



COST ACTION FP 0703

**Echoes: Expected Climate Change
and Options for European Silviculture**

Country Report: Major points

Finland

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Elina Vapaavuori & Aleksi Lehtonen & Annikki Mäkelä

Finnish Forest Research Institute

University of Helsinki

Elina.Vapaavuori@metla.fi

Annikki.Makela@helsinki.fi

[Aleksi.Lehtonen@metla.fi](mailto:Aleksii.Lehtonen@metla.fi)

Long tradition of strong ecological and environmental studies on forest trees and forest ecosystems

- **Expertise in Finland:**
- U. of Helsinki, U. of Joensuu, U. of Kuopio, U. of Turku, U. of Oulu
- Metla
- EFI

I. Impacts

- **Finnish Research Programme on Climate Change (SILMU): 1990-1995**
 - multi-disciplinary programme (80 projects, 200 scientists)
 - quantification of the greenhouse effect and the magnitude of anticipated climate changes
 - assessment of the effects of changing climate on terrestrial and aquatic ecosystems
 - development of mitigation and adaptation strategies.
 - individual projects in universities/research institutes
- **Participation in EU projects: ECOCRAFT, EUROFLUX, FOREST, LTEEF-II ...**
- **Understanding the global system – the Finnish perspective (FIGARE): 1999-2002 (SA, Tekes, 5 ministries)**
 - 36 research groups/multidisciplinary research consortia
 - mainly national approach
 - covering variable fields : biogeochemical cycle, ecosystems, human systems (policy, economics, societal change etc)
- **Individual projects / EU projects**
- **Functioning of forest ecosystems and use of forest resources in changing climate (MIL): Metla 2007-2011**

II. Adaptation research

- **participation in EU projects: SILVISTRAT 2000-2003**
 - adaptation in forestry
- **FINADAPT: 2004-2005**
 - multi-disciplinary project
 - scoping vulnerability and adaptive capacity
 - providing research inputs to national strategy
- **National Adaptation Strategy of Finland**
 - first country to publish a strategy, 2005
- **ISTO research programme 2006-2010**
 - funded by ministries
 - covering variable fields in society
- **Functioning of forest ecosystems and use of forest resources in changing climate (MIL): Metla 2007-2011**

III. Mitigation

1. Carbon accounts

- Greenhouse gas inventory (for UNFCCC & KP)
- Various research groups: METLA, Univ. Helsinki, EFI, Environment Finland & Univ. Joensuu

2. Forestry as a source of bioenergy

- Bioenergy from forests -research program METLA
- BEE - Biomass Energy Europe METLA + EFI: 2008-2011
- Impact of bioenergy utilization to soil carbon METLA+Environment Finland
- Harvesting the wood energy – impacts on the environment: Metla & Forestry Development Centre Tapio

3. Processes, instruments and strategies

- MELA scenarios for Finnish forest and their carbon sink METLA
- Climate policies and the forest sector METLA + Univ. Helsinki

4. Research studies on mitigation

- Wood products to mitigate climate change METLA+VTT Technical Research Centre of Finland
- ClimBus - Mitigation of Climate Change offers new possibilities 2004-2008, various stakeholders

Conclusions

- **Research needs:**
 - Better understanding of forest ecosystem processes for reliable risk assessment
 - Forest management methods to avoid risks and manage damages
 - What are the policy means to cope conflicting interests:
 - CC mitigation, forest industry, bioenergy, sustainability
 - **New national research programmes to start 2009-2010:**
 - SETU: ministries for policy-making purposes
 - Academy of Finland: Scope to be determined