SHARE OF FOREST AND TIMBER INDUSTRY IN THE ESTONIAN ECONOMY

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Abstract

Forest is one of the most important renewable sources of energy, covering approximately one half of Estonia's area on mainland. Estonia ranks the fourth among the other European Union Member States with the relative share of forest land. Forest represents an important source of employment while timber industry forms an important branch of the Estonian economy. Considerable decline of added value of GDP has become notable in forest industry over the recent years, however, the added value per employed person is approximately 30% higher than the respective total of other sectors. Timber sector contributes approximately one fourth of the turnover of Estonian economy annually and, respectively, one fifth of export and one third of investments. Rapid development of timber industry stopped shortly before the onset of the economic recession. Declining demand for wooden construction details, attributable to weak property market, hit this sector first. The last couple of years have been relatively complicated for the timber industry sector. Several large saw mills, for example, have wound up their activities. The biggest decline (32%) took place in the production of building materials; this can be linked, directly, to declining construction market. High energy prices and declining demand for paper wood, attributable to the recession, has also affected the structure of timber industry. The quantity of domestic resources, however, facilitates the development of timber industry by making the sector less dependent on imported raw material.

Key words: Timber industry, forest industry, regional employment, decline of demand

Introduction

The total area and reserve of forest land in Estonia in the past half a century has considerably increased and is one of the greatest riches of Estonia both in the sense of nature and economy. The Estonian forest resource is mainly used in the industry processing timber. Forest industry is a branch of industry that is engaged in the felling of forest, transport of trees from the forest and the initial processing of timber. The main production is logs, paperwood and firewood. Timber industry is a branch of the processing industry, engaged in the mechanical, chemical and thermal processing of timber. The raw material for the timber industry is sawn timber. Compared to other branches of the processing industry, timber processing is the second main branch after the production of foodstuffs in the GDP structure. The purpose of the article is to show the impact of forest resource on the Estonian economy and the use thereof in the forest and timber industry. The author has set the following tasks to achieve the purpose of the article:

- characterise the forest policy of Estonia
- study the current status of Estonian timber companies
- determine the opportunities for the export and import of timber products
- show the need for forestry companies

In Estonia, greatly competitive and modern mechanic timber processing has been developed.

Regionally, timber industry has developed all over Estonia. In the export of timber industry, the export of unprocessed sawn timber has been replaced with products of higher added value. The proportion of processed timber, construction details and log houses has increased.

The Estonian timber industry can find ways to market its production in the current conditions of economic crisis as well. All subbranches of timber industry have made large investments into production; the greatest proportion of these has been contributed by sawmill industries. The latter have mainly invested in post-processing. This is a positive trend for the Estonian economy as the development of post-processing allows appreciating the local forest resource of Estonia more and also thereby increase the cost of export. At that, timber industry is one of the few branches of industry in which the balance of export and import is positive.

The greatest income is created with the diverse and skilful use of the forest resource, keeping further development perspectives in mind. It is important to develop the joint action of forest owners, which would help lower the expenses related to silviculture. Estonian forests are often full of underwood and not taken care of and in such forests, it is very expensive to work with technology. It is wise for forest owners to cooperate as it helps to lower the expenses related to silviculture and involve grants, and larger and more compact offers lower the cost of the harvesting of forest. Unlike in Sweden and Norway, in Estonia, the use of timber on the state level is not paid sufficient attention to, although more than 50 per cent of Estonia is covered with forests. Also, local governments should provide more support to the activity of forest owners and to joint managing. Timber industry could have a significant role in supplying the country with energy as timber is a renewable source of energy.

The forest policy of Estonia

At the implementation of the goals of the Estonian forest policy, the state and all persons directly or indirectly engaged in the forest sector play a role. The role of the state lies in the establishment of a legal regulation in the fields related to forestry. In order to rationally use forest resources, a forest management plan is prepared for all forestry properties. For the utilisation of the areas left out of agricultural production, afforestation programmes are prepared. Afforestation is only conducted on the areas where other land use gives fewer benefits to the society.

In the pre-war Republic of Estonia, state forests were managed and the management of the few private forests regulated by one and the same authority. Basically the same system was valid during the Soviet reign as well, when the forests of state forest enterprises (conditionally, these can be referred to as state forests) were managed and the management of collective farm and state farm forests (conditionally, these can be referred to as private forests) supervised by the same central authority. Although the central forestry authority in Estonia has had several names throughout times and been a part of various ministries or governmental institutions equal to these, the management of state forests, forest policy and the elaboration of the legislation related to forest, supervision over what is going on in all forests, etc., still remained in the competence of one and the same central forestry authority. After the regaining of independence in Estonia, it was regarded necessary to separate the functions of the state as a forest owner and the state as a body of power and supervision. With this, unhealthy competition between state and private forestry was attempted to be avoided, which could have been created by enforcing favourable regulations for state forestry and granting a right to supervise these regulations to the managers of the state forest themselves. The later development of forestry has shown that these fears were groundless: on the timber market, demand exceeds supply and there is no competition between sellers of timber; however, state forestry as a large organisation and seller of large quantities of timber still preserves its economic advantages [1]. However, the enforcement of regulations favouring the state forest and harassing private forestry is not possible any more as unlike during the Soviet era, the restrictions and limitations for forest owners cannot be enforced by the central forestry authority any more, but this can be only done at the level of the laws of the Riigikogu.

The state forest policy must ensure that the forest use of private forest owners is in compliance with the general goals of the state forest policy. The state supports private forestry via the organisations of forest owners. At the assignation of support, the efficiency of the operation of the organisations is mainly considered [2]. The large amount of bureaucracy accompanying forest management is not in balance with the profit gained. This has significantly decreased the interest of forest owners towards managing (and maintaining) their forest, which in turn negatively affects the condition of the Estonian forests. The volume of the use of forests makes up only a little more than 50% of the annual growth of forest reserve in private forests [3].

The state supports forest management mainly via forest management planning and consultation. The state guarantees the quality of counselling and conducts a training for consultants in the initial stage. The volume of the support to private forestry is determined by law. In Estonia, the forest owners who are registered as self-employed people get a 45000 kroon exemption from income tax. But this only means 5% of the owners [4].

The tasks of the state in forestry are as follows:

- the guiding of forestry and the elaboration of a forestry development plan and legislation regulating forestry therefor;

- ensuring of the good state of the forest;
- keeping of account of forest resources;
- support to private forestry;
- governance and management of the state forest;
- organisation of state supervision;
- ensuring of the protection of the diversity of forest life [*Ibid*.]

The services that support the long-term goals of forestry are provided to the private forest owners by the state for free. This means the preparation of the forest management plans funded by the state for the lands returned / to be returned and privatised / to be privatised in the course of the land reform, and the counselling on the use thereof. At the request of the forest owner, the forest management plan can be ordered according to an expedited procedure at the expense of the owner as well. The preparation of forest management plans is funded and coordinated by the state. Special attention is paid to the provision of services related to the marketing of timber and relevant counselling. In order to improve the tax system, additional surveys and analyses are conducted. Tax policy is elaborated according to the principles that facilitate the formation of private forests. The supervision over the compliance with laws is mainly focused on the restoration of the forest and adherence to the environment protection requirements [2].

The principles for supporting private forestry are determined in the Estonian Forestry Development Plan until the year 2010. The main activities funded by the Private Forest Centre are as follows:

- the supporting of private forestry mainly by way of counselling and forest management planning (planning of forests and free preparation of forest management plans, and an opportunity has been provided for preparing forest management plans according to an expedited procedure at the expense of the forest owner);
- the elaboration of the structure of the counselling service on the grounds of competition; special attention is paid on the marketing of timber during counselling. Counselling may also be for pay, ordered and paid by the owner;
- the development of the tax policy on the principles that favour the formation of private forests;
- with regard to the supervision of private forests, focussing on the restoration of forest and adherence to environment protection requirements. For some reason, attention has not been paid on the fulfilment of cutting requirements, which is a problem that is at least as acute as failure to reforest [2].

There are serious problems in the activities related to private forestry. The main problems are as follows:

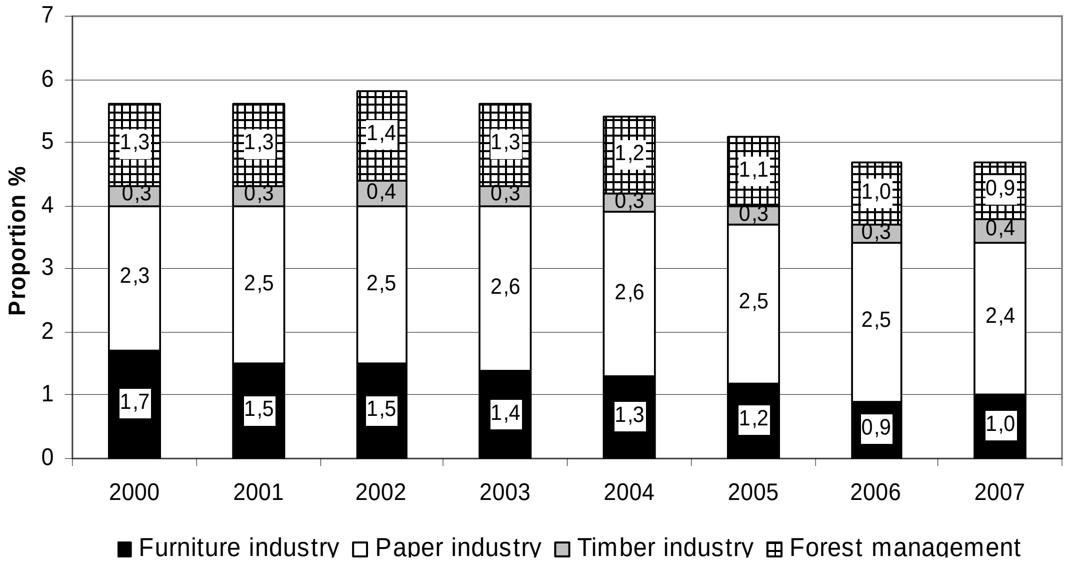
- difficulties at the organisation of private forests, which arise from the lack of funds allocated by the state for this purpose. All forest owners cannot afford forest survey and management planning and preparation of forest management plans at their own expense;
- unfair tax system that involves a high land tax and failure to consider the specifics of forestry at taxation. The issues of taxation are very specific and must be settled by lawyers;
- difficulties in the marketing of timber and sale of cutting right, which arise due to the small amount of the timber sold and the forestry related and legal incompetence of the sellers, also due to the abundance of dishonest buyers-up.
- the little information provided to private forest owners about the opportunities for receiving grants, indemnities and compensations;
- the abundance and sometimes overabundance of nature conservation restrictions, the unexpected enforcement of restrictions in the forests that have so far been in the category of profit-seeking forests [2].

The development of the forest and timber industry is directed by open market economy and free competition. The forest policy of the state is aimed at the establishment of an environment suitable for the development of the private sector with the aim of supporting the economic strengthening of the state as a whole, contributing to regional development and limiting the appearance of monopolies.

Status of the companies of the forest sector

The Estonian forest resource is mainly used in the forest and timber industry. But the use of timber and timber residues as sources of energy keeps increasing year by year. Compared to other branches of the processing industry, timber processing is the second main branch after the production of foodstuffs in the gross domestic product. After the recession at the beginning of the 1990s, the forest industry has been increasing successfully and constantly: privatisation has been successfully completed, the rate of investments in the sector is high, production level has increased and the proportion of export in production is remarkable. In 2001, timber industry provided 1/7 of the total amount of processing industry. Forest products made up more than 22% of the Estonian export value. Timber and timber products (incl. wooden furniture and prefabricated timber constructions) are some of the main export articles of Estonia. The constant growth of the forest sector has helped the entire economy to a new rise during the periods of economic recession and significantly balanced the general negative foreign trade balance. The proportion of forestry and timber industry companies in the GDP has constantly been increasing. If in 1993, the proportion of forestry and forest collection companies in the GDP in current prices was 1,3%, then in 2000, already 2,5%. The total proportion of timber, paper and furniture industry in 1993 was 2,1% and 4,1% in 2000. [5] The proportion of the companies of the forest sector in the GDP in the years 2000-2007 is shown on Figure 1. The average number of employees in the forest and timber industry in the year 2010 is presumably more than 20200. In 2004, the forest sector formed 6,1% of the GDP. For the year 2010, the GDP of the forest sector is estimated to be seven billion kroons. The proportion of the timber, paper and furniture industry companies in the added value of the processing industry has also increased: from 10,8% in 1993 to 22,4% in 2000. The import of timber and timber products has been increasing year by year, but the proportion thereof in total import is small (2%). The main import articles are wooden furniture, plywood, etc. [6].

Timber industry is one of the largest branches of industry in Estonia. According to various databases, about 1000 companies with more than 15000 people are engaged in timber processing and the production of timber products. The people employed at forest and timber industry make up almost five per cent of the total employment rate of the country. In the period 2001-2006, the volume of production in the branch of industry increased by more than one and a half times, the proportion of export in sale made up 75%. However, the current situation in the sawmill industry has significantly changed. As of summer 2007, the situation of the timber industry has remarkably deteriorated.



Source: Statistics Estonia

Fig. 1. The proportion of forest sector companies in the gross domestic product (according to current prices) in the years 200-2007

The greatest matter is the fact that as of May 2007, the import of timber from Russia due to the blocking of the railway is seriously impeded. In addition, Russia has imposed export duties on roundwood, which at the moment for softwood log is 10 euros, but by the year 2009, increased to 50 euros, i.e., the import of logs from Russia almost stopped. The import of timber is also hindered due to the ever increasing prices.

The extremely large price increase of raw material on world markets is also becoming a trend, as well as the decrease in demand – at the moment, many companies who had been successful so far are hit by an extremely large drop in turnover, which has been caused by a significant price increase of raw material and a considerable decrease in demand due to this.

If a couple of years ago, timber industry was a significant balancer of the foreign trade balance (the domestic demand in Estonia as well as on foreign markets was great), then by now, the situation has completely changed. At the moment, the situation is vice versa – in order to satisfy domestic needs, many companies are forced to import a significant part of the timber.

According to the Estonian Commercial Register, in the year 2007, there were 327 companies in Estonia whose main field of business was the sawing, planing and impregnation of timber. According to the information catalogue 1188, there are 142 sawmills in Estonia. Sawmills are competing with each other by products and also by locations. Smaller sawmills are competing with larger ones mainly on the basis of price and quality. Small sawmills are turning into ever more skilful niche operators and there is also a trend to merge.

Export and import of timber products

In the developments in the last decade, the large increase of export in sales must be stressed; it has been especially noticeable with regard to paper and paper products. The main export articles are timber, wooden furniture, unprocessed timber, wooden construction details and prefabricated timber constructions. Production and export-import of the Estonian timber are shown in Table 1.

Table 1. Production and export-import of the Estonian timber, thousand cbm

	2000	2001	2002	2003	2004	2005	2006	2007
Timber production	1437	1623	1825	1954	2030	2063	1958	
Export	1040	1086	1246	1209	1032	1133	966	693
Proportion of export in production, %	72,4	66,9	68,3	61,9	50,8	54,9	49,3	
Import	199	215	236	363	499	626	733	885

Source: Statistics Estonia

Next to timber, wooden furniture is on the second place in the export of the production of timber industry in Estonia. According to the Statistics Estonia, wooden furniture and parts thereof were imported the most to the most important furniture market of the European Union – Germany (30%), with the average price of 27970 kroons a ton. 17% of the wooden furniture was exported to Finland for the price of 31848 kroons a ton. The average price of the wooden furniture exported to Denmark was 24249 kroons a ton (13% of production) [1]. The average price of the entire product group was 28123 kroons; to Finland, wooden furniture was sold for a price that was higher than the average. However, the making of conclusions and comparisons on the basis of the average prices calculated by the authors and given here regarding the quality of the production exported must be taken with some reservations – the average price only summarises the prices of all kinds of furniture exported to a specific country. The main target markets for the production of the timber sector are Finland, Sweden, Germany, Great Britain and Denmark. The very fast growth of the export of the timber sector is shown in Table 2. This table also clearly shows the trend to export goods with a higher added value. The proportion of timber, paper and furniture industry companies in the added value of the processing industry has also increased: from 10,8% in 1993 to 22,4% in 2000. The import of timber and timber products has been increasing year by year, but the proportion thereof in total import is small (2%). The main import articles are wooden furniture, plywood, etc. [1]

Round log is gradually being replaced by processed ligneous materials. In 2001, timber industry reached a sales volume of 7,22 billion kroons, exceeding the level of the year before by as much as 16,8%. In export, the growth was smaller that year – 5,1%. The growth in the sale of products has been stably noted in paper and furniture production as well, increasing by 15,1% in 2001 and by 25% compared to the year before (export growth 10,3 and 28,9%).

In timber processing, the companies with foreign capital are significantly more aimed at export than domestic producers – the proportion of export in turnover in 2001 for companies based on domestic capital was 49% and for producers with foreign capital 79%. According to the database of Statistics Estonia, it can be concluded that producers with foreign capital are larger and more profitable than the companies based on domestic capita that are engaged in timber processing and production. Although in 2001, there were only 26% of companies with foreign capital in the companies of the timber processing industry, their turnover made up already 37%, in export as much as 49%, in added value and assets 38% and in the number of employees 37%, in total profit as much as 56%. [7]

In the years 2006-2008, there were about 19,2 thousand people engaged in the timber sector. By the year 2016, the rate is expected to decrease by 0,7 thousand. Although in 2008, employment rate in the sector only amounted to 15,9 thousand, it should start increasing when the crisis recedes and the Estonian timber resource is processed domestically in a larger volume. However, the increase of volumes will not bring about a sudden increase in employment rate because more products with added value must be created to stay in competition. Thus, the increase in the need for specialists can be expected. The relevant structural changes increase the need for people with secondary and tertiary level education [8].

Table 2. Export of wood and articles of wood 2008

	Million kroons	Proportion %
Wooden furniture and parts thereof	2962,9	17,3
Timber details, construction details, joiner products, doors, windows	2556,9	14,9
Sawn timber	2089,9	12,2
Prefabricated timber constructions	1966,4	11,5
Unprocessed roundwood	1461,2	8,5
Firewood, sawdust, granules and wood waste	1118,9	6,5
Mechanical pulp	1034,2	6,0
Converted sawn timber	763,3	4,5
Particle boards	607,2	3,5
Paper	573,9	3,3
Wooden containers, wooden pallets and other pallets	526,4	3,1
Other wooden products	386,7	2,3
Plywood, veneered wooden panels	367,4	2,1
Veneer and veneer sheets	316,7	1,8
Fibreboards	174,8	1,0
Hoopwood, poles, pegs, columns	92,7	0,5
Wooden frames for paintings, photos, mirrors, etc.	64,3	0,4
Charcoal	41,0	0,2
Wooden tools, wooden details thereof	16,3	0,1
Densified wood as blocks, beams	16,0	0,1
Wood wool, wood flour	1,5	0
Wooden sleepers	1,5	0
Total	**17140,0**	

Source: Statistics Estonia

Activity of forestry companies

Estonia is interested in having sustainable forestry. Forest should be managed in such a manner and extent that ensures its biological diversity, productivity, ability to renew itself, vitality and potential now and allows performing ecological, economical and social functions without damaging other ecosystems in the future as well. In Estonia, the umbrella organisation joining private forest owners is the Estonian Private Forest Union, which joins about 5% of private forest owners according to various estimates. In Estonia, there are about 50 forest owner organisations here, which among other things are aimed at sharing knowledge and experience with the aim of the sustainable management of forests. Forestry companies also help organise the cuttings in the forests and organise reforestation works. In Estonia, 12 million cubic metres of forest could be cut annually, but in reality, half less is cut. The rule that the private owner is the best and most efficient manager is not always valid. Americans have identified that their forestry companies do this job better than private owners [3].

Of the nearly 50000 private forest owners of Estonia, about 2000 have joined forestry companies, which is less than 5 per cent of the total number of forest owners. However, the area of the private forest land owned by the forest owners who have assembled into companies is estimated to be about 100000 ha or almost 10 per cent of the total area of private forest land (according to the yearbook Forest 2006, the area of the private forest land registered in the land registry is a bit less than 880000 ha) [6].

Via the companies joining private forest owners, forest owners can get information about support and amendments to laws. The companies also organise study days. The societies of forest owners have been established on the basis of groups of friends, but also village communities, but there are larger ones too, involving counties. In larger societies, forest management related works are planned together, which gives forest owners an opportunity to considerably save on their expenses. Cooperation projects between different forest societies help find diverse ways for using timber, jointly increasing sales volumes and finding better sales channels and buyers who offer a higher price [9].

In the current economic crisis, it is reasonable to cut down on the indirect expenses related to the business of the societies and increase the expenses related to the expansion of joint activity. The state has limited funds and it may be decided at any time that private forest owners are the ones who should not hope for any support anymore. Close cooperation between forest societies contributes to more successful management.

Thus, via joint economic activity, it is possible to:

- via successful business activity, increase independent funding of the society
- via the provision of services, manage the assets of the society more efficiently
- offer stable sale of timber to forest owners and supply to companies
- get the highest price on the market for timber for the members of the society
- establish international relations, which in turn will create more possibilities for supply

In order to make the support system of private forest owners stronger and more independent, the Ministry of the Environment has partially changed the principles for the evaluation of the grants given to private forest owners as well. At the revision of applications for grants, evaluation criteria are proceeded from, which are applied at reforestation, investment into the forests of private owners and the preparation of forest management plans, support to forest society and the money stock grant of forest society. This in case it appears that with regard to said types of support, the amount of the funding of all applications complying with the requirements has exceeded the budget for the type of support.

At the ranking of applications, the application that received the highest total evaluation is deemed to be the best. In case of applications with equal figures, the application submitted by a forestry company or the application in which the amount applied for is smaller is preferred. Mainly, the works are supported which, if made by more than one forest owner at a time, allow to save on expenses or work more efficiently. With such evaluation criteria, the state wishes to contribute to the development of the joint activity of forest owners. Cooperation with other private forest owners provides a chance to get to know the values of one’s forest better and the use of economic cooperation allows earning a better income on the management of one’s forest.

Conclusion

The forest is one of the largest riches of Estonia both naturally and economically. The purposeful and economical use of the forest is one of the most important opportunities for ensuring the development of the society.

The aim of the strategy of supporting forest and timber industry is to increase the stability of the timber market and ensure the operation of market mechanisms in the manner that facilitates investments into the development of environment-friendly processing of timber. To use timber efficiently, the complex and purposeful use thereof is ensured, timber processing in the republic developed and timber exported for the highest value possible. Of timber products, sawn timber is the product exported to foreign markets the most with regard to monetary value. If in earlier years, the main export article was unprocessed timber, then in recent years, the importance of sawn timber has increased. The products of the Estonian timber industry are a high quality and competitive export article and a significant material for fulfilling the needs of the domestic market.

Timber industry can operate during the current economic recession as well and find ways to market its production. But the prices of timber have significantly dropped and the interest of forest owners towards selling timber is low. Timber industry plays a significant role in supplying the country with energy. The state and local governments should aim at directing energy use towards renewable energy. It is wise for forest owners to cooperate as it helps to lower the expenses related to silviculture and involve grants, and larger and more compact offers lower the cost of the harvesting of forest. From the regional employment rate perspective, the industry based on forest has a significant role as an employer as well.

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