Country report

Department of Ecology and Natural Resource Management
Norwegian University of Life Sciences

Terje Gobakken

INTRODUCTION

- **Department of Ecology and Natural Resource Management**

    - **staff**

    - **teaching**

- **Research subjects**
- **Ongoing projects**
- **Publications**

Department of Ecology and Natural Resource Management (INA)

- **INA was founded in September 2003 through a merger of the former Department of Biology and Nature Conservation and the former Department of Forest Sciences.**

- **Biology and ecology, natural resource management and forest science**

- **Staff: academic permanent 35, academic temporary 40, technical 15**

- **A total of approximately 95 man-labour years is performed. The budget is approximately 60 Mill. NOK (7.5 Mill. EUR) per year.**

- **Graduate teaching, Postgraduate teaching, Research, Continuing education, Public relations**

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Graduate teaching

New students starting this fall
Bachelor 70 (10 Forest Sciences)
Master 70 (10 Forest Sciences)

● **Bachelor programmes**

- Forest Sciences

- Ecology and Management of Natural Resources

- Renewable Energy

● **Master programmes**

- Forest Sciences

- Nature-based Development and Innovation

- Natural Resource Management

- Ecology

   - includes General Ecology, Tropical Ecology and Management of Natural Resources
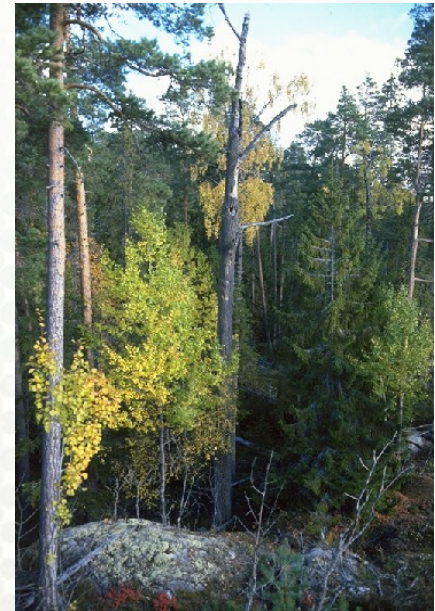
"Section" of Planning, inventories and modelling"

1. Resource inventories

Field inventory, sampling

GIS, photogrammetry,

Remote sensing, laser scanning

2. Bio-economic modelling

Models for tree growth, recruitment and natural mortality

Models for timber quality and -price

Bio-economic forest simulators

3. Forest management planning

Valuation of forests and environmental goods

Large-scale forestry scenario modelling

Long-term harvest- and investment analyses

PhD dissertations

- Nils Lexerød, 2008. Planning, management and economy of selective cutting in Norway
  - Developed regeneration models for Norway spruce, Scots pine, birch and other broadleaves
  - Developed an index for quantification, localization and prioritisation, of forest areas suitable for selective cuttings
  - Used a growth simulator based on models for individual trees in order analyze different consequences of uneven-aged forest management.

- Ole Martin Bollandsås, 2008. Uneven-aged forestry in Norway. Inventory and management models.
  - Diameter distributions from airborne LiDAR
  - Estimating regeneration based on LiDAR
  - Developed a matrix model based on sub-models for individual tree growth and mortality, and area-based recruitment

"Section" of Planning, inventories and modelling"

Staff

1. **Erik Næsset, professor**
2. **Tron Eid, professor**
3. **Terje Gobakken, associate professor**
4. **Ole Martin Bollandsås, Post doc**
5. **Liviu Theodor Ene, PhD student**
6. **Terje Kristensen, PhD student**
7. **Vegard Lien, PhD student**
8. **Nadja Thieme, PhD student**
9. **Hans Ole Ørka, PhD student**
10. **Knut Marius Hauglin, research assistant**
11. **NN1, PhD student. From ca 1/10-2008**
12. **NN2, PhD student. From ca 1/10-2008**

Ongoing projects

- 12 research projects related to inventories, management planning and biological modelling

  - 9 projects are within the field of resource inventories
  - 3 are within planning and biological modelling.

Publications

- **Internationally**

  – **Forest Ecology and Management**

  – **Forest Policy and Economics**

  – **Remote Sensing of Environment**

  – **Scandinavian Journal of Forest Research**

  – **Photogramm. Eng. & Remote Sensing**

  → **2006-2008: 36 articles (15 in per-review Journals)**

- **Domestically (In Norwegian)**

  – **Research and knowledge from Norwegian Forest and Landscape Institute**

  – **Articles of Popular Science**

  – **Lecture notes**