The Medium-Term Forest Management Plan

- also for complex and changing situations

Prof. Dr. Hanns H. Höfle

University of Göttingen

Overview

- Introduction

- Planning process

- Results and implementation

- Differentiation and problems

- Conclusions

Some aspects of planning

- „Er machte einen Plan und war ein armer Wicht, er macht nen zweiten Plan und gehn tun beide nicht" (Brecht).

- Analysis of options and selection of optimal solution

- Continuous process using all available knowledge and information

- Basis for monitoring and updating

- Transparency, participation ...

Time horizons of planning

- Strategic – tactical - operational

- Strategic: long-term (20 years and more)

- **Tactical: medium-term (**5 – **10** - 20 **years)**

- Operational: short-term (1 year and less)

- Planning pyramid: one plan follows, realises the other.

- These consecutive plans are more detailed, needing more information, involving more people ...

Special situation of forestry

- Long production periods

- Complex and sensitive ecosystems

- Great importance of biodiversity

- Many stakeholders with different interests -> important to locate and solve conflicts

- Multiple functions of forests (integration vs. segregation)

- Large quantity of data

Phases of the planning process

- Status quo of all relevant items:
    - functions of the forest
    - sites,
    - stands,
    - biological diversity and/or hotspots
    - infrastructure ...
- Looking back: control of the last planning period
- Looking forward: planning for the next time horizon (the next planning period)

Information needed

- Basic information: ecology of trees; silvicultural strategies; risks, pests and diseases ...

- Tenure and rights of people

- Forest functions (via forest function map or land use map)

- Sites (via site mapping)

- Biological diversity (via biotope mapping)

- Stands (via inventory of timber and NTFP) ...

- **Data collection to be restricted to what is really needed** (costs, user friendly...)**!!**

Inventory

- As one (the core) element of gathering information

- Including all relevant information but restricted to those data that are really relevant

- Using the most advanced and appropriate methods (sample theory, remote sensing, participatory mapping …) up to digesting and presenting the information

- **Could the design and the results of the inventory be used to establish a (the) baseline for REDD+??**

Structure and details of the plan

- Depends on the specific situation (type of ownership, size of property …) and the respective laws and regulations:

    - Areas and infrastructure

    - Silvicultural activities ($\rightarrow$ AAC)

    - ...

    - Labour and equipment needed

    - Revenues and costs

- Formalisation needed: many people involved, comparison over time

Organisation of the planning process

- **People** involved:
    - Team work
    - Use specialists and outside experts
    - Involve people later responsible for implementation („my plan")
    - Include local and indigenous knowledge (in particular with community forestry)
- Start in **time** and be ready in time!
- **Formalisation** needed also for organisation

Methods used in the planning process

- Open to all methods. See history: area control, volume control, combination of both, use of formulas, simulation models, methods of operations research …

- See also the model of the normal forest or the equilibrium in the individual tree selection system

- To be adjusted to the specific situation and to be reshaped according to changing parameters: e.g. through acid rain, climate change, community forestry ...

Results

- **Results correspond to objectives for the next planning period.**

- Presented in an economic and user friendly way (Data bases, GIS …). Possible structure:

  – Detailed description of background, planning process, silvicultural strategies, methods used, results (such as AAC) ...

  – Compartment record book with three parts for each stand: status – planned activities – records of implementation

  – Map(s) and/or GIS

Implementation

- Sometimes detailed schedule for implementation. - But:

- Flexibility is mandatory because of:

  – Volatility of timber markets

  – Disasters caused by biotic and abiotic agents

  – Increase of knowledge

- Availability of labour and capital

- Monitoring guarantees that deviations of the plan are acceptable.

Monitoring

- Formalisation (once again necessary) about:

    – At what time (how often)?

    – Where?

    – What data?

    – By whom?

    – → Collecting, digesting and recording data

- How to compare objectives of the plan and results

- Suggestions for replanning regularly or after specific events

Coping with different situations

- Type of ownership (state,community, private)

- Size of property

- Concession systems as special case

- Forest ecosystems

- Different types of forestry (von Gadow):

  - Rotation forest management

  - Sporadic exploitation forestry

  - Near-natural forest management

  - Transformation forest management

Coping with new developments

- Forest decline (→ compensation liming)

- Climate change (→ what species to select for the future – deviating from present solutions)

- Greater public participation (→ plans must be laid open, suggestions taken care of)

- Certification (→ criteria and indicators to be included)

- New silvicultural strategies (e.g. near-natural forestry)

- **REDD+**

Quality of planning

- Depends on:

- Accuracy and actuality of information (data)

- Use of all available and up-to-date knowledge

- Participation of the „right" set of people – including the public

- Methods used in the planning process

- Presentation of results

Problems

- Optmal intensity of planning – according to:

  - Type of ownership

  - Size of management unit

  - Legal regulations …

- Costs of planning (relatively easy to quantify):

  - Collection, digesting and storing of data

  - Planning process

  - Persons involved

- Benefits difficult to quantify

Conclusions

- Planning is a must in forestry – the medium-term forest management plan providing a central tool.

- This plan should be well structured and formalised.

- It should use all necessecary information as well as all relevant expertise.

- Simultaneously, it can be set up in a flexible way – taking care of different situations and being aware of changing environments.

Thank you for your attention!

Further developments