



e WORKING WEEK 2021 20-25 JUNE

SMART SURVEYORS FOR LAND
AND WATER MANAGEMENT

CHALLENGES IN A NEW REALITY



NATIONAL UNIVERSITY OF LIFE
AND ENVIRONMENTAL SCIENCES
OF UKRAINE



Research of the Land Surveying
Industry in Ukraine through the
Creation of an Electronic Register of
Land Surveying Documentation

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BACKGROUND: LAND REFORM IN UKRAINE

Starting from 1991 Ukraine has carried out one of the most ambitious land reforms in Europe:

- ▶ reforming of **12 000 collective farms** of the socialist type
- ▶ formation of **6.9 million new land holdings** on an area of about **27 million hectares**
- ▶ privatization of about **13 million land plots** with individual residential buildings, peasant farms, garages, gardens and orchards.



All land transformations were carried out on the basis of land survey documentation!

State Fund for Land Surveying Documentation

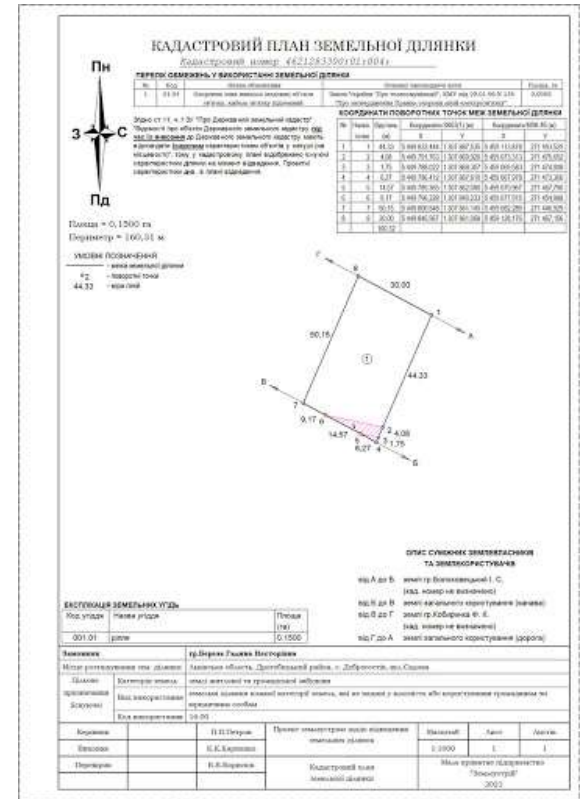
- ▶ Since 2004, all archives of land surveying documents have received the legal status of the **State Fund for Land Surveying Documentation** (SFLSD).
- ▶ Organization of collection and storage of these documents is provided by the **State Service of Ukraine for Geodesy, Cartography and Cadaster**. The register is used to **search and deliver** documentation to customers.
- ▶ As a result of the study, the digital database of the **register of land surveying documentation**, was created.
- ▶ As of 2020, the SFLSD contains almost **9.3 million paper documents**, of which electronic copies have already been created for **1.4 million documents**



RESEARCH DATABASE

Database that contains **9.26 million unique records** with descriptions of stored land survey documents.

Only **34.5 thousand land survey documents** (or 0.4% of the total) are dated **earlier than 1991** (when Ukraine gained independence and began land reform).

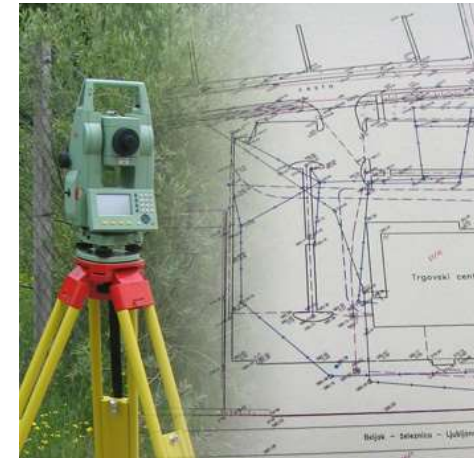


Fragment of the catalog of surveying documentation of the city of Kyiv

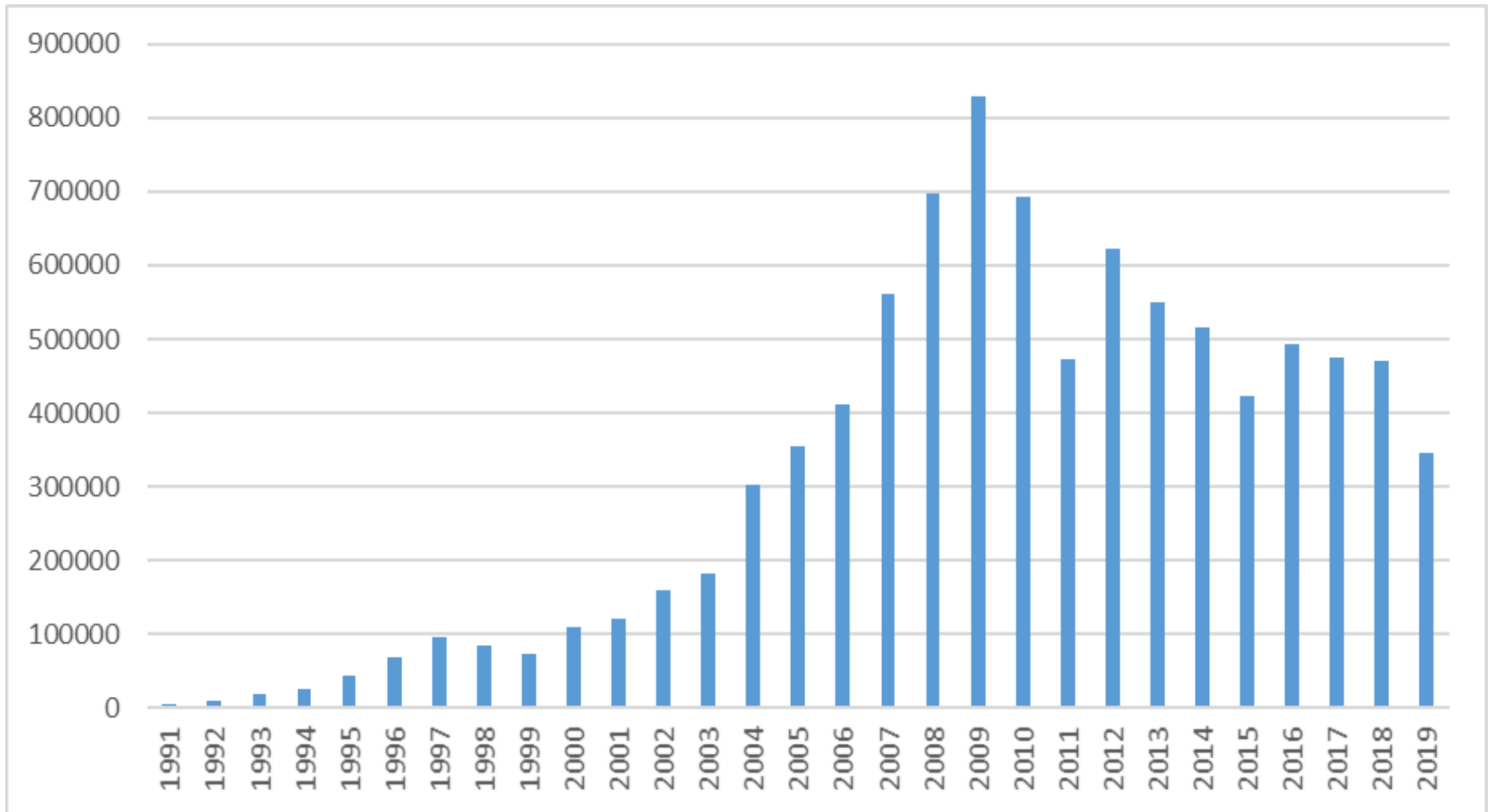
№	Registration number of land surveying documentation	Name of land surveying documentation	Availability of the document in electronic form (yes / no)
...
3	2001PΦ13KBKB000005	Land management project for the allocation of land for the construction, maintenance and operation of the recreation area "Prydorozhnya" with a catering facility on the route St. Petersburg-Kiev-Odessa, 8 (1167 km) in the Desnyansky district of Kyiv	no
5	2003PΦ13KBKB000003	Land management project for the allocation of land to a private enterprise "Ankor" for the construction, operation and maintenance of a cafe with a summer playground General Rodymtsev street in Holosiivskyi district of Kyiv	no
...
7	2003PΦ13KBKB000005	Project of allotment of a land plot to the open joint-stock company "Kyiv Plant of Rubber and Latex Products" for operation and maintenance of buildings and structures of the plant at 6 Amurska Street in Holosiivskyi district of Kyiv	no
8	2003PΦ13KBKB000006	Land management project for the allocation of land to the cooperative of garage owners "Slavutych-1" for the operation and maintenance of garages on the 57 Rossiyska street in the Darnytskyi district of Kyiv	no
...

FINDINGS

- ▶ Almost **50% of the documentation** stored in the archives is the documentation was developed for the **registration of legal titles** to land plots, which is very typical for the active phase of land reform (1990s and 2000s).
- ▶ **28.5% of the stored documentation** was created when **establishing (restoring) the boundaries** of land plots on the ground. Usually, such documentation is developed to enter information about already existing land plots in the State Land Cadastre.
- ▶ **14.6% were land management projects** for the formation of **new land plots**, which in Ukraine are usually drawn up to provide land plots to citizens and legal entities, as well as during development when **changing the function** of land plots.



LAND SURVEYING MARKET DEVELOPMENT 1991-2020



LAND SURVEYING MARKET COMPONENTS (fragment)

Types of land management documentation stored in the SFLSD	Total number	Average annual number of documents:					
		2016–2019	2011–2015	2006–2010	2001–2005	1996–2000	1991–1995
1. LAND MANAGEMENT PROJECTS							
Establishment of the state border	35	–	3,2	2,6	0,8	0,2	0,2
Regional land use and protection programs	142	4,6	3,2	17,6	1,4	0,2	1,4
Land management schemes and feasibility study of land use and protection of districts	391	3,8	38,0	29,4	4,4	2,40	0,2
Establishing and changing the boundaries of settlements	8543	124,6	106,0	54,0	126,2	247,8	1050,0
Other land management projects at the regional level	2936	5,6	159,0	187,2	34,0	58,6	142,8
Demarcation of lands of state and communal property of settlements	875	2,8	142,4	20,0	2,0	1,0	6,8
Allocation of land plots	1347305	95489,0	93762,8	51466,8	20487,2	4865,2	3390,0
Creation of new and streamlining of existing land tenure and land use	2638	33,6	99,2	139,0	75,0	82,2	98,6

CONCLUSIONS

- ▶ Electronic catalogs of **archival land surveying documentation** can be used not only for searching and delivering land survey documents to consumers, but also for indirectly assessing the level of **development of the land surveying industry** both in the national and regional dimensions.
- ▶ Over the past three decades, the **Ukrainians' land management industry** has been primarily focused on **serving the needs of land reform** and the processes of **mass privatization of land** and **registration of titles** to land plots.
- ▶ The data obtained can be used to **predict local markets of land surveying services**, as well as **monitor market trends**, which will allow land surveyors to track the massive **needs of consumers** from the public and private sectors, as well as adapt surveying business to them

