The phenomenon of self-afforestation of agricultural lands in Ukraine

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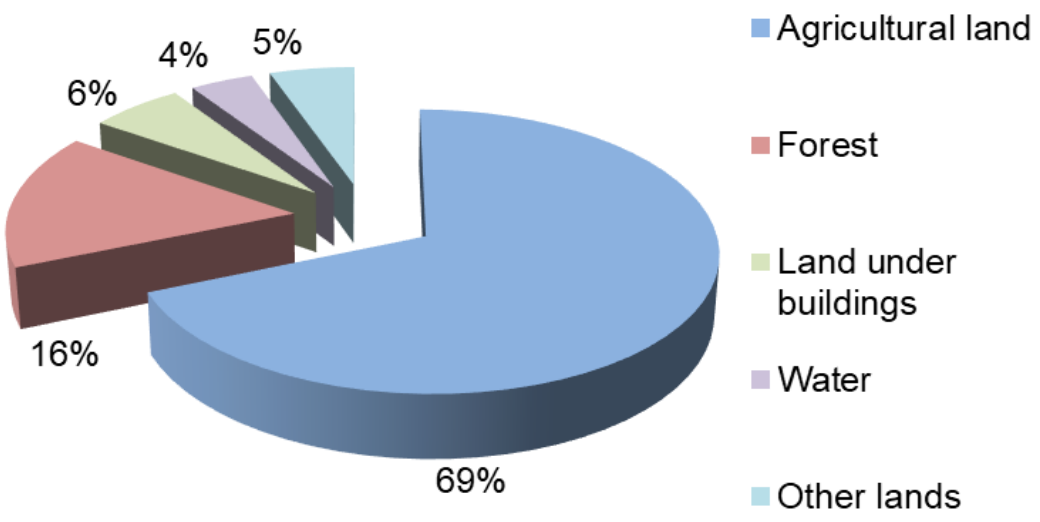
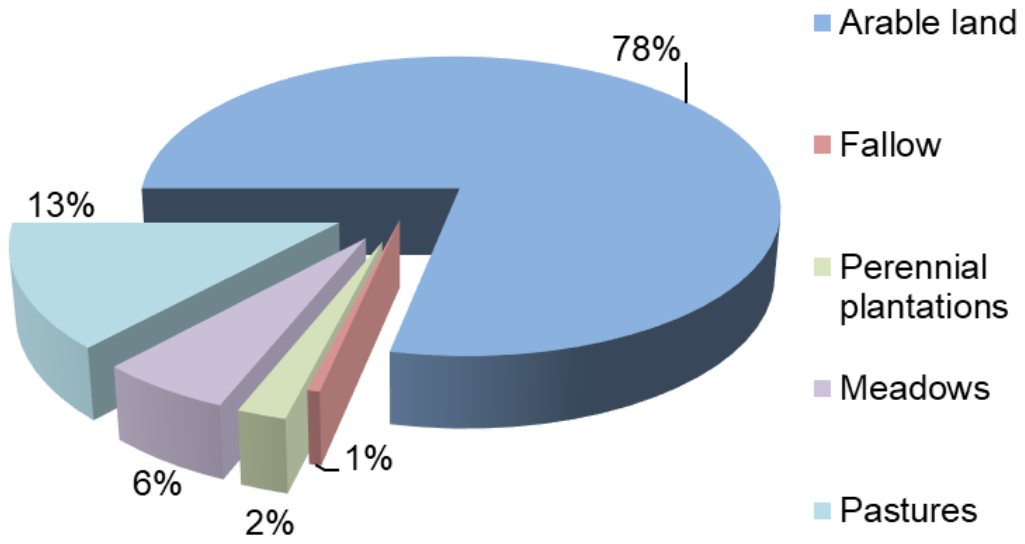
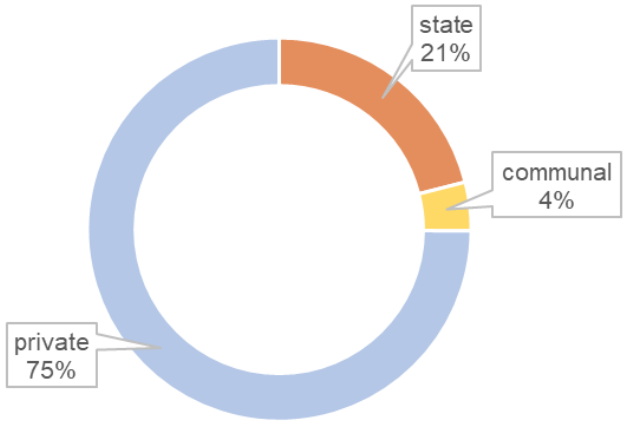
The land fund of Ukraine

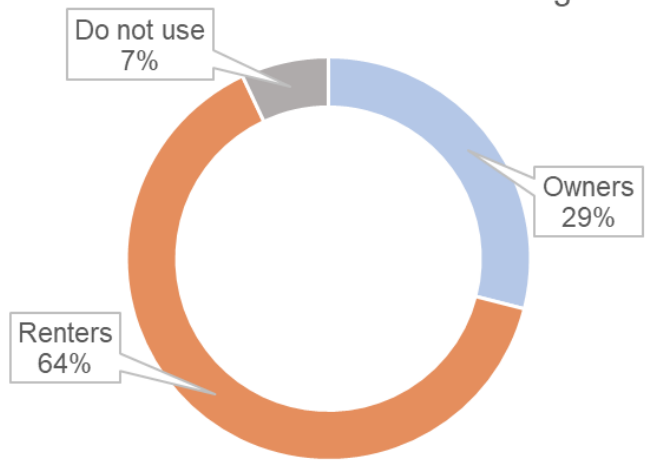




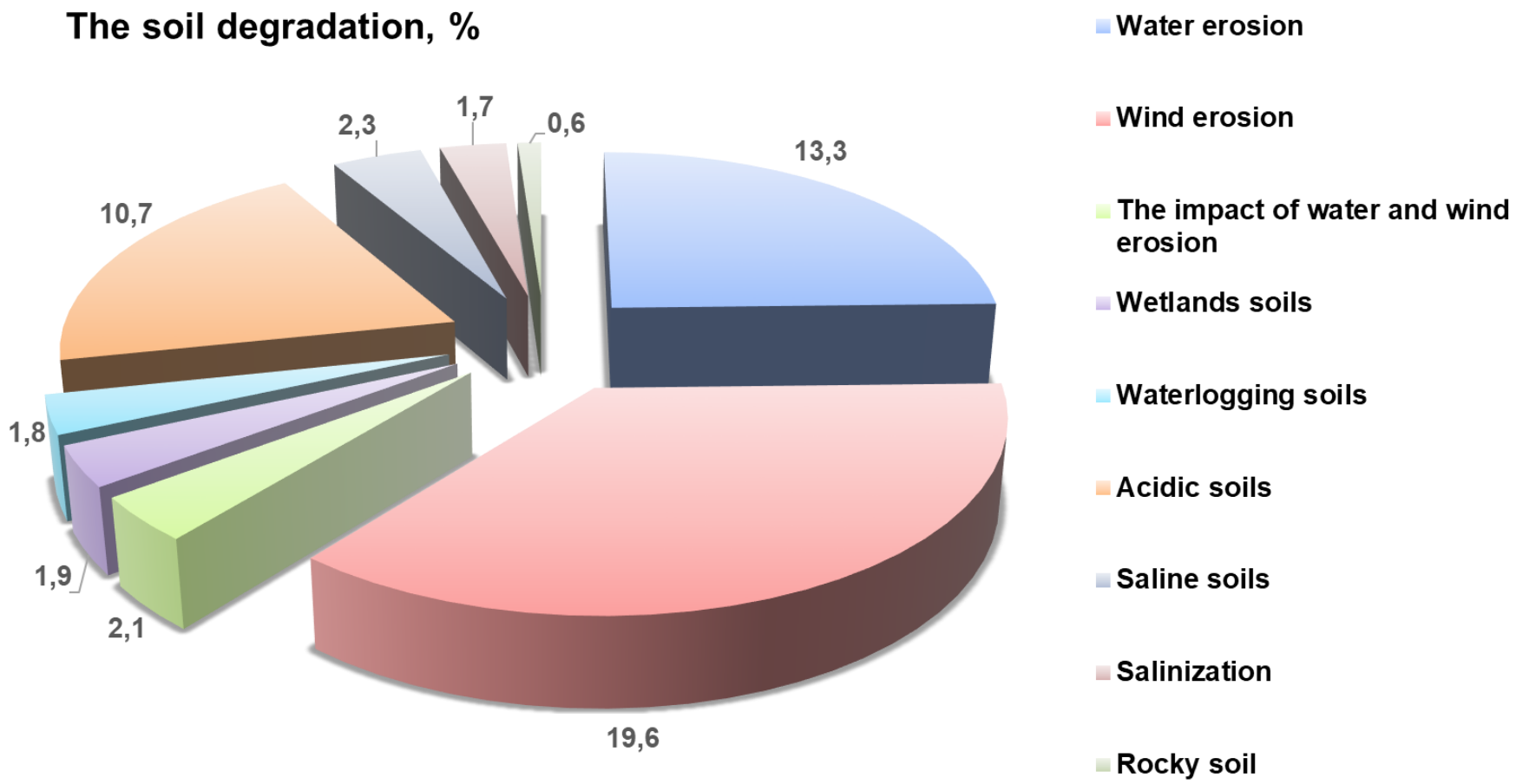
Ownership of agricultural land



Users of agricultural land



What is the degradation of land in Ukraine?



- 1.1 million hectares of arable land need conservation
- 143.4 thousand hectares of land need reclamation
- 315.6 thousand hectares of land are unproductive

Plowed slopes in Kyiv region, 2021

Rankings in the Ecosystem Vitality policy objective

Self-afforestation forest on pasture (state property)

Self-afforestation forest on arable land (private property)

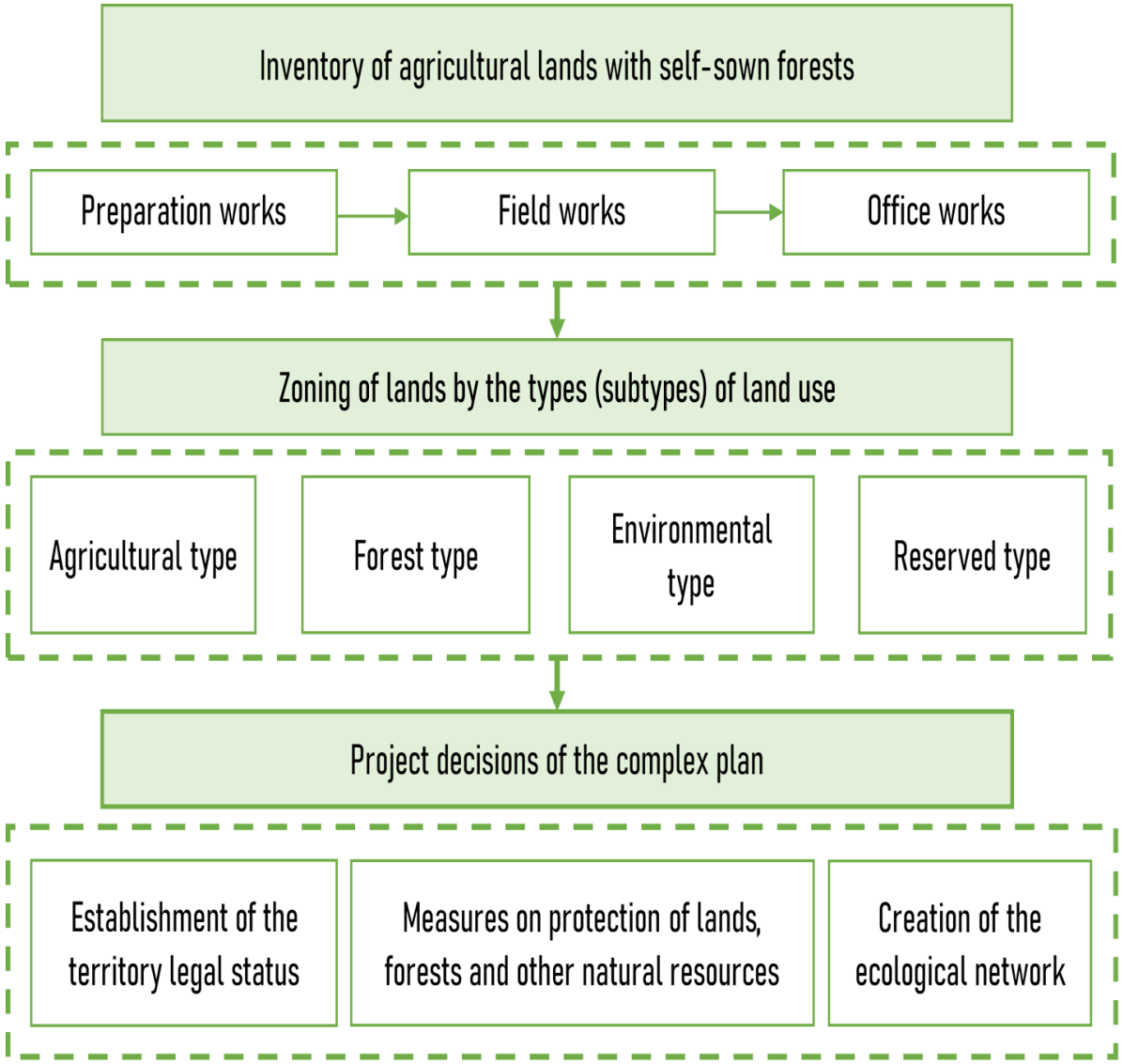
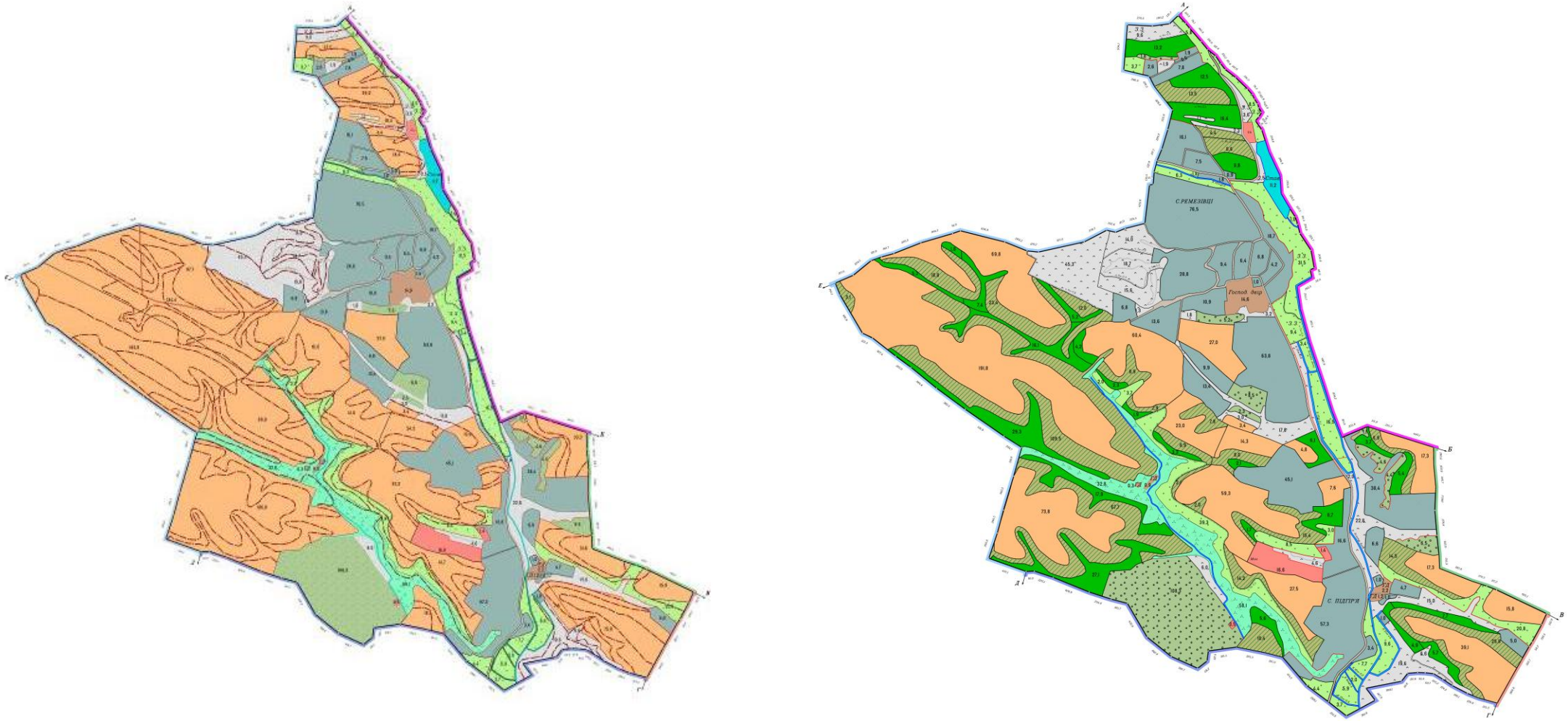


Fig. Conceptual model of planning the use of agricultural lands with self-sown forests to secure sustainable management of the land resources of Ukraine
(*developed by the authors*)



a) b)

arable land of intensive use; arable land of limited use;

land conservation.

Land use within local community territory:
a) current conditions of land use; b) land use on the base of landscape-ecological zoning (*developed by the authors*)

Basing on the research results, the following conclusions are made:

1. A self-sown forest is one of the ways to recover the natural ecosystems and to improve the territory biodiversity. Therefore, management of the self-sown forests on agricultural lands in favor of their protection should be the important principle of the national policy, spatial planning, as well as sustainable management of the natural resources of territorial communities.
2. Inventory of lands and forests using the data of satellite remote sensing is an important component of spatial planning and management of the land resources with self-sown forests. The mandatory condition of inventory of the self-sown forests on agricultural lands supposes conducting the soil, geo-botanic and other examinations to get information on the land quality.
3. The authors propose a conceptual model of planning the use of agricultural lands with the self-sown forests, which supposes inventory of land plots, zoning of lands with identification of the types of land use, project measures on employment and protection of the plots with the self-sown forests.
4. Solution of the problem of self-sown forests on agricultural lands requires a complex approach with consideration of the legal, economic, social, ecological aspects. However, the ecosystem value of the forest ecosystems should be the primary criterion while determining the direction of use of the agricultural lands with the self-sown forests.

Thank you for your attention!