

# Stakeholder viewpoints towards bio-energy certification in North and South Karelia, Finland

*- results from a survey among non-industrial private forest owners*

**Pradipta Halder**

University of Eastern Finland

[pradipta.halder@uef.fi](mailto:pradipta.halder@uef.fi)

**Timo Weckroth**

Tapio, Finland

[timo.weckroth@gmail.com](mailto:timo.weckroth@gmail.com)

# Contents

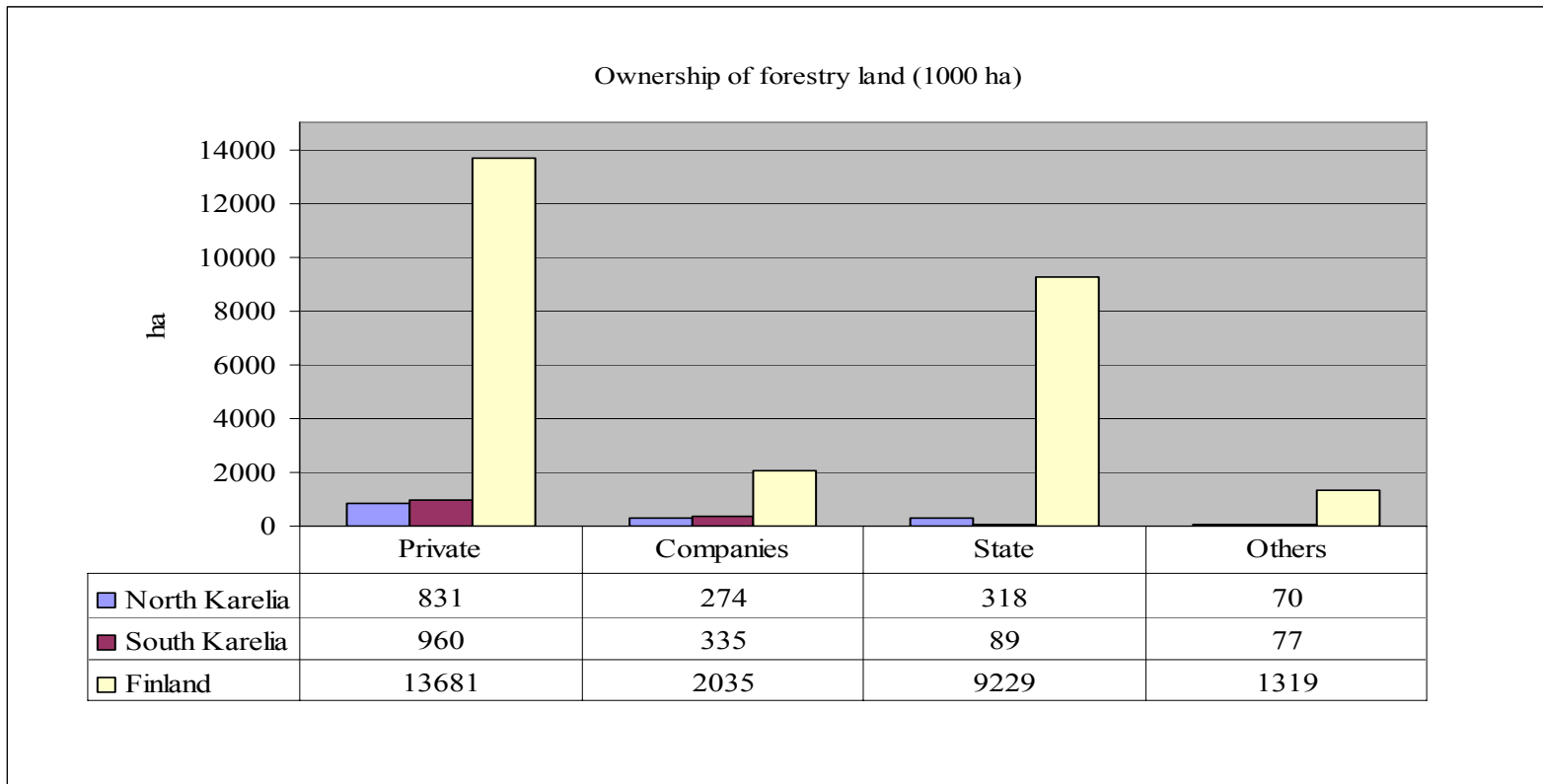
- Background information
- Forest ownerships in North and South Karelia
- Rationale behind the study
- Methodology, survey instrument
- Key findings
- Conclusions

# Background information

- In Finland, 86% of the land area is **forestry land** while 66% is **forest land** (Metla, 2009); non-industrial private forest owners own 60% of the forest land;
- **81%** of North Karelia's land area is forest land whereas **79%** in South Karelia (Metla, 2009);
- Forestry sector provide about **7%** of the regional employment in both regions while **3.8%** in Finland (Metla, 2009);
- Non-industrial private forest ownership in Finland has undergone great **structural changes** in the last decades – average forest holding size diminished and number of **non-farmer** and **non-resident** forest owners has increased (Ripatti and Järveläinen, 1997);



# Forest ownerships in North and South Karelia



## Average land holding of non-industrial private forest owners

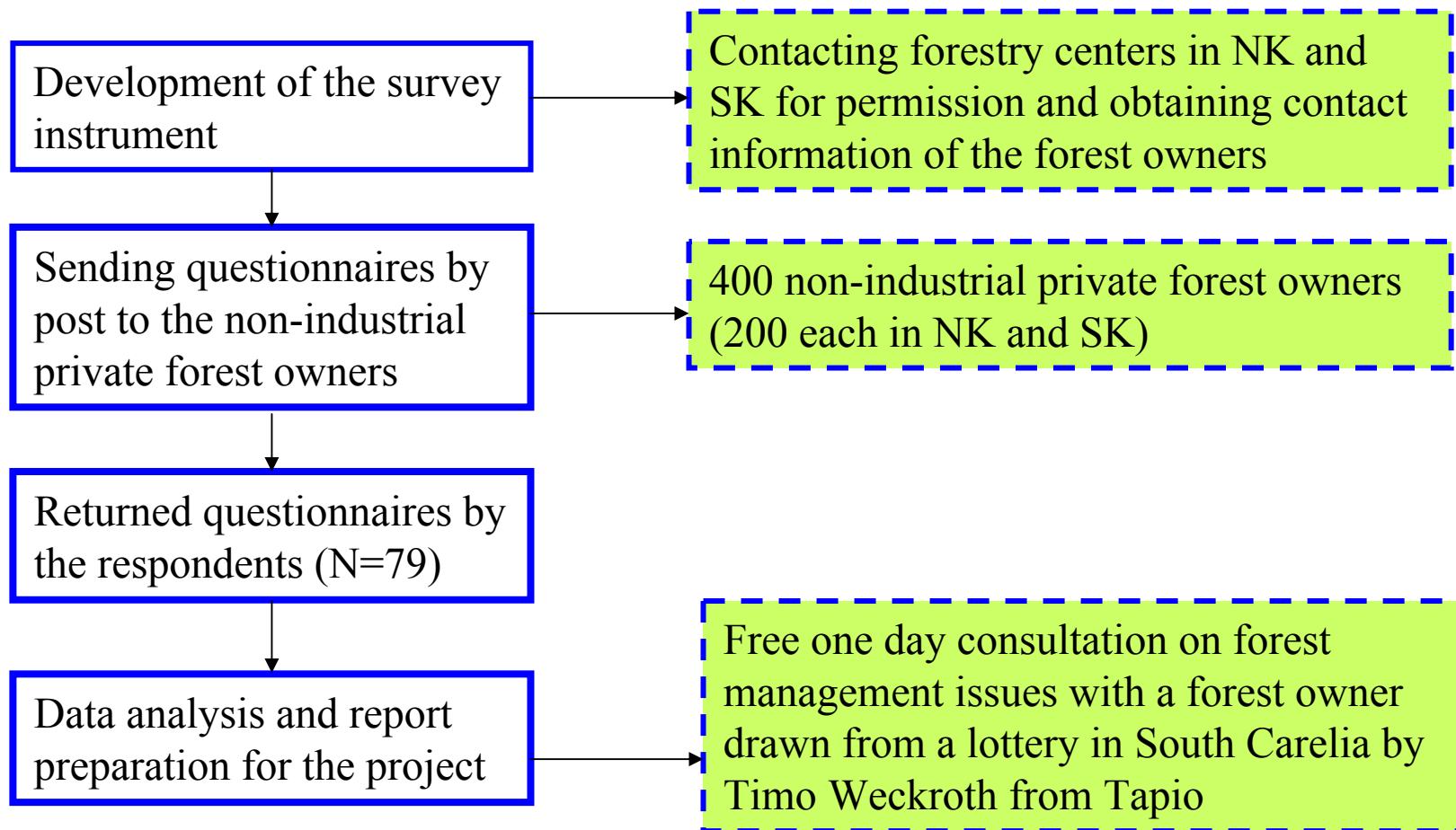
**Finland: 23.6 ha; NK: 23.9 ha; SK: 24.9 ha**

Source: Metla, 2009

# Rationale behind the study

- ✓ Renewable Energy Directive (growing importance of biomass for energy generation in EU Member States as visible in the NREAPs);
  - ✓ EU proposal on sustainability requirement in solid and gaseous biomass (non-binding) + several others going on (leading to certification schemes);
  - ✓ Baltic 21 Bioenergy Promotion criteria on sustainability of bioenergy production (certification systems for policy framework)
- 
- What are the opinions of the stakeholders towards bioenergy certification schemes (e.g. private non-industrial forest owners who will produce the biomass)?
  - What should a future bioenergy certification scheme aim for?
  - At present no such information is available
  - Data from stakeholders could provide **policy level inputs** (national governments and EU)

# Methodology



# Survey instrument

## Demographic profile

- age and gender
- education level
- present occupation

## Information on forest estate

- area of forest estate
- area for timber production
- area for conservation (NATURA)
- Other purpose (peat production)

## Bioenergy from forests

- own use and selling
- competition
- motivation for selling wood for energy
- obstacles in harvesting and mobilization

## Certification of forest based bioenergy production

- awareness about bioenergy certification
- qualities of bioenergy certification
- source of information
- delivery method

# Key findings

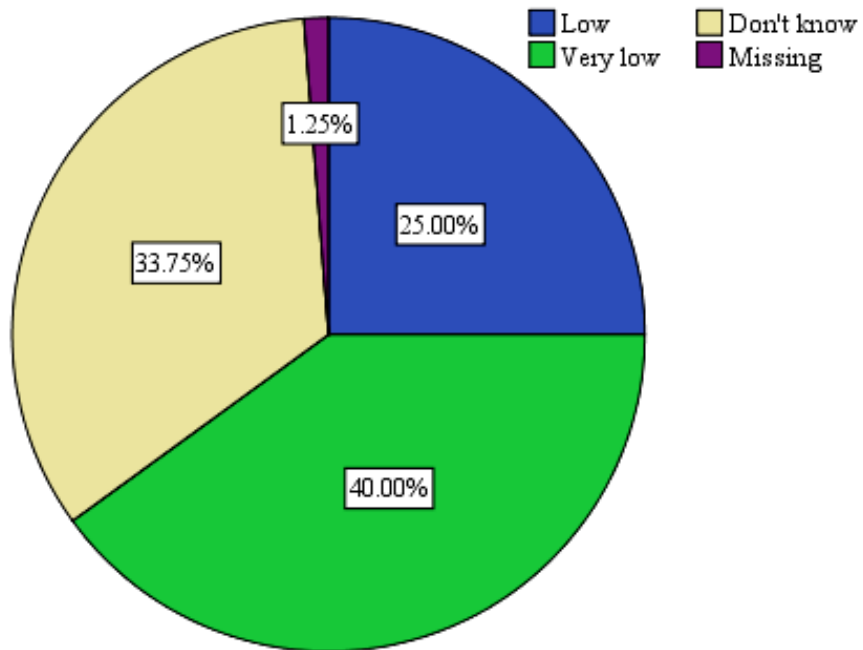
## Profile of the respondents

Number of respondents	North Karelia-49; South Karelia-30
Gender	Male-66, <b>Female-12</b> , Missing-1
Average age	59 years (2009 Finnish average 60 years)
Occupation	Employed (public + private)-21; Entrepreneur-20; <b>Retired-34</b> ; Other-3; Missing-1
Average area of forest estates	73 ha
Average area under timber production	72 ha (76 respondents have area under timber production while 3 respondents do not have timber producing area); 5 respondents have area under conservation (e.g. <b>NATURA 2000</b> )
Use of wood for heating household or business	Used by 66 respondents (average 20 solid m3) while 13 respondents do not use
Selling of wood for energy purpose	Sold by 23 respondents (average 200 solid m3)

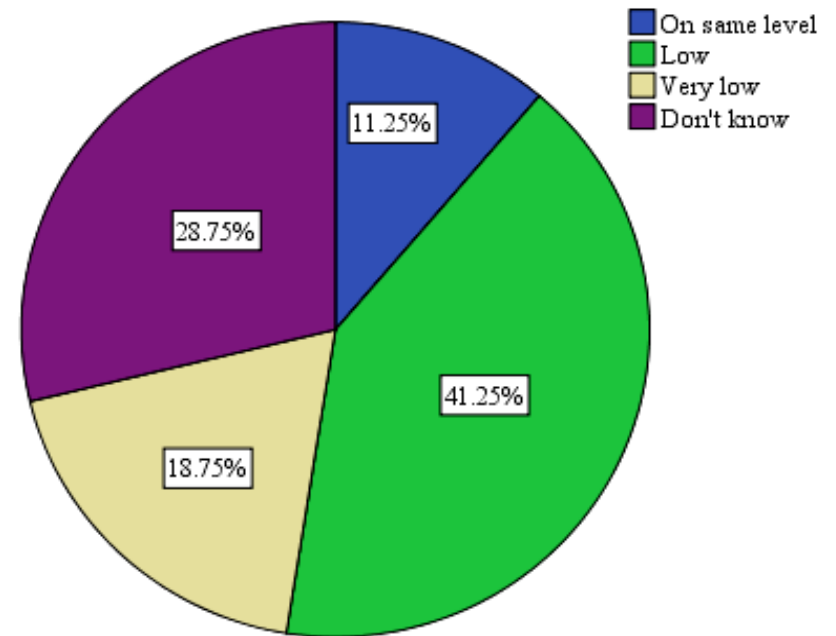




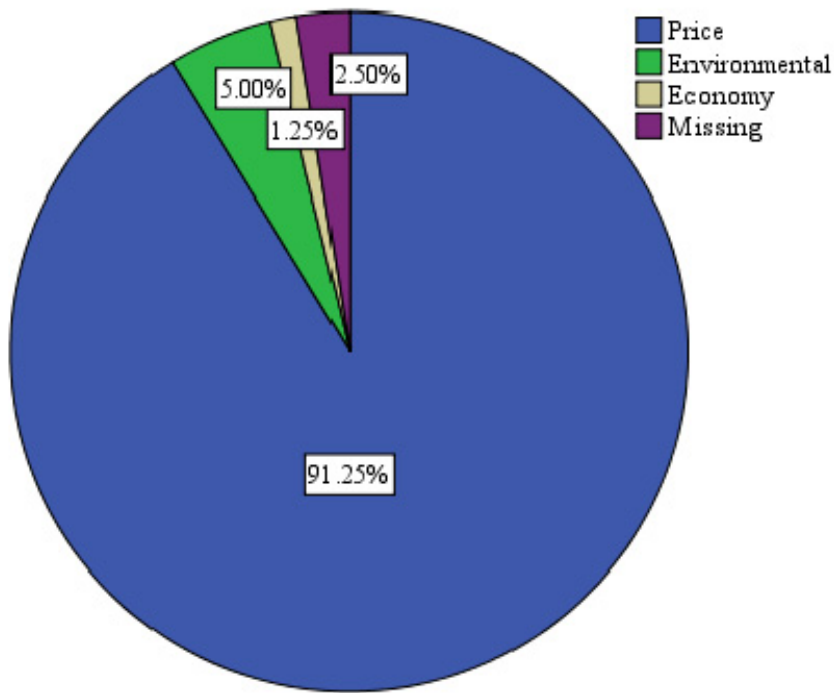
## Present competition between supply of energy wood and pulp & paper wood (N=79)



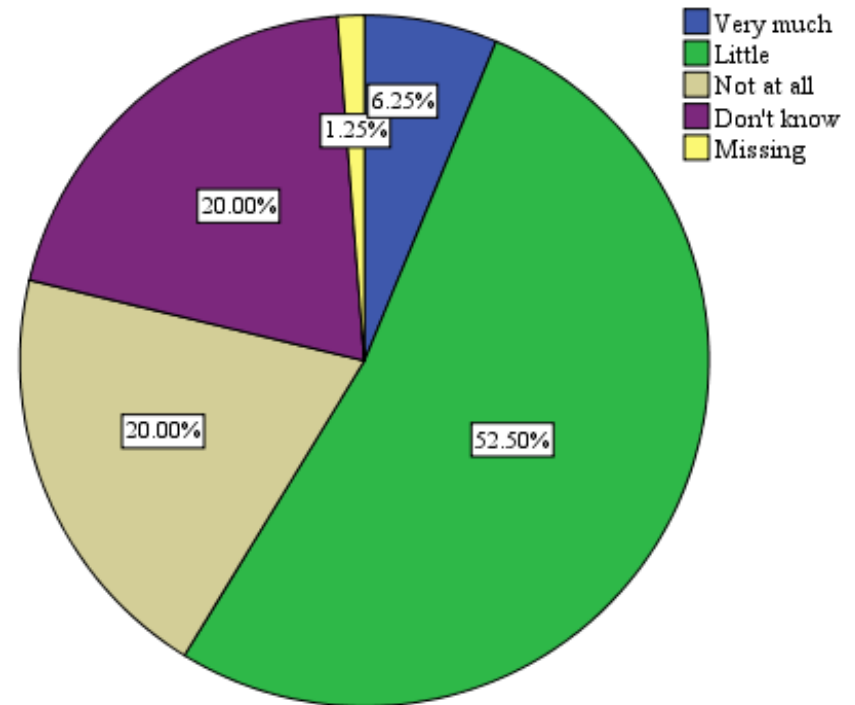
## Price of present energy wood in comparison to paper & pulpwood (N=79)



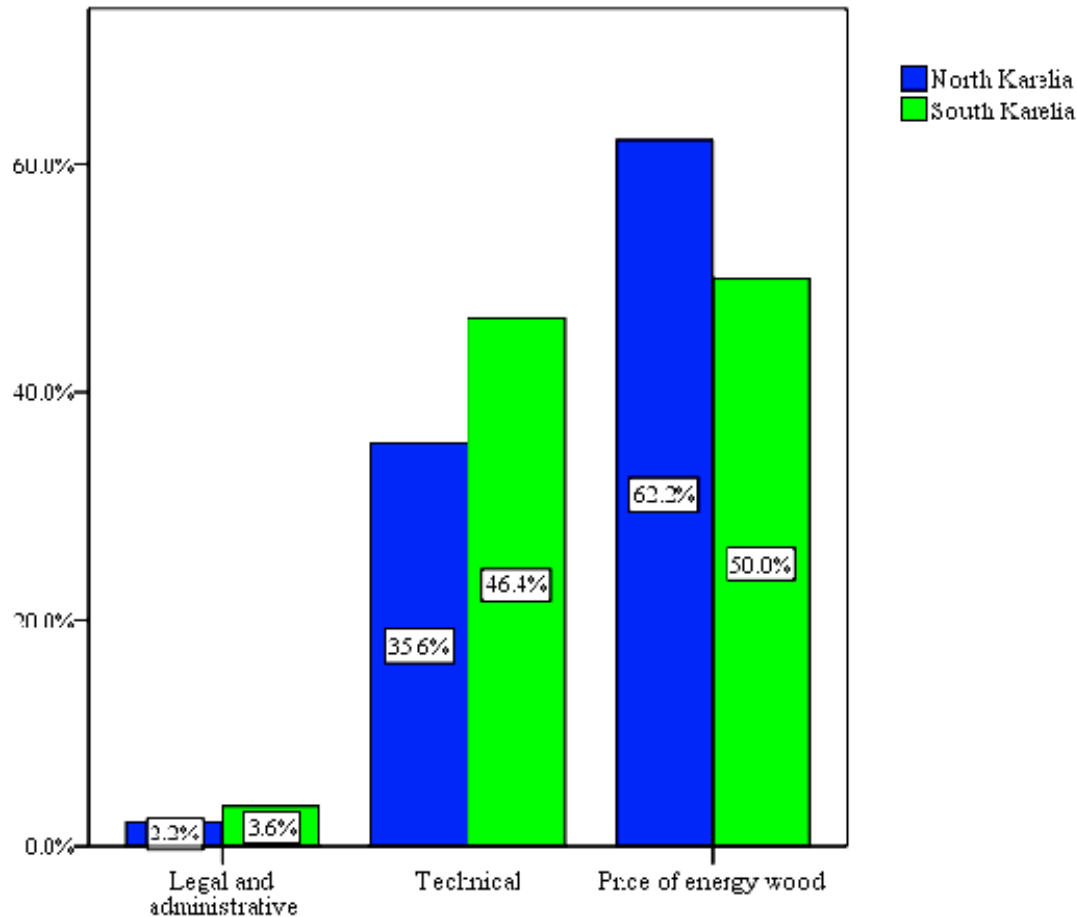
**Most important factors while selling wood for pulpwood or energy production (N=78)**



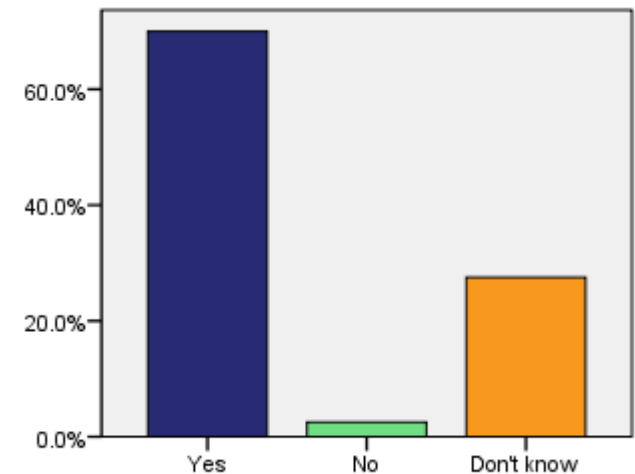
**Increase supply of wood from forest estate if there is a stable market for energy wood (N=78)**



# Main obstacles for increasing harvest and wood mobilization for bioenergy from forest estate (N=73)



## Govt. should reduce the obstacles



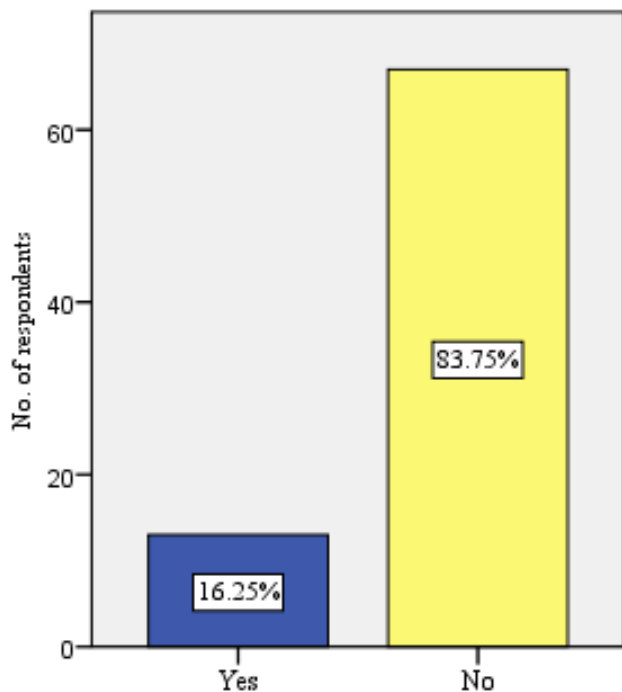
# PEFC certification in energy wood harvesting in Finland

- Two levels:
  - Criteria for Certification; Level of Forest Holdings of Individual Owners (Criterion 4)
  - Criteria for Group Certification; Level of a Forestry Centre or a Forest Management Association (Criterion 5)

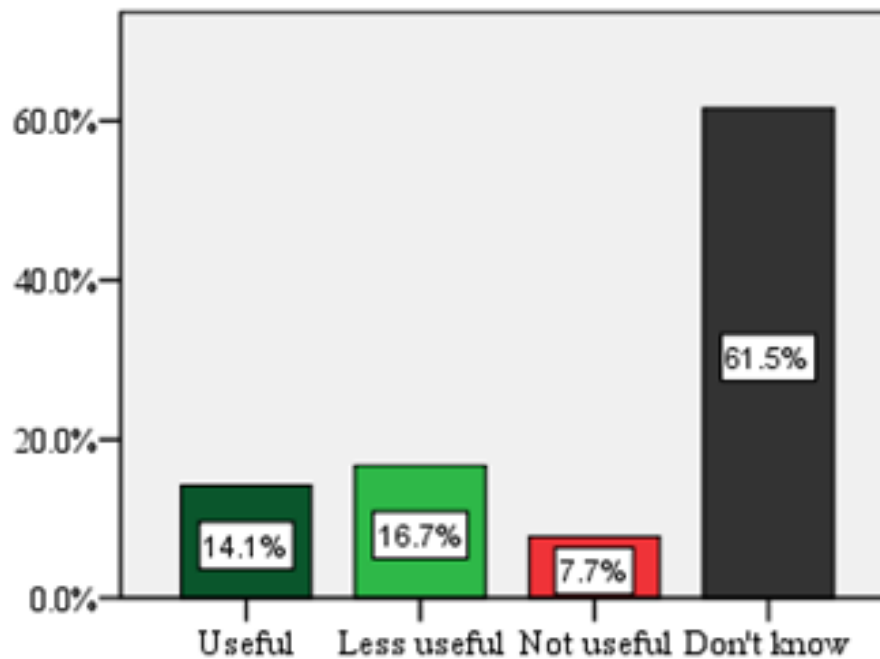
## Criterion 4 and Criterion 5: **Sustainable methods shall be used in energy wood harvesting**

- When removing canopy biomass and stumps from harvested sites the applied methods shall take into consideration the **wood production capacity** of the site, its **biodiversity** as well as the aspects related to **water protection**.
- Harvest of energy wood shall not substantially deteriorate the protection values of **protected areas** or areas belonging to **Natura 2000** network nor endanger the preservation of **monuments of antiquity** specified in the Act on Ancient Monuments (295/1963).
- The features of **valuable habitats** and the previously known habitats of endangered species shall be **safeguarded** in the harvest of energy wood.
- **Peatlands in their natural state shall not be transferred into energy wood cultivations.**

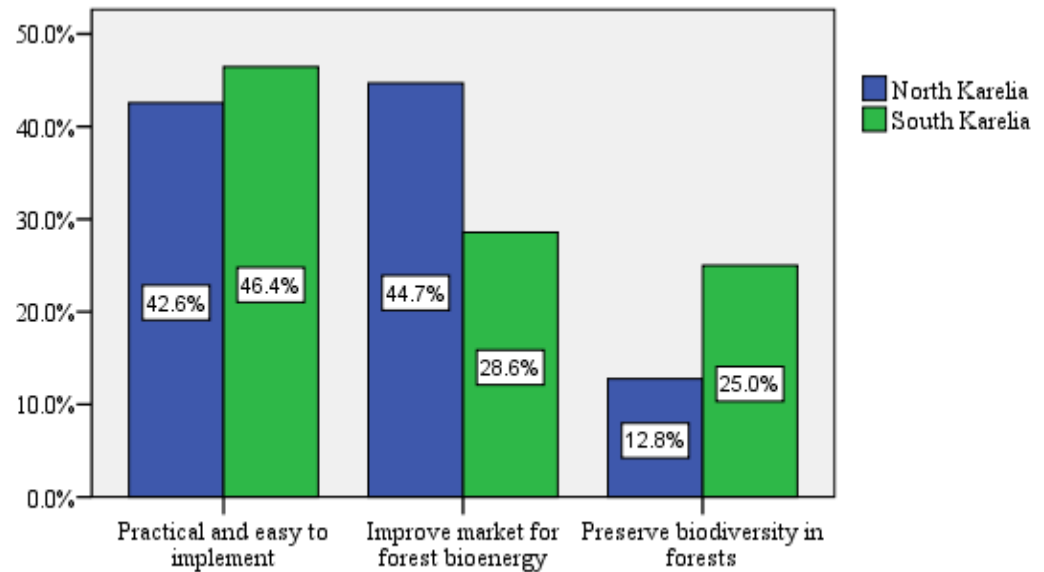
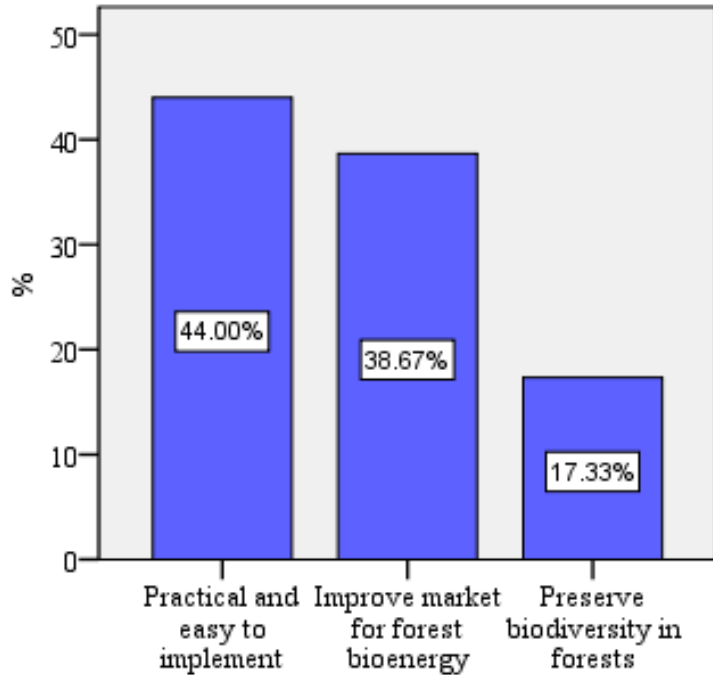
## Aware of the PEFC criteria in wood energy harvesting (N=79)



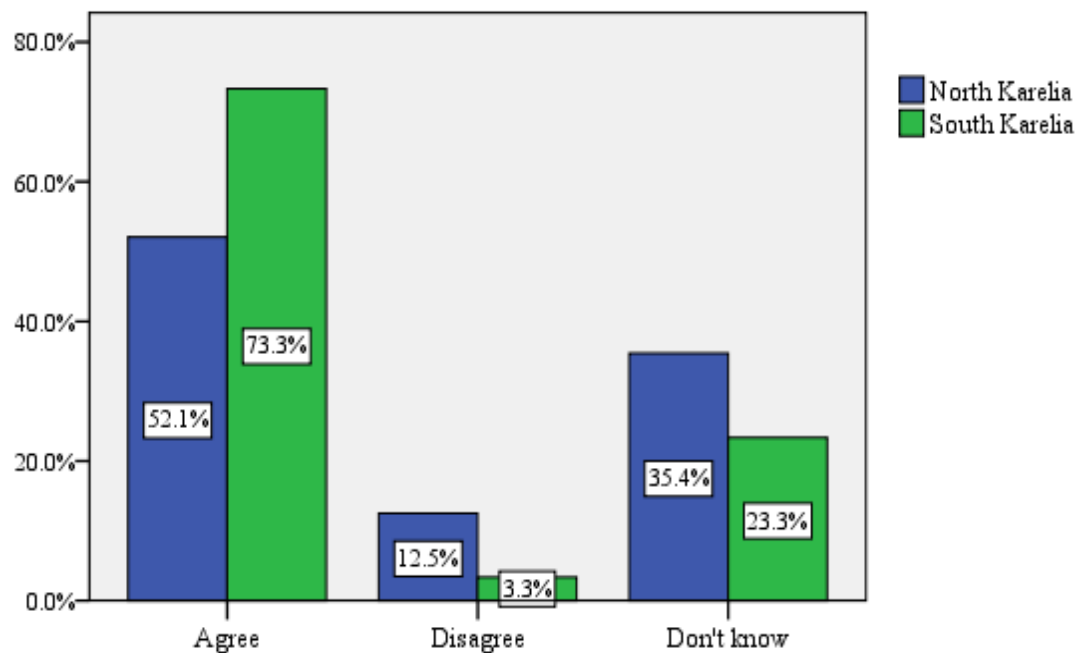
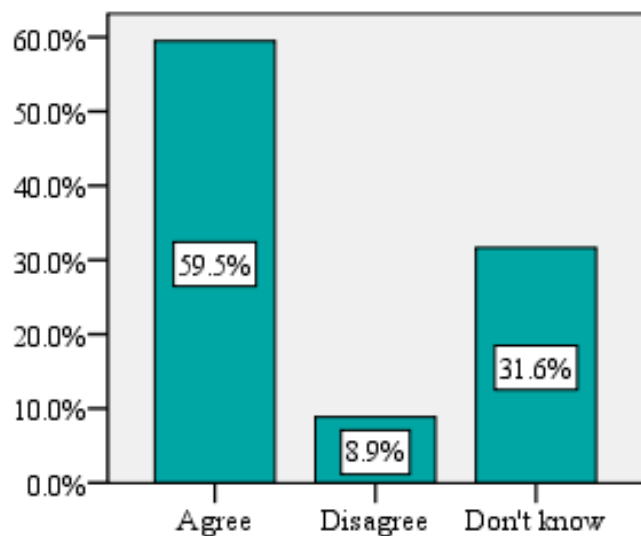
## Usefulness of the PEFC criteria in ensuring sustainable wood energy harvesting (N=78)



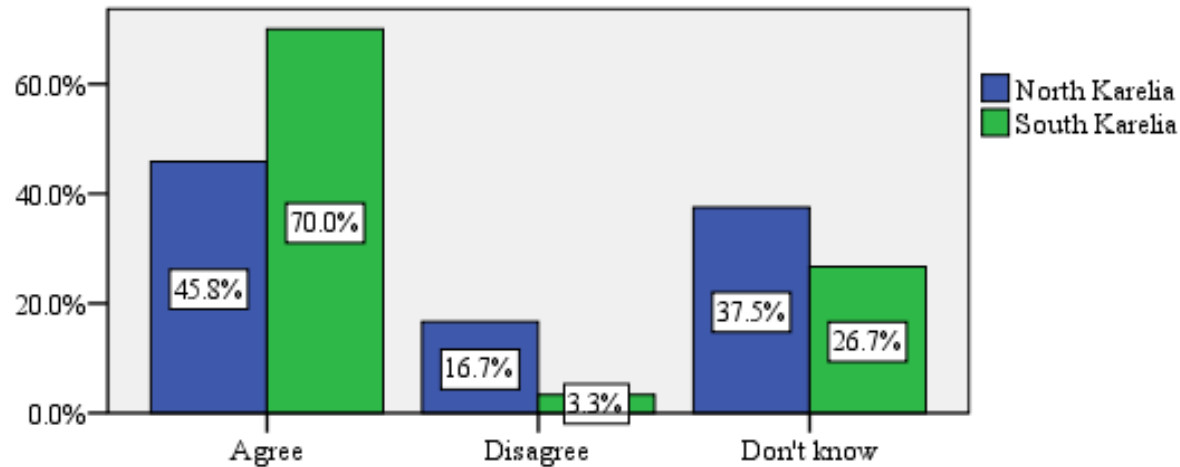
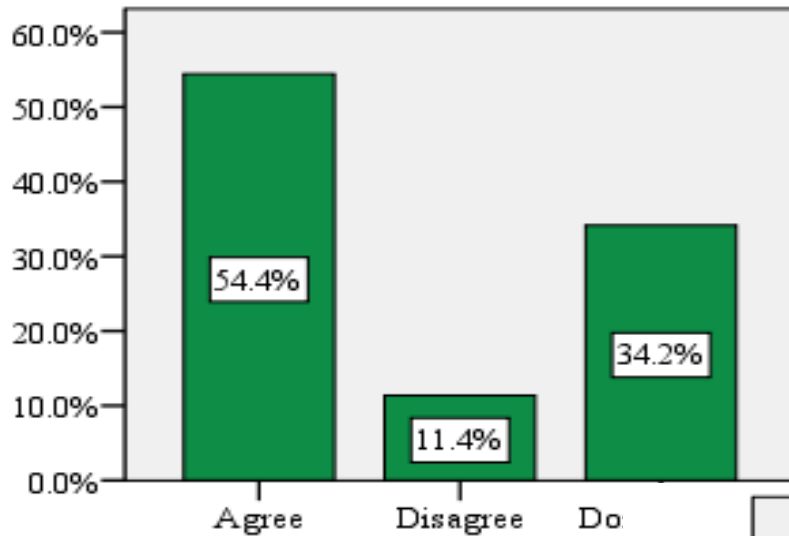
# Important qualities of bioenergy certification standard: overall and regional differences among the respondents (N=75)



# Can bioenergy certification improve forest management practices in Finland? overall and regional differences among the respondents (N=79)



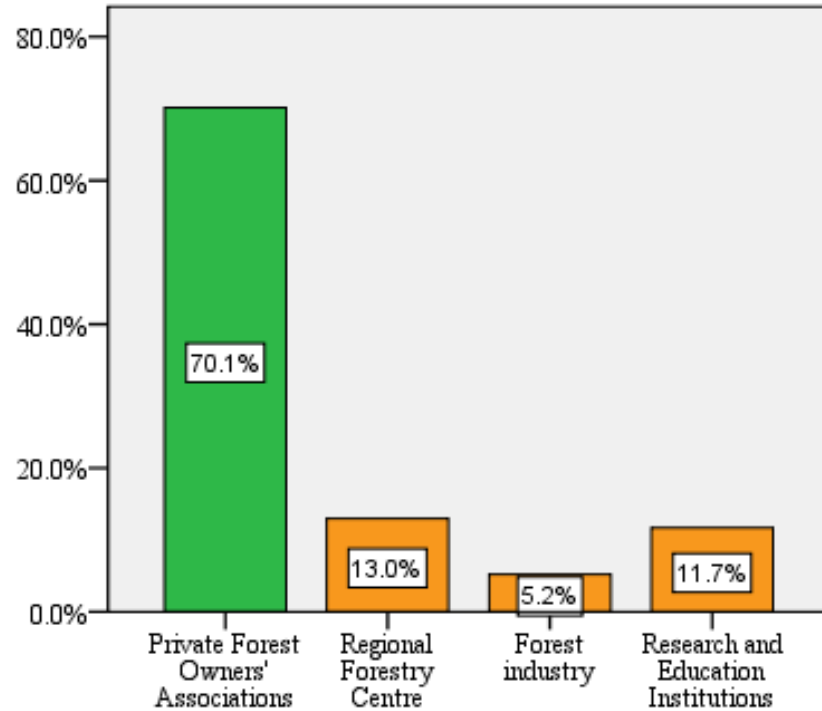
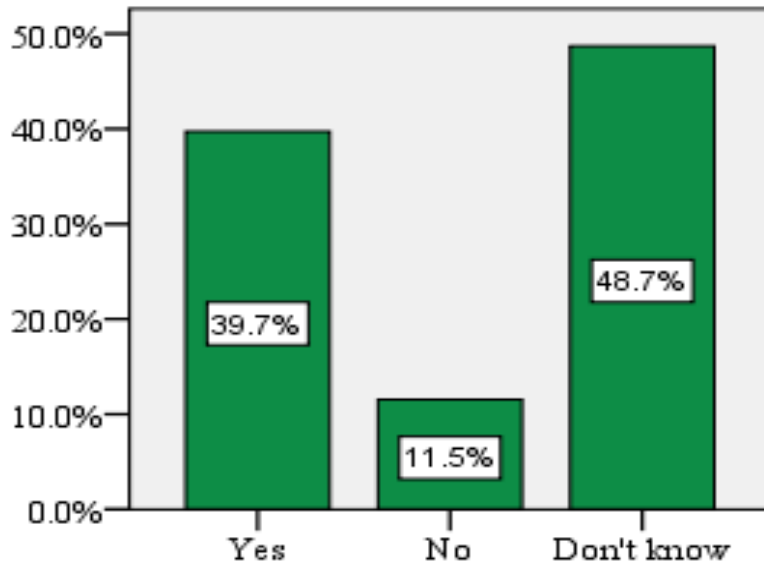
# Can bioenergy certification improve forest owners' marketing possibilities of forest biomass for bioenergy production? (N=79)



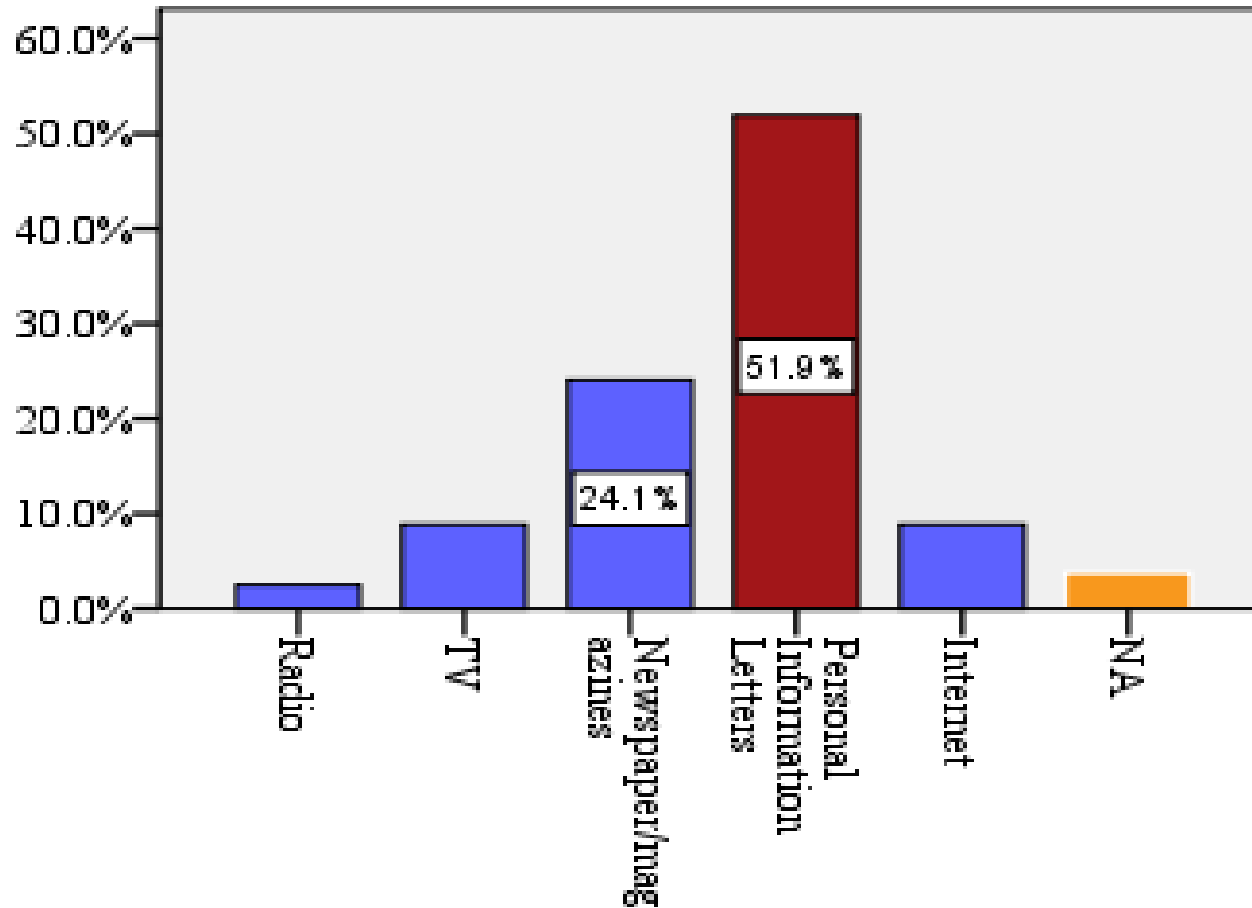


## Organisation most appropriate to deliver information on forest bioenergy certification in Finland (N=79)

### Is there growing awareness of bioenergy in Finland? (N=79)



## Most appropriate medium of delivering information on forest bioenergy certification to private forest owners in Finland (N=79)



# Conclusions

- Bioenergy certification is relatively unfamiliar to the private non-industrial forest owners in Finland although some positive attitudes for it visible – [what about the forest industries?](#)
- Private non-industrial forest owners would like to see bioenergy certification as a means to increase their profits from selling energy woods (the price of which is very low at the moment at least in Finland) – [what about environmental concerns?](#)
- Bioenergy certification schemes should be practical and easy to follow rather than increasing the complexities in energy wood harvesting and trade;
- It seems that to be acceptable, bioenergy certification should be implemented by the national level authorities;
- There is much need to raise to awareness of bioenergy certification for solid biomass among the stakeholders – similar surveys could be conducted in other Baltic countries to assess the present situation and develop new policy strategies.

# Thank you for your attention!



Bioenergy Promotion

Bioenergy Promotion Conference  
26.11.2010, Kaunas, Lithuania



UNIVERSITY OF  
EASTERN FINLAND