire surface (up to 50%)
C73b2- Filling gaps to the reforestation works (plantations or direct sowing)

RESULTS AND DISCUSSIONS

After collecting field data and establishing the specific of forestry works that are required to be performed within the analyzed and studied private forest stock, the unit rates were calculated by category of forestry works, according to hourly rate of NFA-Romsilva and respectively to technical norms (time and production) in force.

Results are presented in the tables below.

Table 6

Unit tariff calculation for the artificial installation of forest vegetation
within the private forest stock of Vadul Motilor Municipality

Crt. no.	Norm symbol	M.U.	Framework grid	H.T. (hourly rate) RON/hour	N. T. Hours person/ M.U.	U.T. (unit rate) RON/ M.U.
1	C1IIIc	ar	2	6.06	0.96	5.82
2	C20IIc2	10 m	2	6.06	1.31	7.94
3	C21.a+b1	mp.	3	6.31	1.28	8.08
4	C23Ic12	1000 pieces	Difficult works	5.36	4.13	22.14
5	C24Ia1+24IIa	1000 pieces	3	6.31	0.39	2.46
6	C70Ib	1000 pieces	5	6.81	60.41	411.39

Table 7

Unit tariff calculation for the maintenance of forest cultures
within the private forest stock of Vadul Motilor Municipality

Crt. no.	Norm symbol	M.U.	Framework grid	H.T. (hourly rate) RON/hour	T. N Hours person/ M.U.	U.T. (unit rate) RON/ M.U.
1	C58Ib	ar	5	6.81	1.16	7.90
2	C58IIb3	ar	5	6.81	0.47	3.20
3	C46c	ar	4	6.56	0.47	3.08

Table 8

Unit tariff calculation for the maintenance of forest cultures
within the private forest stock of Scarisoara Municipality

Crt. no.	Norm Symbol	M.U.	Framework grid	H.R. (hourly rate) RON/hour	T.N. hours pers./ M.U.	U.R. (unit rate) RON/ M.U.
1	C58Ib	ar	5	6.81	1.16	7.90
2	C58IIb3	ar	5	6.81	0.47	3.20

Table 9

Unit tariff calculation for the maintenance of forest cultures and young tree stands
within the private forest stock of Ignești Municipality

Crt. no.	Norm Symbol	M.U.	Framework grid	H.R. (hourly rate) RON/hour	T.N. hours pers./ M.U.	U.R. (unit rate) RON/M.U.
1	C58Ib	ar	5	6.81	1.16	7.90
2	C60b	ar	5	6.81	0.65	4.43
3	C9a	Ar	3	6.31	0.33	2.08
4	C58Ib	ar	5	6.81	1.16	7.90
5	C73b2	1000 pieces	5	6.81	74.91	510.14

Depending on the previous measures related to forestry works that will be performed and the corresponding unit rates estimates have been prepared in tabular form, which are further presented.

Table 10

The estimate of the artificial installation of forest vegetation
within the private forest stock of Vadul Motilor Municipality

Crt. no.	Norm symbol	M.U.	Quant.	Unit rate	Value (RON)			TOTAL (RON)
					Materials	Labour	Equipment	
1	C1IIIc	ar	5140	5.82	0.00	29914.80	0.00	29914.80
2	C20Ic2	10 m	102.8	7.94	0.00	816.23	0.00	816.23
3	C21.a+b1	mp.	308.4	8.08	0.00	2491.87	0.00	2491.87
4	C23Ic12	mb.	192.4	22.14	0.00	4259.74	0.00	4259.74
5	C24Ia1+24Ia	mb.	192.4	2.46	0.00	473.30	0.00	473.30
6	C70Ib	mb.	192.4	411.39	0.00	79151.44	0.00	79151.44
TOTAL I					0.00	117107.38	0.00	117107.38
DIRECT EXPENSES (20%)								23421.48
TOTAL II								140528.86
INDIRECT EXPENSES (6)								8431.73
TOTAL III								148960.59
PROFIT (4 %)								5958.42
TOTAL IV								154919.01
VAT (24%)								37180.56
GENERAL TOTAL								192099.57

Table 11

Estimate of the forest culture maintenance within the private forest stock
Of Vadul Motilor Municipality

Crt. no.	Norm symbol	M.U.	Quant.	Unit Tariff	Value (RON)			TOTAL (RON)
					Materials	Labour	Equipment	
1	C58Ib	ar	1500	7.90	0.00	11850.00	0.00	11850.00
2	C58Ib3	ar	1000	3.20	0.00	3200.00	0.00	3200.00
3	C46c		5140	3.08	0.00	15831.20	0.00	15831.20
TOTAL I								30881.20
DIRECT EXPENDITURE (20%)								6793.86
TOTAL II								37675.06
INDIRECT EXPENDITURE (6)								2260.50
TOTAL III								39935.57
PROFIT (4 %)								1996.78
TOTAL IV								41932.35
VAT (24%)								10063.76
GENERAL TOTAL								51996.11

Table 12

Estimate of the forestry cultures maintenance within the private forest stock
of Scărișoara Municipality

Crt. no.	Norm symbol	M.U.	Quant.	Unit rate	Value (RON)			TOTAL (RON)
					Materials	Labour	Equipment	
1	C58Ib	ar	5050	7.90	0.00	39892.98	0.00	39892.98
2	C58Ib3	ar	850	3.20	0.00	2720.60	0.00	2720.60
TOTAL I								42613.58
DIRECT EXPENDITURE (20%)								9374.99
TOTAL II								51988.56
INDIRECT EXPENDITURE (6)								3119.31
TOTAL III								55107.88
PROFIT (4 %)								2755.39
TOTAL IV								57863.27
VAT (24%)								13887.18
GENERAL TOTAL								71750.45

Analyzing the data in Tables 10, 11 and 12 it is noticed that the direct expenditure have a share of 20%, and the indirect costs are of 6% and the profit is 4%.

For the works related to the private forest stock of Ignești Municipality, the direct expenditure share is of 19%, the indirect costs are of 6% and the profit is 3% - Table 13.

Value Added Tax (VAT) is 24% of the total IV, for each value estimate.

The analysis of the obtained results shows that the acquisition value of the forestry works related to the private forest stock was adjusted differently for each value estimate.

The shares corresponding to direct and indirect costs were determined for each estimate depending on the specificities of works.

Table 13

Estimate of forestry works in 2014 in the
private forest stock of Ignești Municipality

Crt. no.	Norm symbol	M.U.	Quant.	Unit rate	Value (RON)			TOTAL (RON)
					Materials	Labour	Equipment	
1	C58Ib	ar	500	7.9	0	3950.00	0	3950
2	C60b	ar	600	4.43	0	2658.00	0	2658
3	C9a	ar	2220	2.08	0	4617.60	0	4617.6
4	C58Ib	ar	630	7.9	0	4977.00	0	4977
5	C73b2	mb.	1.1	510.14	0	561.15	0	561.15
TOTAL I					16763.75			16763.75
DIRECT EXPENDITURE (19%)								3185.11
TOTAL II								19948.87
INDIRECT EXPENDITURE (6 %)								1196.93
TOTAL III								21145.80
PROFIT (3 %)								634.37
TOTAL IV								21780.17
V.A.T. (24%)								5227.24
GENERAL TOTAL								27007.41

The profit was also established on the basis of some managerial decisions by the service provider differentiated for each estimate.

The usage of laborers for implementing the forestry works in conformity with Law 52/2011 and Law 18/2014, in this case study, affects the way the day labourer were paid, and implicitly the percentage value of the direct costs.

CONCLUSIONS

The performance of the forestry works related to the privately owned forest stock has a number of features related to the acquisition and achievement mode.

Direct award of the forestry works is an efficient possibility to achieve and purchase them by specialized and authorized contractors.

Technical and economic conditions for the accomplishment of the works by the authorised contractors are effective and attractive to different owners of forest stocks.

The performance of forestry works with the administrator and owner's own workers based on the employment contract on fixed or indefinite period, may be an alternative to private forest owners.

The usage of forestry workers, under a contract of employment for an indefinite period for implementing the forestry works related to the private forest stocks involves ensuring sufficient activities to provide the continuity of the production process and thus the individual employment contract and an appropriate logistics (equipment).

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