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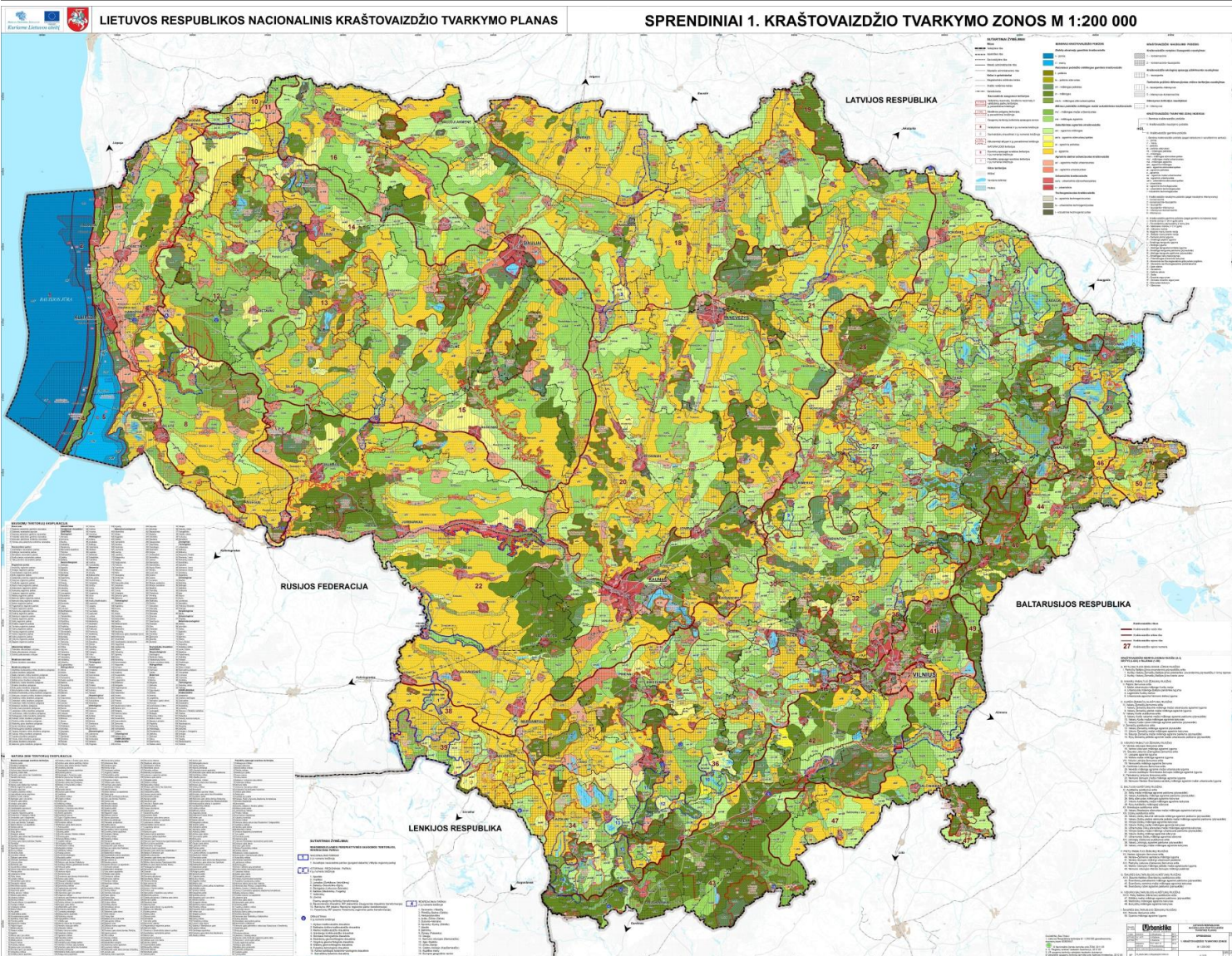


Workshop
Traditional and modern agroforestry systems as natural carbon sinks Practical implementation and requirements for CAP measures
16 - 17 June 2025, Băile Homorod, Romania

First steps of Agroforestry in the Baltics

Remigijus Lapinskas,

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Vilnius, 2025*



The agricultural landscape accounts for about **75%**
Agricultural land - **51,63%**

Balance of priorities:

Current situation

- **ECONOMIC**
- **SOCIAL**
- **ECOLOGICAL**

Aspiration

- **ECONOMIC**
- **SOCIAL**
- **ECOLOGICAL**

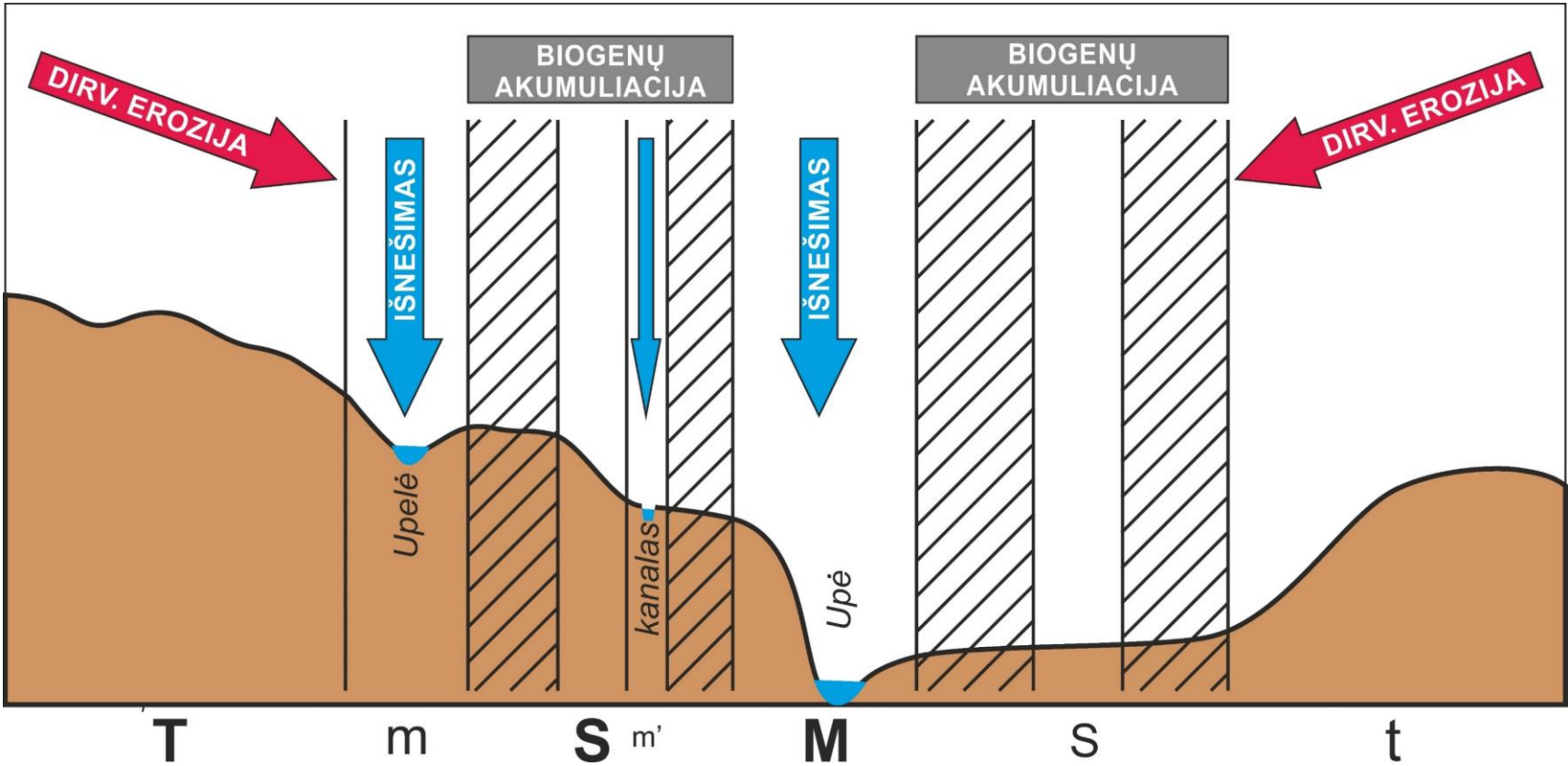
THE CONCEPT OF THE AGROECOSYSTEM AND THE MAIN CHALLENGES OF ITS RESOURCE MANAGEMENT



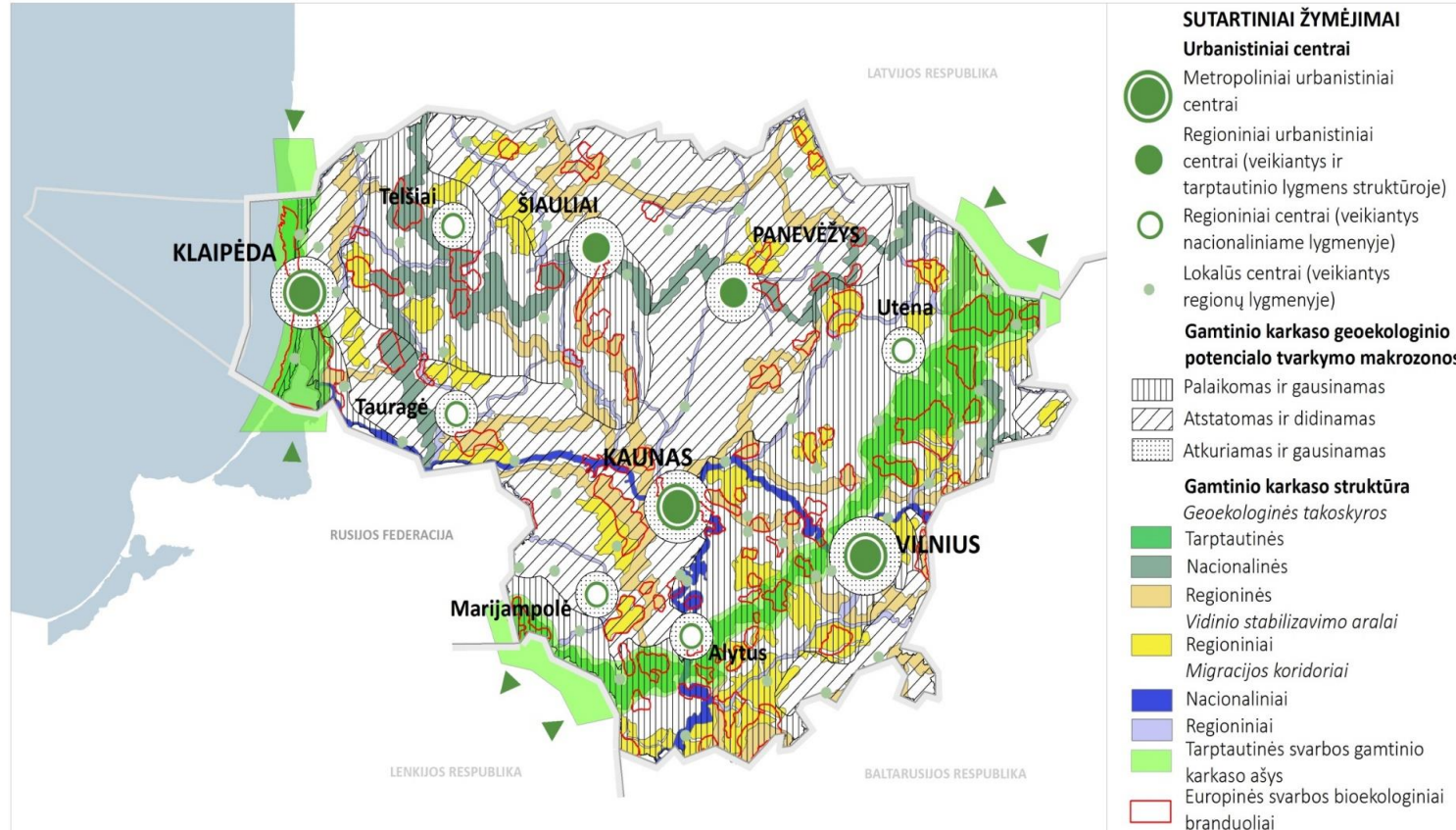
STRATEGIC GOAL – ensuring the sustainability of the agroecosystem by preserving the productivity of agricultural land, maintaining the profitability of the system and the reliability of ecological compensation functions.

SPECIFIC OBJECTIVE – to identify ecologically sensitive areas of lower productivity where agroforestry measures would implement ecological compensation functions and restore the productivity of the agroecosystem.

Agroecosystem (1) – a dynamic territorial system that includes agricultural land (crops, pastures and livestock), drainage systems and natural areas installed on them, and the functional relationships between its living and non-living environment components, energy and material circulation are maintained by agrotechnical and agrochemical measures (LR BP 2020).



TERRITORY ECOLOGICAL COMPENSATION SYSTEM OF THE REPUBLIC OF LITHUANIA – NATURAL FRAME (econetwork), LRBP - 2050



A - Restoration of naturalness through artificial and/or natural (spontaneous renaturalization) measures;

To increase forest sustainability at the landscape level, planning forest management in a long-term perspective; to form a network of connections in the landscape, to increase the role of agroforestry in ensuring the ecological stability of the landscape;

Promote new forest planting, including agroforestry and plantation forestry, with priority given to regions with low forest cover;

Agroforestry definitions:

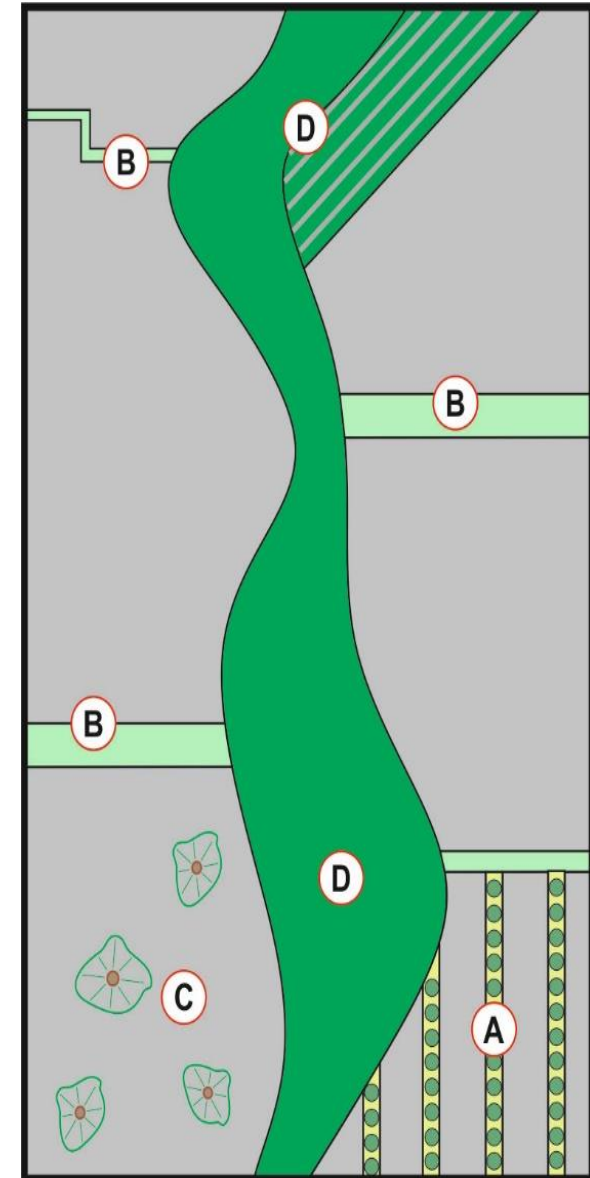
Farming, when plantations are grown on agricultural land to obtain timber and agricultural products, combining the cultivation of timber and agricultural products together. **LR Comprehensive Plan - 2030, 2021m**

SHORT

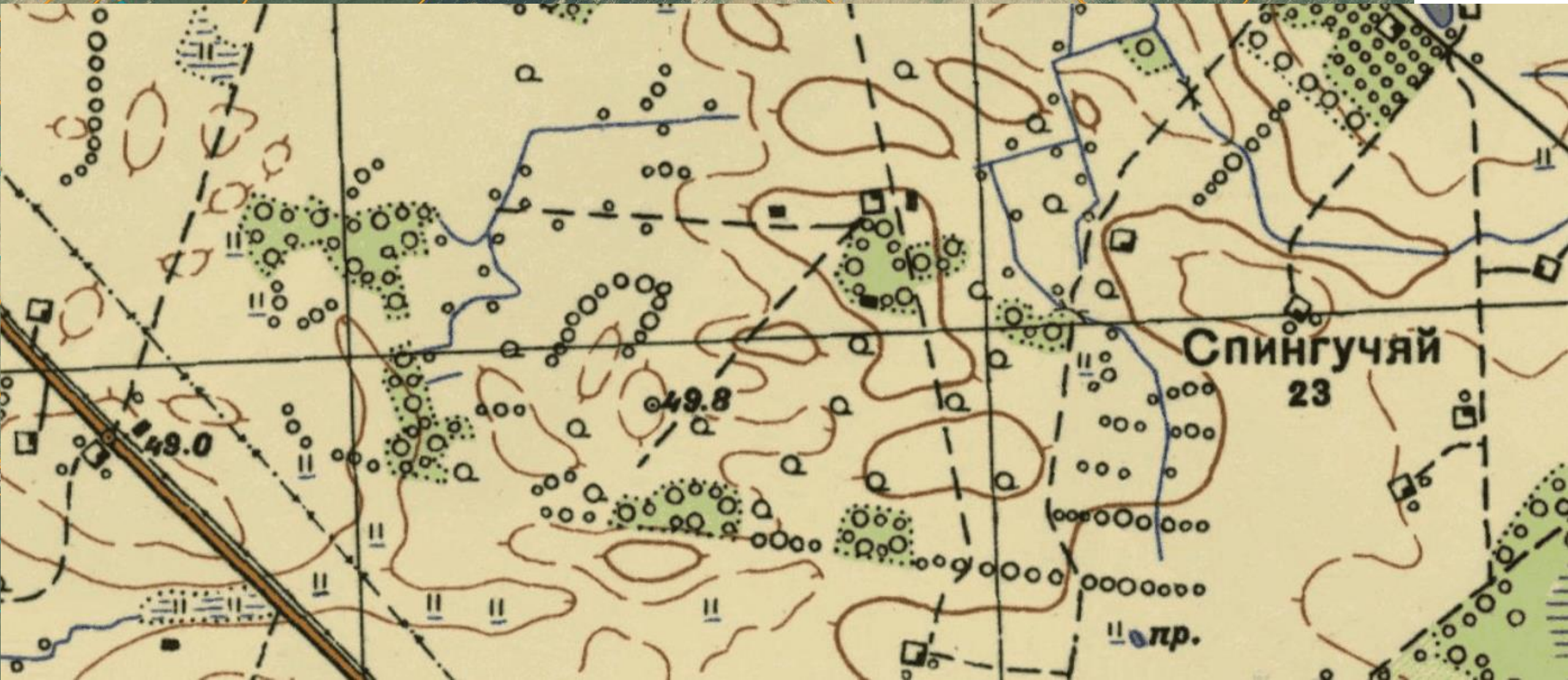
Territorial symbiosis of agriculture and forestry.

SOLID

This is a system **of forming and using a highly sustainable agricultural landscape**, in which conventional agricultural activities in the territory are combined with forestry-specific principles of forming woody plants and their arrangement, in order **to form an ecologically stable and viable, socially acceptable and aesthetic, and economically productive agricultural landscape.**



HISTORICAL CONTEXT - trees in the current landscape - an integral component of the environment of homesteads destroyed in the soviet era, and the current agroecosystem





Tree location	Agroforestry System	Agroforestry Practice	
		Agricultural Land	Forest Land
Trees inside parcels	Silvopastoral agroforestry	1 Wood pasture	9 Forest grazing
	Silvoarable agroforestry	2 Tree alley cropping 3 Coppice alley cropping	10 Multi-layer tree gardens
		4 Multi-layer tree-gardens	
		5 Orchard intercropping, 6 Orchard grazing.	
	Agro-silvo-pasture	7 Alternating cropping and grazing	
Trees between parcels	Tree Landscape F	8 Tree-Landscape -Features: (protected hedges, scattered individual trees, trees in line, small groups of trees)	
Trees in settlements	Urban agroforestry	homegardens, allotments, etc.	



- Legal assumptions are being formed and recommendations are being developed



- Operates on individual small farms (Permaculture)



- A historically formed relict, and currently extremely rare method



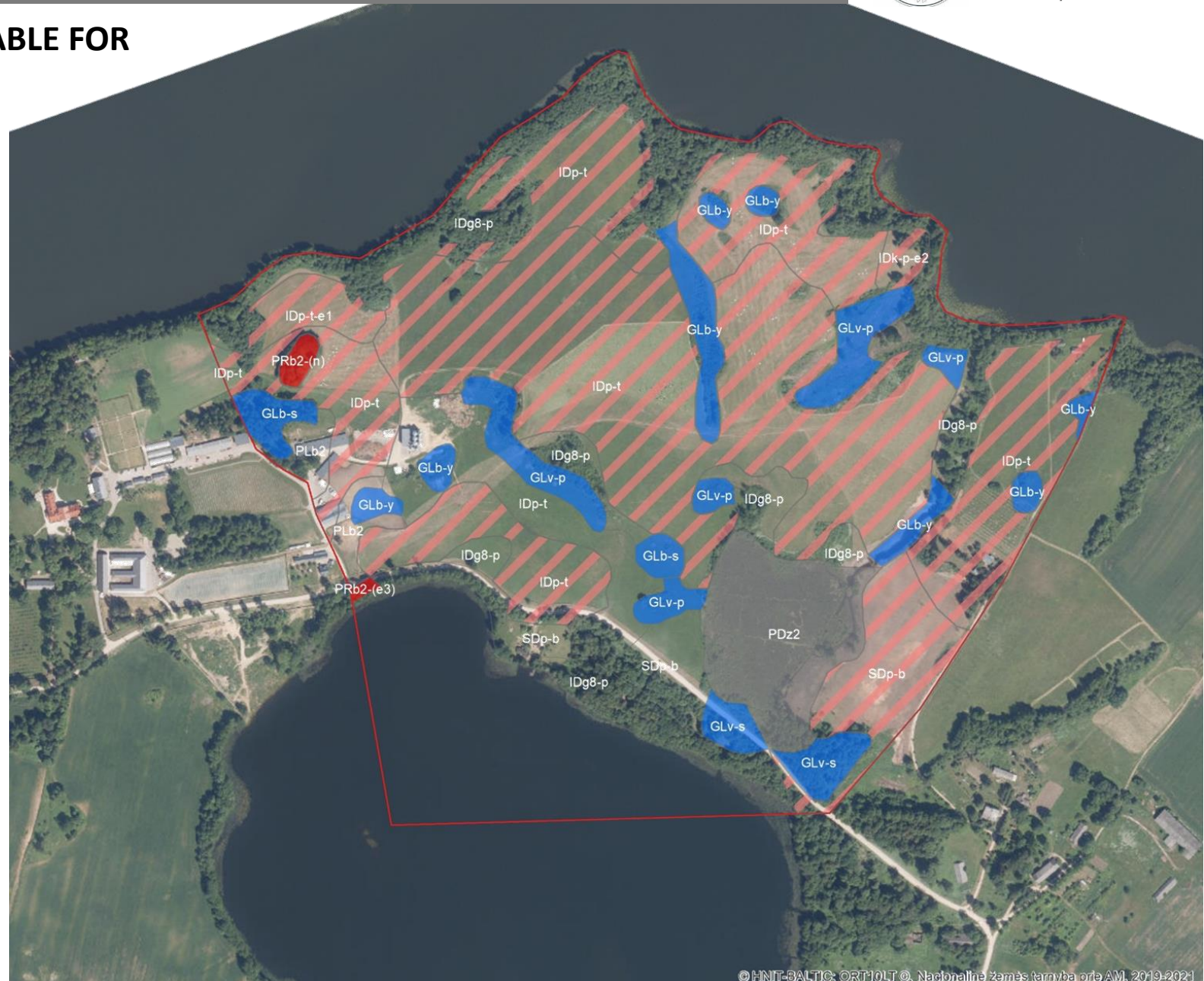
SYSTEM FOR SELECTING AREAS SUITABLE FOR AGRICULTURAL DEVELOPMENT

The relief model allows you to identify the boundaries of the natural framework and distinguish ecologically sensitive parts of it that require strengthening of ecological compensation functions.

Based on existing surface relief and soil data, a soil cover typology map should be created or revised, identifying the contours of over-irrigation and existing soil erosion.

These are potential areas for economic conversion, where agroforestry and other resource-saving measures can be applied.

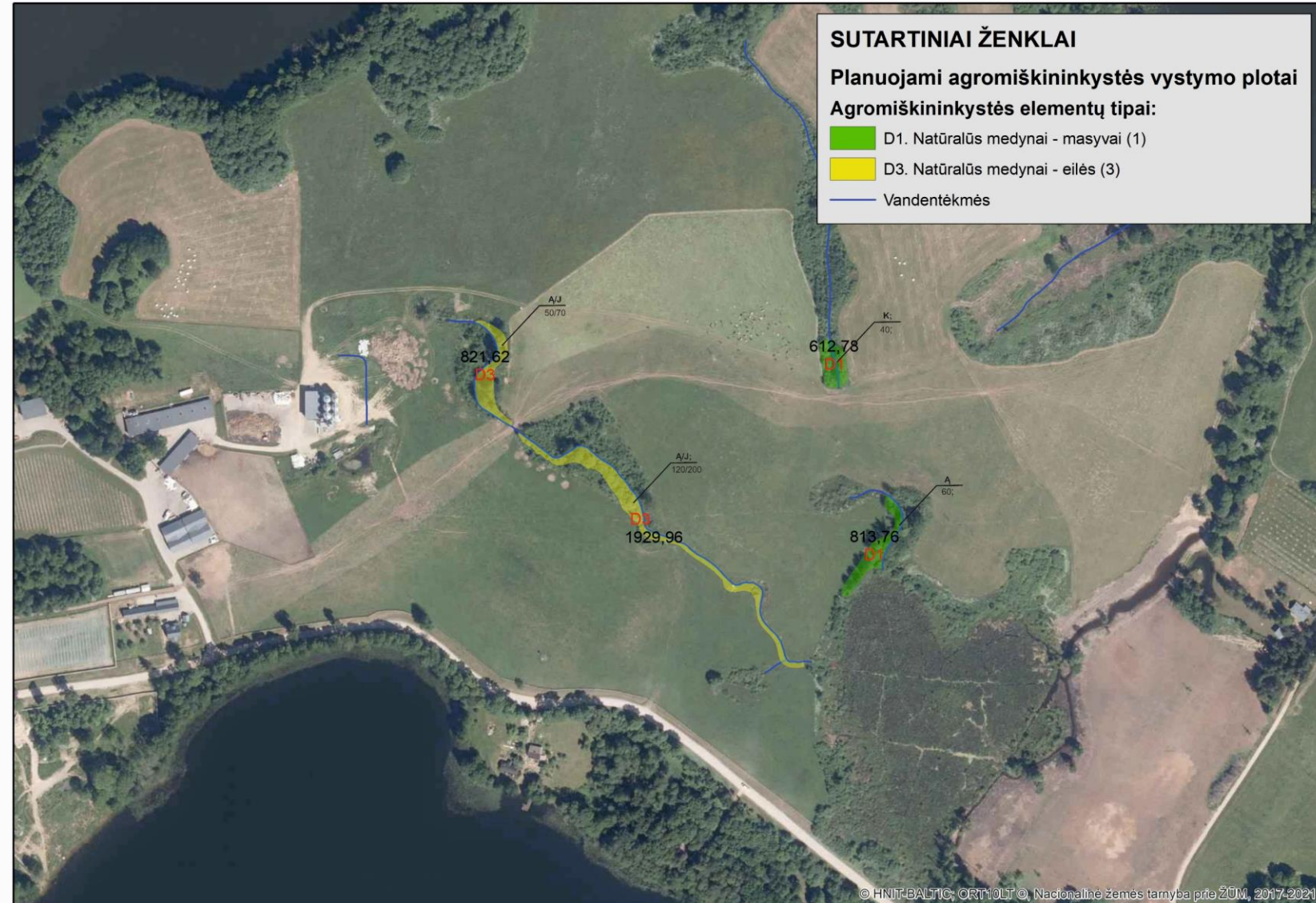
(ilustracijoje pateikiama situacija pagal DirvDR10_LT)



IMPLEMENTATION

November 2024 planting

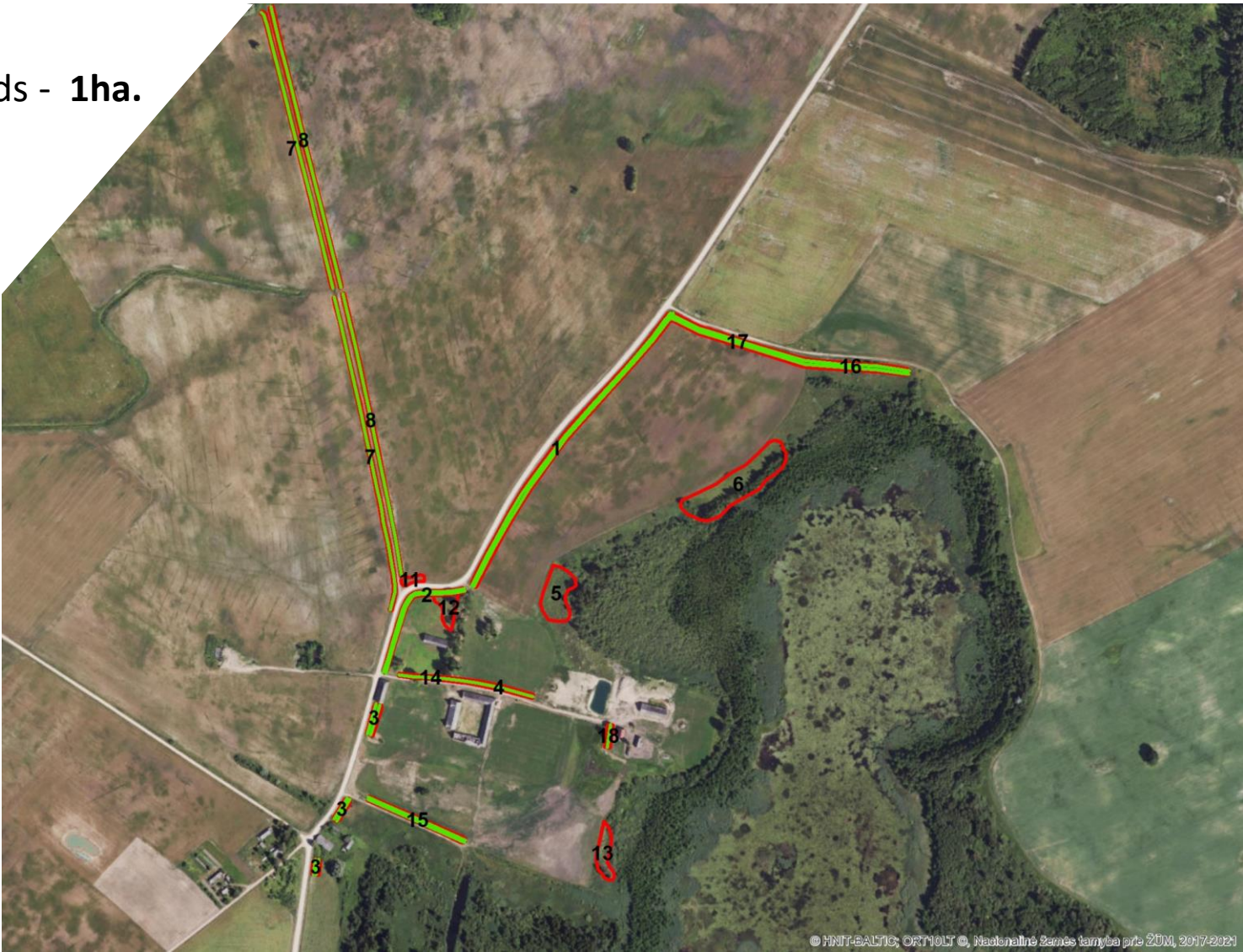
- The area of natural stands and rows dividing the fields is **0.57** ha.
- Potentially affected area is approximately **20ha.**



IMPLEMENTATION

April 2025 planting

- 1060m of strip-type greenery bordering the fields - **1ha**.
- Tree groups **0.2ha**
- Hybrid poplar plantation **2.89ha**.
- Potentially affected area is approximately **50ha**.



LEGISLATIVE PROPOSALS

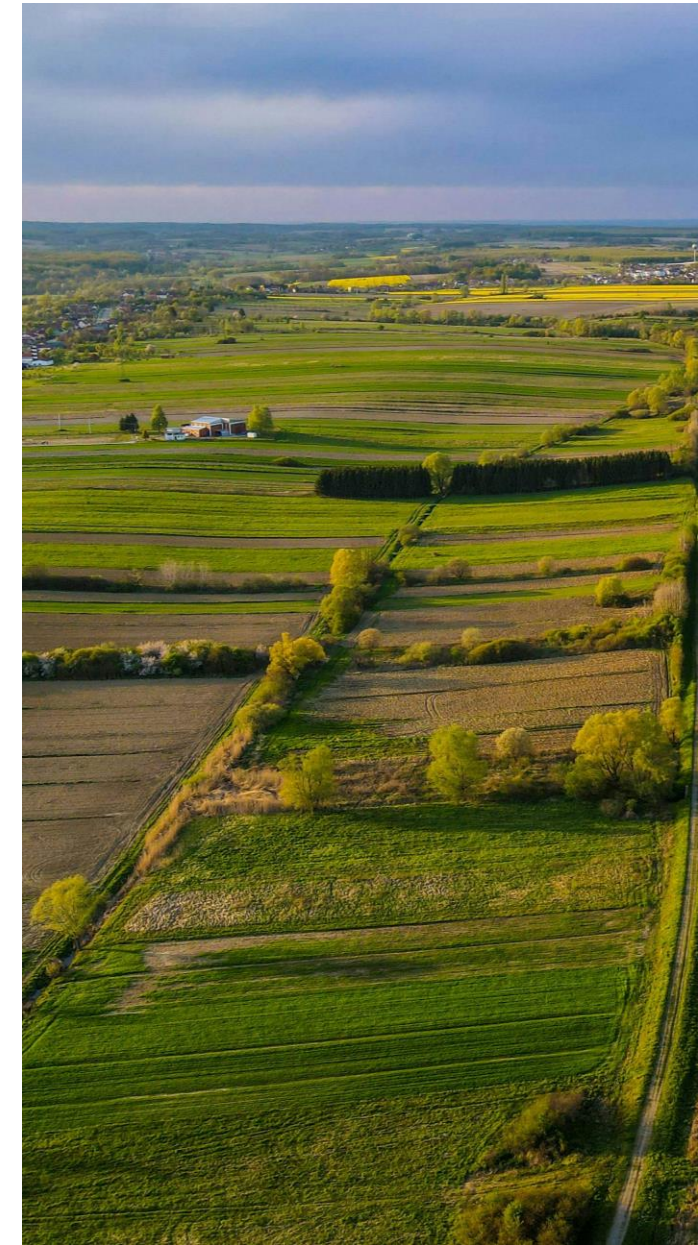
LAW of LAND of Lithuania:

- Definition of Agroforestry: there is no such a definition with clear description and understanding, therefore we need to agree on inclusions of such a change in the Law.
- To forecast and establish by the Law the right of landowner or user to plant and to log (fully utilize) trees and other woody plants (single, rows, bands, groups, arrays) in the agriculture land without any additional regulations, permissions, etc.



Lithuanian Agricultural and Rural Development Strategic Plan 2023-2027:

- To cancel a provision, that up to 100 trees only could be planted in 1 hectare.
- To clearly allow planting of trees – single, rows, bands, groups, arrays – on agriculture land.
- To establish a possibility to use local and specially introduced species, which corresponds to local edaphic (nutrition and moisture) conditions.
- To harmonize definitions of afforested land and agroforestry, including the plots of land for planting, restoration and maintenance. Harmonization with Law of Forest is needed as well.
- To recognize the agroforestry sector as eligible for EU CAP support.



- The complex of advocacy and legislative initiatives will be needed related to future carbon farming, carbon sink and carbon emitting in agriculture and forest management sectors.
- Harmonization of European directive and local Lithuanian laws will be needed.
- Green Policy Institute is a part of CO₂ emissions working group at Ministry of Environment of Lithuania.



THANK YOU FOR YOUR ATTENTION

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