

EELF Conference 2017

Forest regulation and NO NET LOSS of biodiversity

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Background



- Finnish forest management is the best in the world, right?
- 36 % of endangerend species are forest species
- Forest management is the primary cause of threat
- National Forest Strategy 2025:
 - Aim is to increase annual loggings: 65 → 80 million m³
 - Also, “more extensive protection of biodiversity than today is required”
- Should the **No Net Loss of Biodiversity Principle and the mitigation hierarchy** be applied to the regulation of forest management?



What is "no net loss of biodiversity" principle?

- NNL also part of EU Biodiversity strategy to 2020

Mitigation hierarchy

→ Ideally biodiversity will not be lost due to human activities → not a panacea: could slow down

- Avoid: no harm to biodiversity
- Minimize: modify the project (type, location...)
- Restore: usually after the project
- Compensate: ex-situ restoration, creation etc.
- E.g. Natura 2000 regulation; US Clean Water Act and wetland mitigation
- Projects only? Or also ongoing land use, such as forestry?

NNL and mitigation hierarchy suitable for forestry?

Project	Forestry
Land-use change	Ongoing land-use
Location often changable	Log where the forest grows
Information collection: inventories/land-use planning & EIA	Inventories of Forest Act habitats (data not public) + Info about certain species
Environmental/building permits by authorities ~ 700 by AVIs, 700(?) by municipalities ~ 30 000 build.permits for homes	100 000 forest declarations /year (no decision normally) to the Forest Center
Authorities make final mitigation decisions /permit conditions	(Professional) forest users make final decisions in the forest



Regulation of the protection of forest biodiversity in Finland



- Legislation
 - **Nature protection areas** (Nature Conservation Act)
 - Habitat protection (Nature Conservation Act, Forest Act, Water Act)
 - Species protection (Nature Conservation Act, Hunting Act)
- Soft law (forest certification, best practice guidelines)



1. AVOID

- **Forest Act:** the *characteristic features of immediate surroundings* of *natural or semi-natural habitats* are protected (10 §)
- E.g. springs, brooks and rivulets
 - Currently all kinds of brooks are endangered habitats in Southern Finland
Only 2 % of brooks are in a natural state in S. Finland
 - In practice the protection zone is about 14 m wide
 - Scientists: should be min. 30 m, rather 100 m to protect *characteristic features*
- **FSC** forest certification (*soft law*): > 20 m

Concerning non-natural brooks and springs:

- **Forest Act:** nothing
- **PEFC** forest certification (*soft law*): min 5-10 m
- **FSC** forest certification (*soft law*): > 15 m



- Problems: current regulation partly works against avoiding:
 - Cautious selective felling possible on habitats (FA 10 a §)
 - Derogation is possible if protection causes more than 3000 € losses / 4 %
 - Restoration (20 §): to remove illegal effects **if possible at reasonable cost**
 - Concerns only *in-situ* restoration → not possible after clear cut
 - About 10 % of the brooks are not preserved completely during loggings
 - Restoring not used, also forest offence cases rare at courts

- ➔ There are no strong enough requirements to *avoid* biodiversity loss



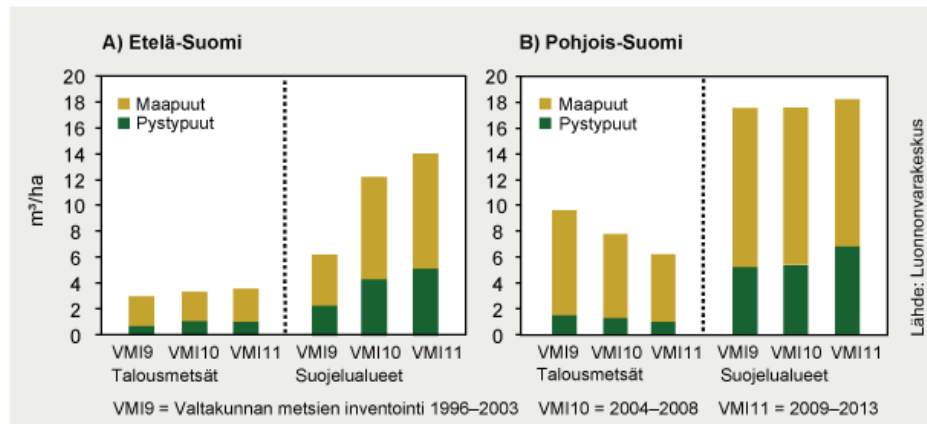
2. MINIMIZE

- Forest Act: no requirements
- Temporary Act on the Financing of Sustainable Forestry
 - The best practices must be followed during the work; e.g. ditching (not a general requirement)
- PEFC: > retention and decayed trees 10 / ha
- FSC: > 10 retention trees /ha and > 20 dead trees / ha

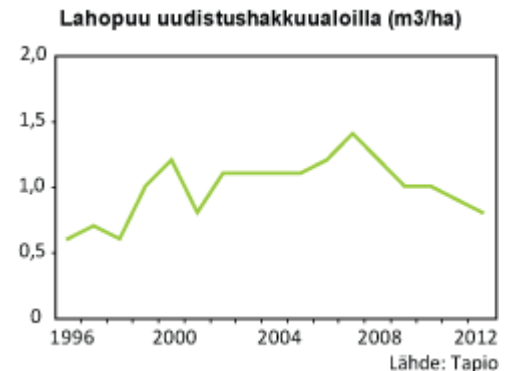


Why decayed wood?

- ¼ of forest species = 4000-5000 species are dependent on decayed wood
 - Lack of decayed wood = the most significant single reason for being endangered
 - The amount of species grow fast → 20 m³/ha
 - Endangered species of old-growth forests demand min 20-50 m³/ha



- Aim of NFS 2025:
 - SF 3,8 → 5,0 m³/ha
 - NF 8,0 → 10-11 m³/ha





3. Restore: in-situ restoration usually not possible after clear cut

4. Compensation: no ecological ex-situ compensation required

→ NET LOSS continues, as there is no requirement e.g. to restore or compensate ex-situ + cautious felling & derogations possible + increase the amount of decayed wood



	Current	Problems	Possibilities
Avoid	<ul style="list-style-type: none"> Habitats 	<ul style="list-style-type: none"> 10% change Cautious felling "Accidents", impunity Derogations 	<ul style="list-style-type: none"> Surveys, satellite surveillance Clear protection zones Certain % of set asides <ul style="list-style-type: none"> e.g. FSC Finland: 5 %, if > 20 ha forests
Minimize	<ul style="list-style-type: none"> Soft law: residual & dead trees 	<ul style="list-style-type: none"> Soft law works only partially 	<ul style="list-style-type: none"> Quotas of residual & dead trees Requirement to girdle trees [Use of continuous cover forestry (legal since 2014)]
Compensate	<ul style="list-style-type: none"> Only on-site → not possible after clear cut 	<ul style="list-style-type: none"> Off-site compensation not in use currently 	<ul style="list-style-type: none"> Bank of dead wood? Bank of "set asides"? Bank of habitats? = off-site restoration = but not a pre-logging compensation

Conclusions: NNL and mitigation hierarchy fit also for ongoing land-use

- More stringent legislation needed, as soft law has not worked
- Even compensations?
 - banks of decayed wood & set asides could work (if there is a clear requirement in Forest Act)
- Compensations now only Natura 2000 areas → should be required more widely: EIA Act, Nature Conservation Act, Environmental Protection Act, Forest Act etc.



Thank you!



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