



УДК / UDC 630
УДК / UDC 635.9
УДК / UDC 674

Online ISSN 1857-9507
www.sf.ukim.edu.mk/sumarski_pregled.htm

ШУМАРСКИ ПРЕГЛЕД FOREST REVIEW

МЕЃУНАРОДНО НАУЧНО СПИСАНИЕ
INTERNATIONAL SCIENTIFIC JOURNAL

Шум. преглед (Šum. pregled)
For. review

Год. 45
Vol. 45

Стр. 1-36
Pag. 1-36

Скопје, 2014
Skopje, 2014





УНИВЕРЗИТЕТ „СВ. КИРИЛ И МЕТОДИЈ“ ВО СКОПЈЕ
Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE

ШУМАРСКИ ФАКУЛТЕТ ВО СКОПЈЕ
FACULTY OF FORESTRY IN SKOPJE



УДК / UDC 630
УДК / UDC 635.9
УДК / UDC 674

Online ISSN 1857-9507
www.sf.ukim.edu.mk/sumarski_pregled.htm

ШУМАРСКИ ПРЕГЛЕД FOREST REVIEW

МЕЃУНАРОДНО НАУЧНО СПИСАНИЕ
INTERNATIONAL SCIENTIFIC JOURNAL

Шум. преглед (Šum. pregled)
For. review

Год. 45
Vol. 45

Стр. 1-36
Pag. 1-36

Скопје, 2014
Skopje, 2014

ШУМАРСКИ ПРЕГЛЕД	FOREST REVIEW
Меѓународно научно списание	International Scientific Journal
Год. 45 / Стр. 1-36	Vol. 45 / Pag. 1-36
Скопје, 2014	Skopje, 2014
Online ISSN 1857-9507	Online ISSN 1857-9507
УДК 630	UDC 630
УДК 635.9	UDC 635.9
УДК 674	UDC 674
Издавач	Publisher
Универзитет „Св. Кирил и Методиј“ во Скопје	Ss. Cyril and Methodius University in Skopje
Шумарски факултет во Скопје	Faculty of Forestry in Skopje
Декан	Dean
Д-р Јане Ацевски	Jane Acevski PhD
Главен и одговорен уредник	Editor-in-chief
Д-р Бојан Симовски	Bojan Simovski PhD
Уредувачки одбор	Editorial board
Д-р Љупчо Несторовски (Скопје, Македонија)	Ljupčo Nestorovski PhD (Skopje, Macedonia)
Д-р Марилена Идојтиќ (Загреб, Хрватска)	Marilena Idžojić PhD (Zagreb, Croatia)
Д-р Милосав Анђелиќ (Подгорица, Црна Гора)	Milosav Anđelić PhD (Podgorica, Montenegro)
Д-р Милорад Даниловиќ (Белград, Србија)	Milorad Danilović PhD (Belgrade, Serbia)
Д-р Ирена Папазова-Анакиева (Скопје, Македонија)	Irena Papazova-Anakieva PhD (Skopje, Macedonia)
Д-р Роберт Брус (Љубљана, Словенија)	Robert Brus PhD (Ljubljana, Slovenia)
Д-р Чиприан Палагиану (Сучава, Романија)	Ciprian Palaghianu PhD (Suceava, Romania)
Д-р Влатко Андоновски (Скопје, Македонија)	Vlatko Andonovski PhD (Skopje, Macedonia)
Д-р Саша Орловиќ (Нови Сад, Србија)	Saša Orlović (Novi Sad, Serbia)
Д-р Маргарита Георгиева (Софија, Бугарија)	Margarita Georgieva PhD (Sofia, Bulgaria)
Д-р Зоран Говедар (Бања Лука, Р. Српска, БИХ)	Zoran Govedar PhD (Banja Luka, R. Srpska, BiH)
Д-р Јасминка Ризовска Атанасовска (Скопје, Македонија)	Jasminka Rizovska Atanasovska PhD (Skopje, Macedonia)
Д-р Мариус Димитров (Софија, Бугарија)	Marius Dimitrov PhD (Sofia, Bulgaria)
М-р Дејан Манџуковски (Скопје, Македонија)	Dejan Mandžukovski MSc (Skopje, Macedonia)
Технички уредник	Technical editor
М-р Дејан Манџуковски	Dejan Mandžukovski MSc
Корица и насловна фотографија	Cover page and photography
Д-р Бојан Симовски, <i>Juniperus excelsa</i>	Bojan Simovski PhD, <i>Juniperus excelsa</i>
Излегува еднаш годишно	Published once a year
Интернет-страница	Web page (on-line)
www.sf.ukim.edu.mk/sumarski_pregled.htm	www.sf.ukim.edu.mk/sumarski_pregled.htm
Адреса на издавачот	Publisher's address
УКИМ-Шумарски факултет во Скопје	UKiM Faculty of Forestry in Skopje
Редакција на Шумарски преглед	Editorial Board of the Forest Review
Ул. „16 Македонска бригада“ бр. 1	Ul. 16 Makedonska brigada br. 1
(П. факс 235)	(P.O. box 235)
1 000 Скопје	MK-1000 Skopje
Република Македонија	Republic of Macedonia
Е-пошта: sumpregled@sf.ukim.edu.mk	E-mail: sumpregled@sf.ukim.edu.mk
www.sf.ukim.edu.mk	www.sf.ukim.edu.mk

ШУМАРСКИ ПРЕГЛЕД **FOREST REVIEW**
Меѓународно научно списание International Scientific Journal
Год. 45 / Стр. 1-36 Vol. 45 / Pag. 1-36
Скопје, 2014 Skopje, 2014

Online ISSN 1857-9507 Online ISSN 1857-9507
УДК 630 UDC 630
УДК 635.9 UDC 635.9
УДК 674 UDC 674

Научен и рецензентски одбор **Scientific and reviewers board**
Д-р Милун Крстиќ (Белград, Србија) Milun Krstić PhD (Belgrade, Serbia)
Д-р Сабина Делиќ (Сарајево, БИХ) Sabina Delić PhD (Sarajevo, BiH)
Д-р Михаило Грбиќ (Белград, Србија) Mihailo Grbić PhD (Belgrade, Serbia)
Д-р Маргарита Георгиева (Софија, Бугарија) Margarita Georgieva PhD (Sofia, Bulgaria)
Д-р Зоран Говедар (Бања Лука, Р. Српска, БИХ) Zoran Govedar PhD (Banja Luka, R. Srpska, BiH)
Д-р Георги Георгиев (Софија, Бугарија) Georgi Georgiev PhD (Sofia, Bulgaria)
М-р Илија Ѓорѓевиќ (Белград, Србија) Ilija Đorđević MSc (Belgrade, Serbia)

Интернет-страница **Web page (on-line)**
www.sf.ukim.edu.mk/sumarski_pregled.htm www.sf.ukim.edu.mk/sumarski_pregled.htm

Адреса на издавачот **Publisher's address**
УКИМ-Шумарски факултет во Скопје UKiM Faculty of Forestry in Skopje
Редакција на Шумарски преглед Editorial Board of the Forest Review
Ул. „16 Македонска бригада“ бр. 1 Ul. 16 Makedonska brigada br. 1
(П. фах 235) (P.O. box 235)
1 000 Скопје MK-1000 Skopje
Република Македонија Republic of Macedonia
Е-пошта: sumpregled@sf.ukim.edu.mk E-mail: sumpregled@sf.ukim.edu.mk
www.sf.ukim.edu.mk www.sf.ukim.edu.mk

CONTENTS

Preface

Original Scientific Articles:

Delov K., Velkovski N., Vasilevski K. EMERGENCE OF NATURAL REGENERATION OF ARIZONA CYPRESS (<i>CUPRESSUS ARIZONICA</i> GREENE) IN BURNT AREAS AT THE LOCALITY "MILADINOVCI" IN SKOPJE	1
---	---

Delov K., Velkovski N., Vasilevski K. STUDYING OF PARTICULAR ELEMENTS WHICH CHARACTERIZE <i>SEQUOIADENDRON GIGANTEUM</i> (LINDL.) BUCHHOLZ TREES ON KARADZICA MOUNTAIN	9
--	---

Nacheski S., Papazova-Anakieva I. THE HEALTH CONDITION OF CONIFEROUS FORESTS AND CULTURES IN R. MACEDONIA WITH A SPECIAL FOCUS ON INSECT PESTS	17
--	----

Nikolovski G., Stojanovska M. THE ROLE OF PUBLIC ENTERPRISE "MAKEDONSKI ŠUMI" IN DEVELOPMENT OF THE SMALL AND MEDIUM FOREST-HARVESTING SERVICES ENTERPRISES: THE CASE STUDIES OF TENDERS MADE IN 2010 AND 2011	24
--	----

Professional Articles:

Rizovska Atanasovska J., Vulgarakis V. THE GREENERY OF FOUR MOST IMPORTANT BOULEVARDS IN SKOPJE	30
---	----

Instructions to Authors

THE ROLE OF PUBLIC ENTERPRISE "MAKEDONSKI ŠUMI" IN DEVELOPMENT OF THE SMALL AND MEDIUM FOREST-HARVESTING SERVICES ENTERPRISES: THE CASE STUDIES OF TENDERS MADE IN 2010 AND 2011¹NIKOLOVSKI G., ²STOJANOVSKA M.¹*Public enterprise for managing forests Makedonski sumi, Skopje, Macedonia*²*Ss. Cyril and Methodius University in Skopje, Faculty of Forestry in Skopje, Skopje, Macedonia**Corresponding author e-mail address: gonik@yahoo.com*

ABSTRACT: Small and medium enterprises represent a very important segment of the national economy of developed countries. Republic of Macedonia is not an exception on this, where bigger number of the business entities comes under this category. The situation is reflected on the forestry sector as well, within which many SMEs offer their services to the Public Enterprise Macedonian Forests. The forest sector can secure work of the small and medium enterprises as: collecting, trading and processing of non-timber products, tourism and providing of recreational services, wood processing (sawmills); production of furniture and providing of services for performance of the forest harvesting services of cutting, hauling transport and transport of timber. The paper uses analysis of secondary data (both qualitative and quantitative data). The data are further rely on content analysis of the contract signed between Public Enterprise Macedonian Forests and small and medium enterprises for the period of 2010 and 2011. Thus, the main goal of this paper is analysing the number of contracts between SME's and PEMF and the amount of money within that contracts in 2010 and 2011. The results have shown that 278 SMEs have signed 880 contracts with of around 1,7 billion denars for performing of forest harvesting and silviculture services. Taking into consideration the number of small and medium enterprises that provide services within the forestry area and according to the financial means allocated for their services, the provided analyses imply on good conditions for the small and medium enterprises work and their functioning in the country which has a good implication on the forestry and on the overall economy of the country, as well.

Keywords: forestry, forest services contracts, wood cutting, logging and transport of timber, PE "Makedonski šumi", forestry sector employees.

1 INTRODUCTION

Small and medium enterprises (SMEs) represent a very important segment of the national economy. They secure employment and offer services on the market, influencing the economy's growth. In Macedonia the SMEs has quite expanded in number due to the globalization and changing the system of the country. According to the State Statistical Office its number has reached around 99,75% of the business entities within the last two decades of the country's independence. [6]

This number counts the SMEs that provide forest-harvesting services, as well. Their field of acting decreases as a result of the forestry activities separation from the one of wood industry and fisheries. The Public Enterprise "Makedonski šumi" (PEMŠ), with governmental support, decided to decrease its activities making possibilities forest utilization services (cutting, hauling transport and transport of timber) to be conducted by private companies. The forest-harvesting SMEs, as positioned at the beginning of the forest sector network, assuring supply of technical and fire wood, which is necessary for functionality of the network. Forest harvesting SMEs are considered as essential actor of the forestry sector.

2 MATERIALS AND METHODS

The main goal of the paper is to identify the role of the PEMŠ in development of SMEs that provide forest-harvesting services. The analysis considers the contracts signed between the SME provide forest harvesting services and the PEMŠ. With aim to create comprehensive picture of the role of PEMŠ, it further looks at the forest harvesting services (cutting, hauling transport and transport of timber) identifying the total number of the SMEs, the contract values according to

different stages (cutting, hauling transport and transport), and the total value of the contracts.

In this regards the paper uses analysis of secondary data, analysis of both qualitative and quantitative data (Neuman 2006, Bryman 2008, [7,8]). The main data collected are based on the content analysis of the contract signed between PEMŠ and SMEs for the period of 2010 and 2011. Additional data are collected from the archive of the PEMŠ administration office. According to the data availability (or access), various sources are used for these purposes, such as: contracts published online by the Public Procurement Office, Analysis of the work of the PEMŠ for 2010 and 2011, based on the data published on the internet sites of Central Register Office of RM, Statistical Office of RM. Additionally, consultation with representatives of the relevant policy actors has been done. This included consultants, Forest Faculty professors, PEMŠ top-level managers, all relevant for forest entrepreneurship issues in order to obtain comprehensive understanding of the status and situation of SMEs that provide forest-harvesting services.

3 RESULTS**3.1 Public enterprise "Macedonian forests" (PEMŠ)**

On December 15th 1997, the Government of Republic of Macedonia (RM) brings a decision for establishing the PEMŠ. It will officially start with the working activities on January 7th 1998 as a legal successor of several forestry units until than independently managing the state forests. [7]

The PEMŠ will inherit the forest management of state forests as a main business activity, ending up with of 840.897 ha [2], or 93, 78% of the state forests in RM today.

Until the year 2000, the PEMŠ was responsible for conducting the harvesting activities (cutting, hauling

transport and transport of timber) in state forests. In 2000 the PEMŠ in coordination with the Government of RM decides to privatize these activities. These PEMŠ decisions contribute for establishing large number of SMEs offering forest-harvesting services on the market in RM. As results of this each year PEMŠ signed large number of contracts for realization of forest harvesting services for cutting, hauling transport and transport of timber with SMEs register for forest harvesting activities.

3.2 Public procurement contracts

The changes in the Law for public procurement [9] the PEMŠ is obliged all contracts for doing harvesting services to be done with engagement of private companies through public listings. According to the data from the PEMŠ administration office, 200 SME signed contracts for doing harvesting operations, every year. The data show that these SMEs are mainly micro (family) businesses with small number of employees. The paper analyses 855 public procurement contracts signed during the period of 2010 and 2011. These contracts are published on the official web page of the Public Procurement Office within the frameworks of the Ministry of Finance of Macedonia.

Analysis of the Public procurement Listings/calls.

Every year, PEMŠ announces public procurement calls for tenders on execution of various forestry services and continuous execution of the production process. Based on these listings of public procurement and related to the performance of forestry services, PEMŠ has engaged large number of forest private harvesting companies. These listings present all physical and legal persons who fulfill the conditions stipulated in the public announcement. They submit their offers to the PEMŠ which later chooses the most favourable offer and signed an contract with this physical or legal person for one year or until they complete their contractual obligations.

In 2010 and 2011, PEMŠ have signed contracts for cutting, hauling and transport on the basis of six announcements for public procurement. Based on these six public procurement announcements, PEMŠ have signed a 855 contracts out of which 576 contracts have been signed in 2010 and 279 contracts in 2011.

In Table I present the amount of signed contracts by announcements over the past two-year and their estimated and realized value.

Table I: Chronology of Public listings according to signing the contracts

Year	Date of publishing the Procurement	Total signed Contracts	% of all Contracts	The Value of procurement with VAT	Value of the signed Contracts with VAT	% of estimated value
2010	11/17/2009	389	67.5	702,356,324.00	583,638,392.00	83.1
	5/10/2010	166	28.8	239,077,877.00	181,299,495.00	75.8
	7/20/2010	21	3.6	97,206,276.00	83,175,694.00	85.6
	Total	576	100.0	1,038,640,477.00	848,113,581.00	81.7
2011	11/18/2010	188	67.4	802,430,049.00	568,730,042.00	70.9
	4/4/2011	89	31.9	289,699,979.00	199,323,146.00	68.8
	9/1/2011	2	0.7	9,281,880.00	7,598,482.00	81.9
	Total	279	100.0	1,101,411,908.00	775,651,670.00	70.4

The results shows that most of the contracts for 2010 were signed with the public procurement announcement from November 2009, with this call 389 contracts have been signed although they were valued at 702,356,324.00 denars, bids reached a value of 583,638,392.00 denars, which was 83.1% of the estimated value.

On 10.05.2010 was published another public procurement announcement for new contracts. These contracts were signed within the period of the following four months, starting from 21.07.2010 when the first contract has been signed in this announcement, until 23.11.2010 with signing the last one. This announcement has been valued at 239,077,877.00 denars and 166 contracts have been signed with value of 181,299,495.00 denars, which represented 75.8% of the appraised value.

The practice for each stage of signing a separate agreement creates additional extra activities for the PEMŠ administration. The submission of big in number necessary documents creates additional difficulties for administration office, contributing the entire procedure to be more complex, more expensive and slower. This in conditions of work in the forest with seasonal character can negatively reflect on the production volume.

Recognizing these issues, the public procurement announcement published on 20.07.2010 made a simplification of the procedure for application of signing only one contract with each company for performing services of several phases instead of signing contract for each working phase separately with one company. This reduction of the total amount of contracts resulted in saving time and money of both contractual parties. The simplification of procedure has resulted with signing only 21 contracts, based on the announcement 07-1528 / 2/2010, where most of which were for performing services for more than two phases. These contracts needed relatively short period to be signed in, where from 06.09.2010 until 12.10.2010. Although they were valued at 97,206,276.00 denars, they reached a value of 83,175,694.00 denars, which was 85.6% of the appraised value. Anyway, this way of signing has been assessed as a very practical, so the majority of the contracts signed on the basis of all subsequent notices were to perform services for more than two stages of the forest management process.

With the announcement from November 2010 188 contract have been signed. This represented 67.4% of all contracts for the conducting forest-harvesting services for the phases of cutting, hauling transport and transport of wood assortments, which is almost identical percentage as in the previous year. The total value of this announcement has reached agreements worth 568,730,042.00 denars, which was only 70.9% of the estimated value of 802,430,049.00 denars. Signing of these contracts took a relatively longer period, where from 25.03 until 18.10.2011, when the last contract was signed.

In 2011, the first announcement for public procurement was published on 04.04.2011, registered under the number of 07528/2/2011. This announcement has been estimated on 289,699,979.26 denars. However, the total value of the 89 contracts signed under this announcement reached a value of 199,323,146.00 denars, which was 68.8% of the estimated value.

In September 2011 additional announcement was published, registered under the number of 07-1121/2/2011. With this announcement 2 contracts have been signed. They have been valued at 9,281,880.00 denars, but have reached a value of 7,598,482.00 denars, or 81.9% of the estimated value. The Fig. 1 below gives clear picture that as a result of the lower value of the offers, the signed value for the contracts in both years was less than estimated. The value of contracts signed in 2010 amounted to 848,113,581.00 denars, which was

81.7% of their estimated value in that year amounted to 1,038,640,477.00 denars. In 2011 the difference between realized and estimated value of the contracts was even greater because of the estimated total 1,101,411,908.00 denars they reached a value of 775,651,670.00 denars, which was 70.4% of their estimated value.

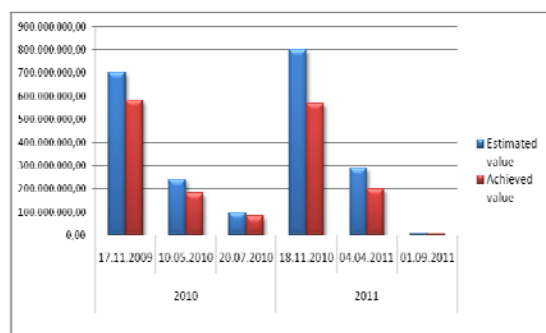


Figure 1: Estimated and realized values of the public listings

Structure and value of the contracts. Simplifying the procedure for contracts has led in 2011 to be sign 51.6% less contracts compared to 2010, although the value of the contracts was reduced for 8.5%. The following Table II gives a tabular representation of the number of signed contracts and their total value at the stages of the manufacturing process.

Table II: Number, structure and total contract values

Phase	2010				2011			
	No of Contracts	%	Contracts values (in denars)	%	No of Contracts	%	Contract values (in denars)	%
1	2	3	4	5	6	7	8	9
Cutting	185	32.1	217,583,526.00	25.7	13	4.7	18,301,906.00	2.4
Hauling transport	201	34.9	250,478,996.00	29.5	26	9.3	36,142,565.00	4.7
Transport	177	30.7	309,978,607.00	36.5	71	25.4	152,434,359.00	19.7
Cutting / Hauling	3	0.5	12,187,346.00	1.4	70	25.1	160,673,231.00	20.7
Cutting / Transport	1	0.2	1,773,139.00	0.2	7	2.5	38,075,504.00	4.9
Hauling / Transport	3	0.5	5,450,024.00	0.6	9	3.2	27,576,831.00	3.6
Cut. / Haul. / Transp.	6	1.0	50,661,943.00	6.0	83	29.7	342,447,274.00	44.1
Total	576		848,113,581.00		279		775,651,670.00	

The Table II shows that in 2010 only 563 contracts has been signed to perform only one stage services while for performing more than two stages services only 13 contracts were signed. Out of the contracts signed in this year, 201 contracts were for hauling transport phase, or 34.9% of all contracts, 185 contracts were for cutting phase and 177 contracts were for signed for obtaining transport services.

As compared to the previous year, typical for the contracts signed in 2011 is that out of 201 made contracts; only 13 were signed for performance of the cutting phase. 83 contracts, or 29.7% of the total were signed for performance of all three phases, while only 7 contracts or 2.5% of the total were signed for performance of the phases of tree cutting and transport (Figure 3).

Analysing the value of the contracts by phases in 2011, the contracts made for all three phases have the highest value. The SMEs that have signed these contracts gain 44.1% more, compared to the total value of all contracts signed in 2011. Oppositely the SMEs that applied only for cutting phase, gain the lowest value or

only 2.4% of the total value of all contracts.

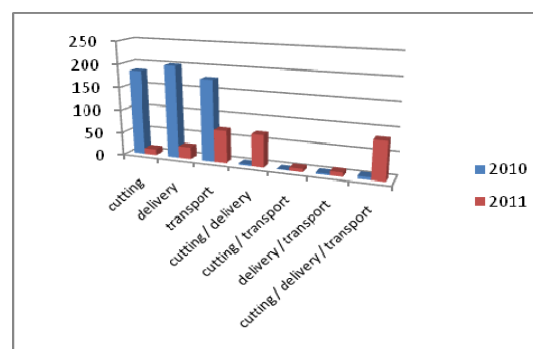


Figure 2: Number of signed contract according to phases

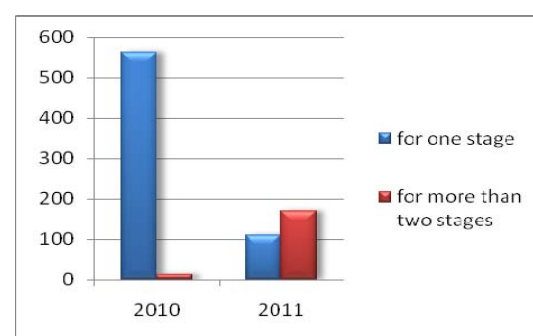


Figure 3: Contract ratio according to number of phases

Number of SMEs providing forest harvesting services. Every year PEMŠ signs contracts with SMEs to carry out forest harvesting services. With some of these companies it signs more than two contracts, which is the reason why the number of signed contracts is greater with respect to the number of SMEs that have been engaged for performing the needed services. In 2010 PEMŠ has engaged 213 SMEs, where the total number of contracts signed was 576. While in 2011 PFMS has engaged 194 SMEs with which has signed 279 contracts. If we take the year 2011 with comparison to 2010 the number of SMEs that have signed contracts with PEMŠ for forest harvesting services in phases has decreased by 8.45%, which corresponds identically to the percentage of reduced value of the contracts signed in 2011.

Table III presents the contracts number of enterprises in year 2010 and 2011 which have been engaged by the PEMŠ for carrying out forest harvesting services, with the value of contracts the companies signed per forest harvesting phase.

The Table III below shows that the companies with contracts signed for doing all three phases were the most in number. This is presented and visually with the Fig. 4, below. In 2010, PEMŠ have signed 78 such three phases performing contracts or 36.6% of the total number of contracts. In 2011 the number of contracts signed for performance of all three phases has increased to 84, at the same time increasing the percentage up to 43.3% of the total contracts signed in 2011.

Fig. 5 shows that in 2010 and 2011 the contracts signed for three phases not only that were the most numerous, but they were the most worthy contracts as well. The value of these contracts has reached 489,061,340.00 denars in 2010, which was 57.7% of the

total value of all contracts for that year, unlike in 2011 when their value dropped to 415,044,378.00 denars, as 53.5% of the value of all contracts of the same year.

Table III: Number of SMEs according to phases and contract values

Phase	2010				2011			
	No of SMEs according to phases	%	Contract values according to phases (in denars)	%	No of SMEs according to phases	%	Contract values according to phases (in denars)	%
1	2	3	4	5	6	7	8	9
Cutting	11	5.2	22,222,188.00	2.6	8	4.1	15,512,327.00	2.0
Hauling transport	18	8.5	34,320,200.00	4.0	12	6.2	22,104,175.00	2.8
Transport	40	18.8	73,851,798.00	8.7	37	19.1	116,112,457.00	15.0
Cutting / Hauling	47	22.1	162,775,245.00	19.2	41	21.1	139,358,024.00	18.0
Cutting / Transport	10	4.7	35,814,856.00	4.2	7	3.6	40,862,564.00	5.3
Hauling / Transport	9	4.2	30,068,154.00	3.5	5	2.6	26,657,745.00	3.4
Cut./Haul./Transp.	78	36.6	489,061,340.00	57.7	84	43.3	415,044,378.00	53.5
Total	213		848,113,581.00		194		775,651,670.00	

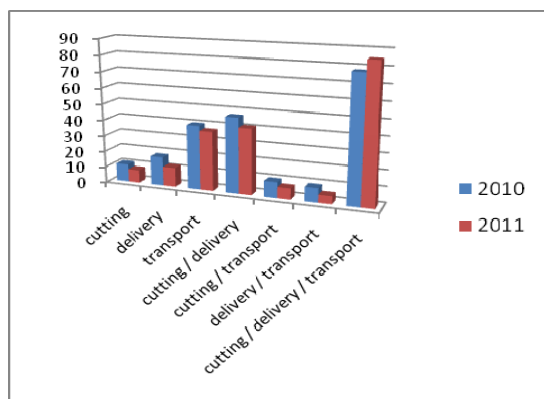


Figure 4: No of SMEs according to phases

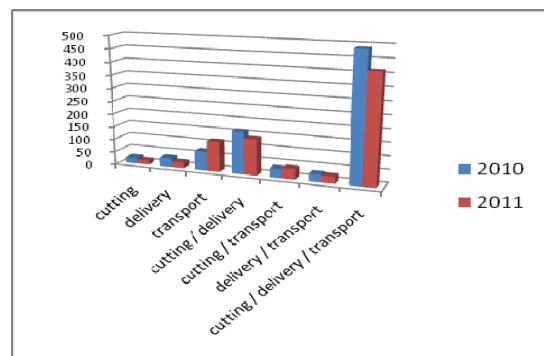


Figure 5: Contract value according to phases (in million denars)

However, despite the fact that the contracts signed for the hauling transport phase appeared in the smallest number, the contracts signed only for the phase of cutting appeared to have the lowest value. Their contracts in 2010 had a total value of 22,222,188.00 denars or 2.6% of the value of all contracts, while in 2011 only 15,512,327.00 denars, which was only 2.0% of the total value of all contracts in the same year (Fig. 4).

Comparing the SMEs, based on the contracts signed for different number of phases, it can be noticed that the number of SMEs that performed services in all three phases, has increased in 2011 at the expense of the companies that perform services of one or two phases.

Thus, the percentage of forest harvesting SMEs that perform forest harvesting services for all three phases of 36.6% in 2010 increased to 43.3% in 2011, while the percentage of companies that carry out forest harvesting services and one of two phases has been reduced from 32.4% to 29.4%, from 31.0% in 2010 to 27.3% in 2011.

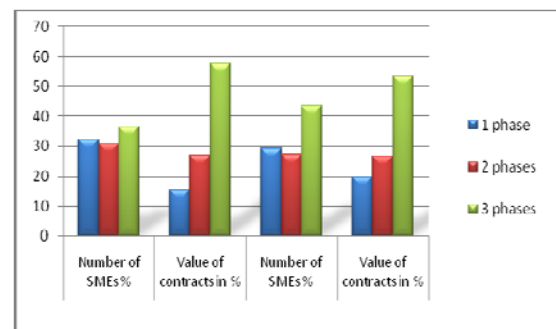


Figure 6: Ratio between SME and the contract value according to the phases

Fig. 6 presents the percentage ratio between forest harvesting SMEs that perform one, two or three phases, and the percentage difference in the value of their contracts.

Many of the SMEs have signed contracts for performing services of different phases. In 2010 67.6% of forest harvesting SMEs and 70.6% in 2011 signed contracts for performing services of several phases. Table IV presents that the number of forest harvesting SMEs that have signed contracts for the phases of cutting, hauling and transport, as well as the total number of contracts that individually or in combination with another phase was included in any of the phases.

Table IV: No of SMEs that have signed contracts for any of the three phases

Phases	2010				2011			
	Total Contract	%	Total SMEs	%	Total Contract	%	Total SMEs	%
1	2	3	4	5	6	7	8	9
Cutting	195	33.9	146	68.5	173	62.0	140	72.2
Hauling	213	37.0	152	71.4	188	67.4	142	73.2
Transport	187	32.5	137	64.3	170	60.9	133	68.6

In Table IV, the most in number forest harvesting SMEs for both years have concluded contracts that included only the phase hauling individually or in combination with other phases. In 2010, 152 forest harvesting SMEs, or 71.4% of SMEs with contract including the phase hauling individually or together with another phase, have signed 213 contracts. For all three phases 78 forest harvesting SMEs have signed a contract for carrying out services, 47 forest harvesting SMEs have signed a contract for carrying out the cutting phase, 18 have signed a contract for hauling phase and 9 forest harvesting SMEs have signed a contract for transport phase (Table IV).

For performance of cutting phase 146 forest harvesting SMEs or 68.5% of the total SMEs have concluded contracts, while PEMŠ have concluded contracts with 137 forest harvesting SMEs for carrying

out services for the transport phase or in percentage even 64.3% of the total SMEs with whom PEMŠ in 2010 have signed contract for performing forest harvesting services.

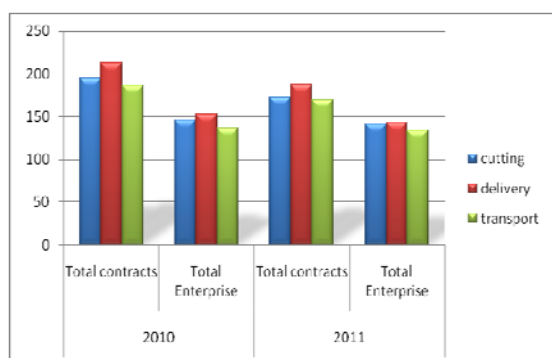


Figure 7: Total SME versus contracts signed according to phases

The ratio was similar in 2011. As in the previous year, large number of forest harvesting SMEs has signed contracts that included hauling phase separately or combined with other phases. 142 forest harvesting SMEs signed such agreements. Although this number decreased by 10 companies in 2011, at the same time the percentage of companies that perform services in this stage have increased from 71.4% to 73.2%. In other words, the number of enterprises with the signed contracts for performance of forestry services of phase hauling has been increasing compared to the other forestry services of production process stages.

In 2011, 140 SMEs have concluded contracts to perform services for the cutting phase. This represents 72.2% of the total number of enterprises, or compared to the previous year 6 companies less than the previous year.

The transport phase, as of the previous phases, has reduced in the number forest harvesting SMEs. So in 2011 133 SMEs, or 68.6% of the total SMEs, have signed agreements on service performance in this phase, which is 4 enterprises less compared to the previous year.

4 DISCUSSION AND CONCLUSION

The data elaboration of this paper shows that the small and medium forest enterprises in Macedonia can perform work not much elsewhere available and in that way affect alleviation of the poverty, in the country. The fact that more than 90% of the wood production of the PE "Makedonski šumi" is done by these enterprises, confirms that the SMEs improve the livelihood and secure support in that way. Taking into account the significant number of SMEs on the market, the number of contracts that were signed during 2010 and 2011 and the amount of money spent on these contracts, the main conclusion drawn can be that there are optimal conditions for the SMEs existence.

The problems that PE "Makedonski šumi" faces with, in connection to the contracts realisation with SMEs, have direct influence on the Public enterprise's production plan realisation. For this purpose, the PE "Makedonski šumi" should work on strengthening its cooperation with the SMEs that offer services in the forestry area, in order to facilitate their work and to help

them to cope more easily with the problems related to performance of their work.

According to the number of small and medium enterprises that provide services within the forestry area and according to the financial means allocated for their services, the provided analyses imply on good conditions existing for the small and medium enterprises work and their functioning in the country.

Taking into consideration the many positive features of the small and medium enterprises as well as of the entrepreneurship in general, it can be expected that the functioning of the small and medium enterprises on a longer time period can provide positive implications on the forestry in general and on the overall economy of the country, as well.

5 REFERENCES

- [1] Fiti, T., Hadzi Vasileva-Markovska, V., Beitman V., Entrepreneurship, Faculty of Economy, 1999, Skopje
- [2] Schmithüsen F., Kaiser, B., Schmidhauser, A., Mellinghoff, St., Kammerhofer, A. W. (2006). *Preduzetništvo u šumarstvu i drvnjoj industriji-osnove menadžmeta i poslovanja*. Centar za izdavačku delatnost Ekonomskog fakulteta u Beogradu
- [3] Niskanen Anssi (ed) 2006, Issues affecting enterprise development in the forest sector in Europe. University of Joensuu, Faculty of Forestry, Research Notes 169
- [4] Hyttinen, P., Niskanen, A., Ottitsch, A., Tykkyläinen, M. and Vayrynen, J. (2002), Forest related perspectives for regional development in Europe. EFI Research Report 13. Brill: Leiden, Boston, Koln. 129p.
- [5] Stojanovska M, Nedanovska V, Stojanovski V, Nedeljkovic J, Nonic D., 2012 The Basic Characteristics of NTFPs-based Enterprises' Business in Macedonia and Serbia. In: Rakonjac Lj. (ed) *Forests in Future - Sustainable Use, Risks and Challenges*, CD ROM Proceedings from International Scientific Conference, Serbia, Belgrade, 4-5 October 2012. Institute of Forestry, Belgrade, Serbia, pp 757-765
- [6] State Statistical office of the Republic of Macedonia – Skopje, june 2012. Statistical Yearbook of the Republic of Macedonia, 2012. 12.Business entities, 483p.
- [7] Neuman W.L. (2006): *Social research methods: Qualitative and Quantitative Approaches* (6th Edition), Pearson Inc, page 14.
- [8] Bryman A. (2008): *Social Research Methods*, 3rd edition, Oxford University Press, Oxford. (748).
- [9] Law for public procurement - Official Gazette of Republic of Macedonia No 136 /2007
- [10] (2008): Monograph PE "Makedonski šumi" 1998–2008, Skopje. (working document)
- [11] (2012): Forest management plan - (174 Forest Management Units), Department for forest and hunting planning, "Makedonski šumi", Skopje. (working document)
- [12] (2011): Plans for silviculture and protection of forest with special purpose. Forest Faculty in Skopje. (working document)

- [13] (2012): Plans for silviculture and protection of forest, Ministry of Environment and Spatial Planning, Skopje. (*working document*)
- [14] (2011): Analysis of the business in 2010, PE “Makedonski šumi” PE “Makedonski šumi” Skopje. (*working document*)
- [15] (2012): Analysis of the business in 2011, PE “Makedonski šumi” PE “Makedonski šumi” Skopje. (*working document*)
- [16] <https://e-nabavki.gov.mk>– Договори за јавни набавки за извршување на “шумарски услуги за фазите сеча, дотур и превоз на дрвни сортименти“. Официјален интернет сајт на Министерство за финансии. Биро за јавни набавки. Влада на Република Македонија, јуни 2012 година.
- [17] <https://e-nabavki.gov.mk>– Оглас за доделување на договор за јавна набавка, бр: 07-1528/2, ШУМАРСКИ УСЛУГИ за фази: сеча, дотур и превоз со утовар и растовар на дрвни сортименти во оддели на ШСЕ во Подружниците на ЈП “Македонски шуми”-, ЈП “Македонски шуми”, Скопје 2010 година, јуни 2012 година.
- [18] <http://www.mkdsumi.com.mk> – официјален интернет сајт на ЈП “Македонски шуми” – Скопје, јуни 2012 година.
- [19] <http://www.stat.gov.mk> - официјален интернет сајт на Државниот завод за статистика, март 2012 година.
- [20] <http://www.crn.com.mk/DS> - официјален интернет сајт на Централен регистар на Република Македонија, март 2012 година.