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COUNTRY EXPERIENCE

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ECONOMIC INTEGRATION OF URBAN CONSUMERS' DEMAND AND FORESTRY PRODUCTION IN BULGARIA

The objective of the paper is to contribute to a better understanding of the problems of economic integration of urban consumers' demand and rural forestry production and possible solutions of forest-based entrepreneurship in small-scale forestry, wood processing and non-wood forest products and services in Bulgaria.

The paper presents some results of the work undertaken in the frame of the first phase of the European project COST Action E30 "Economic integration of urban consumers' demand and rural forestry production". The presented five topics concern consumption of forest related products and services, small-scale forestry practices as a factor affecting consumption and living standards in the country, wood-processing industries, non-wood forest products and services, as well as forests resources and their ownership structure as factors, affecting forestry production.

It has been assumed the economic integration of urban internal and external consumers' demand and forestry production in Bulgaria has to be developed. It is concluded that Bulgaria has significant resources and potential for further forestry production, which are not used effectively. The identified main barriers to entrepreneurship in the forestry, wood processing and non-wood products and services in Bulgaria are the low level of production and demand for forest – wood product services, and respective national policy. The lack of consensus for enterprise development in the forestry in Bulgaria defines a broad area of questions to be answered. Among them are which model for innovation system in forestry to be chosen? Which is the effective strategy for further integration to EU forestry structures, what kind of effective marketing strategies for Bulgarian products to develop in order to increase foreign consumers'demand? What kind of instruments to be introduced in order to increase sources for purchasing modern forest machinery, building forest roads and forestation? What kind of incentives to be implemented to improve the quality of local production and to protect industrial property rights? How to speed processes of standardization and certification?

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1. Consumption of Forest Related Products and Services[10]

Summary

The consumption of forest related products and services has taken important place in Bulgarian rural consumption traditions. The approximately big share of urban population (67.4%) and structure of household expenditure distribution in the country are factors, which affect positively the forest products' and services consumption, while the level of income is factor with a negative influence. The bigger share in forest-related products and services consumption obtains round wood consumption, paper and paperboard apparent consumption, and packaging materials apparent consumption, which characterizes market demand for forest products' and services in the country. It has to be taken into account that export plays an important role in developing market demand in the country. The largest share of Bulgarian export of forest sectors and groups belongs to VeneerSheets; Plywood, Laminboard,Particle Board, Fibre Board & Other Panels and Board, followed by Sawmilling & Planing ofWood; Impregnation of Wood. All forest sectors and groups export more than 1/3 of their turnover. The most foreign consumption oriented production is those of VneerSheets; Plywood, Laminboard, Particle Board, Fibre Board & Other Panels and Board, which have exported more than 2/3 of the turnover.

1.1. State of the Art and Historical Development

The consumption of forest related products and services has taken important place in the Bulgarian economic development. This has its roots on the one hand in the strong historical traditions of forest product and services consumption, and in the stable raw materials' base and develeoped skilled work force, on the other. The challenges of recent decade developments have affected forest related products and services consumption and have raised new problems.

Now there are many improtant research questions on the country and regional level with no satisfied answer. Among them are how to increase the level of internal market demand for forest related products and services, and for non-wood forest products and services by urban population, which are the specific problems of entrepreneurship in the firms in the sector. Recreational use of forests in Bulgaria is known field but because of changing the property system in Bulgaria – it needs more comprehensive investigations.

1.2. Potential for Forest Products' and Services Consumption in the Country

The level of the demand of forest products and services is defined by country's (rural and urban) and foreign consumption. The main factor defining the country's forest products' and service consumption is its population. The population in Bulgaria is 7,621 million inhabitants as of 2002.[11] The largest share is urban population – 67.4% of total one (2001). Over the last decade there is a tendency of decreasing the urban population, defined by the negative influence of

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[11] The data in this part is obtained from the National Statistical Institute.

demographical and brain drain factors. While the average annual growth rate of urban population is 0.3% for the period 1990-1995, it is negative –1.2% for the period 1995-2000. Nevertheless the urban population determines comparatively good potential for increasing the forest products' and service consumption in the country. A significant share of the forest products' and services consumption is concentrated in the capital. 1096389 Bulgarians live in the capital city Sofia (2002), which is 14.4% of the total population. There are 22 cities with more than 50 000 inhabitants, of which 8 cities are with more than 100 000 inhabitants, which defines the potential for increasing the forest products consumption in the Bulgaria.

Another factor affecting the level of forest products' and services consumption is the overall level of consumption in the country, defined by the gross domestic product per capita and expenditures distribution. For 2001 the gross domestic product per capita is 3743 Levs[12], which is 1923 euro per inhabitant. The total average per capita income is 1830 Levs. Its distribution by source shows that the most important sources of income are the wages and the salaries – 631 leva, the pensions – 377 leva, and household plot (in 2001). In spite of the level of consumption in the country is low comparatively to the other European countries, the low prices of national forest products' and services could increase their share in national consumption structure.

Household expenditure distribution in the country also affects forest products' and services consumption. The total household expenditure in 2001 is 4249 Levs, of which 4031 are the overall expenditures, and 3546 are consumer ones. The major part of consumer expenditures – 1758 Levs, is for food and non-alcoholic beverages, followed by those for housing, water, gas and other fuels – 465 Leva. The conclusion is that consumer expenditures take big share in household expenditure distribution in Bulgaria. This confirms the above assumption that the low prices of forest products' and services could contribute to increasing their share in overall consumption expenditures.

At the end we may conclude, that the large amount of population, and household expenditure distribution are factors, which affect positively the forest products' and services consumption, while the level of income is factor with a negative influence to its level.

1.3. Market Demand for Forest Related Products and Services by Urban Population

The market demand for forest-related products and services is characterized by apparent urban consumption in the country and abroad. The internal market demand for wood product categories in the country is shown in Table 1.

The majour wood product categories observed include roundwood apparent consumption (1000 m^3), sawn hardtwood apparent consumption (1000 m^3), practice board apparent consumption (1000 m^3), Plywood apparent consumption (1000 m^3), fiberboard apparent consumption (1000 m^3), chemical wood pulp apparent consumption (1000 m.t.), paper and paperboard apparent consumption (1000 m.t.), graphic papers apparent consumption (1000 m.t.), sanitary and household papers apparent consumption (1000 m.t.), Packaging materials

[12] According to the Bulgarian Law, the national currency LEV is fixed to Euro. 1 Lev = 0.511249 Euro.

apparent consumption (1000 m.t.), and other paper and paperboard apparent consumption (1000 m.t.).

Table 1

Consumption of Some Forest Products in Bulgaria

Products/years	1998	1999	2000	2001	m^3 per 1000 inhabitants 2001	% change 2000 to 2001
Roundwood apparent consumption (1000 m^3)	2975	4176	4529	3769	479,1	-16,8
Sawn softwood apparent consumption (1000 m^3)	176	128	107	95	12,1	-11,2
Sawn hardtwood apparent consumption (1000 m^3)	44	-70	-42	-36	-4,6	…
Practice board apparent consumption (1000 m^3)	119	35	126	130	16,5	3,2
Plywood apparent consumption (1000 m^3)	22	23	12	31	3.9	158,3
Fiberboard apparent consumption (1000 m^3)	55	19	195	241	30,7	23,7
Chemical wood pulp apparent consumption (1000 m.t.)	42	30	31	27	3,5	-12,8
Paper and paperboard apparent consumption (1000 m.t.)	201	196	211	239	30,4	13,3
Graphic papers apparent consumption (1000 m.t.)	40	62	77	83	10,6	7.8
Sanitary and household papers Apparent consumption (1000 m.t.)	…	21	9	11	1.4	22.2
Packaging materials apparent consumption (1000 m.t.)	…	99	110	124	15,8	12,7
Other paper and paperboard apparent consumption (1000 m.t.)	…	14	15	21	2,7	40,0

Source: UNECE/FAO TIMBER database, 2002.

Round wood apparent consumption has performed the largest share of forest products consumption in Bulgaria – 479,1 m^3 per 1000 inhabitants in 2001. Paper and paperboard apparent consumption per 1000 inhabitants is 30700 m.t. Packaging materials apparent consumption is also well developed in the country.

Table 2

Production and Export of the Bulgarian Wood Sector

Sectors and Groups	Gross Output (1000 US$)			
	1997	1998	1999	2000
Saw milling & Planing of Wood; Impregnation of Wood	22,669	39,255	45,061	44,175
Veneer Sheets; Plywood, Laminboard, Particle Board, Fibre Board & Other Panels and Board	47,469	43,982	55,631	49,733
Builders' Carpentry and Joinery	18,366	14,981	18,360	14,391
Wooden Containers	4,348	5,174	7,590	6,735
Other Wood Products; Cork Articles, Straw, Plaiting Materials	6,135	6,090	7,292	9,647

Source NSI, NKID.

The foreign market demand for forest related products and services is an important factor, which influences those product and services development in small and opened economies like Bulgarian one. This hypothesis is confirmed by the fact that the largest share of Bulgarian forest output is exported. All forest sectors and groups export more than 1/3 of their turnover. The most foreign consumption oriented production is those of veneer sheets, plywood, laminboard, particle board, fibre board and other panels and board. The exported volume of these products consists more than 2/3 of the turnover of the producing enterprises.

Table 3

Production and Export of the Bulgarian Wood Sector

Sectors and Groups	Turnover (1000 US$)			Export (1000 US$)			
	1998	1999	2000	1997	1998	1999	2000
Sawmilling & Planing of Wood; Impregnation of Wood	43,401	48,045	49,819	13,565	19,201	20,552	19,011
Veneer Sheets, Plywood, Laminboard, Particle Board, Fibre Board & Other Panels and Board	44,330	60,360	53,734	28,049	31,245	35,381	37,014
Builders' Carpentry and Joinery	15,473	19,083	14,382	3,879	4,593	7,252	5,192
Wooden Containers	5,623	8,155	7,166	986	1,622	2,117	2,891
Other Wood Products, Cork Articles, Straw, Plaiting Materials	6,538	7,553	10,982	4,037	5,656	5,178	4,616

The main factor for higher level of forest products and services demand is urban consumption. The prevailing population in Bulgaria is urban – 67.4% of total one, which might lead to bigger share of consumption. The fact, that many people having secondary residence – cottages, stimulates forest products and services consumption.

Table 4

Share of Export in Wood Production

Sectors and Groups	Export/Turnover (%)			
	1997	1998	1999	2000
Saw milling & Planing of Wood; Impregnation of Wood	61.2	44.2	42.8	38.2
Veneer Sheets; Plywood, Laminboard, Particle Board, Fibre Board & Other Panels and Board	63.9	70.5	58.6	68.9
Builders' Carpentry and Joinery	21.5	29.7	38.0	36.1
Wooden Containers	21.8	28.8	26.0	40.3
Other Wood Products; Cork Articles, Straw, Plaiting Materials	65.1	86.5	68.6	42.0

At the end we may assume that the market demand for forest-related products and services in Bulgaria is defined mainly by external (foreign) apparent urban consumption. Taking into account the figures, less important is the apparent urban consumption in the country. But here it has to be considered, that many people, living in towns, have secondary residence – cottages, which stimulates forest products and services consumption.

1.4. Main Problems and Research Questions in Consumption for Enterprise Development

The main research questions for enterprise development in the forest in Bulgaria can be summarised as follow:

- how to develop internal and external market for forest – wood product / services;
- how to attract more investments in forest establishment for utilization of productive potential of the forest – land asset;
- how to improve the quality of forest related products and services;
- how to develop effective marketing strategies for forest related products and services.

The current research has identified several concrete areas of lack of information, which exposes the necessity of a large scale investigation of the problems of the consumption of forest related products and services by population.

2. Small-Scale Forestry Practices[13]

Summary

The small-scale forestry practices, applying modern technical achievements, have obtained a big potential to contribute to the increasing of consumption and living standards of the population, which makes them important subject to be investigated. Historically they have taken modest place in Bulgaria. This state-of-the art is defined by the fact that the numbers and scale of small-scale forests is very limited (the small-scale forests are at about 9% of the forest reserve of the country and are of a scale of 1-2 decars up to 10 hectars). From the other hand the share of the small-scale forests products towards the national and regional gross domestic product – GDP is very small. It is assumed that the entrepreneurship in small-scale forests is hampered by the lack of well developed forest market in the country, by the problems with restitution of forests and land of the forestry reserve, by the bad claims of the municipalities for ownership over the former “baltalatzi” (forests, given in the past, by the state to the municipalities to use). In addition, the market of forestry goods and services is restricted to the use of wood only. The high level of fragmentation of the forest property due to the process of restitution is another barrier to small-scale forest entrepreneurship development. As a result, the share of wood harvesting from the small-scale forests compared to the total wood harvesting of the country is not statistically outlined. For the very moment the functions of these forests are mainly recreation, protection, landscape, bio-variety, hunting tourism. The non-wood forest products (mushrooms, herbs, forest fruits, etc.) are not well performed in the small-scale forests, while the recreation and hunting tourism have major impact in their development.

The basic economic and management characteristics of current small-scale practice are connected with the process of restitution and privatisation, and also with the timber wood harvesting to a limited extent. Practices, connected with the regeneration of the small-scale forests are very limited, because the financial supplies (either private or bank credits) are almost impossible. As far as it concerns the wood harvesting, small amounts of wood are obtained mostly in the forest cooperatives in the Rhodopy Mountains. The harvested small-scale forests’ wood is preliminary used for firewood and quite seldom for timber. The wood harvesters are mainly the owners themselves, and the wood is used mainly for their own needs. The small-scale forests’ harvest of wood assortments is extraordinarily minor to produce basic characteristics of the small-scale forests’ wood market.

2.1. State of the Art of the Topic in the Literature

The small-scale forestry practices have taken modest place in Bulgarian history, in spite of they contribute to the increasing of consumption and living standards of the population. May be this is one of the reasons for the lack of information for small-sc ale forests on the territory of the country, in addition to the limitations of the research programs of the institutions and organisations, dealing with research and

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investigation of forest ecosystem and forestry have never performed a systematic investigation. Nevertheless there are some programmes, which are used for fragmentary assumptions. One of them is the Bulgarian-Swiss Forest Program, which has organised investigations about the small forests in the agricultural land and the plains, and about the single centurial threes. The results have concerned the genetic and species variety in these ecosystems, but not economic aspects of their development. On the other hand these types of forests cannot be determined as a small-scale in the particular circumstances. The studies and programs concerning the restituted private forests, realized in the frame of the German-Bulgarian Forest Program (GBFP) are also insufficient for the purposes of our study. The information gathered about the above mentioned problem is almost fully based on an expert assessment of forest science specialists. In addition, we have to mention, that the term small-scale forest has different meaning in the different European countries and the conclusions provided have to be précised. The observation says that for the countries with large forest recourses and centurial traditions in forest uses the small-scale forests consist of about 100 ha. For the Bulgarian circumstances, a small scale-forest consists of up to 10 ha. That is why it is difficult to rely on comparisons and conclusions in that respect. The provided further results of the study are aimed to contribute to improvement of the understanding of small-scale forest practices in the country.

2.2. Small-Scale Forest Holding[14]

The small-scale forests obtain very small share in the country – about 9% of its forest reserve. The forest reserve of Bulgaria amounts up to 3 980 032 hectares.[15] The state forestry reserve of the country is 85.93 % of the total area of the forests, 8.1% – private property, 5.3% – property of the municipalities, 0.45% – property of religious communities and 0.22% – property of corporal bodies.

The small-scale forest holdings in Bulgaria have different historical origins. The economic reform, started about 14 years ago put the privatisation and restitution of the agricultural and forest territories in the agenda of country.

Now the area of the small forests differs, depending on the origin, and varies from 1 – 2 decares to 10 hectares for the restituted forest massifs. The borders of these forests are usually other forest massifs and territories.

Over 95% of the private forests are of small area – up to 10 ha, i.e. almost all the forests of the private forest owners are included in the investigated category – the small-scale forests. And if we include small state forests here (bellow 1% of the total), the small-scale forests would be assessed as of about 9% of the forest reserve of the country, according to an expert opinion.[16]

The regional distribution of the small-scale forests along the territory of the country is characterized by a concentration mainly in the Balkan Range. Most of them are situated in the Sofia District, in the regions of Lovetch, Veliko Tarnovo, Montana. The most of the undersized parcels are situated there.

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[14] Here we consider the area of a forest, held by one person or firm.

[15] Annual Report of the National Forestry Board for 2002, “Gora”magazine, issue 6, 2003.

[16] The authors express their gratitude to Assoc. Prof. Dr. N. Stoyanov" University of Forestry in Sofia, for his cooperation and expert assessments in the process of investigations.

The share of the small-scale forests products towards the national and regional gross domestic product – GDP is very small.
The provided survey shows, that the entrepreneurship in small-scale forest ownership is hampered by the lack of forest market, by the problems with restitution of forests and land of the forestry reserve, by the bad claims of the municipalities for ownership over the former “baltalatzi” (forests, given in the past, by the state to the municipalities to use). Another problem is that the market of forestry goods and services is restricted to the use of wood only. The fragmentation of the forest property due to the process of restitution is another barrier to small-scale forest development. This state of the art in addition to the other reasons also is defined by the fact that some of the owners are not yet legally owners and are excluded from the wood harvesting. Concerning the process of the forest ownership reform, the restitution of the forestry reserve land and woods is completed up to 95 – 98%. But in fact the restitution is completed only in of about 14% of the forests, which is a barrier for entrepreneurship development there.
As a result, the share of wood harvesting from the small-scale forests compared to the total wood harvesting of the country is not statistically outlined. The harvested small-scale forests’ wood is preliminary used for firewood and quite seldom for timber. The wood harvesters are mainly the owners themselves, and the wood is used mainly for their own needs. The small-scale forests’ harvest of wood assortments is extraordinarily minor to produce basic characteristics of the small-scale forests’ wood market. For the very moment the functions of these forests are mainly recreation, protection, landscape, bio-variety, hunting tourism. The non-wood forest products (mushrooms, herbs, forest fruits, etc.) are not well performed in the small-scale forests, while the recreation, hunting tourism have basic impact for developing them.

2.3. Small-Scale Forestry Practices

The basic current small-scale forestry practice in the country is characterised on the first place by the process of restitution and privatisation, and by the timber wood harvesting to a limited extent. Practices, connected with the regeneration of the small-scale forests are very limited, because the financial supplies (either private or bank credits) are almost impossible. As far as it concerns the wood harvesting, small amounts of wood are obtained mostly in the forest cooperatives in the Rhodopy Mountains.
Micro economic and legal framework, as well as the lack of experience creates barriers to the private forest owners in the process of formation of strategy of the economical realization of their property. The increased forest products’ and services’ demand and the newly formed relations and interests in the process of their production and regeneration, maintain the difficulties in the performance of the management process of the forests.
The restitution of the land and forests from the forestry reserve has created small and scattered property. That fact, together with the lack of attitude towards the forests as a specific type of property, settles obstacles for effective management. That exposes the necessity of land consolidation of the territories of the municipalities or the forestry. Otherwise the small-scale forests will gradually lose their functions and that will lead to further development of the erosion process, reduction of bio variety and the change for the worse of the ecological situation as

a whole. At the present moment, with minor exceptions, the private owners have not organised their own associations and delegations for common decisions. The share of the private forests is the most expanded in the Rhodopy Mountains and there is the only place, where the floristries and the so-formed forest cooperatives interact actively.

There is an experience of association in forestry practivies in the country. There are 10 –15 forest associations and forest cooperatives. That reflects the higher level of protection and maintenance of the forests, orientation towards eco production and the higher quality of the manufactured goods up to the demands of the European market. It is also a prerequisite for utilization of the opportunities for co-financing and protection of forestry owners' interests.

The wood harvest of the small-scale forests is preliminary used for the self-satisfaction of the owners' necessities. But the proper statistic data is not available, as receipts and expenditures, as well as the average income per hectare are not included in the actuarial reports.

The expert assessment declares that the investment activity is nearly absent in the restituted small-scale forests. The deficiency of private resources and the severe bureaucracy prevent the private forest owners to apply for credit granting in order to afforest and maintain their property; to build forest roads and to purchase forest machinery, etc. Since August, 2003, the "SAPARD" program, measure "Forestry" has given the forest owners the opportunity to apply for credits, but the conditions and first of all the requirement for large forest massifs, make the application of the small forest owners impossible.

The newly formed pluralistic ownership, according to some opinions, defines the necessity of actualization of the forestry projects and their organization in a Single forestry fund. Presently there is no financial procedure in function for the private forest structure. The structural organization of the private forests is financially supported and maintained, as before the restitution process. The only exception is the cadastral mapping of the forest according to the type of property.

According to inquiry investigations of the Timber and Furniture Industrial Branch Association and GTZ, the innovational activity of the forest owners is hindered by the absence of knowledge, experience, state aid and private resources for the performance of the necessary undertaking for the commencement of economic activity and attainment of economic realization of the forest property. The shy innovational behavior is very seldom available. It is a resultant dimension of the credit system status and the status of the legislation basis in the atmosphere of an unstable macro economic environment, and also it is an outcome value of the yet infant undertakers' experience and the insufficient knowledge of variable financial instruments. Purposes that differ from the mentioned above are not registered as a platform for any forest owners associations, which is a barrier to find quicker political solution of existing problems.

At the end we may conclude, that the main current small-scale forestry practice in the country is characterised on the first place by the process of restitution and privatisation, and by the timber wood harvesting to a limited extent. The harvested small-scale forests' wood is preliminary used for firewood and quite seldom for timber. The wood harvesters are mainly the owners themselves, and the wood is used predominantly for their own needs. The small-scale forests' harvest of wood assortments is extraordinarily minor to produce basic characteristics of the small-scale forests' wood market. The innovation activities are very limited in the sector. The lack of statistic information, and surveys, which concern the aims and the plans for cultivation of the small-scale forests, affects efficiency of management of the small-scale forestry in the country.

2.4. Policy Framework and Production Conditions for Small-Scale Forestry Practices

The legal framework for regulation of the relations, connected with the restitution of the forests and the land in the forestry reserve is based on the Law for the restitution of forests and forest fund lands and the Regulations for Implementation (passed at the end of 1997). The governmental bodies, dealing with restitution are the Ministry of Agriculture and Forestry and the Land Commissions. Regional Commissions for inquiry control of the filled applications for the private forest territories, has been constituted in order to solve the problems in verification of the interest in lands and forests.

The presently existing legislation providing and directly connected to the uses of wood from the Bulgarian Forestry Reserve are as follows:

- Restoration of Ownership over Forests and land in the Forestry Reserve Act, ROFLFRA, published in the State gazette of Bulgaria, issue 110/ 25.11.1997; revised, issue 33 and 59/ 1998; amended, issue 133;
- Forestry Act. Published in the official gazette of Bulgaria, issue 125/ 29.12.1997; amended, issue 133/1998; issue 26/1998; issue 29 and 78/2000.
- Hunting and Game Protection Act. Published in the official gazette of Bulgaria, issue 78/ 26.09.2000;
- Rules on the implementation of the Restoration of Ownership over Forests and land in the Forestry Reserve Act. Published in the official gazette of Bulgaria, issue 41/1998; amended, issue 105/1999;
- Regulation on the Implementation of the Forestry Act. Published in the official gazette of Bulgaria, issue 41/1998;
- Regulation of the Right of usage of wood;
- Ordinance № 32 of the Valuation of forests and the land in the Forest Reserve. Published in the official gazette of Bulgaria, issue 3/12.01.1999;
- Regulation on the Licenses of physical and legal personalities for pursuit of private forestry practice. Published in the official gazette of Bulgaria, issue 80/14.07.1998;
- Regulations on the Terms and Procedures for the Administration of the Restituted Agricultural Land. Published in the official gazette of Bulgaria, issue 76/27.08.1999; etc.

The appropriate state economical regulation for the direction of the restored owners to a positive attitude towards their property is still missing. Up till now there has not been presented any direct opportunities to the forest owners for financial support, because the objects of accrediting can be only investment projects of small and medium sized enterprises (SME) in the branches of industry, transport, processing of agricultural production and tourism, and the necessary condition is the establishment of employment and the export orientation of the production. The investment programs of the State Fund "Agriculture" and "SAPARD" Program are also accessible only to SME – agricultural producers. Intermediary and consultation

support of international bilateral programs is granted to SME only, and not to physical personalities, municipalities and Boards of Church Wardens.
The Bulgarian Swiss Forest Program (GTZ) promotes the national policy towards the forests and the legislation. It contributes for the balance of the ecological, economical and social functions of the forests by their long-term and natural management. The German – Bulgarian Project for promotion of the private forest restitution (DBFP) has a very significant role for the development of the small-scale forest property.
The institutions that are responsible for the regional development and the small-scale forest property are the Ministry of Agriculture and Forestry – the Ministry has worked out a National Plan for Development of Agriculture in the Rural Districts for the period 2000 – 2006; Ministry of Regional Development and Public Works – the Ministry has worked out regional plans for development, based on the municipal strategies and the National Forestry Board, as a state control authority.
The private forest owners are able to enjoy the services of expert consultants from: the National Forestry Board, the Regional Forestry Boards, the State Forestries, the Forest Institute, the German – Bulgarian Project for promotion of the private forest restitution (DBFP) The Forest University, the Bulgarian Swiss Forest Program (GTZ).
The German – Bulgarian Project for promotion of the private forest restitution (DBFP) gives the private forest owners the opportunity for “training” in the forestries in order to form an adequate attitude towards the forest. Science and educational institutions in the sphere of forestry are also the Forest University, Forest Institute of the Bulgarian Science Academy and the Bulgarian-German Center for Professional Training.
The owners of private forests may look for support by the above-mentioned organizations in order to obtain expert assessments and researches, and also by the Regional Development Agencies. But the inquiries still declare that the necessary relations of cooperation and support between both sides in the process of optimization of the small-scale forest property uses are not established yet.
The National Forestry Board, as a section of the Ministry of Agriculture and Forestry performs the state control functions in the forestry sector; it manages a policy of protection and extension of the forests, the stable forest development, the protection of the biological diversity and multifunctional uses. The Regional Forestry Boards realize the State Policy for the Management of the Forest Reserve and the control over the forests and the land in the forest reserve.

2.5. Supporting and Limiting Factors for Enterprise Development in Small-Scale Forestry and Barriers to Entrepreneurship

The supporting factors for enterprise developments in small-scale forestry are very few, and would by summarised in one word – enthusiasm. But this is not enough and practically development in this area is blocked.
The main problems and research questions for enterprise development in small-scale forestry and barriers to the entrepreneurship have concerned: a) development of market for forest – wood product/services; b) identification and attraction of considerable investments in forest establishment for utilization of productive potential of the forest – land asset; c) how to increase sources for purchasing forest machinery; build forest roads and forestation; d) how to increase

the quality of introduction of harvesting regulation; e) to improve the quality of introduction of the level of competency of the "new" forestry owners, or to find new forms for effective forestry management; f) how to make state policy towards transformation of ownership and management system in forest sector clearer. The change of the policy approach of the recent government and lack of ideas for implementing new one leads to blocking the reform and stagnation in the forest sector.

2.6. Conclusion

The above analyses make clear the necessity of a large scale investigation of the problems of the small-scale forests – contribution to the consumption, quality and standard of production, property, markets, quantity of the wood harvests and services, investments, innovational policy, management and organization, cooperation, etc. The possible solutions could be similar to the countries from Central Europe with small-scale restituted forest holdings like Bulgaria: Romania, Hungary, Poland and Slovenia. The topics of the future research could be focused on: forest owners and their attitudes and actions; where forest owners' actions connect to entrepreneurial activity elsewhere in the economy, whether in timber or non-timber supply chains or through halo effects, especially in locally based activity; recognition of wood and non-wood elements as potential contributions to this entrepreneurial activity; recognition of a regulatory environment which might constrain or enable entrepreneurial action; and recognition that there is often a structure of forest owners' associations which can help small-scale forest owners overcome some of the obstacles of small-scale forestry.

3. Wood Processing Industries[17]

Summary

The main factors affecting the competitiveness of forest – wood / non-wood / services – consumer chain from the point of view of entrepreneurship are: the old and amortized equipment and technologies; shortage of investments for scientific researches; insufficient information about credit programs; the low ability for planning and managing the investment processes, the production and the risk; the low quality of the production; poor knowledge of the international standards; lack of functioning laboratories for testing the production; the low level of the co-operation between the enterprises; lack of regional formations (clusters); the lack of partnership between the industrial enterprises and designers and scientific centers; inadecuate financial support of the know-how transfer.
The barriers to entrepreneurship concern too high collaterals required by the banks; the high interest rates; the lack of information about different financing possibilities; the inadequate system for risk assessment by the banks; the insufficient bank products.
To guarantee sustainable development of the sector, we consider that possible policy implications can be: a) stimulation and financial support of the scientific and

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research activity; restoration of the relations between the science and the production; b) Supporting the formation of regional sectoral complexes (clusters) and the building of business incubators, in order to increase the economic potential especially in rural regions in Bulgaria and its approach to European economic environment.

3.1. State of the Art and Historical Development

Woodworking and Furniture industry in Bulgaria has traditionally an important meaning for the Bulgarian economy. This has its roots on the one hand in the rich history and on the other on the stable raw materials' base. The enterprises from the branch produce wide range of semi-manufactured products of timber both for the domestic and foreign market.
During the last years in the branch "woodworking and furniture industry" becomes some serious changes, according to:

- Increasing of the number of the enterprises with activity dealing and trade with wooden products and furniture;
- Change in the property and juridical status of the companies;
- Uniting of the enterprises in branch organizations, defending their interest in front of the official institutions and participating in the legislation frame;
- Increasing of investments and TFA – techniques and technologies, including foreign investments;
- Appearance of cooperative enterprises and est.

All of this makes the branch attractive and interest object for research, as for a domestic, also for international projects.

3.2. Wood Processing Industries

Historical development. The historical development of Woodworking and furniture industry passes over several stages, corresponding to the evolution of the processing factors. Till the 1970s in the economy centrums in the country are founded outstanding enterprises with big volume of output, basic founds and labor force. After 1970, aiming more completely utilization of the resource and solving others arisen social, economical and others problems are formed small and medium size enterprises in the undeveloped economical regions. Up to the structural reform in 1988, as a private owner of the forest the country was determinating the size of the forest, which was utilized on the base of needs for domestic and foreign market. The given public subsides make the economical status of the enterprises worse and these leads to disruption of their traditional manufacture – business links, and the high per cent interest of the bank loans, contribute for drop of the industrial production. The crisis in the woodworking, cellulose-paper and furniture industry find an expression in not fully utilization of the manufacturing capacity and in the impossibility for financing of the repairing and innovations. The development of the economy and rehabilitating of the private property is an alternation of the forms of management of the production. For the period 1995 – 1998 in woodworking and furniture industry were founded over 4500 small private economical characters.
Structure of the enterprises, number of employees, sales, turn over, regional allocation. The companies in the branch are relatively regularly allocated within

the Bulgarian territory. There total number in 1997 is 2718, where 2612 are in private sector. Based on the National Statistic Institute data there are 1710 woodworking enterprises and 1008 furniture in 1997. 1654 of them are private in woodworking sector and 958 – in furniture. Their allocation by regions is shown in Table 5.

Table 5

Number and Allocation of the Enterprises, 1997

No	Region	Total	Woodworking	Furniture
1	Blagoevgrad	254	174	80
2	Bourgas	111	80	31
3	Varna	110	64	46
4	Veliko Tarnovo	85	54	31
5	Vidin	24	16	8
6	Vratsa	25	9	16
7	Gabrovo	118	56	62
8	Dobrich	38	18	20
9	Kurdjaly	25	20	5
10	Kjustendil	38	21	17
11	Lovech	220	130	90
12	Montana	51	39	12
13	Pazardjik	227	177	50
14	Pernik	21	16	5
15	Pleven	64	35	29
16	Plovdiv	215	125	90
17	Razgrad	27	14	13
18	Rousse	103	45	58
19	Silistra	50	39	11
20	Sliven	65	51	14
21	Smoljan	136	123	13
22	Sofia - city	239	67	162
23	Sofia - region	103	90	13
24	Stara Zagora	133	73	60
25	Targovishte	41	27	14
26	Haskovo	65	40	25
27	Shoumen	101	79	22
28	Yambol	29	18	11
	TOTAL	2718	1710	1008

Among active enterprises existed in the year 2000, 97% are small-sized (1-50 employees), 2% medium (51-150 employees) and 1% large (more than 151 employees), and 99% of them are private owned.

Based on a survey made by the SFB Capital market JSB in 2002, there are 5.545 woodworking companies, which are divided into following sectors as it is shown on Table 6.

The biggest is the share of the companies of “Cutting out, edging and impregnation of wooden material”, following by “Manufacture of woodworks, structures and details from wooden material for the construction“. The smallest is the share of producers of “Manufacture of products from cork, straw and materials for knitting“.

With the relative share of 7% of the gross output in the manufacturing industry, has gradually extended its the share from 5.7% among all manufacturing industries in Bulgaria during the period 1997-2000, as only the volume of production of “Manufacturing of timber and wooden products” has increased with 26%.

Table 6

Wood Processing Companies by Sectors

Production type	Number
Cutting out, edging and impregnation of wooden material	2,041
Manufacture of plywood and wooden plates	141
Manufacture of woodworks, structures and details from wooden material for the construction	1,880
Manufacture of packing from wooden material	165
Manufacture of other products from wooden material	1,286
Manufacture of products from cork, straw and materials for knitting	32

As for the turnover, its trend of share change during the period 1997-2000 it has increased by 15.7, as the increase of the turnover only in the sector "Manufacturing of timber and wooden products" for the same period is a 43.5%. During the period the number of employees has decreased with 22.5% or with 3 806 real workshops and during 2000 they were 13 099 employees.

In spite of this more effectively utilization of the labor force in the branch is ensured an increase of the GVA and of the productivity of the labor. The average salary is increased with 47.5% for the period 1997-2000, while for the same period the growth of the BDS is only 2.2%. In 2002 the production of raw materials exceed 293 millions lv., witch is with 2,4% more of the levels reached during 2000 and with 26.4% from those in 1998. The data for the individual industries are systemized in table 3, Annex 2. The total volume of production of the woodworking industry for the period 1998 – 2000 increased with 23.4% ,as the manufacturing of veneer and plywood are with biggest share – 40%, followed by the timber – 34.5% and details for construction (mainly doors and windows) – 12.5%.

Based on the SFB Capital market JSB/2002 survey the companies operating in the furniture industry are 3 351, which are divided into following sectors.

Table 7

Number of Furniture Companies

Sectors	Number of companies
Manufacture of chairs and seats	299
Manufacture of office and trade furniture, excl. chairs	306
Manufacture of kitchen furniture, excl. chairs	688
Manufacture of other furniture	1,986
Manufacture of frames and mattresses	72
Total	3,351

The biggest is the share of the enterprises from "manufacturing others kind of furniture", followed by "manufacturing of furniture used in kitchens, office furniture. The manufacturing of furniture during this period continues to increase and in 2000 is 194 millions lv. The share with clients orders is too big. With material of foreign clients are manufactured about 45% in 1999 and during 2000 – 40% from the production. The analysis shows that the growth is due mainly of the increasing of manufacturing of tubular furniture. The manufacturing of furniture of massive wood is various and it depends from the needs of the market.

The dynamic of the structure of the furniture industry is shown on table 5. After the big increase of the manufacturing of office furniture in 1999, compared with 1998 – with 48%, during 2000 it decreased with 19%. It is observe an increasing in the manufacturing of furniture used in kitchens in 1999 with 27%, witch bears a positive correction in 2000 with 7%. The tendency in the manufacturing of furniture used in bedrooms, living rooms, dining- rooms is towards decreasing. With relative share of 1.2% from the production of the processing industry in country in 2000 the branch has the smallest share from all branches, in spite of this that there is a growth of current prices of 22.7%. The turnover during the period 1997-2000 has an increasing with a 33.2%,as a biggest is in the manufacturing of furniture , which share is 75%. The volume of the production and the turnover have a growth, appropriate 35.3% and 42.5% for the period 1997-2000. The same is the situation for the GVA, which increased with 17.9%. During the period 1997-2000 the number of employees in the furniture branch have decreased with 18.5% or with 4400 real workshops. In 2000 the employees were 19 174 or 3.4% from the total number of the employees in the processing industry. In spite of this the productivity of the labor during the same year is increased with 39.1%. Higher is the work load in the sector "manufacturing of furniture" – 77.4% from the total workshops. The average annual salary in the branch, which accounts to 851 USD, is about 30% lower from the average for the processing industry in 2000. The rate of the gross operative profit have decreased from 15.0% in 1997 to 12.9% in 2000, as a result of the comparatively high rate of increasing of the average salary – with 34.6% for this period.

Table 8

Manufacture of Furniture over the Period 1998-2000 by Sorts

Products	1998	1999	2000
Office furniture from solid wood	83,682	123,482	68,437
Kitchen furniture	132,751	96,928	103,712
Bedroom furniture (complex)	91,652	76,413	86,499
Furniture from solid wood for living-rooms and dining-rooms	149,342	126,415	136,669
Chairs - total	1,217,924	1,573,314	1,572,090
Non-upholstered chairs	532,507	575,229	793,167
Trestles	28,049	12,007	16,502
Tubular furniture (excluding office)	457,022	731,219	1,117,311

Macroeconomic Indicators of the Bulgarian woodworking and furniture industry are shown in tables 9 and 10.

Macroeconomic Indicators of the Bulgarian woodworking and furniture industry are shown in Tables 12 and 13. The wood industry is stable at a little lower level from the line of GVA share equals gross output share. In fact, the share of GVA has been catching-up with that of gross output during the same period. For the period 1997-2000 the turn over have increased with 15.7%, and GVA – with 2.2%. In the sector "manufacturing of timber and wooden products" for the same period have been market growth of the turnover – 43.5% and of the GVA – 10.8%. The negative process in the furniture sector gives an expression in the decreasing of GVA with 12.0% during the period 1997-2000. in the frames of the branch, the GVA of the sector "manufacturing of furniture" for the period 1997 – 2000 have an increase in a amount of 17.9%.

Table 9

Macroeconomic Indicators of the Bulgarian Wood Sector

Sectors and Groups	Gross Value Added (1000US$)				Labour Productivity (US$)			
	1997	1998	1999	2000	1997	1998	1999	2000
Sawmilling & Planing ofWood; Impregnation of Wood	4.600	6.819	8.844	5.927	1.166	1.234	1.635	1.103
Veneer Sheets; Plywood, Laminboard, Particle Board, Fibre Board & Other Panels and Board	12.462	9.790	12.086	8.299	2.368	2.506	3.616	2.934
Builders' Carpentry and Joinery	3.909	4.109	5.445	3.585	762	1.249	1.814	1.286
Wooden Containers	948	1.108	1.588	1.401	966	1.287	1.345	1.367
Other Wood Products; Cork Articles, Straw, Plaiting Materials	2.013	2.198	2.183	2.129	1.268	1.582	2.040	1.960

Source: NSI, NKID

Sectors and Groups	Number of Employees			Average Salary (US$)			
	1998	1999	2000	1997	1998	1999	2000
Saw milling & Planing ofWood; Impregnation of Wood	5.527	5.408	5.372	536	631	672	735
Veneer Sheets; Plywood, Laminboard, Particle Board, Fibre Board & Other Panels and Board	3.907	3.342	2.829	901	1.353	1.481	1.413
Builders' Carpentry and Joinery	3.289	3.001	2.787	444	665	717	675
Wooden Containers	861	1.181	1.025	580	606	791	745
OtherWood Products; Cork Articles, Straw, Plaiting Materials	1.389	1.070	1.086	476	736	819	694

Source: NSI, NKID

Table 10

Macroeconomic Indicators of Bulgarian Furniture Sector for 1997-2000 in 1000 US$

Sectors and Groups	1997	1998	1999	2000
Gross Output (1000US$)	67,572	81,095	84,942	91,422
Turnover (1000US$)	65,200	83,489	88,825	92,926
брутна добавена стойност (1000US$)	20,436	23,921	25,023	24,100
Labour Productivity (US$)	1,167	1,479	1,726	1,623
Export/Turnover (1000US$)	31,478	35,278	39,151	48,224
Export/Turnover (%)	48.3	42.3	44.1	51.9
export (1000US$)	7,614	10,358	10,893	11,877
Number of Employees	17,512	16,179	14,497	14,850
Average Salary (US$)	607	803	859	817

Source: NSI, NKID

3.3. Wood Processing Industries Practices

Companies by juridical status and types of their registration. During the last years were founded great number of micro- and small family and craft companies, which were registrated more frequently as a Self-employed (SP), which leads to big increasing of the number of the companies – juridical and physical person in the branch. By the type of the juridical registration in all sectors in the woodworking industry the highest is the share of SP – 78% or 4334 numbers. Analogical is the situation in the furniture industry – the leading place is taken from SP with total number of 2507. Detailed information for the grouping of the companies from woodworking and furniture industry by their juridical registration is given in the Tables 11 and 12.

Table 11

Companies by Juridical Status and Types of Their Registration
(Sole traders (ST), Self-Employed (SP))

	Cutting out, impregnation of wood	plywood and wooden plates	timber elements, construction frames	packing from wooden material	other timber products
JSC	21	14	25	1	3
SPJSC	0	1	3	0	0
SPLtd	83	27	87	8	53
SP	1,621	59	1,468	107	1,052
Branch	1		1	0	1
Cooperation	26	1	46	7	9
Ltd.	234	37	178	33	109
Partnership	53	2	67	8	52
Others	2	0	5	1	5

Table 12

Group of Companies by Registration

	Chairs and seats	Office and trade furniture	Kitchen furniture	Other furniture
JSC	7	12	7	45
Others	2	1	1	10
SPJSC	1	0	1	3
SPLTD	15	24	32	101
SP	239	209	552	1507
Branch	1	0	0	2
Cooperation	4	3	10	21
Ltd.	21	43	61	214
Partnership	9	14	24	83

The gross increasing of the number of the companies during the last 10 years is explained with the lowest barriers for entering in the branch (low initially expenses for starting of business in the branch, availability of great number of experts in the country, low levels of the salary in the branch and est.). The intensively competition is high, especially after the appearance of foreign presence in the market.

In the last years, and especially after 1997 and 1998, is observed a big interest from foreign investors for buying of separate stakes and also of whole enterprises. As an examples can be given: “Bules” – JSC Bourgass, “Orion luks” – JSC Sofia, “Pirinska mura” – JSC Bansko, “Hemus” – JSC Troian, “Ludogorie” – JSC гр.Kubrat, “Shwedski kibrit” – JSC Kostenec.

The statistic information about the direct foreign investments by countries and sectors for the period 1998 – 2001 marks the following tendencies:

- Growth of the absolute investment’s rate (excepting 2001)
- Increase of the countries investing in Bulgaria
- Increase of the direct foreign investments in woodworking and furniture industry – totally over the period are invested 105,6 million USD
- Relatively small share of direct foreign investments in the sector in comparison with total investments in the country.

By a expert estimations the biggest foreign investors in the woodworking and furniture industry for the period 1998-2001 are:

1. IKEA – Sweden
2. KRONOSHPAN – Austria
3. GROSS – USA

In 2001 the timber production (without furniture) exceeds BGN 293 million. It is higher in comparison with 2000 with 2.4% and 1998 with 26.4%.

So far the National Statistics Institute has processed only the information from the extraction observations. The information of it is used mainly for calculation of indexes of producer's prices with which is re-calculated the volume of the production at comparative prices.

The information on the whole nomenclature of the observations for manufacture of timber and its products, according to preliminary data and to the shortened nomenclature the manufacture in 2001 is, as it shown in the Table 13.

Table 13

Survey on Timber Manufacturing, 2001

Manufacture of:	Measure	Quantity.
Timber – cut and sawn	m^3	11,043
Oak, wooden parquet boards and details	m^2	105,835
Oak, beech and others.	m^2	0
Parquet, boards and details, profiled	m^2	290,231
Wooden traverses for railroad	m^3	0
Three-ply	m^3	43,417
Timber panels	m^2	169,437
Plywood sheets	m^3	4,148
Windows, double windows	m^3	26,076
Doors and frames, ledges	m^2	70,998
Ordinary timber pallets	pcs.	818,015
Cases, boxes and crates	kg	291,203
Rolls for cables of wooden material	kg	448,339

In 2000 the production of the furniture industry at current prices is BGN 194 million, which is 1.2% of production of the processing industry.

The share of deals by clients' orders is quite big. With materials of foreign clients in 1999 are produced about 45 and 40% of the production – in 2000.

The analysis shows that the growth is due mainly to the enlarged manufacture of metal and tubular furniture. The manufacture of solid furniture is not regular and depends entirely on the orders for export and for sales at the domestic market.

***Commercial characteristics*.** The realized export from the woodworking industry has increased with 17.3%, but his relative share from the total export of the processing industry is still smaller then the manufacturing indexes. Therefore it will be considerable to make the conclusion for the export orientation of the branch. The biggest is the increase in the sectors "manufacturing of raw material and wooden products"and "manufacturing of veneer, plywood and plates", respectively with 36% and with 32%. In the furniture branch is worth to be mention the growth of the export, realized from the "manufacturing of furniture" – 53. 2%.

Over the period 1998 – 2001 the import of timber and its products constantly grew. This increase is different in various product ranges. The biggest is an increase in cases, boxes, crates and other packing, where the basic index is 4,09, while the lowest level has increase in three-play, plywood flatnesses and laminar wooden

material – 1,28. The negative rate registered two products ranges – Firewood (0,51) Plywood sheets and specific plywood (0,54).
The import of furniture has a lower pace of increase in comparison with timber products import. The highest basic index is in other furniture –1,74, while the lowest is in Furniture used in kitchens (1,11), as well as chairs and seats (1,12).
In the export of timber for the period 1998-2001 the higher levels are reached in 1999 – 99 989 000 USD. The veneer, plywood, laminar wooden materials and the plates from wooden fragments and fibres are more frequently exported groups and they increase the export with more over 30%. After 1999 the volume of the export begins to decrease and in 2001 is with 6% lower, compared with 1998.
During the period 1999 – 2001 the export of furniture from wood is constantly growing and during 2001 have been exported USD 50 096 000, as the higher levels of exportet groups are *Chairs and seats*, and *Other furniture* are 30.5%. The biggest quantities Bulgarian furniture are exported to USA – 19.8%, Greit Britan – 18.4%, France – 8.2% and Germany 8%. The study of the structure of the export acording to the Customs rate, shows that about 45% of the export is a reexport of products, after processing materials of foreign clients. The biggest growth is in the first quarter of 2002 is marked in the furniture used id bedrooms – 616 thousand USD (69.4%) and chairs and seats – 1 467 tousand USD (23.0%). It is observe a decreasing of the export of office furniture – 118 thousand. USD (26%). The dinamic of the export and the basic domestic markets are shown in tables 10, 11 and 12 in Annex 2.
Technical characteristics of the production. For providing of the production competitiveness in domestic and foreign markets, by law the quality of the products are regulate with Legislation concerning technical norms of the products and the relevant technical standards.
In contrast to many states, where the national standards are compulsory and have a statute as a law or regulation, in Bulgaria the technical standards are advisable..
In the sector woodworking and furniture industry exists about 350 Bulgarian state standards and about 120 European (EU and ISO), which should be implemented as BDS EN and BDS OSO. In figure 1 the standards, related the production of woodworking and furniture industry are presented.
The consumer's protection in Bulgaria is settled by a specialized Law of consumer's protection and rules of trade, as well as by operating sub legal framework. The control is made by the Commission of trade and consumer's protection and the Ministry of Economy. Legally, the consumer's protection is well regulated in the field of woodworking and furniture industry. The existing legal framework protects consumers basically in panels' utilization, made by unhealthy sticked resins and glues, paints and varnishes. Legally is ensured also the consumer's protection against furniture production and its quality, as well as the harmlessness of utilized materials.
The technical innovations, made in the period 1998-2001 are reduced to building of new lines for production of WB (wafen boards), used in construction and production of packings and line for the plates from wooden fragments. Also are modernized some technical parts of existing installation, aiming current maintaining. The production of seats and backs is enlarged. Leading Bulgarian enterprises are concentrating their efforts during the period towards installing of:woodworking centres with numerical program control for working of furniture details on all stages

of manufacturing process, contemporary machines for sawing plates;contemporary canting machines.

Management and education. By an expert opinion, one of the problematic directions, in which must be fine a decision for the companies of the branch is the qualification of the managers and the businessmen in the fields of management and marketing. Because of the specific of the branch, where are most SME, in the biggest part of the companies the property is not speared from the management. The owners of the biggest part of the new founded companies are experts from the branch, who doesn't have the required qualification and management skills. Only in the big enterprises the management is separate from the property and it is given to special engaged management teams. As a main problems in the management, can be mention the follow:

1. Scanty knowledge for modern and rational methods for production and management.
2. Low effectiveness of the production, connected with weakness of the organization.
3. Necessity of increasing the qualification of the staff, especially in implanting of new techniques and technologies in the manufacturing.

3.4. Policy Framework and Production Conditions

The well-developed legal and sub legal system in Bulgaria, elaborated by Ministry of environment and waters, Health ministry, Ministry of regional development includes the common laws of environment preservation as well as the relevant regulations and orders. Here are included the law for environment preservation; the law for limitation of the waste harmful influence on the environment; the law for purity of the atmosphere; the law for preservation of water and soil from waste; the law for people's health; the sub legal framework, which defines content of wood dust in the atmosphere, the limits of admissible concentrations of harmful substance in the air and in the working environment, values of harmful emissions within the exhaust gases from drying installations and burning of industrial wastes. Important for the branch are the norms for physical load down of the workers and hygienic-physiologic and ergonomic requirements for optimal organization of the working process and place. These norms are compulsory concerning organization and physiologic work standardization

Expert consultations and market researches can be done by Bulgarian association of regional development (BARD), Bulgarian Association for Management Development and Entrepreneurship (BAMDE), Bulgarian Association of Management Consulting Organizations (BAMCO), Bulgarian Industrial Association (BIA), Bulgarian Chamber of Commerce and Industry (BCCI), experts from Forestry University and GTZ.

Connected with the enlarged of the export, since 1998 firstly for the EU countries and after for the rest countries, the export taxes for some round and sawn timber materials are removed. Since 2000, the export regime is strongly liberalized. It is put in operation registered regime for the export of raw unprocessed timber (customs tariff 4403). It concerns coniferous and wide leave timber with diameter in the thin end more than 4 cm, excluding destroyed by fire timber. For burned timber, there are disallow regime.

The conditions and rules for registering of export transactions are defined by Regulation No 4, article 7 – PMS 233. Registering of export transactions for unprocessed timber and firewood is accomplished by Forestry Ministry. It is necessary to be presented documents for the company, the goods and for the transaction.
The unprocessed round and sawn timber materials, which are from local tree types are free of taxes and duties for export and import.
Different types of boards (particle, fiber, OSB etc.), plywood, veneer, windows, wrap page, furniture and other timber products are free of export taxes, bur for the import there are duties from 2.5 – 3% up to 20.5%, depending from the country, conformable to the Customs tariff of Bulgaria.
The companies from the branch formulate the main problems in the fields of the finance in the following descending order, by a degree and importance:

- Too high collaterals required by the banks;
- High interest rates;
- Lack of information about different financing possibilities;
- Inadequate system for risk assessment by the banks;
- Not developed bank products.

These problem areas are especially relevant for the micro and small companies, which are typically characterized by:

- Insufficient assets suitable as collaterals;
- Higher risk, hence higher interest rates required by the banks;
- Poor credit record because of relatively short market presence;
- Small loan amounts, which lead to relatively higher processing costs;
- Poorly developed market strategy and lack of export orientation;
- Lack of adequate accounting.

The analysis of the financial data, provided by the National Statistical Institute, substantiates the above mentioned obstacles through the following conclusions:
The companies from the woodworking sector demonstrate negative and further shrinking profit margins; the same indicator for the companies in the furniture industry is fluctuating between 2.7 and -2.7%.
The debt ratio of the companies from the branch, expressed as total debt divided by total assets, shows a stable trend of growth. This proves an increased capability for attracting external funds; it leads to higher risk levels though. This is especially true for the woodworking industry, where in the last years the debt to equity ratio exceeds 3.
The furniture industry shows good possibility to serve its debts – in the period 1997-2001 the ratio 'Times interest earned' exceeds 5. Quite unfavourable is the trend of this ratio for the woodworking industry, where it dropped under 1 in 2001.
Regional policy. The woodworking and furniture enterprises are allocated non regularly on territory of the country, as the capacity are concentrated mainly on territorial and raw materials principles. As an example typical regions, in which are concentrated the manufacturing of wooden products and furniture in the country are: Troyan – Teteven, Veliko Tarnovo, Velingrad – Batak – Peshtera, Bourgass and ets. Technical and consulntance help the businessmen can take from Agency for regional development and from Agency for SME, Branch chamber of woodworking and furniture industry.

Institutions for education and science. The education and science institutions are allocated mainly in the towns with big woodworking and furniture enterprises and regions with rich of raw materials. In the region of Pazardjik there are 7 specialized schools, region of Plovdiv – 7, in region of Smolian – 6, in Blagoevgrad – 5, town of Sofia – 4,the region of Stara Zagora – 5. Specialists with tertiary education are trained in the Forestry University in the profiles „Forestry economy“, “Wood-processing and furniture manufacture industry” and “Engineering design”. Post graduate, qualification and re-qualification courses in the field of “Wood-processing and Furniture manufacture industry” are organized at the Forestry University. The University research sector provides for scientific and contractual projects for the teaching and technical personnel. There is a research and design sector, laboratory for wood modification and a wood-work shop.
Institution for forestry science in the field of “Forestry” and “Timber processing industry and furniture production” are as follows: 71 secondary specialized schools, Forestry University, Forest Research Institute, and some non-profit organization amomg them are Branch chamber of woodworking and furniture industry, Federation of Bulgarian wood processing and producers of furniture at the Bulgarian chamber of handicrafts, Bulgarian Forestry chamber, Union of independent Bulgarian professional foresters, Bulgarian German center for vocational Training (DBBZ).
Degree of bureaucracy, support of SME. Credit lines for supporting of SME from the woodworking and furniture industry are offered by: Hebros Bank Programme ‘PERSPECTIVES’ Developed in conjunction with EBRD Raiffeisen Bank, AD jointly with Soros Economic Development Fund “Soros”, Encouragement Bank, CRS Bulgaria, German Credit Institution KfW; National Network for Micro-funding; PHARE Programme; UNITED BULGARIAN BANK; CARESBACK–Bulgaria; Programs of the Dutch goverment – “PSO” и “PSO+”for economical development; Program of foundation “FAEL”; Program SAPARD and some others programs of Ministry of labour and social politic. A inquiry survey made by Branch chamber of woodworking and furniture industry shows that the businessmen are not acquaint and doesn’t search actively information for the international projects and programs, aiming supporting the enterprises of the branch.

4. Non-Wood Forest Products and Services (NWFP&S)[18]

Summary

There are many definitions for NWFP&S. Here they are defined as non-wood products for direct use – nuts, fruits, resin, game; supporting services – grazing, bee-breeding, sport hunting, recreation; life-supporting conservation, climate regulation, game supporting, erosion control, soil fertility insurance, amenities supplying, etc.
The production and consumption of non-wood products plays an important role in Bulgarian traditions. The change of property rights over forests and forest areas did not affect significantly the collecting of non-wood products as species and quantity.

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One of the problems, which have arisen in the last decade, is poaching (timber harvesting, game huntering, plants, illegal grazing, etc.). It is assumed that mainly small firms (of family or other small communities) use to collect NWFP, and in some cases they are involved in the next processing like drying, packaging, etc. They are present in the further stage of processing, distribution and export, usually firms with more capitals, assets, contacts, etc.
It is concluded that innovation in the field is at a low level. Improvements made are connected with better built drying machines and better organized stock building with ventilation, better packaging with appraiser materials and correct information on purposes, dates of fitness, etc.
The main directions for improvement of production and consumption of NWFP&S are identified.

4.1. State of the Art and Historical Development

Historically Bulgaria has traditions in using non-wood products. Resin from the conifers, lightwood, medical herbs were widely used for domestic and sale purposes, as well as mushrooms, forest fruits, hip (Rosa canina fruits), blackberries, raspberries, blueberries, lime flowers, and more recently Sambucus flowers and fruits.
Most of the mushrooms and forest fruits, as well as herbs, are collected for export. A lot of honey is produced in bee-gardens in forests.

Table 14

Collected Non-Wood Forest Products (NWFP) 1961-2000 (in *tons*)

NWFPs	1961	1965	1970	1996	1998	2000
Herbs	6835	8222	7285	-	-	624
Blueberries	213	454	274	182	51	126
Raspberries	525	1032	276	-	6	64
Cornel-fruits	1230	331	481	534	20	52
Blackberries	646	1432	355	182	39	360
Mashrooms	3329	1651	2651	422	2342	1288
Resin	1154	2945	2616	-	-	-
Lightwood	16844	11901	14843	-	-	-
Hay	-	-	-	1504	666	1395
Lime flower	-	-	-	703	239	1049

Source: Forestry Board and branches reports (Vachovski, Dimitrov, 2003).

Table 15

Collected Non-Wood Forest Products 2002-2003 (in *tons*)

Resource	Measure	Volume 2002	Volume 2003
1. Christmas trees	Numbers	69 330	38 892
2. Fruits			
✓ Shell nuts (walnuts, hazelnuts)	Tons	10 303	12 653
✓ Mellow fruits			
3. Rosa canina fruits	tons	1 619	2 026
4. Lime blossoms	tons	398	204
5. Herbs / dry	tons	267	427
6. Wild mushrooms, incl.:	tons	8 022	6 670
✓ Edible boletus	tons	7 410	3 825
✓ Chanterelle	“	4 325	187
✓ Agaric	“	758	509
	“	947	495

Source: Stoyanov, D. 2003.

Tendencies in collecting non-wood forest products could be summarized as follow: nearly giving up collecting resin and lightwood, some fluctuations in harvesting mushrooms, herbs, forest fruits, depending on buying up.

After 2000 some positive tendencies in collecting NWFP have taken place. Some data about revenues demonstrate doubling in 2001 (2 013 060 BGN), compared to 2000 (1 071 084 BGN), and nearly four times more in 2002 (3 898 795 BGN) (Stoyanov, D., 2003).

Many herbs are used in traditional medicine. Some of them are for personal use, the others are exported. **The change of property rights** over forests and forest areas did not affect significantly the collecting of non-wood products as species and quantity. There were some years between 1990 and 1996 when the recreation use was reduced, but recently it has been increased again. Despite the restoration of private property rights over some forest areas, real ban on entering these forests exists in very few of them. Real strictness exists in some categories protected areas (natural or biosphere reserves). One of the problems, which have arisen in the last decade, is poaching (timber harvesting, game huntering, plants, illegal grazing, etc).

NWFP&S Definition, Classification and Relevance in Rural Economies

NWFP&S are defined as products from the forests for direct use, some of them for indirect use. The role of the forests has been recently assessed as life-supporting, defined before usually as surroundings (habitat) – forming function. NWFP&S could be classified in different ways:

A)

1. Resources and raw materials for “industrial processing”: resin yield out of coniferous tree species, tanning extract from bark and sumac, cork, needles and stumps.
2. Resources of wild berries, herbs and mushrooms; walnut yields (of walnut plantations), lime blossoms from forest stands and plantations, etc.
3. Fodder resources: a) herbaceous resources for pasture and hay harvesting; b) fodder yield of tree species, seeds, etc.; c) bee pastures.

And another classification:

B)

1. Non-wood products NWFP for direct use – nuts, fruits, resin, game.
2. Supporting services NWFP&S: grazing, bee-breeding, sport hunting, recreation.
3. Life-supporting functions of the forests’ NWFS – water-preserving, habitat-supporting, biodiversity conservation, climate regulation, game supporting, erosion control, soil fertility insurance, amenities supplying, etc.

Third classification divides NWFP&S depending on further use:

1. Collecting for industrial purposes – resin for production of colophony, bark.
2. Collecting for food and medical purposes – mushrooms, forest fruits, herbs.
3. For farm purposes – hay harvesting, grazing, bee-breeding.

The country has a significant number of plants – 741 plants of Bulgarian flora are used as sources for drugs; nearly 20 plants supply forest fruits; 10 species of mushrooms have industrial and trade importance. NWFP collected for personal needs are not paid. Collecting for production must be paid according to regulations and fees (illegal actions could be observed).

According to the regulatory legal framework (Forests Law, Forestry Code, etc.) the NWF resources are not included in the forestry management plan, unless explicitly demanded by the customer. Consequently, these resources are neither subjected to a detailed inventory nor are accounted for as the stands, which results in a gap in the scientific data in the Forest Fund reports. Some general and very oblique indicators account for their usage, as production utilized over a certain period of time. Such a report, however, is along very broad lines and is far from being precise. The present stage in the forestry development in Bulgaria calls for an entirely new approach to the inventory of these resources which should include:

- application of some scientific methods for the inventory of the non-wood forest resources. Teams of scientific researchers have already worked out such methods;
- total and deatailed inventory of the non-wood resources over a ten year period;
- setting-up a new regulatory framework for the utilization of non-wood forest resource.

Property Rights Regulation System (Access)

As a result of political and economic changes in the country after 1989 Bulgarian forest branch underwent a stage of reforms from state property to market economy and restoration of private property. Very few of private forests are banned for access. The others – state, private, municipal – could be used under the regulations and follow the prescriptions of the professional project (arrangement of actions and activities). The situation is still unstable and it requires appropriate decision-making and policy.

4.2. Case of Successful Marketing Strategies

The firm BIOSTART Ltd, Velingrad, which works closely with the Agency for Regional Development, is an example for successful marketing strategy in Bulgaria. Its activities could be summarized as follow:
(a) Project “Mountain EcoKiss”, funded by UK Ministry of Environment, Food and Rural Affairs for wild-fruit production;
(b) Education for unemployed local people for environmentally friendly collecting of herbs and forest fruits under the Project JOBS – a joint initiative of the Bulgarian Ministry of Labour and Social Policy and the UNDP supporting job creation and small business development;
(c) Establishing of an Educational-Production Centre and initial production of jams from wild-grown fruits;
(d) Ecotourism in the Rhodopi region.
Results of the projects and the initiatives are: creation of the Soil Association Global Partnership *Certified Biostart Ltd, Velingrad for organic farming & production (22000 ha);* training of more than 60 women and children from socially weak position to work environmentally friendly. Realization of the production is in Germany and Italy; introduction of the initiative *Bulgarian HERBS* for small business development in herb sector in Bulgaria.
The another successful firm BARET is a kind of consulting one and it works mostly in natural areas. They had created an Eco Path Tran with the necessity for this establishment steps, small wooden bridges, indicative tables, etc.

NWFP&S Definition, Area of Production, Harvesting Level, Technical Characteristics of Production

NWFP for industrial purposes is an important activity, which could make a significant contribution to the economic development. But now such products are not collected in the country – a quite big harvesting nearly stopped between 1960s and 1980s of the 20th century.

NWFP could be a source as conifers and they grow in the mountains. They could be collected for food and medical purposes – mushrooms, forest fruits, herbs. These kinds of products are harvested for two main reasons: for domestic (family) use, and for sale – internal and external market.

NWFP could be collected for farm purposes. Here hay harvesting, grazing, bee breeding – traditional in fluctuation levels are among the better presented.

It might be summarized that the quality of all these groups of products is usually high (environmentally clean conditions, qualitative trees and forests). At the same time technologically most of the works are traditional and quite primitive.

Recently few relatively big companies and many small firms use NWFP in Bulgaria. For using natural resources they have to pay tariff fees (arranged by a law and an instruction of the Ministry of Agriculture and Forestry). The control of using natural resources is not enough effective and some damages on the habitats could be observed. The way of processing could be described in the following way: herbs are dried, some of them for use in the country (15-20% for local use) and more – for export. Mushrooms are manufactured – dried, salted and frozen mostly for export.

“Product Chain” Organisation

When collecting NWFP is for domestic purposes the amounts are small. The problem arises because more people and households harvest fruits and herbs for domestic purposes. There are no significant damages on trees, habitats, nature.

When NWFP collecting is for sale, some differences appear: (a) some people turn their “hobby” into “profession” – they collect more than they need and they sell the surplus. The way of collecting looks traditional – low amounts, good quality, less damages; (b) some individuals looking for a job and money harvest products and offer them to the purchaser; (c) in some cases registered firms, which have prior knowledge of the demand for some products, organize the work. They engage some people to collect the products for them. There are several ways of going to the consumers further: (a) these firms could “close the chain” with drying, making mixtures, conserving, packaging and supplying to sellers such small drugstores, etc. The whole process is under the regulation of sanitarian authorians, as well as permissions for product quality. Another way is (b) connecting with bigger firms which collect materials and produce the final product; and third (c) collecting NWFP for export: exporting companies are usually bigger; they work with many kind of products depending on demand and possibilities to export.

The first stage of harvesting, collecting, and in some cases drying, packaging, etc. is done by small firms (family or others). The further stage of processing and distribution export, if there, is by SMEs too, but usually firms with more capitals, assets, contacts, etc.

There is a tradition in exporting some NWFP – mushrooms, bee-honey, herbs. There are many foreigners visiting Bulgarian forests for recreation – winter and summer. Ecotourism, hunting-tourism is also form of indirect use (more detailed information further in the paper).

Policy Framework

The development of the sector of NWFP&S is regulated by the Decree of Council of Ministers No 93 & 94 – about approving tariffs for non-wood products charges – beginning from 29.05.2000, published State paper No 46 /06.06.2000.

Characteristics of Technological and Organisational Innovation Behaviour in Non-Wood Production, Processing and Service Industries

Innovation in the field is at a low level. Most of the methods used are close to traditional (which make them environmentally friendly, but sometimes risky). Available improvements are: drying machines better built and stock building organized with ventilation, better packaging with appropriate materials and correct informing for purposes, dates of fitness, etc.

Conclusions

The NWFP&S in Bulgaria have a big potential to develop in the future. There are possibilities for financial support from some EU and other Programs. More and more people know about that, but there is not enough knowledge on the application procedure, as well direct contacts with responsible experts. Entrepreneurship in the field is not very high. Despite low expenditure their return is not very high. There is very high interest in tourism as a business.

5. Forests and Ownership[19]

Summary

The forest resources and their ownership structure are important factors, affecting forestry production. Their main characteristics are summarized here and suggestions for overcoming the negative effects are identified.
The share of forest is 32.9% in total land area in Bulgaria. The share of exploitable forest area (forest which is available for wood supply) is 87.02%.
The forest ownership in Bulgaria is predominantly large scaled and public. The last years of economic transformation has affected the prevailing ownership relations in the forest sector. The structural and economic changes, directed to introduction of market economy, have defined new priorities in the forestry sector development connected with the restoration of the economic activities in the state-owned forests and comasation of the forests of small forest owners. As a result the forest industry overcame the state monopolism but went to the opposite extreme. The identified negative effects of the transformation in this period are: decreased production; insufficiency in quantity and quality raw material for the existing processing

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capacities; lost markets for the production of the wood processing industry; problematic credit allowance.
It is concluded that to overcome the negative effects, the reform must be directed towards increasing competitiveness of Bulgarian forest related products and services and reaching a level of their annual growth and export by 10%.

5.1. State of the Art and Historical Development

The forest and forest utilization is an important source for economic development. The challenges of recent changes in ownership have affected forest and forest utilization. They have raised new problems in addition to the existing ones. The last years of transformation were a period of structural and economic changes, directed to introduction of market economy, defining new priorities in the forestry sector development: restoration of the economic activities in the state-owned forests; comasation of the forests of small forest owners; interruption of experiments in the management of the forestry sector; attention to the Bulgarian experience and traditions in forestry. The forest industry in the transition to market economy after 1989 overcame the state monopolism but went to the opposite extreme. Now there are many improtant research questions on the country and regional level with no satisfied answer.

5.2. Forest Resources

The wooded land, growing stock, average volume of forest per hectar, and exploitable forest area defines forest resources in the country. The land area in Bulgaria is 10 895 000 ha, of which 3 903 000 ha are wooded land and 3 590 000 ha are forests. The share of forest in total land area is 32.9%. The predominantly coniferous forest is 792 000 ha, predominantly broadleaved forest is 2 421 000 ha, and mixed forest is 376 000 ha. The growing stock is 467 345 (1000 m^3 o.b.), broadleaved forest – 193 531 (1000 m^3 o.b.), other wooded land and trees outside forest – 44 000 (1000 m^3 o.b.). The average volume per hectare of forest land is 130 (m^3/ha). The mean net increment per hectare (m^3/ha/a) is 3,34.
The share of exploitable forest area (forest which is available for wood supply) is 87.02%. The share of forest area affected by restrictions in harvesting (the share of forest which is not available for wood supply) in the country is as follow: 7.4% because of conservation/protection reasons and 5.5% because of economic reasons.

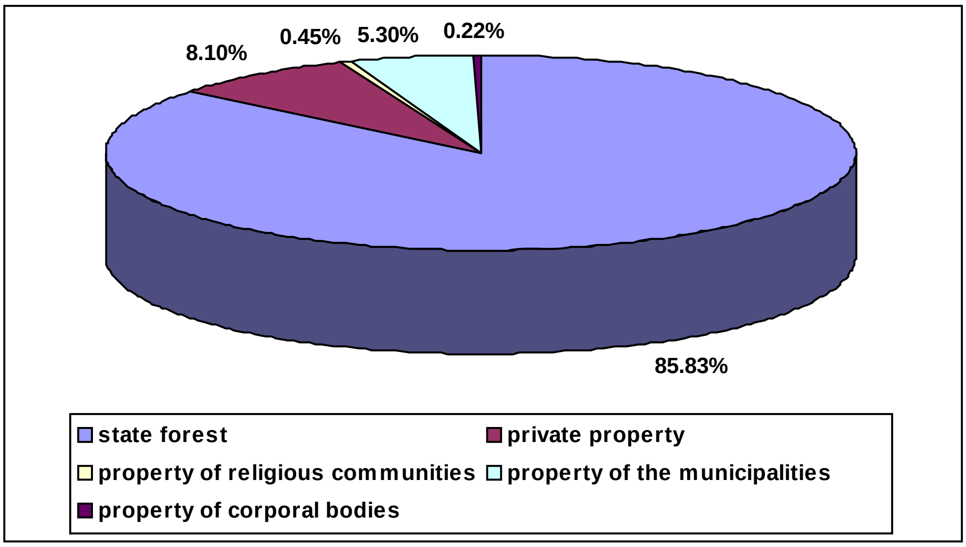
5.3. Forest Ownership

The unfinished process of restitution is a barrier to provide enough clear picture of ownership of forest and other wooded land. But according to official information, the ownership is predominantly large and public.
The number of holdings of forest and other wooded land in public ownership is 3 903 000 ha. The distribution of numbers of holdings in public ownership in size classes show that there are only 2 size classes presented in the country. The prevailing size class is those of 1001 – 100 000 ha. It is performed by 91, 9 holdings in Bulgaria. 18,1 holdings belong to the size group 501 – 1 000 ha.

The share of forest ownership[20] is shown on figure 1.

Figure 1

Percentage Distribution of the Forest Fund of Bulgaria on Types of Ownership



The major part of the forest ownership is state one – 85,83%. The property of private persons is 8.1% of total. 5.3% is the share of municipalities, 0.45% – of religious communities and 0.22% – of other legal entities.
The trends of forest ownership depend on the processes of restitution and privatization. It is difficult to make any projections at this moment, because of the lack of clear political will and legislative base. The same reason is the right to collect and sell NWFP from public and private forest to be not enough well defined in the country, either.

5.4. Main Problems and Research Questions in Forest Resources and Ownership for Enterprise Development in the Forest Sector

The main problem and connected research questions for enterprise development in the forest in Bulgaria concern development of an effective National strategy towards forestry, wood processing and non-wood products and services. The lack of clear vision and of consensus in this respect defines a broad area of questions to be answered. Among them are what kinds of policy to be followed in the forest sector? Which model for innovation system in forestry to be chosen? What kind of institutional infrastructure for the forest sector development to be supported? Which is the effective strategy for further integration to EU forestry structures, what kind of effective marketing strategies for Bulgarian products to develop? What kind of instruments to be introduced in order to increase sources for purchasing modern forest machinery, building forest roads and forestation? What kind of incentives to be implemented in order to improve quality of local production and to protect industrial property rights? How to speed processes of standatrization and

[20] Annual Report of the National Forestry Board for 2002, "Gora"magazine, issue 6, 2003.

certification? What kind of model of training and education to be followed in order people to be able to solve the above problems?

Conclusions

The economic integration of urban consumers' demand and rural forestry production in Bulgaria is on low level. The main problem and connected research questions for enterprise development concern providing of an effective National strategy towards forestry, wood processing and non-wood products and services. The lack of clear vision and of consensus in this respect defines a broad area of questions to be answered. Among them are those of development of an effective innovation strategy for further integration to EU forestry structures, for promoting Bulgarian products and services. Integral part of this strategy are identification and application of instruments for increasing the sources for purchasing modern forest machinery, building forest roads and forestation, improvement of the quality of local production and protection of the industrial property rights, speeding the processes of standatrization and certification. Development of innovation networks and new ways of corporate governance seems to be the modern tools for new strategy implementation.

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