Development of the forestry services sector in Poland

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ABSTRACT

The paper presents the results of monitoring of the forestry services sector in Poland which was carried out in the years 1993, 1996, 1999, 2003 and 2006. There were evaluated: characteristics of the owners of private forestry companies, company employment rate as well as financial status and equipment stock. Forms of financial assistance paid to the sector before and after Poland's accession to the European Union were reviewed. Based on the results of monitoring conducted just about every three years the phases of development of the private sector of forestry services were determined.

KEY WORDS

private forestry services company, forestry services, phases of development

INTRODUCTION

The process of transformation of Poland's economy included important organisational changes in forestry. As the result of these changes there was established the private sector providing forestry services for organisational units of the State Forest Holding – State Forests. It can be assumed that the year 1990 was a borderline time-point between the expensive organisational system of the State Forests based on executive self-sufficiency and the market based system based on enhancement of initiatives and entrepreneurship. However, considering this year as the beginning of transformation of Polish forestry would be much of simplification. Already before 1990 private contractors realised forestry works for the Forest Inspectorates on skidding, silviculture and forest nursery management. At the end of the eighties of last century, there started the process of selling combustion engine chainsaws to lumbermen by the Forest Inspectorates.

The private forestry services sector was established with the goal to increase management efficiency of forest organisational units both in Polish forestry and those in other European countries with economy in transition. Solutions were needed which would take into account specific conditions of a given country. Such solutions could not oppose cultural, historical, social and psychological circumstances. Analyses carried out on these aspects are of great theoretical importance. The forestry services sector being a result of Poland's economy transformation needs to be evaluated in terms of its current condition and pressures as well as future perspectives.

The objective of this study was to determine directions of changes in the private forestry services sector in Poland as well as the phases of its development.

The research on the private forestry services sector included: a) general characteristics of companies providing services to the State Forests, b) assessment of types and the total number of private forestry companies, c) assessment of companies financial status d) characteristics of management of multi- and one-person companies, e) range and forms of financial assistance available for private forestry companies before and after Poland's accession to the European Union, g) determination of developmental phases of the forestry services sector in Poland.

The data for analyses were collected by the enquiry conducted in private forestry companies which provided services for organisational units of the State Forests, in the years 1993, 1996, 1999, 2003 and 2006. The results of author's own research as well as data obtained from the General Directorate of State Forests were analysed. The following hypotheses were tested:

- the forestry services sector has undergone all developmental phases underlined in literature on the subject,
- financial condition of forestry companies depends both on the phase of private sector development and on the financial condition of the State Forests,
- Polish forestry services sector is entered only by few entrepreneurs new to the business of forestry services.

Verification of the above hypotheses was needed in order to determine the conditions which control directions of changes in the private forestry services sector as well as the phases of its development.

METHODS

For realisation of the assumed goals of research an enquiry was designed and conducted in cooperation with the Forest Inspectorates in the years 1993, 1996, 1999, 2003 and 2006. The enquiry forms were delivered to the forestry companies by the State Forest Inspectorates all over the country. Companies' responses (filled-in forms) were sent back to the Forest Research Institute for further analyses.

In order to compare the results obtained in the observation years each time the same issues were included in the questionnaires: a) company size structure with regard to the a of employment and achieved sales in-

come, b) company technical means, c) characteristics of owners of forestry companies with regard to their age and education level, d) types of financial assistance available for Polish private forestry companies.

Two parameters were analysed in order to determine structural changes of the size of forestry companies, i.e. 1) the number of companies and their size with regard to the number of employees, 2) company sales income. The number of persons employed by a company is one of the indicators of its size (Safin 2003). The size structure of companies providing services to the Forest Inspectorates was determined based both on the results of author's own research on the private forestry services sector and data obtained from all Poland's Regional Directorates of State Forests. The second parameter of the company size was income from sales of goods and services. The value of company annual financial turnover is generally a more reliable parameter than the number of employees since it also reflects the market condition (Safin 2003). The analyses in this study also included the effects of financial condition of the State Forests (chief services purchaser) on the economic-financial status of forestry companies.

Determination of the development al phases of the private forestry services sector was based on the assessed numerical amount of forestry companies as well as the analysis of progress of forest entrepreneurship. Evaluation of forestry entrepreneurship expansion was carried out taking into account the starting year of company economic activities (date of company registration) and its subsistence on the market. Other factors taken into account were those resulting from the structural transformation of Poland's economy as well as legal regulations within the State Forests.

Company technical appliances indicate its capacity to perform tasks expected by the procurer (Balcerowicz 2002, Safin 2003). Assignment of the majority of forest management activities to the private sector at the time of ecologization of forest management is connected with increased quality and complexity of carried out activities (e.g. clear cuttings vs. group-fellings). The State Forests are interested in employing forestry companies with technical means applicable in pro-ecological forest management technologies. Therefore, the analyses in this study included the number and types of technical means in possession of forestry companies including a level of their practical use.

A key aspect of company success is the entrepreneur and the group of her/his closest co-workers (Kwiatkowski 1993, Mroczek 1995). In this study, the age and education were assumed as the main characteristics of company manager. A level of education is particularly important in capability to run independent enterprise (Wasilczuk 2004).

Forms of financial assistance in order to support development of the private forestry services sector were included in this study because of an important role of small and medium enterprises in the *national economic* system. Subsidy opportunities for the forestry services sector were evaluated for two distinguished periods of time that is before and after Poland's accession to the European Union.

In the study an assumption was made that the forestry services sector in Poland had undergone all developmental phases emphasized in literature on the subject, i.e. a) phase of dispersed sector (emerging), b) phase of maturing sector c) phase of global sector (Porter 1992). In this study, basic parameters used for determination of the phases were the number and size of private companies, competitiveness on the market of forestry services and company strategies on market challenges.

RESULTS AND DISCUSSION

General characteristics of private forestry companies

Poland's forest economy creates a specific market for forestry services companies which is due to the fact that the State Forests are the only buyer of offered services for most companies. The features which discern the forestry services sector are its "low entrance barriers" and "high exit barriers". This means that private companies entered the sector easily and found it difficult to exit. In the process of privatisation the Forest Inspectorates created beneficial conditions for newly established forest private enterprises (Kocel 1996). The private companies employed former forest workers of the Forest Inspectorates and could buy specialised technical means on favourable conditions. The low barriers of entrance had also companies of one employee – so called "lumberman-tradesman". The forestry services companies were established by registration of their economic activity mainly by persons previously employed by the Forest Inspectorates. This resulted in considerable dispersion of the forestry services sector which then constituted of lots of small enterprises. Additional factors which added to sector dispersion were among others: scattered accommodation places of former forest workers who became either company owners or employees, wide distribution of forest complexes in some regions of the country as well as sometimes very difficult terrain conditions. The latter pressed on maintaining small size companies due to a need to lower costs, especially those of transport and also financial shortages for investments into company enlargement.

There are several reasons against quitting forestry services activities, and these are first of all: difficulties connected with selling specialised technical means (e.g. skidding equipment), emotional barriers (reluctance of ex-workers of the State Forests to change the area of professional activity, own career concerns, fear of loss of social prestige), lack of opportunities on the local job market (in many regions of Poland forestry is the only employment possibility) (Kocel 1999).

The number and structure of employment of forestry services companies

The number of forestry private companies in the years 1993-2006 was estimated to 377 companies in 1993 and 4728 in 2006 (Tab. 1). The majority of companies were established in 2003 when their number recorded was 7539. Reduction of the total number of forestry companies by 37.29% in the years 2003-2006 was a result of enforcement in the State Forests of the Act on the Law of Public Procurement (Journal of Laws 2004 No.19 Item 959 with further amendments), the regulations of which had to be obeyed when purchasing forest services. The demand to tie together services expressed by the Forest Inspectorates created a pressure on forestry services companies to expand their size in order to be able to realise work tasks embraced in the package. The reduction of the total number of companies (within three year-period to more than 17%) concerned mainly oneperson companies that offered their services based on self-employment. Most often these companies became members of consortia or were transformed into civil law partnerships. The company size structure in Poland was shown based on the data obtained from all forestry companies in the country in the year 2006 (Tab. 1). Among forestry companies there prevailed business

entities employing from 2 to 5 permanent workers. In the analysed year the number of these companies was 2133 (44.2% of the total number) and the number of one-person companies was 1271 (28.9%). In Polish situation a small forestry services company is a sociological phenomenon as every third one is a family business. In many regions of the country such a company is the only employment possibility providing income for both owners and their families.

Among multi-person companies there were only 14 which employed more than 50 workers. Such companies bare considerable financial expenditures on accountancy and administrative staff as well on the supervision of operational personnel. An organisational solution often implemented in these companies is their partition into specialised groups of workers equipped with technical means. At the same time group supervisor's salary depended on achieved work results.

Financial situation of private forestry companies

Data on financial situation which were collected during the enquiry conducted in the private forestry services in the years 1993–2006 were difficult to compare. First of all, this is a result of denomination of Polish currency introduced in the year 1995 (denomination of PLN). Secondly, substantial effects of inflation in the beginning of the economy transformation process (hyperinflation) distorted the picture of financial condition of forestry companies. Nevertheless, there is a possibility to indicate general trends in shaping the value of income for forestry companies as well as trends occurring in between particular phases of sector development. Information presented in Table 2 demonstrates financial conditions of the private forestry services companies,

in particular phases of their development. There are presented prevailing groups of income (modal values), the number of firms as well their percentage share in the total number of enquired companies – observed in specific research periods. At the beginning phase of sector development (the beginning of the nineties of last century), only few multi- and one-person companies obtained favourable rates for their services from the Forest Inspectorates. In the tax-duty year 1992, most forestry companies, i.e. 51 (23.1%) of 221 showed annual income ranging from 11 to 25 thousand PLN (after PLN denomination) (Tab. 2). However, then there also existed a group of companies (more than 30% of enquired companies), the income of which amounted to more than 90 thousand zloty (Kocel 1995).

In the tax duty year 1995, there already existed approximately 1 thousand forestry companies in the forestry services sector. Development dynamics of the sector was affected both by changes of forest economy instigated by the structural changes in the process of Polish economy transformation (Kłosiński 1996) and legal regulations introduced in the State Forests. In the analysed tax duty year, the annual income of almost 60% of multi-person forestry companies was found in the group of lower income when compared to the year 1992, even though at the beginning of the nineties, considerable effects of hyperinflation on Polish economy was observed.

Then again, in the tax duty year 2002, 7.5 thousand of forestry companies were recorded in the forestry services sector (Tab. 1). When compared with the year 1992 there was observed more than 7% decrease of the share of multi-person companies (modal group) with annual income in the range from 51 to 100 thousand

lab. 1. Number of private forestry companies providing services for the State Forests	Tab. 1.	. Number of pr	ivate forestry c	companies prov	iding services f	or the State Forests
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Year	Total number	Number of one-person companies	Number of multi-person companies with permanent employees					
	of private companies		2-5	6–10	11–20	21–50	> 50	
1993	377	38	134	64	51	39	6	
1996	815	151	336	141	127	53	7	
1999	3261	1902	575	176	97	30	2	
2003*	7539	3287	3004	796	216	114	55	
2006*	4728	1233	2133	866	290	125	33	

^{*} Source: General Directorate of State Forests in Warsaw

-	Year Number of companies which provided answers		Modal income from sales of services and goods [th. PLN]	Number of companies with modal income from sales of services and goods	% of companies in modal income from sales of services and goods	
	1992*/**	221	11–25	51	23.08	
_	1995*/**	682	6–10	407	59.68	

296

267

320

29.69

22.68

38.46

51-100

51 - 100

more than 400

Tab. 2. Income of multi-person companies in tax due years 1992–2005

1998

2002

2005

997

1177

832

PLN (Tab. 2). This was a result *inter alia* of timber market recession which decreased profits of the State Forest from timber sales. In the year 2001, the State Forests noted first in the post-war period financial losses up to 84 million PLN. The above confirms the rule that the financial situation of forestry companies in Poland and that of their main customer (State Forest Holding) is a system of communicating vessels.

On the other hand, in the tax duty year 2005, the group of companies with annual income of more than 400 thousand PLN expanded by 21.8% when compared to the year 2002. In the year 2005, there were 320 of such companies (38.5% of the total number) (Tab. 2). In the years 2003–2006 the number of these companies decreased by 37%. This was a result both of the enforcement of the above mentioned Act on Law of Public Procurement and the necessity to expand companies in order to be capable to perform work contracted out in packages. At the same time, there existed job opportunities abroad (result of Poland's accession to the European Union). For many of multi-person companies the latter meant shortages of qualified workforce. In the year 2006, difficulties in finding qualified employees were faced by 650 enquired companies (64.4% of the total number of multi-person companies), of which 623 companies (61.7% of the total number) had difficulties in finding qualified physical workers (Kocel 2007).

The forestry companies in Poland are distinguished by specific dynamics of income from sales of goods and services during the forest management year. Observed financial difficulties are a result of obligations to perform activities in forest specific biological regimes. As indicated by multi- and one – person companies, the months of greatest financial difficulties are December (lack of contracts with the Forest Inspectorates) and January (yet not approved forest management plans and not signed agreements with wood consumers). Nearly as financially difficult is July, which is the month of low intensity of activities in forest management carried out by the Forest Inspectorates. In this period of time, there are performed mostly forest tending works. Specific "money harvest" for the forestry companies are works on afforestation/reforestation, at the time of which they periodically employ even more than 100 workers. Other favourable month with regard to income is October when forest harvesting is performed and autumn tree planting usually takes place. Seasonality of works performed for the State Forests pressures the forestry services companies to undertake other activities. In order to keep the business going, the companies carry out activities beyond the State Forests such as sawmill production, tree felling at highway building sites and agricultural works. By performing these works many companies endure the periods of lower demand for forestry services (Kocel 2002, 2005).

Technical means of forestry services companies

When being established at the beginning of last century, the forestry services sector acquired means of low technical quality from the State Forest Holding (Kocel 1994, 1996, 1999). In the years 1993 and 1996, the enquired multi- and one-person companies did not possess any forest processors or harvesters. They owned small numbers of archetypal forest machines, such as tractors with grapples or winches, forwarders, and medium or high tonnage logging trucks. Then again, the compa-

^{*} after PLN denomination

^{**} income of one-person companies included

nies were equipped with farm tractors which were used not only for forestry activities but also for works in farm holdings of forestry company owners. Additionally, multi - and one-person companies held horses. Most often, the horses were used in forestry works within the area of the Regional Forest Directorates Szczecin (north – west) and Katowice (south), characteristic of poor terrain conditions (Kocel 1996, 1999, 2003, 2007). Yet, growing competition in the forestry services sector pressed private owners of forestry companies to search for new forest labour technologies which would allow work efficiency increase and labour costs decrease. Many entrepreneurs invested in specialised machinery for lumber harvesting despite growing financial difficulties and other challenges they had to face. Especially the years 2006, 2007 and 2008 were the period of dynamic purchasing of high efficiency technical means. According to the data obtained from the General Directorate of State Forests, at the end of 2008 in state owned forests there were used altogether 1862 specialised technical means (1503 skidders, 259 forwarders, 129 harvesters and 1 processor) (Tab. 3). Most part of this equipment was second-hand (Runo 2009).

A separate issue is a level of utilisation of owned equipment. The results obtained by Runo (2009) on appraising the use of machines with regard to their factual capacity showed that entrepreneurs providing services to the State Forests exploited 58%, 67% and 60% of capacity of harvesters, skidders and forwarders, respec-

tively. The main reasons of such a low level of utilisation of specialised equipment are on the one hand, too early response of forestry entrepreneurs an increase of services demand and, on the other, their will to be beforehand with their competitors. As a result, forestry companies became overinvested or investments were not appropriate. A growing interest of forestry companies in purchasing specialised technical means is a typical behaviour of firms in the phase of global sector. There are known instances of employment of machines and their operators from Scandinavian countries by Polish forestry companies. This in general leads to the creation of production capacity surplus the forestry services sector. Up to date unsolved remain the issues such as: forest land accessibility (lack of skidding paths), a need for unified lumber assortment as well as measures and records of lumber (especially logs) harvested with the use of multi-operational machines. Growing costs of maintenance of non-productive machinery are the reason of company poor financial condition and can bring about reduced profits either temporary or for good. This concerns mainly companies with a small share on the market (e.g. forestry companies which assist one Forest Inspectorate and provide a narrow scope of services).

Forest entrepreneurs

When evaluating forest entrepreneurs managerial skills needed for conducting self-sufficient business activities, one needs information on characteristics of com-

Tab. 3. Technical means of private forestry companies in 1993–2008 (based on enquiry answers)

Year	Total number of private companies	Specilised logging trucks (medium tonnage)	High tonnage trucks	Dumper trucks for wood chips	Farm tracktors	Skidding tractors	Forwarders	Processors and harvesters	Mini tractors	Caterpillar tractors	Horses
1993	377	94	36	10	221	71	3			41	103
1996	966	104	26	20	454	83	6			38	324
1999	3261	152	64	9	2227	329	14	1	77	67	1684
2003	2915	104	48	8	4683	579	30	30	101	85	1914
2006	1251	42	29	1	2990	490	98	28	61	64	977
2008*						1503	259	128			

*Source: General Directorate of State Forests in Warsaw

Source: own research

pany owners with regard to their education (Wasilczuk 2004). Considerable influence on the structure of education of forest entrepreneurs had the fact that the private sector incorporated former employees of state owned sectors (e.g. State Forests, former State Farm Holdings). Among the enquired owners of multi-person forestry services companies there prevailed entrepreneurs with non-forest education at the elementary vocational or secondary levels. Problematical was the fact that in the years 1996 and 2006 multi-person companies were managed by about 11% of entrepreneurs with education at an elementary level (Tab. 4). There again, managing a company with permanent employees needs sound knowledge on: labour law, social security, labour psychology, civil law, financial-administrative documentation, preparation of business plans, etc.

The results of evaluation of entrepreneurs with regard to their age indicated that in the years 1993, 1996 and 1999 there prevailed the entrepreneurs in their thirties and forties but in the year 2003 and 2006 the group

of 40–50-year-olds dominated (Tab. 4). This indicates that the private forest services sector is rather exclusive and Polish forest entrepreneurs are aging. This is confirmed by the data on the period of activity in forest business (the number of work years both in the state and private forestry sectors). In 2003, 12.1% of the enquired managers of multi-person companies and 16.4% managers of one-person companies had been working in forestry less than 1 year. In 2006, 10.1% of the managers of multi-person companies and 6.2% managers of one-person companies and 6.2% managers of one-person companies belonged to the group of upto-1 year seniority (Kocel 2003, 2007). These results indicate that new entrepreneurs have difficulties to enter forestry business.

Financial assistance given to the forestry services sector at a national level

At its early phase of development (in 1993), the forestry services sector expected support from the State Forests. The support obtained was encouragement for

Tab. 4. Characteristics of managers of multi-person forest companies (based inquiry carried out in 1993, 1996, 1999, 2003, 2006)

	Number of managers						
	Specification	1993	1996	1999	2003	2006	
Age	to 30 years		80	117	191	136	75
	31–40 years	181	399	560	514	298	
	41–50 years	85	252	433	621	424	
	51–60 years	12	33	73	126	170	
	more than 60 yea	2	2	5	10	11	
	Total*		360	803	1262	1407	978
	university	forestry	31	36	26	22	43
		non-forestry	26	34	27	15	25
	high school	forestry	84	124	112	104	117
Education		non-forestry	74	188	217	238	179
Education	elementary + vocational	forestry	12	29	43	35	31
		non-forestry	86	296	541	711	480
	elementary		47	92	275	235	113
	Total*		360	799	1241	1360	988
Total number of enquired companies		377	815	1359	1602	1009	

^{*} The number of managers who provided answers

Source: own research

past employees of the Forest Inspectorates to undertake self-sufficient economy activities. Most often forms of support provided for newly established private companies were trainings for chainsaw operators organised by the Forest Inspectorates. This kind of support was then provided by 250 Forest Inspectorates, i.e. 57.3% of their total number in Poland Next, there were legal advice, tax advice and organisational-technical guidance (51. 6% of Forest Inspectorates). The Forest Inspectorates also assisted the following: obtaining health certificates, (43.8%), purchasing chain saws and spare parts (41.5%), trainings for private company employees on labour safety (41%) (Kocel 1996).

In the year 1997, the State Forests started paying financial assistance to private forestry companies for enhancing technical means appropriate for forest management activities (Kapral 2003). At that time the management leaders of the State Forests decided to financially support development of forest services market by means of own income. A part of Forest Fund means was designated to realise this task. After Poland's accession to the European Union this support was terminated.

In the years 2004–2006 private forestry services companies could not obtain subsidies from EU financial resources, because then the Minister of Economy and Labour eliminated forest enterprises from the possibility of benefiting from EU Structural Funds, such as the funds designated for Growth of Competitiveness of Enterprises. Next, the Ministry of Agriculture and Rural Development refused subsidies for forestry companies in the frame of EU Structural Fund: Restructuring and Modernisation of the Food Sector and Rural Development by reason of too weak connections of the forestry companies with agriculture. Also, due to specific requirements for provision of financial assistance to non-agricultural enterprises by the fund designated for Growth of Competitiveness of Enterprises

In up-coming years there will be a possibility for owners of forestry services companies to benefit from subsidies provided by the Programme of Rural Development which is planned for realisation in Poland in the years 2007–2013. In the framework of this programme forestry services micro-scale enterprises which employ up to 10 persons can obtain subsidies for investments on company establishment or development. The enterprise has to present a business plan with economy-financial

objectives meeting criteria outlined in the Programme. A scope of financial support depends on the number of established work places. Maximum subsidy for one beneficiary cannot exceed 300 thousand PLN. On the other hand, such as amount of money is not high enough for forestry services companies taking into account prices of specialised equipment. Nevertheless, now small enterprises (with more than 10 employees) can apply for financial assistance from the Operational Programme on Innovative Economy. In the framework of this Programme, available subsidies for small and medium enterprises can amount even to 1 million PLN.

Phases of development of the forest services sector

The phase of dispersed (emerging) sector took place at the beginning of transformation of Poland's economy and was characterised by the existence of not many small forestry companies of which none had a considerable share on the market. Small forest companies, the owners of which often worked equally together with own employees, were distinguished by their low general costs. At this point, forestry companies experienced low entrance – and high exit barriers into and out of the forestry services sector. New companies were established by forest workers based on self-employment and purchased equipment from the Forest Inspectorates on favourable conditions. On the other hand, the exit from the sector was difficult because of problems connected with selling specialised equipment.

In the phase of maturing sector, there occurred a considerable increase of the number of forestry services companies. This was a result of general structural changes in Poland's economy as well as of introduction into forest management practice carried out by the State Forests following recommendations of the regulation on Privatisation of management activities of the Forest Inspectorates granted by the General Director of the State Forests in 1995. Competition for market shares increased on the market of forestry services which sometimes resulted in "price wars" during tenders on forestry services. At that point in time, the forestry companies experienced surpluses of production capacity as well as employee numbers. Unhelpful reaction of forest entrepreneurs concerned searching for modern and specialised equipment which their competitors would not have. In many cases this resulted in company overinvestment.

Additionally, in the years 1997–2004 the State Forests financially assisted purchases of technical means by forestry services companies so as to enhance their technical capacity to perform forest management tasks.

Poland's accession to the European Union was the beginning of the phase of global sector. Two challenges were faced by the forestry companies at that time, and namely: no further financial assistance provided by the State Forests (injunction of public support), and lack of qualified workers to perform forest activities. Only at the beginning of 2007, the forestry services companies were allowed to apply for subsidies from the Programme of Rural Development as well as the Operational Programme on Innovative Economy. Difficulties with finding qualified workforce in the forestry services sector were experienced especially in the forestry companies operating in western parts of the country i.e. within the Regional Directorates Szczecin and Zielona Góra. At the same time the boom on the construction market, both in Poland and other European countries, increased considerably a demand for wood. In the years 2007–2008 the forestry services sector responded to the increased wood harvest with increased acquirement of specialised equipment.

World's economy crisis as well as recession of wood market influenced negatively financial conditions of Polish forestry services companies. In the second half of 2009, the State Forests started getting out of financial crisis. On the one hand, the collapse of the global conjuncture cycle, which through multiple interactions within the global economy became one of the main factors shaping bad situation of Poland's economy in the years 2008–2009 and, on the other, current improvement of financial situation the State Forest Holding were certainly reflected in the forestry services sector.

CONCLUSIONS

The results obtained show that in the Polish forestry services sector there prevail companies which employ 2–5 permanent workers. At the time of Poland's accession to the European Union many multi-person companies had difficulties to find qualified workforce. The forestry services companies indicate specific dynamics of annual income from sales of services and goods. Their financial difficulties often result from inevitabil-

ity of forest specific biological regime which dictates the cycle of forest management activities. Thus, forestry companies carry other activities outside the State Forests. Growing competition in the forestry services sector set off search for new technological solutions for decreasing labour costs and increasing work efficiency. In the years 2006–2008 there was observed active acquisition of specialised technical means by forestry services companies, a result of which were their overcapacity and over employment.

The results show that the forestry services sector is rather exclusive, and forest entrepreneurs are aging. In the nearest future forestry services companies will be able to obtain subsidies in the framework of EU funds (Programme on Rural Development, Operational Programme on Innovative Economy). The results show that the forestry services sector has undergone three phases of development – from dispersed (emerging) in 1990–96, through maturing in 1997–2004 to the phase of global sector which has lasted since 2004 (Poland's accession to the European Union).

The collapse of global conjuncture which impacted Polish economy in the years 2008–2009 and current improvement of financial situation the State Forests are certainly reflected in the forestry services sector. Monitoring of the sector will be continued so as to fully evaluate its condition in current Poland's economy conditions.

REFERENCES

Balcerowicz E. 2002. Mikroprzedsiębiorstwa. Sytuacja ekonomiczna, finansowanie, właściciele. Fundacja Naukowa CASE – Centrum analiz społeczno-ekonomicznych, Warszawa, Poland, 1–236.

Kapral J. 2003. Stan i kierunki wspierania prywatnej przedsiębiorczości leśnej. Proceed. "Prywatny sektor usług w obecnych i przyszłych uwarunkowaniach polskiego leśnictwa", 24 października 2003, Sękocin Stary, Poland, 1–13.

Kłosiński K. 1996. Zmiany sektorowej struktury gospodarki polskiej w procesie transformacji. Gospodarka Narodowa, 8–9, 49–58.

Kocel J. 1994. Analiza działalności firm leśnych w Lasach Państwowych. Scientific Report, Forest Research Institute, Warszawa, Poland, 52 pp.

- Kocel J. 1995. Organizacyjne i finansowe aspekty działalności prywatnych firm leśnych w Polsce. Prace Inst. Bad. Leś., 804, 36–58.
- Kocel J. 1996. Racjonalizacja jednostkowych kosztów prac wybranych działów gospodarki leśnej oraz kierunki wspierania prywatnego sektora usług. Scientific Report, Forest Research Institute, Warszawa, Poland, 26 pp.
- Kocel J. 1999. Sektor usług leśnych stan, uwarunkowania i perspektywy jego rozwoju. Scientific Report, Forest Research Institute, Warszawa, Poland, 44 pp.
- Kocel J. 2002. Analiza przychodów prywatnych firm usług leśnych. Sylwan, 6, 99–108.
- Kocel J. 2002. Stan i uwarunkowania rozwoju prywatnego sektora usług leśnych w Polsce. Prace Inst. Bad. Leś., 931, 6–25.
- Kocel J. 2003. Sektor usług leśnych stopień i zakres przemian, instrumenty wspierania oraz rola sektora w łagodzeniu bezrobocia. Scientific Report, Forest Research Institute, Warszawa, Poland, 48 pp.
- Kocel J. 2005. Prywatny sektor usług leśnych w latach 1999–2003. Leśne Prace Badawcze, 2, 17–34.

- Kocel J. 2007. Analiza skali i efektywności prywatyzacji usług oraz ocena stanu i funkcjonowania prywatnych firm leśnych. Scientific Report, Forest Research Institute, Warszawa, Poland, 45 pp.
- Kwiatkowski S. 1993. Źródła sukcesów i porażek polskich przedsiębiorców. Przegląd Organizacji, 11, 11–13.
- Mroczek E. 1995. Przesłanki sukcesu małych i średnich przedsiębiorców prywatnych w Polsce. Przegląd Organizacji, 11, 27–31.
- Porter M. E. 1992. Strategia konkurencji. Metody analizy sektorów i konkurentów. PWE, Warszawa, Poland, 195–292.
- Runo E. G. 2009. Możliwości inwestowania Zakładów Usług Leśnych w zakup specjalistycznych maszyn do pozyskania i zrywki drewna. Postępy Tech. Leś., 107, 30–37.
- Safin K. 2003. Zarządzanie małą firmą. Wrocław University of Economics, Wrocław, Poland, 1–218.
- Wasilczuk J. 2004. Czynniki związane z osobowością właściciela-menedżera. [In:] Przetrwanie i rozwój małych i średnich przedsiębiorstw (ed.: F. Bławat), Scientific Publishing Group, Gdańsk, Poland, 25–27.