The State Committee on Property Issues of the Republic of Azerbaijan

Presente 2020 II





# Information System of Electronic Cadastre Registration of Lands in Azerbaijan

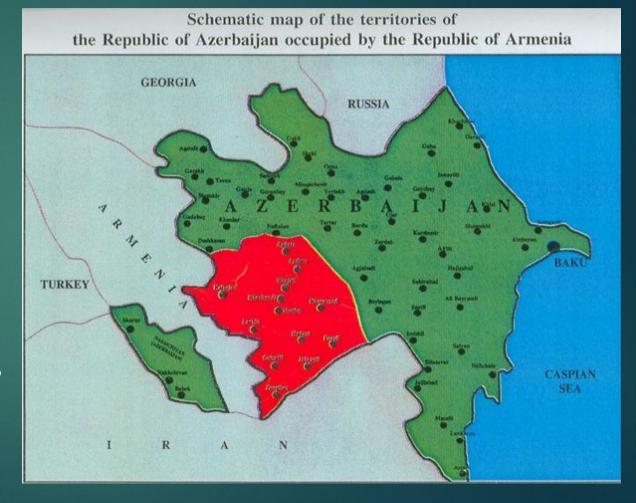
Farid Jafarov-Director
Cadastre and Land Structuring Desing Research Centre

**May-2020** 

#### A FEW WORDS ABOUT AZERBAIJAN

The territory of the Republic of Azerbaijan - 86.5 thousand square meters km.
Population - 9 million 880 thousand people

1.2 million hectares of Azerbaijan territory were occupied by Armenian invaders



#### Republic of Azerbaijan State Committee on Property Issues

#### **Functions**

#### **According to the Presidential Decree:**

#### State Committee on Property Issues has the following key functions:

- Management and privatisation of state property
- Attracting investment to the privatised property
- Pre-privatisation rehabilitation and restructuring of state enterprises
- Post-privatisation support of enterprises
- Maintenance of State register of real estate and property rights
- Maintenance of State register of land
- Maintenance of Unified State Cadastre of real estate/land
- Address Register
- Land management/planning
- Geodesy
- Forming of land market

#### **Structure of SCPI**

#### Central Apparatus of SCPI (23 departments):

- State Service for Register of Real Estate
- Real Estate Cadastre and Address Register Service
- State Agency of Public Management of Land
- Information Technologies and Data Management Centre
- Auction Centre
- Centre for Management of Production and Service Enterprise
- Training Centre

#### Distribution of lands by types of ownership in Azerbaijan

The types of ownership	Area	
	На	%
State-owned lands	4925584	56,91
Municipal-owned lands	2027573	23,42
Private lands	1702324	19,67
Total	8.655.481	100

#### Distribution of land fund of Azerbaijan by categories

Nº	The name of land category	Area	
		Ha	%
1	Agricultural lands	5066761	58,53
2	Lands of residential areas	436546	5,04
3	Industrial, transport, communication, defense and other special lands	340226	3.93
4	Lands of special protection nature areas	438142	5,06
5	Lands of the forest fund	712342	8,24
6	Lands of the water fund	146339	1,69
7	Lands of the reserve fund	293595	3,39
	Territories occupied by Armenia	1221530	14,12
	Total	8655481	100

## Situation of Electronic Land Cadaster Works execution in Azerbaijan

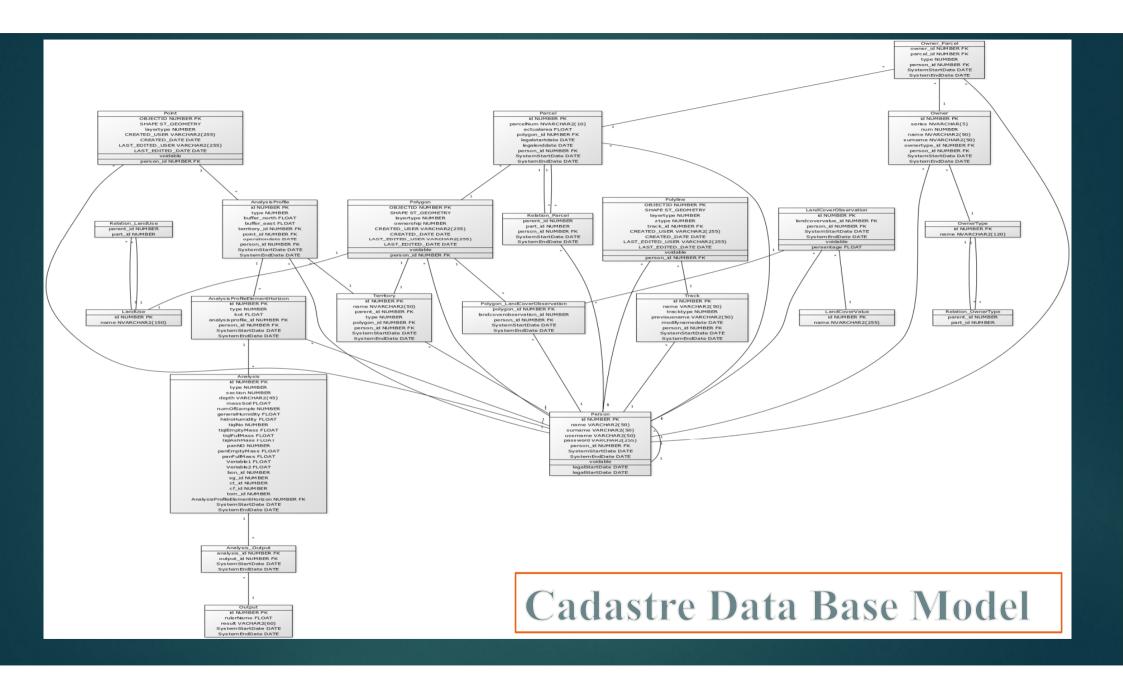
№	Work name	Execution situation	Area, ha
1	Making perfect cadaster of Baku	Implemented	212515
2	Making perfect cadaster of Sumgait	Implemented	12200
3	Making perfect cadaster of Sheki	Implemented	230000
4	Making perfect cadaster of Ganja	Implemented	12500
5	Making perfect cadaster of 53 district centers and the settlements adjacent to it	Implemented	130000

	Scanning the maps of winter and		
6	summer pastures, forest areas in the country, placing on the digital map of the country with coordinates	Implemented	2524670

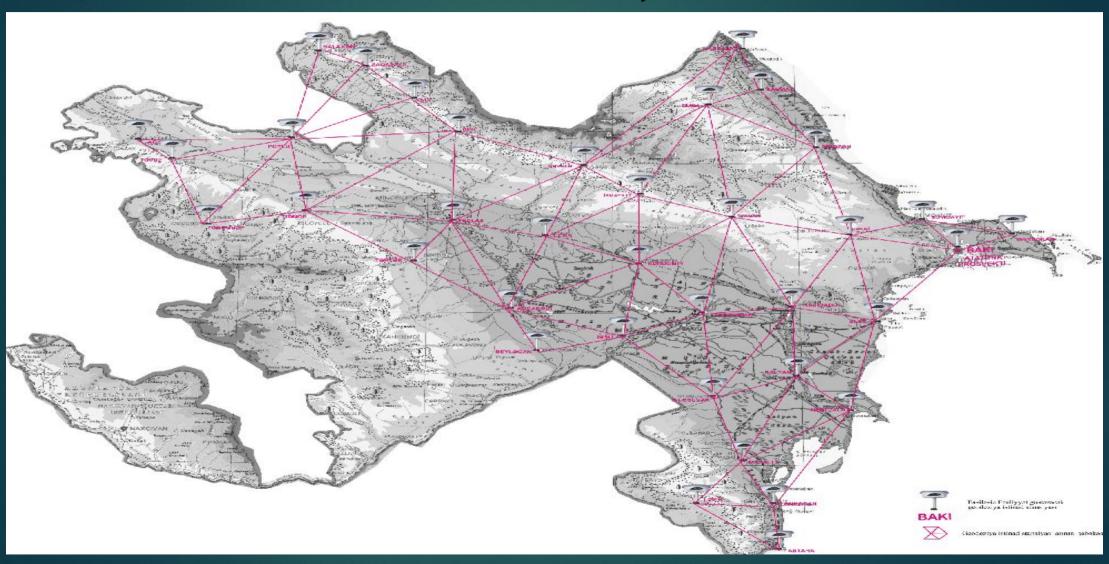
7	Nakhchivan Autonomous Republic	The execution is carried out by the relevant body of Nakhchivan	564250
8	Occupied territories and frontier lands (17% of the total area)	Execution is temporarily unavailable	1469340
	Establishment of a perfect cadastre in the digitalized areas of ortophotomaterial, including:	Figure 1 Figure 1 August 1 Aug	3500000
9	a) implementation of cadaster works in share lands, elimination of discrepancies	Cadastre Information System has been	1300000
	b) implementation of land record, establishment electronic cadastral database, preparation of digital cadastral map of area	begun and the work will be completed by	1860000
	c) implementation of cadaster record works in rural settlements, establishment of electronic cadastral database, compiling digital cadaster map	complication of municipal maps in 2020.	340000
Total territory of the Republic of Azerbaijan			8.655481

## DEVELOPMENT GOALS OF REAL ESTATE CADASTRE ACTIVITIES IN AZERBAIJAN

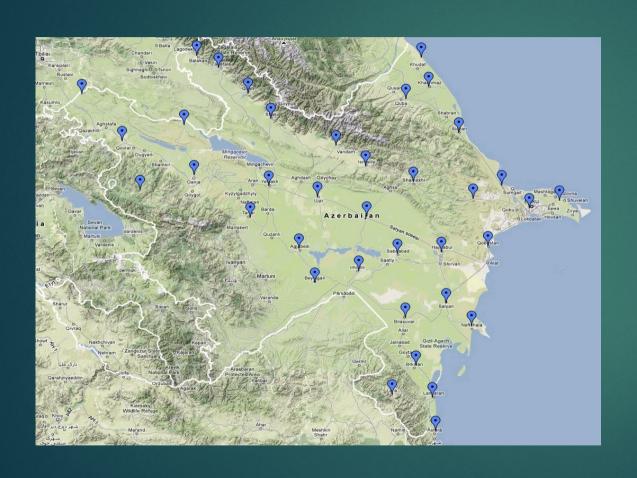
- To apply modern international standards, advanced techniques and technologies to cadastral production of Azerbaijan;
- To develop real estate unified electronic cadastral database and produce real estate digital cadastral maps in Azerbaijan that meets European standards;
- To provide high-quality electronic cadastre service to customers;
- To eliminate monopoly from time to time in the field of cadastral surveying, and to form modern private surveyors institution.

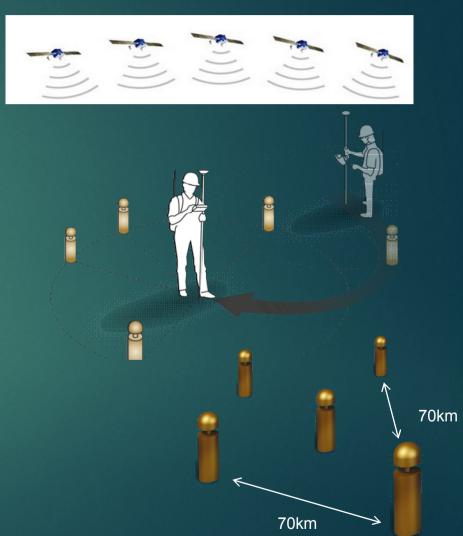


## LOCATION SCHEME OF 37 CONTINUOUSLY OPERATING REFERENCE STATIONS (AZPOS) IN AZERBAIJAN



#### AZPOS (CORS) Network Azerbaijan System Overview





#### Newly purchased computers and equipments for strengthening the materialtechnical base of the Centre

**GPS** 



Leica GS09 GNSS

Server



HP Proliant DL380G6 Xeon X5560

**GPS** 



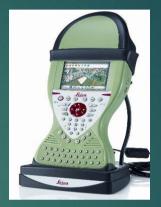
Leica GS10 GNSS

**Graphic station** 



HP Workstation Z600 Intel Xeon

GPS



Leica Zeno 15

#### **Photogrammetric equipment**



**HP Workstation, Planar** 

#### **Total station**



Leica TS06

#### Field survey manual computer

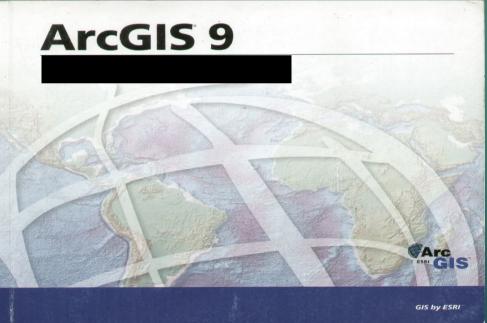


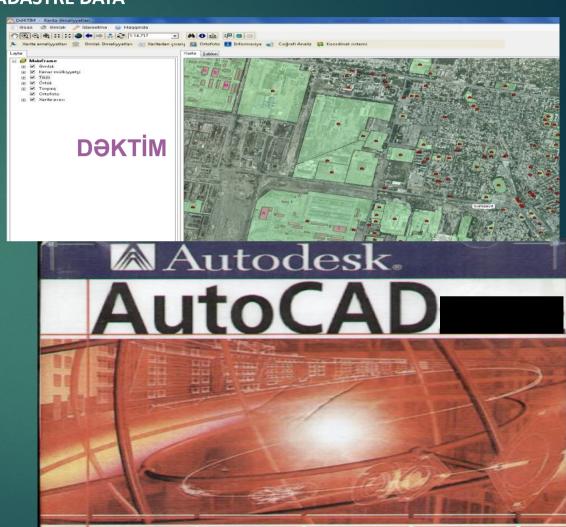
Handheld Algiz 7

### SOFTWARES, USED IN COLLECTION, DEVELOPMENT AND MAINTENANCE OF CADASTRE DATA









#### ORTHOPHOTO MAPS PRODUCED IN AZERBAIJAN

Areas	Scale of aero flights	Scale of Orthophoto maps	Areas covered by produced orthophotos
Urban areas	1:8000	1:2000	5100.99 sq.km
Rural areas	1:20000	1:5000	42840 sq.km
Mountainous and borderline areas	Satellite images	1:10000	19120 sq.km

Fragment from the view of Baku city over orthophoto

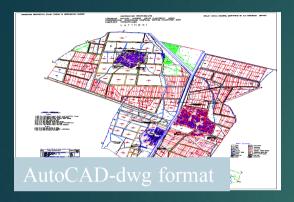


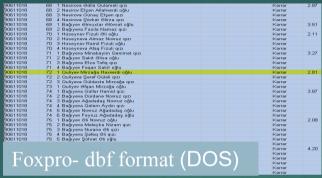
#### COMPILATION OF DIGITAL MAPS THROUGH THE USE OF PHOTOGRAMMETRY



#### Step -7

#### Research and systematization of archive documents









The 300 dpi was scanned with sensitivity and was georeferens in the WGS-84 (zone 38-39) coordinate system in the UTM projection.





#### **Activities and Time frame**

#### Public Awarness



Seminars

#### Mass media



#### **Activities and Time frame**

#### **Public Awareness**

#### HÖRMƏTLİ SAKİNLƏR!

Sizin yaşadığınız ərazilərdə - Gəncə şəhərinin Yeni Gəncə ərazisində, Şəki rayonunu Kiş və Zəyzid kəndlərində bütün növ daşınmaz əmlak sahibləri üçün mühüm əhəmiyyət daşıyan layihə başlanıb.

«Kadastr və daşınmaz əmlakın qeydiyyəti» Layihəsi Azərbaycan və Almaniya hökumətləri arasında bağlanmış müqaviləyə əsasən Azərbaycan Respublikası Əmlak Məsələləri Dövlət Komitəsi və Almaniyanın İnkişaf Bankı - KfW Bankı tərəfindən həyata kecirilir.

Layihə nəticəsində: dövlət, bələdiyyə, özəl torpaqların sərhədləri dəqiqləşəcək; pay və həyətyanı torpaqlar üzrə məlumatlardakı qeyri-dəqiqliklər aradan qaldınlacaq, daşınmaz əmlakın (mənzil/ev/torpaq) dövlət qeydiyyət sədələşdiriləcək, beləliklə vətəndaşların və mülkiyyət səhiblərinin əmlak hüquqlarının təminatı və əmlakdan istifadə imkanları daha səmərəli olacaq.

MÜLKÜNÜZÜN, EVİNİZİN, TORPAQ SAHƏLƏRİNİN SƏNƏDLƏRİ QAYDASINDADIR?

> ƏMLAK SƏNƏDLƏRİNİZİ QAYDAYA SALMAQ İSTƏYİRSİNİZ?

leaflet to every household

Activities and Time frame / Training of local technicians / engineers





GPS-RTK /surveying equipment





Graphical field book with software PENMAP

#### **Activities and Time frame**

Surveying activities

Surveying of rural areas in Sheki (village Zayzid)

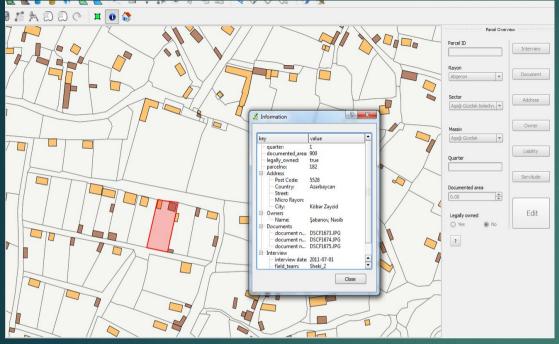


Agreement about the boundaries



Data collection about the real estate objects

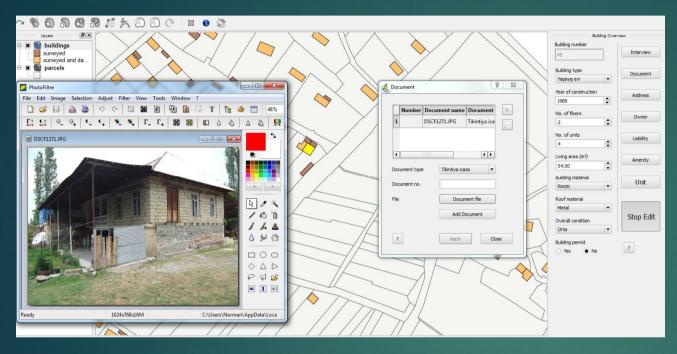
#### Activities and Aims for the Land Registrations / Cadastre Project



- > Capturing of ownership and boundary-data "on-site"
- Complete area systematic surveying
- Simplification of registration process
- Data base for legal registration of ownership and for municipal and state land management



#### Activities and Aims for the Land Registrations / Cadastre Project(cont.)





- > Involvement of property owners in areas (fields)
- Public awareness and information campaign
- > Public presentation of surveying results

#### DESCRIPTION OF LAND INFORMATION SYSTEM IN AZERBAIJAN (FRAGMENT)

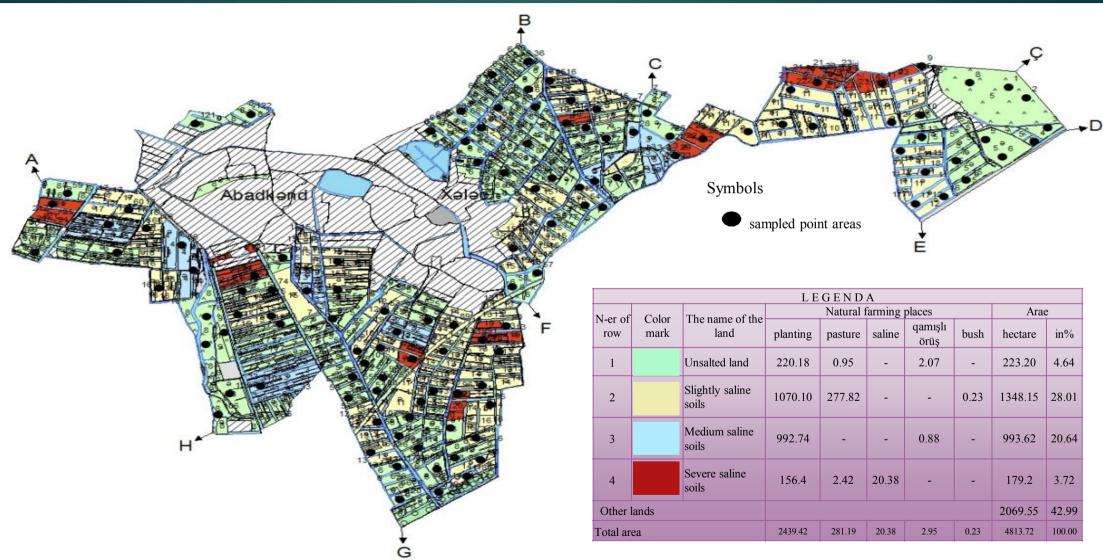




### Fragment from land of Salyan region, Khalaj administrative district of the soil map

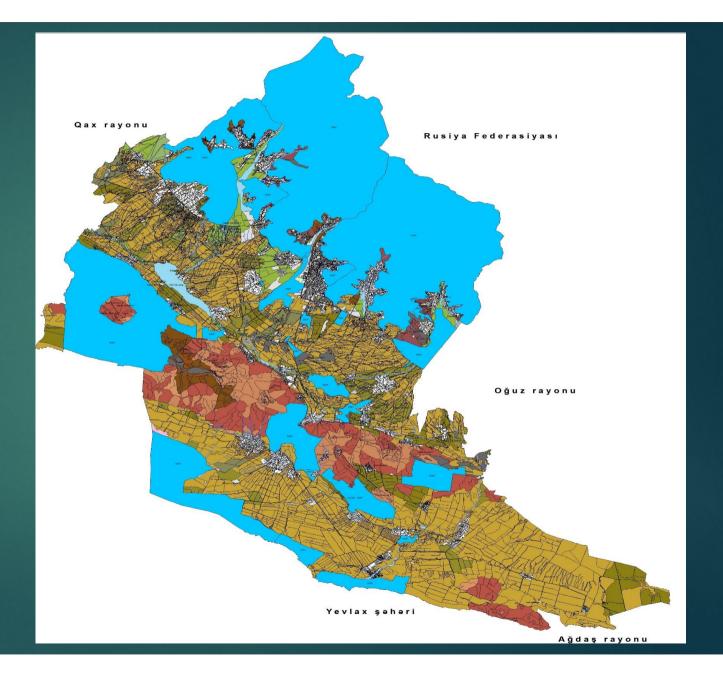


### Fragment from of the Salyan region, Khalaj administrative district of the land salinization map



## Land map of Sheki region

#### Land types Mountain-brown in the forest Mountain-brown and with carbonate in the forest Dry mountain-brown Mountain-dark gray brown Mountain-gray brown Light mountain-gray brown lands Dark gray brown lands Gray brown lands Light gray brown lands Washed alluvial-meadow Carbonate alluvial-meadow Alluvial-meadow lands Swampy-grass lands Salted State Forest Fund

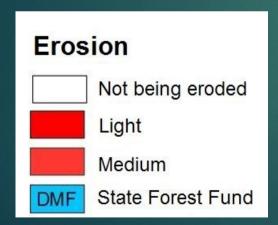


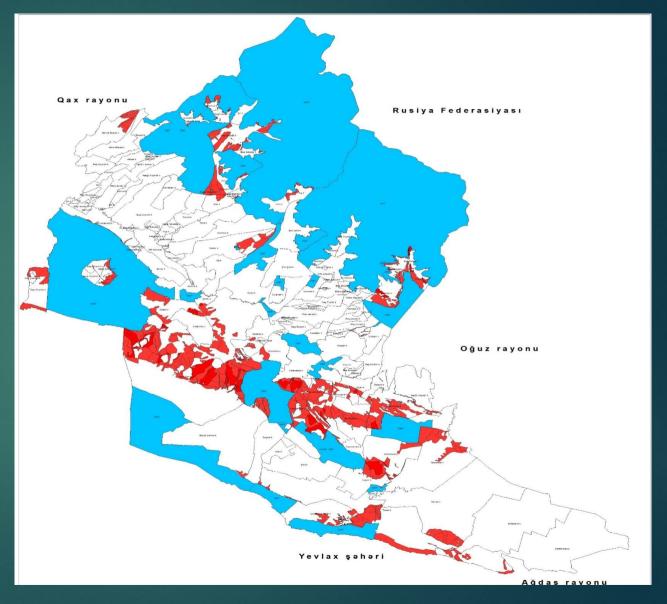
## Salinization map of lands in Sheki region



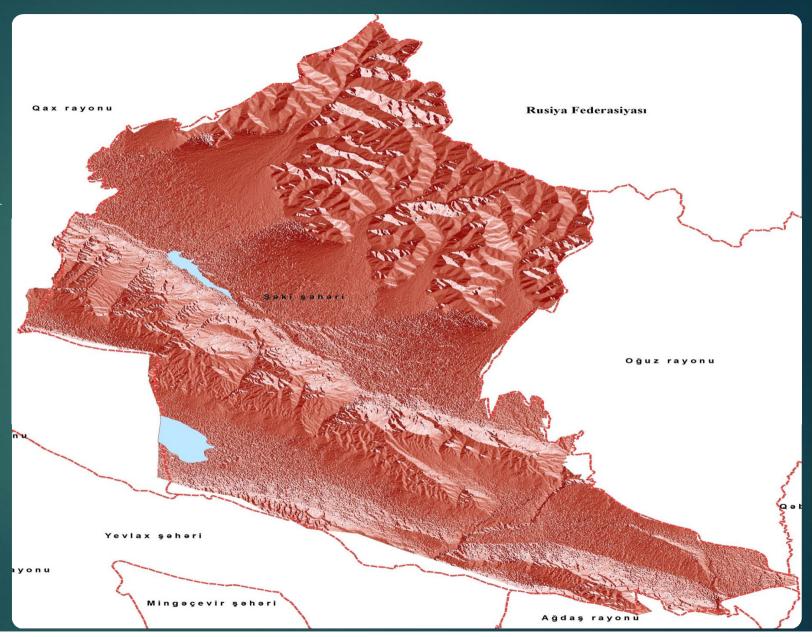


Erosion map of the lands of Sheki region





Inclination map of the Sheki region (in 3D format)



## As a result of establishment of electronic cadaster information system and compilation of digital cadaster maps:

- ✓ Compiling the maps reflecting the reality over the Republic will be achieved;
- ✓ State regulation of land resources management, property relations regulation will improve, state control over property (land) will be more flexible;
- ✓ Discrepancies between spatial indicators and actual positioning status in land reform documents will be eliminated;
- ✓ Solving problems with cadastral maps will provide a reliable condition for eliminating numerous land disputes;
- ✓ Determination of lands in the Republic will achieve to accurate cadaster record over type of land use;
- ✓ A reliable database will be established for making of necessary projects related to the preparation and implementation of complex measures related to land fertility enhancement and protection;



# State Committee on Property Issues of Azerbaijan Republic Real Estate Cadastre and Address Registry Service Cadastre and Land Structuring Desing Research Centre

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#### THANK YOU FOR YOUR ATTENTION!