Private forest owners' perception of SDS management

Thomas Kronholm, Uppsala, 1.6.2022

Background

- The objective of Smallwood (WP3) is to explore the social and economic aspects of private forest owners' (FOs) use and management of small diameter stands (SDS)
- About 60% of the forest in the EU is owned by 16 million private forest owners
- The forest industry is highly dependent on FOs’ willingness to supply raw materials
- FOs’ management decisions will have a significant effect on the availability of biomass, both in the short and long term

Background

- Forest-based biomass could have an important role in substituting fossil fuels such as oil and gas
- Possible to significantly increase the harvest of biomass from early thinning
- High harvesting costs have so far been a barrier for utilization of biomass from SDS
- It is also required that there is demand in the market, as well as interest among forest owners to apply appropriate SDS management for this purpose

Objectives

The objectives of the Smallwood WP3 studies have been to:

- to map FOs' perceptions of management activities in relation to SDS
- identify the main factors affecting the FOs’ level of interest and motivations for biomass utilization from SDS
- to investigate the characteristics of FOs which represent barriers or opportunities for increasing the supply of biomass from SDS

What has been done?

- One national suvey among Swedish FOs and one cross-country survey among Swedish, Slovenian, Finnish and Spanish FOs

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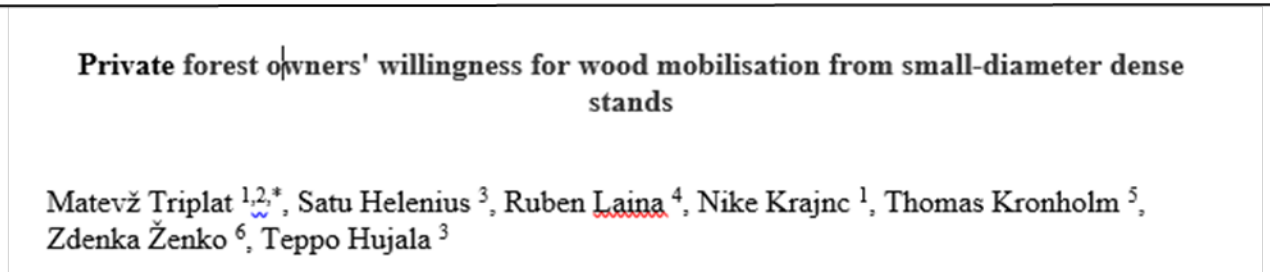
Family Forest Owners' Perception of Management and Thinning Operations in Young Dense Forests: A Survey from Sweden

Thomas Kronholm *, David Bengtsson and Dan Bergström



Private forest owners' willingness for wood mobilisation from small-diameter dense stands

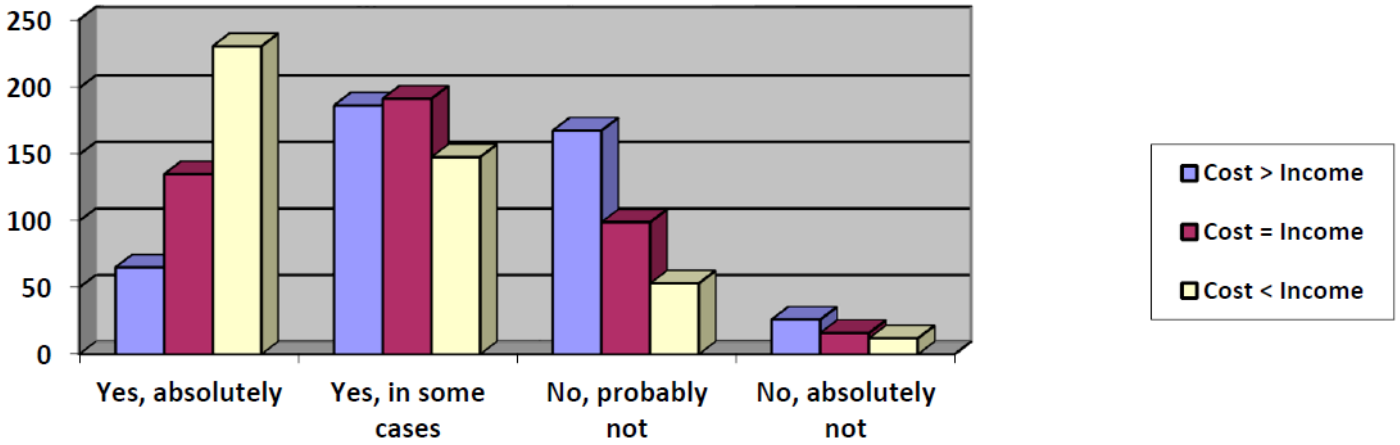
Matevž Triplat [1,2,*], Satu Helenius [3], Ruben Laina [4], Nike Krajnc [1], Thomas Kronholm [5], Zdenka Ženko [6], Teppo Hujala [3]

The Swedish survey

- Postal survey performed in October 2019
- 450 respondents
- Average age: 64 years
- Average size of forest property: 69 ha
- 84 % had owned their forest for >10 years
- 75 % were living within 30 km from their forest

Main findings from the Swedish study

- Forest owners in general positive to conduct whole-tree harvesting in young dense stands.



Forest owners willingness to conduct whole-tree harvesting for three different economic scenarios

Main findings from the Swedish study

- Relatively few significant differences between different groups of forest owners, but owners with small properties and those with an immediate need for clearing were more positive
- Degree of self-employment and distance to the forest are two factors that can affect the FOs' interest
- It is important to minimize damage in connection with small tree harvesting to maintain a positive attitude among forest owners

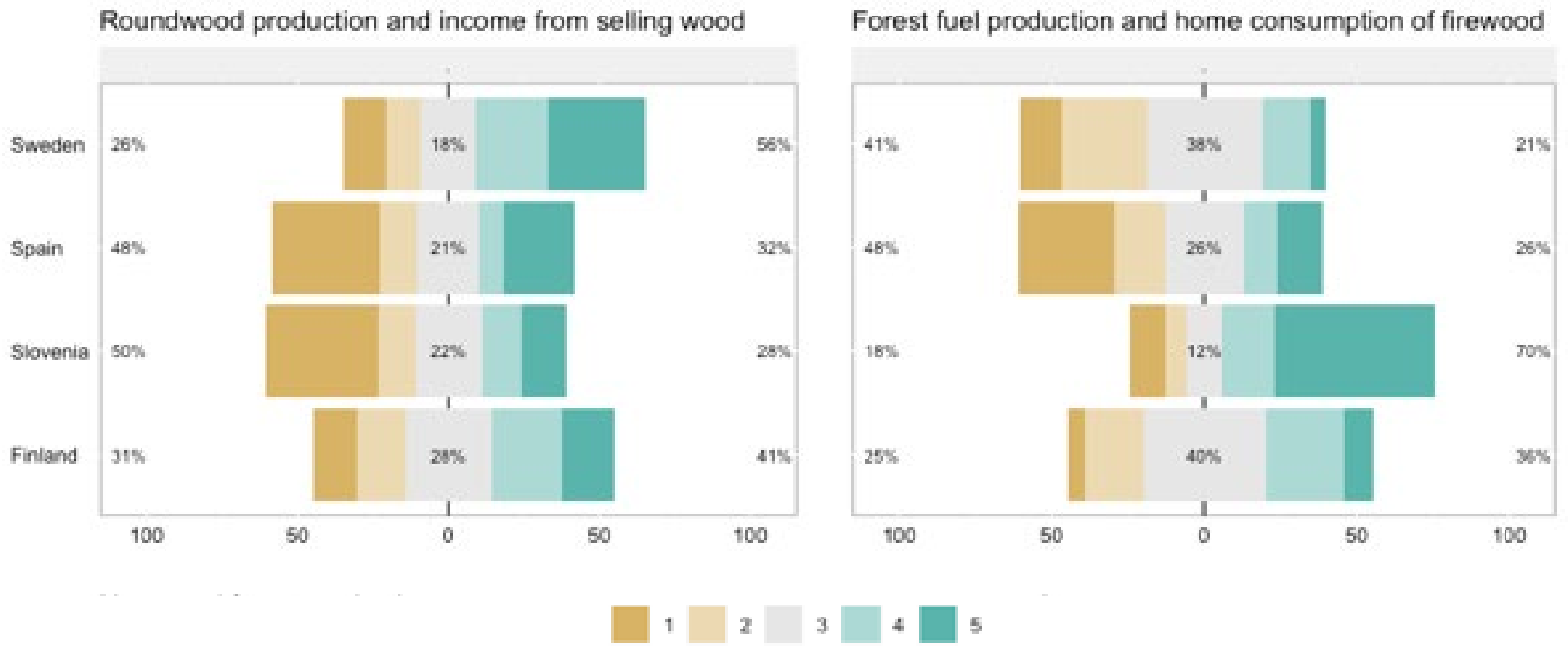
The cross-country survey

	Data collection method	Number of respondents	Sample restrictions
Finland	Online panel (Kantar TNS)	1 129	FOs with >2 ha of forest land
Sweden	Postal survey	544	FOs with ≥6 ha of forest land
Slovenia	Telephone interviews	509	
Spain	Telephone interviews & e-mail	83	

Description of respondents

- The majority of respondents were male FOs (67 – 80%)
- Average age: 60 – 62 years
- Occupation: 24 – 33% employed, 38 – 56% retired, 7 – 15% self-employed in forestry or agriculture
- The majority of owners lived close or very close to their forest holding, based on their subjective opinions of the distance
- Average size of forest property: 7 – 47 ha (smallest in Slovenia and largest in Sweden)

Importance of roundwood and forest fuel production



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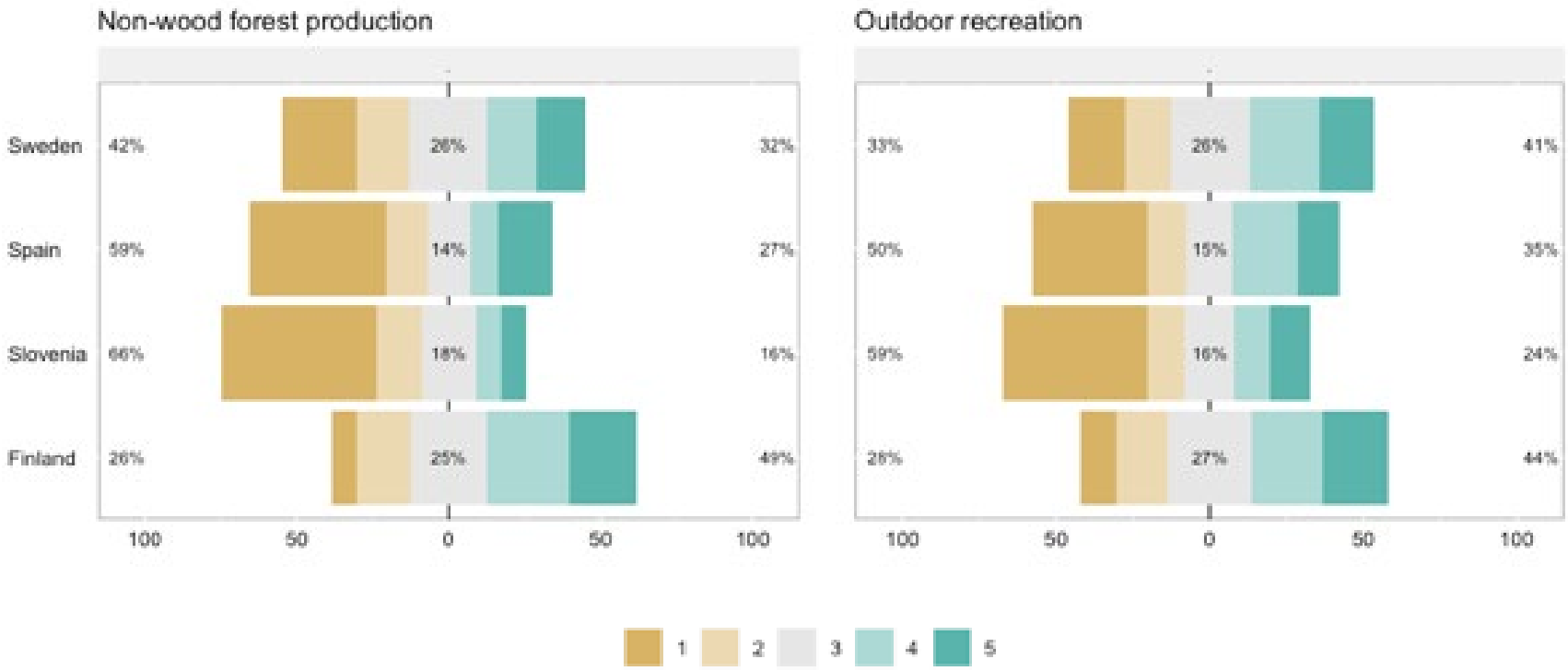
Importance of non-wood forest production and outdoor recreation



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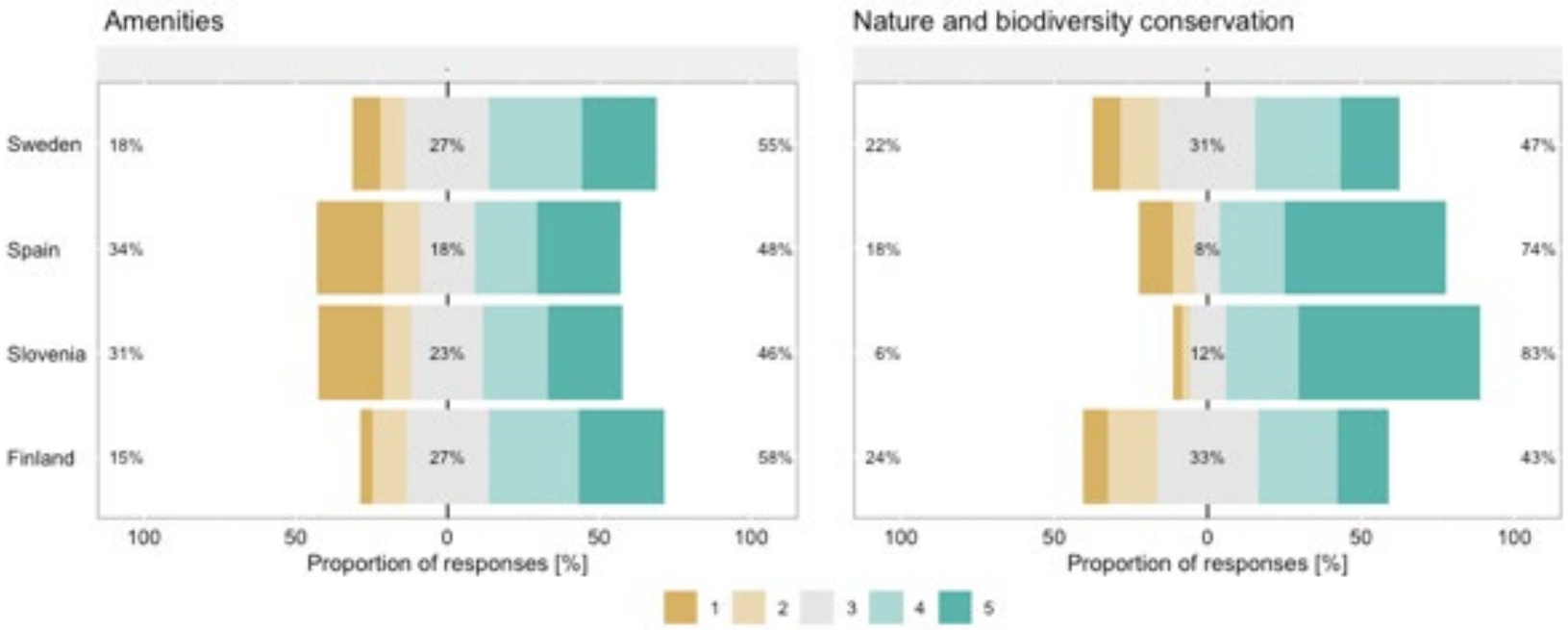
Importance of amenities and nature & biodiversity conservation



1 = not important, 5 = very important

Factors influencing FOs' forest managment preferences

- Factor analysis was done to break down the number of independent variables to investigate differences between FOs

Service influence: *favorable service offers, prices & accessibility, relevant information about service providers, etc.*

Forest knowledgeability: *Personal knowledge and training in forestry, availability of own equipment for harvesting of SDS*

Economical motivation: *roundwood production and income from selling wood, larger market for small-diameter wood, wood prices, subsidies*

Socio-cultural motivation: *outdoor recreation, non-wood forest production, amenities, nature and biodiversity conservation*

Four types of FOs were identified

- Weakly engaged traders
- Multi-benefit seekers
- Self-active profit-seekers
- Well-informed service users

Factors affecting the probability for increased biomass supply from SDS

	Positive	Negative
Weakly engaged traders	• Age • Employment • Home consumption	• Forest size
Multi-benefit seekers	• Traditional values • Home consumption	• Employment • Social class • Share of SDS • FOA membership
Self-active profit-seekers	• Home consumption	• Forest size • Share of SDS
Well-informed service users	• Age • Employment • Traditional values • Closeness of residence • Home consumption	• Forest managment experience • Available machinery • Thickness of minimum diameter of the harvested wood

Key findings

- That forest estate size influences managment decisions is in line with previous studies. However, that FOs with larger properties, in some groups, were less likely to supply biomass contradicts some earlier findings

- That FOA members are less likely to supply biomass from SDS is interesting since this group typically are more focused on forestry income than non-members (at least in the Nordic countries)

Key findings

- FOs are heterogenous and there is no unique model for predicting their willingness to mobilize wood from SDS
- There are different groups of owners, with their own needs and forest managment preferences
- Different communication approaches adapted for each group are thus necessary

Conclusion

- Barriers and obstacles for increasing biomass mobilization do exist
- These can be overcome:

i) By combining SDS management with other services to make it more acceptable for FOs (e.g. as a ”forest care service”)

ii) By cross-boundary collaboration services to make it more cost-efficient (e.g. collaboration between neighbouring FOs)

iii) By support for self-active decision-making and management

Policy implications

- Policy makers should help self-active FOs by offering supportive services such as:

i) quality information services

ii) access to market so that FOs can focus on forest managment

iii) enhanced decision-making power to represent their needs in the policy level

- Forest owner associations are advised to consider their role in supporting FOs' awareness and agency in SDS management

Thank you for your attention!

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