

Northern ToSIA

Assessing sustainability of forest based activities in rural areas of the Northern Periphery

Case study in Finland, North Karelia

Review in the end of year 2009

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Economic indicators of example cases

Data available

- Production cost, €/MWh
- Resource use, ton of C/MWh or ha/MWh

Potential indicators

- Subsidies on forest fuel production, €/m³
- Local value added, € /m³
- Trade balance
- Enterprise structure
- Prices paid by heating and power plants using solid wood fuels



Environmental indicators of example cases

Data available

- Greenhouse gas emissions, CO₂ekv ton / MWh
- Transport, ton-km / MWh
- Impacts on nutrient balance in forest soil, nutrient loss / MWh

Potential indicators

- Biodiversity; the effect of energywood harvesting
 - ✓ Volume of decaying wood
 - ✓ Valuable biotopes
- Energy generation and use in the forest fuel supply chain
 - ✓ Harvest – transport – combustion – heat distribution



Social indicators



Data available

- Employment, man-year/MWh
- Wages and salaries, €/MWh

Potential indicators

- Recreational use of forests
 - The effect of energywood harvesting on e.g.
 - ✓ Hunting, hiking, fishing
 - ✓ Picking berries and mushrooms
- Activity of regional development
 - Regional development projects



Expert team of case study in North Karelia

- The team is an advisory group for the case study
- The team had three meetings (May, August and November, 2009)
- Members of the expert team:
 - Heikki Karppinen (Forestry Centre of North Karelia)
 - Anssi Niskanen (University of Eastern Finland)
 - Asko Puhakka (North Karelia University of Applied Sciences)
 - Jouko Parviainen (WENET)
 - Lauri Sikanen (University of Eastern Finland)
 - Pekka Leskinen (Finnish Environment Institute)
 - Pasi Pitkänen (Regional Council of North Karelia)

Activities of the case North Karelia

Regional workshop 22nd Sep, 2009, Joensuu

- Discussion about indicators with stakeholder groups (report)
- Number of participants 18 (experts from different organizations and members of Regional Forestry Council)

Climate and energy seminar for decisionmakers in municipalities 29th Oct, 2009, Joensuu

- Presentation about ToSIA tool and a brief survey about important matters in regional developing
- Number of participants ca. 70 (representatives of municipalities and developing organizations)

EU Open Days in Kuopio 30th Oct, 2009; theme Bioenergy - possibility for Eastern Finland

- Poster

List of important matters in regional development as a result of the regional workshop and survey

