Peat and bioenergy policies

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Introduction:

Following presentation focuses on peatland management policies in Estonia and its connections to (bio)energy policies

Statement: **Estonia is a country where peat burns!**

Sustainable Development Act, adopted 1995

Conclusions and influence:

Based on Sustainable Development Act till recent years peat was considered renewable, based on what annual production limit was set. In total 2 653 thousand tons. (From 01.01.2017 - 2 850 thousand t)

So called "*quota*" is divided between the counties to guarantee even distribution of production sites and regulate how much peat is produced in total

Fulfilment of the quota is monitored with environmental permits in principle that new permit can be granted only if free quota is available

Nature Conservation Development Plan for 2020, adopted 2012

Conclusions and influence:

It is necessary to prefer peatlands disturbed by drainage (inc abandoned cutover sites), to clarify rehabilitation need and order. Further drainage of natural peatlands should be avoided, for peat production should be preferred areas already disturbed by drainage

2/3 of 1 million ha of Estonian peatlands are drained or influenced by drainage for forestry and agriculture. (Note: 3 - 4% by peat production)

Peat is considered as not renewable

Audit of Estonian Cutover Peatlands, 2005 - 2008

Conclusions and influence:

After a collapse of USSR many local industries suffered heavily, including peat industry. Because of many bankruptcies productions sites were left abandoned

In total 98 sites with total area 9 371 ha were detected and revised

It is estimated that at 2 000 ha peat production should restarted.
Peat production at those sites should arranged outside quota system

Rest of the sites should be left in current condition or restored

Estonian Peat Roundtable, est. 2006

Conclusions and influence:

All interest groups were invited and represented by the peat, peatland and environmental specialist

All major peatland related questions were discussed

Governmental action plans and strategies were discussed

Suggestions made for government financed research projects, results were presented and discussed

Political, economical or legal questions were not discussed, so it is science based advisory body

Studies initiated by Peat roundtable

Audit of Estonian Cutover Peatlands, 2005 - 2008

Inventory of peatland forests, 2009

Estonian Mires Inventory completion for maintaining biodiversity, 2008 - 2010

Buffer zones to limit and mitigate harmful effects of long-term anthropogenic influence to maintain ecological functionality of bogs, 2012 - 2016

Practical studies of implementing different restoration methods in cutover peatlands, 2006 - ...

Estonian Fund of Nature peatland inventory for mapping perspective production sites, 2012

Reduction of hydrological impact of peat extraction, 2015

Activities initiated by peat roundtable activities

Rehabilitation of border areas of valuable and protected peatlands, 2012 - ...

Rehabilitation of abandoned production sites in period 2015 – 2020. 10,1 million € will be invested and 2 000 ha of potentially most valuable sites will be restored, 2014 – 2020

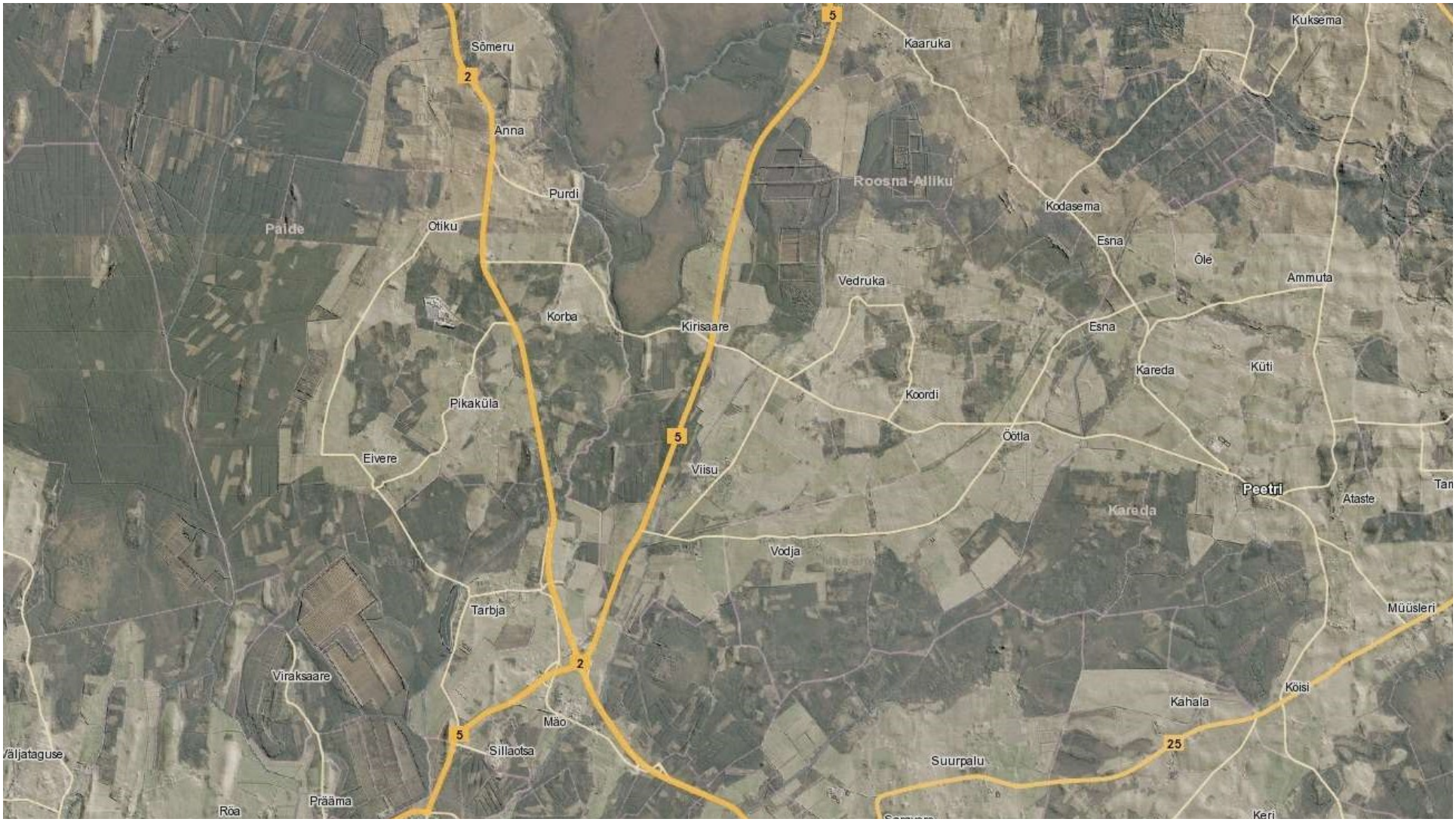
New principles of peat production regulations were developed

List of already disturbed and abandoned peatlands affected by extraction and peatlands suitable for extraction, adopted 27.12.2016

Peatlands affected by drainage or other human activities without no significant conservation value are included in the list of peatlands suitable for peat extraction. No pristine peatlands were included

Preparation of such a list was possible only because of the results of comprehensive studies carried out during last 10 years and careful analyse of the results what took another ~2 years by working group

To preparation of the list were involved officials of the Ministry of Environment and Environmental Board, peatland scientists, environmentalists, water specialists and industry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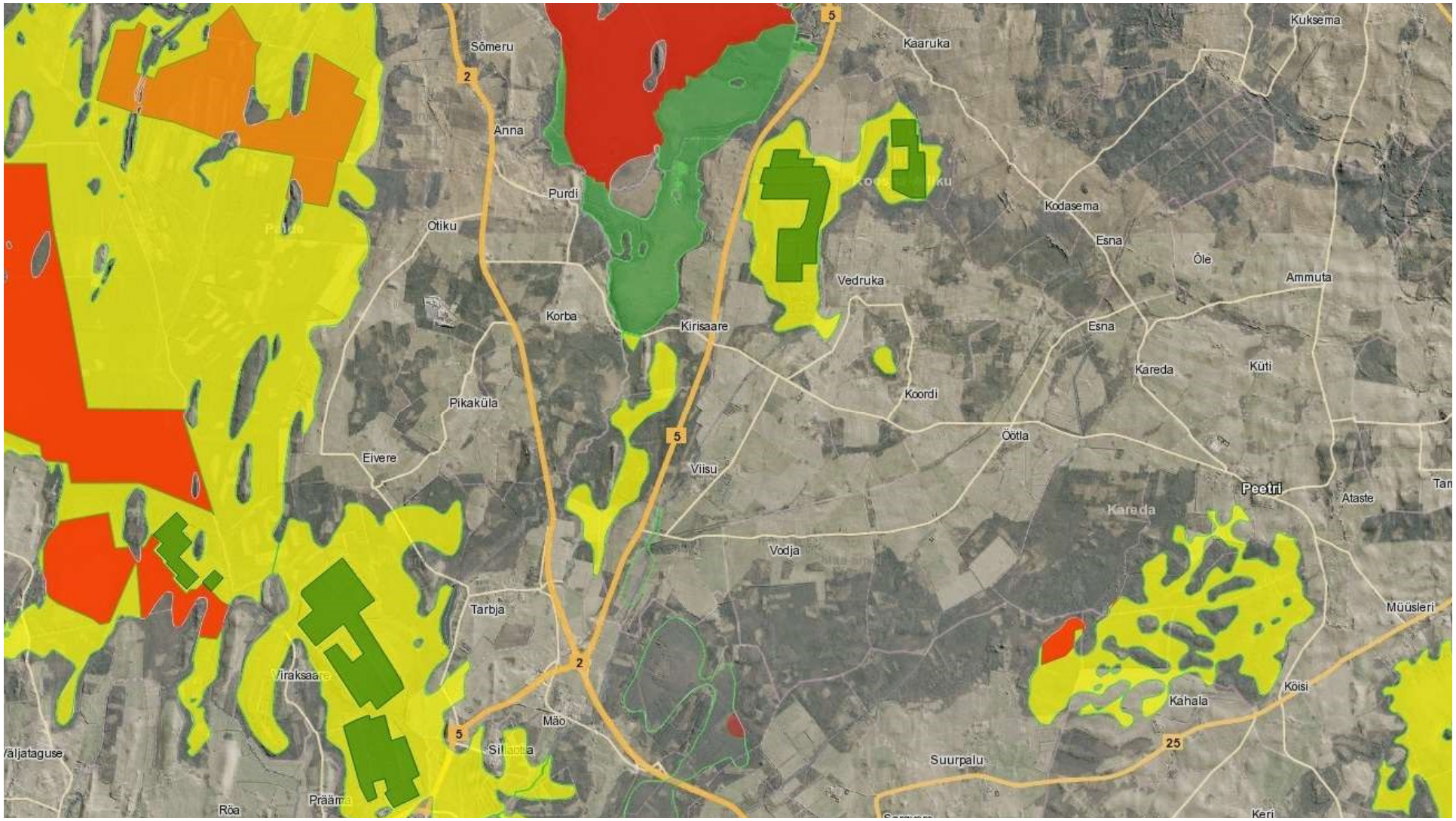
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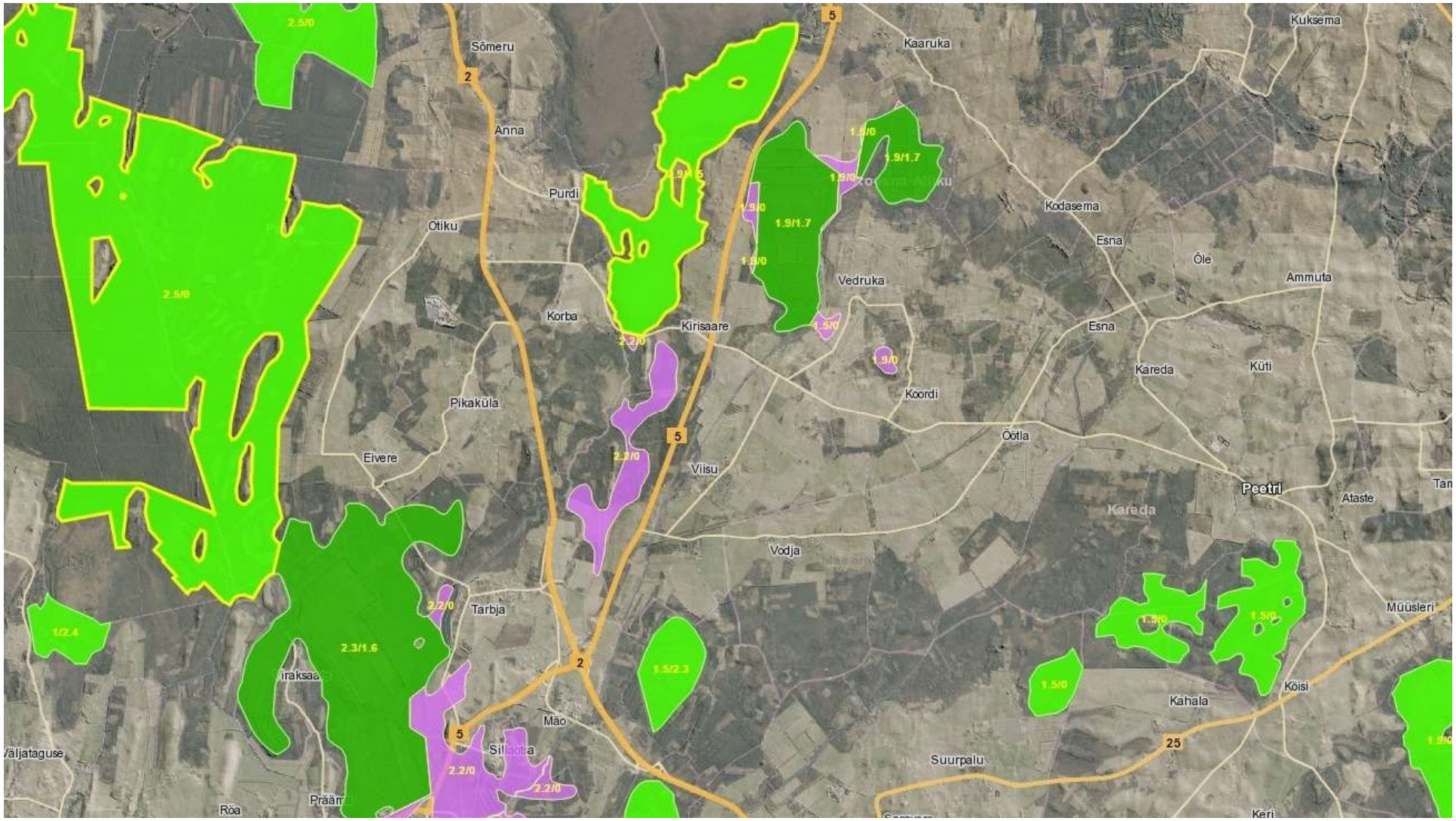
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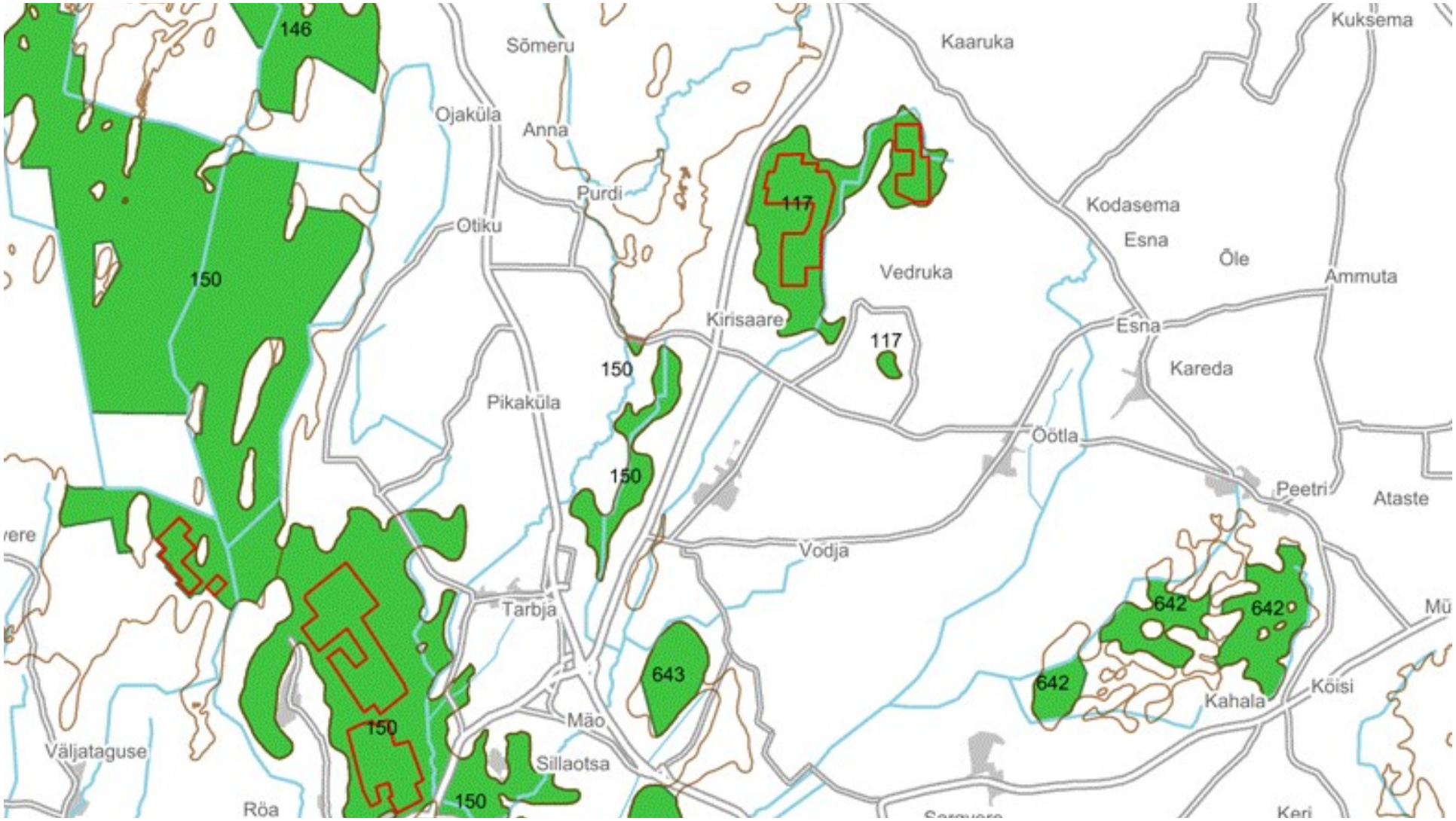
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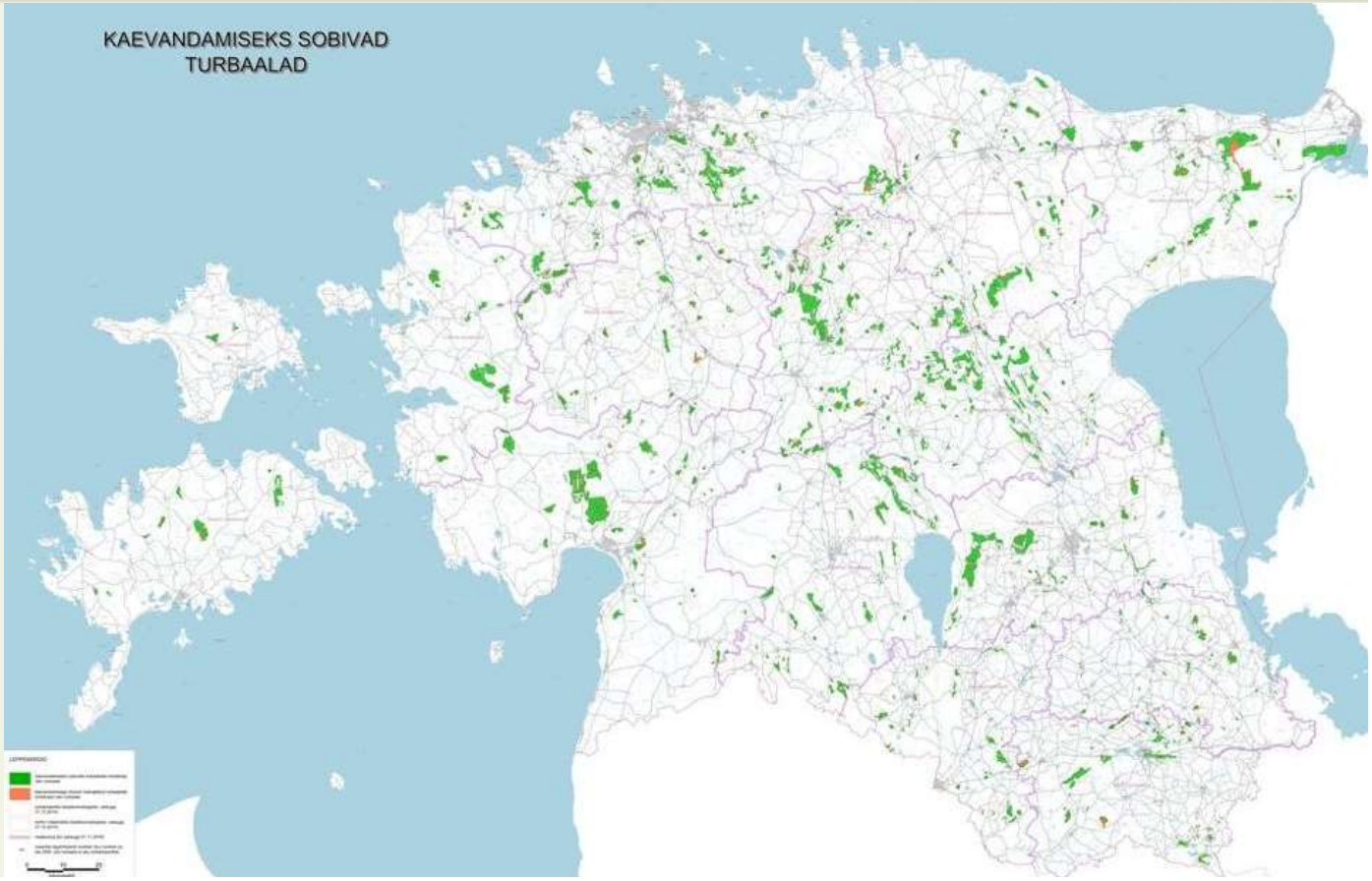
PEAT KONTDIG

Totally:

145 000 ha

266 sites

Such regulation can be called peatland management strategy for peat production



Overall reflections about peat in energy strategies

Ministry of Economic Affairs and Communications has finalised a development plan for the energy sector until 2030. Biomass and wind are seen as the most important renewable energy resources

Wood and peat comprise 15% of Estonian primary energy supply

Energy peat has significant unused potential at the energy market considering the levels of its consumption today

Energy prices at CHPs using peat are often below Estonian's average rates

Usage of energy peat at boiler houses and CHPs has been limited due to state investments directed mainly at renewable energy sources. Nevertheless, there are still a number of boiler houses and CHPs partially or fully using energy peat

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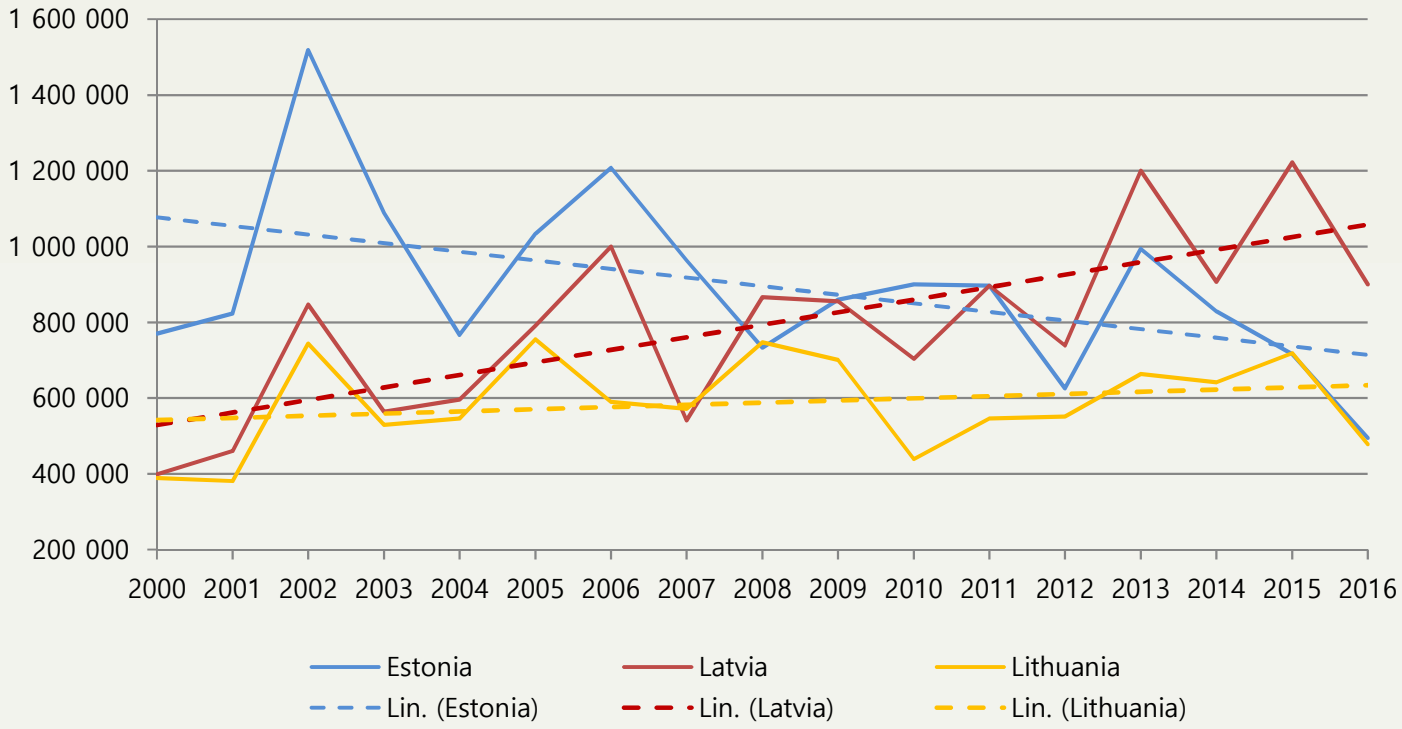
Peat production in Baltic countries



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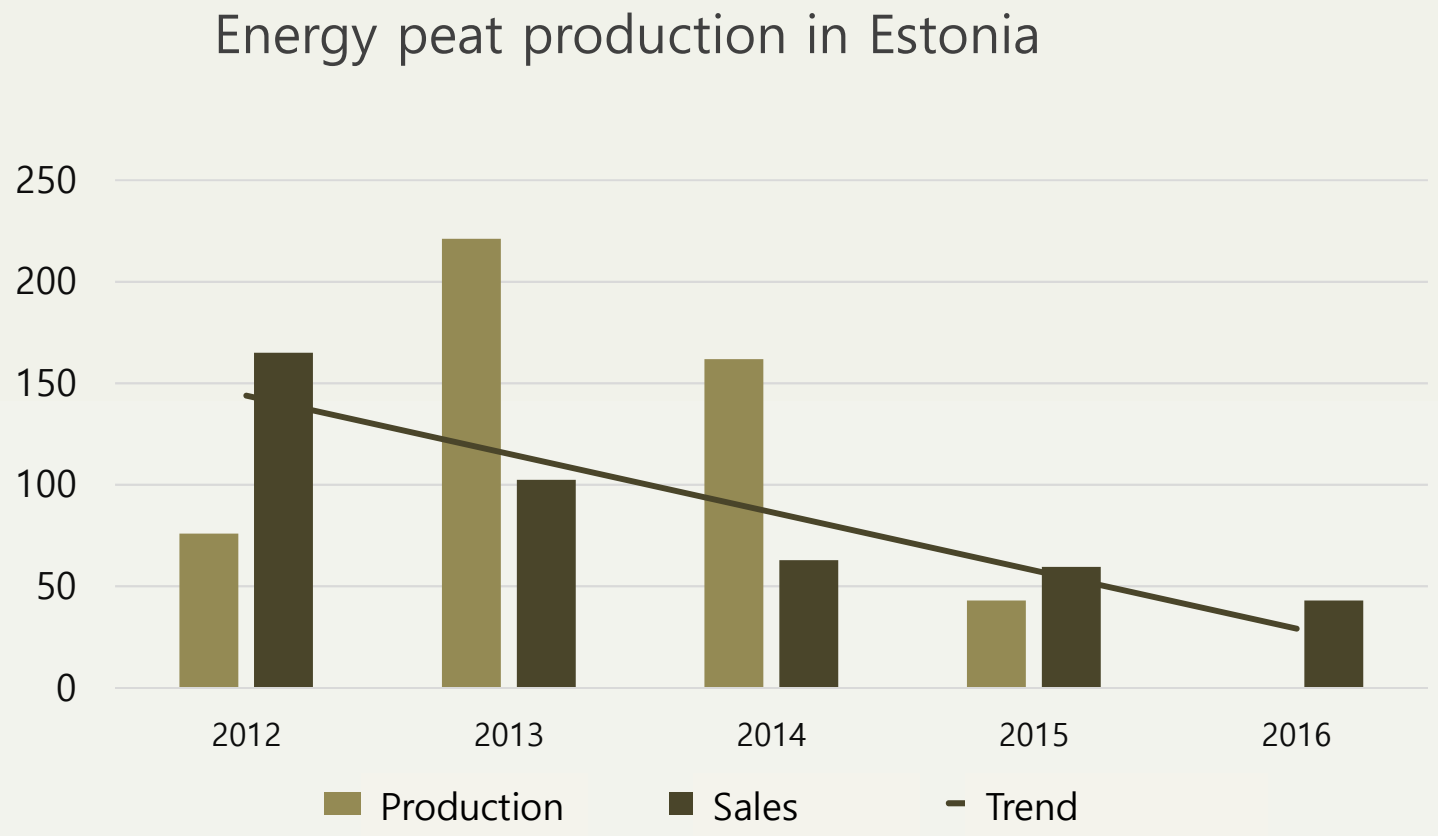

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Why worry?

Energy potential of peat in Estonia is almost equal to our main energy resource – oil-shale. Active reserves of oil-shale are 1 340 million tons and active reserves of humified peat are 835 million tons.

Every year approximately ~8 million tons of peat is decomposing on disturbed peatlands. It is ~10 times more than we extract. Value of that peat is 80 – 100 million €. It is equal to the fuel we use for total electristy production.

In couple hundred of years over ¾ peat reserves in Estonia will decompose causing environmental impact, without any economic benefit.

Electricity Market Act:

Electricity Market Act defines renewable energy resources (inc. biomass) but it does not incorporate peat following EU legislation

Renewable energy resources as stated in the act - water, wind, solar, wave, tidal and geothermal energy sources, landfill gas, sewage treatment plant gas, biogases and biomass

Biomass as stated in the act - biodegradable fraction of products, waste a nd residues from agriculture (including vegetable and animal substances, forestry and related industries, as well as the biodegradable fraction of in dustrial and municipal waste

Electricity Market Act states that subsidy for electricity production from peat in effective co-production regimen is smaller than from renewable fuels - 0,032 €/kWh and 0,0537 €/kWh accordingly

District Heating Act:

District Heating Act does not motivate heat producer to use cheaper or local fuels so far

Requirements of district heating renovation projects are set so that only renewable fuel is allowed during 5 year period after investment

Legislation in the EU

Present legislation deals mainly peatlands from an environmental perspective (biodiversity, habitat etc) but does not take to account a constant and inevitable impact of already drained peat deposits

Renewable Energy Directive *(2009/28/EC) defines* ***biomass*** *as the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including f isheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste*

In Winter Package new terminology was introduced – forest biomass and agricultural biomass.

Is there a chance to introduce third new category
– peat biomass –
peat from drained peatlands with no coservation or restoration value?

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PEAT KONTDIG

Question: *Do we need new resource category next to renewable and fossil – **a perishing resource**?*

*Can peat production from drained peatlands and afterwards restoration called **upcycling** of disturbed peatlands or **restoration trough extraction**?*

Answer: **Definitely we need special regulations for peat usage from already drained peatlands for ensuring equal market position next to forest and agricultural biomass!**

We need to stop wasting our resources under false banner of climate saving or climate politics!

Thank you for your attention!

During today's conference 22 000 t of peat decomposed in Estonia, emitting 18 000 t of CO_2 and our economy lost 240 000 €!

And so every days and in every peat county . . .