Aspects of treating peat as renewable or non-renewable natural resource

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Based on the audit report "Exploitation of peat resources" of the Estonian SAI, 2005

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The aim and scope of the audit

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- ✓ The aim was to assess whether the state has ensured sustainable use of peat resources.

- ✓ The scope of the audit involved state activities in planning the use and managing the extraction of peat resource:

  - planning the use of reserves
  - charging for peat extraction
  - arrangement of EIA
  - rehabilitation of harvested areas

Main methods

- ✓ Analyse of peat extraction data
- ✓ Analyse of national coordination of peat production in 5 regions (out of 15)
- ✓ Expert analyses of:
  - peat extraction charges and
  - arrangement of EIA.
- ✓ Focus group of experts

Planning of extraction volume

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Key question: **Is peat renewable?**

Terminology in legal documents

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✓ Renewable natural resource

- the act of sustainable development (appoints the critical deposit and the deposit for use)

✓ Non-renewable energy source

- EU Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market
- Long-term Public Fuel and Energy Sector Development Plan until 2015 of Estonia

Renewable resource

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Benefits

- ✓ Extraction volume is regulated by stating the critical reserve and annual use rates.
- ✓ Higher motivation to rehabilitate production areas as wetlands, thus supporting the NATURA process and reduce CO2 emissions.

Limitations

- ✓ Terminological contradictions – peat is treated renewable as natural recourse and non-renewable as energy resource.
- ✓ Does not reflect actual situation - peat extraction amounts exceed annual use rate, as well as yearly growth of peat.
- ✓ May further encourage the increase of extraction volume as “peat will grow again”.

Non-renewable resource

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Benefits

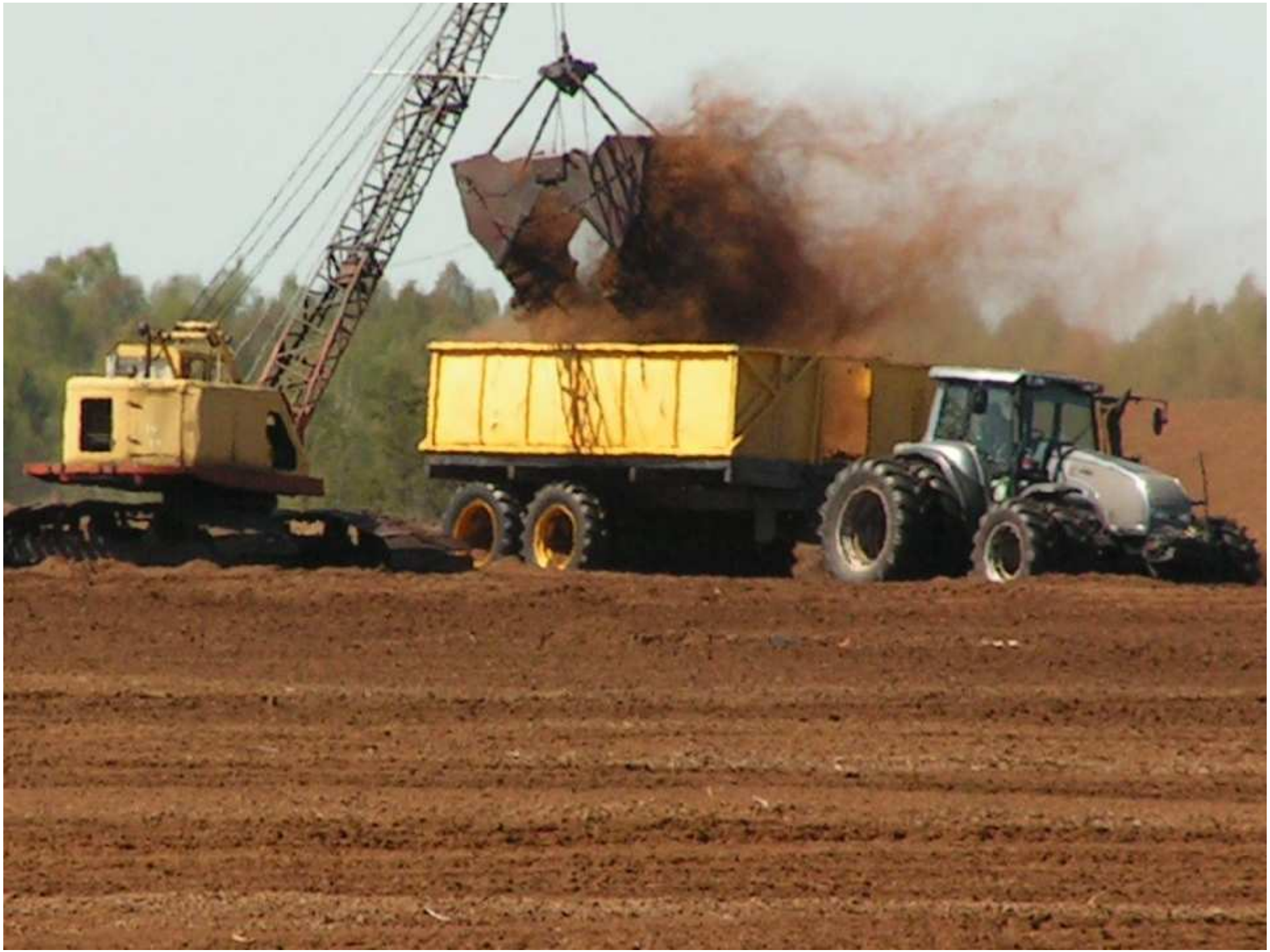
- ✓ Possibility to regulate extraction volume by stating annual use rates
- ✓ Reflects actual situation, as peat growth takes place only in 30-40% of peatlands
- ✓ No terminological contradictions
- ✓ May increases interest to sustain and protect peat areas

Non-renewable

- ✓ Need to change legal acts (critical reserve and annual use rates).
- ✓ Excavation rate may increase due to political/economic pressure.
- ✓ Stresses that peat is non-renewable thus reducing interest to restore harvested area as peatland.
- ✓ Too easy to change the annual use rates.

EIA

- ✓ EIA is obligatory when peat harvesting area exceeds 150 ha. This requirement has not been followed in all examined cases.
- ✓ Decision-maker has to decide upon the need for EIA in all other cases. Until now EIA has not been required for areas less than 150 ha however there is serious environmental impact and opposition of local inhabitants.



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Charging for peat extraction

- ✓ The principles for calculating the taxation base of extraction right of peat are not clear.

- ✓ The tax revenue for the resource rent of peat resource is 4 %.
  Resource rent = (Production Volume) x (International Market Price – Average Unit Production Cost). World bank. Expanding the measure of wealth. Indicators of environmentally sustainable development. Studies and Monograph series No 17, 1997. Washington DC.

- ✓ Including the external costs (CO_2 emission, loss of biodiversity and changing of water regime etc.) this percentage would be probably under zero $\Rightarrow$ extraction of peat is subsidised.

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Rehabilitation of harvested areas

- ✓ Little data about abandoned peat production areas (8000-15000ha),
- ✓ 2,5-6 million tonnes of peat decays in abandoned production areas yearly. This is twice as much as extracted.
- ✓ 11 million tonnes of CO_2 is emitted as a result of decaying,
- ✓ Government has not evaluated the need for rehabilitation of abandoned areas nor developed a financing scheme.
- ✓ The requirement for rehabilitation of harvested areas was established in 1994. So far the companies have completed only 2 rehabilitation projects. There is general tendency to delay preparatory works for rehabilitation projects.

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Peat is not used in a sustainable way in Estonia

- ✓ The State has to decide whether peat is renewable (last for ever) or non-renewable (last for as long as decision maker decides).
- ✓ The requirement for conducting EIA has to be expanded to involve the areas smaller than 150 ha.
- ✓ There is a need to develop principles for calculating the taxation base for peat extraction.
- ✓ The State has to rehabilitate the abandoned harvesting areas and ensure that companies carry out the rehabilitation projects after harvesting.