

# **Opportunities for Enhancement of Competitiveness in Forestry in Bulgaria**

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In previous studies, on the grounds of national forestry competitiveness estimation in 15 states members of EU is established unsatisfactory ranking of the Bulgarian forestry (13 place) which does not correspond to the possessed forest resources. The main reason for that are the insufficient investments. Because of that the **goal** of current article is to reveal the reasons for insufficient investments in forestry in Bulgaria and to suggest recommendations, which will enhance investments and competitiveness of forestry in Bulgaria.

## 2. Theoretical framework of the research

The reasons, which determine the insufficient amount of investments in forestry, are manifold and complex. To identify them and to gain insights on how to overcome them is necessary to create a structure in which an analysis must be carried out. O. Williamson provides such a structure with four levels of institutional analysis.

The **first level** of Williamson's institutional analysis is called 'social embeddedness'. It deals with informal institutions. The informal institutions evolve over time and play important role in structuring interactions among the economic subjects and have implications for overall socio-economic outcome. The informal institutions change very slowly and have evolutionary cycles that last hundreds even thousands of years. Usually this level is taken as given.

The **second level** of institutional analysis reflects the institutional environment, i.e. the formal institutions or the formal rules of the game – especially property. The formal institutions are presented by constitutions, legal laws and institutions to enforce political system, human rights and property rights (their definition and enforcement). The theoretical grounds of this level of institutional analysis are the economics of property rights. When property rights of natural resources are defined this one who wants ‘to use a resource has to pay the owner to obtain it. This provides resources owners with incentives to do investments on purpose to improve resources condition.

The **third level** of Williamson's analysis deals with 'the governance structure'. The stress is put on contracts between stakeholders and their enforcement on purpose of getting 'governance structures right' and minimizing transaction costs in the system. From the point of view of forestry the contracts are broken due to information asymmetry, lack of foresight, rent-seeking and opportunism. This increases the uncertainty in the system and transaction costs, and does not stimulate investments in it.

The **fourth level** deals with allocation of resources. Here are applied the neoclassical economic provisions, which govern the functioning of economy and mainly the study on decisions' variables – prices and output.

The **second and third levels of O. Williamson** analysis provide a complete analysis of property rights, which is the essence of the new institutional economics (NIE). Both levels are dealing with improvement of formal institutions. They have matter for entrepreneurship, trade and economic development. Due to this the scope of this article is limited to them. Furthermore the second and third levels of the institutional analysis allow formulation of basic working hypothesis for the insufficient investments in forestry of Bulgaria. They are verified on the basis of questionnaires filled by representatives of different groups connected with forestry and application of  $\chi^2$ -method.



### 3. Research thesis

Among the main reasons for insufficient investments in forestry are inefficient legislative protection of forest resources property rights, rent-seeking, opportunism, and asymmetry of information. The limitation of market failures might be achieved through investments of territorial division (State Forest Enterprises (DGS) and State Hunting Enterprises (DLS)) of state enterprises (DP) for management of state forest territories in their own equipment for realization of silvicultural activities and timber harvesting. It is supposed that DGS/DLS are able to create competition among the economic subjects in forestry through increasing the share of stewardship activities performed with their own equipment and workers (of DGS/DLS).

Variables			How efficiently does the current legislation protect the property rights of wooden forest resources in Bulgaria?				Total
			Very inefficiently	Inefficiently	Efficiently	Very efficiently	
How do you assess the level of investment in Bulgarian forestry?	Very low	Actual frequencies	9	16	8	0	33
		Theoretical frequencies	4.4	13.5	13.3	1.7	33.0
	Low	Actual frequencies	11	44	51	8	114
		Theoretical frequencies	15.3	46.7	46.0	6.0	114.0
	High	Actual frequencies	3	10	10	1	24
		Theoretical frequencies	3.2	9.8	9.7	1.3	24.0
Total		Actual frequencies	23	70	69	9	171
		Theoretical frequencies	23.0	70.0	69.0	9.0	171.0

Variables			How efficiently does the current legislation protect the property rights of non-wooden forest resources in Bulgaria?				Total
			Very inefficiently	Inefficiently	Efficiently	Very efficiently	
How do you assess the level of investment in Bulgarian forestry?	Very low	Actual frequencies	13	13	7	0	33
		Theoretical frequencies	8.3	14.9	9.1	.8	33.0
	Low	Actual frequencies	27	50	33	4	114
		Theoretical frequencies	28.7	51.3	31.3	2.7	114.0
	High	Actual frequencies	3	14	7	0	24
		Theoretical frequencies	6.0	10.8	6.6	.6	24.0
Total		Actual frequencies	43	77	47	4	171
		Theoretical frequencies	43.0	77.0	47.0	4.0	171.0

Variables			To what extent in Bulgarian forestry there are market failures as rent-seeking?			Total
			Very high	High	Low	
<b>How do you assess the level of investment in Bulgarian forestry?</b>	Very low	Actual frequencies	9	24	0	33
		Theoretical frequencies	5.4	21.3	6.4	33.0
	Low	Actual frequencies	24	65	25	114
		Theoretical frequencies	22.0	70.0	22.0	114.0
	High	Actual frequencies	0	16	8	24
		Theoretical frequencies	5.6	13.7	4.6	24.0
<b>Total</b>		Actual frequencies	33	105	33	171
		Theoretical frequencies	33.0	105.0	33.0	171.0

Variables			To what degree in Bulgarian forestry there are market failures as opportunism?			Total
			Very high	High	Low	
<b>How do you assess the level of investment in Bulgarian forestry?</b>	Very low	Actual frequencies	11	21	1	33
		Theoretical frequencies	7.3	22.2	3.5	33.0
	Low	Actual frequencies	24	81	9	114
		Theoretical frequencies	25.3	80.7	8.0	114.0
	High	Actual frequencies	3	13	8	24
		Theoretical frequencies	5.3	12.1	6.5	24.0
<b>Total</b>		Actual frequencies	38	115	18	171
		Theoretical frequencies	38.0	115.0	18.0	171.0

Variables			To what degree in Bulgarian forestry there are market failures as information asymmetry?				Total
			Very high	High	Low	Very low	
<b>How do you assess the level of investment in Bulgarian forestry?</b>	Very low	Actual frequencies	12	12	6	3	33
		Theoretical frequencies	4.1	13.1	7.5	8.3	33.0
	Low	Actual frequencies	9	68	28	9	114
		Theoretical frequencies	14.0	66.0	26.0	8.0	114.0
	High	Actual frequencies	0	19	5	0	24
		Theoretical frequencies	6.9	9.9	5.5	1.7	24.0
<b>Total</b>		Actual frequencies	21	99	39	12	171
		Theoretical frequencies	25.0	89.0	39.0	18.0	171.0

## 5. Conclusions

- The level of investment in Bulgarian forestry is low. The insufficient investment is precondition for low competitiveness of Bulgarian forestry.
- The institutions do not create security and predictability in the system of forestry. The property rights of forest resources are not well protected and some market failures as rent seeking, opportunism and information asymmetry are met.

- The main reasons for insufficient investment are opportunism and rent-seeking. The limitation of these market failures is possible through establishment of structure of institutional rules that enables transition towards rationally organized enterprises. Through strict calculation of revenues and costs they should be motivated for goal-oriented rational social actions, which lead to competition, effective protection of property rights on production factors and investment. More precisely at present stage of development it is necessary the territorial division of state enterprises (DGS and DLS) for management of state forest territories to invest in their own equipment and to increase the share of stewardship activities carried out with their own workers and equipment.



**Thank You for Your Attention!**