



PRACTICE ABSTRACT

Digital technology

July, 2020

CADASTRE

LATVIAN LAND RECLAMATION SYSTEMS

Inga Berzina, Union “Farmers Parliament”, Latvia

Land Reclamation Cadastre is an up-to-date, systematic, digital unified information database of all land reclamation systems in the territory of Latvia.

In Latvia, about 90% of agricultural land suffers from excessive moisture due to excessive precipitation. Water discharge and drainage systems for soil wetness regulation measures have been constructed on two-thirds of agricultural land. This includes 37 000 ha of flood-endangered land where Latvia’s polder system ensures the safety of people and the conditions necessary for economic activities. Water management systems also ensure the safe exploitation and maintenance of other infrastructures vital to the national economy, such as roads, railways and airports.

The Cadastre database shows the status of each amelioration system and the information that is registered there. The system contains textual and spatial data on the improved systems built so far on agricultural land. Regarding drainage systems in state forest lands, it is currently being supplemented. In contrast, there is almost no information archived regarding private forest and state road ditches. The information system is managed by the State limited liability company “Real Properties of the Ministry of Agriculture, Republic of Latvia” (ZMNĪ).

Application scenario

Digital unified information database of all land reclamation systems in the territory of Latvia for sustainable management and use of natural resources

Digital technologies

Web GIS applications with spatial and textual data (Esri ArcGIS)

Socio-economic impact

- Economic: Sustainable use of land and nature resources
- Social: Publicly available, Data rights and access
- Governance: State operated, publicly available, transparency

More info: <https://www.melioracija.lv/?lang=EN>
<https://www.zm.gov.lv/en/lauku-attistiba/statiskas-lapas/amelioration?nid=1173#jump>



Purpose of the tool

The tool is developed for sustainable management and use of natural resources. It ensures the construction, operation, management and maintenance of the water regime necessary for the safety and well-being of the population, infrastructure development, as well as rational drainage systems.



Source: Meliorācijas kadastrs

The land reclamation measures, which are owned or legally possessed by the state, local governments and other natural and legal persons, regardless of the ownership and status of its property, shall be registered in the Land Reclamation Cadastre information system.

It is crucial to implement land reclamation measures and to support a productive, economically beneficial use of land and nature resources, to create a safe living environment for people and to ensure the necessary water regime for economic activities. The measures can be either newly-built systems or restored existing ones.

Description of the tool

Land Reclamation Cadastre contains:

- 1) textual data, which includes information regarding the quantitative and qualitative condition of the water management system (including engineering solutions and information regarding the technical condition), the status of the system, documentation of technical regulations, and hydrometeorology data;
- 2) spatial data, which includes cadastral plans and maps in analogue and digital form, showing watercourses, water drainage systems, water drainage catchment basins and land boundaries, water management system structures and devices and hydrometric items with their enhanced designations, as well as land unit boundaries and cadastral designations.

Areas of socio-economic impacts

Social	Publicly available database, information exchange
Economic	Supports a productive, economically-beneficial use of land and nature resources
Governance	State operated, interactions between other sectors, publicly available and accessible