

BUDOWNICTWO I ARCHITEKTURA

Zagospodarowanie terenu

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THE GEOSPATIAL DATABASE PROVISIONING FOR LAND CONSOLIDATION PURPOSES

Geospatial database for land consolidation purposes should provide up-to-date, correct and full information on agricultural land. Data specified by Ukrainian legislation [1] are not sufficient for land consolidation. Management decision making demands [2, 3] the provision of data characterizing agricultural land as the spatial basis, means of production and a natural resource and considering the land reallocation method [4, 5].

The formation of the key information blocks is suggested:

1. Basic data block [1]:

- coordinate and altitude systems;
- state border of Ukraine;
- water features and hydraulic facilities;
- human settlements;
- land plots;
- railways;
- utility lines;
- airports, sea ports and river ports;
- geographic names;
- digital terrain models;
- orthophotomaps.

2. Land plot qualitative characteristics block:

- data on soil condition (by criteria set by standards in effect [6]) with the following specification of land plots of especially valuable soil and land plots which need to be improved or renewed;
- agricultural land composition;
- living soil cover;
- date of the latest monitoring.

3. Land plot improvements block:

- buildings and structures;
- tree belt areas;
- reclamation constructions;
- roads and highways.

4. Quantitative characteristics block:

- land plot area;
- land tenure area;
- agricultural land area within the land plot;
- agricultural land mass area.

5. Placement block (of land plots and improvements) within:

- administrative and territorial units;
- agricultural land masses;
- on the land of the territorial community;
- within the cadastral division units (cadastral blocks, cadastral zones) the cadastral number is indicated;
- within the natural and agricultural zoning: natural and agricultural zones, provinces, counties, districts, mountain natural and agricultural areas;
- environmental and economic zoning;
- erosion preventing zoning;
- environmental zoning;
- territory evaluating zoning.

6. Distribution amongland owners and land users block:

- owner;
- form of ownership;
- user.

7. Economic activity block:

- land plot use type;
 - land plot designated purpose;
 - buildings and structures pragmatic use.
8. land use restrictions and encumbrances block:
- restriction or encumbrance type;
 - restriction causing object;
 - beneficiary.
9. Land valuation:
- normative;
 - expert;
 - economic;
 - taxation;
 - mass valuation.

The provided data blocks are basic for land consolidation objectives and are supported by regulatory legal acts and standards in effect.

References:

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