



**Latvian
Peat Producers
Association**

PEATLANDS, PEAT PRODUCTION IN LATVIA AND FACTORS AFFECTING IT

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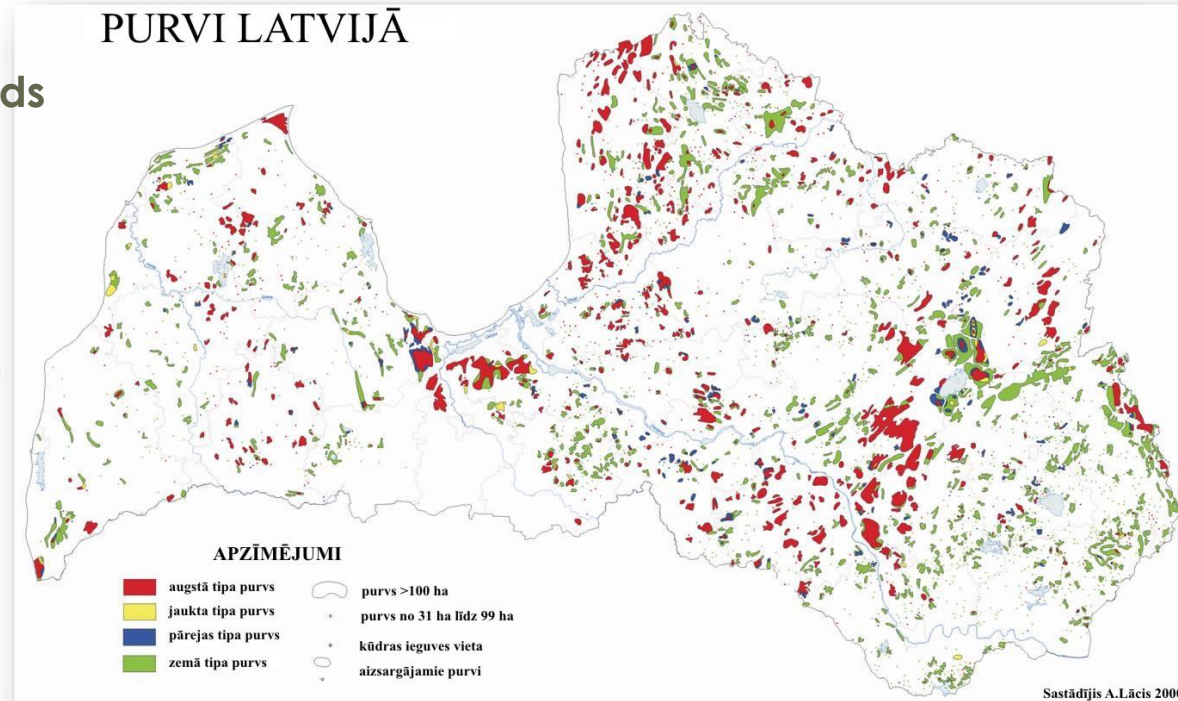
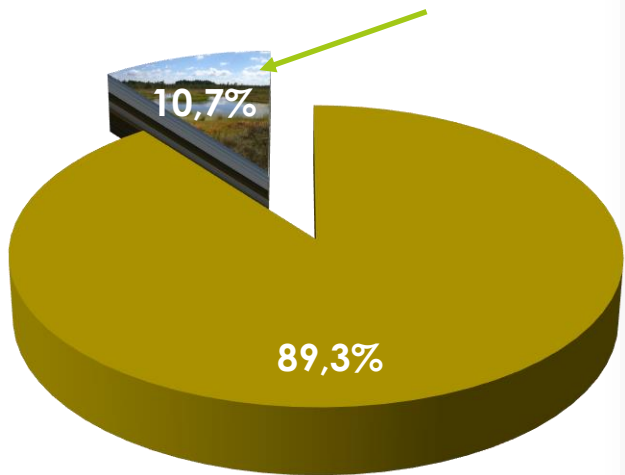
MANAGING DIRECTOR

3rd November, Latvia

PEATLANDS IN LATVIA

10,7% OF THE WHOLE TERRITORY

3,2% from 10,7%
Peat production fields



➤ The total peatland area is about 645 100ha, which makes 10.7% of the whole territory of the country.

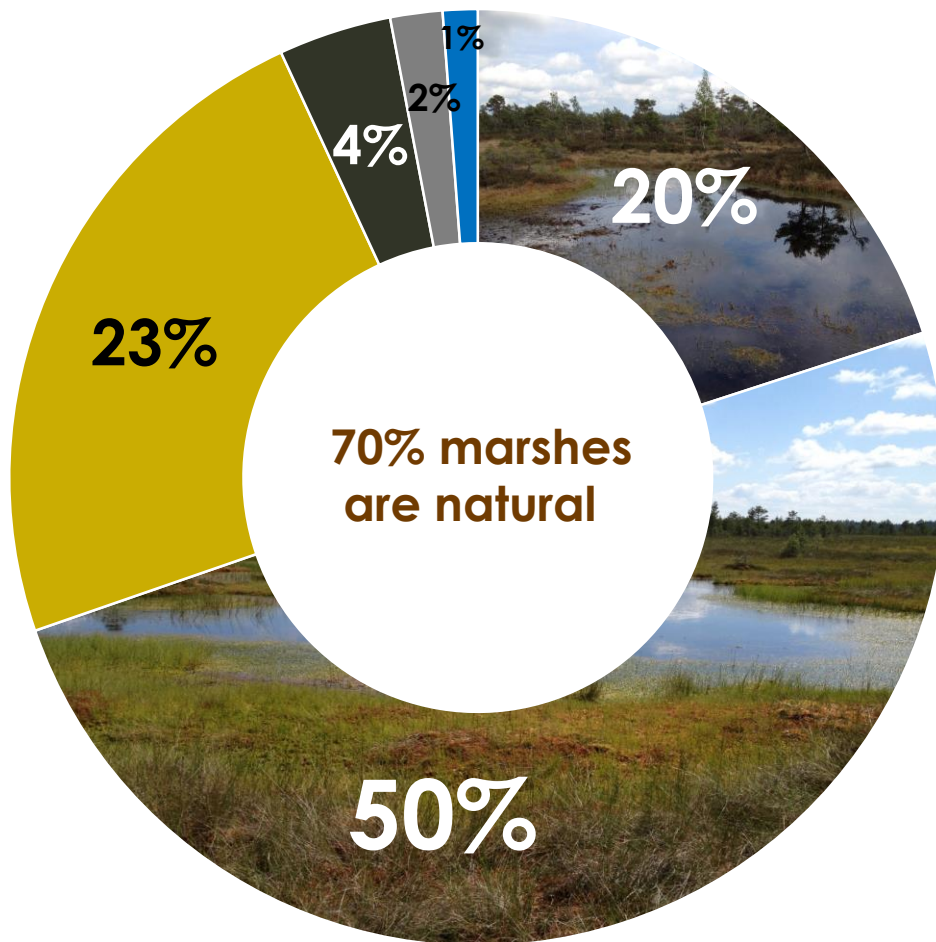
➤ Peat production fields 0,34% from whole territory (24 964ha).

Mires are areas of a size no less than 1ha. with at least 0.3m thick peat layer.

USE OF PEATLANDS IN LATVIA %

Peatland area 645 100ha

64 589 km²



20% Protected «Natura 2000» 128 000ha

50% Other naturale marshes 318 129ha

23% Drained for agriculture, forestry
149 783ha

4% Peat extraction 24 964ha

2% Developed areas 11 522ha

1% Water 7 681ha

Most or 49.3% of the total area of mires are fens, while bogs constitute 41.7% and transition mires 9%

HOW MUCH PEAT THERE IS IN LATVIA ?

There are 1.5 billion tons of peat in the Latvian peatlands.
(LT 0.9 billion t and EE 2.4 billion t)

Latvian peat resources make up ~0.4% of the global peat resources.
8th place in the world as to the volume of peat resource per capita.

Peat layer grows both vertically and horizontally.
Annual growth of peat resources is circa 0,8 million tons.
Therefore peat is a natural resource, which slowly regenerates.

Peat is a regenerative resource

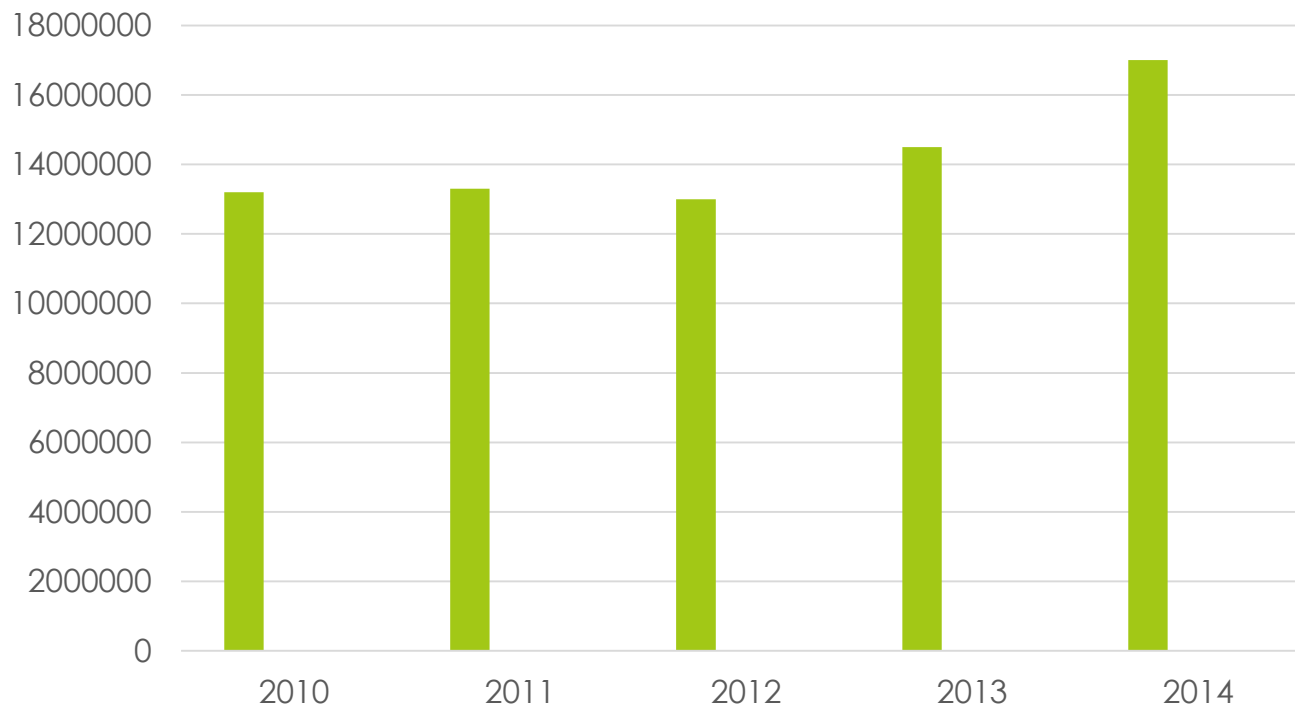


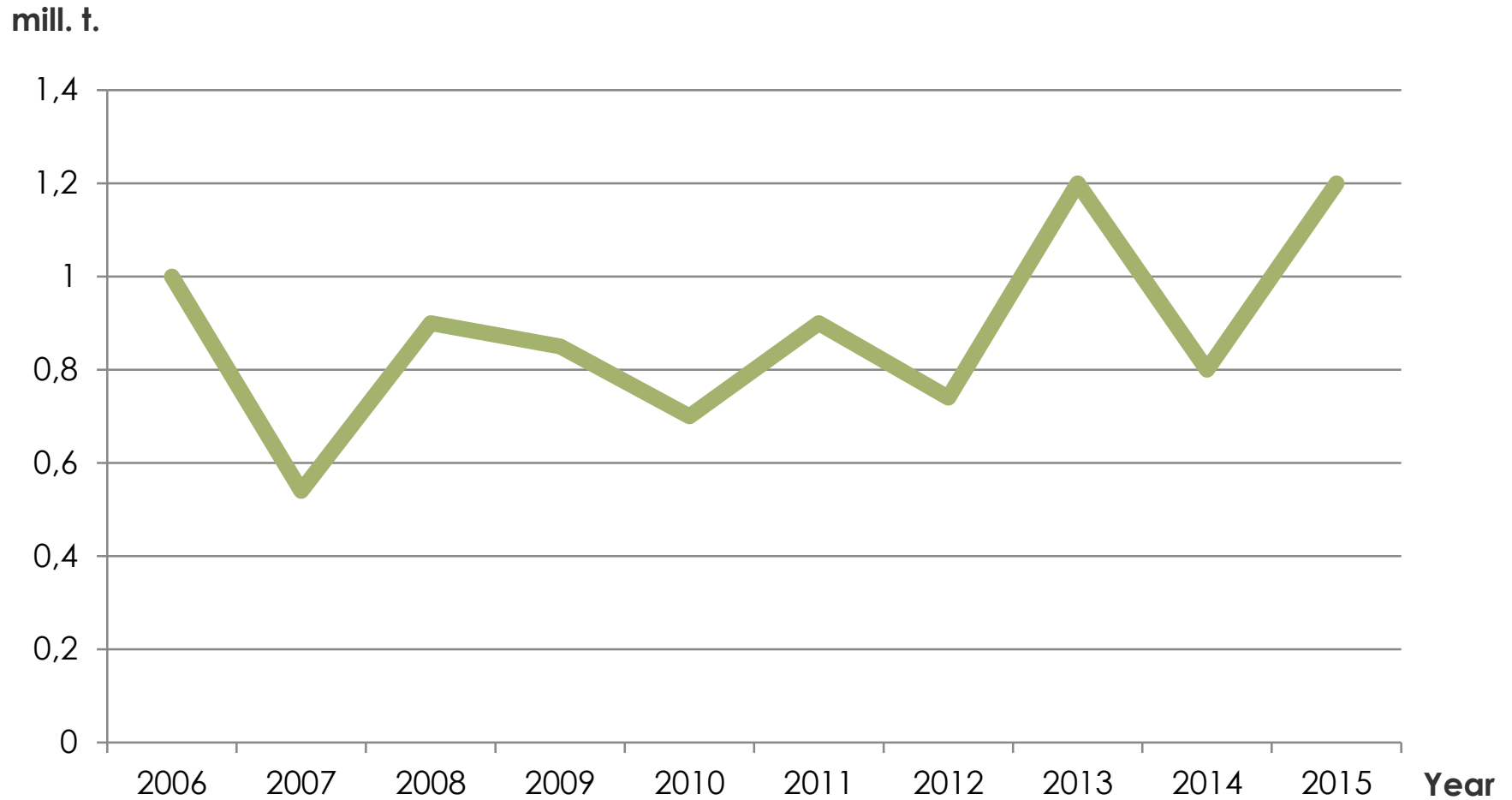
PEAT INDUSTRY IN LATVIA 2015

- ⦿ On average 2500 workers are employed in peat extraction and during the season ~ 4000.
- ⦿ ~24 000 ha license areas for peat extraction.
- ⦿ Until the end of August 1 206 700t of peat were obtained (mostly horticultural peat) which is 93% of the target
- ⦿ At present 50 peat winning enterprises are working at 75 peatlands.

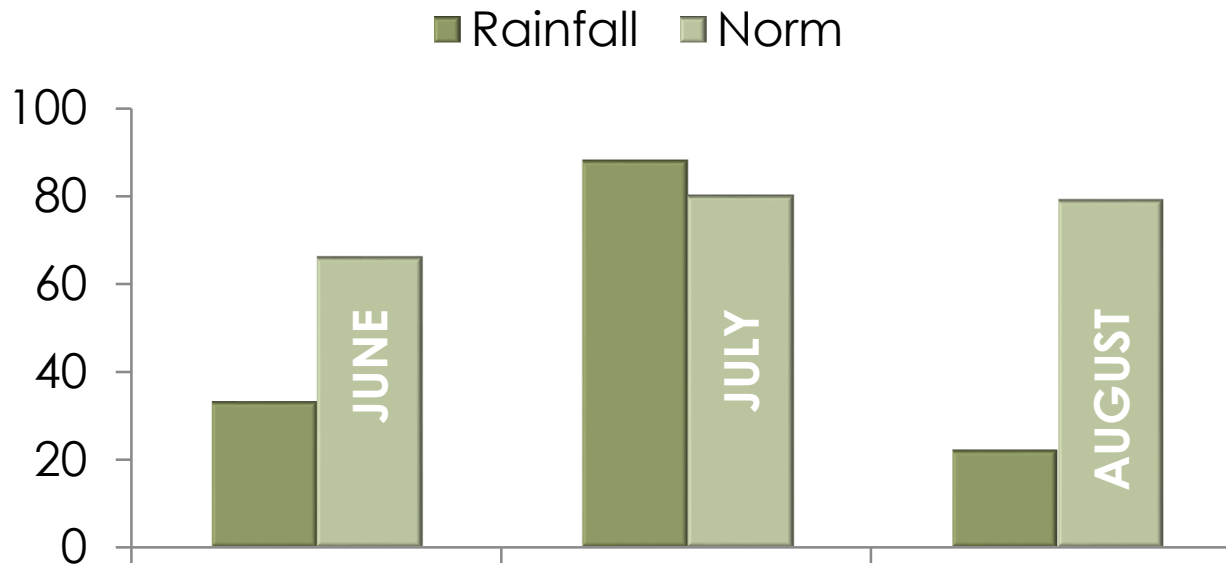


Peat industry paid taxes in Latvia (EUR)





PEAT PRODUCTION IN LATVIA 2006-2015

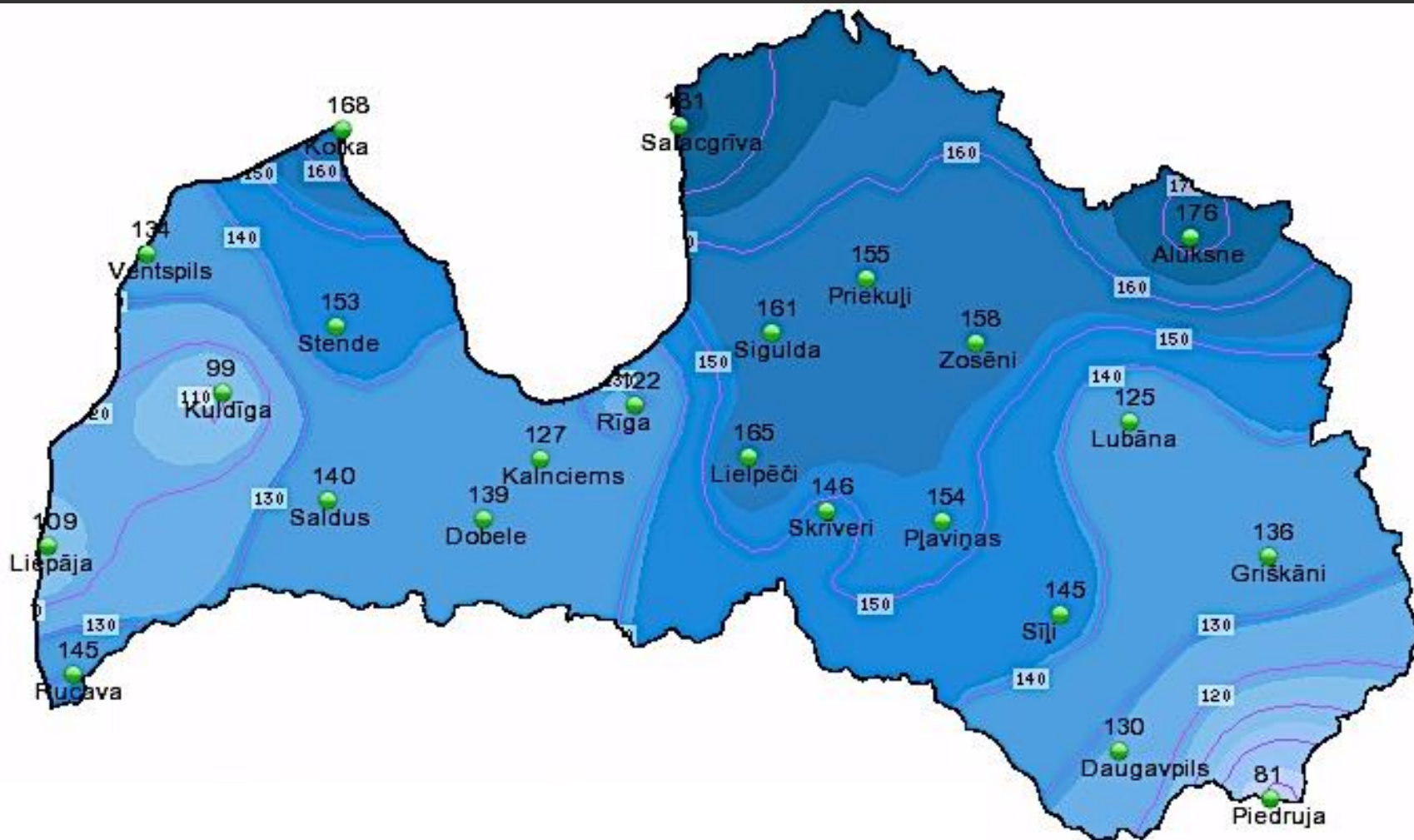


RAINFALL SUMMER 2015

May 57.4mm = 116%
June 32.6mm = 49%
July 87.9mm = 111%
August 26mm = 31%

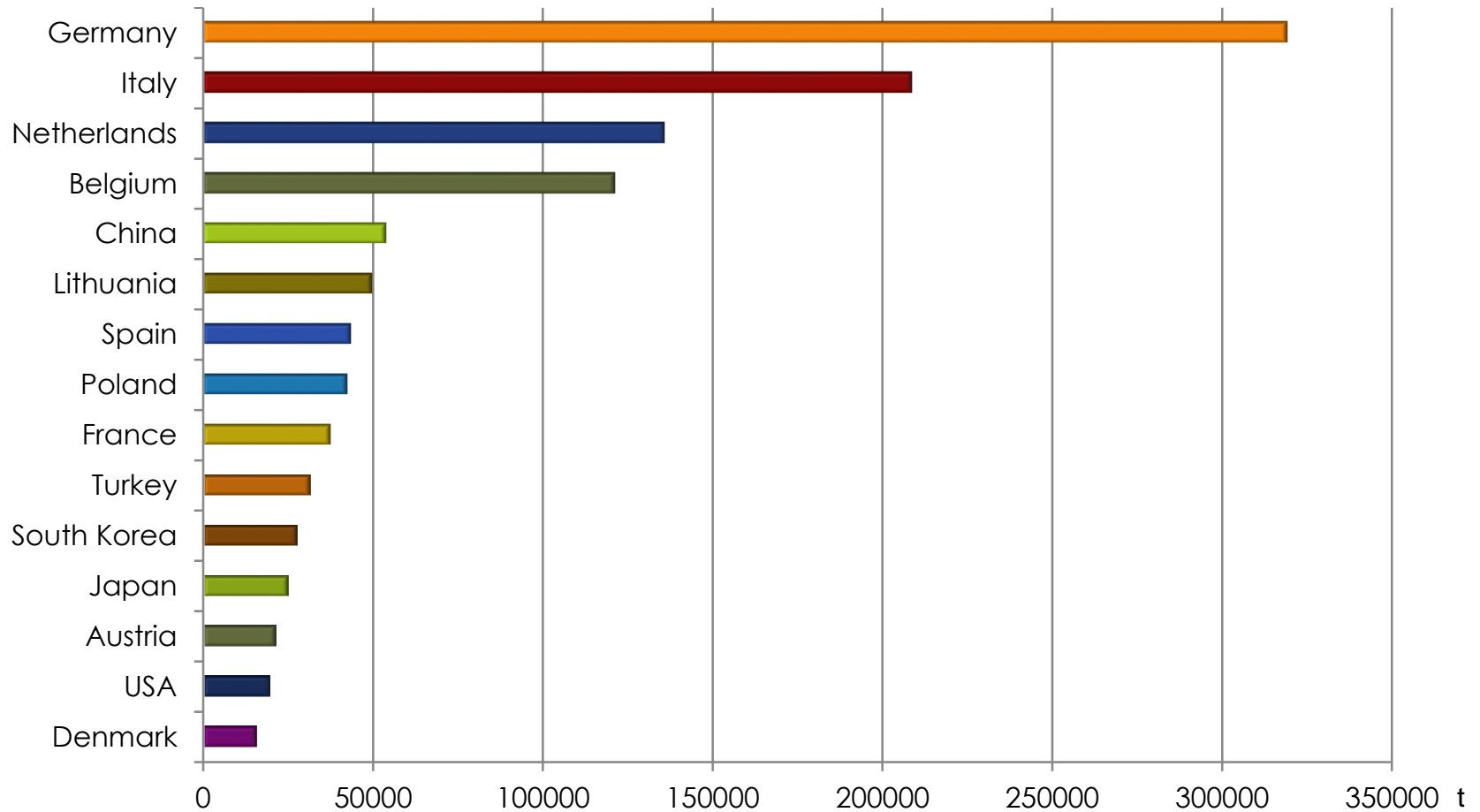
Unpredictable yields

RAINFALL MAY- AUGUST 2015



WHERE DO WE EXPORT OUR PEAT?

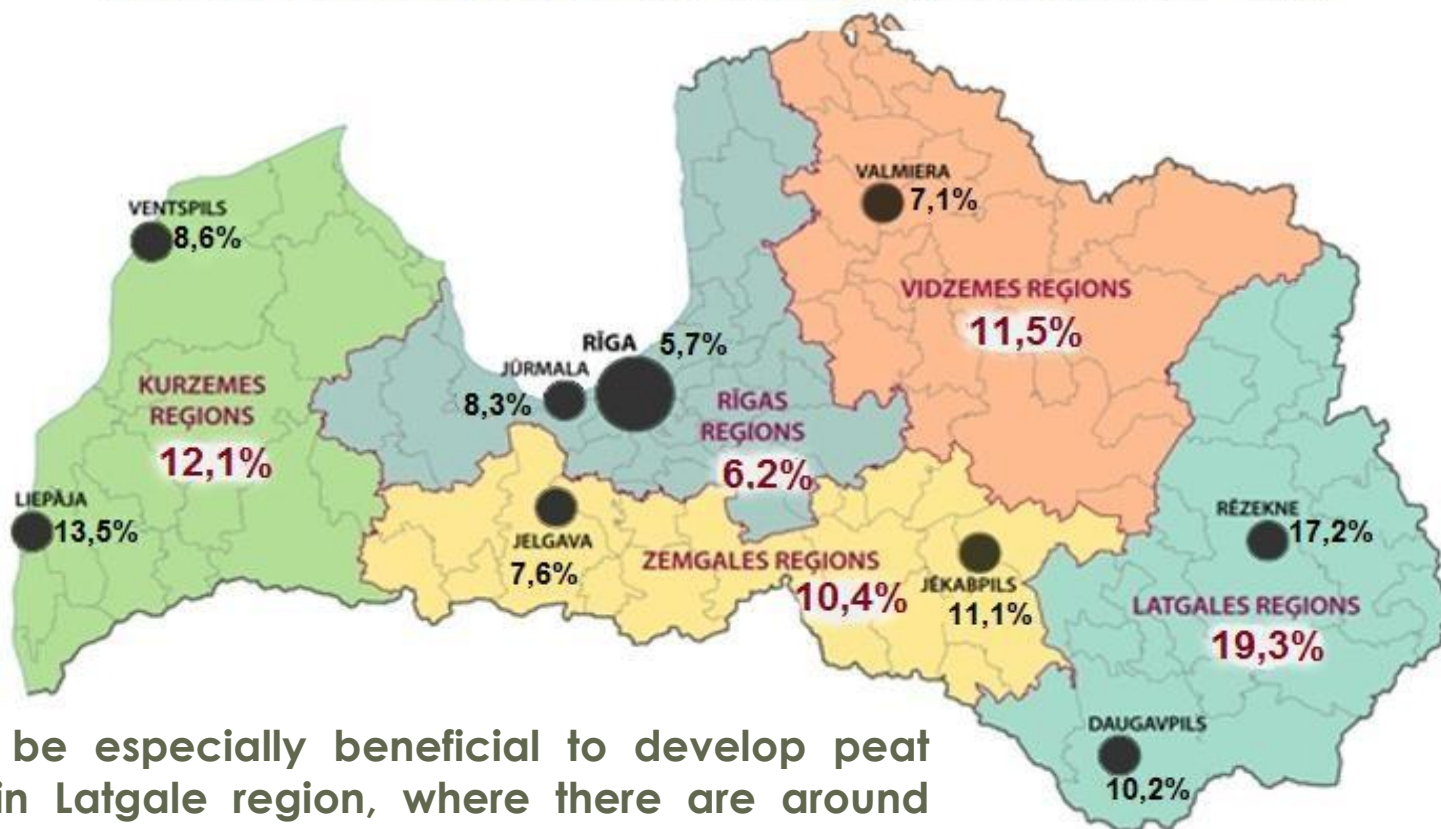
PEAT EXPORT TOP 15 COUNTRIES



Exported 1.3 mill t to 98 countries / 95% for the export

Registered unemployment rate in the country 31.01.2014 9.8%

Reģistrētais bezdarba līmenis valstī 2014.gada 31.janvārī - 9,8%



It would be especially beneficial to develop peat industry in Latgale region, where there are around 39% of the total peat resources and the region also has the highest unemployment rate.

PEAT

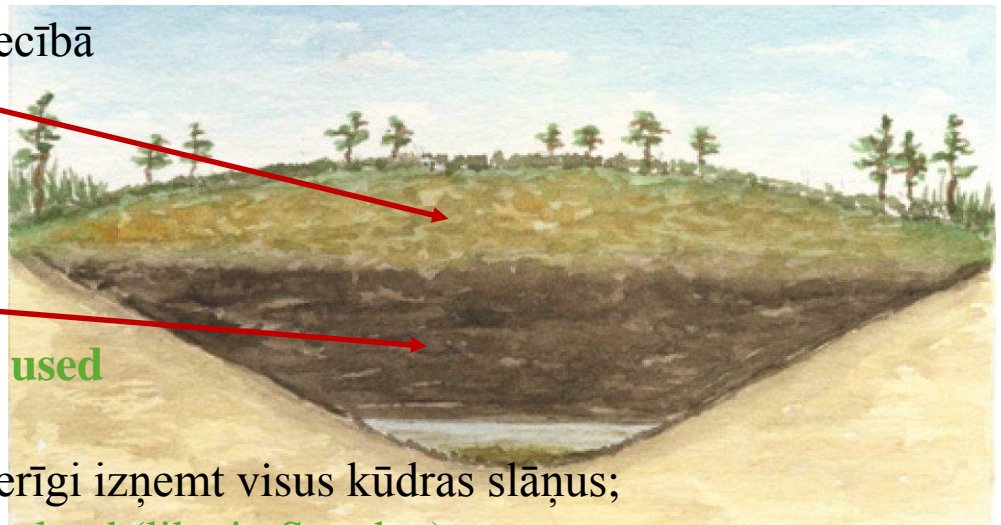
PEAT USAGE

Viršējais slānis tiek izmantots lauksaimniecībā

Horticultural peat

Apakšējais slānis šobrīd paliek daļēji
neizmantots

Currently lower peat layers are partly used



Pareizas saimniekošanas rezultātā ir lietderīgi izņemt visus kūdras slāņus;
It is important to extract all peat of the peatland (like in Sweden).

Pilnībā izstrādātas kūdras purva teritorijas tiek rekultivētas;

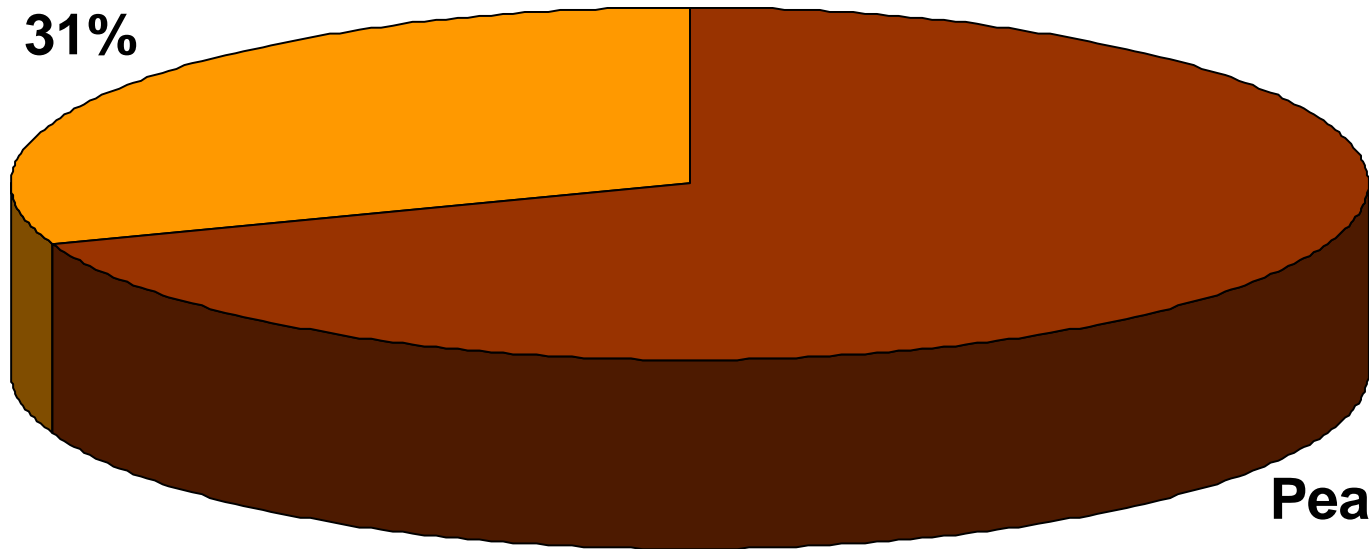
Areas without peat or with thin peat layer are recultivated.

Pareizi rekultivējot un izstrādājot purva teritorijas, purvi no CO₂ emitētāja kļūst par CO₂ absorbētāju. With correct recultivation methods peatlands from CO₂ emitters become into CO₂ absorbers.

EUROPE – PEAT USAGE

Peat versus non-peat substrate for the production of hobby GM (Total > 10 million m³)

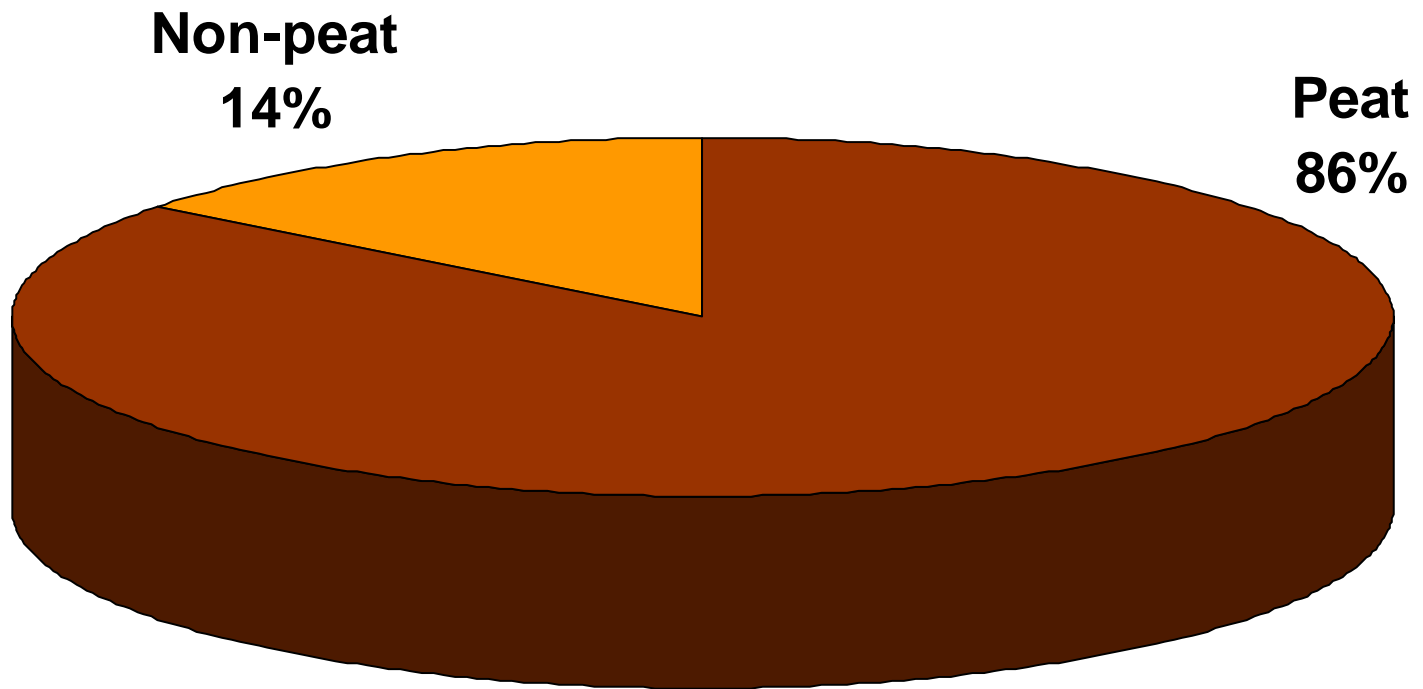
Non-peat
31%



Peat
69%

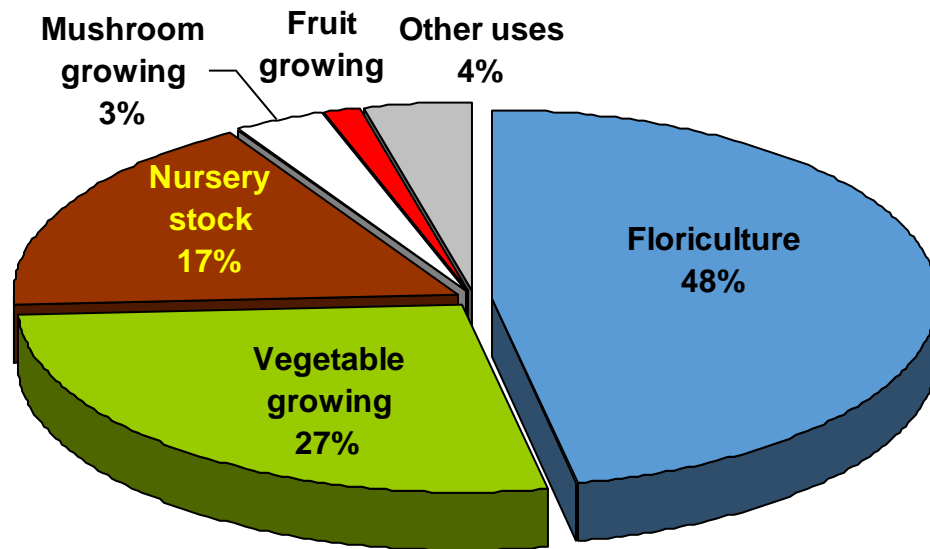
EUROPE – PEAT USAGE

Peat versus non-peat substrate for the production of professional Growing Media (Total > 22 million m³)



EUROPE - PEAT USAGE

Peat usage for production of professional GM by segments
(Total = 19 million m³)



PEAT

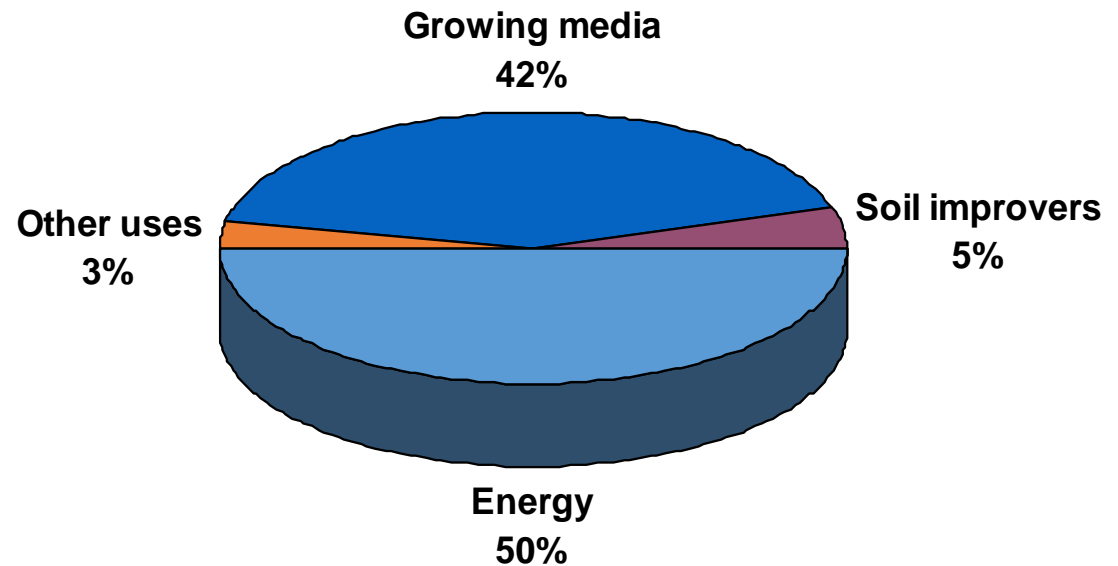
ADVANTAGES OF PEAT

- ⦿ The cellular structure of very weakly to moderately decomposed *Sphagnum* peat (H1 to H5) with its large water/air retaining vacuoles guarantees a high water capacity and also high air capacity. Highly decomposed *Sphagnum* peat (H6 to H10) has a markedly lower air capacity. This is, however, greatly improved during the winter frosting process.
- ⦿ The low pH and nutrient content permit to easily to increase all important characteristics.
- ⦿ Peat is, due to its formation, free of pathogens and pests and in case of controlled production also free of weed seeds.
- ⦿ The handling and processing of peat as well as fractionating and mixing are simple and possible without any health risk.
- ⦿ Peat is, as regards the price, highly competitive as compared with other growing media constituents. High value for money makes *Sphagnum* peat a cost-effective component.
- ⦿ Peat is readily available in constant qualities in the long term.

PEAT

USES OF PEAT IN EUROPE

- Horticulture (professional and hobby)
- Energy/fuel
- Medicine
- Peat-based activated carbon
- Animal bedding
- Other non-horticultural uses



Where we find usage of peat in our daily life?





Klimata pārmaiņu jautājumi

CO2 EMISIJAS

- ⦿ Zālājiem/grassland – 6.1t ha gadā
- ⦿ Aramzemēm/ cropland – 7.9t ha gadā
- ⦿ Mitrzemēm/purviem/wetland – 2.8t ha gadā

Klimata pārmaiņas

IESPĒJAS SAMAZINĀT SEG EMISIJAS KŪDRAS IEGUVĒ

- ⦿ Vispirms jāizstrādā kūdras atradnes l/s zemēs, meža zemēs, Padomju periodā sagatavotās atradnes, tikai pēc tam jāvērtē jaunu purvu apguves iespējas;
- ⦿ Pēc iespējas jāsamazina purvu izmantošanas laiku (labas tehnoloģijas, inovāciju izmantošana);
- ⦿ Jāseko līdzi dabīgiem purviem, jo gruntsūdeņu izmaiņu rezultātā, tie var kļūt par CO2 emisiju avotu;
- ⦿ Purvi jāizstrādā līdz beigām, jo biezāks nesavāktais kūdras slānis, jo lielākas SEG emisijas;
- ⦿ Pēc izstrādes jāveic piemērota rekultivācija (renaturalizācija, appludināšana, apmežošana, ogulāju audzēšana).

KŪDRA ENERĢĒTIKĀ

- ⦿ 230 miljoni tonnu (~15% no kopējiem krājumiem) vai 663 miljoni MWh enerģētiskās kūdras;
- ⦿ Pašlaik jau apgūtajās platībās pieejami 39,3 miljoni tonnu enerģētiskās kūdras vai 120 miljoni MWh enerģētiskās kūdras.
- ⦿ Kūdra šobrīd netiek uzskatīta ne par atjaunojamo ne par fosilo resursu;
- ⦿ Eiropas Savienības enerģētikas komisārs Ottingers par kūdras definēšanu un izmantošanu enerģētikā sniedzis skaidrojumu, ka **Komisija atzīst dalībvalstu iekļaušanu kūdru savas valsts enerģētikas izejvielu sastāvā, ka tās ir viņu tiesības attiecībā uz brīvu izvēli starp dažādiem enerģijas avotiem un kūdru atzīst kā vietējo kurināmo ar tās nozīmi energoapgādes drošībā un reģionālā attīstībā.**

ENERGY

FUEL PEAT

- ⦿ **Latvian energy long-term strategy 2030:** “to promote use of local energy resources, including peat
- ⦿ **Energy sector** – About 12-15% reduced fuel component price heat tariff.
- ⦿ **Regional development** – In the areas that already has extraction licences 700 000 t of peat annually can be extracted creating 450 workplaces.
- ⦿ **Economics** –Income from peat extraction and its use in energetics would reduce energy import. State revenues would grow at the expense of taxes (social, natural resources, profit, fuel excise duty).

700 000 t peat =2 100 000 MWh. 2,1 milj. MWh from gas = 99 855 000 EUR.
- ⦿ **Environmentally-** facilitating production of peat in previously dried areas would reduce harmful impact on environment. With the recultivation of peat extraction sites GHG emissions from peat combustion would be reduced by 30%.

TOPICAL ISSUES OF 2015

PEAT STRATEGY

- ⦿ Peat strategy has not been developed in Latvia;

BIOTOPE MAPPING

- ⦿ Biotope mapping has not been done in Latvia;
- ⦿ Estonia, Lithuania did it

METHODOLOGY FOR DETERMINING PEAT LAND RENTAL CHARGES

TOPICAL ISSUES OF 2015

KRASS CERTIFICATE

- ⊙ Certificate of peat production quality for 13 years
- ⊙ KRASS includes: peat extraction site, melioration system, environment friendly peat extraction technology, fire safety, purity of weeds
- ⊙ We are working at updating criteria
- ⊙ Partly the criteria of the KRASS certificate and the requirements of RPP and RHP certificates overlap

CO2 EMISSIONS - RESEARCH

- ⊙ We ought to promote research and set a clear-cut task for CO2-related research in order to have accurate criteria. Then we won't have to use accepted standard criteria which do not suit our situation



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THANK YOU FOR ATTENTION!

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3rd November, Latvia