Michael Succow Foundation
for the Protection of Nature

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Peatlands

in the EU Regulatory Environment

with a Case Study from the Member States

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Workshop
Keskkonnaministeerium
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Welcome at the GMC!

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Who are we?

- We are the *science-policy interface* for all peatland related questions – locally and globally
- We offer *science-based solutions* for social challenges
- We are *50 peatland experts* of various disciplines
- We are based in Greifswald with more than 200 years of interdisciplinary landscape-oriented research and education
- We are 3 strong partners:

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Wissen lockt. Seit 1456

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DUENE e.V. at the Institute of Botany and Landscape Ecology

Welcome at the GMC!

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What do we want?

- *Climate protection*: Reduction of greenhouse gas emissions from peatlands and ecosystem-based adaptation
- *Biodiversity*: Conservation and restoration of peatlands worldwide
- Sustainable use: *Paludiculture* and innovative financing such as carbon credit

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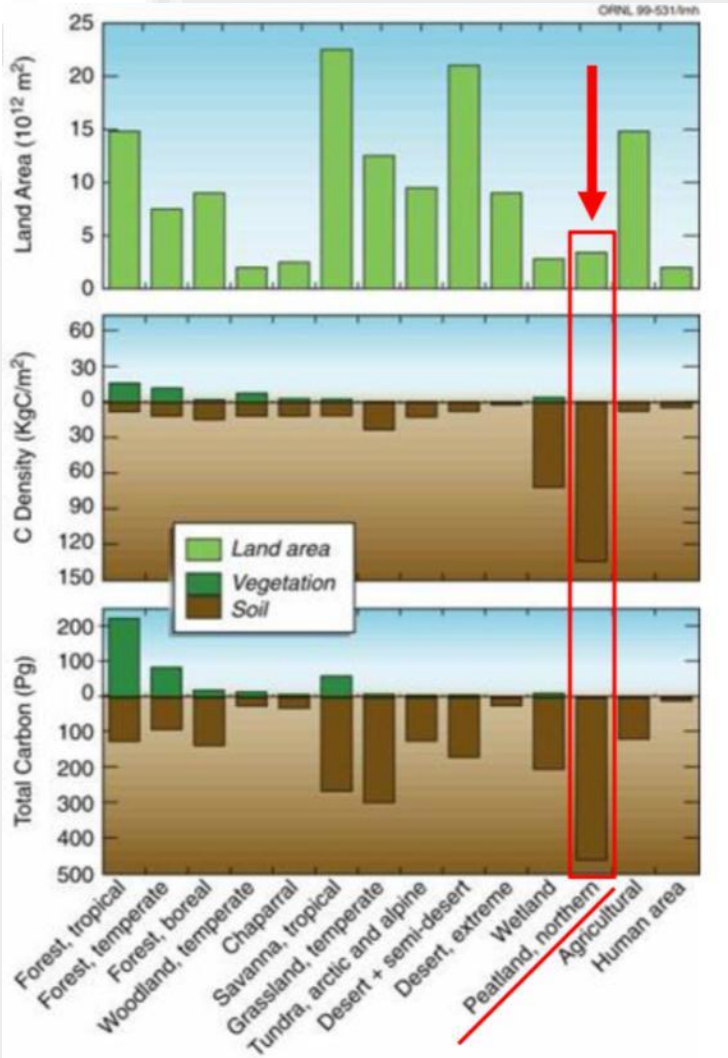
Why do we work on peatlands?

Climate:

- Peatlands cover only **3% of world's land surface** but store **twice as much carbon than all forests of the planet**
- **0,3% drained peatlands** are responsible for ca. **5% of anthropogenic GHG emissions**

Biodiversity

Ecosystem services



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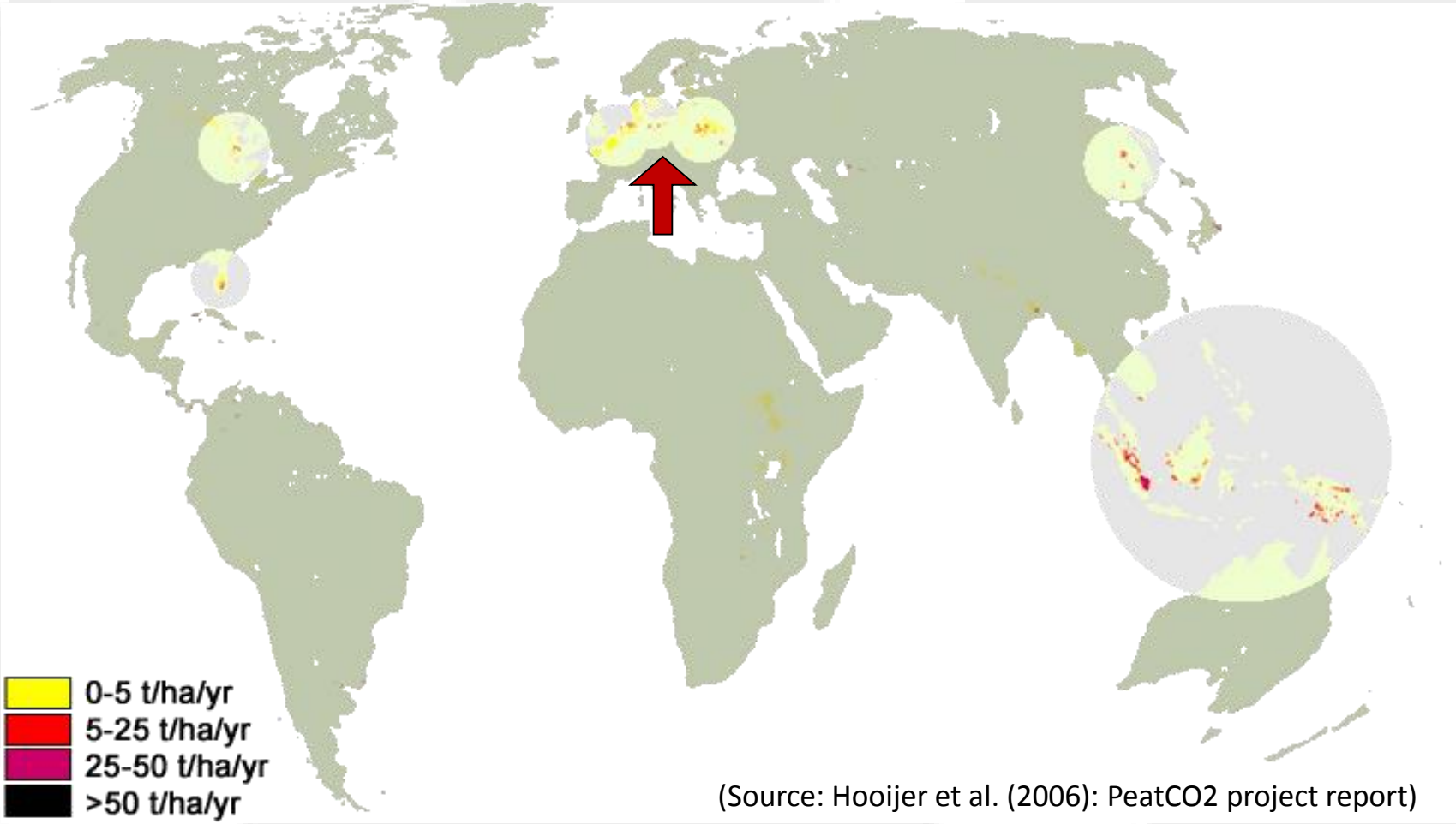
Hotspots of emissions from drained peatlands



(Source: Hooijer et al. (2006): PeatCO2 project report)

Emissions from drained peatlands in Nordic Baltic Countries

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	a. Total peatland area	b. Drained peatland area		c. Total CO_2 emissions without LULUCF	d. Total peatland CO_2 emissions	
	km^2	km^2	% b of a	Mt CO_2 yr^{-1}	Mt CO_2 yr^{-1}	% d of c
Estonia	9,150	6,619	72.3	17.08	8,04	47,1
Latvia	11,143[1)]	7,978[1)]	71.6	7.43	13.53	182.0
Lithuania	6,460	4,679	72.4	14.84	7.70	51.9
Finland	83,198	64,931[1)]	78.0	50.70	20.68	40.8
Sweden	85,023[1)]	15,458[1)]	18.2	45.71	10.58	23.1
Norway	46,211[1)]	4,348[1)]	9.4	52.70	6.26	11.9
Iceland	5,777[1)]	3,665[1)]	63.4	3.32	7.66	230.4
Denmark	2,029[1)]	1,892[1)]	93.2	38.03	3.34	8.8
Greenland	75[1)]	3[1)]	4.0	0.60	0.00	0.3
Total	249,066	109,573	44.0	230.42	77.79	33.8

Source: Joosten et al. 2015: Peatlands and Climate in a Ramsar context – A Nordic-Baltic perspective

Emission factors based on IPCC 2014 for the Temperate climate/vegetation zone

Estonia reported only 0.83 Mt CO_2 yr^{-1} emissions related to organic soils to UNFCCC (NIS Estonia 2014) → **Peatland emissions largely underestimated**!

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Objectives of the project

- Track influence of EU regulatory in exemplary regions:
  - Poland: Fens, protected, agriculture (1st part)
  - Estonia: Bogs, protected, forestry, peat extraction (2nd part)
  - Compare to other regions in EU
- Analyse land use changes on peatlands after joining EU in 2004
- Involve relevant stakeholders in the case study to
  - Analysis how EU policy framework influences and incentivizes decision making on regional/local level with focus on peatlands
  - Draw conclusions on lessons learnt in EU context, discuss in a workshop in Brussels and present policy recommendations (2nd part)

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Activities of the project

- General study of the EU-law situation (and implementation in national legislation):
  - Common Agricultural Policy (CAP), especially cross compliance and agro-environmental (climate) schemes
  - EU-forestry policy and national forest legislation
  - European Agricultural Funds of Rural Development (EAFRD)
  - Programs for transport and infrastructure
  - Environmental and Nature Conservation schemes (EU biodiversity strategy, Natura 2000, FFH, Life+, water framework directive)
  - Climate protection and adaptation policies (UNFCCC, Kyoto accounting, EU climate policies)
  - Support of fuels made of biomass, renewable energies

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Activities of the project

- General study of the EU-law situation
- Case Study **Poland**: Fen-rich region (Lublin)
- Case Study **Estonia**: Identify bog-rich region to show effects of EU regulatory on the ground → **Pärnu**
  - Use historic (before 2004) and recent data to analyse land use changes: , peatland inventory, land cadaster, EU habitat mapping, existing GIS…
  - Interview relevant stakeholders (different levels of government and administration, land users, farmer, foresters, conservationists, scientists)
  - Analysis how EU policy framework influences and incentivizes decision making on regional/local level with focus on peatlands
  - Involve experts from partner countries and Germany to draw conclusions on lessons learnt in EU context
- Publication of both studies in journals in Estonian, Polish and English

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Tänan tähelepanu eest!
Thanks for your attention!

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