ANALYSIS OF EFFECTIVE LEGISLATIVE ACTS ON LAND DEGRADATION

Dace Didrihsone, Anda Jankava, Velta Parsova, Maija Bērziņa, Dace Platonova, Aina Palabinska

Department of Land Management and Geodesy, Faculty of Environment and Civil Engineering, Latvia University of Agriculture

Abstract

Land is a non-renewable resource with a limitet access and therefore a wholesome and sustainable use of land and maintenance of beneficial land properties are very important. Economical activity always has been the main propulsion of use of land resource. With global economical growth, the intensity of use of land resource as a main resource has only growed. Soil is one of the most important components of land, because it provides biodiversity of the land and functioning of ecosystems. The restoration of degraded territories and prevention of risks are important tasks for sustainable development of territory in any municipality. That is determined in regulations and other documents accepted both internationally and in Latvia. Regarding the risks of land degradation and their prevention, Land Management Law has come to force in Latvia on January 1, 2015, which defines land degradation and soil degradation and obliges local authorities to show these territories in territorial planning documents, while according to the same law land owners are obliged to take action to prevent land degradation on their land properties. The aim of the research is to analyze and evaluate legislative acts of Latvia regarding the degradation. To achieve the aim a task to summarize the information on these regulations was set.

Key words: land degradation, law, regulation, degraded land, Strategic planning documents.

Introduction

Because of the influence of economic activity and environment land and soil degradation (decrease of the quality) process has been noticed and as a result degraded territories create. Degraded territory is land which has been damaged by either industrial or other activities or inactivity at all stages where any economic activity is impossible unless special renewable measures have been made.

An increasing attention to degradation processes has been paid worldwide; their prevention and restoration have been developed in programms of different planning levels and policies. For identification and prevention of land and soil degradation few documents and resolutions of European level has been accepted, where as one of the main aims a soil and land sustainable use is mentioned.

On September 25, 2015 a resolution "Transforming Our World: the 2030 Agenda for Sustainable Development" was adopted by the United Nations General Assembly. In this resolution 17 aims for sustainable development, which includes economical, social and environment dimensions, were set. One of the aims of environmental dimension was: "to restore degraded land and to aim to achieve having a world neutral to land degradation" (Transforming our world..., b.g.). This is the first worldwide document where universal and comprehensive actions regarding land degradation are provided.

The issue of sustainable growth has been included in the strategy "Europe 2020 – Resource-efficient Europe". It means that land should be managed by sustainable measures, but obstacles that hamper effective use of land should be removed. The strategy provides that measures to restore the soil should be done. This problem is defined internationally, on European level and is topical in Latvia; therefore the information of effective legislation regarding land and soil degradation has been summarized.

The aim of the research is to analyze and evaluate legislative acts of Latvia regarding the degradation. To achieve the aim tasks were set:

- 1. to summarize the information of effective legislation regarding land and soil degradation;
- 2. to divide effective legislation in groups by type of legislative acts;
- 3. to determine what are the requirements in legislative acts to identify degraded territories.

Methodology of research and materials

The object of the research is degradation of land and soil, identification of these processes and legislation regarding degradation. To achieve the aim, firstly, the information of effective legislative acts of Latvia on different levels regarding land and soil degradation was summarized; secondly, legislative acts were divided in groups and evaluated.

Discussions and results

In accordance with directives of European Union (EU), multiple documents of strategic planning in Latvia with the aim of sustainable use of land and soil were accepted. In total 38 normative acts of effective legislation regarding land and soil degradation were selected. In order to evaluate and analyze these documents, they were divided in three groups - Strategic planning documents, Laws, Regulations of Minister Cabinet.

Evaluating <u>strategic planning documents of Latvia</u>, which were accepted in accordance to EU directives, it can be concluded that one of the aims mentioned in all of them is sustainable use of land and soil. Sustainable use of land and soil is connected with a need of restoration and maintenance, as well as an attention not only to agricultural land as sustainable resource, but also to revitalization of degraded land in cities and towns (Latvijas ilgtspējīgas attīstības..., 2010; Vides politikas pamatnostādnes..., 2014; Zemes politikas pamatnostādnes..., 2008). Landscape Policy Guidelines for 2013 to 2019 is the only strategic planning document, where degraded territory is defined in terminology and indicated that also unmanaged building sites mostly are potentially degraded territories (Ainavu politikas..., 2012). Degraded territories, which include non-recultivated mineral extraction sites, currently extensively used or abandoned economic and military infrastructure, unfinished buildings and polluted areas, have negative influence on quality of landscapes. Objects of cultural heritage as manors, churches and other cultural building, neglected parks and plantings, are also potentially degraded objects. The aim of programme on restricting the spread of hogweeds 2006 to 2012 is to reduce the spread of hogweeds as alien plant by implementing coordinated system of their limitation. This is the only document regarding the limitation and control of hogweeds (Latvāņu izplatības ierobežošanas..., 2006).

There are many other programs and strategies on national level regarding sustainable use and protection of land and natural resources, for example, Nacional Program for Biodiversity, Latvian Forest Policy, National Development Plan 2014 - 2020 etc. (table 1).

Table 1

	Title of the document		
1.	Environmental policies 2014-2020		
2.	Forest-based Sector Development Guidelines 2015-2020		
3.	Landscape Policy Guidelines for 2013 to 2019		
4.	Land Policy Guidelines for the period 2008 to 2014		
5.	Latvian Forest Policy		
6.	Latvian National Development Plan 2014-2020		
7.	Latvian Sustainable Development Strategy by 2030		
8.	Latvian Rural Development National Strategy Plan for 2007 to 2013		
9.	Nacional Program for Biodiversity		
10.	National Reform Program Strategy "EU 2020" implementation		
11.	Restricting the Spread of Hogweeds 2006 to 2012		
12.	Rural Development Program 2014-2020 Strategic Environmental Assessment		

Strategic planning documents on land and soil degradation

The second group of evaluation are <u>laws of Republic of Latvia</u>. Regulations of various manifestations on land degradation and their limitation are determined in 13 laws. As one of the aims determined in Law on Subterranean Depths, Environmental Protection Law, On Agriculture and Rural Development, Law on Forests, Amelioration Law and Spatial Development Planning Law is the providing of sustainable use and management of natural resources. But in Land management Law there is only one aim, which is to further suatainable land use and protection (Zemes pārvaldības likums, 2015). Only in Land Management Law a definition of land and soil degradatation is determined, along with the obligation to local authorities to show degraded territories in territorial planning documents, and multiple obligations for land owners or users. They are obliged to maintain the quality of land and soil, to prevent their degradation, for example, by limiting topsoil deterioration and respecting requirement to soil recultivation. In meaning of Land Management Law **land degaradation** is the decrease or extinction of economical and ecological value of land and its resources as a result of human activities or inactivates or natural processes. **Soil degradation** in Land Management Law is defined as initiated or ongoing changes by influence of human activities or natural processes, which reduce the potential to use soil in the implementation of economical, environment protection and cultural functions. However, despite the law, in Latvia there are neither specific criteria nor a

classification for identification of land and soil degradation, nor a regulation on how to find and evaluate a degree of current land degradation or its possibility while taking into account current and planned types of land use or how to determine land degradation prevention measures (table 2) (Zemes pārvaldības likums, 2015).

One of the main types of soil degradation is water erosion. In Protection Zone Law from Environmental and Natural Resource Protection Zones regarding the prevention of water erosion, protection zones along Baltic Sea and Gulf of Riga Coastal, reservoirs, rivers, for an artificial water body, are determined. Protection zones for water bodies of land surface shall be determined for reservoirs, water courses and artificial water bodies, in order to decrease the negative effects of pollution to water ecosystems, to eliminate the development of erosion processes, and to restrict economic activity in the flood zones, as well as to preserve the characteristic landscape of the area (Aizsargjoslu likums, 1997). Specific restrictions near surface water bodies are determined in Protection Zone Law in order to reduce the threats of water erosion.

Table 2

	Title of the document		
1.	Amelioration Law		
2.	Environmental Protection Law		
3.	Land Management Law		
4.	Law on Forests		
5.	Law on Pollution		
6.	Law on Subterranean Depths		
7.	Latvian Administrative Violations Code		
8.	Natural Resources Tax Law		
9.	On Agriculture and Rural Development		
10.	Plant Protection Law		
11.	Protection Zone Law		
12.	Spatial Development Planning Law		
13.	The Criminal Law		

Laws of Republic of Latvia on land and soil degradation

In Latvian Administrative Violations Code administrative violations environmental protection is mentioned, too. Possible penalties to land users in case of failure to carry out the obligatory land protection measures in order to protect the soil from water or wind erosion or other processes, which prevent fertile topsoil or degrade its quality, are determined in section 51. Penalties, if the limitation of alien plants has not been performed, are determined in 51.². Penalties for not using agricultural land for agricultural activities are determined in section 55. A fine in the case of pollution of air, soil, forest or internal waters (surface or underground) with sludge, chemical substances, including dangerous or other harmful substances, materials or waste, littering or otherwise harmful effect on them in any kind of way is mentioned in section 58 (Latvijas Administratīvo pārkāpumu..., 2004).

Criminal liability for criminal offences against the environment is determined in the Criminal Law. For example, a criminal responsibility for violation of provisions regarding the management and utilisation of the earth, or its depths, waters and forests is mentioned in section T96 (Krimināllikums, 1999).

On the basis of these laws have been accepted many <u>regulations of Cabinet of Ministers</u> to determine different actions. For example, "Regulation Regarding Protection of Water and Soil from Pollution with Nitrates Caused by Agricultural Activity" determines the requirements for the protection of water and soil from pollution with nitrates caused by agricultural activity and the highly vulnerable zones to which increased requirements apply for the protection of water and soil from pollution with nitrates caused by agricultural activity (hereinafter – highly vulnerable zones), the borders and criteria for the designation thereof (table 3) (Noteikumi par ūdens..., 2014).

Table 3

Regulations of Cabinet of Ministers of Republic of Latvia on land and soil degradation

Title of the document		
1.	Regulations Regarding Protection of Water ans Soil from Pollution with Nitrates Caused by	
	Agricultural Activity	
2.	Regulations on Soil and Ground Quality Standards	
3.	Regulations Regarding Utilisation, Monitoring and Control of Sewage Sludge and the Compost	
	thereof	
4.	Regulations on the Environmental Protection Requirements of the Filling Stations, Oil Depots and	
	Mobile Containers	
5.	Regulations on contaminated and potentially contaminated sites identification and registration	
	procedure	
6.	Regulations Regarding the Requirements with Respect to Environmental Monitoring and the	
	Procedures for Performance Thereof, the Creation of the Register of Polluting Substances and Public	
	Availability of Information	
7.	List of Invasive Alien Plant Species	
8.	Regulations Regarding Restricting the Spread of the Invasive Plant Species – Heracleum Sosnowskyi	
	Manden	
9.	General Regulations for the Planning, Use and Building of the Territory	
10.	Regulations Regarding Recycling of End-of Life Vehicles and Environmental Requirements	
	Determined for Treatment Facilities	
11.	Procedure for Obtaining It and Compiled Information on Agricultural Land Fertility Levels and	
	Change	
12.	Methodology for the Determination of Surface Water Body Protection Zones	

Regulations "General Regulations for the Planning, Use and Building of the Territory" determine that each local authority (municipality) must have developed territorial plan, in which regulations of territorial use and building on all areas with high risks or problems of threats, including territories with possible land and soil degradation, must be listed.

Conclusions and proposals

- 1. There are considerably many political documents (strategic programmes, laws and regulations of the Cabinet of Ministers) of different levels in Latvia, where the questions of sustainable land use and protection are highlighted focusing on prevention of land and soil degradation processes. Issues related to land and soil degradation are mentioned in 13 startegic planning documents, 13 laws and 12 regulations of Cabinet of Ministers.
- 2. Despite the Land Management Law, criteria of land and soil degradation and identification have not been developed and accepted in Latvia, classification of degradation have not been developed yet, there are no regulations on identification and evaluation of current level or possibility of land degradation taking into account current use of land and how to prevent it.
- 3. Programme on restricting the spread of hogweed 2006 to 2012 is the only document regarding the limitation and control of hogweeds on territory of Latvia.
- 4. As one of the main aims in all strategic planning documents and laws is mentioned sustainable use of land and soil.
- 5. Regulations of Cabinet of Ministers mostly focus on determinations of soil protection from different pollutions and regulations for quality of soil and ground.

References

- 1. Transforming our world: the 2030 Agenda for Sustainable Development. [online] [Viewed: 08.04.2017.]. Available: https://sustainabledevelopment.un.org/post2015/transformingourworld.
- 2. Vides politikas pamatnostādnes 2014-2020 gadam. [online] [Viewed: 02.04.2017.]. Available: http://www.varam.gov.lv/lat/pol/ppd/vide/?doc=17913
- 3. Zemes politikas pamatnostādnes 2008.-2014.gadam (2008), [online] [Viewed: 02.04.2017.]. Available: www.varam.gov.lv/in site/.../download.php?file...//ZemesPolitikasPamatnostadnes
- 4. Latvijas ilgtspējīgas attīstības stratēģija līdz 2030.gadam (2010). 100 lpp. [online] [Viewed: 02.04.2017.]. Available: <u>http://www.pkc.gov.lv?images/LV2030/Latvija_2030.pdf</u>

- 5. Ainavu politikas pamatnostādnes 2013.-2019.gadam (2013), [online] [viewed: 02.04.2017.]. Available: <u>http://polsis.mk.gov.lv/documents/4427</u>
- 6. Latvāņu izplatības ierobežošanas programma 2006.-2012. gadam (2006), [online] [viewed: 02.04.2017.]. Available: www.varam.gov.lv/files/.../VidM_060606_Latvanu_izpl_ierobez_progr_2006-2012
- 7. LR likums "Zemes pārvaldības likums" (2015), [online] [viewed: 02.04.2017.]. Available: http://likumi.lv/doc.php?id=270317
- 8. LR liums "Aizsargjoslu likums" (1997), [online] [viewed: 02.04.2017.]. Available: http://likumi.lv/doc.php?id=42348
- 9. LR likums "Latvijas Administratīvo pārkāpumu kodekss" (2004), [online] [viewed: 03.04.2017.]. Available: http://likumi.lv/doc.php?id=89648
- 10. LR likums "Krimināllikums" (1999), [online] [viewed: 03.04.2017.]. Available: http://likumi.lv/doc.php?id=88966
- 11. LR Ministru kabineta 2014.gada 23.decembra noteikumi Nr.834. "Noteikumi par ūdens un augsnes aizsardzību no lauksaimnieciskās darbības izraisītā piesārņojuma ar nitrātiem" (2014), [online] [viewed: 03.04.2017.]. Available: <u>http://likumi.lv/doc.php?id=271376</u>

Information about authors:

Dace Didrihsone, Mg.sc.ing., lecturer, Department of Land Management and Geodesy, Latvia University of Agriculture, phone (+371) 26372554, e-mail: <u>dace.didrihsone@llu.lv</u>

Anda Jankava, Dr.oec., professor, Department of Land Management and Geodesy, Latvia University of Agriculture, phone (+371) 29356448, e-mail: <u>anda.jankava@llu.lv</u>

Velta Parsova, Dr.oec., professor, Department of Land Management and Geodesy, Latvia University of Agriculture, phone (+371) 29118285, e-mail: <u>velta@parsova.lv</u>

Maija Bērziņa, Mg.sc.ing., docent, Department of Land Management and Geodesy, Latvia University of Agriculture, phone (+371) 29193752, e-mail: <u>maija.berzinaaa@gmail.com</u>

Dace Platonova, Dr.oec, researcher, Department of Land Management and Geodesy, Latvia University of Agriculture, phone (+371) 22555588, e-mail: <u>dacepl82@inbox.lv</u>

Aina Palabinska, Mg.oec., lecturer, Department of Land Management and Geodesy, Latvia University of Agriculture, phone (+371) 26358542, e-mail: <u>aina.palabinska@llu.lv</u>