

ProSilva

FORESTS AND NATURA 2000 OPPORTUNITIES AND CHALLENGES



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ProSilva Principles

- **ProSilva Principles integrate several objects of management**
 - Production of quality timber with a high economic return
 - Ecosystem services and protection
 - Landscape and social benefits
- **Integrated management = multiple use**
- **The principle is more important than management techniques or forest structures**

ProSilva Principles

- Pro Silva promotes forest management strategies which optimize the maintenance, conservation and utilisation of forest ecosystems in such a way that the ecological and socio-economic functions are sustainable and profitable.
- The general approach to management includes market and non-market objectives and takes the whole forest ecosystem into consideration.

Changes in perception towards forestry

➤ Awareness of the holistic and humanistic importance of the forest

Rousseau social contract; Gayer – Gurnaud – Biolley (end of 19th century)

➤ Importance of non-timber uses

Reaction to loss of multiple benefits following clear-felling of timber resource

➤ Biodiversity

Rio world summit 1992 and changes to lifestyles

➤ Finite limits to growth

Climate change, C-Management, sound compliance with nature

Outcome of ProSilva concepts

- **Greater harmony with nature**
Forest owners and managers realise their goals through Close-to Nature forest management
- **Maintain important resources**
Water quality, Energy, biodiversity
- **Good forest management and appropriate timber use make a contribution to mitigating the effects of climate change**

Threats to biodiversity



Borrowdale – Great Britain

Source: Edward (Ted) Wilson

Threats to biodiversity

- We are seeing a very sudden rise in the number of severe diseases affecting trees and woodland habitats in Britain and Ireland that threaten economies and biodiversity.
- Larch undergoes complete stand collapse at very low thresholds of *Phytophthora ramorum* attack in the South and West of Britain.
- Ash is now under the same threat from *Chalara fraxinea*, as in large parts of continental Europe.

Changes in timber utilisation

- Technology has vastly expanded the boundaries of timber processing
- No longer economies of scale but intelligent harvesting matters
- The energy footprint can now determine the value of products
- Maintaining soil productivity is important
- Huge changes in woodfuel sector

What is Close-to-Nature Forestry?

- CFN embraces the complexity of nature, follows natural systems and uses them to its advantage
- CFN rejects industrial simplification and seeks effective ways to work with nature
- It does not mimic landscape scale natural events or attempt to reproduce wilderness but uses natural processes on an individual tree or compartment scale

What is Close-to-Nature Forestry?

- It seeks harmony between the environment and economic sustainability
- It is opportunistic and looks for cost-effective ways of working
 - Biological automation
 - (Biorationalisation Schütz, J.P.)

Close-to-Nature Forestry

Making use of natural processes

- Natural regeneration
- Self differentiation
- Nurturing by shade
- Controlling light levels
- Biological automation
- Maintenance of continuous cover
- Soil protection
- Maintaining habitats

Silvicultural methods

- Plenter forest (selection system)
- Tree by tree selection
- Transformation to Continuous Cover
- Use of site adapted mixtures
- Mosaic forest system (irregular shelterwood)
- All require a high level of silvicultural skills

Changes in timber utilisation



Biological rationalisation is not incompatible with mechanisation

However good planning and design is required to minimise impacts



New timber products and markets



Producing woodfuel is a major challenge for timber utilisation

As pellets or woodchips

Forests in transformation



Coed Bryn Arau Duon – Wales, UK

Forests in transformation



Forest on polder - Netherlands

Irregular High Forest



Gergy - France

Plenter Forest



Freudenstadt - Germany

Forests and Natura 2000: Opportunities and Challenges

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Couvet - Switzerland

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Langula - Germany

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Shelterwood



Lauenburg - Germany

Low intervention



Foldsæ - Norway

Forests and Natura 2000: Opportunities and Challenges

Conclusions

- **There is no contradiction between small scale management and economic viability**
 - Economies other than economy of scale
- **System compatible with a lot of other benefits**
 - Quality of life (amenities)
 - Diversity through irregularity

Some challenges

- **Application of principles in harsh climatic conditions**
 - In the south
 - In the north
 - On particular sites (sandy soils)
- **Scientific support for their arguments**
- **Communication of their ideas**

ProSilva core principles

- **Multifunctionality**
 - All benefits are provided from the same area
- **Complementarity**
 - The different outputs enhance each other
- **Adaptability**
 - Capacity of adapt to new demands
 - Capacity to adapt to changing environments
- **Relies on natural processes**

A final thought

A green infrastructure supports economies, safeguards habitats, provides ecosystem services and contributes towards robust, sustainable, resilient natural systems.

Thank you

PRO SILVA PRINCIPLES



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