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NORWEGIAN INSTITUTE OF  
BIOECONOMY RESEARCH

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"Seminar on peatland management in the context of greenhouse gas emission inventory  
– Norway case"  
Riga, 3-4.11.2015

# PEATLAND MANAGEMENT IN NORWAY - CURRENT STATUS

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# NORWAY AND PEATLANDS IN RETROSPECT

- Totally ~26 000 km<sup>2</sup> organic soils
- Drainage for agriculture and forestry in 1930's and 1950's

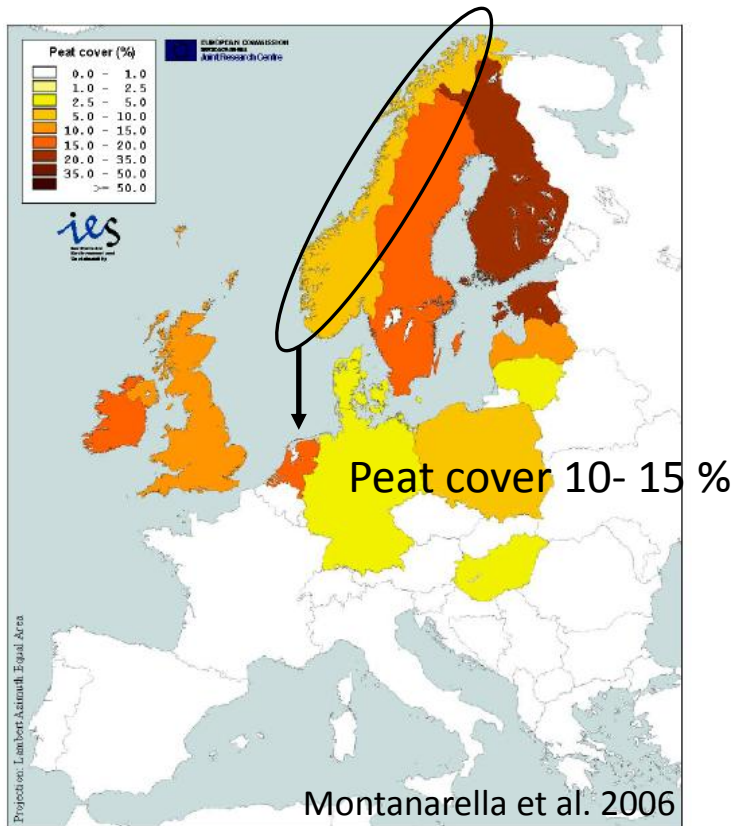
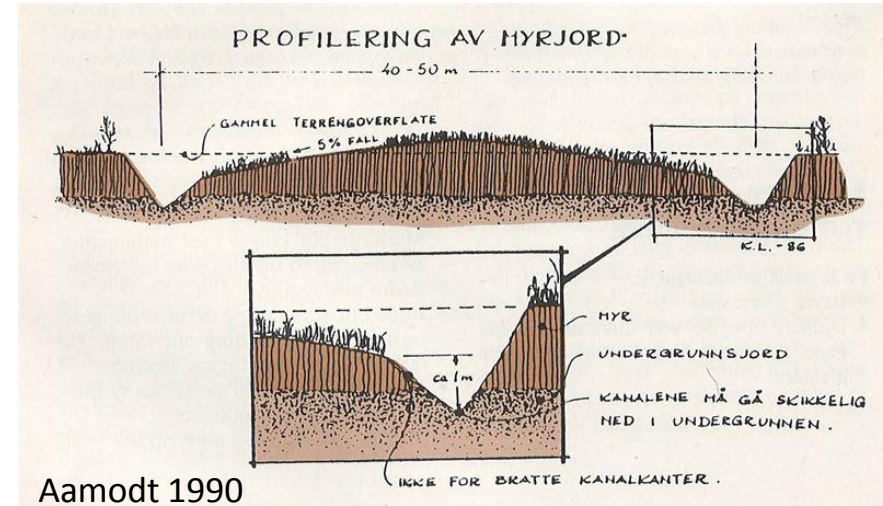


Figure 3. Relative cover (%) of peat and peat-topped soils (0–30cm), per country, based on the European Soil Database in Table 1.



	km <sup>2</sup>	
<b>Pristine peatland</b>	20000	
<b>Drained peatland</b>		
Peat extraction/harvesting	20	According to harvesting companies
Cultivation	1500	Regina et al. 2015
Drainage for afforestation	4300	Granhus 2010, Øyen 2010 (In: Päivänen, J. & Hånell, B. 2012)
Use for hydro-power basins	<10	No statistics, estimated to be less than 10 km <sup>2</sup>
Infrastructure for transport		
<b>Conservation of peatland</b>		
<i>Protected as nature reserves</i>	1112	
Nature reserves (wetland)	686	
Nature reserves (peatlands inside other ecosystems)	426	
<i>Peat restoration</i>	0	

# POTENTIAL FOR RESTORATION IN NORWAY

- Unsuccessful drainage
- Abandoned cultivated peatland due to:
  - Shallow peat over bedrock
  - Drainage problem – too low downward gradient
  - Problems for vehicles, low bearing capacity
- Peatland with deep peat layer which require new drainage
  - Financial compensation in accordance with the following principle:  
Future income- drainage cost = compensation to land owner

More about forests in the next Talk!

Cultivated peatlands in Norway	Hectare
Originally cultivated	150 000
Currently in cultivation	75 000
«lost»	75 000

Converted to mineral soil



Abandoned



# ORGANIC SOILS AND NORWEGIAN NEED TO INCREASE FOOD PRODUCTION

- The population of Norway is expected to increase 20% from that of 2010 until 2030
- The political aim is to be as self-sustainable as possible
- This entails that the agricultural area may have to be increased
  - Drain more pristine peatland?
  - Convert forested peatlands to agricultural land?

# NORWEGIAN LEGISLATIVE FRAME ON PEATLAND MANAGEMENT – FORESTRY

## THE FORESTRY ACT

Gives the municipalities opportunity to refuse licence, or lay down special conditions, if it finds it necessary to prevent major negative effects on the environmental values, including pollution of important water resources.

**The Act also gives provisions to the Ministry to issue further regulations.**

Forestry Act. Act No. 31 of 1 January 2006. Section 6.

# NORWEGIAN LEGISLATIVE FRAME ON PEATLAND MANAGEMENT – FORESTRY

## DRAINAGE OF NEW AREAS FOR FORESTRY...

...is legally **prohibited** through law (§ 5 in regulative on sustainable forestry).

<https://lovdata.no/dokument/SF/forskrift/2006-06-07-593>

Mire drained and planted. Trysil, 1971. Photo:  
Ketil Kohmann





# NORWEGIAN LEGISLATIVE FRAME ON PEATLAND MANAGEMENT – FORESTRY



Fern forest with ditch network.

Photo: John Y. Larsson

## THE PEFC NORWAY FOREST MANAGEMENT STANDARD (VOLUNTARY, NOT A LAW)

*” New establishment of drainage ditches in bogs and swamp forests is not permitted.”*

*“Drainage maintenance and supplementary ditching are permitted as long as there will be no need for restoring key habitats/areas of ecological importance in this vegetation type on the holding in question.”*

[http://www.levendeskog.no/levendeskog/vedlegg/51Levende\\_Skog\\_standard\\_Engelsk.pdf](http://www.levendeskog.no/levendeskog/vedlegg/51Levende_Skog_standard_Engelsk.pdf)

# NORWEGIAN LEGISLATIVE FRAME ON PEATLAND MANAGEMENT – PEAT EXTRACTION

## THE LAND ACT – ON PEAT EXTRACTION

### *Excavation of bogs*

*When a person excavates bogs for peat products or other technical purposes, an adequate layer of peat or soil shall always be left. The bog area shall be restored with a view to future use of the land for agricultural purposes and nature conservation.*

The Land Act. Act No. 23 of 12 May 1995. Section 10.

# NORWEGIAN LEGISLATIVE FRAME ON PEATLAND MANAGEMENT – *CULTIVATED PEATLANDS*

Farmer can claim to drain organic land for cultivation, basis for denial:

- BIODIVERSITY
- CONSERVATION OF CULTURAL LANDSCAPE
- **NOTE THAT CARBON SEQUESTRATION OR POTENTIAL INCREASE OF GWP ARE NOT CONSIDERED AS REASONS TO DENY DRAINAGE. THIS IS CURRENTLY UNDER HEAVY DISCUSSION IN THE PARLIAMENT**

# NORWEGIAN LEGISLATIVE FRAME ON PEATLAND MANAGEMENT – *CULTIVATED PEATLANDS*

## «The land law (Jordlova)»:

**§ 11. New land cannot be uptaken for cultivation if it threatens cultural landscapes** («For å unngå skade på natur- og kulturlandskap, kan departementet gi føresegner for nydyrking. I føresegnene kan det fastsetjast forbod mot nydyrking og at nydyrking berre kan skje i samsvar med plan godkjend av departementet.»)

**§ 4. Approval of cultivation** (godkjenning av nydyrking)

**Municipality has to approve cultivation.** Nydyrking kan bare skje etter plan godkjent av kommunen.

**§ 6. Basis for denial** (når godkjenning ikke kan gis)

**Consequence analysis has to be performed for areas bigger than 50 dekar**  
«For nydyrking av areal over 50 dekar kan godkjenning ikke gis med mindre tiltaket er konsekvensutredet, jf. forskrift 26. juni 2009 nr. 855 om konsekvensutredninger § 3 første ledd bokstav e, jf. vedlegg II nr. 37.»



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**THANK YOU FOR YOUR ATTENTION!**

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