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Article in *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* · June 2010

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## Policy Options for Private Forest Owners in Western Balkans: A Qualitative Study

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### Abstract

Private forest owners start to play an important role in Western Balkans' forestry and they are essential to the successful implementation of environmental policies. Little is known about how forest policy can support private forest owners in these countries and therefore this study was conducted through a qualitative method, based on personal interviews with representatives of 54 stakeholders that include state forest authorities and administration, private forest owners associations, forest science and research and private sector in Bosnia Herzegovina, Croatia and Serbia. The results show significant homogeneity across the region towards creation of independent interest forest owners associations based on financial support. Regression analysis identified stakeholder attitudes as significant predictors of policy preferences and also identified owners of production forest as more supportive of such policies.

**Keywords:** Bosnia Herzegovina, Croatia, Serbia, forest owners associations.

### Introduction

Countries in Western Balkans (Fig. 1) have embarked on a free market economy after almost 50 years of centrally planned one. Forest was considered a state asset during the socialist period and after the political and state changes that were encountered in the ex Yugoslavia area the newly formed states started to return back the forest to the rightful owners. Private forests are nowadays an important item for consideration in the forest policy and strategy of Bosnia Herzegovina, Croatia and Serbia.

Forests in Serbia cover approximately 2.2 million ha, which corresponds to 29.1% of the country's territory. Share of private and state forests in Serbia, according to the latest available data is almost equal. Area of private forests is 1.058.400 ha, which is approximately 47% of total forest area (Banković *et al.*, 2008).

Forest cover in Croatia amounts to 2.572.957 ha, out of which 581.770 ha (22.6%) are privately owned (Čavlović *et al.*, 2005). Almost all (99% or 576.832 ha) of private forests are production forests.

About 52% of the surface of Bosnia and Herzegovina (BiH) is covered by forest and forest lands (Visnjic *et al.*, 2009). BiH is divided in two entities: the Federation of BiH (FBiH) which is divided in 10 cantons, the Republika Srpska (RS) and forestry is regulated differently in

the two entities. The private forest in RS covers 228.874 ha and respectively 293.563 ha in FBiH, which represent 20% of the total national forest area (Anon, 2003).

The private forest ownership in Western Balkans is characterized by high fragmentation of properties, large number of forest lots and large number of forest owners along with insufficient organization of forest management. More than 72% of owners have properties smaller than 1 ha, 26% own properties sized from 1 to 10 ha and only 2% of total number of forest owners have forest properties bigger than 10 ha (Martinic *et al.*, 2009). Legislation frame is not adequate to the situation as it reflects mostly the administration and management needs of state owned forests. Private forest owners have little will to join an associative structure such as a Private Forest Organization (PFO). Under such circumstances there are many challenges that need immediate attention (e.g. sound management of private forests, establishment and management of PFOs), but there are some more comprehensive problems that go beyond the scope of forestry (e.g. ownership rights, rural development etc.), which should be addressed as they have a strong impact on private forest management.

Despite the fact that democratic changes have occurred in Western Balkans more than 8 years ago and the number of private forest area exceeds 2,2 million in the case study countries, still the organization of forest owners is in an in-



Fig. 1. Western Balkans map

ipient stage. A possible scenario for the region that is supported by international donors such as the World Bank, UNDP, is the establishment of independent voluntary forest owners association, which would represent owners' interests (World Bank, 2009).

However, beside voluntary organization of forest owners, in some European countries, such as Austria and Slovenia, there are owners organizations with obligatory membership for all forest owners from a certain territory. In addition, there are forest owners associations established on the principle of selective incentives, especially financial ones (Nonic *et al.*, 2006).

The main goal of forest owners associations should be the representation of forest owners interests and establishment of partnerships between different groups of forest owners, along with definition and promotion of their mutual interests, and participation in forest policy processes. This could enable forest owners to take an active role in formulation of related laws and other relevant forestry documents, which has not been the case yet in Western Balkans.

According to the Group theory (Bentley, 1949; Latham, 1952), which claims that all people, with a common interest will associate for representation of those interests, it can be assumed that strong association of forest owners in Western Balkans should be established. However, at present situation is different, since there is very little done towards establishment of such organization in the case study countries.

The theory of collective action, tried to explain such phenomena (Olson, 1965). This theory suggests that small and large groups do not behave in the same manner. According to this theory, every association exists in order to serve the interests of its members. However, large and small groups do not behave the same during establishment

of associations with the aim of providing common goods. The difference is that members of large groups, which Olson calls "latent groups", do not see a clear interest in providing common goods on their own expense and often act as "free riders". Members of latent groups often expect that common goods will be provided at the expense of someone else, which like them recognize the importance of the association. Based on Olson's theory, large number of private forest owners in Western Balkans, can be considered today as latent groups.

## Methodology

The authors of this article conducted „in-depth“ interviews with a qualitative analysis methodological approach (Jones, 1985; Lamnek, 1995; Glück and Mayer, 1996; Neuman, 2006) as part of the PRIFORT project that was financed by the Austrian Ministry of Agriculture and Forestry, Environment and Water Management. This methodology was used for assessing the attitude of forest policy makers and representatives of relevant institutions and organizations towards the establishment and development of forest owners associations in Bosnia Herzegovina, Croatia and Serbia

The interviewed stakeholder groups were categorized in (a) public administration and public forest enterprises, (b) forest science and research organisations, (c) associations of private forest owners and private forest enterprises and (d) other interest group in the forestry sector. The total number of respondents was 54, with an overall response rate of 56%.

The survey covered the following topics: (i) private forest management and sustainability, (ii) forest owners' homogeneity/diversity, (iii) legislative support for development of forest owners' associations, (iv) state and non-state financial support, (v) voluntary versus obligatory membership of private forest owners association (PFOA), (vi) presence of a national umbrella association of private forest owners associations and (vii) services to be supplied by the PFOA.

The independent variables considered were individual characteristics of landowners and their forests. Such characteristics consist of landowners attitudes, types of forest and socio-demographic variables.

Attitudes examined in this paper included ownership motivation and responsibility related to owning and sustainability in the Western Balkans: legacy, financial support, forest owner sustainability responsibility (continuous regression factor scores).

Two forest type variables were used according to the main management goal of the forest: production and conservation.

Individual characteristics included several socio-demographic characteristics: age, education (measured with categories of high school, technical school, university degree), income (measured with categories of less than

€5,000, €5,000-10,000, €10,000-15,000, €15,000-20,000, €20,000-30,000 and more than €30,000 per year), political affinity, residency (absent or resident forest owner, dichotomous) and land tenure

The dependent variables in this analysis were the main tools that influence the establishment and development of forest owners' associations: (i) public support, and (ii) only private forest owners support. The dependent variables were ranked on a scale from 1 to 5, with the following meaning: 1-not important, 2-of little importance, 3-somewhat important, 4-important and 5-very important. A separate regression was conducted for each dependent variable.

Multiple linear regression was used to assess the stakeholders attitude in shaping private forest policy towards the establishment and development of private forest owners associations in Western Balkan countries. A model-building approach was used in order to identify a predictive model that accounts for the most variance for the proposed policy tools while attempting to isolate the greatest change in variation due to one or more sets of variables (Schneider and Ingram, 1990). Three models were constructed based on the considered variable groups: (i) attitude, (ii) attitude and forest type and (iii) attitude, forest and socio-demographic type. The tolerance for variance inflation factors (VIF) was set not to have high correlation when one independent variable is regressed on the others (VIF < 10).

**Results and discussions**

The results of multiple linear regression for the three models considered (Model 1-attitude variables, Model 2-attitude and forest type variables, Model 3-attitude, forest type and socio-demographic variables) in the case of public support policy and private support for forest owners associations are presented in Tab. 1 and Tab. 2.

In the case of public support policy (Tab. 1), the initial model, which used only the attitude variables to explain policy preferences regarding support tools, had an R<sup>2</sup> of 0,252. The attitude variables of financial support and legacy seemed to be significant. For these variables, as attitude importance increases, the support for the policy tool increases. Model 2 included forest type (production, conservation) indicating that having production forest increases availability of support. Model 3 added in the socio-demographic characteristics. The R<sup>2</sup> was 0.408 for the full model.

The regression analysis for private forest owners support policy (Tab. 2), model 1 had an R<sup>2</sup> of 0.341 and all attitude variables somehow significant (especially the financial support). The full model (Model 3) had an R<sup>2</sup> of 0.442 with production and residential status being significant variables but not the owners right on land use.

Subsequently analyses were conducted to explore if differences exist between owners of production and con-

Tab. 1. Results of multiple linear regression for public support policy

Variables		Model 1	Model 2	Model 3
Attitudes	Legacy	0.248*	0.202*	0.228*
	Financial support	0.401**	0.423**	0.430**
	Owners right on land use	-0.064	-0.054	-0.022
	Landowner sustainability responsibility	0.117	0.138	0.037
	Shared responsibility (owner/state)	0.098	0.106	0.094
Forest type	Production	-	0.165**	0.294**
	Conservation	-	-0.110	-1.118
Socio-demographic	Age	-	-	-0.091
	Education	-	-	-0.005
	Political affinity	-	-	0.087
	Income	-	-	0.085
	Tenure	-	-	-0.073
	Residential status	-	-	-0.241*
Statistics	F Statistic	8.145	6.768	4.562
	p-value	<0.001	<0.001	<0.001
	df	52	46	32
	R <sup>2</sup> (adjusted)	0.252 (0.230)	0.292 (0.252)	0.408 (0.323)

\*Significant variables at p < 0.05; \*\*significant variables at p < 0.001

servation forest. The comparison revealed that production forest owners did not differ from conservation forest owners on attitude regarding ownership motivations except for sustainability. This result indicates somehow contradictory that production forest owners value owning the forest for sustainability more than conservation forest owners. Production forest owners appear to be conscious of the fact that their actions on their forestland can affect the sustainability and they appear to value that responsibility.

For both types of policy tools analysed by this article, variables that appeared to be significant in the prediction of forest policy decision preferences were financial support, motivation for owning land (legacy), shared responsibility for conserving land (public support) and forest type.

The variable with the strongest influence on policy tools was the financial support and forest type. This finding indicates that those landowners who view their forest as a long-term financial asset are more supportive of association and lobbying the policy decision makers.

The large number of private forest owners in each of the three countries is certainly an explanation for the lack of PFOAs in accordance with Olson's approach of collective action but not a sufficient one. In Western Balkans it was found that the forest laws currently do not fully support private forest owners on achieving sustainable management of their forests.

Tab. 2. Results of multiple linear regression for private forest owners support policy

Variables		Model 1	Model 2	Model 3
Attitudes	Legacy	0.178*	0.152*	0.238*
	Financial support	0.334**	0.342**	0.347**
	Owners right on land use	-0.182*	-0.168*	-0.100
	Landowner sustainability responsibility	0.237*	0.276*	0.149
	Shared responsibility (owner/state)	0.165*	0.171*	0.198*
Forest type	Production	-	0.068	0.150*
	Conservation	-	-0.071	-0.089
Socio-Demographic	Age	-	-	0.158
	Education	-	-	0.138
	Political affinity	-	-	-0.096
	Income	-	-	0.087
	Tenure	-	-	-0.061
	Residential status	-	-	-0.148*
Statistics	F Statistic	12.138	10.068	5.462
	p-value	<.001	<.001	<0.001
	Df	52	46	32
	R <sup>2</sup> (adjusted)	0.341 (0.316)	0.369 (0.335)	0.442 (0.362)

\*Significant variables at p<0.05; \*\* significant variables at p<0.001

It was found that the individual private forest owners are not a homogeneous group. They differentiate according to the size of their forest property and its fragmentation, contribution to owners' annual income, awareness of legal regulations on forest management, and also with regard to their education and residential statuses. The drivers for creation of a PFOA are the owners of relatively large forest estates who regard their forest as a gain and they see the association as a mechanism to provide resources to the interest association. Such a support scenario for a PFOA was found in all three countries, particularly in Bosnia and Herzegovina.

**Conclusions**

This article findings demonstrate that policies that support private forest owners within the Western Balkans appeal to the ownership motivations and attitudes about sustainability responsibility. The policy makers in the Western Balkans need to create an emphasis on the importance of forest as an investment for the future. While stronger attitudes correlate with support for the types of policy tools presented in this article, the nature of the attitudes identified as significant suggest that voluntary/symbolic approaches to policy may have a support from private forest owners in Western Balkans.

Most of the participants interviewed by the authors consider that the best approach for private forest owners' association is a voluntary approach, but they claim that this can be done only if financial initiatives are provided.

Based on the study, it can be concluded that there are certain changes in policy makers' attitudes towards the role and significance of private forest owners and the need for their association in order to communicate with a heterogeneous group. There is a need for direct (financial) support and know how towards creating viable forms of association of private forest owners in Western Balkans.

**References**

ANON (2003). National Environmental Action Plan BiH, Federal Ministry of Physical Planning and Environment, Sarajevo.

Banković, S., M. Medarevic and D. Pantić (2008). National forest inventory of the Republic of Serbia. 1<sup>st</sup> ed. Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia, Directorate of Forests, Planeta Print.

Bentley, A. (1949). The Process of Government. Evanston, IL: Principia Press.

Čavlović, J, S. Posavec and M. Šporčić (2005). Small-scale private forest management in Croatia, Faculty of Forestry, University of Zagreb.

Glück, P. and P. Mayer (1996). Provision of Recreation: Market Place Versus Financial Incentives. Vienna.

Jones, S. (1985). Depth Interviewing. In: Walker, R. (Ed) Applied Qualitative Research. Aldershot; Brookfield, VT, Gower pp45-55.

Lamnek, S. (1995). Qualitative Sozialforschung, Band 2: Methoden und Techniken. 3. Aufl., Beltz, Psychologie Verlags Union, Weinheim pp35-124.

Latham, E. (1952). The Group Basis of Politics. Ithaca, NY. Cornell University Press.

Martinic, I., S. Posavec and E. Sporic (2009). Time of intensive changes in environmental and forest legislation for Croatian forestry. In: Proceeding of the 10<sup>th</sup> International Symposium, IUFRO 6.13.00, Sarajevo, Bosnia-Herzegovina.

Neuman, W. L. (2006). Social Research Methods: Qualitative and quantitative approaches. 6<sup>th</sup> ed. Boston, M. A. et al. Allyn and Bacon pp378-417.

Nonic, D., N. Tomic, J. Markovic, P. Herbst and D. Krajcic (2006). Organisation of private forest owners in Serbia compared to Austria, Slovenia and other Central European countries. In: Organization of Private Forest Owners in the Central European Countries, IASCP Europe Regional Meeting "Building the European Commons: from Open Fields to Open Source", Brescia, Italy.

Olson, M. (1965). The Logic of Collective Action. Public Goods and the Theory of Groups. Harvard University Press, Cambridge.

Schneider, A. and H. Ingram (1990). Behaviour assumptions of

- policy tools. *Journal of Politics* 52:510-529.
- Visnjic, C., S. Vojnikovic, F. Ioras, M. Dautbasic, I. V. Abrudan, D. Gurean, A. Lojo, T. Trestic, D. Ballian and M. Bajric (2009). Virgin Status Assessment of Plješevica Forest in Bosnia-Herzegovina. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 37(2):22-27.
- World Bank (2009). Roots for good forest outcomes: an analytical framework for governance reforms. Report No. 49572-GLB. Washington.