



Synthesis for general conclusions and recommendations for improved legislatory and framework conditions for paludiculture in Baltics

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2018

1. Synthesis for general conclusions

Strategies and national laws

Estonia, Latvia and Lithuania share similar recent history, geography and landscape and consequently have similar needs regarding agricultural use of land today. A large percentage of the land is too wet for conventional arable agriculture without draining it first. During the period of Soviet occupation large drainage systems were built in order to dry the land for agricultural use in all three states. Nowadays the draining systems are approaching critical maintenance status and need wide-scale repairing. However, reconstructing the draining systems is expensive and would need large investments that landowners are usually not able to make on their own. Thus, help from the government would be needed to continue with traditional agriculture in these wet areas. The continuing use of peatlands for traditional “dry” agriculture would, however, lead to further loss of soil carbon and mineralization of soil.

In Estonia and Lithuania dual-regime (regulated) reclamation systems are seen as means of saving moisture in the soil during dry summers for traditional agriculture that is causing high GHG emissions in the LULUCF sector.¹ There are also support schemes for retaining or constructing regulated draining systems in Estonia and Lithuania. In Latvia, there is a support scheme for restoring or rebuilding of drainage systems; however, as it does not support building regulated draining systems, the effect on paludiculture is rather negative.

A problem from the perspective of paludiculture is that existing draining systems are connected over property borders which means that activity on one landowners land affects the neighbouring land. Therefore, the neighbours have to agree on how to use the draining systems. If one neighbour wants to restore the natural water regime of the land in order to grow paludiculture plants but the other one needs his/her land to be dry for conventional agriculture, rewetting the land without reaching an agreement is not possible under current national laws.

Unfortunately, there are many contradictions between different strategies in all of the Baltic States, with some being supportive of paludiculture and some working against it. There is an overall tendency in all three countries for more recent national strategies to pay more attention to the need to keep the carbon in the soil. Therefore, recent strategies offer more support for paludiculture but there is a need to remove the contradictions when updating or replacing older strategies that counteract application of paludiculture.

In all three countries the strategies and national regulation foresees restoring exploited peatlands (peat mines), which is an opportunity for paludiculture. Lithuania has gone further than other states, by prohibiting to recultivate exploited peatlands into other land types than wetlands.

¹ The effectivity of dual-regime reclamation systems for reducing GHG emissions and subsidence of soils is under scientific consideration and testing at the moment in Netherlands and Germany. Results so far are not very promising: systems are difficult and costly to install and maintain, effectiveness to reduce GHG emissions is low. Therefore, these probably won't be a bridging technology for peatlands.

1st pillar of CAP

In all three Baltic countries, it is in principle possible to have payments from the 1st pillar also for lands that are wet. In Lithuania, it is allowed to raise the water level to grow paludiculture crops that need higher water level using regulated drainage systems or similar methods. Increasing water levels in arable land or grasslands does not preclude payments from the 1st pillar of CAP. In Latvia, there are two additional circumstances under which the direct payments will not be granted: when the wetland is covered by water for longer than four weeks in a row within the time period from 15th of May to 15th of September. In Estonia, the main question regarding support for paludiculture is whether the crops used are recognized as agricultural crops or the activity is considered other type of agricultural activity according to the EU Regulations. Officials in state authorities have, however, voiced doubts whether constantly wet land can be regarded as suitable for agriculture. In addition, agricultural plants must be sown or planted by June 15th and maintenance and production activities must be finished by August 20th and September 1st respectively. There are narrow exceptions to these deadlines related to e.g. growing of short rotation coppice *Salix*, ecological focus areas (EFA) and grasses grown for energy production.

A general rule is that agricultural areas must be planted with agricultural crops, (including meadows) or kept fallow in order to qualify for the support. The suitable crops are listed in national level rules. In Lithuania, the crops listed could be changed if there is a motivated request from group of farmers. In Estonia, the list is not enclosed, therefore eligibility of crops can be assessed case-by-case. Also, the list contains “grasses” as a general category. For the reason of legal clarity, there is an overall need to expressly include plants considered as paludiculture crops in the national lists.

In all three countries, **standards for good agricultural and environmental condition of land (GAEC)**, a subset of cross-compliance requirements, apply. All three countries have put a lot of emphasis on the ban on burning grass and stubs in order to meet the requirements of GAEC 6, but there are almost no other measures for protecting soil carbon.

Greening requirements are similar in all three countries, including:

- the diversification of crops;
- establishing “ecological focus areas” (EFA) and
- the preservation of existing permanent (environmentally sensitive) grasslands.

These requirements can have some positive impact on paludiculture as these foresee the preservation of grasslands and agricultural practices that are beneficial for the climate and the environment. However, requirements for EFA, which is a part of greening requirements, do not entirely support paludiculture as e.g. in Lithuania, EFA requirements related to existence of productive elements and suitable plants are not suitable for paludiculture.

Latvia also requires that a land amelioration system is maintained in the agricultural land, ensuring its activity and maintenance, as well as regulation of land humidity regime.

The main gaps of the 1st pillar of CAP with regard to paludiculture are:

- national lists of crops do not include paludiculture plants or includes only some (Lithuania, Estonia);
- current practice of the EFA requirement is dominated by productive elements of the EFA - nitrogen-containing plants and fallow are not suitable for paludiculture (Lithuania);

- amelioration of organic soils is directly counteracting the requirement of GAEC 6 as organic matter is not preserved but lost from peat soils under these regulations (Latvia and Estonia);
- deadlines for maintaining the agricultural land effectively eliminate the possibility to gain support for crops which do not need sowing/planting, maintaining or harvesting every year or in the summer season (e.g. reed, cattail) (Estonia);
- rules on maintaining soil carbon do not address the issue of peat soils;
- grasslands with peat soil outside the Natura 2000 areas are not directly protected by the “greening rules” in neither of the countries; additionally in Estonia the areas inside Natura 2000 areas, where the soil is not 100% peat soil, but mixed, are also not protected.

2nd Pillar of CAP

Support mechanisms under the 2nd Pillar of CAP are very different in all three countries, as they are based on country-specific Rural Development Plans. Some of these have positive, some negative impact on preserving organic matter in the soils and on paludiculture. In all three countries, a support scheme for constructing or rebuilding drainage systems is available. Unfortunately, these supports have more of a negative impact, considering the effect of drainage from the perspective of maintaining carbon in the soil. Only in Estonia and Lithuania the support can also be used for building potentially paludiculture-friendly regulated drainage systems. Regulated systems are, however, more expensive and complicated to build, thus these are less popular among the applicants.

The main impacts of the different support mechanisms in Lithuania are following:

- The requirements for support mechanisms in “Agri-environment and climate” measure have positive effect on preserving organic matter in the soils covered by perennial grasses
- The requirements of the Natura 2000 support measure contribute to the conservation of the environment (including the conservation of wet peatlands that potentially could be used for paludiculture). However, the measure is focused on passive preservation, also the harvesting times are not suitable for all paludiculture crops. Therefore, the effect of this measure on paludiculture is rather neutral.
- Support for agricultural water management measure encourages the renovation of the drainage engineering infrastructure. As a result, the support encourages continuation of traditional agriculture and leads to further loss of soil carbon.

The main impacts of the different support mechanisms in Latvia are following:

- The rules of applying environmentally friendly methods in horticulture can have a beneficial effect on the implementation of paludiculture as it also provides support for the use of peatlands where peat has been extracted, e.g. for growing cranberries.
- The measure "Investments in tangible assets" supports among other activities restoring or rebuilding of drainage systems which has negative impact on soil carbon and spread of paludiculture.

The main impacts of the different support mechanisms in Estonia are following:

- Environment-friendly management support (EFMS) currently provides only minimal indirect support to spread of paludiculture, by somewhat incentivising establishment of permanent

grasslands (where crop rotation rules do not apply) and requiring some vegetation cover over winter period.

- The regional soil protection support scheme reduces carbon emissions from peat soils somewhat by requiring (almost permanent) grass coverage.
- The environment-friendly gardening support scheme would directly support growing of one potential paludiculture crop – cranberries.
- The semi-natural communities' maintenance support scheme provides incentives to maintain semi-natural communities (some of which are on peat soils) as it partially covers the additional costs and loss of profit resulting from use of specific maintenance methods and characteristics of the lands.
- Investment support for development and maintenance of agricultural and forestry infrastructure could have either positive or negative impact on paludiculture, depending on which type of systems are (re)constructed or renewed with the support. In theory, the support may be applied for to redesign and construct existing systems into dual-regime regulated systems, however, this is not a common practice (and support rates are lower for construction of new systems). As the support scheme incentivises and supports continuing use of existing drainage systems, it has mostly an opposite effect to supporting paludiculture,

The main gaps of the different support mechanisms in Lithuania are following:

- The requirements for support mechanisms in “Agri-environment and climate” measure are aimed at conservation, not economic activity, which makes it difficult to find plants that grow naturally in wetlands and have an economic value. It is even more difficult to find such plants whose production would be more profitable for applicants than the current payment.
- The Natura 2000 support measure is focused on passive preservation. There may be a problem with the timing of harvesting.

The main gaps of the different support mechanisms in Latvia are following:

- Applying environmentally friendly methods in horticulture is not effective at the moment as there are no paludiculture plants on the list of supported plants.

The main gaps of the different support mechanisms in Estonia are following:

- The EFMS support scheme does not directly tackle the issue of soil carbon, especially in peat soils. However, this can be somewhat explained with the existence of a separate soil protection support scheme.
- The regional soil protection support scheme does not cover environmentally sensitive permanent grasslands (grasslands in Natura 2000 areas with 100% peat soil). Also, it does reduce emissions, but without requiring raising the water level, this effect is limited (land impacted by drainage will most likely continue to be CO₂ source). Moreover, although the support scheme covers large grasslands, fruit trees and berries, it does not cover potential paludiculture crops (presuming the latter would be considered agricultural crops rather than grass).
- The Environment-friendly gardening support scheme does not give preferential treatment to cranberries, which as the practice shows, is an unattractive culture, at least for this support scheme.

- The Semi-natural communities' maintenance support scheme has two gaps in practice. On one hand, quite extensive administrative burden (with two agencies, the payment agency as well as Environmental Board, involved). On the other hand, the support only partially covers the additional costs and loss of profit, meaning the farmers on such land are still relatively uncompetitive.
- Investment support for development and maintenance of agricultural and forestry infrastructure incentivises and supports traditional (drained) use of peat soils and does not provide support for farmers interested in paludiculture

2. Recommendations for improved legislative and framework conditions for paludiculture in Baltics

Cross-Baltic

- Clearly listing some paludiculture crops (e.g. like reed, cattail, peatmoss) as agricultural crops in the respective national list;
- Reviewing deadlines during which agricultural activity needs to be carried out, to allow an exception for winter harvesting (e.g. reeds, cattail);
- Including peat-soil specific requirements under the cross-compliance rules (and conditionality standards in post-2020 CAP) that would support restoration or maintaining natural water levels in these soils;
- Creating additional support schemes to support paludiculture, especially as regards investments in specific agricultural equipment, production facilities and capacity building of farmers;
- Providing more information and training about paludiculture to the policymakers, farmers, scientific organizations and other stakeholders. It is necessary to develop and agree on support measures that:
 - have technological justifications and economic assessments;
 - are focused on the implementation of specific and measurable goals;
 - encourage the development of high-value paludiculture production;
 - provide the public with benefits (to create public goods);
 - to ensure rational use of natural resources and taxpayers' money;
- Stopping support to the restoration and renewal of drainage systems on at least the most sensitive peat soils under the infrastructure investment support scheme
- Differentiating support schemes to mineral soils and organic soils to ensure climate-friendly management of the latter.

Country-specific

- Widening the scope of the term “environmentally sensitive grasslands” to include peat soils outside Natura 2000 areas and/or soils with less than 100% peat in those areas (Estonia);

- Amending the rules of regional soil protection support scheme so it would (at least in some areas) also require restoration of water levels at least closer to natural conditions (Estonia);
- Changing the requirement that aid for areas in the form of direct payments shall not be granted for agricultural land if there are bulrushes or there is wetland that within the time period from 15 May to 15 September is covered by water for a time period exceeding four weeks in a row (Latvia);
- Recognizing that the degradation of organic soils increases GHG emissions in the agricultural sector, and that they have to be treated differently as mineral soils. Therefore, it is necessary to subdivide agricultural lands – with mineral soil and with organic soil and to set different support measures for each of them. Applying the same measures for organic soils as for mineral soils can never lead to climate-friendly management of organic soils (Latvia).