

# Criteria and Indicators for Sustainable Forest Management in the Caucasus and Central Asia

National examples of SFM C&I processes and  
outcomes, lessons and recommendations

## Estonia

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# **Personal experience**

**Responsible for C&I and other international and national SFM reporting for Estonia since 1999.**

**Editor of statistical yearbook „Forest“ and other statistical publications in 1999-2011.**

**Responsible for the section of information systems' development in Estonian Forestry Development Programs and coordinator of several related development projects.**

**Member of the team of specialists for Monitoring of SFM (United Nations Economic Commission for Europe)**

# **C&I of SFM in Estonia**

**1991-1998**

**After the regaining of independence dramatic changes in mentality, society, economy and policies took place.**

**Dramatic changes also in forestry:**

**NEW – ownership, stakeholders, public debate, economic model, policy setting etc.**

**Main goal – (re-)integration as independent state to international processes.**

**Preparation and accession to international organisations and processes including Ministerial Conference on the Forest Protection in Europe (MCPFE).**

# C&I of SFM in Estonia

1991-1998

Concept of SFM with applications was taken over as it appeared and used to cope with changes as:

- new paradigm;
- framework;
- toolbox (including Pan European C&I system).

Ministers responsible for forestry engaged country into MCPFE process signing declarations and committing to resolutions. SFM concept was introduced and incorporated into Forest Act, Development programs, policy implementation measures.



Signing of Lissabon Resolutions by the Minister of Environment of Estonia Mr Villu Reiljan in 1998

# C&I of SFM in Estonia

1991-1998

MCPFE C&I for SFM was taken as granted and reporting started according to international set (first publication in 1998).

Shortcomings in statistics and in data management systems appeared instantly despite the strong history of systematic forestry data collection.

Estonian Forest Policy (adopted In 1997) included section on information systems stating the establishment of coordinating centre, emphasising the quality of data and need to connect available resource data with data on biological diversity.

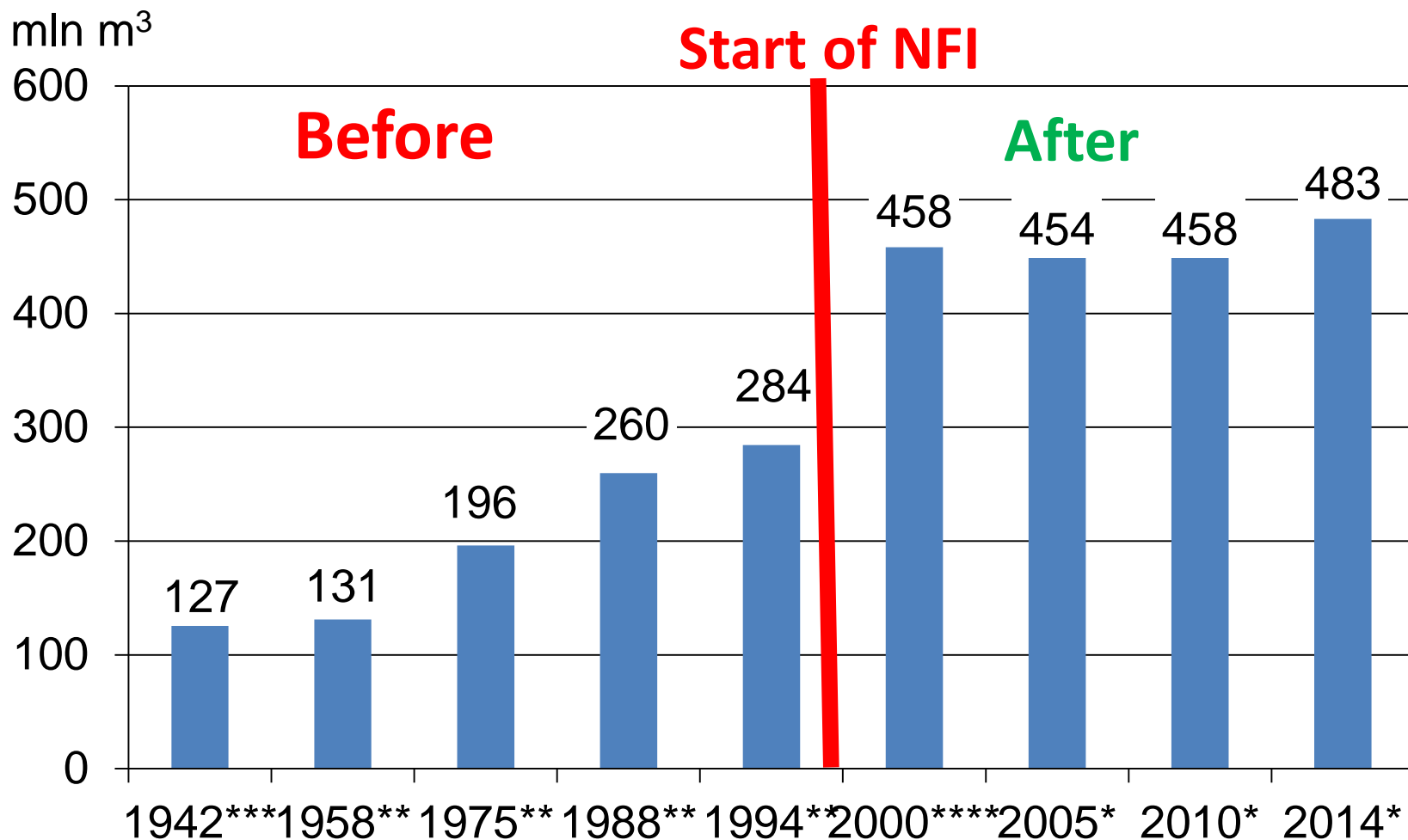


# C&I of SFM in Estonia

1991-1998

Underestimating of growing stock volume before the use of National Forest Inventory

## Changing of growing stock volume in Estonia



# C&I of SFM in Estonia

1991-1998

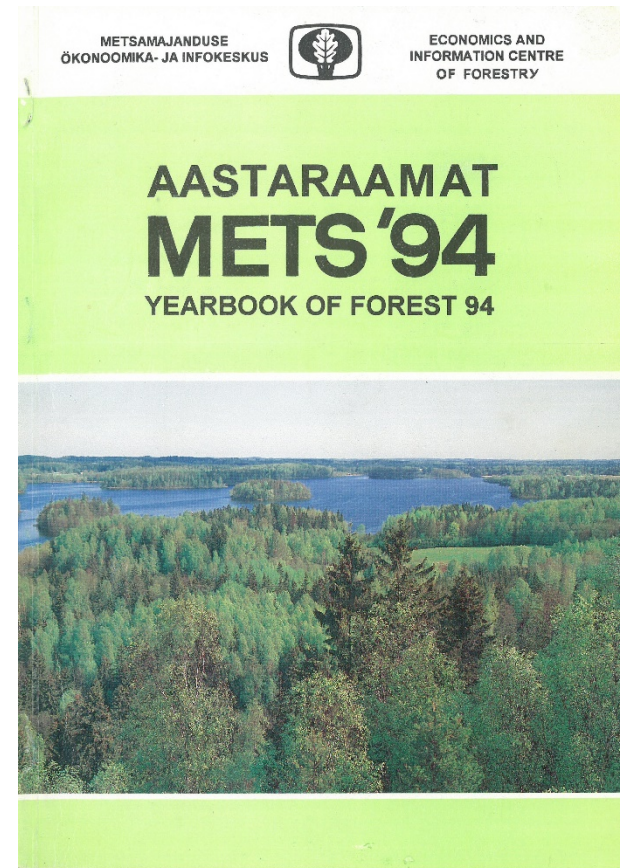
**3 important decision were made to fill the gaps:**

- concentrated efforts to collect and publish forest statistics, statistical yearbook since 1995;
- establishment of the sample-plot based forest inventory (first results appeared about year 1999);
- establishment of the National Register for Accounting of Forest Resources in 1999 (stand-wise forest inventory data).

**+**

**several new inventories started:**

- Woodland Key Habitat Inventory,
- Inventory of old-growth forests,
- Estonian Forest Conservation Area Network Program, etc)



**REAL IMPLEMENTATION OF FOREST POLICY TARGETS ON INFORMATION SYSTEMS STARTED  
DEDICATION OF RESOURCES ON SPECIFIC TASKS**

# C&I of SFM in Estonia

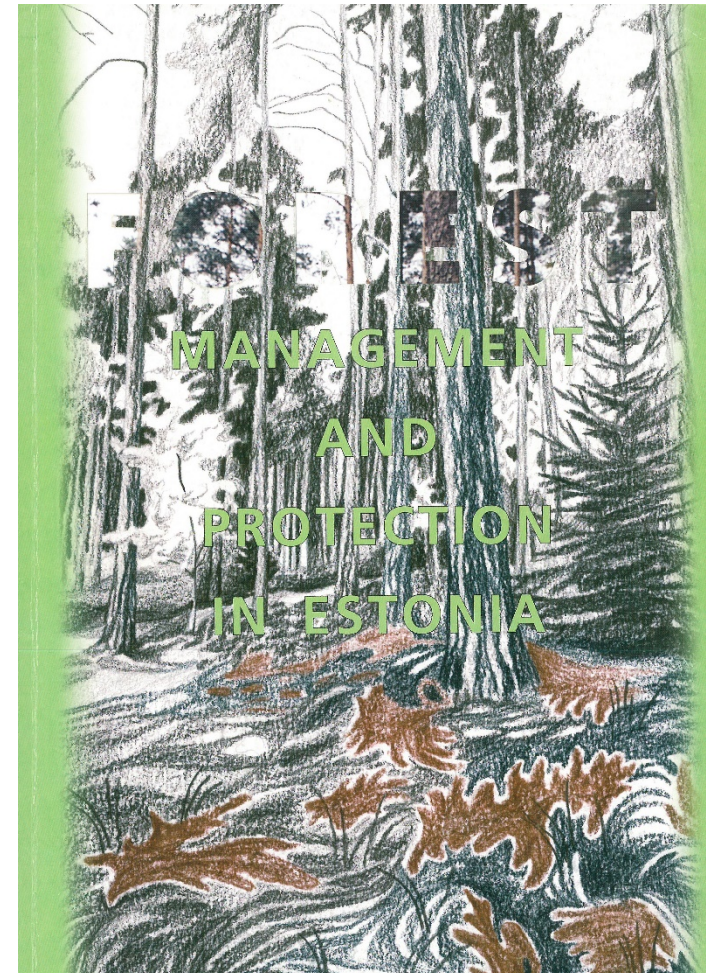
1999-2007

Efforts to elaborate national C&I system for SFM starting from the basis of Pan-European one started as voluntary process in 1998 with the aim to compile Estonian Sustainable Forest Management Standard (ESFMS).

Process was active with participation of major stakeholders. In 1999 National Forest Certification Working Group decided to rely on FSC principles and criteria.

Although the ESFMS was ready by 2000 it was not formally used at national level and later became the starting point to national forest certification schemes for FSC and PEFC.

There is no formally approved national set of C&I in Estonia and Pan-European C&I of SFM remained as main framework for reporting and international communication – second publication was released in 2002.



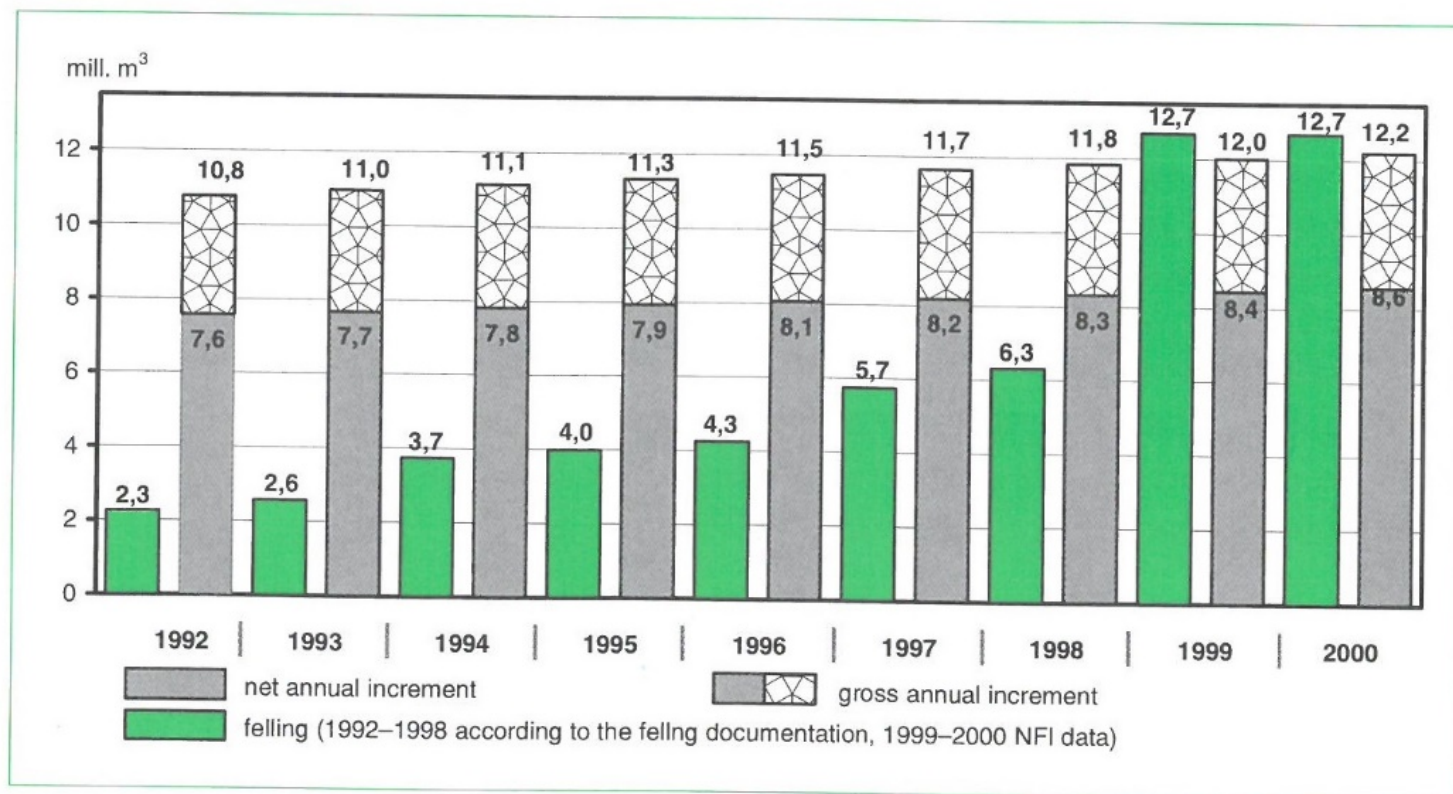
# C&I of SFM in Estonia

1999-2007

Identifying the problem with better quality of statistics from NFI.:

Several measures were taken to suppress the illegal felling which started to increase in 1996-1997 when private forest ownership quickly increased.

Situation was taken fully under control in 2002-2003.



Source: Felling - Statistical Office of Estonia, NFI; Increment - Estonian Forest Survey Center

Figure 3.1.1. Balance between increment and felling in 1992–2000

# C&I of SFM in Estonia

1999-2007

The development works on information systems continued:

- NFI was used for multitude of new tasks (resource use analysis, biodiversity, land-use and biomass reporting etc) and became the major source in reporting;
- Forest register became fully functional set of integrated GIS-services for forest administration, forest owners and public;
- Publication of widened range of statistics of better quality;
- WKH and EFCAN inventory results became available

and were used to adjust forest policy applications.

Development works to enhance the C&I for SFM at national level stopped although reporting to GFRA and MCPFE (Forest Europe) continued according to international sets.

## ENQUIRY ON MCPFE INDICATORS FOR SFM

### NATIONAL DATA REPORTING FORMS

#### TEMPLATE for electronic reporting

Please select your country:

Country:

Date of submission:

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# **C&I of SFM in Estonia**

**2008-...**

**Better statistics, information and analysis allowed to reassess results of the policy efforts and set new aims with better precision.**

**Some definite measurable targets (quantitative indicators) were agreed after the fierce negotiations among stakeholders in the Estonian Forestry Development Program until 2010 (EFDP 2010) e.g. :**

- 10% of forest area should be strictly protected,**
- maximum allowable (sustainable) cutting level was set at 12.6 million m<sup>3</sup>.**

**Discussions concentrated more on limited number of topics, other remained in the hands of relevant experts.**

**Quantitative targets in EFDP2010 were carefully monitored and widely discussed.**

# C&I of SFM in Estonia

2008-...

The efficiency of administration and optimization became the key-words: with ever scarces financial and human resources the main task has been maintaining the capacities for reporting and further development of ICT systems (better services).

Better target setting was clearly needed: Estonian Forestry Development Plan until 2020 includes the list of indicators with base and target values (natural revival of indicators).

Yearly EFDP achievement reports were compiled since 2012 and results discussed with stakeholders in National Forestry Council.

Eesmärk: metsade tootlikkus ja elujõulisus ning metsade mitmekesine, tõhus ja jätkusuutlik kasutamine on tagatud.

Indikaator	Baastase	Perioodi saavutustase
Aktuaalsete inventeerimisandmetega kaetud majandatava erametsamaa osakaal	70%	90%
Uuendusraiemahd ja pindala	5,85 milj m3 ja 22 400 ha/a (SMI 2000-2008)	10,1 milj m3 ja 34 500 ha/a (2011-2020)
Erametsade uuendamise osakaal uuendusraiete mahust	20%	40%
Valgustusraiete pindala	22 200 ha/a (STAT 2009)	32 400 ha/a
Harvendusraiete pindala	14 200 ha/a (SMI 2007)	34 500 ha/a
Juurepessu antagonistidega töödeldud raiealade pindala	Puudub	Kevad-suvised raiealad on töödeldud
Geenireservimetsade pindala	Puudub	2876 ha
Puhke- ja kaitsealade külastuskordade arv aastas alade koormustaluvust ületamata	1 450 000	1 600 000
Riigimetsamaa pindala osakaal maismaapindalast	20,25%	20,25%

EFDP process is slowly and naturally transformed to include national C&I of SFM

# C&I of SFM in Estonia

2008-...

**Development of 2 most widely discussed indicators in Estonia:**

- minimum share of strictly protected forests and
- maximum sustainable cutting levels.

Indicator level	Share of strictly protected forests from total forest area (%)		
	1997	2002	2011
Status	3	7,8	10
Target	4	10	>10*

\* guarantee the better representativity of different forest types

Indicator level	Felling volume (million m3)		
	1997	2002	2011
Actual volume of fellings	5,7	11,5	9,1
Maximum allowable cutting level*	7,8	12,5	12-15

\*level set in Forestry Development Program documents

# **C&I of SFM in Estonia**

**2008-...**

**External challenges with growing influence on forest sector (policies):**

- **climatic change (carbon trading),**
- **renewable energy targets,**
- **bioeconomy etc.**

**create new challenges to forest sector (policies) resulting among other issues in increasing and new reporting and assessment needs, therefore:**

- **data management tools and systems must be flexible with possibilities to adapt;**
- **national and international reporting (incl C&I based processes) capacities should be maintained.**

**There is still no plan to elaborate formal national set of C&I for SFM although Estonian Forestry Development Plan includes its basics.**

# Lessons learned:

- Full commitment to the integration of SFM principles into policies, tools and practices during the years of transition was right choice;
- Conscious investment into human resources, innovative ICT solutions and well-established information management is crucial;
- Establishment of participatory process and involvement of stakeholders has been tricky but guaranteed balanced choices.

# Challenges/suggestions:

- We have reacted quite late in many cases, more proactive approach is needed (innovation and flexibility) but balanced with commitment over longer period:  
**BE COUREAGEOUS TO FACE THE TRUTH  
BUT CAREFUL IN FINDING THE SOLUTIONS**
- Wish to approach all areas at the same time with limited resorces was unsuccessful, concentrated and well-targeted solutions/measures proved to be the right approach:  
**DO LESS BUT PROPERLY**
- Several good ideas remained undone or half-realised due to the lack of commitment, resources and cooperation:  
**PLAN CAREFULLY WITH LONGER PERSPECTIVE IN MIND**

# Challenges/suggestions:

- We failed to create national C&I for SFM in Estonia and stuck to the solution to guarantee the overall good level of information management thus we are able to safeguard national and International reporting needs and concentrate our national efforts on country-specific issues:  
**FIND YOUR OWN WAY BEARING IN MIND WIDER NEEDS**
- It has been hard to find good solutions for all emerging situations (without good data and analysis), sometimes it has been on trial and error basis. Cases where policy aims were clearly discussed, formulated and realised with commitment proved to be successful:  
**CONNECT POLICY TO REALITY,  
INFORMATION AND ASSESSMENT SYSTEMS HELP A LOT**

# Thank You!

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