An Analysis of the legal regulatory framework of peatland use in Lithuania

Nerijus Zableckis, dr.Romas Pakalnis, Dr.Romualdas Zemeckis

LIFE Peat Restore

LIFE CCM DE/15/000138

«Reduction of CO_2 emissions by restoring degraded peatlands in Northern European Lowland»

LITHUANIA
2018, VILNIUS

Introduction

The purpose of the general analysis is to: 1) review the current legal and political conditions for the better conservation of peatlands in Lithuania; 2) Propose how the current framework could be improved. The work is carried out as part of the project ***LIFE PEAT restore LIFE15 CCM/DE/000138,*** "Reduction of CO_2 Emissions by Restoring Degraded Peatlands in Northern European Lowland".

In 2018 specialists of Lithuanian Fund for Nature and Nature Heritage Fund have updated database of Lithuanian peatlands. Based on the recent data, peatlands in Lithuania cover approx. 10 % (653 933 ha) of the country's territory (peat layer >0.3 m). However, from all inventoried peatlands, about 67 % (440 thsd.) are considered as drained. Although peatland drainage makes farming activities much easier, it has negative consequences such as: greenhouse gas (GHG) emissions, biodiversity losses, water pollution, and increase of fire accident risk as well.

Based on the new database, 44 % of drained peatlands are used for forestry, 38 % for agriculture, **2 % for industrial peat mining** and 5 % are considered as drained neglected areas. According to the data of Intergovernmental Panel on Climate Change (Annex on wetland GHG emissions, 2014), peatlands of agricultural usage has emitted 7.2 million, forestry – 1.9 million, industrial peat mining - almost 1 million, other drained areas – 0.7 million tons of CO_2 equivalent in 2017. Thus, during 1 year period about 11 million tons of GHG were released from damaged peatlands in Lithuania, i.e. almost the same amount as in energy sector.

1. Mire terms used in the Lithuanian legislation

This section reviews different kinds of wetland and peatland interpretations in national legislation related to peatland use and conservation.

Mire (pelkė Lith**) -** viscous place with standing water (Dictionary of the Lithuanian language)[1]. Mires in various Lithuanian technical literatures are defined as continuously wet areas of the earth's surface, where moisture-growing plants grow and peat develops from dead plant material. If the peat layer is thinner than 30 cm, such areas are called swollen lands. Mire, this is the area of excess moisture on the land, overgrown with specific vegetation. In the mires, peat deposits form from the vegetation residues over time. The mires are divided into bogs, fens, and intermediate ones. Fen mires are mires that feed many soil and / or groundwater minerals. They grow on a specific basis, with high levels of moisture and nutrients adapted to the vegetation. Bog mires - rain-fed mires whose vegetation has adapted to survive in high humidity and low levels of nutrients in water.

Peatland (durpynas Lith)- the place where peat is located; peat bog (Dictionary of the Lithuanian language)[2]. Unlike mires, peatlands, environmentalists call all areas of land that have a layer of peat that is thicker than 30 cm. However, in the Terminology Bank of the Republic of Lithuania, this term has a "provided" status, which means that the State Language Commission has not approved it yet. In the provided translations, English and German speak about the place where peat is drained. The terms "highland peatland", "lowland peatland" and "intermediate peatland" are already approved by the State Language Commission, but their definitions refer to the degree of fragmentation of peat, and there is nothing to be said about the thickness of the peat layer or the water level[3].

Wetland (šlapynė LT) - wet land, which has its own vegetation, is characterized by ongoing processes of mires formation and its boundaries are determined by legislation. By this wording, this term is defined and approved by the State Language Commission, placed in Terminology Bank of the Republic of Lithuania. This term in such wording is used in the legal acts approved by the Ministry of Agriculture.

Wetland according to the definition of Land law is a place where peat layer must be not less than 30 cm

Agricultural land - arable land, gardens, meadows, pastures, used or suitable for cultivating agricultural crops.

Arable land -is the area of land used to grow agricultural crops, fallowed and plowed more than once every five years.

The area of perennial plantation- is the area of non-crop rotation, with the exception of pasture or meadows, including nurseries and areas of short rotation plantations where land has been planted for more than five years and yield was harvested repeatedly.

Permanent grassland or meadow- land sown with grass or natural area which is not ploughed for five years or more, used for grazing, grass or grassland production.

[1] Lietuvių kalbos žodynas(in Lithuanian, dynamic link)

[2] http://www.lkz.lt/Visas.asp?zodis=durpynas&lns=-1&les=-1 (in Lithuanian, dynamic link)

[3] http://terminai.vlkk.lt/pls/tb/tb.view_help?p_sid=1966872&p_page_no=1 (in Lithuanian, dynamic link)

2. Legal framework

The conservation and use of peatlands are regulated by several national laws and national strategies. They are reviewed in this section.

2.1. National strategies

National Environmental Strategy

The Seimas (Parliament) on April 16, 2015 by decree No. XII-1626 *approved National Environmental Strategy*. The Strategy only refers to the limited amount of peat resources: according to the data of the Lithuanian Geological Survey under the Ministry of Environment of 2012, 10,6 thousand hectares of peatlands need to be rehabilitated. The strategy foresees that peatlands should be rehabilitated, rebuilt to the former land use potential, or rebuilt into more valuable ecosystems than would have been due to the extent of the extraction.

The national Strategy for Climate Change Management Policy for the period 2013-2015

Lithuania does have an approved National Strategy for Climate Change Management Policy for the period of 2013-2050. However, there are no special targets for peatland conservation. The National Energy Strategy of Lithuania, which was approved by the Seimas of the Republic of Lithuania in 2007 January 18 (Resolution No. X-1046), mentioned peat extraction in the SWOT analysis and stated that it is too little used in energy as one of the local fuels, which is contradictory to the conservation goals. However, this strategy is no longer in force. On June 26 2012, (Resolution No. XI-2133) the Seimas of the Republic of Lithuania approved the National Energy Independence Strategy. However, peat, mires and peatlands in this new Strategy are not mentioned at all.

2.2. National legal acts

After reviewing the Register of Legislation, it was possible to find orders from the Minister of the Ministry of the Environment and other state institutions, the resolutions of which concern the inventory of peatlands and peat, their accounting, fire protection, possibilities and ways of rehabilitation.

The Law of Protected Sites

It is the law, which has biggest importance to peatlands. It takes into account all sites, which have any sort of protection status, e.g. reserves, Natura 2000 sites (pSCI, SPAs), which cover 179 774 ha or 27% of all Lithuanian peatlands. Additionally, the law guarantees protection of habitats of protected species. For example, if the nest of rare bird or location of rare plant is found, such site becomes protected against any kind of economic activity. Therefore the register of protected sites is always updated by appointing new Natura 2000 sites. In most cases raised bogs and transitional mires are protected. However this law is not applied in fens, where probability of finding red listed species or habitats is very limited. Additionally, the law is not applied to all habitats. For example, in 2014 all habitats were mapped in Lithuania but they did not appear as protected sites. Therefore, all the habitats on peatlands, which is 130 220 ha, 20% of all peatlands, do not bear any protection status.

According to the law , par.9 art. 8 states that within protected sites are “prohibited activities of melioration (i.e. when land is drained by ditches and other kind of measures), {and} land use change from peatlands to

other usages". The law foresees the possibility to set management plans for the protected sites. If management plan is approved all the activities, which improve conservation status, are allowed, but they have to be in line with other laws, e.g. Forestry law (see next par.).

Forestry law

Forestry law is another law, which has most controversial status regarding peatlands.46 % (299 378 ha) of peatlands are covered by forests and belong to so called "forestry land". The primary aim of the law is the regulation of timber generation; therefore, quite often all the forestry land is used for timber harvest, except cases, when special standards are applied (FSC certification). Peatlands are also used for forestry activities, e.g. planting, replanting, draining, harvesting. However, the law says that no damage may be caused to **other** ecosystems, where definition "other" refers to the land, which is not typical forest, e.g. meadows, open places, peatlands. But usually this principle is not respected, even implementation of management plans is often conflicting situation due to different regulations, set in the laws of Protected sites and Forestry. For example, according to Forestry law, after clearing the vegetation in wetland, cleared site must be replanted within 3 years period (par.5) while law of Protected sites requires to keep such site open.

Land reclamation

Land reclamation in Lithuania is very often accused of demolishing peatlands and bogs. However, the Law on Land Reclamation (approved by Seimas on December 9, 1993, Resolution No. I-323) and all its versions does not mention peatlands, peat and mires. In this Law, the land reclamation is defined as "improving the soil with hydro technical, crop engineering, agri-land reclamation and other means to regulate the soil water, heat and air regime, improve the conditions for farming, preserve and increase soil fertility, and form a rational farm land management". Reclaimed land is defined as "a land plot with an installed and functioning drainage system and implemented cultural, agri-land reclamation and other means, which create favourable conditions for the development of agriculture".
Lithuania is in the zone of excess moisture, because the amount of precipitation is about 1.48 times the amount of evaporated water, therefore, favourable conditions for conventional agriculture can only be created by drying the land. Land reclamation in Lithuania is very important, as about 90% of all agricultural production are grown in drained lands. Ground drainage eliminates excess moisture and regulates soil water regime, which stimulates the development of soil microorganisms and root systems, increases the amount of nutrients available in plants, fertilization efficiency and fertility of many soils. On the other hand, it leads to the microbial decomposition of peat layers, high greenhouse gas emissions, outflow of exceeding nutrients to water bodies, subsidence and ultimately to the loss of fertile lands.
Although the land is privatised, the drainage facilities belong to the state. The state of land reclamation system in Lithuania is approaching critical status. According to the experts, Lithuanian farmers would be uncompetitive without drainage; therefore, it is necessary to find a way to solve land reclamation problems more quickly. The current problems of land reclamation have largely come about as part of the development of this system. The land reclamation projects in the Soviet period were large, including drainage systems. In most western European countries, land drainage was carried out according to the wishes of the landowners. The drainage systems adapted to the needs of their farms, farm borders.
Some inefficiently drained lands are unproductive. Most often, they are abandoned and not used. The condition of the installed drainage facilities is deteriorating, the area overgrown with swampy vegetation, and others transformed into scrub or forest. Increasing the water level in the fields of one owner and in most cases combined with neighbours, as the drainage systems are large and usually used by several owners of the land.

Mineral Resources law

Peatland exploitation in Lithuania is regulated by Mineral resources law, which sets the requirements and procedures for usage and permissions for extraction of mineral resources. Official Peatland quarries cadaster covers more than 50% of Lithuanian peatlands, however it was established in Soviet times 50 years ago, therefore it is outdated and needs renewal. For example, protected sites are still appointed as sites for excavation. Today the "active" peat quarries are established in 27623 ha, but bigger part of them 19740 ha are not in usage, mostly abandoned. So active mining is ongoing only in about 7000 ha. No new peat mining queries were established in the last decade. The Ministry of Environment declares that all existing peatlands must be preserved and remain for the future. However, there is no such fixed target in any kind of official documents.

Mineral Resources law sets the methodology of re-cultivation of damaged lands after mining of mineral resources, approved by the Minister of Environment. The 5th paragraph of the methodology indicates that peatland restoration must be done in accordance with the law of Protected sites, which states that peatland after mining must be restored into the ecosystem, which existed before extraction. In other cases when site has no protection status, the restoration (7th paragraph) approaches can be chosen from several possibilities, usually watering or afforestation are most common. However, in Lithuania there are only few cases of re-cultivation in completely extracted peatlands because most of peatlands are treated as 'active'. However, abandoned peatlands remain in such status for years without any kind of restoration or further usage.

3. Problematic aspects and Recommendations

1. Undrained peatlands acts as carbon sinks. Therefore, sustainable use of peatland recourse would help to reduce the GHG emission amounts. Theoretically, maximal reduction of GHG emission reduction is possible by 63 %. The biggest potential is in the industrial peat mining sector – 96 %, agriculture - 67 %, forestry – 33%.
2. There is no strategic document in Lithuania, which would set any targets for peatland conservation. It seems that peatlands are "forgotten" and play no role in mitigation of climate change. Measures for GHG reduction, foreseen in The national Strategy for Climate Change Management Policy for the period 2013-2050 under LULUCF sector, set afforestation as the main mean. However, there is a hope that new emission rates under ICCCP, used in national gas inventories, will significantly increase emissions from agriculturally utilised peatlands, mainly in meadows. It should help to attract the attention of politicians and help to start rewetting of agriculturally utilized lands, especially those, where reclamation systems do not function.
3. Most of Lithuanian raised bogs and transition mires are protected by national laws. However, fens, which are mainly utilized in agricultural sector, are not protected. Usage of fens is causing high GHG emissions. Today there are no clear incentives by the Rural development programme to change the usage of such sites, e.g. cut the subsidies for harmful usage. Abandoned peatlands have no regulation. Being abandoned for 30-40 years such sites are still causing emissions; there are no political will to conduct any activity nor invest into restoration. Therefore, it is recommended to start the discussion by the society including different stakeholders; funds must be identified for restoration.
4. Several national laws contradict each other. For example, Forestry Law wrongly interprets peatlands as part of forestry, therefore forestry practices must be applied in all forestland despite soils, humidity etc. It is an abnormal situation, even nature management plans are disrespected. Therefore, it is recommended to harmonize both laws.
5. Rewetting activities in peatlands are allowed in exceptional cases, e.g. when implementing management plan. In all other cases officially registered "wetlands" are protected by different kinds of laws (reclamation law, Land law etc.) which state, that hydrological regime may not be changed. It means the landuser is not allowed neither to drain it nor increase the water level. Such regulation must be changed by including permission for rewetting actions.
6. The methodology for re-cultivation is outdated, it provides guidance to revert post-mined site into water bodies. Taking into account global tendencies, guidance and best practices on reverting into former peatland ecosystem should be included.