1. Background

2. Case study and methodology

3. Results

4. Conclusions
Forest land consolidation in Finland

Case: Pahkakoski land consolidation project (1990-1997)

- 4892 hectares (49 km²)
- Comprehensive land consolidation
  - Improve shape of properties
  - Create larger units
    - jointly owned forests
  - Road construction, drainage

Before

After
Methodology

Cost-Benefit Analysis

Profitability = (Present value of benefits - Project costs)

Who benefits?

- Forest owners
- Employees
- General population
- Business operations
- State etc
Benefits of the project

Forest owners
- More timber to sell
- Higher prices

Business operators
- More timber to buy
- Lower costs

Costs and benefits
- Benefits discounted: 5% discount rate, 30 years
- Costs 305 €/ha
- Benefits 358 €/ha
- Profitability of project 53 €/ha
Combining measures – remedial drainage

- Study area in wet lowland
- Drainage increases the growth of forest
- This project not profitable without remedial drainage
  - or with low increase in growth

Jointly owned forests – essential for forest land consolidation?

- Creating jointly owned forests seen as central in Finnish projects
- Results show that project would be profitable also without

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Conclusions

- **Combining measures increased profitability**
  - Land rearrangement, road construction, drainage

- **Other factors may increase profitability further**
  - Local economy, society
  - Environment, public projects