

## SHORT TERM SCIENTIFIC MISSION REPORT

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**COST ACTION:** FP1201 – Forest Land Ownership Change in Europe: Significance for Management and Policy (FACESMAP)

**REFERENCE NUMBER:** FP1201-15599

**HOST:** prof. Ulrich Schraml, PhD  
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**TITLE:** Sources of information for private forest owners – comparative analysis between Slovenia, Germany and Bosnia-Herzegovina

**WORKING GROUP:** WG3: Forest owners related policies

**TIME PERIOD:** 26.1.2014-23.2.2014

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## **1. PURPOSE OF THE STSM**

Private forest ownership almost dominates in Central Europe (Germany and Slovenia), while in Bosnia-Herzegovina most forests are still publicly owned. The tendency in forest ownership is towards further fragmentation of properties and increasing heterogeneity due to e.g. restitution process, aging, urbanization. Thus, the private forest properties are mostly small and not necessarily interesting from an economic point of view, which reduce the interest in forest management. Nevertheless, private forest owners generally have multiple forest management objectives. Therefore communicating with private forest owners has become a growing challenge. Overall, private forest owners need both information about economic issues and personal advice on how to manage forest with regard to their individual and multiple objectives. Therefore, it is necessary to identify the best methods of delivering information to private forest owners so that public forestry service, extension agents, foresters and other land managers or agencies can better assist them. Having in mind that Germany (well established EU country), Slovenia (new EU country) and Bosnia-Herzegovina (potential candidate for EU) have different experiences in management of private forests and using several sources of information for private forest owners, it would be interesting to make cross-country comparison between these three countries.

So the objective of this STSM were to analyze a) sources of information for private forest owners in Germany, Slovenia and Bosnia-Herzegovina, b) develop an econometric model to assess private forest owners' characteristics and how these affect what source of information landowners are most likely to use and c) make a cross-country comparison between Germany, Slovenia and Bosnia-Herzegovina. Based on the results, different combinations of policy instruments are suggested based on the Smart Regulation principles and requirements to target private forest owners. Thus, the final objective of the study is to offer meaningful policy recommendations that would lead to more successful private forest management.

The results of this STSM would contribute to the aims and specific objectives of FACESMAPE COST Action within objective the awareness and access of new forest owners to information, advice and support, and possibilities for improvement and activities within WG3 (Forest owner related policies).

## 2. DESCRIPTION OF THE WORK CARRIED OUT DURING THE STSM

During the STSM monthly work plan was prepared (Table 1). During the first week manuscript outline was prepared, the appropriate literature related to informational sources in all three countries was reviewed, databases have been prepared and selected variables recoded. Then in the second week statistical analyses were conducted and new variables were recoded for econometric model. In the third and fourth week a draft version of the paper has been prepared.

Table 1: Monthly work plan for STSM

Task	1 st week (27.1 – 2.2. 2)	2 nd week (3.2 – 9.2)	3 rd week (10.2 – 16.2)	4 th week (17.2 – 23.2)
Manuscript outline preparation	X			
Literature review	X			
Database preparation, Variables coding	X	X		
Statistical analysis		X	X	
Writing of SCI paper (draft)			X	X

Similar surveys were administered to private forest owners in Slovenia, Germany and Bosnia-Herzegovina with some variation to account for country-specific conditions. Based on the data obtained from national research projects and PhD on private forest ownership issues the informational sources that private forest owners are most likely to use was identified. The surveys questioned owners about a range of issues related to private forest owner characteristics (e.g., gender, age, education), property and ownership characteristics, management behavior, information sources (management and policy). The data were obtained from face-to-face interviews with randomly selected private forest owners.

All data from surveys were summarized by descriptive statistics, frequency distributions, and selected measures of location and dispersion (mean, mode and standard deviation). Furthermore, multivariate logistic regression was applied to assess how certain forest owners' socio-demographic, property and management characteristics influence what information sources owners are more likely to use, by means of Enter algorithm. The dependent variable, "information providers" were divided into three categories: 1) *institutions*, such as forest administration; 2) *organizational network*, including associations; 3) *informal network*, including family, friends or neighbours and other owners. The dependent variable is coded as a 0 for not receiving information and 1 for receiving information. Separate logistic regression analyses were conducted for each dependent variable (forest administration, association, relatives and owners). The following independent variables were evaluated in logit models that were

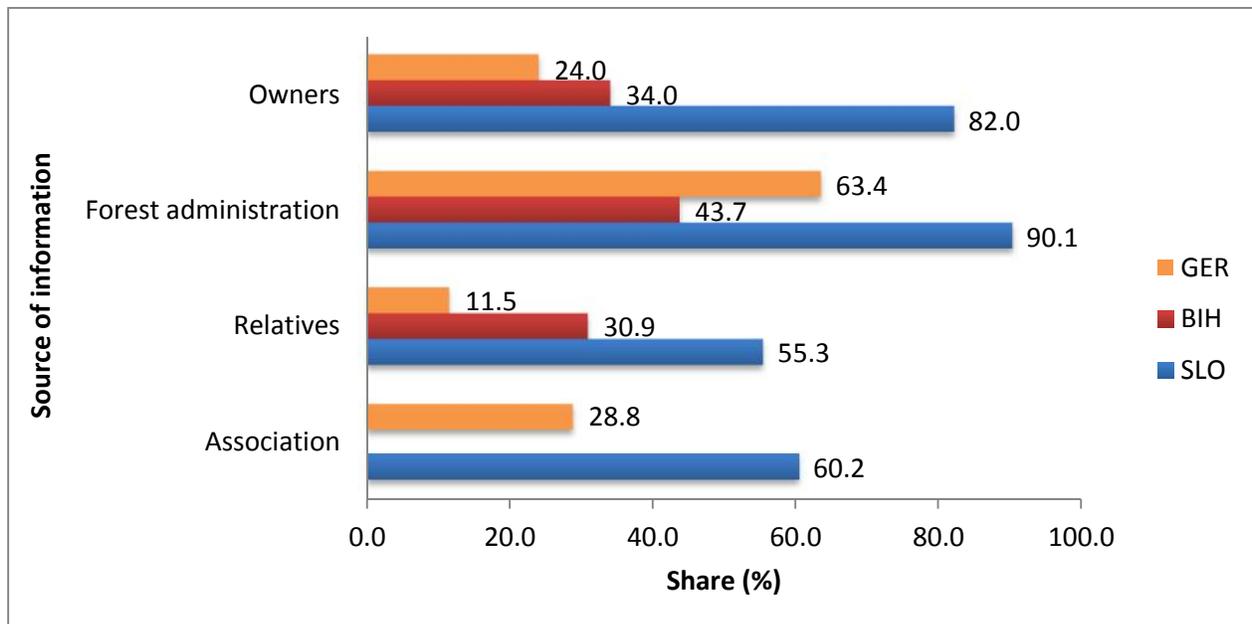
influenced by previous studies (Hodges et al., 2010): (i) gender, (ii) age (less than 65, more than 65), (iii) education (less than high school education, high school education or greater), (iv) forest property size (less than 1 ha, more than 1 ha), (v) fragmentation (consolidate, fragmented) and (vi) harvesting activities (harvest, do not harvest).

### 3. DESCRIPTION OF THE MAIN RESULTS OBTAINED

A need for informational services for private forest owners in Europe arise from the major institutional changes, namely the re-establishment of private forest ownership and the overall but slow fragmenting and increasing heterogeneity of private forest ownership (Toivonen et al., 2005). A comparison of Germany, Slovenia and Bosnia-Herzegovina indicates the differences between countries with respect to informational sources due to different organizational structure of forestry sector in countries and different level of cooperation between owners.

The results show that the most frequently used source of information was forest administration in all three countries (Graph 1). However, the preferred informational source varies within countries. Slovenian private forest owners quite frequently use also other owners (82,0%) and private forest owners associations (60,2%) as main source of information, while in Germany the top two sources followed by forest administration are private forest owners association (28,8%) and other private forest owners (24,0%). The situation is opposite in Bosnia-Herzegovina, where private forest owners associations do not exists. Thus, the most preferred source of information after forest administration are other private forest owners (34,0%) and relatives (30,9%).

Graph 1: Main sources of information in Slovenia, Bosnia-Herzegovina and Germany



The results of the logistic regression models reflecting sources of information that private forest owner's use showed that two models were statistically significant in Slovenia - Forest administration and Owners model, one in Bosnia-Herzegovina - Forest administration model and all four models in Germany. All evaluated independent variables (age, education, forest property size, fragmentation, harvesting) except gender, were statistically significant in at least one model.

Results of the "Forest administration" model (Model 3) for Slovenia reveal that private forest owners who do not harvest timber from their land were more likely to have used information from forest administration than owners who manage their forest. The "Owners" model (Model 4) in Slovenia, indicate that owners who have consolidated forest property were more likely to have used informations from owners. Owners' whit an age less than 65 years are more likely to have used information from owners that those who are elder that 65 years. Results of "forest administration" model (Model 3) in Bosnia- Herzegovina point out that owners with less than 1 ha of forest were more likely to have used information from forest administration that those with more than 1 ha. Conversely, owners who do not harvest their forest were less likely to have used information from forest administration. Results of "Association" model (Model 1) in Germany indicate that owners who are less than 65 years old were less likely to have used information from association, but on the other hand those whose property is consolidate were more likely to have used informations from association. As concerns the "Relatives" model (Model 2), owners who are less than 65 years old were more likely to have used information form relatives. Furthermore, less educated owners were less likely to have used information from relatives. The "Forest administration" model (model 3), show that owners who have consolidated forest property were less likely to have used informations from forest administration. Finally, the results of the model 4 "Owners" indicate that owners that are less than 65 years old were more likely to have used information from owners that elder one.

Based on the results, different combinations of policy instruments are suggested based on the Smart Regulation principles and requirements to target private forest owners.

#### **4. FUTURE COLLABORATION WITH HOST INSTITUTION**

During the STSM one-month period a close cooperation with some researchers at the Institute of Forest and Environmental Policy within host institution, especially those from COOL and INTEGRAL EU research projects was established. The research within this STSM was done in cooperation with prof. Ulrich Schraml (Germany) and prof. Mersudin Avdibegović (Bosnia-Herzegovina). This cooperation will definitely be extended within FACESMAP COST Action WG3 (Forest owner related policies) and beyond. In order to establish network with other researchers in Freiburg, the presentation on "Corruption in forestry and the EU's policy against

illegal logging: a perspective from the Balkan“ has been prepared (in cooperation with prof. Mersudin Avdibegović) and presented to wide auditorium of students and researchers, within the series “Freiburgs talks on International and European Forest Policy”. The presentation generated intensive discussions between the participants. Apart of this, number of connections has been established with colleagues from the Institute of Forest and Environmental Policy related to cooperation and building consortiums for eventual project applications in the future and one joint consortium was submitted for H2020 call “Public Goods and Services”.

## **5. FORESEEN PUBLICATIONS/ARTICLES RESULTING FROM THE STSM**

Together with prof. Schraml and prof. Avdibegović, we plan to complete an article on sources of information for private forest owners in Germany, Slovenia and Bosnia-Herzegovina and to publish it in some internationally recognized and peer reviewed research journals.

## **6. CONFIRMATION BY HOST INSTITUTION OF THE SUCCESSFUL EXECUTION OF THE STSM**

As attachments to this report, I submit the Confirmation of the successful execution of Short Term Scientific Mission, signed by prof. Ulrich Schraml as well as the Confirmation on giving the presentation on the series “Freiburgs talks on International and European Forest Policy”, and signed by Dr. Georg Winkel.

## **7. OTHER COMMENTS**

I would like to use this opportunity to express my sincere gratitude to the Chair of the Action Gerhard Weiss and STSM coordinator Zuzana Sarvašova for making the STSM possible. I was thrilled to learn that I was a recipient of the STSM and I am deeply appreciative of you support.

I would also like to express my gratitude to prof. Ulrich Schraml – I have sincerely enjoyed the time that I have spent at you Institute. Given your very busy schedule, I know that it was not always easy for you to work with me, and yet you gave so very generously of your time, knowledge and patience. As a result of your expertise and guidance, I have a much deeper understanding of private forest ownership and informational sources. I have learned a great deal from you, and your involvement has helped me to create our manuscript. Once again, thank you for your commitment and assistance.



To whom it may concern

## Confirmation Freiburg Talk on February 7<sup>th</sup>, 2014

Dear Sir or Madame,

This is to confirm that Špela Pezdevšek Malovrh has given a joint presentation with Mersudin Avdibegovic on February, 7<sup>th</sup>, 2014, within the series "Freiburgs talks on International and European Forest Policy". The title of their talks was "Corruption in forestry and the EU's policy against illegal logging: a perspective from the Balkan". The duration of the talk was 30 minutes followed by ca. 30 minutes of discussion. The talk was well received by students and faculty.

Please do not hesitate to contact me in case you have any questions.

Yours sincerely

  
Dr Georg Winkel



CHAIR OF FOREST AND ENVIRONMENTAL POLICY

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**Chair of Action FP 1201**  
**Confirmation of the successful execution of STSM, by Špela Pezdevšek Malovrh**

To whom it may concern

Dear Sir or Madam,

By this letter I confirm that the Chair of Forest and Environmental Policy, Faculty of Environment and Natural Resources, Albert Ludwig University, (Freiburg, Germany) hosted Assist. Prof. **Špela Pezdevšek Malovrh** during her COST FP 1201 FACESMAP, STSM mission. The early stage researcher and MC member Assist. Prof. **Špela Pezdevšek Malovrh** worked together with Professor Ulrich Schraml on a cooperation project for a period of one month (26.01.2014 – 23.02.2014) and fulfilled the obligations of her STSM. Assist. Prof. **Špela Pezdevšek Malovrh** was active particularly in the research work but also gave a presentation within the series „Freiburg's talk on International and European Forest Policy. Together with Professor Schraml she finished one manuscript related to the Information needs of small scale forest owners. The mission was beneficial to both, fulfilling the COST FP 1201 FACESMAP STSM mission and adding to her research work which belongs to the same subject.

With kind regards,

Prof. Dr. Ulrich Schraml