



## **Nato Maisuradze**

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"Sharing experience of unified database and using new technology like satellites to build it?"













Country-wide land balance has not been carried out in the last 30 years.

The process of documenting land utilization and generating the land balance was resumed in 2019. This process was once ongoing but discontinued due to institutional reform in 2004.

The Land Agency was established in 2020 and based on its functions and powers it is on the agenda to create a land information system based on geo-information technologies













Based on all of the above mentioned, "the concept of creating and developing an integrated database of land resources of the National Agency for Sustainable Land Management and Land Use Monitoring" was created, on the basis of which it was theoretically determined:



To create, develop and manage the process of land information system



To form analytical-action base matrices;

Γo determine the measures necessary for the realization of the goals.





















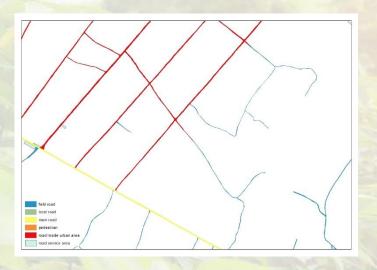


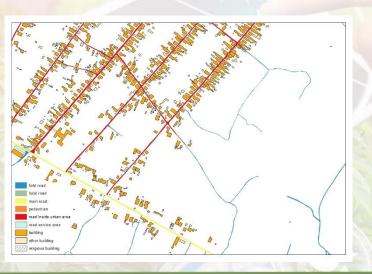




## At the first stage of the pilot project, the spatial informational data of the nine providers has been integrated. For instance:

From the existing line map of the linear road layer, the polygonal layer has been created, and from the building layers, the urban structure has been designed.

















The accuracy of the decrypted data and the agricultural crops covered are being examined on the ground (Kvareli Municipality)

- The data collection process is being implemented in selected advanced areas and their surroundings;
- As a result of the examination process, the use of land plots will be controlled;
- According to the Corine classification, the correction is implemented for the decoded area codes and shapes (counters);
- The data and conditions of the perennial crops (plants) are controlled on the ground due to the importance of the existence of an accurate database for the various perennial crops (plants) as the difficult climate conditions the government's subsidized policy.











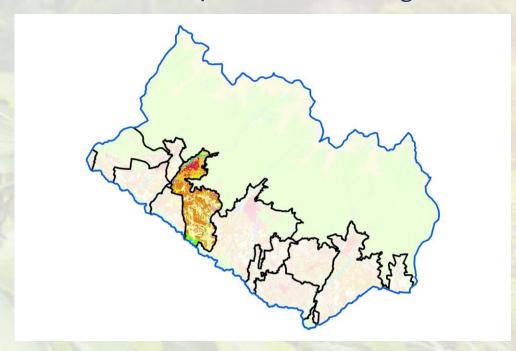


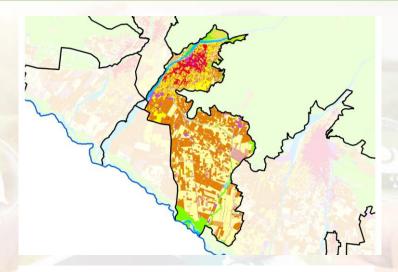


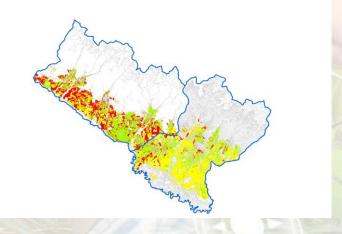


Outcomes of the Statistical analysis Piloting Area: Kvareli – 100069ha Shilda – 4879 ha

The thematic maps have been designed















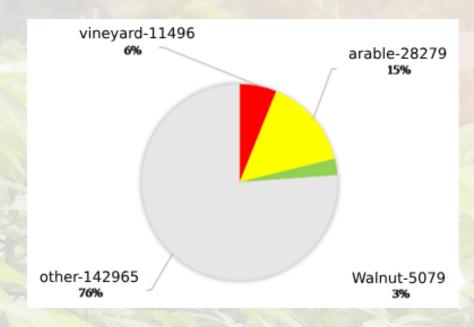




## **Results of Statistical Analysis**

Pilot area: Lagodekhi-Kvareli - 187792 hectares

Walnut Arable lands Vineyards



Code – Description	На
111 - Continuous urban structure (fabric)	85
112 - Discontinuous urban structure (fabric)	84
121 - Industrial or Commercial units	88
122 – Roads, Railway networks and connected land plots	88
211 - Non-irrigated arable lands	1502
212 - Permanently irrigated lands	275
221 - Vineyards	1409
222 – Fruit Gardens	84
225 - Walnut gardens	167
231 – Pastural lands	74
232 - Hayfields	22
242 - Comprehensive Agricultural land	111
243 – The complex of the Agricultural lands and natural vegetations	217
244 - Agroforestry lands	144
246 - Agricultural lands	87
311 - Forest	285
321 – Natural Herbaceous plant	4
331 – Sea's and River's shores	38
333 – Dense (heavy) Vegetation	4
411 – Swamps (Peat bogs)	2
511 – Rivers and Channels	119
512 – Lakes and Water bodies	13





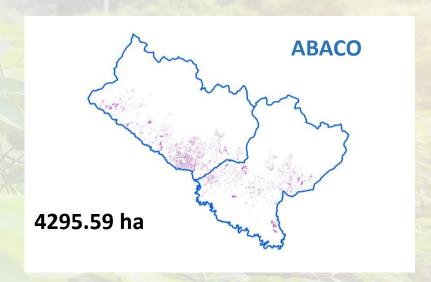


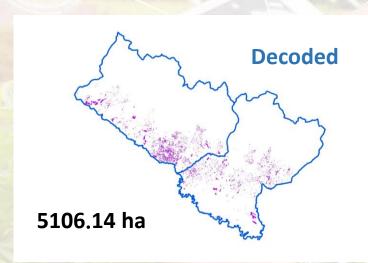






Ongoing statistical analyses of the various systems database (ABACO) - Hazelnut cadaster, implemented in 2022, involved farmers and local authorities, and fieldwork.









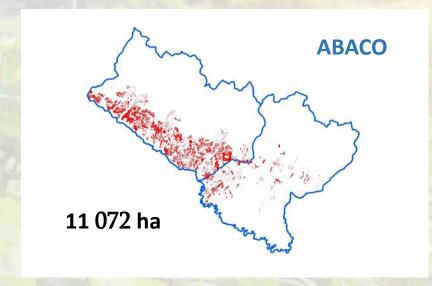


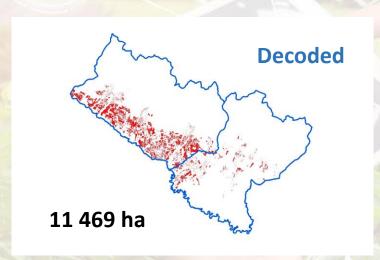






Statistical analyses of results (ABACO) - Vineyard cadastre, which is carried out only on the basis of farmers' declaration since 2014















(Ha)

Land cover 2023 year and land balance 2004-year data

District	Kvareli		Lagodekhi	
Years	2004	2023	2004	2023
Total area	100000	100276	89021	87859
Agricultural beds	41666	34045	38892	44173
Arable	17539	8687	23878	19714
Fruit garden	161	1771	366	2380
Vineyard	5188	9628	2554	1868
Walnut	34	3056	328	2050
Mown. among them cultivated		22	33	
Pasture. among them cultivated	17904	10903	11437	10054
Non-agricultural lands	58334	61157	44043	45,404
Forest	53555	55174	35435	37074
Shrubbery	1445	988	3324	2901
Swamp	189	27	117	328
Land occupied by water. Total	852	2668	2102	2177
With rivers and streams		2527	1520	1532
Land occupied by roads	1073	766	2586	769
Land occupied by building	122	1534	479	2155













## Land information system opportunities

- One of the technical supportive facilities of the country's government;
- One of the information bases of the updated plan of spatial arrangement;
- Information base of urban, rural, forestry, environmental, fiscal, and economic assessment documents;
- An information base for generating and sharing supporting data, information-analytical services, and reports necessary for sectoral projects;
- A detailed system of making policies and decisions for the rational and planned management and disposal of state-owned real estate;
- Through the services obtaining additional financial income;
- Fair tax system establishment support.
- Land cover and land use accounting, statistical information processing, and dynamics assessment;
- Calculating the balance of the country and the sectorial land;
- Land categorization;
- Providing information services to farmers on the land about land coverage and usage;
- Promotion of land resources supervision, monitoring, and management policies.





















